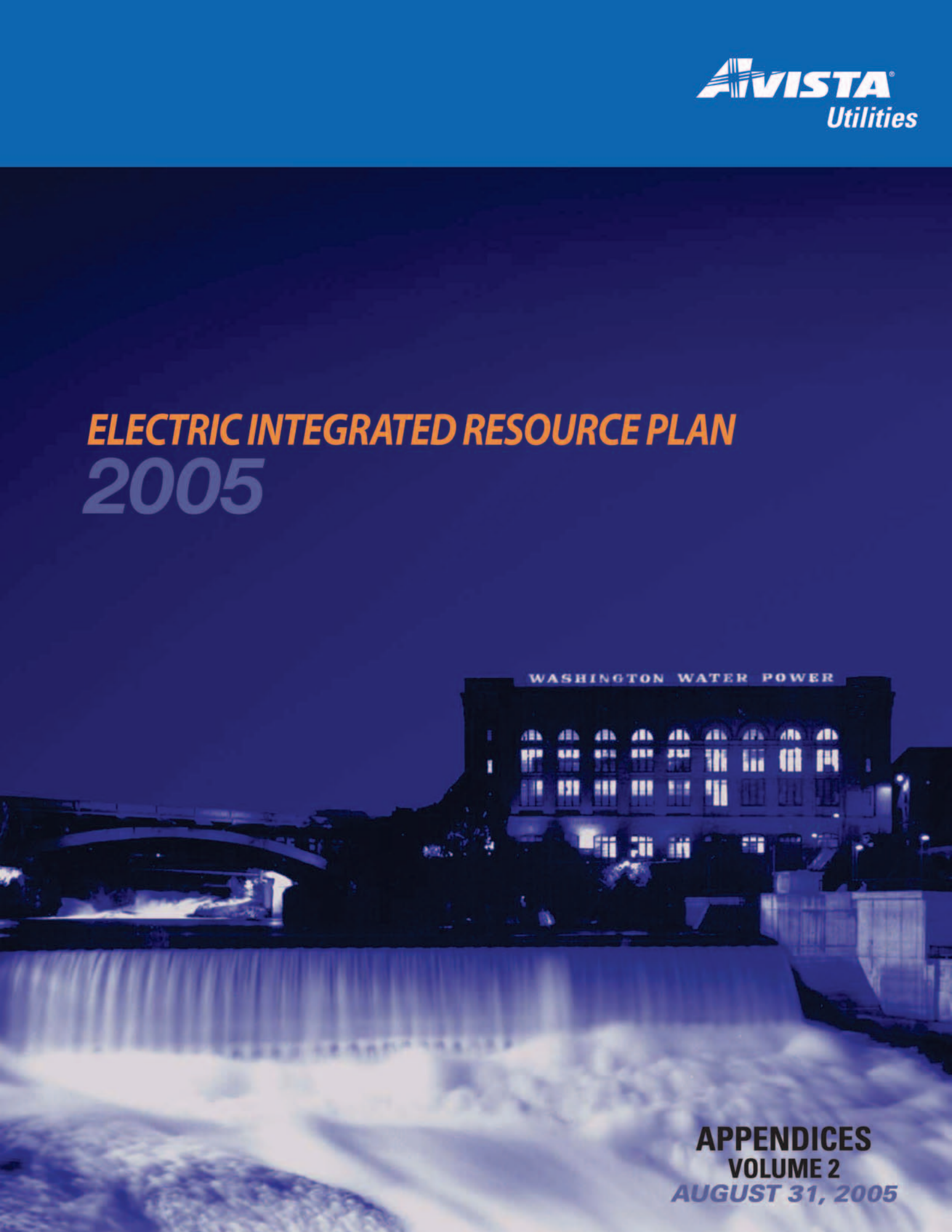


**ELECTRIC INTEGRATED RESOURCE PLAN**  
**2005**



WASHINGTON WATER POWER

**APPENDICES**  
**VOLUME 2**  
**AUGUST 31, 2005**

# Preferred Resource Strategy Detail

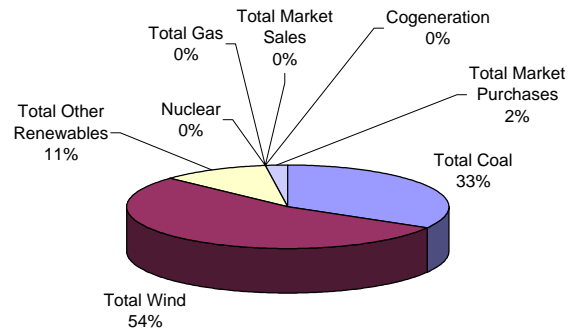
## Appendix D

## Resource Strategy Detail Preferred Resource Strategy (MW)

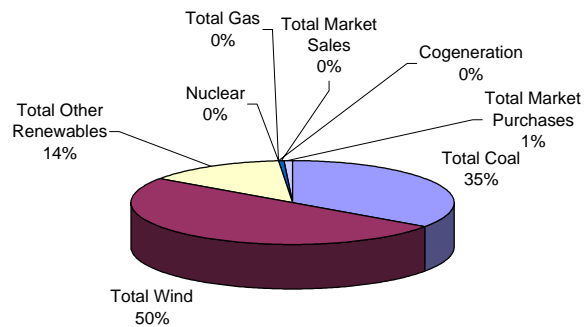
| YEAR | PULV  |        | WIND   |        | WIND   |        | WIND   |      | WIND |      | GEO-<br>THER | NUCL | WOO<br>D BIO | LAND- |      |      | CT<br>FRAM | MARK  |      | MARK |     | LAND- |     | MANU<br>RE | COGE<br>N | WIND |
|------|-------|--------|--------|--------|--------|--------|--------|------|------|------|--------------|------|--------------|-------|------|------|------------|-------|------|------|-----|-------|-----|------------|-----------|------|
|      | COAL  | TIER 1 | TIER 2 | TIER 1 | TIER 2 | TIER 1 | TIER 2 | FILL | MANU | RE   |              |      |              | ET    | SALE | PURC |            | WOO   | FILL | MANU | RE  |       |     |            |           |      |
|      | MT    | OWI    | OWI    | MT     | MT     | MAL    | EAR    | BIO  | BIO  | CCCT |              |      |              | E     | ET   | H    |            | D BIO | BIO  | BIO  | BIO |       |     |            |           |      |
| 2007 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 0.0          | 0.0   | 0.0  | 0.0  | 0.0        | 0.0   | 0.0  | 0.0  | 0.0 | 0.0   | 0.0 | 0.0        | 0.0       | 0.0  |
| 2008 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 0.0          | 0.0   | 0.0  | 0.0  | 0.0        | 0.0   | 0.0  | 0.0  | 0.0 | 0.0   | 0.0 | 0.0        | 0.0       | 0.0  |
| 2009 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 0.0          | 0.0   | 0.0  | 0.0  | 0.0        | 0.0   | 0.0  | 0.0  | 0.0 | 0.0   | 0.0 | 0.0        | 0.0       | 0.0  |
| 2010 | 0.0   | 50.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 0.0          | 0.0   | 0.0  | 0.0  | 0.0        | 0.0   | 0.0  | 0.0  | 0.0 | 0.0   | 0.0 | 0.0        | 25.0      | 0.0  |
| 2011 | 0.0   | 50.0   | 0.0    | 50.0   | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 5.0          | 5.0   | 0.0  | 0.0  | 0.0        | 125.0 | 0.0  | 5.0  | 5.0 | 0.0   | 0.0 | 0.0        | 25.0      | 0.0  |
| 2012 | 250.0 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 0.0          | 0.0   | 0.0  | 0.0  | 0.0        | 0.0   | 0.0  | 0.0  | 0.0 | 0.0   | 0.0 | 0.0        | 25.0      | 0.0  |
| 2013 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 5.0          | 5.0   | 0.0  | 0.0  | 0.0        | 0.0   | 0.0  | 0.0  | 0.0 | 0.0   | 0.0 | 0.0        | 25.0      | 0.0  |
| 2014 | 0.0   | 25.0   | 0.0    | 50.0   | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 5.0          | 5.0   | 0.0  | 0.0  | 0.0        | 0.0   | 0.0  | 0.0  | 0.0 | 0.0   | 0.0 | 0.0        | 25.0      | 0.0  |
| 2015 | 0.0   | 0.0    | 0.0    | 25.0   | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 5.0          | 5.0   | 0.0  | 0.0  | 0.0        | 25.0  | 0.0  | 5.0  | 5.0 | 0.0   | 0.0 | 0.0        | 25.0      | 0.0  |
| 2016 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 5.0          | 5.0   | 0.0  | 0.0  | 0.0        | 25.0  | 0.0  | 5.0  | 5.0 | 0.0   | 0.0 | 0.0        | 0.0       | 0.0  |
| 2017 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 0.0          | 0.0   | 0.0  | 0.0  | (75.0)     | 0.0   | 0.0  | 0.0  | 0.0 | 0.0   | 0.0 | 0.0        | 0.0       | 0.0  |
| 2018 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 0.0          | 0.0   | 0.0  | 0.0  | (50.0)     | 0.0   | 0.0  | 0.0  | 0.0 | 0.0   | 0.0 | 0.0        | 0.0       | 0.0  |
| 2019 | 0.0   | 0.0    | 0.0    | 0.0    | 50.0   | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 5.0          | 5.0   | 0.0  | 0.0  | 0.0        | 25.0  | 5.0  | 5.0  | 0.0 | 0.0   | 0.0 | 0.0        | 0.0       | 0.0  |
| 2020 | 100.0 | 0.0    | 50.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 5.0          | 5.0   | 0.0  | 0.0  | 0.0        | 0.0   | 0.0  | 0.0  | 0.0 | 0.0   | 0.0 | 0.0        | 0.0       | 0.0  |
| 2021 | 0.0   | 0.0    | 0.0    | 0.0    | 50.0   | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 5.0          | 5.0   | 0.0  | 0.0  | 0.0        | 0.0   | 0.0  | 0.0  | 0.0 | 0.0   | 0.0 | 0.0        | 0.0       | 0.0  |
| 2022 | 0.0   | 0.0    | 50.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 5.0          | 5.0   | 0.0  | 0.0  | 0.0        | 0.0   | 0.0  | 0.0  | 0.0 | 0.0   | 0.0 | 0.0        | 0.0       | 0.0  |
| 2023 | 0.0   | 0.0    | 25.0   | 0.0    | 25.0   | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 5.0          | 5.0   | 0.0  | 0.0  | 0.0        | 25.0  | 0.0  | 0.0  | 0.0 | 0.0   | 0.0 | 0.0        | 0.0       | 0.0  |
| 2024 | 100.0 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 5.0          | 5.0   | 0.0  | 0.0  | 0.0        | 0.0   | 0.0  | 0.0  | 0.0 | 0.0   | 0.0 | 0.0        | 0.0       | 0.0  |
| 2025 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 5.0          | 5.0   | 0.0  | 0.0  | 0.0        | 0.0   | 0.0  | 0.0  | 0.0 | 0.0   | 0.0 | 0.0        | 0.0       | 0.0  |
| 2026 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0  | 0.0          | 0.0  | 5.0          | 5.0   | 0.0  | 0.0  | 0.0        | 25.0  | 0.0  | 5.0  | 5.0 | 0.0   | 0.0 | 0.0        | 0.0       | 0.0  |

| YEAR  | Total Other |            |            |           |         |              | Total Market Sales | Total Market Purchases |
|-------|-------------|------------|------------|-----------|---------|--------------|--------------------|------------------------|
|       | Total Coal  | Total Wind | Renewables | Total Gas | Nuclear | Cogeneration |                    |                        |
| 2007  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2008  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2009  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2010  | 0.0         | 75.0       | 0.0        | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2011  | 0.0         | 125.0      | 20.0       | 0.0       | 0.0     | 0.0          | 0.0                | 125.0                  |
| 2012  | 250.0       | 25.0       | 0.0        | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2013  | 0.0         | 25.0       | 10.0       | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2014  | 0.0         | 100.0      | 10.0       | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2015  | 0.0         | 50.0       | 20.0       | 0.0       | 0.0     | 0.0          | 0.0                | 25.0                   |
| 2016  | 0.0         | 0.0        | 20.0       | 0.0       | 0.0     | 0.0          | 0.0                | 25.0                   |
| 2017  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | (75.0)             | 0.0                    |
| 2018  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | (50.0)             | 0.0                    |
| 2019  | 0.0         | 50.0       | 20.0       | 0.0       | 0.0     | 0.0          | 0.0                | 25.0                   |
| 2020  | 100.0       | 50.0       | 10.0       | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2021  | 0.0         | 50.0       | 10.0       | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2022  | 0.0         | 50.0       | 10.0       | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2023  | 0.0         | 50.0       | 10.0       | 0.0       | 0.0     | 0.0          | 0.0                | 25.0                   |
| 2024  | 100.0       | 0.0        | 10.0       | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2025  | 0.0         | 0.0        | 10.0       | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2026  | 0.0         | 0.0        | 20.0       | 0.0       | 0.0     | 0.0          | 0.0                | 25.0                   |
| 07-16 | 250.0       | 400.0      | 80.0       | 0.0       | 0.0     | 0.0          | 0.0                | 17.5                   |
| 07-26 | 450.0       | 650.0      | 180.0      | 0.0       | 0.0     | 0.0          | (6.3)              | 12.5                   |

**2016 New Supply-Side Resources Mix**



**2026 New Supply-Side Resources Mix**

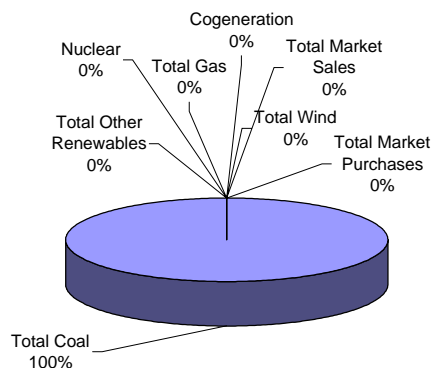


## Resource Strategy Detail All Coal (MW)

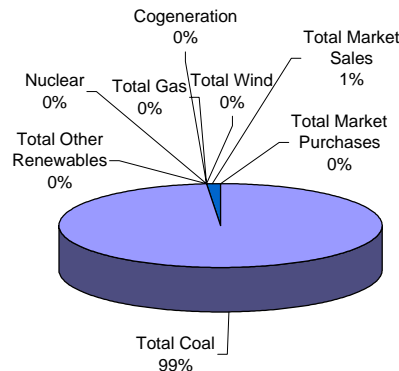
| YEAR | PULV  | WIND   | WIND   | WIND   | WIND   | GEO-  | NUCL | WOO   | LAND- | MANU | CT   | MARK | MARK    | MARK | WOO   | LAND- | MANU | COGE | WIND |
|------|-------|--------|--------|--------|--------|-------|------|-------|-------|------|------|------|---------|------|-------|-------|------|------|------|
|      | COAL  | TIER 1 | TIER 2 | TIER 1 | TIER 2 | OTHER |      |       | FILL  | RE   |      | FRAM | ET      | ET   | D BIO | FILL  | RE   |      |      |
|      | MT    | OWI    | OWI    | MT     | MT     | MAL   | EAR  | D BIO | BIO   | BIO  | CCCT | E    | SALE    | H    | D BIO | BIO   | BIO  | N    |      |
| 2007 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2008 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2009 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2010 | 63.8  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2011 | 178.5 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2012 | 78.1  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2013 | 28.7  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2014 | 68.1  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2015 | 49.3  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2016 | 44.8  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2017 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | (124.7) | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2018 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | (92.2)  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2019 | 7.9   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2020 | 73.4  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2021 | 43.5  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2022 | 43.7  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2023 | 36.6  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2024 | 41.9  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2025 | 46.9  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| 2026 | 47.8  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |

| YEAR  | Total Other |            |            |           |         | Total Market Sales | Total Market Purchases |
|-------|-------------|------------|------------|-----------|---------|--------------------|------------------------|
|       | Total Coal  | Total Wind | Renewables | Total Gas | Nuclear |                    |                        |
| 2007  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 2008  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 2009  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 2010  | 63.8        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 2011  | 178.5       | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 2012  | 78.1        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 2013  | 28.7        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 2014  | 68.1        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 2015  | 49.3        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 2016  | 44.8        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 2017  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | (124.7)            | 0.0                    |
| 2018  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | (92.2)             | 0.0                    |
| 2019  | 7.9         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 2020  | 73.4        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 2021  | 43.5        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 2022  | 43.7        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 2023  | 36.6        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 2024  | 41.9        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 2025  | 46.9        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 2026  | 47.8        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 07-16 | 511.3       | 0.0        | 0.0        | 0.0       | 0.0     | 0.0                | 0.0                    |
| 07-26 | 853.0       | 0.0        | 0.0        | 0.0       | 0.0     | (10.8)             | 0.0                    |

**2016 New Supply-Side Resources Mix**



**2026 New Supply-Side Resources Mix**

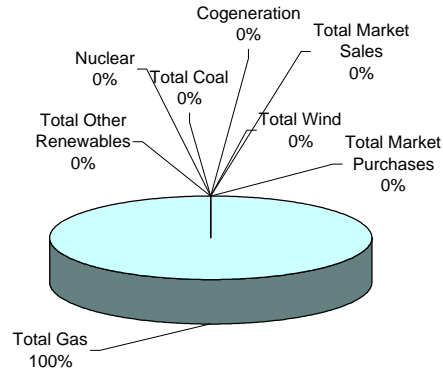


## Resource Strategy Detail All Gas (MW)

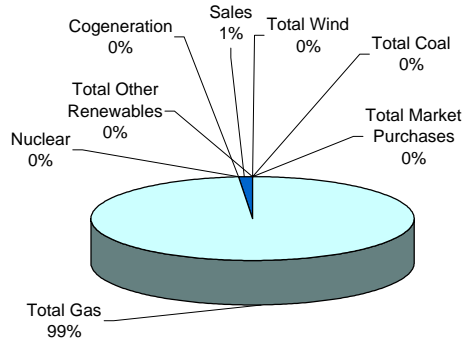
| YEAR | PULV | WIND   | WIND   | WIND   | WIND   | GEO-  | NUCL | WOO   | LAND- | MANU | CT    | MARK | MARK    | ET    | WOO  | LAND- | MANU | COGE | WIND |
|------|------|--------|--------|--------|--------|-------|------|-------|-------|------|-------|------|---------|-------|------|-------|------|------|------|
|      | COAL | TIER 1 | TIER 2 | TIER 1 | TIER 2 | OTHER | EAR  | D BIO | FILL  | RE   | FRAM  | ET   | PURC    | D BIO | FILL | RE    | N    |      |      |
| 2007 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  | 0.0     | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2008 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  | 0.0     | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2009 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  | 0.0     | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2010 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 63.8  | 0.0  | 0.0     | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2011 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 178.5 | 0.0  | 0.0     | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2012 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 78.1  | 0.0  | 0.0     | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2013 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 28.7  | 0.0  | 0.0     | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2014 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 68.1  | 0.0  | 0.0     | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2015 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 49.3  | 0.0  | 0.0     | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2016 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 44.8  | 0.0  | 0.0     | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2017 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  | (124.7) | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2018 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  | (92.2)  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2019 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 7.9   | 0.0  | 0.0     | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2020 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 73.4  | 0.0  | 0.0     | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2021 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 43.5  | 0.0  | 0.0     | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2022 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 43.7  | 0.0  | 0.0     | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2023 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 36.6  | 0.0  | 0.0     | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2024 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 41.9  | 0.0  | 0.0     | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2025 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 46.9  | 0.0  | 0.0     | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2026 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  | 47.8  | 0.0  | 0.0     | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |

| YEAR  | Total Other |            |            |           |         | Total Market |              |                  |
|-------|-------------|------------|------------|-----------|---------|--------------|--------------|------------------|
|       | Total Coal  | Total Wind | Renewables | Total Gas | Nuclear | Cogeneration | Market Sales | Market Purchases |
| 2007  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0              |
| 2008  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0              |
| 2009  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0              |
| 2010  | 0.0         | 0.0        | 0.0        | 63.8      | 0.0     | 0.0          | 0.0          | 0.0              |
| 2011  | 0.0         | 0.0        | 0.0        | 178.5     | 0.0     | 0.0          | 0.0          | 0.0              |
| 2012  | 0.0         | 0.0        | 0.0        | 78.1      | 0.0     | 0.0          | 0.0          | 0.0              |
| 2013  | 0.0         | 0.0        | 0.0        | 28.7      | 0.0     | 0.0          | 0.0          | 0.0              |
| 2014  | 0.0         | 0.0        | 0.0        | 68.1      | 0.0     | 0.0          | 0.0          | 0.0              |
| 2015  | 0.0         | 0.0        | 0.0        | 49.3      | 0.0     | 0.0          | 0.0          | 0.0              |
| 2016  | 0.0         | 0.0        | 0.0        | 44.8      | 0.0     | 0.0          | 0.0          | 0.0              |
| 2017  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | (124.7)      | 0.0              |
| 2018  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | (92.2)       | 0.0              |
| 2019  | 0.0         | 0.0        | 0.0        | 7.9       | 0.0     | 0.0          | 0.0          | 0.0              |
| 2020  | 0.0         | 0.0        | 0.0        | 73.4      | 0.0     | 0.0          | 0.0          | 0.0              |
| 2021  | 0.0         | 0.0        | 0.0        | 43.5      | 0.0     | 0.0          | 0.0          | 0.0              |
| 2022  | 0.0         | 0.0        | 0.0        | 43.7      | 0.0     | 0.0          | 0.0          | 0.0              |
| 2023  | 0.0         | 0.0        | 0.0        | 36.6      | 0.0     | 0.0          | 0.0          | 0.0              |
| 2024  | 0.0         | 0.0        | 0.0        | 41.9      | 0.0     | 0.0          | 0.0          | 0.0              |
| 2025  | 0.0         | 0.0        | 0.0        | 46.9      | 0.0     | 0.0          | 0.0          | 0.0              |
| 2026  | 0.0         | 0.0        | 0.0        | 47.8      | 0.0     | 0.0          | 0.0          | 0.0              |
| 07-16 | 0.0         | 0.0        | 0.0        | 511.3     | 0.0     | 0.0          | 0.0          | 0.0              |
| 07-26 | 0.0         | 0.0        | 0.0        | 853.0     | 0.0     | 0.0          | (10.8)       | 0.0              |

**2016 New Supply-Side Resources Mix**



**2026 New Supply-Side Resources Mix**

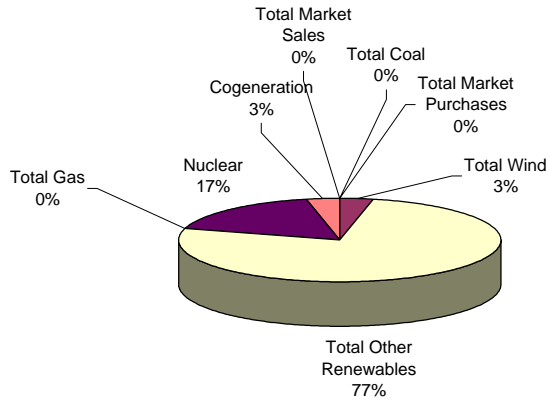


## Resource Strategy Detail No CO<sub>2</sub> (MW)

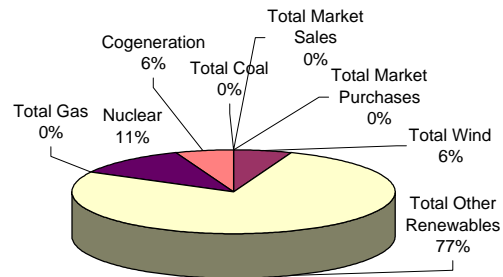
| YEAR | PULV |        | WIND   |        | WIND   |       | WIND |       | GEO- |     | NUCL  | WOO | LAND- |       |     | CT  | MARK  |     | MARK |     | LAND- |     | MANU | COGE | WIND |
|------|------|--------|--------|--------|--------|-------|------|-------|------|-----|-------|-----|-------|-------|-----|-----|-------|-----|------|-----|-------|-----|------|------|------|
|      | COAL | TIER 1 | TIER 2 | TIER 1 | TIER 2 | OTHER | EAR  | FILL  | MANU | RE  |       |     | CCCT  | FRAM  | ET  |     | PURC  | WOO | FILL | RE  | COGE  |     |      |      |      |
|      | MT   | OWI    | OWI    | MT     | MT     | MAL   |      | BIO   | BIO  | BIO |       |     | E     | SALE  | H   |     | D BIO | BIO | BIO  | N   |       |     |      |      |      |
| 2007 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0   | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0  |
| 2008 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0   | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0  |
| 2009 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0   | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0  |
| 2010 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0   | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0  |
| 2011 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 125.0 | 0.0 | 0.0   | 100.0 | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0  |
| 2012 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0   | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 5.0  | 5.0  |
| 2013 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 0.0   | 0.0 | 75.0  | 0.0   | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 5.0  | 5.0  |
| 2014 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 125.0 | 0.0  | 0.0 | 0.0   | 0.0 | 50.0  | 25.0  | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 5.0  | 5.0  |
| 2015 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0   | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 175.0 | 0.0 | 0.0  | 5.0  | 5.0  |
| 2016 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0   | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 5.0  | 5.0  |
| 2017 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0   | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0  |
| 2018 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0   | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0  |
| 2019 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0   | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 5.0  | 5.0  |
| 2020 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0   | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 100.0 | 0.0 | 0.0  | 5.0  | 5.0  |
| 2021 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0   | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 5.0  | 5.0  |
| 2022 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0   | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 5.0  | 5.0  |
| 2023 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0   | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 100.0 | 0.0 | 0.0  | 5.0  | 5.0  |
| 2024 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0   | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 5.0  | 5.0  |
| 2025 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0   | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 5.0  | 5.0  |
| 2026 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0   | 0.0 | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 100.0 | 0.0 | 0.0  | 5.0  | 5.0  |

| YEAR  | Total      |            |            |           |         |              | Total Market Sales | Total Market Purchases |
|-------|------------|------------|------------|-----------|---------|--------------|--------------------|------------------------|
|       | Total Coal | Total Wind | Renewables | Total Gas | Nuclear | Cogeneration |                    |                        |
| 2007  | 0.0        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2008  | 0.0        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2009  | 0.0        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2010  | 0.0        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2011  | 0.0        | 0.0        | 225.0      | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2012  | 0.0        | 5.0        | 0.0        | 0.0       | 0.0     | 5.0          | 0.0                | 0.0                    |
| 2013  | 0.0        | 5.0        | 75.0       | 0.0       | 0.0     | 5.0          | 0.0                | 0.0                    |
| 2014  | 0.0        | 5.0        | 75.0       | 0.0       | 125.0   | 5.0          | 0.0                | 0.0                    |
| 2015  | 0.0        | 5.0        | 175.0      | 0.0       | 0.0     | 5.0          | 0.0                | 0.0                    |
| 2016  | 0.0        | 5.0        | 0.0        | 0.0       | 0.0     | 5.0          | 0.0                | 0.0                    |
| 2017  | 0.0        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2018  | 0.0        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2019  | 0.0        | 5.0        | 0.0        | 0.0       | 0.0     | 5.0          | 0.0                | 0.0                    |
| 2020  | 0.0        | 5.0        | 100.0      | 0.0       | 0.0     | 5.0          | 0.0                | 0.0                    |
| 2021  | 0.0        | 5.0        | 0.0        | 0.0       | 0.0     | 5.0          | 0.0                | 0.0                    |
| 2022  | 0.0        | 5.0        | 0.0        | 0.0       | 0.0     | 5.0          | 0.0                | 0.0                    |
| 2023  | 0.0        | 5.0        | 100.0      | 0.0       | 0.0     | 5.0          | 0.0                | 0.0                    |
| 2024  | 0.0        | 5.0        | 0.0        | 0.0       | 0.0     | 5.0          | 0.0                | 0.0                    |
| 2025  | 0.0        | 5.0        | 0.0        | 0.0       | 0.0     | 5.0          | 0.0                | 0.0                    |
| 2026  | 0.0        | 5.0        | 100.0      | 0.0       | 0.0     | 5.0          | 0.0                | 0.0                    |
| 07-16 | 0.0        | 25.0       | 550.0      | 0.0       | 125.0   | 25.0         | 0.0                | 0.0                    |
| 07-26 | 0.0        | 65.0       | 850.0      | 0.0       | 125.0   | 65.0         | 0.0                | 0.0                    |

**2016 New Supply-Side Resources Mix**



**2026 New Supply-Side Resources Mix**

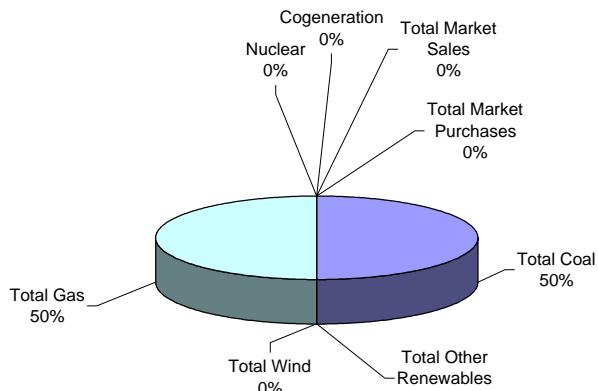


## Resource Strategy Detail 50/50 Coal/Gas (MW)

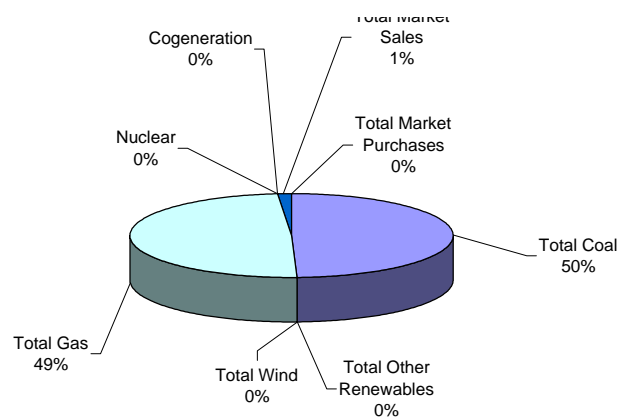
| YEAR | PULV | WIND   | WIND   | WIND   | WIND   | GEO- | NUCL | WOO   | LAND- | MANU |      | CT   | MARK    | MARK | ET    | WOO  | LAND- | MANU | COGE | WIND |
|------|------|--------|--------|--------|--------|------|------|-------|-------|------|------|------|---------|------|-------|------|-------|------|------|------|
|      | COAL | TIER 1 | TIER 2 | TIER 1 | TIER 2 | THER | EAR  | D BIO | FILL  | RE   | CCCT | FRAM | ET      | PURC | D BIO | FILL | RE    | N    |      |      |
| 2007 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2008 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2009 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2010 | 31.9 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 31.9 | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2011 | 89.2 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 89.2 | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2012 | 39.0 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 39.0 | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2013 | 14.4 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 14.4 | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2014 | 34.1 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 34.1 | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2015 | 24.6 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 24.6 | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2016 | 22.4 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 22.4 | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2017 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | (124.7) | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2018 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | (92.2)  | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2019 | 4.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 4.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2020 | 36.7 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 36.7 | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2021 | 21.8 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 21.8 | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2022 | 21.8 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 21.8 | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2023 | 18.3 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 18.3 | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2024 | 20.9 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 20.9 | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2025 | 23.4 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 23.4 | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| 2026 | 23.9 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 23.9 | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |

| YEAR  | Total Other |            |            |           |         | Total Market |              |           |
|-------|-------------|------------|------------|-----------|---------|--------------|--------------|-----------|
|       | Total Coal  | Total Wind | Renewables | Total Gas | Nuclear | Cogeneration | Market Sales | Purchases |
| 2007  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2008  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2009  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2010  | 31.9        | 0.0        | 0.0        | 31.9      | 0.0     | 0.0          | 0.0          | 0.0       |
| 2011  | 89.2        | 0.0        | 0.0        | 89.2      | 0.0     | 0.0          | 0.0          | 0.0       |
| 2012  | 39.0        | 0.0        | 0.0        | 39.0      | 0.0     | 0.0          | 0.0          | 0.0       |
| 2013  | 14.4        | 0.0        | 0.0        | 14.4      | 0.0     | 0.0          | 0.0          | 0.0       |
| 2014  | 34.1        | 0.0        | 0.0        | 34.1      | 0.0     | 0.0          | 0.0          | 0.0       |
| 2015  | 24.6        | 0.0        | 0.0        | 24.6      | 0.0     | 0.0          | 0.0          | 0.0       |
| 2016  | 22.4        | 0.0        | 0.0        | 22.4      | 0.0     | 0.0          | 0.0          | 0.0       |
| 2017  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | (124.7)      | 0.0          | 0.0       |
| 2018  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | (92.2)       | 0.0          | 0.0       |
| 2019  | 4.0         | 0.0        | 0.0        | 4.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2020  | 36.7        | 0.0        | 0.0        | 36.7      | 0.0     | 0.0          | 0.0          | 0.0       |
| 2021  | 21.8        | 0.0        | 0.0        | 21.8      | 0.0     | 0.0          | 0.0          | 0.0       |
| 2022  | 21.8        | 0.0        | 0.0        | 21.8      | 0.0     | 0.0          | 0.0          | 0.0       |
| 2023  | 18.3        | 0.0        | 0.0        | 18.3      | 0.0     | 0.0          | 0.0          | 0.0       |
| 2024  | 20.9        | 0.0        | 0.0        | 20.9      | 0.0     | 0.0          | 0.0          | 0.0       |
| 2025  | 23.4        | 0.0        | 0.0        | 23.4      | 0.0     | 0.0          | 0.0          | 0.0       |
| 2026  | 23.9        | 0.0        | 0.0        | 23.9      | 0.0     | 0.0          | 0.0          | 0.0       |
| 07-16 | 255.6       | 0.0        | 0.0        | 255.6     | 0.0     | 0.0          | 0.0          | 0.0       |
| 07-26 | 426.5       | 0.0        | 0.0        | 426.5     | 0.0     | (10.8)       | 0.0          | 0.0       |

**2016 New Supply-Side Resources Mix**



**2026 New Supply-Side Resources Mix**

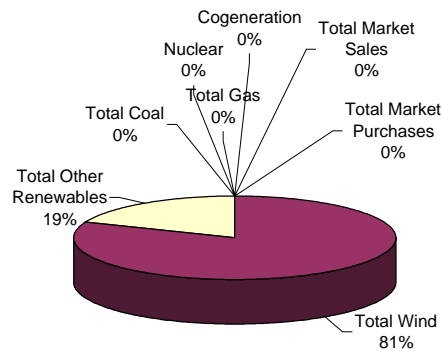


## Resource Strategy Detail All Renewables (MW)

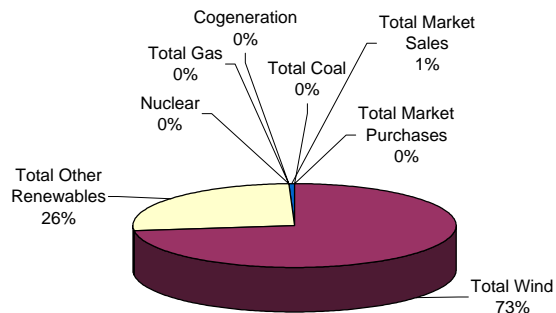
| YEAR | PULV | WIND   | WIND   | WIND   | WIND   | GEO- | NUCL | WOO   | LAND- | MANU |      | CT   | MARK    | MARK | ET    | WOO  | LAND- | MANU | COGE  |      |     |
|------|------|--------|--------|--------|--------|------|------|-------|-------|------|------|------|---------|------|-------|------|-------|------|-------|------|-----|
|      | COAL | TIER 1 | TIER 2 | TIER 1 | TIER 2 | THER | EAR  | D BIO | FILL  | RE   | CCCT | FRAM | ET      | PURC | D BIO | FILL | RE    | COGE | N     | WIND |     |
| 2007 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 |
| 2008 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 |
| 2009 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 |
| 2010 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 5.0  | 0.0  | 5.0   | 5.0   | 5.0  | 0.0  | 0.0  | 0.0     | 0.0  | 5.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0 |
| 2011 | 0.0  | 115.0  | 115.0  | 115.0  | 115.0  | 5.0  | 0.0  | 5.0   | 5.0   | 5.0  | 0.0  | 0.0  | 0.0     | 0.0  | 5.0   | 5.0  | 5.0   | 0.0  | 115.0 | 0.0  |     |
| 2012 | 0.0  | 35.0   | 35.0   | 35.0   | 35.0   | 5.0  | 0.0  | 5.0   | 5.0   | 5.0  | 0.0  | 0.0  | 0.0     | 0.0  | 5.0   | 5.0  | 5.0   | 0.0  | 35.0  | 0.0  |     |
| 2013 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 5.0  | 0.0  | 5.0   | 5.0   | 5.0  | 0.0  | 0.0  | 0.0     | 0.0  | 5.0   | 3.0  | 0.0   | 0.0  | 0.0   | 0.0  |     |
| 2014 | 0.0  | 26.0   | 26.0   | 26.0   | 26.0   | 5.0  | 0.0  | 5.0   | 5.0   | 5.0  | 0.0  | 0.0  | 0.0     | 0.0  | 5.0   | 5.0  | 5.0   | 0.0  | 26.0  | 0.0  |     |
| 2015 | 0.0  | 10.0   | 10.0   | 10.0   | 10.0   | 5.0  | 0.0  | 5.0   | 5.0   | 5.0  | 0.0  | 0.0  | 0.0     | 0.0  | 5.0   | 5.0  | 5.0   | 0.0  | 10.0  | 0.0  |     |
| 2016 | 0.0  | 10.0   | 10.0   | 10.0   | 10.0   | 5.0  | 0.0  | 5.0   | 5.0   | 5.0  | 0.0  | 0.0  | 0.0     | 0.0  | 5.0   | 5.0  | 5.0   | 0.0  | 10.0  | 0.0  |     |
| 2017 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | (125.0) | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |     |
| 2018 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | (92.7)  | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |     |
| 2019 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 5.0  | 0.0  | 5.0   | 5.0   | 5.0  | 0.0  | 0.0  | 0.0     | 0.0  | 5.0   | 5.0  | 5.0   | 0.0  | 0.0   | 0.0  |     |
| 2020 | 0.0  | 30.0   | 30.0   | 30.0   | 30.0   | 5.0  | 0.0  | 5.0   | 5.0   | 5.0  | 0.0  | 0.0  | 0.0     | 0.0  | 5.0   | 5.0  | 5.0   | 0.0  | 30.0  | 0.0  |     |
| 2021 | 0.0  | 5.0    | 5.0    | 5.0    | 5.0    | 5.0  | 0.0  | 5.0   | 5.0   | 5.0  | 0.0  | 0.0  | 0.0     | 0.0  | 5.0   | 5.0  | 5.0   | 0.0  | 5.0   | 0.0  |     |
| 2022 | 0.0  | 5.0    | 5.0    | 5.0    | 5.0    | 5.0  | 0.0  | 5.0   | 5.0   | 5.0  | 0.0  | 0.0  | 0.0     | 0.0  | 5.0   | 5.0  | 5.0   | 0.0  | 5.0   | 0.0  |     |
| 2023 | 0.0  | 5.0    | 5.0    | 5.0    | 5.0    | 5.0  | 0.0  | 5.0   | 5.0   | 5.0  | 0.0  | 0.0  | 0.0     | 0.0  | 5.0   | 5.0  | 5.0   | 0.0  | 5.0   | 0.0  |     |
| 2024 | 0.0  | 5.0    | 5.0    | 5.0    | 5.0    | 5.0  | 0.0  | 5.0   | 5.0   | 5.0  | 0.0  | 0.0  | 0.0     | 0.0  | 5.0   | 5.0  | 5.0   | 0.0  | 5.0   | 0.0  |     |
| 2025 | 0.0  | 10.0   | 10.0   | 10.0   | 10.0   | 5.0  | 0.0  | 5.0   | 5.0   | 5.0  | 0.0  | 0.0  | 0.0     | 0.0  | 5.0   | 5.0  | 5.0   | 0.0  | 10.0  | 0.0  |     |
| 2026 | 0.0  | 10.0   | 10.0   | 10.0   | 10.0   | 5.0  | 0.0  | 5.0   | 5.0   | 5.0  | 0.0  | 0.0  | 0.0     | 0.0  | 5.0   | 5.0  | 5.0   | 0.0  | 10.0  | 0.0  |     |

| YEAR  | Total Other |            |            |           |         | Total Market |              |           |
|-------|-------------|------------|------------|-----------|---------|--------------|--------------|-----------|
|       | Total Coal  | Total Wind | Renewables | Total Gas | Nuclear | Cogeneration | Market Sales | Purchases |
| 2007  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2008  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2009  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2010  | 0.0         | 0.0        | 25.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2011  | 0.0         | 575.0      | 35.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2012  | 0.0         | 175.0      | 35.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2013  | 0.0         | 0.0        | 28.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2014  | 0.0         | 130.0      | 35.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2015  | 0.0         | 50.0       | 35.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2016  | 0.0         | 50.0       | 35.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2017  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | (125.0)      | 0.0          | 0.0       |
| 2018  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | (92.7)       | 0.0          | 0.0       |
| 2019  | 0.0         | 0.0        | 10.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2020  | 0.0         | 150.0      | 35.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2021  | 0.0         | 25.0       | 35.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2022  | 0.0         | 25.0       | 35.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2023  | 0.0         | 25.0       | 35.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2024  | 0.0         | 25.0       | 35.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2025  | 0.0         | 50.0       | 35.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2026  | 0.0         | 50.0       | 35.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 07-16 | 0.0         | 980.0      | 228.0      | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 07-26 | 0.0         | #####      | 483.0      | 0.0       | 0.0     | (10.9)       | 0.0          | 0.0       |

**2016 New Supply-Side Resources Mix**



**2026 New Supply-Side Resources Mix**



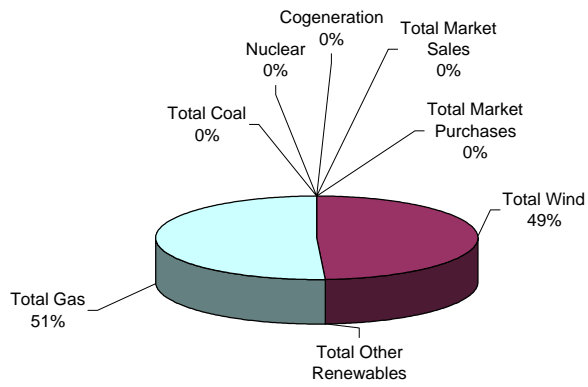


## Resource Strategy Detail Wind & Gas (MW)

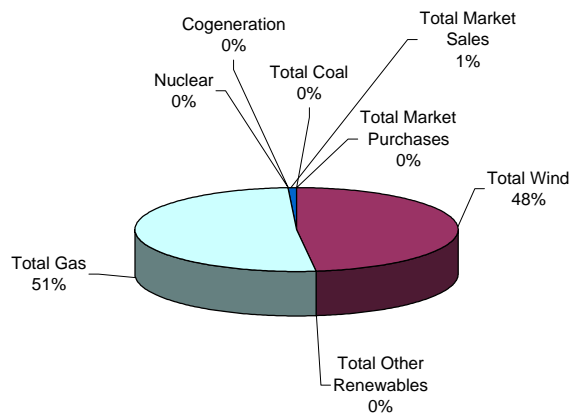
| YEAR | PULV COAL |      | WIND TIER 1 |      | WIND TIER 2 |     | GEO-THER |     | NUCL | WOO D BIO | LAND- MANU |       |      | CT FRAM | MARK ET |      | WOO D BIO | LAND- MANU |     |     | WIND |
|------|-----------|------|-------------|------|-------------|-----|----------|-----|------|-----------|------------|-------|------|---------|---------|------|-----------|------------|-----|-----|------|
|      | MT        | OWI  | OWI         | MT   | MT          | MAL | EAR      | BIO |      |           | FILL       | RE    | CCCT |         | ET PURC | SALE |           | H          | BIO | RE  |      |
| 2007 | 0.0       | 0.0  | 0.0         | 0.0  | 0.0         | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 0.0   | 0.0  | 0.0     | 0.0     | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 0.0  |
| 2008 | 0.0       | 0.0  | 0.0         | 0.0  | 0.0         | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 0.0   | 0.0  | 0.0     | 0.0     | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 0.0  |
| 2009 | 0.0       | 0.0  | 0.0         | 0.0  | 0.0         | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 0.0   | 0.0  | 0.0     | 0.0     | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 0.0  |
| 2010 | 0.0       | 50.0 | 0.0         | 0.0  | 0.0         | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 45.0  | 0.0  | 0.0     | 0.0     | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 25.0 |
| 2011 | 0.0       | 50.0 | 0.0         | 0.0  | 0.0         | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 159.8 | 0.0  | 0.0     | 0.0     | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 25.0 |
| 2012 | 0.0       | 25.0 | 0.0         | 25.0 | 0.0         | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 59.3  | 0.0  | 0.0     | 0.0     | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 25.0 |
| 2013 | 0.0       | 0.0  | 0.0         | 50.0 | 0.0         | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 10.0  | 0.0  | 0.0     | 0.0     | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 25.0 |
| 2014 | 0.0       | 0.0  | 0.0         | 50.0 | 0.0         | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 49.3  | 0.0  | 0.0     | 0.0     | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 25.0 |
| 2015 | 0.0       | 0.0  | 0.0         | 0.0  | 0.0         | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 43.0  | 0.0  | 0.0     | 0.0     | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 25.0 |
| 2016 | 0.0       | 0.0  | 0.0         | 0.0  | 0.0         | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 44.9  | 0.0  | 0.0     | 0.0     | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 0.0  |
| 2017 | 0.0       | 0.0  | 0.0         | 0.0  | 0.0         | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 0.0   | 0.0  | 0.0     | (124.8) | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 0.0  |
| 2018 | 0.0       | 0.0  | 0.0         | 0.0  | 0.0         | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 0.0   | 0.0  | 0.0     | (92.3)  | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 0.0  |
| 2019 | 0.0       | 0.0  | 0.0         | 0.0  | 0.0         | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 7.9   | 0.0  | 0.0     | 0.0     | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 0.0  |
| 2020 | 0.0       | 0.0  | 50.0        | 0.0  | 50.0        | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 48.4  | 0.0  | 0.0     | 0.0     | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 0.0  |
| 2021 | 0.0       | 0.0  | 0.0         | 0.0  | 50.0        | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 31.0  | 0.0  | 0.0     | 0.0     | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 0.0  |
| 2022 | 0.0       | 0.0  | 50.0        | 0.0  | 0.0         | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 31.2  | 0.0  | 0.0     | 0.0     | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 0.0  |
| 2023 | 0.0       | 0.0  | 0.0         | 0.0  | 25.0        | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 30.4  | 0.0  | 0.0     | 0.0     | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 0.0  |
| 2024 | 0.0       | 0.0  | 25.0        | 0.0  | 0.0         | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 35.6  | 0.0  | 0.0     | 0.0     | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 0.0  |
| 2025 | 0.0       | 0.0  | 0.0         | 0.0  | 0.0         | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 46.9  | 0.0  | 0.0     | 0.0     | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 0.0  |
| 2026 | 0.0       | 0.0  | 0.0         | 0.0  | 0.0         | 0.0 | 0.0      | 0.0 | 0.0  | 0.0       | 0.0        | 47.8  | 0.0  | 0.0     | 0.0     | 0.0  | 0.0       | 0.0        | 0.0 | 0.0 | 0.0  |

| YEAR  | Total Coal |       | Total Renewables |       | Nuclear | Cogeneration | Total Market Sales | Total Market Purchases |
|-------|------------|-------|------------------|-------|---------|--------------|--------------------|------------------------|
|       | 07-16      | 07-26 | 07-16            | 07-26 |         |              |                    |                        |
| 2007  | 0.0        | 0.0   | 0.0              | 0.0   | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2008  | 0.0        | 0.0   | 0.0              | 0.0   | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2009  | 0.0        | 0.0   | 0.0              | 0.0   | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2010  | 0.0        | 75.0  | 0.0              | 45.0  | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2011  | 0.0        | 75.0  | 0.0              | 159.8 | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2012  | 0.0        | 75.0  | 0.0              | 59.3  | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2013  | 0.0        | 75.0  | 0.0              | 10.0  | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2014  | 0.0        | 75.0  | 0.0              | 49.3  | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2015  | 0.0        | 25.0  | 0.0              | 43.0  | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2016  | 0.0        | 0.0   | 0.0              | 44.9  | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2017  | 0.0        | 0.0   | 0.0              | 0.0   | 0.0     | (124.8)      | 0.0                | 0.0                    |
| 2018  | 0.0        | 0.0   | 0.0              | 0.0   | 0.0     | (92.3)       | 0.0                | 0.0                    |
| 2019  | 0.0        | 0.0   | 0.0              | 7.9   | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2020  | 0.0        | 100.0 | 0.0              | 48.4  | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2021  | 0.0        | 50.0  | 0.0              | 31.0  | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2022  | 0.0        | 50.0  | 0.0              | 31.2  | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2023  | 0.0        | 25.0  | 0.0              | 30.4  | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2024  | 0.0        | 25.0  | 0.0              | 35.6  | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2025  | 0.0        | 0.0   | 0.0              | 46.9  | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2026  | 0.0        | 0.0   | 0.0              | 47.8  | 0.0     | 0.0          | 0.0                | 0.0                    |
| 07-16 | 0.0        | 400.0 | 0.0              | 411.3 | 0.0     | 0.0          | 0.0                | 0.0                    |
| 07-26 | 0.0        | 650.0 | 0.0              | 690.5 | 0.0     | (10.9)       | 0.0                | 0.0                    |

**2016 New Supply-Side Resources Mix**



**2026 New Supply-Side Resources Mix**

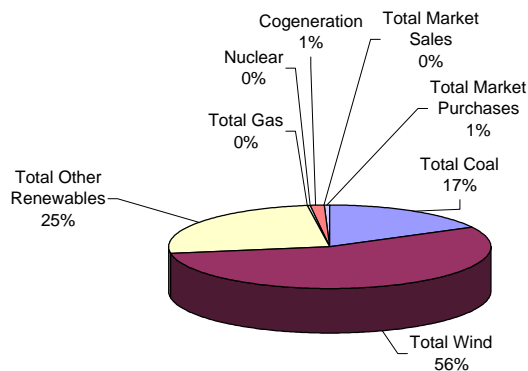


## Resource Strategy Detail 100% Risk (MW)

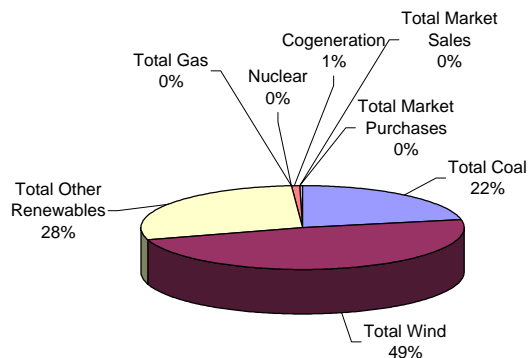
| YEAR | PULV  | WIND   | WIND   | WIND   | WIND   | GEO- | NUCL | WOO   | LAND- | MANU | CT   | MARK   | MARK | ET    | WOO  | LAND- | MANU | COGE  | WIND |
|------|-------|--------|--------|--------|--------|------|------|-------|-------|------|------|--------|------|-------|------|-------|------|-------|------|
|      | COAL  | TIER 1 | TIER 2 | TIER 1 | TIER 2 | THE  | EAR  | D BIO | FILL  | RE   | FRAM | ET     | PURC | D BIO | FILL | RE    | N    |       |      |
| 2007 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2008 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2009 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2010 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 25.0 | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 5.0   | 5.0  | 5.0   | 5.0  | 0.0   | 0.0  |
| 2011 | 0.0   | 125.0  | (0.0)  | 125.0  | 0.0    | 25.0 | 0.0  | 0.0   | 0.0   | 0.0  | 2.3  | 0.0    | 0.0  | 5.0   | 5.0  | 5.0   | 5.0  | 150.0 | 0.0  |
| 2012 | 103.1 | 0.0    | 0.0    | 0.0    | 0.0    | 25.0 | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2013 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 25.0 | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2014 | 21.1  | 0.0    | 0.0    | 0.0    | 0.0    | 25.0 | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2015 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 25.0 | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2016 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 2.6  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 42.2  | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2017 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | (32.5) | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2018 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2019 | 24.2  | 0.0    | 3.7    | 0.0    | 0.0    | 25.0 | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2020 | 66.9  | 0.0    | 0.0    | 0.0    | 0.0    | 25.0 | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2021 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 25.0 | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2022 | 0.0   | 0.0    | 121.3  | 0.0    | 0.0    | 25.0 | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2023 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 25.0 | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2024 | 38.7  | 0.0    | 0.0    | 0.0    | 0.0    | 25.0 | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2025 | 0.0   | 0.0    | 0.0    | 0.0    | 0.0    | 25.0 | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2026 | 41.6  | 0.0    | 0.0    | 0.0    | 125.0  | 25.0 | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |

| YEAR | Total Other |            |            |           |         | Total Market |              |           |
|------|-------------|------------|------------|-----------|---------|--------------|--------------|-----------|
|      | Total Coal  | Total Wind | Renewables | Total Gas | Nuclear | Cogen        | Market Sales | Purchases |
| 2007 | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2008 | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2009 | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2010 | 0.0         | 0.0        | 40.0       | 0.0       | 0.0     | 5.0          | 0.0          | 0.0       |
| 2011 | 0.0         | 400.0      | 40.0       | 2.3       | 0.0     | 5.0          | 0.0          | 0.0       |
| 2012 | 103.1       | 0.0        | 25.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2013 | 0.0         | 0.0        | 25.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2014 | 21.1        | 0.0        | 25.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2015 | 0.0         | 0.0        | 25.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2016 | 0.0         | 0.0        | 2.6        | 0.0       | 0.0     | 0.0          | 42.2         | 0.0       |
| 2017 | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | (32.5)       | 0.0       |
| 2018 | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2019 | 24.2        | 3.7        | 25.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2020 | 66.9        | 0.0        | 25.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2021 | 0.0         | 0.0        | 25.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2022 | 0.0         | 121.3      | 25.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2023 | 0.0         | 0.0        | 25.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2024 | 38.7        | 0.0        | 25.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2025 | 0.0         | 0.0        | 25.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2026 | 41.6        | 125.0      | 25.0       | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |

**2016 New Supply-Side Resources Mix**



**2026 New Supply-Side Resources Mix**



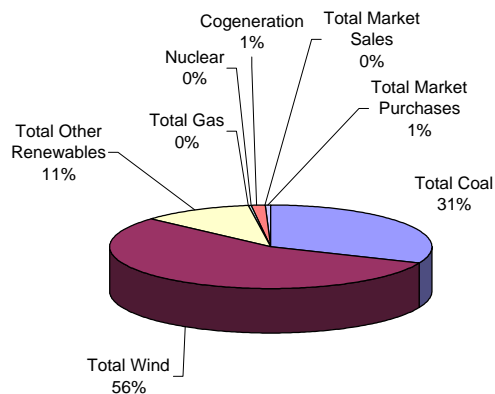
|       |       |       |       |     |     |      |       |     |
|-------|-------|-------|-------|-----|-----|------|-------|-----|
| 07-16 | 124.2 | 400.0 | 182.6 | 2.3 | 0.0 | 10.0 | 0.0   | 4.2 |
| 07-26 | 295.6 | 650.0 | 382.6 | 2.3 | 0.0 | 10.0 | (1.6) | 2.1 |

## Resource Strategy Detail 75% Risk (MW)

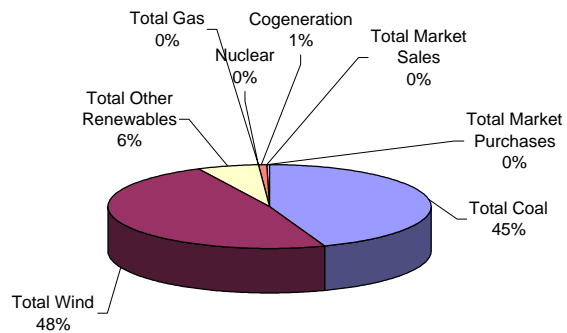
| YEAR | PULV | WIND   | WIND   | WIND   | WIND   | GEO- | NUCL | WOO   | LAND- | MANU | CT   | MARK   | MARK | ET    | WOO  | LAND- | MANU | COGE  | WIND |
|------|------|--------|--------|--------|--------|------|------|-------|-------|------|------|--------|------|-------|------|-------|------|-------|------|
|      | COAL | TIER 1 | TIER 2 | TIER 1 | TIER 2 | THER | EAR  | D BIO | FILL  | RE   | FRAM | ET     | PURC | D BIO | FILL | RE    | COGE |       |      |
| 2007 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2008 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2009 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| 2010 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 25.0 | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 5.0   | 5.0  | 5.0   | 5.0  | 0.0   |      |
| 2011 | 0.0  | 125.0  | (0.0)  | 125.0  | 0.0    | 25.0 | 0.0  | 0.0   | 0.0   | 0.0  | 2.3  | 0.0    | 0.0  | 5.0   | 5.0  | 5.0   | 5.0  | 150.0 |      |
| 2012 | 78.1 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   |      |
| 2013 | 28.7 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   |      |
| 2014 | 68.1 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   |      |
| 2015 | 49.3 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   |      |
| 2016 | 2.6  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 42.2 | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   |      |
| 2017 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | (32.5) | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   |      |
| 2018 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   |      |
| 2019 | 50.2 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   |      |
| 2020 | 73.4 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   |      |
| 2021 | 43.5 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   |      |
| 2022 | 43.7 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   |      |
| 2023 | 36.6 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   |      |
| 2024 | 41.9 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   |      |
| 2025 | 46.9 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   |      |
| 2026 | 35.3 | 0.0    | 125.0  | 0.0    | 125.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   |      |

| YEAR  | Total Other |            |            |           |         | Total Market |              |           |
|-------|-------------|------------|------------|-----------|---------|--------------|--------------|-----------|
|       | Total Coal  | Total Wind | Renewables | Total Gas | Nuclear | Cogeneration | Market Sales | Purchases |
| 2007  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2008  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2009  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2010  | 0.0         | 0.0        | 40.0       | 0.0       | 0.0     | 5.0          | 0.0          | 0.0       |
| 2011  | 0.0         | 400.0      | 40.0       | 2.3       | 0.0     | 5.0          | 0.0          | 0.0       |
| 2012  | 78.1        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2013  | 28.7        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2014  | 68.1        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2015  | 49.3        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2016  | 2.6         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 42.2         | 0.0       |
| 2017  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | (32.5)       | 0.0       |
| 2018  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2019  | 50.2        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2020  | 73.4        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2021  | 43.5        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2022  | 43.7        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2023  | 36.6        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2024  | 41.9        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2025  | 46.9        | 0.0        | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 2026  | 35.3        | 250.0      | 0.0        | 0.0       | 0.0     | 0.0          | 0.0          | 0.0       |
| 07-16 | 226.8       | 400.0      | 80.0       | 2.3       | 0.0     | 10.0         | 0.0          | 4.2       |
| 07-26 | 598.3       | 650.0      | 80.0       | 2.3       | 0.0     | 10.0         | (1.6)        | 2.1       |

**2016 New Supply-Side Resources Mix**



**2026 New Supply-Side Resources Mix**

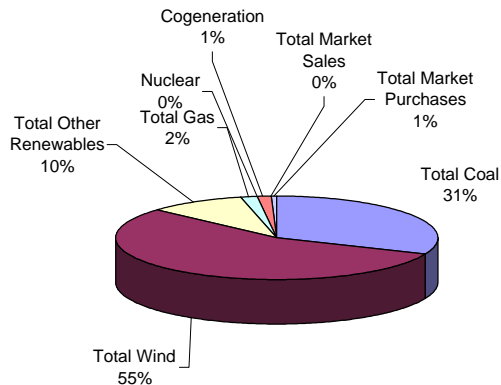


## Resource Strategy Detail 50% Risk (MW)

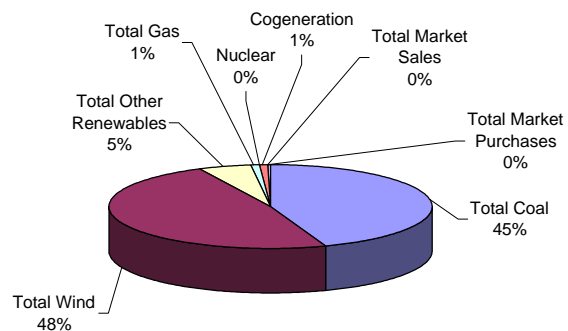
| YEAR | PULV |       | WIND   |       | WIND   |      | WIND   |     | WIND   |      | GEO- |     | NUCL | WOO | LAND- |     | MANU |      | CT  | MARK   |      | MARK |      | LAND- |      | MANU |       | COGE | WIND |     |
|------|------|-------|--------|-------|--------|------|--------|-----|--------|------|------|-----|------|-----|-------|-----|------|------|-----|--------|------|------|------|-------|------|------|-------|------|------|-----|
|      | COAL | MT    | TIER 1 | OWI   | TIER 2 | OWI  | TIER 1 | MT  | TIER 2 | MT   | MAL  | EAR |      |     | D     | BIO | BIO  | BIO  |     | CCCT   | FRAM | ET   | SALE | H     | PURC | D    | BIO   |      |      | BIO |
| 2007 | 0.0  | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | 0.0    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 |
| 2008 | 0.0  | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | 0.0    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 |
| 2009 | 0.0  | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | 0.0    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 |
| 2010 | 0.0  | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  | 0.0    | 0.0 | 0.0    | 25.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | 0.0    | 0.0  | 0.0  | 0.0  | 0.0   | 5.0  | 5.0  | 5.0   | 0.0  | 0.0  |     |
| 2011 | 0.0  | 125.0 | (0.0)  | 125.0 | 0.0    | 25.0 | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 12.3 | 0.0 | 0.0    | 0.0  | 0.0  | 0.0  | 5.0   | 5.0  | 5.0  | 150.0 | 0.0  |      |     |
| 2012 | 78.1 | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | 0.0    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |     |
| 2013 | 28.7 | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | 0.0    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |     |
| 2014 | 68.1 | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | 0.0    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |     |
| 2015 | 49.3 | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | 0.0    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |     |
| 2016 | 2.6  | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | 0.0    | 42.2 | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |     |
| 2017 | 0.0  | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | (32.5) | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |     |
| 2018 | 0.0  | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | 0.0    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |     |
| 2019 | 50.2 | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | 0.0    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |     |
| 2020 | 73.4 | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | 0.0    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |     |
| 2021 | 43.5 | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | 0.0    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |     |
| 2022 | 43.7 | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | 0.0    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |     |
| 2023 | 36.6 | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | 0.0    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |     |
| 2024 | 41.9 | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | 0.0    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |     |
| 2025 | 46.9 | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | 0.0    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |     |
| 2026 | 35.3 | 0.0   | 125.0  | 0.0   | 125.0  | 0.0  | 0.0    | 0.0 | 0.0    | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0  | 0.0 | 0.0    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |     |

| YEAR  | Total |       | Total      |      | Total   |              | Total        |                  | Total | Total |
|-------|-------|-------|------------|------|---------|--------------|--------------|------------------|-------|-------|
|       | Coal  | Wind  | Renewables | Gas  | Nuclear | Cogeneration | Market Sales | Market Purchases |       |       |
| 2007  | 0.0   | 0.0   | 0.0        | 0.0  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   | 0.0   |
| 2008  | 0.0   | 0.0   | 0.0        | 0.0  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   | 0.0   |
| 2009  | 0.0   | 0.0   | 0.0        | 0.0  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   | 0.0   |
| 2010  | 0.0   | 0.0   | 35.0       | 0.0  | 0.0     | 5.0          | 0.0          | 0.0              | 0.0   | 0.0   |
| 2011  | 0.0   | 400.0 | 35.0       | 12.3 | 0.0     | 5.0          | 0.0          | 0.0              | 0.0   | 0.0   |
| 2012  | 78.1  | 0.0   | 0.0        | 0.0  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   | 0.0   |
| 2013  | 28.7  | 0.0   | 0.0        | 0.0  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   | 0.0   |
| 2014  | 68.1  | 0.0   | 0.0        | 0.0  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   | 0.0   |
| 2015  | 49.3  | 0.0   | 0.0        | 0.0  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   | 0.0   |
| 2016  | 2.6   | 0.0   | 0.0        | 0.0  | 0.0     | 0.0          | 0.0          | 42.2             | 0.0   | 0.0   |
| 2017  | 0.0   | 0.0   | 0.0        | 0.0  | 0.0     | 0.0          | 0.0          | (32.5)           | 0.0   | 0.0   |
| 2018  | 0.0   | 0.0   | 0.0        | 0.0  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   | 0.0   |
| 2019  | 50.2  | 0.0   | 0.0        | 0.0  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   | 0.0   |
| 2020  | 73.4  | 0.0   | 0.0        | 0.0  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   | 0.0   |
| 2021  | 43.5  | 0.0   | 0.0        | 0.0  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   | 0.0   |
| 2022  | 43.7  | 0.0   | 0.0        | 0.0  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   | 0.0   |
| 2023  | 36.6  | 0.0   | 0.0        | 0.0  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   | 0.0   |
| 2024  | 41.9  | 0.0   | 0.0        | 0.0  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   | 0.0   |
| 2025  | 46.9  | 0.0   | 0.0        | 0.0  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   | 0.0   |
| 2026  | 35.3  | 250.0 | 0.0        | 0.0  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   | 0.0   |
| 07-16 | 226.8 | 400.0 | 70.0       | 12.3 | 0.0     | 10.0         | 0.0          | 4.2              |       |       |
| 07-26 | 598.3 | 650.0 | 70.0       | 12.3 | 0.0     | 10.0         | (1.6)        | 2.1              |       |       |

**2016 New Supply-Side Resources Mix**



**2026 New Supply-Side Resources Mix**

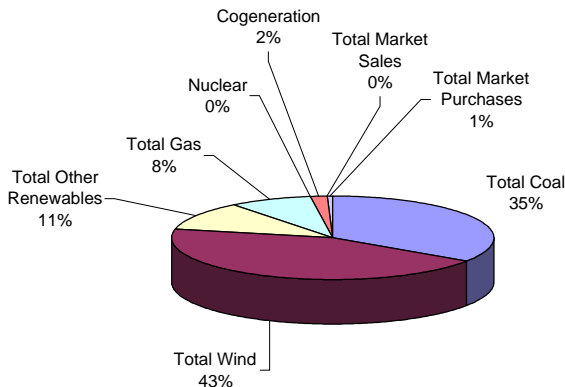


## Resource Strategy Detail 25% Risk (MW)

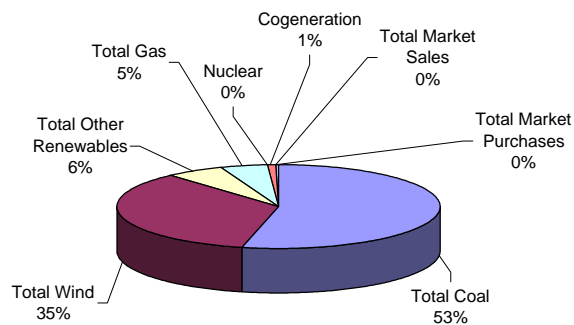
| YEAR | PULV | WIND   | WIND   | WIND   | WIND   | GEO- | NUCL | WOO   | LAND- | MANU | CT   | MARK   | MARK | ET    | WOO  | LAND- | MANU | COGE | WIND  |
|------|------|--------|--------|--------|--------|------|------|-------|-------|------|------|--------|------|-------|------|-------|------|------|-------|
|      | COAL | TIER 1 | TIER 2 | TIER 1 | TIER 2 | THER | EAR  | D BIO | FILL  | RE   | FRAM | ET     | PURC | D BIO | FILL | RE    | COGE |      |       |
|      | MT   | OWI    | OWI    | MT     | MT     | MAL  |      |       | BIO   | BIO  | E    | SALE   | H    |       | BIO  | BIO   | N    |      |       |
| 2007 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   |
| 2008 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   |
| 2009 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   |
| 2010 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 25.0 | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 5.0   | 5.0  | 5.0  | 0.0   |
| 2011 | 0.0  | 125.0  | 0.0    | 0.0    | 0.0    | 25.0 | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 52.8   | 0.0  | 0.0   | 0.0  | 5.0   | 5.0  | 5.0  | 113.1 |
| 2012 | 78.1 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   |
| 2013 | 28.7 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   |
| 2014 | 68.1 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   |
| 2015 | 42.6 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 26.5  |
| 2016 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 42.2  | 0.0  | 0.0   | 0.0  | 0.0  | 10.5  |
| 2017 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | (32.5) | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   |
| 2018 | 0.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   |
| 2019 | 50.2 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   |
| 2020 | 73.4 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   |
| 2021 | 43.5 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   |
| 2022 | 43.7 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   |
| 2023 | 36.6 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   |
| 2024 | 41.9 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   |
| 2025 | 46.9 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   |
| 2026 | 66.6 | 0.0    | 0.0    | 125.0  | 0.0    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0    | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   |

| YEAR  | Total Other |            |            |           |     | Nuclear | Cogeneration | Total Market Sales | Total Market Purchases |
|-------|-------------|------------|------------|-----------|-----|---------|--------------|--------------------|------------------------|
|       | Total Coal  | Total Wind | Renewables | Total Gas |     |         |              |                    |                        |
| 2007  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0 | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2008  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0 | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2009  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0 | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2010  | 0.0         | 0.0        | 35.0       | 0.0       | 0.0 | 5.0     | 0.0          | 0.0                | 0.0                    |
| 2011  | 0.0         | 238.1      | 35.0       | 52.8      | 0.0 | 5.0     | 0.0          | 0.0                | 0.0                    |
| 2012  | 78.1        | 0.0        | 0.0        | 0.0       | 0.0 | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2013  | 28.7        | 0.0        | 0.0        | 0.0       | 0.0 | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2014  | 68.1        | 0.0        | 0.0        | 0.0       | 0.0 | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2015  | 42.6        | 26.5       | 0.0        | 0.0       | 0.0 | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2016  | 0.0         | 10.5       | 0.0        | 0.0       | 0.0 | 0.0     | 42.2         | 0.0                | 0.0                    |
| 2017  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0 | 0.0     | (32.5)       | 0.0                | 0.0                    |
| 2018  | 0.0         | 0.0        | 0.0        | 0.0       | 0.0 | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2019  | 50.2        | 0.0        | 0.0        | 0.0       | 0.0 | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2020  | 73.4        | 0.0        | 0.0        | 0.0       | 0.0 | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2021  | 43.5        | 0.0        | 0.0        | 0.0       | 0.0 | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2022  | 43.7        | 0.0        | 0.0        | 0.0       | 0.0 | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2023  | 36.6        | 0.0        | 0.0        | 0.0       | 0.0 | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2024  | 41.9        | 0.0        | 0.0        | 0.0       | 0.0 | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2025  | 46.9        | 0.0        | 0.0        | 0.0       | 0.0 | 0.0     | 0.0          | 0.0                | 0.0                    |
| 2026  | 66.6        | 125.0      | 0.0        | 0.0       | 0.0 | 0.0     | 0.0          | 0.0                | 0.0                    |
| 07-16 | 217.5       | 275.0      | 70.0       | 52.8      | 0.0 | 10.0    | 0.0          | 4.2                |                        |
| 07-26 | 620.3       | 400.0      | 70.0       | 52.8      | 0.0 | 10.0    | (1.6)        | 2.1                |                        |

**2016 New Supply-Side Resources Mix**



**2026 New Supply-Side Resources Mix**

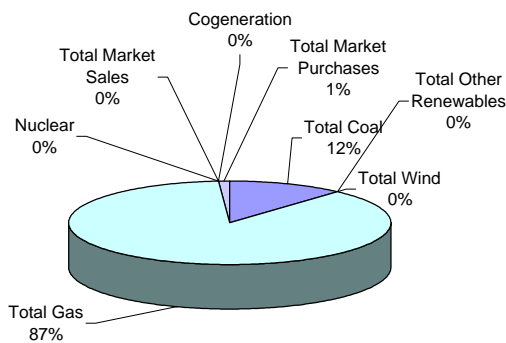


## Resource Strategy Detail 0% Risk (MW)

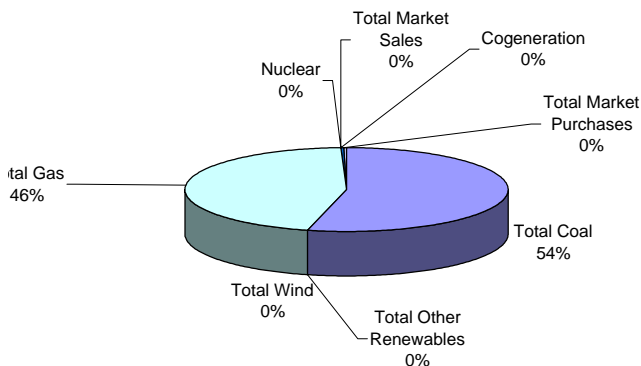
| YEAR | PULV |     | WIND   |     | WIND   |     | WIND   |     | GEO-   |     | NUCL | WOO | LAND- |     | MANU |     | CT    | MARK |        | MARK  |      | LAND- |      | MANU |     | COGE | WIND |
|------|------|-----|--------|-----|--------|-----|--------|-----|--------|-----|------|-----|-------|-----|------|-----|-------|------|--------|-------|------|-------|------|------|-----|------|------|
|      | COAL | MT  | TIER 1 | OWI | TIER 2 | OWI | TIER 1 | MT  | TIER 2 | MT  |      |     | MAL   | EAR | D    | BIO |       | BIO  | RE     | CCCT  | FRAM | ET    | PURC | H    | D   |      |      |
| 2007 | 0.0  | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0  | 0.0    | (0.0) | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2008 | 0.0  | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0  | 0.0    | (0.0) | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2009 | 0.0  | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0  | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2010 | 0.0  | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 21.4  | 0.0  | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2011 | 0.0  | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 170.9 | 0.0  | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2012 | 0.0  | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 78.1  | 0.0  | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2013 | 0.0  | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 28.7  | 0.0  | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2014 | 0.0  | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 68.1  | 0.0  | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2015 | 49.3 | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0  | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2016 | 0.0  | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0  | 0.0    | 44.8  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2017 | 0.0  | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0  | (29.9) | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2018 | 0.0  | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0  | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2019 | 52.8 | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0  | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2020 | 73.4 | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0  | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2021 | 43.5 | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0  | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2022 | 43.7 | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0  | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2023 | 36.6 | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0  | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2024 | 41.9 | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0  | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2025 | 46.9 | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0  | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |
| 2026 | 47.8 | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0    | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0  | 0.0 | 0.0   | 0.0  | 0.0    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0  |

| YEAR  | Total |      | Total      |       | Nuclear | Cogeneration | Total        |                  | Total |
|-------|-------|------|------------|-------|---------|--------------|--------------|------------------|-------|
|       | Coal  | Wind | Renewables | Gas   |         |              | Market Sales | Market Purchases |       |
| 2007  | 0.0   | 0.0  | 0.0        | 0.0   | 0.0     | 0.0          | 0.0          | 0.0              | (0.0) |
| 2008  | 0.0   | 0.0  | 0.0        | 0.0   | 0.0     | 0.0          | 0.0          | 0.0              | (0.0) |
| 2009  | 0.0   | 0.0  | 0.0        | 0.0   | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   |
| 2010  | 0.0   | 0.0  | 0.0        | 21.4  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   |
| 2011  | 0.0   | 0.0  | 0.0        | 170.9 | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   |
| 2012  | 0.0   | 0.0  | 0.0        | 78.1  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   |
| 2013  | 0.0   | 0.0  | 0.0        | 28.7  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   |
| 2014  | 0.0   | 0.0  | 0.0        | 68.1  | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   |
| 2015  | 49.3  | 0.0  | 0.0        | 0.0   | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   |
| 2016  | 0.0   | 0.0  | 0.0        | 0.0   | 0.0     | 0.0          | 0.0          | 44.8             | 0.0   |
| 2017  | 0.0   | 0.0  | 0.0        | 0.0   | 0.0     | 0.0          | 0.0          | (29.9)           | 0.0   |
| 2018  | 0.0   | 0.0  | 0.0        | 0.0   | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   |
| 2019  | 52.8  | 0.0  | 0.0        | 0.0   | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   |
| 2020  | 73.4  | 0.0  | 0.0        | 0.0   | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   |
| 2021  | 43.5  | 0.0  | 0.0        | 0.0   | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   |
| 2022  | 43.7  | 0.0  | 0.0        | 0.0   | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   |
| 2023  | 36.6  | 0.0  | 0.0        | 0.0   | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   |
| 2024  | 41.9  | 0.0  | 0.0        | 0.0   | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   |
| 2025  | 46.9  | 0.0  | 0.0        | 0.0   | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   |
| 2026  | 47.8  | 0.0  | 0.0        | 0.0   | 0.0     | 0.0          | 0.0          | 0.0              | 0.0   |
| 07-16 | 49.3  | 0.0  | 0.0        | 367.2 | 0.0     | 0.0          | 0.0          | 4.5              |       |
| 07-26 | 435.9 | 0.0  | 0.0        | 367.2 | 0.0     | 0.0          | (1.5)        | 2.2              |       |

**2016 New Supply-Side Resources Mix**



**2026 New Supply-Side Resources Mix**



# Scenario and Futures Mid Columbia Electric Price Forecasts

## Appendix E

## Average Mid Columbia Prices

| Report Year | Report Month | Condition | Base       |            | Base Case-Vol | Avoided Cost | Low Tx Capital | Hydro Shift | 5000 MW  |         |       | EIA   | NCEP  | Boom-Bust | High Coal Esc |
|-------------|--------------|-----------|------------|------------|---------------|--------------|----------------|-------------|----------|---------|-------|-------|-------|-----------|---------------|
|             |              |           | Case - Det | Case - Stc |               |              |                |             | High Gas | Low Gas | Wind  |       |       |           |               |
| 2007        | 1            | Average   | 52.48      | 52.25      | 53.76         | 56.08        | 54.94          | 57.39       | 79.87    | 27.84   | 50.93 | 55.18 | 55.52 | 56.68     | 55.04         |
| 2007        | 2            | Average   | 51.14      | 51.34      | 51.93         | 53.67        | 52.78          | 54.32       | 78.45    | 26.61   | 49.86 | 53.23 | 53.74 | 53.86     | 53.02         |
| 2007        | 3            | Average   | 56.24      | 56.62      | 58.67         | 58.83        | 57.51          | 58.95       | 81.63    | 29.48   | 54.89 | 57.32 | 57.16 | 59.30     | 57.16         |
| 2007        | 4            | Average   | 48.73      | 49.70      | 52.15         | 44.42        | 43.77          | 45.17       | 66.89    | 21.98   | 47.74 | 44.25 | 44.44 | 44.62     | 44.15         |
| 2007        | 5            | Average   | 45.84      | 45.87      | 47.74         | 41.32        | 41.47          | 42.73       | 59.66    | 20.46   | 42.59 | 41.23 | 41.43 | 42.02     | 41.45         |
| 2007        | 6            | Average   | 38.85      | 39.11      | 39.77         | 36.22        | 36.07          | 39.94       | 49.21    | 19.19   | 33.61 | 36.16 | 36.17 | 36.72     | 36.05         |
| 2007        | 7            | Average   | 49.61      | 51.22      | 51.78         | 47.76        | 46.22          | 48.81       | 64.49    | 23.72   | 45.93 | 46.09 | 46.79 | 48.69     | 45.72         |
| 2007        | 8            | Average   | 54.99      | 56.93      | 57.66         | 53.59        | 52.12          | 53.98       | 70.97    | 26.49   | 52.54 | 51.94 | 52.17 | 54.38     | 51.33         |
| 2007        | 9            | Average   | 54.64      | 55.47      | 54.89         | 53.31        | 52.11          | 53.23       | 71.57    | 26.34   | 52.58 | 51.98 | 52.07 | 54.14     | 51.60         |
| 2007        | 10           | Average   | 53.64      | 54.93      | 53.15         | 52.36        | 50.93          | 52.19       | 70.65    | 26.14   | 52.26 | 50.70 | 50.71 | 53.22     | 50.26         |
| 2007        | 11           | Average   | 49.27      | 51.08      | 50.83         | 50.54        | 49.31          | 50.88       | 72.02    | 25.34   | 48.49 | 48.81 | 48.65 | 51.20     | 48.82         |
| 2007        | 12           | Average   | 48.56      | 49.93      | 49.09         | 51.62        | 50.22          | 52.11       | 74.27    | 25.93   | 47.26 | 50.27 | 49.86 | 51.95     | 49.68         |
| 2008        | 1            | Average   | 47.94      | 48.17      | 47.68         | 51.34        | 49.59          | 51.08       | 73.65    | 26.04   | 46.64 | 49.67 | 49.57 | 52.26     | 49.45         |
| 2008        | 2            | Average   | 47.33      | 47.40      | 47.38         | 50.41        | 48.84          | 49.28       | 73.00    | 24.65   | 46.50 | 48.81 | 49.36 | 49.95     | 48.50         |
| 2008        | 3            | Average   | 51.54      | 51.13      | 51.02         | 54.10        | 51.37          | 52.75       | 75.52    | 27.59   | 50.66 | 51.87 | 52.34 | 55.50     | 50.95         |
| 2008        | 4            | Average   | 45.81      | 46.37      | 46.68         | 40.73        | 39.71          | 41.69       | 61.82    | 20.42   | 44.72 | 40.40 | 41.08 | 41.64     | 40.15         |
| 2008        | 5            | Average   | 42.66      | 43.03      | 43.30         | 39.09        | 38.20          | 39.15       | 55.33    | 19.11   | 41.32 | 38.14 | 38.30 | 39.51     | 38.28         |
| 2008        | 6            | Average   | 37.66      | 37.62      | 37.81         | 35.00        | 34.67          | 37.27       | 46.20    | 18.29   | 33.64 | 34.26 | 34.56 | 35.98     | 34.48         |
| 2008        | 7            | Average   | 45.53      | 47.05      | 47.86         | 45.86        | 43.14          | 43.45       | 59.26    | 23.12   | 42.67 | 42.59 | 42.60 | 47.45     | 42.60         |
| 2008        | 8            | Average   | 50.18      | 51.31      | 52.67         | 51.06        | 48.03          | 48.09       | 65.10    | 25.55   | 47.93 | 47.65 | 47.77 | 52.39     | 47.44         |
| 2008        | 9            | Average   | 49.47      | 51.13      | 52.82         | 50.61        | 47.77          | 47.50       | 66.23    | 25.28   | 47.31 | 47.62 | 47.54 | 51.95     | 47.24         |
| 2008        | 10           | Average   | 47.23      | 48.36      | 49.45         | 49.28        | 46.43          | 45.92       | 64.37    | 25.00   | 45.52 | 46.08 | 46.11 | 50.54     | 45.45         |
| 2008        | 11           | Average   | 44.54      | 45.81      | 46.31         | 48.16        | 45.86          | 45.91       | 66.46    | 24.29   | 43.63 | 45.34 | 45.34 | 48.92     | 44.96         |
| 2008        | 12           | Average   | 43.40      | 44.97      | 44.79         | 48.64        | 46.51          | 46.80       | 67.90    | 24.77   | 42.85 | 46.19 | 46.29 | 49.81     | 45.95         |
| 2009        | 1            | Average   | 45.07      | 44.70      | 44.04         | 48.33        | 47.45          | 47.36       | 70.07    | 24.99   | 42.97 | 46.39 | 46.62 | 50.46     | 45.91         |
| 2009        | 2            | Average   | 44.38      | 45.48      | 45.60         | 46.46        | 45.63          | 46.24       | 68.74    | 23.61   | 43.91 | 46.19 | 45.67 | 47.28     | 45.62         |
| 2009        | 3            | Average   | 48.45      | 49.78      | 49.72         | 51.08        | 49.00          | 49.60       | 71.10    | 26.48   | 47.35 | 48.92 | 48.13 | 53.50     | 47.54         |
| 2009        | 4            | Average   | 42.28      | 43.69      | 43.72         | 38.05        | 38.01          | 38.87       | 58.69    | 19.50   | 41.32 | 38.16 | 37.68 | 39.55     | 37.53         |
| 2009        | 5            | Average   | 40.34      | 40.67      | 41.27         | 36.62        | 36.28          | 36.71       | 55.30    | 18.28   | 38.79 | 36.00 | 35.86 | 37.58     | 36.03         |
| 2009        | 6            | Average   | 36.02      | 36.39      | 36.71         | 33.74        | 33.32          | 35.71       | 46.13    | 17.75   | 33.13 | 33.35 | 33.21 | 35.27     | 33.08         |
| 2009        | 7            | Average   | 43.65      | 44.84      | 45.35         | 43.71        | 41.65          | 42.00       | 57.02    | 22.39   | 40.69 | 40.99 | 40.71 | 46.14     | 40.46         |
| 2009        | 8            | Average   | 47.61      | 48.87      | 49.37         | 48.39        | 46.33          | 46.16       | 63.24    | 24.49   | 45.34 | 45.76 | 45.31 | 50.93     | 45.00         |
| 2009        | 9            | Average   | 46.79      | 48.45      | 47.96         | 47.91        | 45.88          | 45.54       | 62.31    | 24.48   | 45.05 | 45.26 | 44.86 | 50.21     | 44.71         |
| 2009        | 10           | Average   | 44.68      | 45.53      | 46.33         | 46.30        | 44.47          | 44.03       | 62.21    | 24.06   | 43.28 | 43.87 | 43.40 | 48.47     | 43.00         |
| 2009        | 11           | Average   | 42.09      | 43.53      | 43.71         | 45.75        | 44.23          | 44.05       | 63.72    | 23.60   | 41.23 | 43.44 | 43.24 | 47.42     | 42.76         |
| 2009        | 12           | Average   | 41.72      | 43.34      | 42.72         | 34.64        | 44.95          | 45.24       | 65.48    | 24.19   | 40.66 | 44.33 | 44.05 | 48.33     | 43.82         |
| 2010        | 1            | Average   | 41.96      | 43.27      | 41.93         | 32.69        | 44.98          | 45.90       | 66.59    | 24.32   | 41.03 | 55.08 | 48.00 | 47.31     | 44.09         |
| 2010        | 2            | Average   | 41.70      | 43.11      | 41.44         | 41.71        | 44.06          | 44.28       | 65.82    | 22.77   | 41.02 | 52.74 | 46.16 | 44.41     | 43.43         |
| 2010        | 3            | Average   | 46.51      | 47.60      | 46.12         | 42.75        | 47.52          | 47.84       | 67.19    | 25.65   | 45.43 | 56.63 | 49.70 | 49.71     | 46.55         |
| 2010        | 4            | Average   | 40.33      | 41.92      | 40.88         | 42.67        | 36.18          | 36.75       | 54.95    | 18.78   | 39.65 | 46.18 | 38.77 | 36.46     | 36.03         |
| 2010        | 5            | Average   | 37.89      | 38.99      | 38.01         | 40.66        | 34.15          | 35.03       | 51.31    | 17.52   | 36.52 | 44.22 | 36.77 | 34.68     | 34.14         |
| 2010        | 6            | Average   | 34.68      | 35.21      | 33.67         | 44.79        | 32.10          | 34.27       | 44.69    | 17.10   | 31.86 | 43.75 | 35.20 | 32.75     | 32.07         |
| 2010        | 7            | Average   | 41.91      | 43.13      | 40.84         | 41.93        | 39.85          | 40.83       | 55.54    | 21.44   | 39.22 | 50.95 | 42.69 | 41.99     | 39.14         |
| 2010        | 8            | Average   | 45.48      | 47.15      | 45.46         | 46.43        | 44.10          | 44.30       | 61.22    | 23.59   | 43.82 | 55.38 | 46.72 | 46.45     | 43.38         |
| 2010        | 9            | Average   | 45.21      | 46.33      | 44.84         | 45.88        | 43.79          | 43.73       | 60.77    | 23.58   | 43.63 | 54.75 | 46.52 | 45.84     | 43.22         |
| 2010        | 10           | Average   | 43.16      | 43.90      | 42.64         | 44.55        | 42.57          | 42.46       | 59.46    | 23.11   | 41.76 | 53.15 | 45.08 | 44.55     | 41.74         |
| 2010        | 11           | Average   | 40.80      | 42.07      | 41.18         | 44.09        | 42.29          | 42.41       | 60.63    | 22.69   | 39.84 | 51.70 | 44.33 | 44.08     | 41.39         |
| 2010        | 12           | Average   | 40.51      | 42.00      | 41.42         | 45.09        | 43.26          | 43.80       | 62.65    | 23.23   | 39.54 | 52.63 | 45.29 | 45.12     | 42.48         |
| 2011        | 1            | Average   | 40.12      | 41.21      | 40.30         | 48.98        | 46.27          | 46.98       | 68.22    | 25.28   | 39.07 | 56.36 | 48.74 | 49.17     | 45.53         |
| 2011        | 2            | Average   | 40.89      | 42.22      | 40.37         | 46.17        | 44.95          | 45.74       | 66.93    | 23.67   | 40.65 | 54.95 | 47.20 | 46.09     | 44.80         |
| 2011        | 3            | Average   | 46.10      | 46.90      | 44.98         | 51.41        | 48.73          | 48.85       | 69.27    | 26.50   | 45.15 | 58.32 | 50.85 | 51.59     | 48.31         |
| 2011        | 4            | Average   | 40.39      | 42.05      | 40.30         | 37.91        | 37.45          | 37.85       | 57.02    | 19.57   | 39.82 | 47.99 | 39.36 | 38.09     | 37.43         |
| 2011        | 5            | Average   | 38.24      | 39.44      | 37.70         | 35.90        | 35.08          | 35.97       | 52.57    | 18.13   | 37.57 | 46.03 | 37.68 | 36.02     | 34.99         |
| 2011        | 6            | Average   | 36.25      | 36.62      | 34.64         | 34.02        | 33.12          | 35.33       | 46.43    | 17.54   | 33.21 | 45.66 | 36.06 | 34.13     | 33.19         |
| 2011        | 7            | Average   | 43.15      | 43.75      | 42.42         | 43.45        | 40.71          | 41.62       | 57.94    | 22.07   | 40.49 | 52.97 | 43.45 | 43.58     | 40.07         |
| 2011        | 8            | Average   | 46.67      | 47.88      | 47.11         | 47.93        | 45.01          | 44.97       | 64.08    | 24.23   | 45.02 | 57.31 | 47.63 | 48.27     | 44.26         |
| 2011        | 9            | Average   | 46.15      | 46.70      | 45.48         | 47.08        | 44.60          | 44.31       | 62.79    | 24.06   | 44.67 | 56.50 | 47.25 | 47.21     | 43.87         |
| 2011        | 10           | Average   | 44.35      | 45.14      | 45.33         | 45.67        | 43.33          | 42.96       | 61.58    | 23.46   | 43.05 | 54.85 | 45.96 | 45.74     | 42.46         |
| 2011        | 11           | Average   | 41.63      | 42.71      | 42.82         | 45.33        | 42.93          | 42.95       | 62.12    | 23.19   | 40.62 | 53.21 | 45.07 | 45.24     | 42.40         |
| 2011        | 12           | Average   | 41.71      | 42.28      | 42.15         | 46.50        | 44.26          | 44.60       | 64.87    | 23.87   | 40.48 | 54.57 | 46.34 | 46.41     | 43.56         |
| 2012        | 1            | Average   | 40.39      | 40.18      | 40.09         | 48.65        | 44.95          | 46.63       | 55.63    | 26.70   | 39.47 | 59.17 | 50.17 | 52.09     | 45.92         |
| 2012        | 2            | Average   | 41.00      | 40.40      | 39.78         | 46.06        | 44.21          | 45.18       | 54.36    | 24.95   | 40.42 | 57.05 | 49.24 | 48.21     | 45.00         |
| 2012        | 3            | Average   | 45.89      | 45.70      | 44.87         | 51.38        | 47.62          | 48.27       | 65.45    | 27.81   | 44.54 | 60.60 | 52.69 | 54.28     | 47.94         |
| 2012        | 4            | Average   | 40.46      | 40.73      | 40.19         | 38.45        | 36.81          | 37.70       | 48.35    | 20.71   | 39.70 | 50.57 | 41.36 | 39.99     | 37.30         |
| 2012        | 5            | Average   | 37.00      | 37.46      | 36.92         | 36.33        | 34.01          | 35.69       | 42.36    | 19.22   | 35.61 | 48.27 | 39.20 | 37.81     | 35.03         |
| 2012        | 6            | Average   | 32.09      | 31.97      | 31.54         | 32.40        | 29.81          | 32.82       | 32.21    | 18.47   | 29.39 | 47.88 | 38.04 | 36.58     | 31.56         |
| 2012        | 7            | Average   | 39.54      | 41.08      | 41.28         | 42.59        | 37.43          | 39.21       | 44.41    | 23.01   | 37.71 | 55.90 | 45.15 | 45.99     | 38.85         |
| 2012        | 8            | Average   | 43.90      | 45.25      | 46.97         | 48.24        | 42.52          | 43.83       | 51.32    | 25.48   | 42.47 | 60.18 | 49.22 | 51.55     | 43.52         |
| 2012        | 9            | Average   | 43.66      | 44.97      | 46.19         | 53.14        | 42.64          | 43.25       | 53.52    | 25.14   | 42.70 | 59.29 | 48.56 | 50.17     | 43.47         |
| 2012        | 10           | Average   | 41.76      | 43.28      | 44.56         | 56.70        | 41.29          | 41.76       | 53.84    | 24.42   | 41.11 | 57.59 | 47.28 | 47.97     | 42.13         |
| 2012        | 11           | Average   | 40.18      | 41.48      | 42.47         | 41.73        | 41.76          | 42.34       | 58.98    | 24.29   | 39.85 | 55.80 | 46.37 | 47.29     | 42.34         |
| 2012        | 12           | Average   | 39.68      | 41.21      | 41.00         | 40.75        | 42.59          | 43.50       | 59.68    | 24.99   | 39.32 | 57.32 | 47.84 | 48.64     | 43.15         |
| 2013        | 1            | Average   | 40.07      | 40.06      | 39.83         | 39.92        | 44.21          | 47.09       | 47.87    | 27.57   | 38.69 | 60.83 | 51.51 | 54.96     | 45.98         |
| 2013        | 2            | Average   | 40.37      | 40.83      | 40.46         | 41.26        | 43.22          | 46.28       | 47.72    | 25.75   | 40.17 | 59.47 | 49.63 | 50.55     | 45.14         |
| 2013        | 3            | Average   | 45.66      | 46.03      | 45.74         | 42.63        | 47.49          | 49.11       | 63.61    | 28.93   | 45.09 | 62.70 | 54.10 | 56.70     | 48.73         |
| 2013        | 4            | Average   | 40.59      | 41.12      | 41.20         | 42.61        | 36.57          | 37.92       | 44.67    | 21.46   | 39.73 | 53.41 | 41.81 | 42.23     | 37.34         |
| 2013        | 5            | Average   | 38.49      | 38.12      | 37.56         | 41.18        | 33.10          | 35.83       | 36.79    | 19.99   | 36.18 | 50.65 | 40.04 | 40.09     | 35.20         |
| 2013        | 6            | Average   | 32.78      | 32.41      | 32.42         | 32.0         |                |             |          |         |       |       |       |           |               |



## Average Mid Columbia Prices

| Report Year | Report Month | Condition | Base       |            | Base Case-Vol | Avoided Cost | Low Tx Capital | Hydro Shift | 5000 MW  |         |       | EIA   | NCEP  | Boom-Bust | High Coal Esc |
|-------------|--------------|-----------|------------|------------|---------------|--------------|----------------|-------------|----------|---------|-------|-------|-------|-----------|---------------|
|             |              |           | Case - Det | Case - Stc |               |              |                |             | High Gas | Low Gas | Wind  |       |       |           |               |
| 2013        | 10           | Average   | 42.65      | 44.47      | 45.25         | 47.06        | 41.55          | 42.55       | 50.56    | 25.28   | 42.04 | 59.31 | 48.73 | 50.37     | 42.88         |
| 2013        | 11           | Average   | 40.85      | 42.54      | 42.64         | 46.59        | 41.81          | 42.74       | 57.75    | 25.26   | 40.47 | 57.78 | 47.85 | 49.80     | 42.60         |
| 2013        | 12           | Average   | 40.66      | 42.09      | 42.10         | 48.04        | 42.60          | 44.45       | 54.63    | 26.02   | 40.10 | 59.33 | 49.36 | 51.35     | 43.81         |
| 2014        | 1            | Average   | 40.46      | 41.41      | 41.63         | 49.94        | 45.18          | 48.37       | 48.85    | 28.92   | 39.91 | 63.54 | 53.27 | 58.19     | 46.66         |
| 2014        | 2            | Average   | 41.81      | 41.76      | 42.05         | 48.17        | 44.64          | 47.79       | 50.00    | 26.88   | 41.06 | 62.12 | 51.80 | 53.66     | 46.56         |
| 2014        | 3            | Average   | 46.46      | 47.54      | 47.68         | 54.17        | 49.29          | 50.36       | 65.89    | 30.09   | 45.85 | 65.42 | 55.81 | 59.69     | 50.04         |
| 2014        | 4            | Average   | 40.90      | 42.24      | 42.03         | 39.75        | 37.18          | 39.04       | 45.69    | 22.43   | 40.61 | 56.23 | 43.68 | 45.17     | 38.52         |
| 2014        | 5            | Average   | 38.17      | 38.66      | 38.25         | 37.17        | 33.91          | 36.79       | 36.49    | 20.90   | 36.34 | 53.63 | 41.57 | 42.40     | 36.09         |
| 2014        | 6            | Average   | 33.00      | 33.04      | 32.59         | 32.87        | 29.22          | 33.30       | 24.47    | 19.89   | 30.02 | 52.82 | 41.28 | 40.59     | 32.24         |
| 2014        | 7            | Average   | 40.52      | 42.62      | 41.98         | 42.84        | 37.33          | 40.63       | 39.33    | 24.93   | 38.29 | 60.65 | 48.70 | 52.68     | 39.91         |
| 2014        | 8            | Average   | 45.32      | 46.99      | 46.87         | 50.24        | 42.86          | 45.35       | 47.10    | 27.56   | 43.03 | 65.16 | 52.70 | 60.24     | 44.38         |
| 2014        | 9            | Average   | 45.08      | 47.03      | 47.76         | 49.96        | 44.14          | 45.42       | 51.04    | 26.99   | 43.49 | 64.39 | 52.14 | 57.80     | 45.12         |
| 2014        | 10           | Average   | 42.79      | 44.39      | 46.63         | 47.66        | 42.57          | 43.59       | 51.20    | 26.05   | 42.23 | 62.34 | 50.48 | 53.36     | 43.34         |
| 2014        | 11           | Average   | 41.56      | 43.40      | 44.88         | 47.39        | 43.09          | 43.71       | 58.14    | 26.25   | 41.12 | 60.93 | 49.73 | 52.55     | 43.31         |
| 2014        | 12           | Average   | 40.93      | 43.03      | 43.32         | 48.42        | 43.69          | 45.22       | 54.97    | 26.95   | 40.49 | 62.41 | 51.17 | 54.35     | 44.47         |
| 2015        | 1            | Average   | 41.29      | 41.81      | 41.64         | 50.91        | 46.63          | 50.16       | 49.25    | 29.42   | 40.75 | 66.84 | 55.03 | 50.66     | 49.05         |
| 2015        | 2            | Average   | 42.31      | 42.73      | 43.20         | 48.92        | 46.15          | 49.52       | 49.85    | 27.41   | 41.80 | 65.65 | 53.16 | 48.55     | 48.27         |
| 2015        | 3            | Average   | 47.73      | 49.48      | 49.95         | 55.07        | 50.56          | 51.56       | 67.36    | 30.77   | 47.21 | 68.52 | 57.50 | 55.07     | 51.34         |
| 2015        | 4            | Average   | 42.06      | 43.10      | 44.63         | 40.33        | 38.79          | 40.57       | 46.61    | 22.74   | 41.50 | 59.53 | 44.76 | 40.53     | 39.49         |
| 2015        | 5            | Average   | 39.09      | 39.49      | 40.85         | 37.59        | 35.06          | 38.08       | 38.87    | 21.20   | 37.33 | 56.92 | 43.03 | 37.82     | 37.43         |
| 2015        | 6            | Average   | 33.85      | 35.07      | 36.25         | 33.22        | 30.38          | 34.57       | 25.86    | 20.36   | 30.65 | 56.60 | 42.60 | 33.24     | 33.25         |
| 2015        | 7            | Average   | 41.68      | 45.10      | 46.50         | 50.50        | 38.90          | 41.89       | 39.61    | 25.34   | 39.04 | 63.75 | 50.20 | 43.06     | 41.40         |
| 2015        | 8            | Average   | 47.15      | 49.65      | 50.34         | 59.71        | 44.44          | 46.85       | 47.59    | 28.18   | 44.23 | 68.35 | 54.33 | 51.99     | 45.77         |
| 2015        | 9            | Average   | 46.65      | 48.96      | 50.08         | 54.16        | 45.71          | 46.61       | 50.83    | 27.45   | 44.73 | 67.77 | 53.68 | 50.85     | 46.16         |
| 2015        | 10           | Average   | 44.23      | 45.97      | 47.37         | 61.12        | 44.21          | 44.97       | 52.29    | 26.38   | 43.43 | 65.11 | 51.94 | 48.66     | 44.61         |
| 2015        | 11           | Average   | 42.60      | 44.89      | 46.85         | 44.69        | 44.73          | 45.05       | 61.47    | 26.84   | 42.00 | 63.97 | 51.03 | 49.12     | 44.28         |
| 2015        | 12           | Average   | 42.03      | 44.26      | 46.29         | 42.71        | 45.39          | 46.97       | 57.50    | 27.72   | 41.42 | 65.38 | 52.79 | 49.94     | 45.78         |
| 2016        | 1            | Average   | 42.69      | 43.01      | 44.59         | 42.28        | 47.81          | 51.03       | 51.73    | 30.66   | 42.49 | 69.90 | 56.68 | 53.98     | 50.16         |
| 2016        | 2            | Average   | 44.46      | 43.74      | 45.70         | 44.45        | 47.77          | 51.31       | 50.48    | 28.79   | 43.78 | 68.47 | 55.29 | 50.31     | 49.44         |
| 2016        | 3            | Average   | 49.77      | 50.13      | 52.28         | 45.27        | 51.47          | 53.31       | 69.80    | 32.03   | 49.14 | 71.47 | 59.14 | 58.44     | 52.36         |
| 2016        | 4            | Average   | 44.10      | 44.32      | 46.55         | 44.99        | 39.55          | 41.47       | 48.93    | 23.90   | 43.37 | 63.19 | 46.73 | 42.56     | 40.61         |
| 2016        | 5            | Average   | 40.16      | 40.18      | 41.74         | 38.76        | 36.17          | 39.08       | 40.61    | 22.30   | 38.31 | 60.25 | 44.61 | 40.23     | 38.55         |
| 2016        | 6            | Average   | 34.72      | 34.93      | 35.85         | 34.38        | 31.67          | 35.60       | 26.99    | 21.54   | 32.13 | 59.72 | 44.19 | 35.43     | 34.41         |
| 2016        | 7            | Average   | 42.65      | 44.88      | 46.06         | 44.05        | 40.23          | 43.42       | 40.70    | 26.43   | 40.56 | 67.53 | 51.60 | 46.23     | 42.25         |
| 2016        | 8            | Average   | 48.40      | 50.97      | 52.35         | 52.92        | 45.98          | 48.30       | 48.64    | 29.53   | 45.83 | 71.81 | 55.79 | 56.32     | 46.98         |
| 2016        | 9            | Average   | 48.57      | 50.02      | 50.31         | 52.01        | 47.05          | 47.78       | 51.58    | 28.66   | 47.06 | 70.92 | 55.08 | 53.88     | 47.48         |
| 2016        | 10           | Average   | 45.61      | 47.60      | 47.66         | 49.83        | 45.27          | 46.14       | 52.81    | 27.53   | 45.11 | 68.29 | 53.12 | 51.26     | 45.98         |
| 2016        | 11           | Average   | 44.16      | 46.56      | 47.21         | 50.13        | 45.65          | 46.55       | 62.95    | 27.87   | 43.78 | 66.86 | 52.36 | 51.49     | 45.52         |
| 2016        | 12           | Average   | 43.16      | 46.00      | 46.83         | 51.07        | 46.61          | 48.23       | 58.42    | 28.92   | 42.90 | 68.30 | 54.08 | 52.46     | 47.15         |
| 2017        | 1            | Average   | 43.32      | 45.36      | 46.28         | 53.67        | 49.89          | 52.08       | 53.41    | 31.25   | 43.28 | 73.39 | 58.13 | 57.65     | 51.89         |
| 2017        | 2            | Average   | 44.77      | 44.94      | 45.41         | 51.89        | 49.45          | 51.76       | 52.47    | 29.58   | 44.61 | 72.46 | 56.72 | 53.37     | 51.13         |
| 2017        | 3            | Average   | 50.52      | 51.39      | 52.36         | 57.66        | 53.42          | 54.61       | 71.50    | 32.74   | 49.98 | 74.67 | 60.54 | 61.81     | 54.18         |
| 2017        | 4            | Average   | 44.75      | 45.79      | 47.04         | 42.85        | 41.78          | 42.53       | 49.53    | 24.37   | 44.11 | 67.05 | 48.00 | 45.62     | 42.05         |
| 2017        | 5            | Average   | 41.81      | 42.74      | 41.76         | 40.12        | 37.53          | 40.36       | 41.12    | 22.67   | 40.14 | 63.97 | 45.81 | 42.61     | 39.88         |
| 2017        | 6            | Average   | 35.89      | 37.43      | 36.75         | 35.91        | 32.85          | 36.53       | 28.06    | 22.07   | 34.06 | 62.91 | 45.49 | 37.58     | 35.96         |
| 2017        | 7            | Average   | 44.19      | 46.48      | 45.16         | 45.84        | 41.98          | 44.38       | 42.22    | 26.77   | 42.39 | 71.25 | 52.96 | 50.23     | 44.48         |
| 2017        | 8            | Average   | 50.26      | 52.19      | 50.58         | 54.20        | 47.92          | 49.03       | 49.98    | 30.08   | 48.07 | 75.52 | 56.98 | 61.02     | 49.09         |
| 2017        | 9            | Average   | 49.29      | 50.72      | 49.73         | 53.10        | 49.30          | 48.63       | 53.18    | 28.98   | 48.39 | 74.95 | 56.14 | 58.19     | 49.11         |
| 2017        | 10           | Average   | 46.56      | 48.80      | 49.65         | 51.00        | 47.18          | 47.14       | 53.78    | 27.97   | 46.09 | 72.09 | 53.98 | 53.86     | 47.50         |
| 2017        | 11           | Average   | 45.23      | 47.49      | 47.98         | 50.91        | 47.68          | 47.97       | 63.49    | 28.69   | 44.84 | 70.39 | 53.70 | 54.30     | 47.23         |
| 2017        | 12           | Average   | 45.13      | 47.32      | 47.45         | 52.07        | 48.14          | 49.44       | 59.73    | 29.60   | 45.02 | 72.16 | 55.56 | 55.53     | 48.92         |
| 2018        | 1            | Average   | 45.87      | 46.22      | 46.38         | 55.37        | 50.17          | 52.74       | 56.41    | 32.31   | 45.38 | 77.52 | 59.98 | 61.23     | 52.98         |
| 2018        | 2            | Average   | 46.81      | 46.77      | 46.20         | 52.99        | 50.19          | 52.18       | 55.31    | 30.43   | 47.13 | 76.76 | 58.05 | 56.31     | 52.09         |
| 2018        | 3            | Average   | 51.79      | 52.43      | 52.72         | 59.10        | 54.59          | 55.49       | 73.95    | 33.93   | 52.18 | 78.15 | 62.19 | 64.97     | 55.84         |
| 2018        | 4            | Average   | 46.99      | 47.41      | 47.08         | 44.30        | 42.44          | 43.49       | 51.24    | 25.31   | 45.82 | 70.31 | 49.58 | 48.10     | 43.48         |
| 2018        | 5            | Average   | 43.38      | 43.60      | 44.30         | 45.89        | 38.25          | 40.82       | 44.34    | 23.49   | 41.56 | 66.94 | 47.03 | 45.30     | 41.40         |
| 2018        | 6            | Average   | 37.61      | 36.90      | 37.23         | 41.61        | 33.16          | 37.08       | 29.39    | 22.76   | 35.53 | 66.26 | 46.37 | 40.07     | 37.59         |
| 2018        | 7            | Average   | 45.34      | 47.24      | 48.11         | 57.23        | 41.80          | 43.97       | 44.26    | 27.63   | 43.48 | 75.24 | 54.29 | 55.20     | 45.89         |
| 2018        | 8            | Average   | 50.81      | 52.56      | 52.60         | 61.47        | 47.35          | 48.39       | 51.77    | 31.00   | 48.71 | 79.29 | 58.82 | 65.79     | 50.84         |
| 2018        | 9            | Average   | 49.91      | 51.65      | 50.97         | 26.66        | 48.61          | 48.70       | 54.36    | 29.91   | 49.29 | 79.40 | 57.90 | 62.87     | 50.45         |
| 2018        | 10           | Average   | 47.57      | 49.58      | 48.85         | 36.96        | 46.81          | 46.79       | 55.36    | 28.86   | 47.22 | 76.17 | 55.65 | 57.52     | 48.70         |
| 2018        | 11           | Average   | 46.09      | 47.67      | 46.48         | 44.04        | 47.46          | 47.95       | 67.47    | 29.59   | 45.60 | 74.36 | 55.29 | 57.43     | 48.57         |
| 2018        | 12           | Average   | 46.11      | 47.75      | 46.63         | 46.36        | 48.95          | 49.79       | 62.54    | 30.71   | 45.86 | 76.48 | 57.14 | 59.02     | 50.25         |
| 2019        | 1            | Average   | 47.85      | 48.84      | 47.35         | 45.22        | 52.47          | 54.59       | 58.12    | 33.17   | 47.60 | 82.38 | 61.77 | 65.20     | 54.50         |
| 2019        | 2            | Average   | 49.00      | 49.65      | 48.50         | 54.27        | 52.02          | 54.11       | 59.20    | 31.52   | 49.28 | 81.72 | 59.84 | 60.22     | 53.64         |
| 2019        | 3            | Average   | 54.65      | 54.88      | 54.43         | 60.47        | 56.80          | 57.34       | 76.31    | 35.06   | 54.33 | 83.28 | 63.78 | 68.41     | 57.10         |
| 2019        | 4            | Average   | 48.95      | 50.07      | 50.00         | 45.21        | 43.79          | 44.77       | 52.96    | 26.49   | 48.72 | 73.72 | 50.87 | 51.24     | 44.26         |
| 2019        | 5            | Average   | 45.81      | 45.76      | 45.52         | 42.84        | 39.85          | 42.36       | 45.93    | 24.15   | 43.87 | 71.02 | 48.42 | 48.09     | 42.28         |
| 2019        | 6            | Average   | 39.73      | 39.96      | 40.28         | 38.72        | 35.17          | 38.89       | 31.15    | 23.49   | 37.85 | 70.61 | 47.70 | 43.24     | 39.22         |
| 2019        | 7            | Average   | 47.62      | 49.59      | 50.37         | 49.04        | 43.49          | 45.60       | 44.38    | 28.18   | 45.52 | 79.89 | 55.49 | 60.23     | 47.32         |
| 2019        | 8            | Average   | 54.53      | 55.78      | 54.68         | 56.91        | 48.49          | 50.38       | 52.69    | 31.71   | 52.85 | 83.62 | 60.13 | 70.60     | 52.33         |
| 2019        | 9            | Average   | 52.82      | 54.57      | 54.25         | 55.46        | 49.68          | 50.11       | 55.64    | 30.70   | 52.30 | 83.89 | 59.11 | 67.47     | 51.32         |
| 2019        | 10           | Average   | 50.03      | 51.74      | 51.30         | 53.06        | 47.79          | 48.15       | 56.82    | 29.61   | 49.56 | 80.89 | 56.69 | 60.98     | 49.18         |
| 2019        | 11           | Average   | 48.68      | 49.92      | 49.82         | 52.86        | 48.95          | 49.73       | 67.55    | 30.38   | 48.19 | 79.16 | 56.64 | 60.53     | 49.51         |
| 2019        | 12           | Average   | 48.44      | 49.98      | 49.43         | 54.50        | 49.93          | 51.35       | 63.93    | 31.66   | 48.14 | 81.70 | 58.58 | 62.31     | 51.31         |
| 2020        | 1            | Average   | 49.79      | 50.55      | 49.97         | 57.64        | 54.54          | 55.67       | 62.78    | 33.98   | 48.82 | 87.43 | 63.34 | 57.59     | 56.10         |
| 2020        | 2            | Average   | 50.65      | 50.80      | 50.94         | 55.97        | 54.07          | 55.05       | 64.56    | 32.11   | 50.29 | 86.46 | 61.23 | 55.61     | 54.75         |
| 2020        | 3            | Average   | 55.80      | 56.81      | 56.39         | 6            |                |             |          |         |       |       |       |           |               |

## Average Mid Columbia Prices

| Report Year | Report Month | Condition | Base       |            | Base Case-Vol | Avoided Cost | Low Tx Capital | Hydro Shift | 5000 MW  |         |       | EIA    | NCEP  | Boom-Bust | High Coal Esc |
|-------------|--------------|-----------|------------|------------|---------------|--------------|----------------|-------------|----------|---------|-------|--------|-------|-----------|---------------|
|             |              |           | Case - Det | Case - Stc |               |              |                |             | High Gas | Low Gas | Wind  |        |       |           |               |
| 2020        | 7            | Average   | 49.48      | 51.96      | 50.18         | 49.67        | 44.84          | 45.86       | 47.68    | 28.79   | 47.89 | 84.40  | 57.22 | 49.76     | 48.32         |
| 2020        | 8            | Average   | 54.64      | 56.31      | 53.80         | 57.20        | 50.03          | 50.70       | 55.60    | 32.50   | 53.26 | 88.13  | 61.84 | 57.25     | 53.14         |
| 2020        | 9            | Average   | 52.74      | 55.25      | 53.45         | 55.48        | 50.45          | 50.01       | 59.13    | 31.15   | 52.24 | 87.79  | 60.47 | 55.40     | 52.16         |
| 2020        | 10           | Average   | 50.60      | 52.09      | 50.12         | 53.13        | 49.13          | 48.10       | 59.31    | 30.00   | 50.16 | 84.47  | 57.98 | 53.07     | 50.15         |
| 2020        | 11           | Average   | 50.60      | 52.10      | 50.15         | 53.20        | 50.56          | 50.47       | 69.96    | 30.97   | 50.37 | 82.30  | 58.04 | 53.21     | 51.05         |
| 2020        | 12           | Average   | 50.37      | 52.47      | 50.57         | 54.56        | 51.93          | 51.89       | 68.41    | 32.16   | 50.29 | 85.98  | 59.96 | 54.56     | 52.94         |
| 2021        | 1            | Average   | 50.90      | 52.09      | 50.75         | 60.06        | 54.90          | 57.48       | 66.50    | 34.45   | 51.18 | 91.41  | 64.92 | 60.72     | 57.70         |
| 2021        | 2            | Average   | 51.43      | 51.89      | 52.13         | 57.74        | 54.45          | 56.88       | 69.02    | 32.87   | 50.74 | 89.70  | 63.23 | 57.81     | 56.07         |
| 2021        | 3            | Average   | 56.73      | 57.77      | 57.98         | 63.74        | 58.93          | 60.31       | 82.86    | 36.58   | 56.17 | 91.56  | 67.07 | 64.39     | 60.03         |
| 2021        | 4            | Average   | 51.13      | 52.26      | 50.29         | 48.13        | 45.61          | 47.17       | 58.96    | 27.56   | 50.26 | 79.22  | 54.61 | 48.20     | 46.93         |
| 2021        | 5            | Average   | 47.49      | 48.22      | 47.92         | 66.95        | 42.23          | 44.61       | 51.62    | 25.15   | 46.64 | 77.07  | 51.77 | 46.05     | 44.82         |
| 2021        | 6            | Average   | 41.62      | 42.95      | 43.60         | 51.62        | 37.93          | 42.41       | 37.76    | 24.67   | 40.34 | 77.77  | 51.03 | 42.54     | 42.56         |
| 2021        | 7            | Average   | 49.86      | 51.77      | 52.35         | 44.20        | 45.91          | 48.49       | 51.18    | 29.22   | 48.12 | 88.24  | 58.76 | 53.32     | 50.20         |
| 2021        | 8            | Average   | 55.13      | 58.14      | 58.28         | 41.04        | 50.92          | 53.35       | 59.07    | 32.90   | 54.26 | 92.16  | 63.59 | 62.32     | 54.59         |
| 2021        | 9            | Average   | 53.99      | 56.49      | 57.15         | 32.21        | 51.51          | 52.12       | 62.52    | 31.53   | 53.37 | 91.47  | 61.71 | 58.78     | 53.25         |
| 2021        | 10           | Average   | 52.03      | 54.02      | 54.12         | 42.92        | 49.89          | 50.19       | 63.16    | 30.49   | 51.59 | 87.68  | 58.88 | 55.74     | 51.03         |
| 2021        | 11           | Average   | 50.81      | 52.88      | 54.84         | 48.65        | 51.38          | 52.32       | 72.15    | 31.41   | 50.55 | 84.94  | 59.16 | 55.89     | 52.23         |
| 2021        | 12           | Average   | 51.55      | 53.99      | 54.71         | 48.35        | 52.24          | 53.85       | 72.03    | 32.81   | 51.42 | 89.43  | 61.23 | 57.20     | 54.11         |
| 2022        | 1            | Average   | 51.89      | 53.21      | 54.74         | 48.34        | 56.62          | 58.87       | 69.40    | 35.49   | 51.74 | 95.44  | 67.10 | 64.24     | 58.63         |
| 2022        | 2            | Average   | 53.04      | 53.93      | 54.96         | 50.39        | 56.60          | 57.77       | 72.81    | 33.72   | 53.22 | 93.64  | 65.02 | 59.81     | 57.71         |
| 2022        | 3            | Average   | 58.48      | 58.95      | 59.56         | 52.30        | 60.62          | 61.53       | 85.75    | 37.46   | 58.30 | 95.45  | 69.14 | 67.95     | 61.36         |
| 2022        | 4            | Average   | 52.58      | 53.95      | 54.40         | 55.73        | 46.81          | 48.28       | 60.93    | 28.45   | 52.32 | 83.16  | 56.26 | 50.06     | 48.32         |
| 2022        | 5            | Average   | 48.73      | 50.47      | 50.93         | 46.20        | 44.35          | 45.60       | 53.48    | 26.07   | 48.88 | 80.96  | 54.46 | 48.01     | 45.73         |
| 2022        | 6            | Average   | 43.71      | 44.96      | 45.81         | 42.98        | 39.16          | 43.84       | 40.79    | 25.39   | 42.22 | 81.87  | 52.41 | 45.29     | 43.95         |
| 2022        | 7            | Average   | 51.71      | 52.97      | 53.39         | 52.37        | 46.89          | 50.55       | 53.74    | 29.84   | 50.54 | 92.26  | 60.39 | 57.52     | 50.90         |
| 2022        | 8            | Average   | 55.88      | 58.29      | 57.98         | 59.62        | 51.86          | 54.92       | 62.39    | 33.47   | 55.45 | 96.39  | 66.18 | 67.18     | 55.29         |
| 2022        | 9            | Average   | 54.57      | 56.76      | 57.03         | 57.17        | 52.00          | 53.20       | 65.66    | 32.05   | 54.55 | 95.43  | 64.20 | 63.40     | 53.86         |
| 2022        | 10           | Average   | 52.06      | 53.99      | 54.40         | 54.95        | 50.44          | 51.27       | 65.90    | 31.01   | 52.34 | 91.29  | 61.03 | 58.83     | 51.33         |
| 2022        | 11           | Average   | 52.26      | 53.91      | 55.64         | 55.11        | 52.19          | 53.33       | 74.15    | 32.10   | 52.54 | 88.10  | 61.40 | 59.38     | 53.08         |
| 2022        | 12           | Average   | 52.46      | 54.26      | 54.55         | 56.92        | 53.38          | 55.35       | 75.30    | 33.52   | 53.01 | 92.86  | 63.51 | 60.63     | 55.03         |
| 2023        | 1            | Average   | 54.08      | 55.23      | 54.61         | 61.66        | 57.31          | 60.44       | 70.43    | 36.76   | 54.49 | 100.03 | 68.71 | 67.88     | 59.79         |
| 2023        | 2            | Average   | 53.95      | 54.78      | 55.05         | 59.68        | 56.63          | 59.51       | 73.88    | 35.06   | 54.21 | 98.33  | 66.94 | 62.57     | 59.00         |
| 2023        | 3            | Average   | 60.39      | 60.37      | 60.26         | 64.70        | 61.61          | 63.30       | 88.47    | 38.92   | 60.37 | 99.87  | 70.76 | 71.71     | 62.65         |
| 2023        | 4            | Average   | 53.60      | 55.12      | 55.26         | 50.34        | 47.57          | 50.22       | 62.53    | 29.91   | 53.56 | 87.49  | 57.87 | 53.06     | 49.50         |
| 2023        | 5            | Average   | 50.69      | 51.28      | 51.37         | 47.46        | 44.76          | 47.26       | 55.38    | 27.19   | 50.15 | 85.87  | 55.32 | 50.72     | 46.80         |
| 2023        | 6            | Average   | 45.65      | 45.81      | 45.49         | 44.52        | 39.88          | 45.63       | 41.61    | 26.44   | 44.01 | 85.96  | 53.65 | 48.35     | 45.39         |
| 2023        | 7            | Average   | 53.12      | 55.02      | 54.01         | 54.42        | 47.60          | 52.17       | 54.00    | 30.74   | 53.13 | 95.94  | 61.61 | 62.52     | 52.99         |
| 2023        | 8            | Average   | 57.09      | 59.95      | 58.32         | 61.88        | 52.65          | 56.18       | 62.53    | 34.33   | 57.31 | 100.25 | 67.28 | 72.53     | 57.31         |
| 2023        | 9            | Average   | 55.30      | 57.43      | 55.29         | 58.55        | 52.02          | 54.43       | 66.58    | 33.08   | 55.91 | 99.05  | 65.28 | 68.05     | 55.78         |
| 2023        | 10           | Average   | 52.78      | 54.99      | 52.13         | 55.74        | 50.67          | 52.21       | 65.69    | 32.15   | 53.47 | 94.03  | 62.18 | 61.86     | 53.06         |
| 2023        | 11           | Average   | 52.75      | 54.52      | 51.24         | 56.18        | 52.85          | 54.68       | 76.23    | 33.44   | 53.35 | 92.25  | 62.79 | 62.83     | 54.63         |
| 2023        | 12           | Average   | 52.58      | 54.85      | 52.90         | 58.09        | 54.22          | 56.74       | 76.72    | 35.06   | 53.59 | 97.19  | 65.20 | 64.12     | 56.90         |
| 2024        | 1            | Average   | 53.53      | 55.38      | 54.06         | 63.32        | 59.10          | 61.48       | 73.94    | 36.86   | 54.23 | 100.90 | 70.51 | 71.54     | 61.71         |
| 2024        | 2            | Average   | 53.76      | 55.47      | 55.37         | 64.24        | 58.63          | 60.57       | 76.86    | 35.10   | 54.00 | 99.61  | 68.75 | 65.61     | 60.09         |
| 2024        | 3            | Average   | 60.01      | 60.37      | 61.58         | 69.89        | 63.42          | 64.57       | 88.87    | 39.28   | 59.90 | 101.34 | 72.80 | 75.23     | 64.23         |
| 2024        | 4            | Average   | 53.79      | 55.63      | 57.10         | 67.63        | 49.40          | 51.46       | 64.64    | 30.58   | 53.88 | 89.45  | 59.87 | 56.31     | 50.61         |
| 2024        | 5            | Average   | 50.88      | 51.79      | 54.83         | 62.02        | 46.36          | 48.35       | 58.00    | 27.65   | 50.65 | 86.85  | 56.66 | 53.66     | 47.83         |
| 2024        | 6            | Average   | 47.06      | 47.52      | 48.89         | 60.74        | 41.55          | 47.12       | 45.20    | 26.84   | 45.56 | 86.62  | 55.38 | 51.08     | 46.29         |
| 2024        | 7            | Average   | 54.13      | 56.45      | 59.40         | 46.39        | 48.72          | 53.56       | 56.70    | 31.22   | 53.42 | 96.87  | 63.74 | 67.79     | 53.63         |
| 2024        | 8            | Average   | 57.76      | 60.00      | 63.04         | 43.50        | 53.54          | 57.30       | 65.25    | 34.97   | 57.86 | 101.67 | 69.39 | 77.22     | 57.90         |
| 2024        | 9            | Average   | 56.18      | 59.02      | 61.68         | 38.97        | 53.35          | 55.57       | 68.86    | 33.53   | 56.54 | 100.21 | 67.00 | 73.39     | 56.56         |
| 2024        | 10           | Average   | 52.71      | 54.68      | 56.98         | 46.39        | 51.53          | 52.99       | 68.97    | 32.32   | 53.21 | 95.08  | 64.07 | 66.07     | 53.73         |
| 2024        | 11           | Average   | 52.55      | 53.68      | 56.22         | 50.62        | 54.30          | 55.57       | 77.76    | 33.72   | 52.67 | 93.49  | 64.54 | 66.23     | 55.45         |
| 2024        | 12           | Average   | 53.46      | 54.82      | 57.71         | 59.73        | 55.76          | 57.77       | 78.43    | 35.23   | 53.86 | 98.25  | 67.21 | 67.96     | 57.98         |
| 2025        | 1            | Average   | 54.90      | 56.59      | 58.16         | 63.96        | 59.77          | 63.02       | 75.75    | 37.69   | 55.15 | 101.20 | 71.76 | 64.38     | 62.43         |
| 2025        | 2            | Average   | 55.96      | 57.99      | 59.82         | 61.01        | 60.17          | 60.68       | 77.88    | 35.88   | 55.69 | 100.26 | 70.30 | 61.84     | 60.56         |
| 2025        | 3            | Average   | 62.27      | 63.74      | 65.24         | 66.55        | 64.40          | 65.32       | 91.78    | 40.11   | 61.97 | 102.00 | 73.87 | 66.65     | 64.85         |
| 2025        | 4            | Average   | 56.52      | 57.66      | 58.41         | 51.97        | 50.65          | 52.27       | 66.26    | 31.54   | 55.81 | 89.85  | 61.73 | 52.51     | 51.80         |
| 2025        | 5            | Average   | 53.11      | 54.64      | 54.96         | 49.25        | 47.40          | 49.74       | 59.28    | 28.54   | 52.82 | 87.51  | 57.84 | 49.56     | 48.82         |
| 2025        | 6            | Average   | 49.77      | 50.25      | 49.67         | 46.99        | 42.91          | 48.10       | 47.70    | 27.24   | 48.29 | 87.24  | 56.58 | 47.17     | 46.73         |
| 2025        | 7            | Average   | 55.27      | 57.93      | 59.45         | 55.95        | 49.56          | 53.83       | 57.70    | 31.98   | 54.78 | 97.18  | 63.64 | 55.98     | 53.69         |
| 2025        | 8            | Average   | 59.44      | 61.62      | 62.35         | 63.47        | 54.36          | 57.81       | 66.07    | 36.16   | 59.80 | 102.24 | 69.29 | 63.42     | 58.15         |
| 2025        | 9            | Average   | 57.90      | 60.52      | 61.48         | 60.19        | 53.77          | 55.97       | 70.27    | 34.32   | 58.58 | 100.33 | 66.96 | 60.22     | 56.39         |
| 2025        | 10           | Average   | 55.64      | 56.93      | 59.03         | 56.97        | 52.10          | 53.88       | 70.28    | 32.96   | 56.27 | 94.80  | 64.00 | 56.95     | 54.14         |
| 2025        | 11           | Average   | 55.53      | 56.62      | 58.97         | 58.12        | 55.20          | 56.78       | 79.90    | 34.35   | 55.98 | 94.17  | 65.28 | 58.16     | 56.21         |
| 2025        | 12           | Average   | 56.03      | 57.52      | 60.95         | 60.24        | 56.75          | 59.11       | 81.43    | 35.89   | 56.86 | 98.49  | 68.13 | 60.25     | 58.73         |
| 2026        | 1            | Average   | 57.05      | 57.56      | 59.71         | 65.40        | 60.75          | 63.37       | 79.54    | 37.90   | 57.98 | 103.93 | 72.83 | 66.73     | 62.71         |
| 2026        | 2            | Average   | 56.80      | 58.86      | 60.01         | 62.29        | 60.68          | 62.18       | 80.97    | 36.25   | 57.23 | 102.88 | 71.17 | 63.21     | 61.87         |
| 2026        | 3            | Average   | 63.89      | 66.06      | 66.68         | 68.06        | 65.67          | 66.34       | 93.82    | 40.71   | 63.63 | 104.82 | 75.25 | 69.46     | 65.87         |
| 2026        | 4            | Average   | 58.06      | 59.35      | 58.65         | 53.09        | 51.68          | 52.84       | 68.13    | 31.99   | 57.88 | 92.61  | 62.68 | 53.92     | 51.84         |
| 2026        | 5            | Average   | 54.80      | 56.21      | 55.45         | 50.23        | 48.10          | 49.74       | 60.77    | 29.15   | 54.54 | 89.72  | 58.72 | 51.35     | 49.23         |
| 2026        | 6            | Average   | 49.60      | 50.86      | 50.55         | 47.50        | 43.26          | 47.43       | 49.18    | 27.80   | 48.87 | 89.37  | 58.05 | 48.97     | 47.53         |
| 2026        | 7            | Average   | 56.07      | 58.59      | 58.86         | 57.82        | 50.48          | 53.39       | 59.56    | 32.34   | 56.39 | 99.56  | 65.00 | 59.71     | 54.11         |
| 2026        | 8            | Average   | 60.48      | 62.86      | 62.64         | 66.13        | 55.45          | 57.88       | 68.00    | 36.12   | 60.99 | 104.72 | 70.63 | 68.87     | 58.19         |
| 2026        | 9            | Average   | 59.20      | 61.82      | 60.89         | 62.17        | 54.85          | 55.77       | 71.11    | 34.49   | 59.95 | 102.61 | 67.91 | 63.86     | 56.54         |
| 2026        | 10           | Average   | 56.43      | 57.50      | 56.88         | 58.58        | 52.86          | 53.44       | 72.33    | 33.28   | 57.18 | 96.90  | 64.97 | 59.98     | 53.97         |
| 2026        | 11           | Average   | 56.84      | 58.01      | 56.81         | 59.53        | 56.22          | 56.81       | 81.75    | 34.80   | 57.17 | 96.01  | 66.57 | 60.86     | 56.56         |
| 2026        | 12           | Average   | 57.25      | 58.66      |               |              |                |             |          |         |       |        |       |           |               |

## On-Peak Mid Columbia Prices

| Report Year | Report Month | Condition | Avoided       |               |               |           |                |             |          |         |              |       |       | Boom-Bust | High Coal Esc |
|-------------|--------------|-----------|---------------|---------------|---------------|-----------|----------------|-------------|----------|---------|--------------|-------|-------|-----------|---------------|
|             |              |           | Base Case-Det | Base Case-Stc | Base Case-Vol | Cost Case | Low Tx Capital | Hydro Shift | High Gas | Low Gas | 5000 MW Wind | EIA   | NCEP  |           |               |
| 2007        | 1            | On-Peak   | 55.48         | 56.53         | 58.14         | 59.61     | 58.44          | 59.91       | 84.63    | 29.64   | 54.75        | 58.21 | 58.28 | 59.85     | 58.12         |
| 2007        | 2            | On-Peak   | 54.56         | 55.74         | 56.37         | 57.26     | 56.12          | 57.35       | 84.27    | 28.70   | 54.03        | 56.91 | 57.00 | 57.31     | 56.23         |
| 2007        | 3            | On-Peak   | 58.56         | 59.89         | 61.98         | 61.76     | 60.02          | 61.68       | 85.71    | 31.22   | 57.11        | 59.67 | 59.27 | 62.29     | 59.43         |
| 2007        | 4            | On-Peak   | 52.19         | 52.96         | 55.60         | 47.66     | 46.99          | 47.99       | 71.63    | 23.53   | 51.85        | 47.53 | 47.49 | 47.60     | 47.21         |
| 2007        | 5            | On-Peak   | 50.04         | 50.78         | 52.89         | 45.53     | 45.43          | 46.08       | 68.30    | 22.22   | 49.34        | 45.19 | 45.19 | 45.90     | 45.17         |
| 2007        | 6            | On-Peak   | 47.60         | 46.15         | 47.22         | 44.29     | 44.03          | 46.03       | 64.49    | 21.66   | 43.04        | 44.10 | 43.97 | 45.06     | 43.99         |
| 2007        | 7            | On-Peak   | 56.39         | 56.60         | 57.32         | 54.29     | 52.58          | 54.89       | 72.33    | 26.71   | 53.29        | 52.31 | 52.71 | 55.55     | 51.79         |
| 2007        | 8            | On-Peak   | 61.09         | 62.27         | 63.05         | 59.47     | 57.86          | 59.37       | 78.42    | 29.41   | 59.18        | 57.61 | 57.55 | 60.35     | 57.10         |
| 2007        | 9            | On-Peak   | 60.03         | 59.84         | 59.24         | 58.85     | 57.20          | 58.48       | 77.09    | 29.07   | 58.47        | 57.00 | 57.06 | 59.86     | 56.56         |
| 2007        | 10           | On-Peak   | 58.04         | 58.62         | 56.72         | 56.90     | 55.06          | 56.53       | 74.09    | 28.54   | 56.72        | 54.83 | 54.79 | 58.05     | 54.19         |
| 2007        | 11           | On-Peak   | 52.01         | 53.29         | 53.01         | 53.48     | 52.19          | 53.47       | 75.24    | 26.98   | 51.38        | 51.49 | 51.57 | 54.33     | 51.70         |
| 2007        | 12           | On-Peak   | 51.72         | 52.29         | 51.38         | 54.89     | 53.46          | 54.89       | 77.76    | 27.78   | 50.77        | 53.28 | 53.14 | 55.11     | 53.07         |
| 2008        | 1            | On-Peak   | 51.01         | 51.66         | 51.14         | 55.29     | 53.04          | 53.12       | 78.87    | 28.01   | 50.23        | 52.77 | 52.98 | 56.00     | 52.61         |
| 2008        | 2            | On-Peak   | 50.56         | 51.03         | 50.95         | 53.87     | 52.31          | 52.23       | 77.40    | 26.69   | 50.01        | 52.34 | 52.74 | 53.77     | 52.04         |
| 2008        | 3            | On-Peak   | 53.65         | 53.86         | 53.72         | 57.31     | 54.19          | 54.68       | 79.86    | 29.52   | 52.74        | 54.28 | 54.18 | 58.85     | 53.69         |
| 2008        | 4            | On-Peak   | 48.98         | 49.25         | 49.54         | 44.30     | 43.12          | 43.91       | 65.65    | 21.96   | 48.53        | 43.55 | 44.03 | 44.72     | 43.02         |
| 2008        | 5            | On-Peak   | 46.93         | 47.23         | 47.48         | 42.64     | 41.52          | 41.67       | 62.78    | 20.86   | 46.71        | 41.52 | 41.65 | 43.23     | 41.47         |
| 2008        | 6            | On-Peak   | 45.20         | 43.74         | 43.94         | 42.03     | 41.37          | 41.96       | 59.96    | 20.53   | 42.46        | 40.91 | 41.33 | 43.27     | 40.96         |
| 2008        | 7            | On-Peak   | 50.23         | 51.46         | 52.29         | 51.57     | 48.00          | 47.59       | 65.57    | 25.78   | 47.75        | 47.35 | 47.37 | 53.48     | 47.19         |
| 2008        | 8            | On-Peak   | 55.13         | 55.45         | 56.85         | 56.63     | 52.97          | 52.55       | 72.16    | 28.39   | 53.03        | 52.69 | 52.67 | 58.36     | 52.17         |
| 2008        | 9            | On-Peak   | 53.73         | 54.85         | 56.63         | 55.83     | 52.25          | 51.47       | 70.90    | 27.93   | 51.82        | 51.97 | 51.80 | 57.58     | 51.43         |
| 2008        | 10           | On-Peak   | 50.11         | 50.90         | 52.03         | 53.61     | 49.65          | 48.61       | 67.42    | 27.36   | 48.34        | 49.30 | 49.15 | 55.34     | 48.30         |
| 2008        | 11           | On-Peak   | 46.84         | 47.58         | 48.07         | 51.47     | 48.28          | 47.94       | 70.19    | 26.00   | 46.15        | 47.79 | 47.68 | 52.14     | 47.38         |
| 2008        | 12           | On-Peak   | 46.23         | 47.03         | 46.79         | 51.67     | 49.27          | 49.26       | 72.29    | 26.36   | 45.58        | 49.09 | 49.13 | 52.75     | 48.81         |
| 2009        | 1            | On-Peak   | 47.52         | 48.07         | 47.45         | 51.86     | 50.18          | 50.13       | 74.48    | 26.92   | 46.23        | 49.57 | 49.58 | 54.05     | 48.92         |
| 2009        | 2            | On-Peak   | 47.73         | 48.71         | 48.80         | 49.88     | 49.08          | 49.10       | 73.73    | 25.45   | 47.18        | 49.15 | 48.96 | 50.65     | 48.66         |
| 2009        | 3            | On-Peak   | 50.84         | 52.42         | 52.31         | 54.58     | 51.70          | 51.63       | 75.07    | 28.53   | 49.63        | 51.28 | 50.66 | 57.63     | 50.34         |
| 2009        | 4            | On-Peak   | 45.25         | 46.17         | 46.21         | 41.07     | 40.79          | 41.35       | 61.81    | 20.90   | 44.51        | 40.81 | 40.55 | 42.55     | 40.23         |
| 2009        | 5            | On-Peak   | 43.73         | 44.41         | 45.12         | 39.82     | 39.21          | 39.23       | 59.49    | 19.81   | 43.24        | 39.05 | 38.95 | 41.32     | 38.87         |
| 2009        | 6            | On-Peak   | 42.47         | 42.06         | 42.54         | 39.71     | 39.05          | 39.78       | 58.00    | 19.69   | 40.68        | 38.91 | 38.77 | 41.94     | 38.64         |
| 2009        | 7            | On-Peak   | 48.18         | 48.93         | 49.44         | 48.88     | 46.17          | 46.00       | 63.45    | 24.85   | 45.53        | 45.35 | 44.90 | 51.72     | 44.59         |
| 2009        | 8            | On-Peak   | 52.28         | 52.99         | 53.49         | 53.54     | 50.99          | 50.52       | 69.46    | 27.41   | 50.37        | 50.22 | 49.65 | 57.22     | 49.43         |
| 2009        | 9            | On-Peak   | 50.85         | 52.08         | 51.53         | 52.74     | 50.09          | 49.38       | 67.47    | 27.19   | 49.09        | 49.41 | 48.73 | 56.07     | 48.70         |
| 2009        | 10           | On-Peak   | 47.71         | 47.97         | 48.79         | 50.26     | 47.86          | 46.95       | 64.44    | 26.45   | 46.12        | 47.04 | 46.29 | 53.24     | 45.75         |
| 2009        | 11           | On-Peak   | 44.25         | 45.38         | 45.55         | 39.17     | 46.63          | 46.08       | 66.61    | 25.28   | 43.57        | 45.64 | 45.47 | 50.97     | 45.02         |
| 2009        | 12           | On-Peak   | 44.24         | 45.27         | 44.58         | 37.73     | 47.56          | 47.49       | 68.97    | 25.75   | 43.38        | 46.94 | 46.73 | 51.27     | 46.34         |
| 2010        | 1            | On-Peak   | 45.01         | 46.22         | 44.67         | 37.84     | 48.08          | 48.60       | 70.48    | 26.19   | 44.00        | 58.31 | 50.48 | 50.34     | 47.09         |
| 2010        | 2            | On-Peak   | 44.58         | 45.94         | 44.12         | 46.53     | 46.78          | 46.99       | 70.07    | 24.33   | 44.16        | 56.25 | 49.10 | 47.44     | 46.28         |
| 2010        | 3            | On-Peak   | 48.82         | 50.18         | 48.63         | 47.09     | 49.73          | 50.11       | 70.96    | 27.67   | 47.43        | 59.74 | 52.05 | 53.42     | 48.87         |
| 2010        | 4            | On-Peak   | 43.19         | 44.20         | 43.06         | 44.80     | 38.67          | 39.10       | 58.33    | 19.95   | 42.57        | 48.72 | 41.08 | 39.21     | 38.32         |
| 2010        | 5            | On-Peak   | 40.81         | 42.16         | 41.12         | 49.83     | 36.84          | 37.12       | 55.66    | 18.88   | 40.34        | 46.79 | 39.32 | 37.76     | 36.64         |
| 2010        | 6            | On-Peak   | 40.12         | 40.24         | 38.48         | 36.42     | 37.01          | 37.83       | 55.08    | 18.90   | 38.45        | 46.77 | 39.50 | 37.89     | 36.71         |
| 2010        | 7            | On-Peak   | 46.22         | 46.92         | 44.42         | 46.83     | 44.10          | 44.56       | 60.73    | 23.83   | 43.82        | 55.55 | 46.72 | 46.91     | 43.11         |
| 2010        | 8            | On-Peak   | 50.17         | 51.41         | 49.58         | 51.72     | 48.61          | 48.60       | 67.50    | 26.47   | 48.56        | 61.06 | 51.40 | 51.76     | 47.73         |
| 2010        | 9            | On-Peak   | 49.28         | 49.88         | 48.28         | 50.48     | 47.82          | 47.63       | 65.56    | 26.15   | 47.56        | 59.65 | 50.70 | 50.44     | 47.16         |
| 2010        | 10           | On-Peak   | 46.65         | 46.48         | 45.13         | 48.79     | 46.10          | 45.82       | 62.48    | 25.42   | 45.08        | 57.37 | 48.57 | 48.79     | 44.92         |
| 2010        | 11           | On-Peak   | 42.87         | 44.14         | 43.20         | 47.29     | 44.43          | 44.50       | 63.23    | 24.38   | 41.90        | 54.56 | 46.72 | 47.28     | 43.45         |
| 2010        | 12           | On-Peak   | 42.71         | 43.91         | 43.27         | 47.81     | 45.61          | 45.96       | 65.84    | 24.90   | 41.87        | 55.44 | 47.84 | 47.83     | 44.69         |
| 2011        | 1            | On-Peak   | 42.58         | 43.75         | 42.80         | 52.58     | 49.13          | 49.59       | 71.91    | 27.27   | 41.70        | 59.59 | 51.31 | 52.80     | 48.28         |
| 2011        | 2            | On-Peak   | 43.56         | 44.77         | 42.83         | 49.03     | 47.67          | 47.98       | 71.34    | 25.27   | 43.18        | 58.32 | 50.05 | 49.03     | 47.22         |
| 2011        | 3            | On-Peak   | 48.32         | 49.29         | 47.30         | 55.24     | 51.06          | 50.94       | 72.74    | 28.72   | 47.02        | 61.44 | 53.33 | 55.64     | 50.33         |
| 2011        | 4            | On-Peak   | 43.32         | 44.16         | 42.32         | 40.47     | 39.73          | 40.00       | 60.28    | 20.88   | 42.41        | 50.10 | 41.84 | 40.58     | 39.32         |
| 2011        | 5            | On-Peak   | 41.07         | 42.50         | 40.63         | 38.89     | 37.59          | 37.98       | 56.99    | 19.54   | 40.95        | 48.31 | 40.16 | 39.09     | 37.39         |
| 2011        | 6            | On-Peak   | 41.16         | 41.69         | 39.48         | 39.16     | 37.70          | 38.35       | 56.35    | 19.26   | 39.75        | 48.59 | 40.19 | 39.15     | 37.51         |
| 2011        | 7            | On-Peak   | 47.62         | 47.38         | 45.92         | 48.56     | 45.12          | 45.41       | 63.52    | 24.67   | 45.05        | 57.60 | 47.68 | 48.74     | 44.23         |
| 2011        | 8            | On-Peak   | 51.17         | 52.09         | 51.24         | 53.38     | 49.50          | 49.23       | 69.92    | 27.14   | 49.53        | 62.65 | 52.26 | 53.91     | 48.53         |
| 2011        | 9            | On-Peak   | 50.15         | 50.07         | 48.77         | 51.90     | 48.76          | 48.16       | 68.00    | 26.65   | 48.51        | 61.37 | 51.42 | 52.17     | 47.79         |
| 2011        | 10           | On-Peak   | 47.77         | 47.69         | 47.85         | 50.10     | 46.97          | 46.25       | 64.99    | 25.84   | 46.29        | 59.14 | 49.52 | 50.24     | 45.71         |
| 2011        | 11           | On-Peak   | 43.43         | 44.68         | 44.78         | 48.70     | 44.95          | 44.95       | 64.52    | 25.00   | 42.51        | 55.83 | 47.37 | 48.64     | 44.46         |
| 2011        | 12           | On-Peak   | 43.74         | 44.10         | 43.93         | 49.48     | 46.52          | 46.60       | 67.33    | 25.63   | 42.78        | 57.17 | 48.72 | 49.34     | 45.74         |
| 2012        | 1            | On-Peak   | 43.32         | 43.85         | 43.83         | 52.56     | 48.51          | 49.22       | 70.16    | 28.94   | 43.01        | 62.08 | 52.90 | 56.08     | 48.65         |
| 2012        | 2            | On-Peak   | 43.84         | 44.04         | 43.28         | 49.50     | 47.34          | 48.00       | 68.23    | 26.59   | 43.46        | 60.37 | 51.73 | 51.14     | 47.69         |
| 2012        | 3            | On-Peak   | 47.97         | 48.27         | 47.40         | 55.04     | 49.72          | 50.13       | 70.72    | 30.23   | 47.04        | 63.85 | 55.04 | 58.96     | 50.05         |
| 2012        | 4            | On-Peak   | 43.33         | 43.68         | 43.02         | 41.05     | 39.38          | 39.80       | 58.28    | 22.36   | 42.89        | 52.56 | 43.80 | 42.95     | 39.79         |
| 2012        | 5            | On-Peak   | 41.19         | 41.68         | 41.03         | 39.73     | 37.99          | 38.34       | 54.79    | 20.80   | 41.03        | 50.57 | 41.72 | 41.10     | 38.07         |
| 2012        | 6            | On-Peak   | 38.92         | 37.80         | 37.32         | 38.40     | 36.15          | 37.73       | 43.13    | 20.32   | 36.69        | 50.69 | 41.70 | 41.41     | 37.10         |
| 2012        | 7            | On-Peak   | 44.78         | 45.50         | 45.73         | 48.48     | 42.60          | 43.70       | 56.01    | 25.81   | 43.17        | 60.64 | 49.28 | 51.53     | 43.44         |
| 2012        | 8            | On-Peak   | 48.72         | 49.50         | 51.35         | 53.95     | 47.61          | 48.13       | 61.54    | 28.66   | 47.77        | 65.69 | 53.90 | 58.60     | 48.24         |
| 2012        | 9            | On-Peak   | 48.00         | 48.32         | 49.61         | 47.63     | 46.99          | 47.37       | 61.11    | 28.12   | 47.06        | 64.63 | 53.03 | 56.51     | 47.79         |
| 2012        | 10           | On-Peak   | 44.66         | 45.86         | 47.19         | 47.43     | 43.98          | 44.51       | 59.48    | 26.85   | 43.81        | 62.01 | 50.70 | 52.83     | 45.23         |
| 2012        | 11           | On-Peak   | 42.49         | 43.40         | 44.37         | 34.51     | 43.96          | 44.52       | 62.58    | 26.30   | 42.18        | 58.51 | 48.61 | 51.17     | 44.56         |
| 2012        | 12           | On-Peak   | 42.21         | 43.16         | 42.85         | 45.70     | 45.36          | 45.91       | 65.76    | 27.05   | 41.99        | 60.10 | 50.28 | 52.23     | 45.81         |
| 2013        | 1            | On-Peak   | 42.96         | 43.86         | 43.46         | 45.32     | 49.14          | 49.88       | 64.32    | 29.97   | 42.53        | 63.71 | 54.24 | 59.30     | 49.69         |
| 2013        | 2            | On-Peak   | 43.50         | 44.37         | 43.85         | 46.29     | 48.16          | 48.92       | 63.44    | 27.56   | 43.33        | 62.60 | 52.69 | 53.70     | 48.33         |
| 2013        | 3            | On-Peak   | 47.85         | 48.52         | 48.19         | 49.19     | 50.30          | 51.02       | 70.79    | 31.76   | 47.23        | 65.84 | 56.78 | 62.24     | 50.93         |
| 2013        | 4            | On-Peak   | 43.43         | 44.12         | 44.24         | 46.41     | 39.91          | 40.39       | 57.83    | 23.28   | 43.15        | 55.24 | 44.49 | 45.33     | 40.17         |
| 2013        |              |           |               |               |               |           |                |             |          |         |              |       |       |           |               |

## On-Peak Mid Columbia Prices

| Report Year | Report Month | Condition | Avoided       |               |               |           |                |             |          |         |              |       |       | Boom-Bust | High Coal Esc |
|-------------|--------------|-----------|---------------|---------------|---------------|-----------|----------------|-------------|----------|---------|--------------|-------|-------|-----------|---------------|
|             |              |           | Base Case-Det | Base Case-Stc | Base Case-Vol | Cost Case | Low Tx Capital | Hydro Shift | High Gas | Low Gas | 5000 MW Wind | EIA   | NCEP  |           |               |
| 2013        | 10           | On-Peak   | 45.81         | 47.24         | 48.02         | 51.60     | 44.83          | 45.27       | 60.33    | 27.82   | 45.23        | 63.50 | 52.36 | 55.82     | 46.05         |
| 2013        | 11           | On-Peak   | 43.35         | 44.46         | 44.52         | 49.81     | 44.25          | 44.77       | 63.56    | 27.51   | 43.00        | 60.32 | 50.23 | 54.33     | 44.82         |
| 2013        | 12           | On-Peak   | 43.02         | 44.13         | 44.14         | 51.46     | 45.52          | 46.72       | 66.16    | 28.24   | 42.65        | 62.05 | 51.82 | 55.71     | 46.63         |
| 2014        | 1            | On-Peak   | 43.84         | 45.23         | 45.49         | 54.79     | 50.44          | 51.08       | 65.50    | 31.63   | 43.73        | 66.58 | 55.99 | 63.21     | 50.44         |
| 2014        | 2            | On-Peak   | 44.87         | 45.52         | 45.89         | 51.74     | 49.69          | 50.34       | 67.16    | 28.89   | 44.65        | 64.97 | 54.80 | 57.17     | 49.70         |
| 2014        | 3            | On-Peak   | 48.89         | 50.12         | 50.28         | 58.12     | 51.93          | 52.23       | 73.66    | 33.10   | 48.23        | 68.83 | 58.53 | 65.91     | 52.08         |
| 2014        | 4            | On-Peak   | 44.10         | 45.20         | 44.96         | 42.90     | 40.94          | 41.45       | 59.08    | 24.37   | 43.99        | 58.04 | 46.06 | 48.81     | 41.26         |
| 2014        | 5            | On-Peak   | 42.92         | 43.16         | 42.61         | 41.23     | 39.54          | 39.98       | 48.58    | 22.69   | 42.44        | 55.58 | 44.07 | 46.21     | 39.76         |
| 2014        | 6            | On-Peak   | 40.66         | 39.05         | 38.53         | 39.88     | 36.26          | 39.63       | 30.62    | 21.93   | 37.96        | 55.62 | 44.73 | 46.41     | 38.66         |
| 2014        | 7            | On-Peak   | 45.99         | 47.46         | 46.79         | 49.62     | 43.32          | 45.15       | 51.31    | 27.93   | 44.32        | 64.65 | 52.86 | 60.10     | 44.66         |
| 2014        | 8            | On-Peak   | 50.92         | 51.39         | 51.22         | 57.20     | 49.28          | 50.18       | 59.86    | 31.24   | 49.41        | 70.85 | 57.80 | 71.29     | 49.76         |
| 2014        | 9            | On-Peak   | 49.44         | 50.89         | 51.67         | 55.83     | 49.21          | 49.34       | 61.51    | 30.18   | 48.45        | 69.65 | 56.84 | 66.71     | 49.35         |
| 2014        | 10           | On-Peak   | 45.88         | 46.95         | 49.30         | 52.16     | 46.02          | 46.31       | 61.97    | 28.47   | 45.34        | 66.63 | 54.16 | 59.21     | 46.32         |
| 2014        | 11           | On-Peak   | 44.29         | 45.34         | 46.80         | 50.79     | 45.68          | 46.00       | 65.39    | 28.65   | 43.82        | 63.90 | 52.22 | 57.86     | 45.80         |
| 2014        | 12           | On-Peak   | 43.63         | 45.12         | 45.43         | 51.63     | 46.62          | 47.53       | 66.59    | 29.20   | 43.26        | 65.14 | 53.55 | 59.08     | 47.23         |
| 2015        | 1            | On-Peak   | 45.05         | 46.11         | 45.86         | 56.21     | 52.03          | 52.70       | 66.50    | 32.25   | 44.81        | 69.35 | 57.82 | 56.09     | 51.67         |
| 2015        | 2            | On-Peak   | 45.69         | 46.62         | 47.04         | 53.03     | 51.03          | 51.95       | 66.99    | 29.31   | 45.62        | 67.99 | 56.43 | 53.03     | 51.29         |
| 2015        | 3            | On-Peak   | 50.78         | 52.16         | 52.61         | 59.40     | 53.61          | 54.03       | 76.53    | 33.96   | 50.04        | 71.63 | 60.56 | 59.29     | 53.56         |
| 2015        | 4            | On-Peak   | 45.44         | 46.47         | 48.08         | 43.94     | 42.30          | 42.84       | 60.42    | 24.54   | 45.32        | 61.31 | 47.37 | 43.95     | 42.22         |
| 2015        | 5            | On-Peak   | 44.38         | 44.46         | 45.90         | 42.59     | 40.77          | 41.24       | 52.38    | 23.02   | 44.07        | 59.13 | 45.47 | 42.61     | 40.91         |
| 2015        | 6            | On-Peak   | 42.00         | 41.82         | 43.26         | 40.66     | 37.72          | 40.97       | 33.32    | 22.24   | 38.76        | 59.47 | 46.13 | 40.66     | 39.80         |
| 2015        | 7            | On-Peak   | 47.74         | 50.05         | 51.59         | 32.93     | 45.26          | 46.77       | 52.15    | 28.36   | 45.50        | 67.51 | 54.58 | 50.44     | 45.92         |
| 2015        | 8            | On-Peak   | 52.69         | 54.20         | 54.95         | 42.11     | 51.39          | 51.63       | 61.29    | 32.06   | 50.88        | 73.83 | 59.60 | 59.75     | 51.07         |
| 2015        | 9            | On-Peak   | 50.92         | 52.95         | 54.14         | 44.55     | 51.15          | 50.55       | 63.43    | 30.62   | 50.01        | 72.69 | 58.55 | 56.71     | 50.39         |
| 2015        | 10           | On-Peak   | 47.47         | 48.53         | 49.99         | 50.81     | 47.88          | 47.80       | 63.72    | 28.91   | 46.97        | 69.02 | 55.63 | 53.14     | 47.53         |
| 2015        | 11           | On-Peak   | 45.54         | 46.98         | 48.94         | 50.83     | 47.56          | 47.61       | 67.18    | 29.35   | 45.05        | 66.90 | 53.71 | 52.68     | 46.84         |
| 2015        | 12           | On-Peak   | 44.69         | 46.40         | 48.44         | 48.61     | 48.47          | 49.28       | 69.54    | 30.06   | 44.25        | 67.80 | 55.14 | 53.09     | 48.35         |
| 2016        | 1            | On-Peak   | 46.48         | 47.13         | 49.16         | 48.99     | 52.92          | 53.97       | 70.08    | 33.76   | 46.43        | 72.17 | 59.21 | 59.81     | 53.32         |
| 2016        | 2            | On-Peak   | 47.78         | 47.66         | 50.04         | 49.78     | 52.14          | 53.68       | 66.98    | 30.97   | 47.35        | 70.53 | 58.05 | 55.04     | 52.54         |
| 2016        | 3            | On-Peak   | 52.20         | 52.80         | 55.18         | 52.21     | 54.88          | 55.61       | 79.00    | 35.24   | 51.63        | 74.22 | 61.74 | 63.34     | 54.82         |
| 2016        | 4            | On-Peak   | 47.07         | 47.67         | 50.26         | 50.07     | 43.25          | 44.01       | 63.31    | 25.93   | 46.88        | 64.90 | 49.09 | 46.02     | 43.34         |
| 2016        | 5            | On-Peak   | 45.60         | 45.35         | 47.41         | 43.73     | 41.84          | 42.41       | 54.69    | 24.35   | 45.23        | 62.82 | 46.89 | 45.08     | 42.04         |
| 2016        | 6            | On-Peak   | 42.94         | 41.97         | 43.18         | 42.05     | 39.24          | 42.07       | 34.86    | 23.71   | 40.49        | 62.50 | 47.53 | 42.94     | 41.03         |
| 2016        | 7            | On-Peak   | 48.97         | 49.71         | 51.06         | 51.95     | 46.62          | 48.57       | 53.14    | 29.70   | 47.16        | 71.45 | 56.21 | 54.27     | 47.31         |
| 2016        | 8            | On-Peak   | 53.74         | 55.80         | 57.24         | 61.13     | 52.51          | 53.16       | 62.55    | 33.60   | 52.50        | 77.03 | 61.15 | 65.52     | 52.36         |
| 2016        | 9            | On-Peak   | 52.79         | 53.76         | 54.04         | 57.80     | 51.79          | 51.73       | 64.71    | 32.01   | 51.92        | 75.55 | 59.97 | 60.43     | 51.64         |
| 2016        | 10           | On-Peak   | 48.86         | 50.27         | 50.30         | 54.80     | 48.58          | 49.14       | 65.43    | 30.22   | 48.59        | 72.07 | 57.19 | 56.59     | 49.16         |
| 2016        | 11           | On-Peak   | 47.04         | 48.78         | 49.42         | 53.77     | 48.38          | 49.08       | 69.40    | 30.42   | 46.66        | 69.55 | 54.85 | 55.45     | 48.14         |
| 2016        | 12           | On-Peak   | 46.04         | 48.04         | 48.85         | 54.25     | 49.36          | 50.66       | 71.27    | 31.35   | 45.67        | 70.53 | 56.34 | 55.93     | 49.82         |
| 2017        | 1            | On-Peak   | 46.72         | 49.11         | 50.16         | 59.15     | 54.77          | 55.08       | 72.16    | 34.40   | 46.72        | 75.03 | 60.62 | 64.04     | 54.95         |
| 2017        | 2            | On-Peak   | 48.33         | 48.81         | 49.44         | 55.66     | 53.86          | 54.29       | 69.91    | 31.83   | 48.38        | 74.03 | 59.46 | 57.78     | 54.28         |
| 2017        | 3            | On-Peak   | 53.18         | 54.17         | 55.14         | 61.49     | 56.57          | 57.25       | 80.63    | 36.09   | 52.65        | 77.07 | 63.11 | 67.48     | 56.37         |
| 2017        | 4            | On-Peak   | 48.03         | 48.96         | 50.14         | 46.01     | 44.82          | 45.04       | 63.80    | 26.51   | 47.82        | 69.14 | 50.62 | 49.33     | 44.65         |
| 2017        | 5            | On-Peak   | 47.11         | 47.96         | 46.84         | 44.99     | 43.27          | 43.56       | 55.57    | 24.61   | 46.85        | 66.29 | 48.28 | 47.65     | 43.30         |
| 2017        | 6            | On-Peak   | 44.20         | 44.33         | 43.45         | 43.51     | 40.68          | 43.15       | 36.56    | 24.26   | 42.63        | 65.74 | 48.79 | 45.15     | 42.48         |
| 2017        | 7            | On-Peak   | 50.46         | 51.41         | 49.85         | 53.76     | 48.94          | 49.77       | 55.26    | 30.07   | 48.93        | 75.62 | 57.28 | 59.40     | 49.37         |
| 2017        | 8            | On-Peak   | 55.34         | 57.00         | 55.17         | 61.91     | 54.67          | 54.23       | 64.21    | 34.32   | 54.40        | 80.73 | 62.41 | 71.73     | 54.44         |
| 2017        | 9            | On-Peak   | 53.32         | 54.45         | 53.29         | 58.98     | 54.05          | 52.65       | 66.15    | 32.43   | 52.73        | 79.46 | 60.99 | 66.35     | 53.39         |
| 2017        | 10           | On-Peak   | 49.66         | 51.52         | 52.34         | 56.05     | 50.82          | 50.22       | 66.42    | 30.84   | 49.39        | 75.52 | 57.82 | 59.83     | 50.84         |
| 2017        | 11           | On-Peak   | 48.38         | 49.71         | 50.15         | 54.42     | 50.43          | 50.46       | 70.19    | 31.48   | 47.89        | 72.68 | 56.05 | 59.05     | 49.77         |
| 2017        | 12           | On-Peak   | 48.24         | 49.46         | 49.54         | 55.49     | 51.46          | 52.10       | 72.89    | 32.27   | 47.94        | 74.36 | 57.94 | 59.80     | 51.48         |
| 2018        | 1            | On-Peak   | 48.81         | 50.17         | 50.21         | 60.73     | 55.37          | 55.89       | 75.04    | 35.48   | 48.65        | 79.32 | 62.75 | 67.63     | 56.33         |
| 2018        | 2            | On-Peak   | 50.60         | 51.00         | 50.31         | 57.09     | 54.88          | 55.27       | 72.60    | 32.79   | 50.56        | 78.54 | 61.16 | 60.90     | 55.50         |
| 2018        | 3            | On-Peak   | 54.63         | 55.08         | 55.37         | 63.04     | 57.58          | 57.85       | 82.27    | 37.35   | 54.25        | 80.28 | 64.77 | 71.29     | 58.02         |
| 2018        | 4            | On-Peak   | 49.40         | 50.40         | 50.01         | 47.55     | 45.72          | 46.16       | 65.52    | 27.53   | 49.05        | 72.83 | 52.48 | 52.24     | 45.90         |
| 2018        | 5            | On-Peak   | 47.59         | 48.34         | 49.03         | 35.68     | 43.98          | 44.20       | 60.18    | 25.49   | 47.37        | 69.54 | 49.53 | 50.57     | 44.35         |
| 2018        | 6            | On-Peak   | 45.57         | 43.70         | 44.35         | 47.12     | 41.45          | 43.65       | 39.08    | 24.96   | 44.21        | 69.33 | 49.76 | 47.67     | 43.78         |
| 2018        | 7            | On-Peak   | 51.49         | 52.16         | 53.22         | 49.02     | 48.77          | 49.06       | 57.76    | 31.09   | 50.12        | 80.24 | 59.17 | 66.23     | 51.05         |
| 2018        | 8            | On-Peak   | 55.53         | 57.25         | 57.29         | 50.87     | 54.46          | 54.09       | 66.50    | 35.37   | 54.38        | 85.18 | 64.58 | 78.27     | 56.07         |
| 2018        | 9            | On-Peak   | 54.32         | 55.52         | 54.80         | 47.50     | 54.36          | 52.96       | 68.11    | 33.71   | 53.80        | 85.12 | 63.53 | 73.62     | 55.19         |
| 2018        | 10           | On-Peak   | 50.84         | 52.59         | 51.81         | 55.76     | 50.67          | 49.70       | 68.31    | 31.88   | 50.51        | 80.37 | 59.66 | 64.53     | 52.19         |
| 2018        | 11           | On-Peak   | 49.37         | 49.84         | 48.57         | 54.96     | 50.49          | 50.69       | 72.47    | 32.52   | 48.88        | 77.01 | 57.87 | 63.05     | 51.12         |
| 2018        | 12           | On-Peak   | 49.25         | 49.92         | 48.71         | 52.31     | 51.89          | 52.53       | 75.30    | 33.61   | 48.91        | 78.70 | 59.74 | 64.31     | 52.96         |
| 2019        | 1            | On-Peak   | 50.87         | 52.29         | 50.64         | 52.22     | 56.83          | 57.49       | 77.48    | 36.52   | 50.67        | 84.43 | 64.34 | 71.90     | 57.36         |
| 2019        | 2            | On-Peak   | 52.45         | 53.25         | 52.01         | 58.07     | 55.90          | 56.88       | 77.96    | 33.98   | 52.43        | 83.68 | 62.81 | 64.93     | 56.81         |
| 2019        | 3            | On-Peak   | 57.16         | 57.49         | 57.06         | 64.78     | 59.21          | 59.55       | 84.75    | 38.77   | 56.71        | 85.75 | 66.68 | 75.83     | 59.30         |
| 2019        | 4            | On-Peak   | 52.00         | 52.96         | 52.89         | 48.59     | 46.98          | 47.53       | 68.73    | 28.86   | 51.69        | 76.62 | 54.06 | 55.75     | 46.92         |
| 2019        | 5            | On-Peak   | 49.54         | 50.41         | 49.99         | 46.66     | 44.92          | 45.54       | 61.30    | 26.23   | 49.36        | 74.04 | 51.15 | 54.03     | 45.27         |
| 2019        | 6            | On-Peak   | 47.68         | 46.71         | 46.94         | 46.17     | 43.29          | 45.13       | 40.50    | 25.64   | 46.67        | 73.74 | 51.09 | 51.03     | 44.93         |
| 2019        | 7            | On-Peak   | 53.36         | 54.58         | 55.35         | 56.55     | 49.80          | 50.74       | 58.24    | 31.51   | 51.57        | 85.02 | 60.09 | 72.04     | 51.98         |
| 2019        | 8            | On-Peak   | 59.46         | 60.57         | 59.40         | 64.86     | 55.17          | 55.60       | 68.10    | 36.28   | 58.53        | 89.71 | 65.88 | 84.46     | 57.31         |
| 2019        | 9            | On-Peak   | 57.71         | 58.70         | 58.31         | 62.36     | 55.20          | 54.46       | 69.93    | 34.77   | 57.02        | 90.23 | 64.75 | 80.18     | 55.95         |
| 2019        | 10           | On-Peak   | 53.27         | 54.68         | 54.22         | 58.08     | 51.22          | 51.01       | 69.98    | 32.72   | 52.69        | 85.84 | 60.49 | 68.73     | 52.28         |
| 2019        | 11           | On-Peak   | 51.79         | 52.09         | 51.92         | 56.40     | 51.86          | 52.33       | 74.59    | 33.48   | 51.33        | 82.19 | 59.20 | 66.79     | 51.98         |
| 2019        | 12           | On-Peak   | 51.58         | 52.25         | 51.58         | 58.00     | 53.12          | 54.11       | 77.12    | 34.75   | 51.27        | 84.46 | 61.26 | 68.50     | 53.83         |
| 2020        | 1            | On-Peak   | 52.48         | 54.09         | 53.41         | 61.42     | 58.22          | 58.54       | 82.45    | 37.48   | 52.07        | 90.33 | 66.10 | 61.46     | 58.83         |
| 2020        |              |           |               |               |               |           |                |             |          |         |              |       |       |           |               |

## On-Peak Mid Columbia Prices

| Report Year | Report Month | Condition | Avoided       |               |               |           |                |             |          |         |              |        | Boom-Bust | High Coal Esc |       |
|-------------|--------------|-----------|---------------|---------------|---------------|-----------|----------------|-------------|----------|---------|--------------|--------|-----------|---------------|-------|
|             |              |           | Base Case-Det | Base Case-Stc | Base Case-Vol | Cost Case | Low Tx Capital | Hydro Shift | High Gas | Low Gas | 5000 MW Wind | EIA    |           |               | NCEP  |
| 2020        | 7            | On-Peak   | 54.48         | 56.65         | 54.62         | 56.66     | 50.71          | 50.34       | 62.02    | 32.21   | 53.24        | 90.29  | 61.84     | 56.77         | 53.08 |
| 2020        | 8            | On-Peak   | 59.24         | 60.98         | 58.33         | 65.04     | 56.51          | 55.69       | 71.54    | 37.44   | 58.28        | 94.71  | 68.11     | 65.12         | 58.47 |
| 2020        | 9            | On-Peak   | 57.11         | 59.40         | 57.47         | 61.79     | 55.37          | 53.96       | 72.11    | 35.05   | 56.54        | 94.24  | 65.97     | 61.71         | 56.68 |
| 2020        | 10           | On-Peak   | 53.38         | 54.59         | 52.54         | 57.79     | 51.99          | 50.39       | 71.56    | 33.06   | 52.93        | 89.74  | 61.85     | 57.72         | 53.12 |
| 2020        | 11           | On-Peak   | 53.80         | 54.42         | 52.36         | 56.58     | 53.25          | 53.12       | 76.26    | 34.23   | 53.50        | 86.04  | 60.71     | 56.58         | 53.68 |
| 2020        | 12           | On-Peak   | 53.72         | 54.75         | 52.77         | 57.61     | 54.55          | 54.71       | 78.63    | 35.03   | 53.56        | 89.34  | 62.58     | 57.62         | 55.49 |
| 2021        | 1            | On-Peak   | 54.06         | 55.21         | 53.70         | 63.94     | 59.19          | 60.41       | 85.85    | 37.92   | 54.01        | 94.72  | 67.42     | 64.89         | 60.34 |
| 2021        | 2            | On-Peak   | 54.54         | 55.02         | 55.25         | 60.93     | 58.61          | 59.69       | 87.02    | 35.37   | 54.03        | 92.42  | 66.12     | 61.07         | 59.47 |
| 2021        | 3            | On-Peak   | 58.97         | 60.47         | 60.74         | 67.80     | 62.12          | 62.56       | 89.43    | 40.28   | 58.54        | 95.10  | 69.75     | 68.82         | 62.38 |
| 2021        | 4            | On-Peak   | 54.36         | 55.00         | 52.91         | 53.26     | 49.02          | 49.65       | 73.00    | 29.78   | 53.63        | 81.35  | 57.72     | 51.29         | 49.56 |
| 2021        | 5            | On-Peak   | 51.05         | 52.36         | 52.18         | 58.39     | 46.99          | 47.46       | 67.89    | 27.28   | 50.89        | 79.36  | 54.58     | 49.63         | 47.42 |
| 2021        | 6            | On-Peak   | 49.26         | 49.79         | 50.63         | 44.18     | 45.95          | 47.76       | 50.51    | 26.79   | 48.58        | 80.71  | 54.44     | 50.03         | 47.58 |
| 2021        | 7            | On-Peak   | 54.63         | 56.29         | 56.87         | 45.61     | 52.16          | 53.34       | 65.64    | 32.60   | 53.41        | 94.42  | 63.13     | 60.85         | 54.64 |
| 2021        | 8            | On-Peak   | 60.24         | 63.26         | 63.38         | 42.18     | 58.21          | 58.60       | 75.06    | 37.83   | 59.32        | 99.10  | 70.20     | 72.77         | 60.21 |
| 2021        | 9            | On-Peak   | 58.46         | 60.48         | 61.14         | 52.64     | 56.67          | 56.31       | 74.45    | 35.31   | 57.65        | 97.96  | 67.04     | 66.22         | 57.89 |
| 2021        | 10           | On-Peak   | 55.05         | 56.53         | 56.63         | 61.04     | 53.40          | 53.00       | 73.03    | 33.59   | 54.56        | 93.32  | 62.71     | 61.40         | 54.30 |
| 2021        | 11           | On-Peak   | 53.97         | 55.35         | 57.33         | 57.94     | 54.55          | 54.81       | 78.35    | 34.51   | 53.71        | 88.20  | 61.68     | 59.71         | 54.90 |
| 2021        | 12           | On-Peak   | 54.84         | 56.32         | 57.03         | 55.10     | 55.52          | 56.52       | 80.85    | 35.66   | 54.65        | 92.98  | 63.80     | 60.47         | 56.82 |
| 2022        | 1            | On-Peak   | 54.85         | 56.00         | 57.54         | 55.14     | 60.83          | 61.94       | 88.57    | 38.90   | 54.92        | 99.07  | 69.85     | 68.90         | 61.31 |
| 2022        | 2            | On-Peak   | 56.17         | 56.89         | 57.91         | 56.51     | 60.01          | 60.63       | 89.57    | 36.33   | 56.21        | 96.50  | 68.01     | 63.18         | 60.29 |
| 2022        | 3            | On-Peak   | 60.72         | 61.43         | 62.08         | 60.23     | 63.37          | 63.92       | 91.61    | 41.29   | 60.77        | 99.07  | 72.09     | 73.59         | 63.56 |
| 2022        | 4            | On-Peak   | 55.60         | 56.28         | 56.81         | 57.95     | 49.99          | 50.63       | 75.18    | 30.73   | 55.35        | 85.46  | 59.61     | 53.34         | 50.36 |
| 2022        | 5            | On-Peak   | 52.66         | 54.18         | 54.72         | 49.55     | 48.31          | 48.59       | 70.07    | 28.41   | 52.71        | 83.60  | 57.52     | 52.08         | 48.04 |
| 2022        | 6            | On-Peak   | 50.81         | 51.36         | 52.50         | 49.77     | 47.08          | 48.70       | 55.24    | 27.63   | 50.15        | 84.86  | 55.56     | 53.11         | 48.32 |
| 2022        | 7            | On-Peak   | 56.30         | 57.07         | 57.49         | 59.25     | 53.19          | 55.10       | 68.72    | 33.37   | 55.70        | 99.19  | 65.44     | 66.61         | 55.29 |
| 2022        | 8            | On-Peak   | 60.52         | 63.06         | 62.76         | 67.67     | 58.85          | 59.98       | 77.93    | 38.10   | 60.02        | 103.76 | 73.14     | 79.26         | 60.59 |
| 2022        | 9            | On-Peak   | 58.61         | 60.41         | 60.68         | 63.52     | 57.10          | 57.44       | 76.77    | 35.73   | 58.46        | 102.39 | 69.96     | 72.75         | 58.18 |
| 2022        | 10           | On-Peak   | 54.81         | 56.24         | 56.66         | 60.03     | 53.85          | 54.12       | 75.15    | 34.11   | 55.12        | 97.22  | 65.18     | 65.38         | 54.38 |
| 2022        | 11           | On-Peak   | 55.33         | 56.26         | 58.01         | 58.33     | 55.27          | 55.86       | 80.45    | 35.23   | 55.39        | 91.27  | 64.27     | 64.11         | 55.71 |
| 2022        | 12           | On-Peak   | 55.51         | 56.46         | 56.75         | 59.92     | 56.56          | 57.98       | 82.69    | 36.39   | 55.83        | 96.25  | 66.33     | 64.73         | 57.77 |
| 2023        | 1            | On-Peak   | 57.00         | 58.18         | 57.53         | 65.19     | 61.56          | 63.46       | 90.69    | 40.39   | 57.55        | 103.43 | 71.67     | 73.43         | 62.70 |
| 2023        | 2            | On-Peak   | 57.25         | 57.88         | 58.18         | 62.85     | 60.72          | 62.23       | 91.11    | 38.04   | 57.58        | 101.16 | 70.06     | 65.88         | 61.69 |
| 2023        | 3            | On-Peak   | 62.70         | 63.07         | 62.89         | 68.24     | 64.44          | 65.60       | 93.73    | 42.88   | 62.90        | 103.19 | 73.60     | 78.45         | 65.22 |
| 2023        | 4            | On-Peak   | 56.71         | 57.39         | 57.52         | 53.13     | 51.00          | 52.43       | 77.00    | 32.71   | 56.89        | 90.21  | 61.16     | 56.86         | 51.94 |
| 2023        | 5            | On-Peak   | 53.76         | 55.11         | 55.11         | 50.82     | 49.26          | 50.04       | 72.30    | 29.72   | 54.01        | 88.48  | 58.72     | 55.15         | 49.42 |
| 2023        | 6            | On-Peak   | 52.35         | 52.23         | 51.78         | 51.11     | 47.84          | 49.88       | 56.14    | 28.93   | 51.56        | 88.58  | 56.76     | 56.56         | 49.44 |
| 2023        | 7            | On-Peak   | 58.16         | 59.29         | 58.13         | 61.44     | 53.73          | 56.63       | 69.45    | 34.36   | 58.25        | 102.43 | 66.81     | 73.31         | 57.64 |
| 2023        | 8            | On-Peak   | 62.06         | 65.02         | 63.30         | 70.71     | 59.63          | 61.43       | 79.25    | 39.00   | 62.24        | 107.39 | 74.37     | 86.92         | 63.00 |
| 2023        | 9            | On-Peak   | 59.58         | 61.15         | 58.89         | 65.08     | 57.50          | 58.70       | 78.89    | 36.76   | 60.20        | 105.67 | 71.00     | 79.16         | 60.40 |
| 2023        | 10           | On-Peak   | 55.66         | 57.50         | 54.52         | 60.92     | 54.15          | 55.13       | 76.70    | 35.28   | 56.41        | 98.85  | 66.27     | 69.28         | 56.28 |
| 2023        | 11           | On-Peak   | 55.64         | 56.80         | 53.45         | 59.34     | 55.93          | 57.31       | 82.49    | 36.80   | 56.16        | 95.38  | 65.61     | 68.49         | 57.21 |
| 2023        | 12           | On-Peak   | 55.69         | 56.99         | 55.01         | 61.36     | 57.69          | 59.51       | 84.51    | 38.29   | 56.35        | 100.73 | 68.17     | 69.34         | 59.71 |
| 2024        | 1            | On-Peak   | 56.67         | 58.21         | 56.86         | 66.86     | 63.24          | 64.56       | 93.01    | 40.35   | 57.25        | 104.26 | 73.56     | 77.78         | 64.57 |
| 2024        | 2            | On-Peak   | 56.99         | 58.42         | 58.34         | 54.82     | 62.35          | 63.43       | 94.00    | 37.87   | 57.52        | 102.31 | 71.82     | 69.42         | 63.53 |
| 2024        | 3            | On-Peak   | 62.29         | 62.91         | 64.19         | 60.81     | 66.19          | 67.00       | 96.52    | 43.43   | 62.60        | 104.68 | 75.94     | 83.19         | 66.85 |
| 2024        | 4            | On-Peak   | 56.75         | 57.85         | 59.40         | 50.65     | 52.49          | 53.97       | 78.92    | 33.35   | 56.93        | 91.83  | 63.17     | 60.55         | 53.45 |
| 2024        | 5            | On-Peak   | 53.54         | 55.15         | 58.30         | 49.84     | 50.23          | 51.07       | 74.57    | 30.07   | 53.61        | 89.08  | 60.02     | 58.46         | 50.30 |
| 2024        | 6            | On-Peak   | 52.57         | 52.78         | 54.55         | 50.96     | 48.96          | 50.46       | 61.13    | 29.28   | 52.21        | 89.35  | 58.45     | 59.73         | 49.99 |
| 2024        | 7            | On-Peak   | 58.32         | 60.68         | 63.86         | 48.20     | 54.61          | 57.14       | 72.04    | 34.91   | 58.35        | 103.27 | 68.93     | 80.14         | 57.86 |
| 2024        | 8            | On-Peak   | 62.74         | 65.01         | 68.28         | 46.06     | 59.87          | 62.42       | 81.51    | 39.68   | 62.89        | 109.20 | 76.60     | 92.89         | 63.44 |
| 2024        | 9            | On-Peak   | 60.97         | 63.33         | 66.16         | 55.60     | 58.70          | 60.21       | 81.57    | 37.54   | 61.51        | 107.63 | 73.37     | 87.87         | 61.72 |
| 2024        | 10           | On-Peak   | 55.75         | 57.52         | 59.88         | 63.05     | 54.59          | 55.89       | 78.51    | 35.59   | 56.42        | 99.79  | 68.17     | 74.76         | 56.98 |
| 2024        | 11           | On-Peak   | 55.39         | 55.87         | 58.46         | 60.08     | 57.43          | 58.32       | 84.48    | 37.02   | 55.65        | 96.55  | 67.39     | 72.79         | 58.23 |
| 2024        | 12           | On-Peak   | 56.53         | 57.20         | 60.07         | 63.13     | 59.47          | 60.76       | 86.69    | 38.56   | 56.93        | 101.86 | 70.36     | 74.27         | 61.01 |
| 2025        | 1            | On-Peak   | 58.03         | 59.47         | 61.04         | 67.43     | 64.11          | 66.23       | 94.75    | 41.21   | 58.35        | 104.38 | 74.34     | 67.51         | 65.55 |
| 2025        | 2            | On-Peak   | 59.13         | 60.63         | 62.49         | 65.05     | 63.32          | 64.72       | 95.32    | 38.77   | 59.16        | 102.82 | 73.02     | 65.15         | 64.46 |
| 2025        | 3            | On-Peak   | 64.62         | 66.62         | 68.13         | 70.35     | 67.24          | 68.15       | 98.48    | 44.19   | 64.73        | 105.06 | 76.78     | 70.43         | 67.68 |
| 2025        | 4            | On-Peak   | 59.37         | 59.91         | 60.71         | 55.29     | 53.77          | 55.38       | 80.29    | 34.37   | 59.02        | 92.55  | 64.61     | 55.31         | 54.97 |
| 2025        | 5            | On-Peak   | 56.34         | 57.82         | 58.26         | 52.51     | 51.06          | 52.35       | 75.84    | 31.10   | 56.13        | 90.05  | 60.75     | 52.59         | 51.37 |
| 2025        | 6            | On-Peak   | 54.98         | 55.66         | 54.96         | 52.69     | 50.23          | 51.43       | 64.06    | 29.68   | 54.91        | 90.39  | 59.71     | 52.82         | 50.86 |
| 2025        | 7            | On-Peak   | 59.08         | 62.07         | 63.69         | 62.69     | 54.73          | 57.36       | 73.38    | 35.82   | 58.94        | 103.59 | 67.99     | 62.76         | 57.74 |
| 2025        | 8            | On-Peak   | 64.77         | 66.40         | 67.19         | 72.67     | 60.63          | 63.13       | 82.80    | 41.57   | 65.14        | 110.14 | 76.27     | 72.64         | 64.09 |
| 2025        | 9            | On-Peak   | 62.26         | 64.56         | 65.57         | 67.15     | 58.36          | 60.15       | 82.34    | 38.41   | 63.05        | 107.36 | 72.27     | 67.16         | 61.21 |
| 2025        | 10           | On-Peak   | 58.51         | 59.51         | 61.64         | 61.65     | 54.63          | 56.64       | 79.88    | 36.35   | 59.24        | 98.83  | 67.40     | 61.63         | 57.13 |
| 2025        | 11           | On-Peak   | 58.23         | 58.90         | 61.31         | 61.43     | 58.41          | 59.34       | 86.47    | 37.78   | 58.63        | 97.03  | 68.11     | 61.46         | 59.01 |
| 2025        | 12           | On-Peak   | 58.88         | 59.96         | 63.43         | 63.44     | 60.36          | 61.83       | 88.66    | 39.09   | 59.59        | 101.63 | 71.01     | 63.38         | 61.72 |
| 2026        | 1            | On-Peak   | 60.44         | 60.68         | 62.86         | 69.25     | 65.36          | 66.45       | 97.45    | 41.24   | 61.16        | 107.15 | 75.59     | 70.60         | 65.65 |
| 2026        | 2            | On-Peak   | 60.75         | 61.65         | 62.76         | 66.66     | 64.43          | 65.16       | 97.53    | 39.02   | 61.22        | 105.40 | 74.10     | 67.29         | 64.82 |
| 2026        | 3            | On-Peak   | 66.52         | 69.45         | 70.03         | 72.33     | 68.64          | 68.95       | 100.65   | 44.92   | 66.86        | 108.04 | 78.38     | 73.97         | 68.59 |
| 2026        | 4            | On-Peak   | 61.67         | 61.73         | 61.10         | 56.55     | 54.89          | 55.85       | 82.10    | 34.61   | 61.65        | 95.30  | 65.70     | 57.33         | 54.67 |
| 2026        | 5            | On-Peak   | 57.67         | 59.41         | 58.63         | 53.95     | 52.14          | 52.65       | 77.95    | 31.91   | 57.62        | 92.79  | 61.47     | 54.81         | 51.70 |
| 2026        | 6            | On-Peak   | 55.59         | 56.56         | 56.04         | 53.99     | 51.07          | 52.13       | 65.73    | 30.18   | 55.75        | 92.57  | 61.24     | 55.07         | 51.73 |
| 2026        | 7            | On-Peak   | 60.29         | 62.73         | 62.93         | 64.87     | 55.79          | 57.31       | 75.49    | 36.08   | 60.53        | 106.21 | 69.48     | 67.31         | 57.80 |
| 2026        | 8            | On-Peak   | 66.20         | 67.88         | 67.60         | 76.41     | 61.79          | 63.09       | 84.97    | 41.27   | 66.75        | 112.72 | 77.81     | 80.87         | 63.72 |
| 2026        | 9            | On-Peak   | 63.88         | 65.91         | 64.86         | 69.69     | 59.37          | 59.92       | 83.24    | 38.37   | 64.79        | 109.70 | 73.14     | 72.10         | 61.00 |
| 2026        | 10           | On-Peak   | 59.50         | 60.00         | 59.33         | 63.59     | 55.33          | 55.90       | 81.33    | 36.56   | 60.38        | 101.02 | 68.32     |               |       |

## Off-Peak Mid Columbia Prices

| Report Year | Report Month | Condition | Base Case-Det | Base Case-Stc | Base Case-Vol | Avoided Cost Case | Low Tx Capital | Hydro Shift | High Gas | Low Gas | 5000 MW |       |       | Boom-Bust | High Coal Esc |
|-------------|--------------|-----------|---------------|---------------|---------------|-------------------|----------------|-------------|----------|---------|---------|-------|-------|-----------|---------------|
|             |              |           |               |               |               |                   |                |             |          |         | Wind    | EIA   | NCEP  |           |               |
| 2007        | 1            | Off-Peak  | 48.33         | 46.34         | 47.70         | 51.20             | 50.09          | 53.92       | 73.27    | 25.35   | 45.64   | 50.99 | 51.69 | 52.29     | 50.77         |
| 2007        | 2            | Off-Peak  | 46.58         | 45.47         | 46.00         | 48.89             | 48.33          | 50.28       | 70.68    | 23.82   | 44.31   | 48.33 | 49.40 | 49.25     | 48.76         |
| 2007        | 3            | Off-Peak  | 53.01         | 52.08         | 54.09         | 54.78             | 54.03          | 55.16       | 75.98    | 27.08   | 51.80   | 54.07 | 54.24 | 55.16     | 54.02         |
| 2007        | 4            | Off-Peak  | 44.41         | 45.61         | 47.83         | 40.37             | 39.74          | 41.65       | 60.96    | 20.04   | 42.61   | 40.16 | 40.64 | 40.91     | 40.32         |
| 2007        | 5            | Off-Peak  | 40.02         | 39.08         | 40.61         | 35.49             | 35.99          | 38.11       | 47.71    | 18.02   | 33.24   | 35.74 | 36.23 | 36.64     | 36.30         |
| 2007        | 6            | Off-Peak  | 26.88         | 29.48         | 29.57         | 25.19             | 25.19          | 31.62       | 28.30    | 15.80   | 20.70   | 25.29 | 25.49 | 25.32     | 25.18         |
| 2007        | 7            | Off-Peak  | 41.01         | 44.40         | 44.76         | 39.48             | 38.15          | 41.10       | 54.55    | 19.93   | 36.60   | 38.21 | 39.29 | 39.99     | 38.04         |
| 2007        | 8            | Off-Peak  | 46.55         | 49.54         | 50.19         | 45.45             | 44.18          | 46.50       | 60.67    | 22.44   | 43.34   | 44.09 | 44.73 | 46.12     | 43.34         |
| 2007        | 9            | Off-Peak  | 47.91         | 50.00         | 49.47         | 46.38             | 45.74          | 46.66       | 64.68    | 22.94   | 45.22   | 45.70 | 45.83 | 46.98     | 45.39         |
| 2007        | 10           | Off-Peak  | 47.54         | 49.81         | 48.20         | 46.08             | 45.22          | 46.18       | 65.88    | 22.81   | 46.08   | 44.97 | 45.06 | 46.52     | 44.83         |
| 2007        | 11           | Off-Peak  | 45.52         | 48.06         | 47.85         | 46.51             | 45.38          | 47.33       | 67.63    | 23.10   | 44.53   | 45.15 | 44.66 | 46.92     | 44.89         |
| 2007        | 12           | Off-Peak  | 44.55         | 46.94         | 46.19         | 47.48             | 46.10          | 48.60       | 69.84    | 23.59   | 42.80   | 46.44 | 45.70 | 47.95     | 45.38         |
| 2008        | 1            | Off-Peak  | 43.69         | 43.33         | 42.90         | 45.88             | 44.82          | 48.24       | 66.41    | 23.31   | 41.67   | 45.38 | 44.85 | 47.09     | 45.09         |
| 2008        | 2            | Off-Peak  | 42.97         | 42.51         | 42.56         | 45.73             | 44.17          | 45.30       | 67.06    | 21.90   | 41.77   | 44.05 | 44.78 | 44.80     | 43.72         |
| 2008        | 3            | Off-Peak  | 48.86         | 47.66         | 47.58         | 50.03             | 47.81          | 50.29       | 70.01    | 25.14   | 48.01   | 48.82 | 50.01 | 51.24     | 47.47         |
| 2008        | 4            | Off-Peak  | 41.46         | 42.44         | 42.76         | 35.86             | 35.04          | 38.66       | 56.57    | 18.31   | 39.50   | 36.08 | 37.06 | 37.41     | 36.23         |
| 2008        | 5            | Off-Peak  | 36.74         | 37.22         | 37.52         | 34.19             | 33.60          | 35.66       | 45.02    | 16.68   | 33.86   | 33.45 | 33.67 | 34.36     | 33.86         |
| 2008        | 6            | Off-Peak  | 28.24         | 29.97         | 30.15         | 26.20             | 26.29          | 31.41       | 29.01    | 15.49   | 22.61   | 25.96 | 26.10 | 26.86     | 26.38         |
| 2008        | 7            | Off-Peak  | 39.03         | 40.94         | 41.74         | 37.95             | 36.40          | 37.71       | 50.51    | 19.43   | 35.65   | 36.01 | 35.98 | 39.11     | 36.24         |
| 2008        | 8            | Off-Peak  | 43.89         | 46.06         | 47.37         | 44.00             | 41.78          | 42.44       | 56.13    | 21.94   | 41.45   | 41.25 | 41.55 | 44.82     | 41.45         |
| 2008        | 9            | Off-Peak  | 43.64         | 46.04         | 47.60         | 43.47             | 41.64          | 42.06       | 59.83    | 21.65   | 41.14   | 41.68 | 41.72 | 44.24     | 41.50         |
| 2008        | 10           | Off-Peak  | 43.25         | 44.86         | 45.89         | 43.27             | 41.97          | 42.20       | 60.14    | 21.73   | 41.60   | 41.62 | 41.91 | 43.91     | 41.51         |
| 2008        | 11           | Off-Peak  | 41.67         | 43.59         | 44.11         | 44.02             | 42.82          | 43.38       | 61.80    | 22.15   | 40.48   | 42.28 | 42.42 | 44.90     | 41.92         |
| 2008        | 12           | Off-Peak  | 39.49         | 42.11         | 42.01         | 44.44             | 42.69          | 43.39       | 61.82    | 22.56   | 39.07   | 42.17 | 42.35 | 45.73     | 41.99         |
| 2009        | 1            | Off-Peak  | 41.68         | 40.02         | 39.31         | 43.45             | 43.67          | 43.53       | 63.96    | 22.31   | 38.46   | 42.00 | 42.50 | 45.48     | 41.74         |
| 2009        | 2            | Off-Peak  | 39.93         | 41.17         | 41.35         | 41.90             | 41.03          | 42.43       | 62.08    | 21.15   | 39.55   | 42.24 | 41.29 | 42.79     | 41.57         |
| 2009        | 3            | Off-Peak  | 45.42         | 46.45         | 46.43         | 46.63             | 45.57          | 47.03       | 66.07    | 23.89   | 44.47   | 45.93 | 44.92 | 48.27     | 43.99         |
| 2009        | 4            | Off-Peak  | 38.20         | 40.31         | 40.32         | 33.92             | 34.21          | 35.47       | 54.43    | 17.59   | 36.95   | 34.54 | 33.76 | 35.44     | 33.85         |
| 2009        | 5            | Off-Peak  | 36.05         | 35.92         | 36.40         | 32.57             | 32.58          | 33.51       | 49.98    | 16.35   | 33.15   | 32.13 | 31.93 | 32.85     | 32.43         |
| 2009        | 6            | Off-Peak  | 27.18         | 28.64         | 28.73         | 25.56             | 25.48          | 30.13       | 29.88    | 15.09   | 22.80   | 25.75 | 25.59 | 26.13     | 25.48         |
| 2009        | 7            | Off-Peak  | 37.38         | 39.18         | 39.69         | 36.56             | 35.39          | 36.46       | 48.12    | 18.98   | 33.99   | 34.95 | 34.92 | 38.41     | 34.75         |
| 2009        | 8            | Off-Peak  | 41.68         | 43.64         | 44.13         | 41.87             | 40.40          | 40.61       | 55.35    | 20.78   | 38.95   | 40.10 | 39.81 | 42.96     | 39.37         |
| 2009        | 9            | Off-Peak  | 41.22         | 43.49         | 43.07         | 41.30             | 40.12          | 40.28       | 55.25    | 20.78   | 39.52   | 39.58 | 39.56 | 42.19     | 39.24         |
| 2009        | 10           | Off-Peak  | 40.49         | 42.14         | 42.92         | 40.82             | 39.77          | 39.99       | 59.12    | 20.77   | 39.36   | 39.49 | 39.40 | 41.85     | 39.20         |
| 2009        | 11           | Off-Peak  | 39.39         | 41.22         | 41.41         | 32.65             | 41.24          | 41.53       | 60.10    | 21.49   | 38.32   | 40.68 | 40.45 | 42.99     | 39.94         |
| 2009        | 12           | Off-Peak  | 38.23         | 40.67         | 40.14         | 30.71             | 41.35          | 42.13       | 60.65    | 22.03   | 36.90   | 40.72 | 40.33 | 44.26     | 40.33         |
| 2010        | 1            | Off-Peak  | 38.09         | 39.52         | 38.46         | 48.98             | 41.05          | 42.46       | 61.65    | 21.96   | 37.26   | 50.98 | 44.86 | 43.47     | 40.30         |
| 2010        | 2            | Off-Peak  | 37.86         | 39.34         | 37.87         | 49.25             | 40.44          | 40.67       | 60.16    | 20.68   | 36.84   | 48.06 | 42.23 | 40.38     | 39.65         |
| 2010        | 3            | Off-Peak  | 43.32         | 44.02         | 42.65         | 50.57             | 44.47          | 44.69       | 61.96    | 22.84   | 42.67   | 52.33 | 46.44 | 44.58     | 43.34         |
| 2010        | 4            | Off-Peak  | 36.42         | 38.81         | 37.91         | 47.90             | 32.77          | 33.53       | 50.33    | 17.18   | 35.67   | 42.71 | 35.60 | 32.69     | 32.90         |
| 2010        | 5            | Off-Peak  | 34.18         | 34.98         | 34.05         | 53.47             | 30.73          | 32.37       | 45.79    | 15.80   | 31.67   | 40.96 | 33.53 | 30.78     | 30.98         |
| 2010        | 6            | Off-Peak  | 27.25         | 28.32         | 27.09         | 25.64             | 25.38          | 29.39       | 30.47    | 14.63   | 22.84   | 39.61 | 29.33 | 25.71     | 25.71         |
| 2010        | 7            | Off-Peak  | 35.95         | 37.88         | 35.87         | 35.14             | 33.96          | 35.66       | 48.36    | 18.13   | 32.84   | 44.58 | 37.11 | 35.19     | 33.64         |
| 2010        | 8            | Off-Peak  | 39.53         | 41.75         | 40.24         | 39.71             | 38.38          | 38.85       | 53.26    | 19.93   | 37.81   | 48.18 | 40.79 | 39.72     | 37.86         |
| 2010        | 9            | Off-Peak  | 39.65         | 41.47         | 40.14         | 39.59             | 38.26          | 38.40       | 54.21    | 20.06   | 38.27   | 48.04 | 40.80 | 39.55     | 37.84         |
| 2010        | 10           | Off-Peak  | 38.74         | 40.63         | 39.47         | 39.18             | 38.09          | 38.19       | 55.62    | 20.19   | 37.55   | 47.80 | 40.66 | 39.18     | 37.71         |
| 2010        | 11           | Off-Peak  | 37.96         | 39.24         | 38.42         | 39.71             | 39.35          | 39.54       | 57.06    | 20.37   | 37.03   | 47.78 | 41.06 | 39.70     | 38.56         |
| 2010        | 12           | Off-Peak  | 37.46         | 39.37         | 38.87         | 41.31             | 40.00          | 40.80       | 58.24    | 20.92   | 36.31   | 48.74 | 41.76 | 41.37     | 39.43         |
| 2011        | 1            | Off-Peak  | 37.00         | 37.98         | 37.14         | 44.41             | 42.64          | 43.67       | 63.54    | 22.76   | 35.74   | 52.26 | 45.48 | 44.57     | 42.03         |
| 2011        | 2            | Off-Peak  | 37.33         | 38.83         | 37.09         | 42.35             | 41.33          | 42.75       | 61.05    | 21.53   | 37.26   | 50.46 | 43.40 | 42.18     | 41.57         |
| 2011        | 3            | Off-Peak  | 43.03         | 43.60         | 41.76         | 46.10             | 45.52          | 45.96       | 64.46    | 23.43   | 42.57   | 54.01 | 47.43 | 46.00     | 45.53         |
| 2011        | 4            | Off-Peak  | 36.39         | 39.17         | 37.53         | 34.41             | 34.33          | 34.92       | 52.56    | 17.76   | 36.27   | 45.12 | 35.96 | 34.69     | 34.85         |
| 2011        | 5            | Off-Peak  | 34.65         | 35.56         | 33.99         | 32.12             | 31.89          | 33.41       | 46.95    | 16.35   | 33.29   | 43.13 | 34.54 | 32.12     | 31.93         |
| 2011        | 6            | Off-Peak  | 29.55         | 29.68         | 28.03         | 26.99             | 26.85          | 31.21       | 32.85    | 15.17   | 24.25   | 41.64 | 30.42 | 27.26     | 27.28         |
| 2011        | 7            | Off-Peak  | 37.49         | 39.14         | 37.97         | 36.96             | 35.12          | 36.83       | 50.86    | 18.79   | 34.70   | 47.10 | 38.09 | 37.02     | 34.80         |
| 2011        | 8            | Off-Peak  | 40.45         | 42.06         | 41.38         | 40.37             | 38.79          | 39.08       | 55.98    | 20.20   | 38.77   | 49.93 | 41.23 | 40.46     | 38.35         |
| 2011        | 9            | Off-Peak  | 40.67         | 42.08         | 40.97         | 40.49             | 38.91          | 39.04       | 55.65    | 20.51   | 39.42   | 49.84 | 41.53 | 40.42     | 38.51         |
| 2011        | 10           | Off-Peak  | 40.01         | 41.90         | 42.12         | 40.07             | 38.70          | 38.80       | 57.26    | 20.44   | 38.95   | 49.41 | 41.44 | 40.03     | 38.35         |
| 2011        | 11           | Off-Peak  | 39.16         | 40.01         | 40.14         | 40.72             | 40.16          | 40.20       | 58.84    | 20.71   | 38.02   | 49.62 | 41.92 | 40.59     | 39.59         |
| 2011        | 12           | Off-Peak  | 38.91         | 39.76         | 39.67         | 42.38             | 41.13          | 41.82       | 61.46    | 21.43   | 37.30   | 50.97 | 43.04 | 42.36     | 40.54         |
| 2012        | 1            | Off-Peak  | 36.68         | 35.51         | 35.35         | 43.69             | 40.44          | 43.36       | 37.20    | 23.86   | 34.98   | 55.48 | 46.71 | 47.04     | 42.46         |
| 2012        | 2            | Off-Peak  | 37.15         | 35.49         | 35.06         | 41.43             | 39.98          | 41.36       | 35.62    | 22.74   | 36.31   | 52.56 | 45.88 | 44.24     | 41.36         |
| 2012        | 3            | Off-Peak  | 43.01         | 42.14         | 41.37         | 46.31             | 44.72          | 45.68       | 58.16    | 24.47   | 41.06   | 56.10 | 49.43 | 47.81     | 45.01         |
| 2012        | 4            | Off-Peak  | 36.88         | 37.05         | 36.65         | 35.21             | 33.59          | 35.07       | 35.94    | 18.65   | 35.72   | 48.08 | 38.30 | 36.29     | 34.19         |
| 2012        | 5            | Off-Peak  | 31.20         | 31.61         | 31.21         | 31.63             | 28.50          | 32.03       | 25.14    | 17.03   | 28.11   | 45.08 | 35.71 | 33.24     | 30.81         |
| 2012        | 6            | Off-Peak  | 22.74         | 23.98         | 23.65         | 24.19             | 21.13          | 26.10       | 17.25    | 15.94   | 19.39   | 44.03 | 33.03 | 29.98     | 23.97         |
| 2012        | 7            | Off-Peak  | 32.88         | 35.47         | 35.64         | 35.11             | 30.88          | 33.52       | 29.70    | 19.46   | 30.79   | 49.88 | 39.92 | 38.96     | 33.02         |
| 2012        | 8            | Off-Peak  | 37.23         | 39.38         | 40.91         | 40.32             | 35.49          | 37.87       | 37.15    | 21.09   | 35.14   | 52.54 | 42.73 | 41.78     | 36.98         |
| 2012        | 9            | Off-Peak  | 38.23         | 40.78         | 41.91         | 52.61             | 37.19          | 38.10       | 44.04    | 21.42   | 37.26   | 52.61 | 42.96 | 42.24     | 38.07         |
| 2012        | 10           | Off-Peak  | 37.75         | 39.70         | 40.91         | 38.68             | 37.56          | 37.95       | 46.03    | 21.07   | 37.36   | 51.46 | 42.54 | 41.25     | 37.84         |
| 2012        | 11           | Off-Peak  | 37.02         | 38.85         | 39.87         | 36.00             | 38.75          | 39.36       | 54.05    | 21.53   | 36.65   | 52.09 | 43.29 | 41.99     | 39.30         |
| 2012        | 12           | Off-Peak  | 36.48         | 38.74         | 38.65         | 49.88             | 39.08          | 40.45       | 51.97    | 22.38   | 35.94   | 53.80 | 44.73 | 44.08     | 39.78         |
| 2013        | 1            | Off-Peak  | 36.07         | 34.79         | 34.80         | 48.29             | 37.38          | 43.23       | 25.11    | 24.26   | 33.37   | 56.83 | 47.72 | 48.96     | 40.84         |
| 2013        | 2            | Off-Peak  | 36.19         | 36.10         | 35.94         | 49.17             | 36.63          | 42.75       | 26.76    | 23.34   | 35.95   | 55.30 | 45.56 | 46.36     | 40.89         |
| 2013        | 3            | Off-Peak  | 42.87         | 42.88         | 42.63         | 53.94             | 43.94          | 46.69       | 54.50    | 25.35   | 42.37   | 58.71 | 50.69 | 49.68     | 45.93         |
| 2013        | 4            | Off-Peak  | 36.70         | 37.02         | 37.03         | 50.34             | 31.99          | 34.53       | 26.67    | 18.98   | 35.04   | 50.   |       |           |               |

## Off-Peak Mid Columbia Prices

| Report Year | Report Month | Condition | Base Case-Det | Base Case-Stc | Base Case-Vol | Avoided Cost Case | Low Tx Capital | Hydro Shift | High Gas | Low Gas | 5000 MW |       |       | Boom-Bust | High Coal Esc |
|-------------|--------------|-----------|---------------|---------------|---------------|-------------------|----------------|-------------|----------|---------|---------|-------|-------|-----------|---------------|
|             |              |           |               |               |               |                   |                |             |          |         | Wind    | EIA   | NCEP  |           |               |
| 2013        | 11           | Off-Peak  | 37.43         | 39.92         | 40.06         | 42.20             | 38.47          | 39.97       | 49.81    | 22.19   | 37.02   | 54.29 | 44.58 | 43.60     | 39.57         |
| 2013        | 12           | Off-Peak  | 37.67         | 39.49         | 39.51         | 43.71             | 38.90          | 41.56       | 40.02    | 23.20   | 36.88   | 55.89 | 46.25 | 45.82     | 40.23         |
| 2014        | 1            | Off-Peak  | 35.78         | 36.11         | 36.29         | 43.22             | 37.90          | 44.62       | 25.79    | 25.16   | 34.62   | 59.34 | 49.49 | 51.23     | 41.42         |
| 2014        | 2            | Off-Peak  | 37.73         | 36.75         | 36.94         | 43.42             | 37.91          | 44.39       | 27.11    | 24.19   | 36.28   | 58.31 | 47.80 | 48.97     | 42.38         |
| 2014        | 3            | Off-Peak  | 43.37         | 44.25         | 44.37         | 49.15             | 45.94          | 47.98       | 56.03    | 26.26   | 42.84   | 61.08 | 52.35 | 51.80     | 47.44         |
| 2014        | 4            | Off-Peak  | 36.53         | 38.18         | 38.02         | 35.43             | 32.02          | 35.75       | 27.37    | 19.78   | 35.99   | 53.75 | 40.42 | 40.18     | 34.76         |
| 2014        | 5            | Off-Peak  | 31.60         | 32.43         | 32.22         | 31.54             | 26.12          | 32.39       | 19.76    | 18.42   | 27.89   | 50.94 | 38.12 | 37.12     | 31.00         |
| 2014        | 6            | Off-Peak  | 23.42         | 25.52         | 25.16         | 24.12             | 20.43          | 25.38       | 16.78    | 17.34   | 20.10   | 49.31 | 36.96 | 33.31     | 24.23         |
| 2014        | 7            | Off-Peak  | 32.95         | 35.90         | 35.33         | 33.46             | 29.03          | 34.38       | 22.75    | 20.79   | 29.94   | 55.11 | 42.94 | 42.40     | 33.34         |
| 2014        | 8            | Off-Peak  | 38.23         | 41.42         | 41.36         | 41.41             | 34.72          | 39.22       | 30.91    | 22.90   | 34.95   | 57.95 | 46.24 | 46.23     | 37.55         |
| 2014        | 9            | Off-Peak  | 39.11         | 41.75         | 42.42         | 41.92             | 37.21          | 40.06       | 36.71    | 22.61   | 36.72   | 57.18 | 45.71 | 45.60     | 39.32         |
| 2014        | 10           | Off-Peak  | 38.51         | 40.84         | 42.92         | 41.43             | 37.78          | 39.82       | 36.29    | 22.69   | 37.92   | 56.38 | 45.38 | 45.26     | 39.21         |
| 2014        | 11           | Off-Peak  | 38.15         | 40.98         | 42.48         | 43.15             | 39.85          | 40.84       | 49.08    | 23.25   | 37.74   | 57.21 | 46.63 | 45.91     | 40.19         |
| 2014        | 12           | Off-Peak  | 37.19         | 40.14         | 40.40         | 43.98             | 39.63          | 42.03       | 38.88    | 23.83   | 36.65   | 58.62 | 47.88 | 47.80     | 40.64         |
| 2015        | 1            | Off-Peak  | 36.09         | 35.85         | 35.79         | 43.57             | 39.15          | 46.64       | 25.37    | 25.50   | 35.13   | 63.35 | 51.18 | 43.15     | 45.43         |
| 2015        | 2            | Off-Peak  | 37.80         | 37.55         | 38.07         | 43.43             | 39.64          | 46.30       | 27.00    | 24.86   | 36.70   | 62.52 | 48.79 | 42.59     | 44.25         |
| 2015        | 3            | Off-Peak  | 43.88         | 46.07         | 46.58         | 49.57             | 46.70          | 48.43       | 55.72    | 26.73   | 43.63   | 64.57 | 53.61 | 49.71     | 48.53         |
| 2015        | 4            | Off-Peak  | 37.43         | 38.50         | 39.91         | 35.39             | 33.99          | 37.46       | 27.71    | 20.28   | 36.28   | 57.10 | 41.19 | 35.84     | 35.75         |
| 2015        | 5            | Off-Peak  | 32.38         | 33.19         | 34.45         | 31.25             | 27.82          | 34.08       | 21.73    | 18.90   | 28.78   | 54.12 | 39.92 | 31.75     | 33.01         |
| 2015        | 6            | Off-Peak  | 22.69         | 25.83         | 26.66         | 23.05             | 20.32          | 25.82       | 15.65    | 17.80   | 19.55   | 52.68 | 37.76 | 23.09     | 24.30         |
| 2015        | 7            | Off-Peak  | 33.28         | 38.23         | 39.44         | 51.95             | 30.09          | 35.13       | 22.24    | 21.17   | 30.10   | 58.53 | 44.13 | 32.84     | 35.15         |
| 2015        | 8            | Off-Peak  | 40.13         | 43.89         | 44.51         | 43.13             | 35.62          | 40.80       | 30.22    | 23.27   | 35.80   | 61.40 | 47.65 | 42.15     | 39.06         |
| 2015        | 9            | Off-Peak  | 40.81         | 43.50         | 44.53         | 56.80             | 38.26          | 41.21       | 33.59    | 23.12   | 37.51   | 61.03 | 47.02 | 42.83     | 40.36         |
| 2015        | 10           | Off-Peak  | 39.73         | 42.43         | 43.75         | 41.50             | 39.12          | 41.05       | 36.47    | 22.88   | 38.54   | 59.70 | 46.83 | 42.46     | 40.57         |
| 2015        | 11           | Off-Peak  | 38.92         | 42.29         | 44.25         | 56.77             | 41.19          | 41.85       | 54.34    | 23.70   | 38.18   | 60.30 | 47.69 | 44.66     | 41.08         |
| 2015        | 12           | Off-Peak  | 38.36         | 41.30         | 43.32         | 53.19             | 41.13          | 43.77       | 40.82    | 24.49   | 37.51   | 62.03 | 49.55 | 45.58     | 42.22         |
| 2016        | 1            | Off-Peak  | 37.90         | 37.79         | 38.80         | 52.62             | 41.32          | 47.31       | 28.45    | 26.71   | 37.49   | 67.02 | 53.47 | 46.60     | 46.14         |
| 2016        | 2            | Off-Peak  | 39.98         | 38.45         | 39.83         | 53.03             | 41.87          | 48.10       | 28.18    | 25.86   | 38.96   | 65.68 | 51.56 | 43.91     | 45.24         |
| 2016        | 3            | Off-Peak  | 46.39         | 46.44         | 48.27         | 57.90             | 46.75          | 50.14       | 57.05    | 27.57   | 45.69   | 67.67 | 55.53 | 51.66     | 48.95         |
| 2016        | 4            | Off-Peak  | 40.04         | 39.74         | 41.48         | 37.12             | 34.49          | 38.00       | 29.25    | 21.12   | 38.57   | 60.86 | 43.49 | 37.83     | 36.88         |
| 2016        | 5            | Off-Peak  | 33.25         | 33.62         | 34.55         | 32.45             | 28.97          | 34.86       | 22.74    | 19.70   | 29.53   | 57.00 | 41.73 | 34.07     | 34.13         |
| 2016        | 6            | Off-Peak  | 23.48         | 25.31         | 25.82         | 23.90             | 21.31          | 26.75       | 16.22    | 18.57   | 20.69   | 55.91 | 39.62 | 25.14     | 25.36         |
| 2016        | 7            | Off-Peak  | 34.63         | 38.75         | 39.72         | 34.04             | 32.11          | 36.87       | 24.94    | 22.28   | 32.17   | 62.56 | 45.77 | 36.02     | 35.84         |
| 2016        | 8            | Off-Peak  | 40.99         | 44.29         | 45.58         | 41.55             | 36.93          | 41.56       | 29.39    | 23.89   | 36.60   | 64.57 | 48.38 | 43.59     | 39.54         |
| 2016        | 9            | Off-Peak  | 42.80         | 44.90         | 45.20         | 44.09             | 40.57          | 42.37       | 33.62    | 24.07   | 40.40   | 64.59 | 48.40 | 44.91     | 41.79         |
| 2016        | 10           | Off-Peak  | 41.48         | 44.22         | 44.32         | 43.53             | 41.07          | 42.32       | 36.81    | 24.12   | 40.71   | 63.49 | 47.97 | 44.50     | 41.95         |
| 2016        | 11           | Off-Peak  | 40.21         | 43.53         | 44.19         | 45.13             | 41.91          | 43.09       | 54.12    | 24.38   | 39.83   | 63.17 | 48.94 | 46.06     | 41.93         |
| 2016        | 12           | Off-Peak  | 39.18         | 43.18         | 44.04         | 46.67             | 42.80          | 44.85       | 40.63    | 25.56   | 39.07   | 65.22 | 50.95 | 47.66     | 43.46         |
| 2017        | 1            | Off-Peak  | 39.00         | 40.60         | 41.35         | 46.72             | 43.72          | 48.27       | 29.62    | 27.26   | 38.91   | 71.32 | 54.98 | 49.55     | 48.01         |
| 2017        | 2            | Off-Peak  | 40.02         | 39.80         | 40.05         | 46.87             | 43.57          | 48.39       | 29.21    | 26.59   | 39.57   | 70.38 | 53.06 | 47.48     | 46.93         |
| 2017        | 3            | Off-Peak  | 46.85         | 47.54         | 48.52         | 52.36             | 49.05          | 50.97       | 58.86    | 28.12   | 46.28   | 71.36 | 56.98 | 53.97     | 51.14         |
| 2017        | 4            | Off-Peak  | 40.66         | 41.83         | 43.17         | 38.91             | 37.98          | 39.40       | 31.68    | 21.70   | 39.49   | 64.44 | 44.73 | 40.99     | 38.81         |
| 2017        | 5            | Off-Peak  | 34.47         | 35.51         | 34.73         | 33.38             | 29.57          | 35.94       | 21.10    | 19.99   | 30.84   | 60.76 | 42.38 | 35.63     | 35.13         |
| 2017        | 6            | Off-Peak  | 24.52         | 27.98         | 27.58         | 25.51             | 22.14          | 27.49       | 16.42    | 19.08   | 22.34   | 59.04 | 40.96 | 27.21     | 27.03         |
| 2017        | 7            | Off-Peak  | 36.25         | 40.24         | 39.21         | 35.79             | 33.15          | 37.54       | 25.68    | 22.59   | 34.08   | 65.72 | 47.47 | 38.58     | 38.27         |
| 2017        | 8            | Off-Peak  | 43.23         | 45.53         | 44.23         | 43.53             | 38.59          | 41.84       | 30.27    | 24.21   | 39.32   | 68.31 | 49.46 | 46.19     | 41.67         |
| 2017        | 9            | Off-Peak  | 43.77         | 45.61         | 44.86         | 45.06             | 42.80          | 43.13       | 35.43    | 24.26   | 42.44   | 68.77 | 49.51 | 47.02     | 43.26         |
| 2017        | 10           | Off-Peak  | 42.64         | 45.35         | 46.23         | 44.59             | 42.57          | 43.24       | 37.75    | 24.33   | 41.91   | 67.75 | 49.11 | 46.29     | 43.27         |
| 2017        | 11           | Off-Peak  | 40.92         | 44.46         | 45.01         | 46.12             | 43.92          | 44.56       | 54.34    | 24.87   | 40.67   | 67.26 | 50.49 | 47.80     | 43.75         |
| 2017        | 12           | Off-Peak  | 41.19         | 44.61         | 44.81         | 47.72             | 43.92          | 46.06       | 43.03    | 26.21   | 41.31   | 69.37 | 52.54 | 50.12     | 45.68         |
| 2018        | 1            | Off-Peak  | 41.80         | 40.74         | 41.09         | 47.94             | 42.98          | 48.39       | 30.61    | 27.93   | 40.85   | 75.02 | 56.14 | 52.36     | 48.35         |
| 2018        | 2            | Off-Peak  | 41.76         | 41.14         | 40.73         | 47.53             | 43.94          | 48.06       | 32.26    | 27.28   | 42.55   | 74.39 | 53.91 | 50.18     | 47.54         |
| 2018        | 3            | Off-Peak  | 47.86         | 48.76         | 49.06         | 53.64             | 50.45          | 52.23       | 62.44    | 29.19   | 49.32   | 75.19 | 58.63 | 56.22     | 52.82         |
| 2018        | 4            | Off-Peak  | 43.98         | 43.66         | 43.42         | 40.25             | 38.33          | 40.15       | 33.39    | 22.52   | 41.78   | 67.16 | 45.96 | 42.92     | 40.45         |
| 2018        | 5            | Off-Peak  | 37.55         | 37.03         | 37.76         | 37.10             | 30.31          | 36.13       | 22.41    | 20.72   | 33.51   | 63.35 | 43.57 | 38.01     | 37.31         |
| 2018        | 6            | Off-Peak  | 26.73         | 27.59         | 27.50         | 53.61             | 21.82          | 28.07       | 16.13    | 19.77   | 23.64   | 62.06 | 41.73 | 29.67     | 29.11         |
| 2018        | 7            | Off-Peak  | 37.54         | 41.00         | 41.63         | 57.02             | 32.96          | 37.52       | 27.15    | 23.24   | 35.06   | 68.89 | 48.11 | 41.20     | 39.34         |
| 2018        | 8            | Off-Peak  | 44.27         | 46.07         | 46.11         | 44.73             | 37.50          | 40.51       | 31.39    | 24.94   | 40.87   | 71.14 | 50.85 | 48.51     | 43.59         |
| 2018        | 9            | Off-Peak  | 44.40         | 46.81         | 46.18         | 55.80             | 41.42          | 43.37       | 37.17    | 25.18   | 43.66   | 72.25 | 50.86 | 49.42     | 44.53         |
| 2018        | 10           | Off-Peak  | 43.05         | 45.42         | 44.74         | 64.22             | 41.46          | 42.77       | 37.43    | 24.69   | 42.68   | 70.37 | 50.09 | 47.81     | 43.86         |
| 2018        | 11           | Off-Peak  | 41.62         | 44.70         | 43.63         | 61.84             | 43.32          | 44.21       | 60.62    | 25.59   | 41.11   | 70.73 | 51.75 | 49.75     | 45.07         |
| 2018        | 12           | Off-Peak  | 42.14         | 45.00         | 44.00         | 57.44             | 45.23          | 46.32       | 46.37    | 27.04   | 42.00   | 73.65 | 53.83 | 52.31     | 46.82         |
| 2019        | 1            | Off-Peak  | 43.67         | 44.07         | 42.80         | 55.96             | 46.44          | 50.56       | 31.32    | 28.53   | 43.34   | 79.53 | 58.21 | 55.93     | 50.54         |
| 2019        | 2            | Off-Peak  | 44.40         | 44.84         | 43.81         | 49.19             | 46.84          | 50.42       | 34.19    | 28.22   | 45.09   | 79.10 | 55.89 | 53.95     | 49.41         |
| 2019        | 3            | Off-Peak  | 51.47         | 51.57         | 51.10         | 55.02             | 53.75          | 54.54       | 65.61    | 30.36   | 51.30   | 80.15 | 60.10 | 58.99     | 54.31         |
| 2019        | 4            | Off-Peak  | 44.77         | 46.12         | 46.03         | 40.58             | 39.41          | 41.00       | 31.38    | 23.25   | 44.64   | 69.75 | 46.50 | 45.08     | 40.63         |
| 2019        | 5            | Off-Peak  | 40.64         | 39.31         | 39.34         | 37.55             | 32.84          | 37.95       | 24.64    | 21.26   | 36.26   | 66.84 | 44.64 | 39.86     | 38.14         |
| 2019        | 6            | Off-Peak  | 29.78         | 31.53         | 31.94         | 29.42             | 25.03          | 31.09       | 19.47    | 20.82   | 26.83   | 66.70 | 43.47 | 33.50     | 32.08         |
| 2019        | 7            | Off-Peak  | 39.66         | 42.69         | 43.48         | 38.64             | 34.76          | 38.48       | 25.19    | 23.56   | 37.15   | 72.78 | 49.13 | 43.88     | 40.87         |
| 2019        | 8            | Off-Peak  | 47.71         | 49.15         | 48.15         | 45.89             | 39.24          | 43.16       | 31.35    | 25.39   | 44.98   | 75.18 | 52.17 | 51.41     | 45.44         |
| 2019        | 9            | Off-Peak  | 46.71         | 49.40         | 49.18         | 46.83             | 42.77          | 44.68       | 37.78    | 25.61   | 46.40   | 75.96 | 52.05 | 51.58     | 45.52         |
| 2019        | 10           | Off-Peak  | 45.54         | 47.67         | 47.27         | 46.11             | 43.04          | 44.20       | 38.59    | 25.31   | 45.24   | 74.03 | 51.43 | 50.26     | 44.89         |
| 2019        | 11           | Off-Peak  | 44.42         | 46.95         | 46.95         | 48.02             | 44.96          | 46.17       | 57.92    | 26.14   | 43.89   | 75.02 | 53.14 | 51.97     | 46.14         |
| 2019        | 12           | Off-Peak  | 44.46         | 47.10         | 46.69         | 50.05             | 45.88          | 47.85       | 47.21    | 27.75   | 44.18   | 78.20 | 55.17 | 54.46     | 48.12         |
| 2020        | 1            | Off-Peak  | 46.07         | 45.65         | 45.21         | 52.41             | 49.43          | 51.69       | 35.55    | 29.14   | 44.32   | 83.42 | 59.51 | 52.22     | 52.32         |
| 2020        | 2            | Off-Peak  | 46.68         | 46.24         | 46.48         | 51.58             | 49.11          | 51.25       | 39.07    | 28.82   | 46.24   | 8     |       |           |               |

**Off-Peak Mid Columbia Prices**

| Report Year | Report Month | Condition | Base Case-Det | Base Case-Stc | Base Case-Vol | Avoided Cost Case | Low Tx Capital | Hydro Shift | High Gas | Low Gas | 5000 MW |        |       | Boom-Bust | High Coal Esc |
|-------------|--------------|-----------|---------------|---------------|---------------|-------------------|----------------|-------------|----------|---------|---------|--------|-------|-----------|---------------|
|             |              |           |               |               |               |                   |                |             |          |         | Wind    | EIA    | NCEP  |           |               |
| 2020        | 9            | Off-Peak  | 46.76         | 49.58         | 47.94         | 46.85             | 43.70          | 44.61       | 41.37    | 25.81   | 46.37   | 78.97  | 52.94 | 46.76     | 45.97         |
| 2020        | 10           | Off-Peak  | 46.75         | 48.62         | 46.78         | 46.68             | 45.17          | 44.94       | 42.34    | 25.78   | 46.32   | 77.17  | 52.62 | 46.65     | 46.05         |
| 2020        | 11           | Off-Peak  | 46.61         | 49.21         | 47.38         | 48.98             | 47.19          | 47.16       | 62.09    | 26.90   | 46.46   | 77.64  | 54.70 | 48.99     | 47.77         |
| 2020        | 12           | Off-Peak  | 45.73         | 49.31         | 47.53         | 50.34             | 48.30          | 47.99       | 54.25    | 28.19   | 45.77   | 81.32  | 56.33 | 50.31     | 49.40         |
| 2021        | 1            | Off-Peak  | 46.88         | 48.14         | 47.01         | 55.15             | 49.47          | 53.77       | 41.94    | 30.04   | 47.58   | 87.20  | 61.74 | 55.44     | 54.35         |
| 2021        | 2            | Off-Peak  | 47.28         | 47.72         | 47.98         | 53.48             | 48.90          | 53.13       | 45.03    | 29.52   | 46.35   | 86.09  | 59.38 | 53.46     | 51.55         |
| 2021        | 3            | Off-Peak  | 53.63         | 54.03         | 54.16         | 58.12             | 54.50          | 57.19       | 73.77    | 31.44   | 52.89   | 86.66  | 63.35 | 58.26     | 56.78         |
| 2021        | 4            | Off-Peak  | 46.72         | 48.51         | 46.71         | 63.36             | 40.96          | 43.76       | 39.74    | 24.53   | 45.66   | 76.31  | 50.35 | 43.96     | 43.33         |
| 2021        | 5            | Off-Peak  | 42.98         | 42.98         | 42.51         | 48.48             | 36.19          | 41.00       | 30.98    | 22.46   | 41.26   | 74.17  | 48.21 | 41.51     | 41.52         |
| 2021        | 6            | Off-Peak  | 31.16         | 33.58         | 33.97         | 51.00             | 26.96          | 35.08       | 20.31    | 21.76   | 29.05   | 73.75  | 46.36 | 32.29     | 35.68         |
| 2021        | 7            | Off-Peak  | 43.26         | 45.51         | 46.08         | 49.22             | 37.26          | 41.78       | 31.16    | 24.55   | 40.80   | 79.68  | 52.70 | 42.89     | 44.05         |
| 2021        | 8            | Off-Peak  | 48.66         | 51.65         | 51.82         | 49.48             | 41.68          | 46.69       | 38.79    | 26.65   | 47.84   | 83.36  | 55.21 | 49.06     | 47.47         |
| 2021        | 9            | Off-Peak  | 47.87         | 51.03         | 51.70         | 59.66             | 44.46          | 46.40       | 46.19    | 26.35   | 47.52   | 82.60  | 54.43 | 48.59     | 46.91         |
| 2021        | 10           | Off-Peak  | 48.20         | 50.83         | 50.95         | 70.80             | 45.43          | 46.63       | 50.64    | 26.56   | 47.83   | 80.53  | 54.02 | 48.56     | 46.87         |
| 2021        | 11           | Off-Peak  | 46.48         | 49.50         | 51.44         | 64.95             | 47.05          | 48.91       | 63.65    | 27.17   | 46.22   | 80.47  | 55.71 | 50.66     | 48.59         |
| 2021        | 12           | Off-Peak  | 47.01         | 50.78         | 51.49         | 60.43             | 47.68          | 50.17       | 59.83    | 28.86   | 46.94   | 84.51  | 57.69 | 52.66     | 50.35         |
| 2022        | 1            | Off-Peak  | 48.13         | 49.67         | 51.19         | 58.61             | 51.28          | 54.99       | 45.09    | 31.15   | 47.70   | 90.84  | 63.62 | 58.34     | 55.23         |
| 2022        | 2            | Off-Peak  | 48.86         | 49.98         | 51.03         | 59.55             | 52.05          | 53.97       | 50.45    | 30.23   | 49.24   | 89.83  | 61.03 | 55.32     | 54.28         |
| 2022        | 3            | Off-Peak  | 55.37         | 55.53         | 56.09         | 63.78             | 56.82          | 58.22       | 77.65    | 32.16   | 54.88   | 90.44  | 65.05 | 60.15     | 58.31         |
| 2022        | 4            | Off-Peak  | 48.44         | 50.75         | 51.10         | 61.47             | 42.46          | 45.06       | 41.43    | 25.32   | 48.17   | 80.01  | 51.67 | 45.58     | 45.52         |
| 2022        | 5            | Off-Peak  | 43.76         | 45.76         | 46.14         | 41.96             | 39.33          | 41.82       | 32.44    | 23.10   | 44.01   | 77.62  | 50.58 | 42.85     | 42.80         |
| 2022        | 6            | Off-Peak  | 34.00         | 36.20         | 36.66         | 33.69             | 28.33          | 37.18       | 21.03    | 22.32   | 31.36   | 77.77  | 48.10 | 34.60     | 37.98         |
| 2022        | 7            | Off-Peak  | 45.90         | 47.76         | 48.19         | 43.64             | 38.90          | 44.78       | 34.74    | 25.37   | 44.00   | 83.47  | 53.99 | 46.00     | 45.34         |
| 2022        | 8            | Off-Peak  | 49.45         | 51.68         | 51.36         | 48.47             | 42.19          | 47.91       | 40.89    | 27.07   | 49.12   | 86.19  | 56.54 | 50.44     | 47.95         |
| 2022        | 9            | Off-Peak  | 49.05         | 51.77         | 52.03         | 48.47             | 45.02          | 47.40       | 50.46    | 27.01   | 49.19   | 85.92  | 56.33 | 50.61     | 47.95         |
| 2022        | 10           | Off-Peak  | 48.58         | 51.14         | 51.53         | 48.50             | 46.13          | 47.64       | 54.17    | 27.08   | 48.82   | 83.78  | 55.77 | 50.52     | 47.46         |
| 2022        | 11           | Off-Peak  | 48.06         | 50.68         | 52.40         | 50.69             | 47.98          | 49.87       | 65.53    | 27.81   | 48.64   | 83.76  | 57.47 | 52.92     | 49.48         |
| 2022        | 12           | Off-Peak  | 48.24         | 51.21         | 51.50         | 52.75             | 48.96          | 51.71       | 65.07    | 29.55   | 49.10   | 88.16  | 59.61 | 54.95     | 51.22         |
| 2023        | 1            | Off-Peak  | 50.36         | 51.48         | 50.90         | 57.17             | 51.91          | 56.62       | 44.74    | 32.16   | 50.61   | 95.73  | 64.96 | 60.84     | 56.10         |
| 2023        | 2            | Off-Peak  | 49.55         | 50.65         | 50.89         | 55.46             | 51.19          | 55.88       | 50.90    | 31.09   | 49.73   | 94.57  | 62.77 | 58.15     | 55.41         |
| 2023        | 3            | Off-Peak  | 57.19         | 56.64         | 56.63         | 59.80             | 57.69          | 60.11       | 81.18    | 33.44   | 56.86   | 95.27  | 66.84 | 62.37     | 59.09         |
| 2023        | 4            | Off-Peak  | 49.71         | 52.27         | 52.44         | 46.86             | 43.30          | 47.45       | 44.45    | 26.40   | 49.40   | 84.09  | 53.75 | 48.31     | 46.46         |
| 2023        | 5            | Off-Peak  | 46.45         | 45.97         | 46.18         | 42.79             | 38.54          | 43.42       | 31.95    | 23.68   | 44.80   | 82.24  | 50.61 | 44.58     | 43.17         |
| 2023        | 6            | Off-Peak  | 36.48         | 37.02         | 36.90         | 35.50             | 28.99          | 39.81       | 21.73    | 23.04   | 33.67   | 82.37  | 49.39 | 37.11     | 39.84         |
| 2023        | 7            | Off-Peak  | 46.73         | 49.60         | 48.80         | 45.52             | 39.83          | 46.52       | 34.41    | 26.15   | 46.65   | 87.70  | 55.01 | 48.86     | 47.09         |
| 2023        | 8            | Off-Peak  | 50.21         | 52.94         | 51.42         | 49.65             | 42.99          | 48.92       | 39.38    | 27.86   | 50.49   | 90.36  | 57.47 | 52.60     | 49.44         |
| 2023        | 9            | Off-Peak  | 49.43         | 52.34         | 50.37         | 49.62             | 44.51          | 48.59       | 49.72    | 28.03   | 50.03   | 89.99  | 57.45 | 52.83     | 49.47         |
| 2023        | 10           | Off-Peak  | 49.13         | 51.82         | 49.10         | 49.18             | 46.26          | 48.51       | 51.71    | 28.19   | 49.75   | 87.92  | 56.99 | 52.45     | 48.96         |
| 2023        | 11           | Off-Peak  | 48.78         | 51.39         | 48.22         | 51.86             | 48.64          | 51.07       | 67.66    | 28.85   | 49.51   | 87.96  | 58.94 | 55.09     | 51.09         |
| 2023        | 12           | Off-Peak  | 48.65         | 52.15         | 50.23         | 53.93             | 49.82          | 53.23       | 66.84    | 30.96   | 50.08   | 92.70  | 61.43 | 57.50     | 53.33         |
| 2024        | 1            | Off-Peak  | 49.18         | 51.45         | 50.18         | 58.42             | 53.38          | 57.23       | 47.55    | 32.01   | 50.04   | 96.25  | 66.27 | 62.90     | 57.76         |
| 2024        | 2            | Off-Peak  | 49.38         | 51.48         | 51.35         | 65.89             | 53.61          | 56.71       | 53.69    | 31.36   | 49.23   | 95.98  | 64.59 | 60.46     | 55.43         |
| 2024        | 3            | Off-Peak  | 57.11         | 57.15         | 58.26         | 60.23             | 59.89          | 61.48       | 79.16    | 34.02   | 56.48   | 97.10  | 68.81 | 65.13     | 60.90         |
| 2024        | 4            | Off-Peak  | 49.74         | 52.59         | 53.96         | 56.91             | 45.18          | 48.02       | 45.11    | 26.79   | 49.71   | 86.19  | 55.35 | 50.50     | 46.73         |
| 2024        | 5            | Off-Peak  | 47.20         | 47.14         | 50.02         | 57.48             | 41.00          | 44.58       | 35.05    | 24.31   | 46.56   | 83.76  | 52.00 | 47.02     | 44.42         |
| 2024        | 6            | Off-Peak  | 40.18         | 40.94         | 41.82         | 54.30             | 32.29          | 42.94       | 25.29    | 23.80   | 37.25   | 83.20  | 51.53 | 40.28     | 41.66         |
| 2024        | 7            | Off-Peak  | 48.32         | 50.59         | 53.22         | 51.59             | 40.57          | 48.61       | 35.47    | 26.11   | 46.60   | 88.01  | 56.56 | 50.68     | 47.78         |
| 2024        | 8            | Off-Peak  | 50.85         | 53.06         | 55.78         | 51.74             | 44.78          | 50.22       | 42.72    | 28.45   | 50.91   | 91.25  | 59.41 | 55.51     | 50.23         |
| 2024        | 9            | Off-Peak  | 50.19         | 53.65         | 56.07         | 62.25             | 46.66          | 49.76       | 52.98    | 28.52   | 50.33   | 90.94  | 59.05 | 55.30     | 50.11         |
| 2024        | 10           | Off-Peak  | 48.51         | 50.75         | 52.96         | 72.02             | 47.30          | 48.98       | 55.77    | 27.79   | 48.78   | 88.56  | 58.39 | 54.03     | 49.22         |
| 2024        | 11           | Off-Peak  | 48.67         | 50.69         | 53.17         | 53.02             | 50.02          | 51.81       | 68.55    | 29.21   | 48.60   | 89.31  | 60.65 | 57.24     | 51.64         |
| 2024        | 12           | Off-Peak  | 49.57         | 51.80         | 54.72         | 55.41             | 51.06          | 53.98       | 67.95    | 30.99   | 49.96   | 93.68  | 63.22 | 59.95     | 54.15         |
| 2025        | 1            | Off-Peak  | 50.57         | 52.61         | 54.16         | 59.15             | 53.77          | 58.59       | 49.45    | 32.81   | 50.71   | 96.80  | 68.19 | 60.05     | 58.10         |
| 2025        | 2            | Off-Peak  | 51.73         | 54.48         | 56.27         | 55.64             | 55.97          | 55.29       | 54.63    | 32.03   | 51.06   | 96.85  | 66.67 | 57.43     | 55.38         |
| 2025        | 3            | Off-Peak  | 59.30         | 60.09         | 61.57         | 61.71             | 60.79          | 61.74       | 83.29    | 34.94   | 58.48   | 98.11  | 70.19 | 61.86     | 61.27         |
| 2025        | 4            | Off-Peak  | 52.62         | 54.58         | 55.25         | 47.43             | 46.38          | 48.02       | 47.08    | 27.66   | 51.43   | 86.16  | 57.77 | 48.68     | 47.46         |
| 2025        | 5            | Off-Peak  | 48.63         | 50.23         | 50.40         | 44.73             | 42.32          | 46.13       | 36.34    | 25.00   | 48.24   | 84.00  | 53.82 | 45.36     | 45.30         |
| 2025        | 6            | Off-Peak  | 43.25         | 43.48         | 43.06         | 39.88             | 33.76          | 43.94       | 27.26    | 24.18   | 40.00   | 83.30  | 52.66 | 40.09     | 41.56         |
| 2025        | 7            | Off-Peak  | 50.00         | 52.18         | 53.60         | 46.62             | 42.41          | 48.95       | 35.98    | 26.66   | 49.02   | 88.32  | 57.62 | 46.60     | 48.09         |
| 2025        | 8            | Off-Peak  | 52.68         | 55.56         | 56.21         | 51.81             | 46.41          | 51.07       | 44.84    | 29.31   | 53.03   | 92.21  | 60.44 | 51.73     | 50.60         |
| 2025        | 9            | Off-Peak  | 51.93         | 55.00         | 55.89         | 50.66             | 47.48          | 50.26       | 53.74    | 28.72   | 52.45   | 90.72  | 59.70 | 50.72     | 49.80         |
| 2025        | 10           | Off-Peak  | 51.66         | 53.36         | 55.41         | 50.49             | 48.61          | 50.06       | 56.98    | 28.27   | 52.16   | 89.22  | 59.30 | 50.47     | 50.00         |
| 2025        | 11           | Off-Peak  | 52.14         | 53.77         | 56.04         | 53.98             | 51.19          | 53.59       | 71.69    | 30.06   | 52.68   | 90.58  | 61.75 | 54.03     | 52.70         |
| 2025        | 12           | Off-Peak  | 52.07         | 54.16         | 57.51         | 55.82             | 51.74          | 55.35       | 71.44    | 31.45   | 53.07   | 94.13  | 64.14 | 55.91     | 54.57         |
| 2026        | 1            | Off-Peak  | 52.35         | 53.24         | 55.36         | 60.06             | 54.38          | 59.12       | 54.75    | 33.26   | 53.56   | 99.47  | 69.00 | 61.37     | 58.63         |
| 2026        | 2            | Off-Peak  | 51.53         | 55.15         | 56.34         | 56.47             | 55.68          | 58.20       | 58.89    | 32.55   | 51.91   | 99.52  | 67.26 | 57.78     | 57.93         |
| 2026        | 3            | Off-Peak  | 60.56         | 61.76         | 62.42         | 62.64             | 61.91          | 63.04       | 85.17    | 35.37   | 59.53   | 100.74 | 71.26 | 63.74     | 62.43         |
| 2026        | 4            | Off-Peak  | 53.11         | 56.09         | 55.31         | 48.37             | 47.28          | 48.72       | 49.01    | 28.41   | 52.72   | 88.93  | 58.55 | 49.24     | 47.96         |
| 2026        | 5            | Off-Peak  | 51.15         | 52.16         | 51.43         | 45.50             | 42.97          | 46.03       | 38.99    | 25.64   | 50.62   | 85.83  | 55.24 | 46.97     | 46.09         |
| 2026        | 6            | Off-Peak  | 41.41         | 43.05         | 43.03         | 38.62             | 32.55          | 41.00       | 26.53    | 24.54   | 39.44   | 84.97  | 53.69 | 40.63     | 41.79         |
| 2026        | 7            | Off-Peak  | 50.23         | 52.85         | 53.23         | 48.06             | 43.14          | 47.96       | 37.51    | 27.16   | 50.65   | 90.37  | 58.80 | 49.20     | 49.00         |
| 2026        | 8            | Off-Peak  | 53.24         | 56.50         | 56.33         | 53.09             | 47.40          | 51.26       | 46.47    | 29.58   | 53.68   | 94.59  | 61.53 | 53.65     | 51.17         |
| 2026        | 9            | Off-Peak  | 52.80         | 56.22         | 55.44         | 51.88             | 48.67          | 50.08       | 54.51    | 29.19   | 53.34   | 92.92  | 60.75 | 52.58     | 50.43         |
| 2026        | 10           | Off-Peak  | 52.19         | 54.02         | 53.48         | 51.64             | 49.44          | 50.03       | 59.87    | 28.74   | 52.74   | 91.20  | 60.34 | 52.31     | 50.43         |
| 2026        | 11           | Off-Peak  | 52.98         | 54.91         | 53.77         | 55.11             | 51.98          | 53.03       | 73.17    | 30.55   | 53.23   | 92.07  | 62.91 | 56.11     | 52.93         |
| 2026        | 12           | Off-Peak  | 53.03         | 55.21         | 54.14         | 57.41             | 52.86          | 55.27       | 73.50    | 31.89   | 53.29   |        |       |           |               |



Monthly Minimum Mid Columbia Prices

| Report Year | Month | Base Case-Det | Base Case-Stc | Base Case-V. Gas | Avoided Cost | Low Tx Capital | Hydro Shift | High Gas | Low Gas | 5000 MW Wind | EIA   | NCEP  | Boom-Bust | High Coal Esc |
|-------------|-------|---------------|---------------|------------------|--------------|----------------|-------------|----------|---------|--------------|-------|-------|-----------|---------------|
| 2007        | 1     | 36.69         | 5.59          | 5.23             | 33.69        | 29.68          | 41.47       | 24.86    | 20.20   | 20.97        | 34.32 | 41.18 | 36.36     | 35.03         |
| 2007        | 2     | 26.52         | 5.47          | 5.48             | 24.95        | 25.07          | 31.22       | 15.33    | 18.60   | 18.67        | 22.08 | 17.55 | 24.97     | 25.60         |
| 2007        | 3     | 43.47         | 5.31          | 4.82             | 46.50        | 43.94          | 46.84       | 15.43    | 21.11   | 42.05        | 46.41 | 46.44 | 46.58     | 42.87         |
| 2007        | 4     | 30.23         | 14.69         | 14.21            | 21.98        | 21.67          | 33.53       | 10.46    | 15.63   | 17.38        | 30.31 | 31.91 | 17.71     | 30.70         |
| 2007        | 5     | 18.93         | 10.09         | 9.73             | 15.07        | 15.07          | 16.78       | 10.93    | 15.07   | 11.32        | 17.46 | 21.27 | 13.79     | 20.86         |
| 2007        | 6     | 10.47         | 10.14         | 9.72             | 10.56        | 10.47          | 15.07       | 4.99     | 10.27   | 6.65         | 10.97 | 10.20 | 11.19     | 10.47         |
| 2007        | 7     | 15.07         | 13.77         | 13.65            | 15.40        | 15.38          | 17.62       | 15.07    | 15.27   | 13.27        | 15.82 | 16.87 | 15.58     | 15.63         |
| 2007        | 8     | 37.28         | 15.42         | 15.54            | 35.61        | 35.54          | 36.73       | 17.54    | 17.25   | 31.73        | 34.97 | 35.08 | 36.39     | 33.73         |
| 2007        | 9     | 27.76         | 15.35         | 15.16            | 31.43        | 21.52          | 33.60       | 15.67    | 19.30   | 28.19        | 33.01 | 30.93 | 33.82     | 24.36         |
| 2007        | 10    | 35.92         | 2.59          | 2.59             | 35.12        | 34.94          | 36.12       | 47.71    | 18.48   | 29.07        | 33.76 | 33.95 | 35.06     | 34.20         |
| 2007        | 11    | 32.47         | 4.90          | 4.92             | 33.44        | 33.20          | 35.79       | 17.76    | 19.28   | 23.92        | 32.15 | 33.10 | 34.59     | 30.08         |
| 2007        | 12    | 20.41         | 15.02         | 15.02            | 27.09        | 19.32          | 33.70       | 32.45    | 16.94   | 17.32        | 23.42 | 22.37 | 34.02     | 17.51         |
| 2008        | 1     | 17.94         | 13.11         | 13.72            | 23.78        | 15.90          | 17.93       | 15.23    | 16.53   | 17.28        | 23.59 | 20.28 | 17.06     | 24.31         |
| 2008        | 2     | 15.62         | 13.58         | 13.50            | 13.80        | 15.99          | 17.16       | 14.46    | 15.40   | 15.44        | 15.65 | 15.76 | 15.95     | 15.77         |
| 2008        | 3     | 34.34         | 5.31          | 5.33             | 34.82        | 18.36          | 39.23       | 15.79    | 19.23   | 30.98        | 32.28 | 35.11 | 37.45     | 25.72         |
| 2008        | 4     | 20.08         | 8.43          | 7.46             | 16.00        | 15.23          | 26.60       | 14.23    | 13.79   | 16.81        | 17.69 | 19.12 | 23.58     | 16.21         |
| 2008        | 5     | 11.14         | 7.77          | 7.70             | 15.97        | 15.50          | 9.78        | 11.77    | 12.46   | 14.91        | 15.25 | 15.31 | 15.23     | 15.87         |
| 2008        | 6     | 12.66         | 8.53          | 9.44             | 11.82        | 12.42          | 15.23       | 6.32     | 10.53   | 6.93         | 11.53 | 11.86 | 11.98     | 12.13         |
| 2008        | 7     | 16.97         | 15.30         | 15.16            | 24.89        | 15.59          | 18.36       | 15.23    | 15.54   | 15.23        | 15.75 | 15.76 | 21.02     | 17.49         |
| 2008        | 8     | 25.31         | 2.59          | 2.59             | 33.58        | 32.63          | 31.51       | 17.64    | 18.67   | 29.47        | 32.48 | 32.76 | 37.44     | 32.22         |
| 2008        | 9     | 26.56         | 4.96          | 4.83             | 31.38        | 24.98          | 30.34       | 15.82    | 19.01   | 22.95        | 25.99 | 30.13 | 32.61     | 30.01         |
| 2008        | 10    | 32.73         | 5.61          | 5.61             | 35.45        | 32.37          | 32.55       | 17.05    | 18.85   | 23.96        | 32.21 | 32.06 | 36.74     | 31.39         |
| 2008        | 11    | 27.11         | 5.03          | 5.14             | 34.05        | 30.54          | 30.57       | 25.74    | 18.45   | 22.52        | 29.22 | 30.41 | 33.38     | 28.51         |
| 2008        | 12    | 16.92         | 12.53         | 11.43            | 26.74        | 18.28          | 23.52       | 16.64    | 18.04   | 15.93        | 18.85 | 18.13 | 31.81     | 23.56         |
| 2009        | 1     | 22.00         | 3.06          | 3.06             | 26.35        | 23.30          | 22.40       | 15.52    | 16.69   | 17.77        | 24.48 | 19.76 | 22.22     | 22.03         |
| 2009        | 2     | 14.76         | 3.19          | 3.19             | 17.31        | 16.23          | 15.62       | 14.56    | 16.16   | 15.94        | 16.10 | 15.85 | 16.42     | 16.25         |
| 2009        | 3     | 31.99         | 3.26          | 3.26             | 32.32        | 25.07          | 33.26       | 15.78    | 18.22   | 32.17        | 31.39 | 24.77 | 35.37     | 24.92         |
| 2009        | 4     | 19.63         | 3.40          | 3.40             | 17.95        | 15.92          | 19.52       | 14.88    | 14.19   | 17.68        | 17.27 | 16.09 | 17.41     | 17.34         |
| 2009        | 5     | 16.30         | 4.77          | 3.43             | 15.86        | 16.40          | 16.50       | 15.52    | 11.21   | 14.50        | 16.11 | 19.37 | 15.92     | 16.15         |
| 2009        | 6     | 12.85         | 5.15          | 5.65             | 13.41        | 13.48          | 13.96       | 5.77     | 10.33   | 8.95         | 13.67 | 12.99 | 13.50     | 12.62         |
| 2009        | 7     | 18.96         | 5.32          | 5.10             | 27.20        | 20.81          | 21.72       | 15.55    | 15.52   | 16.17        | 18.72 | 26.48 | 28.04     | 18.77         |
| 2009        | 8     | 33.10         | 7.57          | 7.83             | 33.76        | 32.41          | 31.08       | 18.20    | 18.21   | 29.71        | 30.23 | 30.12 | 36.78     | 28.03         |
| 2009        | 9     | 28.81         | 15.73         | 15.73            | 34.32        | 27.66          | 30.42       | 18.05    | 18.12   | 21.78        | 25.31 | 30.19 | 35.60     | 28.17         |
| 2009        | 10    | 31.54         | 15.96         | 14.50            | 34.94        | 33.01          | 34.24       | 44.73    | 17.82   | 28.69        | 31.92 | 31.05 | 37.67     | 31.19         |
| 2009        | 11    | 27.07         | 15.20         | 15.15            | 33.24        | 32.02          | 32.41       | 33.39    | 19.01   | 25.01        | 29.08 | 29.19 | 33.70     | 28.83         |
| 2009        | 12    | 22.12         | 15.54         | 14.36            | 31.18        | 29.13          | 30.12       | 16.98    | 18.26   | 18.56        | 22.82 | 23.46 | 32.93     | 22.77         |
| 2010        | 1     | 21.72         | 15.90         | 14.15            | 25.37        | 22.97          | 31.24       | 17.69    | 16.46   | 21.18        | 40.44 | 31.41 | 32.06     | 24.60         |
| 2010        | 2     | 16.87         | 15.83         | 15.91            | 15.73        | 16.96          | 17.47       | 15.87    | 16.51   | 16.46        | 40.52 | 22.92 | 18.36     | 18.92         |
| 2010        | 3     | 29.93         | 14.32         | 15.15            | 31.99        | 32.03          | 33.18       | 17.95    | 18.10   | 30.35        | 42.19 | 33.02 | 33.31     | 30.53         |
| 2010        | 4     | 17.15         | 14.80         | 15.51            | 17.55        | 18.97          | 21.61       | 13.99    | 14.49   | 17.95        | 38.67 | 26.11 | 18.18     | 18.42         |
| 2010        | 5     | 19.48         | 23.01         | 22.17            | 17.09        | 16.42          | 16.02       | 14.50    | 11.90   | 15.73        | 35.61 | 22.70 | 16.26     | 18.56         |
| 2010        | 6     | 13.82         | 15.23         | 15.23            | 13.58        | 13.38          | 15.84       | 5.76     | 10.80   | 9.07         | 34.12 | 21.78 | 13.58     | 14.72         |
| 2010        | 7     | 27.72         | 16.25         | 16.37            | 26.16        | 23.95          | 26.36       | 17.12    | 13.73   | 16.29        | 39.52 | 28.43 | 26.91     | 25.91         |
| 2010        | 8     | 31.25         | 16.90         | 16.90            | 32.05        | 30.24          | 32.86       | 18.05    | 16.93   | 30.01        | 40.08 | 33.99 | 32.52     | 30.14         |
| 2010        | 9     | 28.70         | 17.30         | 17.27            | 34.69        | 28.96          | 29.31       | 18.76    | 17.14   | 29.58        | 41.80 | 31.31 | 34.86     | 27.93         |
| 2010        | 10    | 35.22         | 23.57         | 21.58            | 35.38        | 33.42          | 34.00       | 41.69    | 16.93   | 30.50        | 43.91 | 35.53 | 35.38     | 30.42         |
| 2010        | 11    | 29.92         | 15.23         | 13.22            | 34.12        | 30.70          | 31.18       | 21.73    | 18.02   | 26.80        | 40.85 | 32.09 | 34.12     | 29.72         |
| 2010        | 12    | 26.28         | 15.52         | 14.94            | 31.39        | 29.17          | 31.96       | 37.48    | 17.42   | 25.71        | 41.06 | 31.47 | 31.39     | 28.23         |
| 2011        | 1     | 19.30         | 15.02         | 16.90            | 32.85        | 29.23          | 31.74       | 19.20    | 18.39   | 17.28        | 44.26 | 33.13 | 32.71     | 25.98         |
| 2011        | 2     | 16.86         | 16.22         | 15.15            | 17.96        | 17.10          | 19.09       | 16.01    | 17.51   | 17.78        | 44.09 | 23.02 | 21.02     | 17.34         |
| 2011        | 3     | 29.71         | 22.84         | 21.01            | 41.41        | 34.04          | 42.08       | 17.38    | 19.85   | 30.49        | 44.81 | 36.04 | 38.28     | 40.60         |
| 2011        | 4     | 16.72         | 15.23         | 13.86            | 21.73        | 22.19          | 25.58       | 11.52    | 14.72   | 19.63        | 39.55 | 27.37 | 16.07     | 24.81         |
| 2011        | 5     | 17.18         | 11.76         | 13.17            | 16.02        | 17.68          | 16.27       | 11.36    | 12.93   | 17.43        | 37.12 | 23.04 | 18.23     | 17.63         |
| 2011        | 6     | 14.05         | 14.48         | 14.48            | 15.21        | 14.93          | 15.91       | 8.80     | 11.16   | 11.17        | 35.41 | 22.11 | 15.14     | 15.42         |
| 2011        | 7     | 28.81         | 13.61         | 12.49            | 26.34        | 23.70          | 26.23       | 15.91    | 15.03   | 16.10        | 41.45 | 28.77 | 26.86     | 17.78         |
| 2011        | 8     | 31.90         | 22.41         | 21.21            | 35.35        | 32.16          | 32.60       | 43.19    | 17.18   | 30.72        | 42.45 | 36.04 | 35.40     | 29.81         |
| 2011        | 9     | 31.17         | 23.11         | 21.58            | 35.43        | 30.52          | 34.68       | 23.84    | 18.34   | 30.15        | 44.54 | 34.30 | 35.49     | 31.67         |
| 2011        | 10    | 36.52         | 20.57         | 16.15            | 35.94        | 36.09          | 36.94       | 45.76    | 18.17   | 31.51        | 44.66 | 35.52 | 35.74     | 32.41         |
| 2011        | 11    | 31.40         | 2.59          | 2.59             | 36.54        | 32.16          | 34.39       | 42.83    | 18.14   | 28.08        | 43.62 | 32.89 | 36.42     | 31.54         |
| 2011        | 12    | 27.46         | 2.67          | 2.67             | 32.61        | 28.89          | 31.52       | 20.12    | 17.12   | 24.63        | 43.42 | 31.92 | 32.55     | 28.93         |
| 2012        | 1     | 17.66         | 2.94          | 2.94             | 18.61        | 17.79          | 20.25       | 14.85    | 20.42   | 16.44        | 47.23 | 32.03 | 35.53     | 20.00         |
| 2012        | 2     | 16.21         | 3.06          | 3.06             | 16.21        | 16.73          | 16.27       | 12.36    | 18.15   | 16.83        | 47.08 | 27.69 | 24.09     | 17.82         |
| 2012        | 3     | 30.71         | 8.85          | 8.85             | 34.37        | 34.37          | 34.37       | 16.27    | 19.04   | 29.04        | 47.17 | 43.22 | 39.60     | 32.43         |
| 2012        | 4     | 17.64         | 11.70         | 10.63            | 17.66        | 18.28          | 18.17       | 12.41    | 16.21   | 16.49        | 40.72 | 29.79 | 22.50     | 18.74         |
| 2012        | 5     | 15.15         | 8.89          | 8.89             | 16.53        | 14.64          | 18.17       | 10.01    | 14.16   | 11.87        | 38.45 | 25.61 | 20.00     | 17.29         |
| 2012        | 6     | 12.64         | 13.04         | 12.93            | 11.81        | 11.63          | 15.15       | 7.52     | 11.60   | 8.62         | 37.29 | 24.19 | 16.25     | 12.31         |
| 2012        | 7     | 16.68         | 18.18         | 16.54            | 18.21        | 16.41          | 17.72       | 13.48    | 15.81   | 15.78        | 43.98 | 30.78 | 27.35     | 17.99         |
| 2012        | 8     | 29.43         | 19.63         | 17.47            | 30.95        | 19.11          | 28.08       | 15.81    | 17.55   | 19.52        | 46.36 | 35.22 | 36.23     | 29.55         |
| 2012        | 9     | 21.95         | 5.21          | 5.22             | 30.10        | 19.34          | 19.14       | 16.21    | 17.67   | 16.99        | 46.97 | 32.63 | 36.35     | 22.07         |
| 2012        | 10    | 30.20         | 6.14          | 6.14             | 36.37        | 30.60          | 30.61       | 15.21    | 17.98   | 29.84        | 44.01 | 38.79 | 36.71     | 30.63         |
| 2012        | 11    | 26.48         | 9.69          | 9.87             | 32.57        | 27.27          | 28.62       | 17.62    | 18.72   | 26.85        | 46.90 | 35.04 | 38.56     | 28.84         |
| 2012        | 12    | 17.23         | 19.91         | 18.92            | 26.70        | 16.95          | 18.28       | 15.21    | 18.08   | 18.36        | 46.08 | 31.59 | 33.39     | 23.50         |
| 2013        | 1     | 16.75         | 9.63          | 6.27             | 17.35        | 16.55          | 18.17       | 12.75    | 20.04   | 16.55        | 49.93 | 34.79 | 37.32     | 18.18         |
| 2013        | 2     | 16.55         | 7.61          | 7.82             | 17.27        | 16.55          | 17.31       | 12.62    | 18.44   | 16.55        | 49.94 | 25.87 | 29.94     | 18.10         |
| 2013        | 3     | 29.97         | 13.70         | 11.50            | 32.25        | 17.18          | 34.87       | 12.62    | 21.72   | 26.54        | 50.24 | 39.34 | 44.80     | 32.28         |
| 2013        | 4     | 17.11         | 3.44          | 3.58             | 17.29        | 16.55          | 17.10       | 11.64    | 16.55   | 16.55        | 44.37 | 27.30 | 24.64     | 17.78         |
| 2013        | 5     | 15.50         | 4.16          | 4.14             | 16.55        | 13.98          | 15.52       | 11.05    | 14.47   | 11.92        | 39.79 | 25.26 | 20.03     | 16.60         |
| 2013        | 6     | 12.42         | 7.84          | 7.84             | 11.73        | 9.75           | 13.69       | 6.29     | 12.11   | 7.65         | 38.69 | 24.83 | 17.09     | 11.84         |
| 2013        | 7     | 16.55         | 15.93         | 9.07             | 16.71        | 16.36          | 17.28       | 11.89    | 16.67   | 15.61        | 44.32 | 31.94 | 29.17     | 17.78         |
| 2013        | 8     | 21.20         | 2.58          | 2.58             | 29.29        | 19.15          | 28.07       | 14.62    | 18.04   | 18.81        | 44.30 | 39.55 | 37.55     | 25.09         |
| 2013        | 9     | 21.36         | 2.67          | 2.66             | 36.16        | 20.25          | 20.02       | 16.66    | 19.17   | 20.01        | 50.31 | 34.22 | 38.63     | 29.25         |
| 2013        | 10    | 28.60         | 2.94          | 2.94             | 37.24        | 21.31          | 30.25       | 15.      |         |              |       |       |           |               |

**Monthly Minimum Mid Columbia Prices**

| Report Year | Month | Base Case-Det | Base Case-Stc | Base Case-V. Gas | Avoided Cost | Low Tx Capital | Hydro Shift | High Gas | Low Gas | 5000 MW Wind | EIA   | NCEP  | Boom-Bust | High Coal Esc |
|-------------|-------|---------------|---------------|------------------|--------------|----------------|-------------|----------|---------|--------------|-------|-------|-----------|---------------|
| 2015        | 7     | 17.30         | 16.21         | 15.20            | 17.30        | 17.30          | 18.09       | 12.47    | 18.00   | 14.92        | 54.92 | 34.26 | 17.30     | 18.89         |
| 2015        | 8     | 20.56         | 17.71         | 16.62            | 27.02        | 18.87          | 30.95       | 17.30    | 19.06   | 17.76        | 56.68 | 42.51 | 23.56     | 22.45         |
| 2015        | 9     | 31.01         | 17.37         | 17.37            | 32.04        | 23.41          | 31.70       | 17.30    | 20.01   | 21.32        | 56.76 | 38.60 | 32.80     | 30.92         |
| 2015        | 10    | 30.55         | 20.78         | 20.25            | 32.14        | 29.43          | 31.56       | 17.55    | 19.81   | 29.83        | 55.83 | 43.41 | 34.92     | 31.61         |
| 2015        | 11    | 31.10         | 16.05         | 15.73            | 33.64        | 18.12          | 31.80       | 18.49    | 19.94   | 24.27        | 54.58 | 41.78 | 34.06     | 29.38         |
| 2015        | 12    | 19.72         | 15.51         | 14.34            | 29.75        | 17.57          | 23.33       | 17.36    | 20.54   | 19.55        | 56.95 | 38.25 | 29.25     | 21.98         |
| 2016        | 1     | 17.91         | 16.97         | 13.10            | 18.44        | 17.95          | 23.95       | 13.56    | 21.83   | 17.71        | 60.91 | 41.08 | 18.89     | 21.62         |
| 2016        | 2     | 17.71         | 19.09         | 18.86            | 18.07        | 16.57          | 17.71       | 14.25    | 21.90   | 17.91        | 59.87 | 32.71 | 18.30     | 17.65         |
| 2016        | 3     | 32.15         | 19.62         | 15.69            | 38.63        | 20.20          | 36.58       | 12.52    | 23.22   | 31.69        | 60.09 | 46.63 | 38.23     | 35.33         |
| 2016        | 4     | 17.71         | 23.73         | 20.25            | 18.58        | 17.71          | 18.21       | 12.48    | 18.27   | 17.71        | 53.33 | 33.76 | 17.76     | 22.25         |
| 2016        | 5     | 16.59         | 13.68         | 13.80            | 17.71        | 14.31          | 16.57       | 11.91    | 14.46   | 12.45        | 43.52 | 30.08 | 17.82     | 17.85         |
| 2016        | 6     | 12.47         | 13.29         | 13.16            | 12.63        | 10.22          | 15.56       | 7.11     | 14.61   | 7.82         | 43.18 | 28.25 | 12.62     | 12.79         |
| 2016        | 7     | 17.71         | 15.95         | 15.19            | 17.75        | 17.71          | 18.57       | 12.74    | 18.87   | 17.00        | 58.27 | 36.46 | 17.76     | 20.09         |
| 2016        | 8     | 20.67         | 18.42         | 17.23            | 20.05        | 19.74          | 31.91       | 17.59    | 20.43   | 18.51        | 60.11 | 43.05 | 28.44     | 31.76         |
| 2016        | 9     | 31.91         | 20.78         | 19.42            | 33.72        | 20.64          | 32.81       | 17.56    | 20.86   | 23.14        | 59.62 | 42.13 | 34.66     | 32.41         |
| 2016        | 10    | 32.30         | 2.63          | 2.63             | 35.68        | 29.92          | 33.18       | 17.71    | 20.80   | 32.29        | 59.19 | 43.94 | 39.49     | 32.91         |
| 2016        | 11    | 30.07         | 3.00          | 3.00             | 36.81        | 23.01          | 30.44       | 17.71    | 21.11   | 30.98        | 59.60 | 43.84 | 37.29     | 31.38         |
| 2016        | 12    | 19.40         | 3.13          | 3.13             | 32.77        | 19.90          | 30.75       | 16.61    | 21.87   | 21.40        | 59.17 | 40.23 | 35.72     | 25.37         |
| 2017        | 1     | 18.83         | 4.94          | 5.08             | 19.04        | 18.10          | 28.58       | 13.86    | 23.11   | 18.45        | 66.71 | 42.13 | 23.28     | 24.15         |
| 2017        | 2     | 18.91         | 5.44          | 5.40             | 18.40        | 18.10          | 20.76       | 13.63    | 23.55   | 18.26        | 64.86 | 33.13 | 21.07     | 19.63         |
| 2017        | 3     | 33.79         | 8.64          | 8.64             | 41.00        | 21.74          | 40.13       | 13.81    | 24.03   | 34.43        | 65.53 | 52.89 | 46.82     | 39.10         |
| 2017        | 4     | 18.40         | 9.63          | 8.76             | 22.54        | 18.10          | 25.32       | 13.93    | 19.77   | 18.38        | 59.02 | 35.08 | 22.96     | 23.67         |
| 2017        | 5     | 16.21         | 8.84          | 9.32             | 18.13        | 16.71          | 15.64       | 5.93     | 16.17   | 13.10        | 46.29 | 30.75 | 18.33     | 16.65         |
| 2017        | 6     | 12.82         | 9.95          | 10.84            | 14.06        | 10.71          | 15.64       | 7.34     | 15.11   | 11.37        | 45.79 | 29.95 | 13.79     | 13.84         |
| 2017        | 7     | 18.03         | 12.59         | 10.36            | 18.19        | 18.16          | 20.22       | 13.03    | 19.75   | 15.82        | 60.33 | 38.96 | 18.23     | 20.22         |
| 2017        | 8     | 27.16         | 14.00         | 13.87            | 27.85        | 19.71          | 31.60       | 16.38    | 20.64   | 20.52        | 63.04 | 44.08 | 33.32     | 32.55         |
| 2017        | 9     | 31.45         | 5.45          | 4.91             | 33.79        | 21.39          | 32.86       | 18.10    | 21.36   | 31.57        | 64.73 | 44.43 | 42.18     | 33.10         |
| 2017        | 10    | 33.78         | 7.25          | 6.44             | 35.92        | 32.74          | 34.06       | 16.93    | 21.24   | 33.12        | 62.56 | 44.51 | 38.83     | 35.05         |
| 2017        | 11    | 32.49         | 4.49          | 4.51             | 36.12        | 29.99          | 34.46       | 18.17    | 21.83   | 31.85        | 63.59 | 44.43 | 41.99     | 33.21         |
| 2017        | 12    | 20.86         | 9.90          | 10.05            | 26.12        | 18.67          | 23.50       | 18.10    | 22.34   | 20.60        | 65.96 | 40.59 | 37.99     | 29.48         |
| 2018        | 1     | 20.09         | 12.75         | 11.11            | 19.35        | 18.58          | 22.97       | 14.83    | 22.90   | 19.15        | 70.94 | 42.81 | 29.13     | 21.31         |
| 2018        | 2     | 19.29         | 17.99         | 17.22            | 19.30        | 17.44          | 19.93       | 16.52    | 22.80   | 19.05        | 70.62 | 37.97 | 29.05     | 21.17         |
| 2018        | 3     | 23.39         | 4.71          | 5.13             | 40.36        | 20.44          | 40.48       | 14.20    | 25.04   | 37.95        | 72.26 | 53.15 | 45.14     | 42.88         |
| 2018        | 4     | 19.12         | 8.25          | 8.76             | 20.92        | 17.27          | 22.72       | 13.99    | 20.35   | 19.34        | 60.04 | 35.25 | 22.49     | 22.58         |
| 2018        | 5     | 18.58         | 11.14         | 10.94            | 18.58        | 16.02          | 18.58       | 7.35     | 17.32   | 18.58        | 49.81 | 35.37 | 18.97     | 20.18         |
| 2018        | 6     | 14.16         | 12.40         | 12.72            | 13.84        | 11.80          | 15.05       | 7.46     | 15.43   | 12.56        | 48.17 | 31.60 | 15.09     | 14.65         |
| 2018        | 7     | 18.65         | 14.23         | 14.16            | 18.69        | 18.58          | 19.40       | 13.93    | 18.58   | 17.57        | 61.77 | 38.68 | 18.80     | 20.88         |
| 2018        | 8     | 34.26         | 5.92          | 5.94             | 24.88        | 20.22          | 24.78       | 17.44    | 21.13   | 19.36        | 65.74 | 44.26 | 34.45     | 34.44         |
| 2018        | 9     | 31.95         | 4.41          | 3.94             | 37.90        | 21.76          | 33.30       | 18.58    | 21.77   | 22.41        | 66.31 | 45.51 | 42.65     | 35.10         |
| 2018        | 10    | 33.86         | 6.15          | 6.03             | 36.58        | 23.60          | 33.35       | 18.58    | 21.56   | 22.14        | 65.62 | 45.59 | 43.20     | 34.84         |
| 2018        | 11    | 32.42         | 8.03          | 8.03             | 39.29        | 28.47          | 35.83       | 19.52    | 22.23   | 31.92        | 66.66 | 46.94 | 44.39     | 36.17         |
| 2018        | 12    | 30.91         | 13.07         | 14.09            | 37.47        | 20.84          | 26.05       | 18.82    | 23.43   | 20.26        | 69.24 | 46.94 | 46.57     | 34.18         |
| 2019        | 1     | 23.91         | 2.62          | 2.62             | 21.68        | 19.40          | 22.17       | 15.43    | 24.48   | 19.99        | 73.99 | 46.91 | 41.29     | 29.21         |
| 2019        | 2     | 20.06         | 2.99          | 2.99             | 20.72        | 19.91          | 19.51       | 17.92    | 23.49   | 19.72        | 73.86 | 39.68 | 40.48     | 21.00         |
| 2019        | 3     | 36.55         | 3.12          | 3.12             | 41.32        | 38.01          | 41.11       | 19.09    | 25.37   | 39.14        | 75.16 | 51.71 | 48.00     | 43.78         |
| 2019        | 4     | 19.09         | 3.33          | 3.33             | 20.17        | 19.09          | 23.45       | 13.75    | 20.52   | 19.52        | 65.40 | 37.36 | 35.42     | 25.20         |
| 2019        | 5     | 17.85         | 3.47          | 3.47             | 19.51        | 14.36          | 19.09       | 4.92     | 18.40   | 16.51        | 52.95 | 35.02 | 20.76     | 20.79         |
| 2019        | 6     | 14.34         | 2.99          | 3.72             | 13.75        | 13.18          | 16.30       | 8.03     | 16.91   | 12.39        | 46.42 | 33.25 | 17.26     | 14.77         |
| 2019        | 7     | 19.43         | 3.40          | 3.33             | 19.20        | 19.09          | 20.78       | 14.59    | 20.64   | 18.83        | 67.21 | 38.61 | 19.85     | 25.22         |
| 2019        | 8     | 36.85         | 2.94          | 4.51             | 34.27        | 21.23          | 33.86       | 17.92    | 21.57   | 22.65        | 69.28 | 45.78 | 39.44     | 36.32         |
| 2019        | 9     | 35.92         | 5.65          | 5.03             | 37.43        | 21.41          | 34.49       | 17.90    | 22.25   | 34.61        | 69.84 | 45.96 | 43.29     | 34.78         |
| 2019        | 10    | 35.79         | 8.03          | 11.80            | 37.42        | 27.26          | 34.35       | 18.40    | 21.89   | 35.31        | 69.25 | 47.99 | 45.20     | 40.14         |
| 2019        | 11    | 35.29         | 14.22         | 12.70            | 38.73        | 32.34          | 36.77       | 17.92    | 22.92   | 33.77        | 68.73 | 48.93 | 45.96     | 36.69         |
| 2019        | 12    | 23.19         | 14.84         | 13.84            | 38.36        | 20.43          | 32.49       | 19.09    | 23.90   | 32.98        | 70.97 | 48.56 | 49.01     | 38.73         |
| 2020        | 1     | 20.34         | 16.24         | 16.17            | 22.05        | 19.89          | 20.59       | 16.33    | 24.65   | 20.72        | 77.70 | 45.76 | 20.47     | 24.07         |
| 2020        | 2     | 20.14         | 17.00         | 16.93            | 21.54        | 19.62          | 20.23       | 18.19    | 25.64   | 19.79        | 77.62 | 38.82 | 23.44     | 23.25         |
| 2020        | 3     | 40.33         | 22.45         | 22.41            | 43.56        | 38.19          | 44.46       | 17.78    | 26.49   | 35.70        | 77.64 | 48.54 | 40.98     | 39.83         |
| 2020        | 4     | 23.18         | 23.97         | 22.20            | 20.55        | 19.65          | 25.89       | 11.29    | 19.64   | 21.07        | 58.80 | 38.35 | 22.53     | 24.03         |
| 2020        | 5     | 19.68         | 14.39         | 15.07            | 18.91        | 18.36          | 19.62       | 12.32    | 18.88   | 19.65        | 54.67 | 34.24 | 19.62     | 22.04         |
| 2020        | 6     | 14.09         | 13.89         | 13.89            | 16.78        | 13.87          | 17.50       | 7.83     | 17.23   | 13.61        | 53.93 | 32.99 | 16.49     | 14.37         |
| 2020        | 7     | 20.49         | 15.82         | 15.87            | 19.93        | 19.74          | 21.35       | 15.01    | 21.16   | 19.62        | 69.45 | 39.48 | 19.93     | 22.21         |
| 2020        | 8     | 34.84         | 16.62         | 16.56            | 35.81        | 23.35          | 33.12       | 18.34    | 21.88   | 33.75        | 73.07 | 48.04 | 35.97     | 37.71         |
| 2020        | 9     | 34.52         | 23.11         | 21.67            | 40.34        | 22.90          | 34.85       | 19.62    | 22.80   | 33.84        | 73.31 | 46.88 | 36.34     | 36.43         |
| 2020        | 10    | 36.31         | 15.73         | 16.12            | 41.26        | 35.57          | 34.92       | 19.62    | 22.69   | 34.72        | 73.32 | 48.29 | 38.21     | 43.20         |
| 2020        | 11    | 35.12         | 16.55         | 15.47            | 38.15        | 31.92          | 34.05       | 19.86    | 23.35   | 32.12        | 71.76 | 50.08 | 38.58     | 39.52         |
| 2020        | 12    | 26.00         | 17.85         | 17.59            | 37.47        | 23.87          | 28.37       | 19.62    | 24.34   | 22.75        | 73.73 | 49.31 | 37.47     | 39.21         |
| 2021        | 1     | 28.86         | 22.78         | 22.41            | 40.69        | 20.71          | 28.40       | 16.26    | 25.04   | 21.94        | 81.79 | 49.49 | 41.46     | 40.11         |
| 2021        | 2     | 20.23         | 23.73         | 23.73            | 21.92        | 18.90          | 20.41       | 18.90    | 26.72   | 20.24        | 80.26 | 44.07 | 20.76     | 22.72         |
| 2021        | 3     | 39.02         | 15.91         | 15.91            | 51.55        | 24.61          | 45.91       | 18.84    | 27.15   | 38.57        | 81.54 | 58.10 | 51.59     | 41.42         |
| 2021        | 4     | 23.10         | 15.97         | 14.33            | 33.11        | 18.91          | 29.71       | 14.08    | 21.99   | 20.65        | 60.45 | 40.16 | 24.98     | 25.22         |
| 2021        | 5     | 20.61         | 18.58         | 17.37            | 20.48        | 17.38          | 22.20       | 14.44    | 20.15   | 20.34        | 58.99 | 36.54 | 20.24     | 22.06         |
| 2021        | 6     | 13.87         | 23.11         | 23.11            | 17.81        | 14.32          | 18.68       | 9.72     | 17.61   | 13.35        | 51.02 | 36.08 | 18.61     | 19.97         |
| 2021        | 7     | 21.08         | 13.20         | 13.89            | 26.10        | 20.59          | 20.51       | 16.15    | 21.57   | 20.24        | 72.60 | 47.18 | 23.87     | 32.45         |
| 2021        | 8     | 37.35         | 14.55         | 13.40            | 38.16        | 21.87          | 35.75       | 20.15    | 22.18   | 35.50        | 76.30 | 49.83 | 39.06     | 41.28         |
| 2021        | 9     | 36.87         | 20.15         | 17.00            | 43.41        | 24.98          | 36.14       | 20.15    | 23.29   | 36.73        | 76.59 | 46.67 | 42.59     | 36.65         |
| 2021        | 10    | 37.27         | 2.72          | 2.72             | 44.20        | 35.56          | 37.24       | 20.15    | 23.32   | 36.96        | 75.91 | 49.75 | 43.81     | 42.57         |
| 2021        | 11    | 35.24         | 2.77          | 2.77             | 41.61        | 34.75          | 39.97       | 22.77    | 23.51   | 34.68        | 74.79 | 50.92 | 41.45     | 41.13         |
| 2021        | 12    | 29.49         | 2.82          | 2.82             | 40.38        | 24.80          | 36.03       | 20.15    | 24.76   | 25.16        | 79.07 | 51.13 | 40.24     | 41.08         |
| 2022        | 1     | 24.44         | 2.88          | 2.88             | 42.07        | 22.17          | 39.35       | 18.31    | 26.50   | 29.33        | 85.46 | 51.02 | 47.41     | 41.17         |
| 2022        | 2     | 20.95         | 9.08          | 13.34            | 21.76        | 20.78          | 23.15       | 19.42    | 27.42   | 21.20        | 85.20 | 46.20 | 24.23     | 25.48         |
| 2022        | 3     | 47.72         | 10.52         | 9.96             | 47.73        | 39.98          | 50.18       | 21.16    | 27.82   | 47.49        | 86.36 | 55.51 | 52.65     | 52.35         |
| 2022        | 4     | 30.57         | 10.01         | 9.43             | 28.20        |                |             |          |         |              |       |       |           |               |

**Monthly Minimum Mid Columbia Prices**

| Report_Year | Report_Month | Base Case-Det | Base Case-Stc | Base Case-V. Gas | Avoided Cost | Low Tx Capital | Hydro Shift | High Gas | Low Gas | 5000 MW Wind | EIA   | NCEP  | Boom-Bust | High Coal Esc |
|-------------|--------------|---------------|---------------|------------------|--------------|----------------|-------------|----------|---------|--------------|-------|-------|-----------|---------------|
| 2024        | 1            | 38.01         | 13.14         | 15.20            | 44.71        | 22.91          | 41.95       | 19.89    | 28.61   | 38.26        | 89.16 | 55.33 | 50.81     | 43.36         |
| 2024        | 2            | 23.87         | 2.71          | 2.71             | 27.59        | 24.52          | 26.79       | 20.99    | 28.54   | 23.73        | 89.59 | 53.59 | 44.10     | 36.25         |
| 2024        | 3            | 49.31         | 2.76          | 2.76             | 50.14        | 52.99          | 54.50       | 17.70    | 28.50   | 44.29        | 90.04 | 62.33 | 55.51     | 47.98         |
| 2024        | 4            | 28.25         | 2.82          | 2.82             | 22.41        | 23.07          | 32.34       | 17.88    | 23.70   | 23.96        | 69.90 | 44.21 | 37.24     | 26.37         |
| 2024        | 5            | 22.69         | 2.88          | 2.88             | 23.49        | 20.97          | 25.27       | 16.56    | 22.41   | 22.78        | 68.60 | 41.74 | 35.74     | 25.65         |
| 2024        | 6            | 22.41         | 3.63          | 3.63             | 21.02        | 16.47          | 23.51       | 14.22    | 20.46   | 18.81        | 65.89 | 42.18 | 22.41     | 25.37         |
| 2024        | 7            | 27.83         | 3.79          | 3.79             | 31.64        | 22.41          | 39.62       | 16.93    | 22.98   | 30.10        | 80.56 | 49.04 | 26.21     | 36.71         |
| 2024        | 8            | 45.77         | 4.48          | 4.16             | 43.71        | 28.16          | 45.94       | 21.02    | 23.62   | 42.86        | 83.94 | 52.95 | 45.83     | 44.90         |
| 2024        | 9            | 38.70         | 5.01          | 5.77             | 40.48        | 35.21          | 39.04       | 22.49    | 23.89   | 38.70        | 84.50 | 54.56 | 46.15     | 41.52         |
| 2024        | 10           | 38.88         | 3.25          | 2.83             | 43.67        | 35.88          | 39.48       | 22.41    | 24.47   | 38.14        | 84.75 | 55.44 | 47.93     | 42.45         |
| 2024        | 11           | 39.12         | 3.64          | 4.41             | 44.66        | 40.87          | 43.13       | 24.29    | 25.79   | 39.59        | 82.20 | 55.94 | 50.18     | 43.93         |
| 2024        | 12           | 37.40         | 15.53         | 15.36            | 46.65        | 31.06          | 43.02       | 24.06    | 26.67   | 37.24        | 85.11 | 57.60 | 53.31     | 44.95         |
| 2025        | 1            | 38.27         | 15.77         | 15.69            | 45.20        | 23.11          | 44.55       | 17.67    | 28.79   | 37.71        | 89.04 | 57.42 | 46.59     | 45.07         |
| 2025        | 2            | 24.10         | 18.68         | 17.92            | 29.38        | 24.73          | 28.66       | 21.58    | 29.09   | 24.04        | 90.51 | 56.87 | 37.42     | 30.88         |
| 2025        | 3            | 50.71         | 19.62         | 18.34            | 50.04        | 51.67          | 46.70       | 20.21    | 29.34   | 51.76        | 90.77 | 63.99 | 54.35     | 44.09         |
| 2025        | 4            | 34.90         | 19.60         | 20.15            | 27.27        | 31.14          | 26.65       | 19.53    | 23.96   | 29.23        | 63.69 | 49.36 | 29.87     | 27.24         |
| 2025        | 5            | 23.11         | 20.13         | 20.51            | 23.29        | 21.54          | 26.98       | 15.77    | 22.56   | 23.12        | 67.48 | 43.23 | 23.29     | 26.33         |
| 2025        | 6            | 23.22         | 18.04         | 17.42            | 21.64        | 17.08          | 23.11       | 15.34    | 20.91   | 17.74        | 67.85 | 44.18 | 22.07     | 24.31         |
| 2025        | 7            | 27.26         | 19.62         | 18.34            | 24.18        | 23.54          | 38.61       | 19.51    | 23.40   | 34.20        | 83.21 | 48.64 | 23.81     | 38.61         |
| 2025        | 8            | 41.22         | 20.24         | 20.15            | 44.64        | 31.22          | 42.44       | 22.22    | 24.87   | 46.85        | 85.47 | 56.36 | 44.95     | 44.60         |
| 2025        | 9            | 41.26         | 21.57         | 21.28            | 39.25        | 33.69          | 39.58       | 23.17    | 25.00   | 41.07        | 86.02 | 53.63 | 39.40     | 40.33         |
| 2025        | 10           | 44.39         | 15.12         | 15.34            | 43.02        | 37.16          | 45.43       | 23.11    | 25.10   | 46.82        | 85.88 | 56.41 | 43.01     | 45.60         |
| 2025        | 11           | 43.44         | 18.28         | 18.27            | 45.99        | 41.73          | 44.98       | 26.79    | 27.51   | 44.88        | 82.75 | 56.00 | 46.38     | 44.23         |
| 2025        | 12           | 41.37         | 19.78         | 18.39            | 45.22        | 32.96          | 46.55       | 23.18    | 27.20   | 41.57        | 87.49 | 56.65 | 45.79     | 46.32         |
| 2026        | 1            | 34.81         | 21.17         | 19.49            | 42.34        | 23.73          | 45.95       | 21.47    | 29.46   | 38.95        | 90.89 | 58.75 | 49.03     | 43.90         |
| 2026        | 2            | 24.49         | 21.62         | 19.41            | 28.74        | 23.73          | 29.75       | 22.15    | 29.69   | 26.64        | 94.11 | 56.40 | 34.09     | 28.94         |
| 2026        | 3            | 45.66         | 15.07         | 14.94            | 47.69        | 50.10          | 53.29       | 31.72    | 29.97   | 41.33        | 92.82 | 64.69 | 52.07     | 48.79         |
| 2026        | 4            | 24.46         | 16.56         | 15.05            | 23.73        | 22.13          | 32.59       | 17.84    | 24.76   | 23.74        | 70.42 | 48.76 | 28.75     | 31.72         |
| 2026        | 5            | 24.21         | 20.49         | 18.84            | 24.08        | 21.71          | 24.49       | 17.78    | 23.50   | 24.05        | 66.75 | 45.89 | 24.85     | 27.25         |
| 2026        | 6            | 20.98         | 18.64         | 19.42            | 22.22        | 17.24          | 22.16       | 15.52    | 21.23   | 18.32        | 68.85 | 43.16 | 22.16     | 25.20         |
| 2026        | 7            | 29.14         | 18.85         | 19.10            | 29.68        | 24.20          | 33.84       | 18.92    | 23.73   | 33.01        | 85.18 | 52.94 | 32.11     | 37.18         |
| 2026        | 8            | 42.11         | 13.91         | 15.07            | 45.62        | 33.02          | 40.11       | 22.58    | 24.94   | 41.40        | 87.73 | 57.47 | 46.35     | 45.29         |
| 2026        | 9            | 40.69         | 14.37         | 14.65            | 41.04        | 37.20          | 39.52       | 23.73    | 25.83   | 42.34        | 87.71 | 57.63 | 45.68     | 41.68         |
| 2026        | 10           | 41.54         | 16.81         | 13.44            | 45.45        | 37.89          | 40.16       | 23.73    | 25.79   | 41.50        | 87.80 | 58.09 | 46.05     | 45.59         |
| 2026        | 11           | 43.30         | 17.37         | 15.88            | 47.20        | 35.54          | 44.36       | 23.73    | 27.92   | 44.31        | 84.16 | 57.60 | 47.81     | 44.34         |
| 2026        | 12           | 37.36         | 20.57         | 19.30            | 47.22        | 39.38          | 43.77       | 24.44    | 27.58   | 42.35        | 89.35 | 59.30 | 49.19     | 45.20         |

**Monthly Maximum Mid Columbia Prices**

| Report Year | Month | Base Case-Det | Base Case-Stc | Base Case-V. Gas | Avoided Cost | Low Tx Capital | Hydro Shift | High Gas | Low Gas | 5000 MW Wind | EIA   | NCEP  | Boom-Bust | High Coal Esc |
|-------------|-------|---------------|---------------|------------------|--------------|----------------|-------------|----------|---------|--------------|-------|-------|-----------|---------------|
| 2007        | 1     | 66.62         | 116.74        | 235.22           | 71.99        | 71.48          | 75.63       | 87.77    | 38.17   | 63.89        | 72.31 | 69.56 | 76.20     | 70.60         |
| 2007        | 2     | 56.86         | 163.91        | 253.22           | 59.90        | 59.15          | 59.94       | 115.36   | 30.72   | 56.46        | 59.31 | 59.24 | 60.71     | 59.26         |
| 2007        | 3     | 70.20         | 133.85        | 225.53           | 73.64        | 72.90          | 73.30       | 113.78   | 36.85   | 66.55        | 70.09 | 69.45 | 73.67     | 70.97         |
| 2007        | 4     | 55.02         | 204.26        | 188.68           | 50.22        | 49.75          | 51.34       | 97.05    | 26.90   | 52.95        | 49.97 | 49.62 | 51.41     | 49.37         |
| 2007        | 5     | 57.73         | 109.67        | 159.10           | 54.46        | 52.90          | 54.71       | 84.34    | 25.45   | 52.21        | 51.26 | 52.49 | 56.30     | 50.48         |
| 2007        | 6     | 55.30         | 119.58        | 160.74           | 49.82        | 49.74          | 55.61       | 69.75    | 24.13   | 49.86        | 49.96 | 50.34 | 54.67     | 50.88         |
| 2007        | 7     | 67.28         | 106.66        | 216.61           | 66.09        | 64.20          | 64.49       | 98.75    | 32.38   | 66.14        | 62.29 | 64.74 | 64.62     | 62.29         |
| 2007        | 8     | 70.70         | 158.19        | 385.13           | 68.08        | 66.93          | 67.00       | 94.48    | 34.66   | 68.74        | 65.89 | 65.71 | 70.58     | 65.94         |
| 2007        | 9     | 71.30         | 135.66        | 259.65           | 69.73        | 67.23          | 69.21       | 93.67    | 34.88   | 68.68        | 66.62 | 66.50 | 72.05     | 67.31         |
| 2007        | 10    | 69.66         | 119.99        | 202.21           | 66.78        | 64.62          | 65.66       | 92.51    | 35.30   | 68.65        | 65.76 | 65.79 | 67.79     | 65.12         |
| 2007        | 11    | 61.73         | 101.32        | 246.29           | 63.93        | 60.79          | 62.37       | 77.16    | 32.01   | 61.04        | 61.15 | 61.14 | 64.49     | 62.32         |
| 2007        | 12    | 61.47         | 159.17        | 214.47           | 65.24        | 63.65          | 66.75       | 80.61    | 33.00   | 59.37        | 64.99 | 63.15 | 68.19     | 62.82         |
| 2008        | 1     | 56.66         | 142.37        | 328.47           | 66.95        | 61.40          | 61.58       | 97.86    | 33.54   | 54.28        | 59.76 | 59.28 | 69.02     | 58.74         |
| 2008        | 2     | 52.52         | 172.26        | 203.38           | 73.98        | 54.41          | 54.57       | 107.28   | 28.40   | 51.85        | 54.67 | 54.76 | 69.65     | 54.65         |
| 2008        | 3     | 61.15         | 107.71        | 214.91           | 69.07        | 64.24          | 63.20       | 107.56   | 35.09   | 59.10        | 62.26 | 62.02 | 69.14     | 62.25         |
| 2008        | 4     | 51.61         | 101.84        | 128.53           | 47.71        | 45.52          | 46.05       | 74.87    | 24.50   | 50.09        | 46.03 | 46.35 | 48.62     | 44.66         |
| 2008        | 5     | 50.81         | 91.14         | 172.19           | 50.60        | 46.20          | 47.32       | 75.53    | 24.51   | 48.51        | 46.13 | 45.63 | 53.68     | 45.87         |
| 2008        | 6     | 55.04         | 85.14         | 322.69           | 56.97        | 50.89          | 52.30       | 73.01    | 27.53   | 49.79        | 51.69 | 53.42 | 57.92     | 50.17         |
| 2008        | 7     | 61.98         | 115.12        | 151.73           | 60.41        | 58.08          | 57.10       | 81.95    | 30.02   | 58.20        | 57.36 | 59.03 | 62.48     | 58.08         |
| 2008        | 8     | 63.93         | 109.02        | 204.14           | 69.16        | 61.45          | 61.61       | 87.19    | 35.04   | 62.74        | 60.79 | 60.28 | 75.83     | 60.76         |
| 2008        | 9     | 63.44         | 96.48         | 169.83           | 67.36        | 61.70          | 60.03       | 90.75    | 33.94   | 63.11        | 62.14 | 61.25 | 74.63     | 61.76         |
| 2008        | 10    | 60.44         | 93.30         | 222.60           | 62.61        | 58.81          | 58.03       | 80.09    | 31.54   | 59.73        | 57.35 | 59.73 | 62.45     | 57.10         |
| 2008        | 11    | 54.04         | 96.26         | 250.63           | 60.85        | 57.68          | 57.83       | 72.15    | 31.12   | 52.39        | 56.35 | 55.86 | 60.47     | 56.02         |
| 2008        | 12    | 52.65         | 146.98        | 226.57           | 63.02        | 57.77          | 57.02       | 75.93    | 32.12   | 52.30        | 57.84 | 57.48 | 64.52     | 56.08         |
| 2009        | 1     | 54.95         | 115.16        | 156.89           | 62.42        | 58.47          | 58.66       | 100.40   | 32.84   | 53.41        | 56.26 | 56.42 | 64.87     | 54.28         |
| 2009        | 2     | 61.49         | 89.80         | 163.72           | 52.40        | 51.33          | 51.31       | 102.84   | 29.24   | 49.46        | 51.34 | 51.24 | 57.23     | 61.28         |
| 2009        | 3     | 58.75         | 92.72         | 208.33           | 64.48        | 61.68          | 61.36       | 103.68   | 33.22   | 57.04        | 59.07 | 58.00 | 65.25     | 59.10         |
| 2009        | 4     | 47.71         | 99.03         | 225.92           | 43.30        | 43.33          | 43.28       | 81.64    | 23.72   | 46.28        | 43.47 | 43.28 | 47.64     | 41.92         |
| 2009        | 5     | 50.43         | 101.88        | 128.34           | 47.83        | 46.53          | 47.14       | 61.89    | 24.80   | 45.18        | 43.16 | 44.58 | 52.24     | 43.59         |
| 2009        | 6     | 54.53         | 112.66        | 182.22           | 53.67        | 50.03          | 52.82       | 73.10    | 26.92   | 49.79        | 49.96 | 49.78 | 56.86     | 48.24         |
| 2009        | 7     | 58.39         | 109.89        | 214.44           | 59.45        | 55.16          | 54.60       | 80.23    | 30.18   | 56.95        | 54.61 | 53.67 | 62.33     | 54.15         |
| 2009        | 8     | 60.10         | 109.41        | 161.95           | 70.45        | 58.88          | 57.92       | 83.40    | 33.38   | 58.83        | 57.48 | 57.88 | 85.46     | 56.44         |
| 2009        | 9     | 61.15         | 120.76        | 109.73           | 64.17        | 58.50          | 57.15       | 81.11    | 33.34   | 58.95        | 57.89 | 57.60 | 85.87     | 57.80         |
| 2009        | 10    | 55.74         | 105.79        | 205.12           | 56.60        | 55.26          | 53.97       | 76.92    | 29.50   | 53.85        | 54.70 | 53.73 | 59.58     | 53.69         |
| 2009        | 11    | 53.42         | 107.93        | 355.29           | 57.20        | 56.44          | 57.62       | 70.04    | 29.73   | 50.60        | 54.02 | 53.82 | 60.26     | 53.67         |
| 2009        | 12    | 51.91         | 126.13        | 142.44           | 59.70        | 57.16          | 58.06       | 73.56    | 31.29   | 51.45        | 54.51 | 54.25 | 63.12     | 56.47         |
| 2010        | 1     | 53.94         | 110.40        | 131.38           | 62.05        | 57.72          | 58.15       | 73.50    | 31.31   | 50.61        | 79.51 | 57.77 | 59.76     | 55.26         |
| 2010        | 2     | 47.17         | 105.03        | 170.41           | 52.87        | 49.40          | 49.41       | 72.15    | 28.20   | 47.66        | 59.52 | 52.14 | 53.16     | 48.63         |
| 2010        | 3     | 58.38         | 105.94        | 195.74           | 62.94        | 59.19          | 59.88       | 73.50    | 31.75   | 56.19        | 70.70 | 61.40 | 62.30     | 57.38         |
| 2010        | 4     | 45.71         | 111.75        | 163.04           | 43.07        | 41.65          | 40.80       | 77.06    | 22.83   | 44.12        | 52.03 | 44.29 | 42.94     | 40.65         |
| 2010        | 5     | 49.01         | 161.38        | 278.36           | 46.72        | 43.80          | 44.84       | 64.22    | 23.05   | 44.05        | 52.74 | 47.01 | 46.16     | 41.91         |
| 2010        | 6     | 51.80         | 91.73         | 176.58           | 51.10        | 48.47          | 49.31       | 69.13    | 25.04   | 45.76        | 60.46 | 49.36 | 51.10     | 46.37         |
| 2010        | 7     | 54.55         | 92.91         | 168.00           | 56.65        | 51.57          | 51.61       | 75.70    | 28.91   | 54.18        | 64.93 | 55.76 | 56.27     | 51.21         |
| 2010        | 8     | 57.78         | 106.70        | 320.25           | 72.10        | 56.54          | 55.20       | 80.04    | 35.22   | 56.95        | 71.17 | 59.27 | 72.08     | 56.02         |
| 2010        | 9     | 56.78         | 97.08         | 274.17           | 63.30        | 56.34          | 55.05       | 78.85    | 32.66   | 56.25        | 70.82 | 59.34 | 63.30     | 55.16         |
| 2010        | 10    | 53.09         | 118.24        | 252.78           | 54.47        | 52.58          | 51.88       | 74.36    | 28.48   | 52.46        | 64.97 | 56.38 | 54.47     | 51.65         |
| 2010        | 11    | 52.50         | 91.21         | 149.67           | 54.95        | 52.94          | 54.61       | 69.59    | 28.46   | 50.12        | 64.34 | 58.58 | 54.71     | 54.25         |
| 2010        | 12    | 52.76         | 83.11         | 183.47           | 59.56        | 56.82          | 56.80       | 75.58    | 29.90   | 51.31        | 68.14 | 56.79 | 59.56     | 56.70         |
| 2011        | 1     | 50.28         | 91.08         | 179.73           | 61.90        | 60.06          | 58.80       | 75.27    | 32.44   | 47.12        | 67.89 | 60.11 | 62.69     | 57.75         |
| 2011        | 2     | 46.15         | 93.20         | 162.77           | 55.50        | 50.38          | 50.20       | 73.66    | 28.66   | 45.55        | 61.30 | 52.90 | 55.01     | 52.12         |
| 2011        | 3     | 56.00         | 115.27        | 380.73           | 64.33        | 60.79          | 60.57       | 91.01    | 32.43   | 54.16        | 70.11 | 62.68 | 64.38     | 60.04         |
| 2011        | 4     | 45.60         | 101.39        | 125.93           | 44.89        | 42.73          | 41.62       | 83.47    | 24.20   | 45.25        | 53.26 | 44.93 | 45.43     | 41.41         |
| 2011        | 5     | 48.32         | 86.47         | 156.47           | 48.26        | 43.01          | 44.86       | 80.98    | 23.85   | 45.97        | 54.93 | 47.36 | 49.35     | 44.13         |
| 2011        | 6     | 51.30         | 100.23        | 152.10           | 51.72        | 48.29          | 48.56       | 71.04    | 25.32   | 46.39        | 61.40 | 49.70 | 51.61     | 46.63         |
| 2011        | 7     | 56.53         | 112.05        | 150.60           | 58.17        | 52.80          | 52.90       | 77.73    | 30.25   | 55.09        | 67.26 | 56.95 | 60.06     | 52.18         |
| 2011        | 8     | 58.23         | 118.79        | 255.59           | 78.82        | 57.24          | 55.79       | 81.40    | 37.32   | 57.81        | 73.25 | 60.28 | 83.33     | 55.68         |
| 2011        | 9     | 58.64         | 144.70        | 521.55           | 70.04        | 56.41          | 55.34       | 80.97    | 34.88   | 56.79        | 70.59 | 60.10 | 73.12     | 55.96         |
| 2011        | 10    | 54.53         | 172.47        | 324.30           | 55.43        | 53.13          | 52.69       | 75.92    | 28.85   | 53.11        | 67.83 | 56.85 | 56.83     | 52.71         |
| 2011        | 11    | 51.92         | 120.23        | 178.74           | 55.95        | 54.99          | 54.14       | 72.91    | 28.70   | 50.70        | 67.81 | 56.79 | 55.84     | 52.94         |
| 2011        | 12    | 54.67         | 94.57         | 165.72           | 60.53        | 57.60          | 57.59       | 78.91    | 30.61   | 52.23        | 69.82 | 58.90 | 60.51     | 56.43         |
| 2012        | 1     | 48.67         | 99.61         | 181.90           | 61.33        | 54.98          | 55.43       | 78.38    | 33.24   | 48.02        | 71.23 | 61.49 | 64.73     | 55.45         |
| 2012        | 2     | 46.15         | 104.78        | 132.90           | 59.72        | 50.37          | 51.25       | 95.04    | 31.77   | 46.51        | 63.89 | 51.92 | 59.49     | 50.26         |
| 2012        | 3     | 55.20         | 210.77        | 213.46           | 65.63        | 58.01          | 59.24       | 74.75    | 34.48   | 52.82        | 76.70 | 65.64 | 67.53     | 58.73         |
| 2012        | 4     | 45.86         | 96.86         | 98.22            | 44.92        | 40.88          | 42.08       | 67.87    | 25.42   | 45.33        | 57.07 | 46.58 | 49.57     | 42.19         |
| 2012        | 5     | 48.23         | 89.50         | 166.54           | 50.74        | 43.26          | 46.18       | 58.89    | 25.63   | 44.36        | 62.13 | 50.61 | 51.72     | 46.27         |
| 2012        | 6     | 43.54         | 110.88        | 214.89           | 46.65        | 41.41          | 44.00       | 58.99    | 25.96   | 41.70        | 59.58 | 50.23 | 52.92     | 41.58         |
| 2012        | 7     | 55.35         | 121.90        | 310.71           | 60.40        | 52.73          | 52.24       | 67.84    | 30.82   | 52.78        | 71.43 | 58.35 | 68.90     | 53.22         |
| 2012        | 8     | 55.83         | 152.22        | 354.57           | 79.59        | 55.01          | 54.69       | 74.79    | 38.39   | 55.70        | 62.31 | 62.31 | 85.72     | 54.70         |
| 2012        | 9     | 57.78         | 95.76         | 119.13           | 81.88        | 54.99          | 56.73       | 74.12    | 38.82   | 55.08        | 76.59 | 61.80 | 85.33     | 57.14         |
| 2012        | 10    | 52.78         | 142.96        | 185.20           | 57.90        | 52.81          | 53.96       | 72.06    | 30.76   | 51.74        | 70.48 | 57.39 | 61.49     | 52.25         |
| 2012        | 11    | 49.46         | 98.58         | 435.86           | 57.06        | 51.90          | 53.54       | 65.85    | 29.92   | 48.11        | 70.40 | 57.88 | 59.95     | 53.46         |
| 2012        | 12    | 50.87         | 187.18        | 340.66           | 60.30        | 54.57          | 54.75       | 90.37    | 32.17   | 49.25        | 72.53 | 61.98 | 63.39     | 55.97         |
| 2013        | 1     | 50.19         | 86.04         | 139.09           | 66.24        | 58.14          | 58.83       | 76.05    | 34.73   | 48.99        | 73.78 | 65.80 | 69.74     | 59.39         |
| 2013        | 2     | 44.97         | 86.99         | 118.33           | 56.52        | 60.20          | 51.86       | 74.81    | 32.71   | 47.54        | 66.50 | 55.87 | 66.24     | 51.74         |
| 2013        | 3     | 56.38         | 111.35        | 149.30           | 67.18        | 60.07          | 60.19       | 90.67    | 37.11   | 55.11        | 75.55 | 69.16 | 70.36     | 62.09         |
| 2013        | 4     | 47.20         | 92.53         | 99.20            | 46.25        | 41.67          | 41.93       | 64.54    | 26.95   | 46.53        | 59.01 | 47.70 | 53.24     | 41.85         |
| 2013        | 5     | 46.65         | 103.58        | 113.16           | 45.44        | 41.71          | 44.06       | 59.32    | 26.17   | 44.25        | 57.31 | 48.84 | 54.14     | 42.52         |
| 2013        | 6     | 43.73         | 93.66         | 136.91           | 44.89        | 40.59          | 41.38       | 59.40    | 26.03   | 42.65        | 56.68 | 48.37 | 53.65     | 40.93         |
| 2013        | 7     | 56.23         | 109.33        | 161.58           | 62.47        | 52.71          | 53.46       | 61.63    | 32.95   | 55.29        | 72.58 | 59.78 | 86.23     | 53.62         |
| 2013        | 8     | 58.26         | 102.73        | 168.46           | 84.40        | 56.93          | 55.58       | 69.82    | 39.54   | 57.71        | 78.79 | 63.97 | 87.97     | 56.87         |

**Monthly Maximum Mid Columbia Prices**

| Report Year | Month | Base Case-Det | Base Case-Stc | Base Case-V. Gas | Avoided Cost | Low Tx Capital | Hydro Shift | High Gas | Low Gas | 5000 MW Wind | EIA    | NCEP  | Boom-Bust | High Coal Esc |
|-------------|-------|---------------|---------------|------------------|--------------|----------------|-------------|----------|---------|--------------|--------|-------|-----------|---------------|
| 2015        | 7     | 59.48         | 90.81         | 288.77           | 66.26        | 56.92          | 57.02       | 64.00    | 34.31   | 55.55        | 79.73  | 63.49 | 66.31     | 56.45         |
| 2015        | 8     | 61.79         | 92.68         | 132.74           | 91.31        | 60.80          | 59.29       | 74.77    | 42.19   | 60.58        | 86.88  | 67.70 | 91.31     | 59.22         |
| 2015        | 9     | 61.00         | 108.34        | 173.17           | 87.14        | 59.58          | 59.16       | 70.84    | 42.15   | 60.06        | 84.44  | 69.21 | 87.14     | 59.58         |
| 2015        | 10    | 57.65         | 195.48        | 246.30           | 62.19        | 56.36          | 57.79       | 68.00    | 31.96   | 56.43        | 79.14  | 63.52 | 61.03     | 56.87         |
| 2015        | 11    | 52.79         | 90.18         | 195.85           | 61.69        | 56.23          | 55.88       | 71.32    | 33.25   | 53.02        | 78.61  | 64.83 | 61.70     | 54.57         |
| 2015        | 12    | 54.79         | 87.61         | 132.95           | 64.66        | 57.07          | 59.03       | 74.29    | 34.93   | 50.89        | 83.20  | 68.11 | 64.72     | 57.33         |
| 2016        | 1     | 54.86         | 162.94        | 233.06           | 70.64        | 63.11          | 63.56       | 81.41    | 37.94   | 53.57        | 81.32  | 71.70 | 72.23     | 62.05         |
| 2016        | 2     | 51.20         | 135.96        | 276.26           | 59.72        | 55.26          | 71.72       | 81.08    | 35.88   | 48.78        | 75.22  | 61.28 | 62.74     | 56.21         |
| 2016        | 3     | 60.89         | 108.42        | 244.41           | 72.75        | 64.36          | 65.37       | 120.41   | 40.38   | 60.20        | 81.96  | 72.81 | 73.73     | 64.07         |
| 2016        | 4     | 49.93         | 180.70        | 297.42           | 48.25        | 45.09          | 47.15       | 73.69    | 29.95   | 50.98        | 68.03  | 52.33 | 52.50     | 45.05         |
| 2016        | 5     | 51.02         | 86.54         | 196.13           | 51.19        | 46.06          | 47.86       | 65.04    | 28.99   | 48.61        | 68.11  | 55.21 | 54.74     | 46.41         |
| 2016        | 6     | 51.20         | 95.67         | 113.39           | 55.12        | 47.82          | 54.17       | 65.36    | 31.18   | 47.69        | 76.37  | 61.93 | 57.96     | 47.99         |
| 2016        | 7     | 60.81         | 95.11         | 185.56           | 76.04        | 58.76          | 58.78       | 66.92    | 40.43   | 57.68        | 82.57  | 66.47 | 89.87     | 58.32         |
| 2016        | 8     | 65.72         | 154.03        | 295.38           | 94.87        | 62.81          | 63.39       | 77.31    | 43.94   | 62.11        | 88.10  | 70.01 | 94.47     | 61.91         |
| 2016        | 9     | 62.72         | 183.97        | 218.92           | 76.14        | 62.13          | 60.58       | 69.82    | 43.43   | 62.31        | 87.70  | 69.81 | 92.18     | 62.79         |
| 2016        | 10    | 59.59         | 116.40        | 177.73           | 63.90        | 58.56          | 58.41       | 68.97    | 34.10   | 59.29        | 83.87  | 64.89 | 67.84     | 59.05         |
| 2016        | 11    | 55.79         | 121.81        | 155.70           | 63.31        | 56.44          | 57.55       | 100.02   | 34.32   | 54.76        | 81.03  | 68.21 | 65.92     | 56.91         |
| 2016        | 12    | 55.53         | 108.35        | 157.74           | 67.85        | 60.04          | 60.37       | 78.93    | 36.47   | 54.33        | 83.35  | 71.65 | 69.00     | 59.73         |
| 2017        | 1     | 52.43         | 182.34        | 193.61           | 70.12        | 64.41          | 64.46       | 84.34    | 39.16   | 52.41        | 82.87  | 70.76 | 74.70     | 63.72         |
| 2017        | 2     | 51.54         | 158.51        | 391.80           | 61.57        | 70.11          | 57.86       | 83.07    | 37.47   | 51.66        | 77.98  | 63.10 | 68.76     | 57.12         |
| 2017        | 3     | 61.33         | 253.45        | 299.02           | 74.24        | 67.79          | 67.36       | 112.33   | 41.31   | 61.19        | 83.95  | 72.49 | 78.01     | 65.89         |
| 2017        | 4     | 51.94         | 94.13         | 228.14           | 51.26        | 46.33          | 48.34       | 69.48    | 30.64   | 50.18        | 71.84  | 53.81 | 58.22     | 47.67         |
| 2017        | 5     | 54.23         | 101.95        | 164.04           | 56.47        | 49.88          | 53.96       | 66.78    | 29.74   | 52.88        | 74.15  | 56.18 | 58.38     | 49.43         |
| 2017        | 6     | 51.49         | 100.55        | 228.72           | 56.15        | 50.09          | 54.29       | 66.76    | 30.82   | 49.07        | 76.54  | 61.12 | 59.33     | 48.60         |
| 2017        | 7     | 64.00         | 99.80         | 160.34           | 69.72        | 60.53          | 60.21       | 69.05    | 41.46   | 60.58        | 88.01  | 68.00 | 93.39     | 60.83         |
| 2017        | 8     | 64.64         | 105.44        | 290.24           | 96.20        | 64.19          | 63.96       | 79.55    | 45.12   | 64.03        | 92.09  | 72.63 | 97.69     | 64.11         |
| 2017        | 9     | 64.25         | 94.79         | 135.15           | 92.17        | 64.98          | 62.92       | 71.21    | 44.69   | 63.40        | 90.93  | 72.48 | 96.86     | 64.46         |
| 2017        | 10    | 58.99         | 102.24        | 138.23           | 64.58        | 59.54          | 60.26       | 70.24    | 33.64   | 58.44        | 87.39  | 67.70 | 73.85     | 60.49         |
| 2017        | 11    | 55.96         | 134.69        | 240.73           | 65.18        | 58.78          | 59.65       | 74.79    | 35.22   | 55.84        | 83.38  | 66.26 | 69.42     | 58.27         |
| 2017        | 12    | 57.25         | 164.30        | 461.49           | 70.52        | 66.63          | 62.69       | 78.47    | 37.33   | 56.42        | 87.43  | 73.28 | 71.50     | 61.54         |
| 2018        | 1     | 56.22         | 157.82        | 260.34           | 75.19        | 65.48          | 65.78       | 85.40    | 40.98   | 55.59        | 92.97  | 76.72 | 79.88     | 68.22         |
| 2018        | 2     | 53.80         | 201.46        | 321.70           | 63.57        | 59.20          | 57.75       | 85.07    | 38.74   | 52.80        | 82.49  | 64.83 | 74.62     | 58.12         |
| 2018        | 3     | 62.58         | 87.87         | 102.02           | 76.47        | 68.26          | 67.54       | 114.11   | 42.30   | 61.23        | 86.05  | 75.31 | 80.44     | 68.04         |
| 2018        | 4     | 52.96         | 110.89        | 146.41           | 51.16        | 47.32          | 48.68       | 71.96    | 32.05   | 52.64        | 75.88  | 55.37 | 63.14     | 47.80         |
| 2018        | 5     | 53.21         | 146.70        | 304.79           | 56.23        | 48.28          | 49.38       | 68.78    | 30.06   | 51.05        | 76.58  | 55.57 | 60.81     | 49.29         |
| 2018        | 6     | 51.24         | 126.33        | 259.96           | 54.09        | 46.30          | 49.00       | 67.63    | 30.83   | 48.60        | 78.13  | 58.78 | 60.98     | 47.76         |
| 2018        | 7     | 62.82         | 151.39        | 191.08           | 77.05        | 60.92          | 61.15       | 70.91    | 44.64   | 61.75        | 94.35  | 69.81 | 98.72     | 62.13         |
| 2018        | 8     | 64.97         | 83.83         | 109.36           | 100.11       | 63.96          | 63.28       | 81.86    | 46.51   | 64.67        | 98.29  | 76.19 | 100.09    | 68.15         |
| 2018        | 9     | 67.12         | 97.24         | 104.32           | 96.08        | 65.63          | 63.61       | 81.37    | 46.26   | 65.20        | 97.43  | 77.80 | 100.08    | 67.60         |
| 2018        | 10    | 63.70         | 87.89         | 188.55           | 78.40        | 62.88          | 62.01       | 77.31    | 46.18   | 63.46        | 96.89  | 71.40 | 99.21     | 63.22         |
| 2018        | 11    | 54.81         | 108.85        | 204.84           | 66.43        | 58.48          | 59.67       | 76.66    | 35.98   | 55.65        | 85.64  | 69.49 | 71.05     | 61.10         |
| 2018        | 12    | 56.82         | 120.28        | 163.01           | 70.88        | 64.07          | 61.28       | 80.25    | 39.02   | 56.55        | 92.78  | 71.85 | 75.03     | 63.84         |
| 2019        | 1     | 58.93         | 97.10         | 153.17           | 76.98        | 64.89          | 66.86       | 87.39    | 42.20   | 57.30        | 93.42  | 76.06 | 82.35     | 67.58         |
| 2019        | 2     | 56.55         | 90.09         | 139.89           | 61.62        | 58.64          | 61.12       | 85.65    | 40.02   | 63.21        | 87.01  | 66.85 | 77.83     | 59.07         |
| 2019        | 3     | 64.83         | 92.65         | 136.68           | 78.38        | 69.19          | 69.26       | 103.51   | 43.90   | 63.62        | 90.43  | 76.44 | 83.85     | 69.17         |
| 2019        | 4     | 56.42         | 100.67        | 137.40           | 52.14        | 50.73          | 50.35       | 72.90    | 32.95   | 55.84        | 81.66  | 57.19 | 64.51     | 49.86         |
| 2019        | 5     | 54.93         | 106.57        | 173.61           | 58.45        | 49.36          | 52.08       | 70.39    | 30.83   | 53.01        | 82.55  | 55.55 | 65.02     | 48.77         |
| 2019        | 6     | 52.32         | 108.57        | 152.35           | 58.53        | 46.95          | 50.08       | 69.22    | 31.04   | 50.57        | 84.58  | 58.90 | 63.12     | 47.41         |
| 2019        | 7     | 65.67         | 91.54         | 140.14           | 75.18        | 62.04          | 62.59       | 73.61    | 43.56   | 65.07        | 94.01  | 71.47 | 101.10    | 63.57         |
| 2019        | 8     | 69.23         | 99.22         | 142.38           | 101.76       | 65.23          | 65.20       | 85.66    | 47.37   | 69.01        | 102.15 | 78.62 | 102.52    | 69.15         |
| 2019        | 9     | 72.03         | 108.09        | 148.94           | 99.49        | 65.87          | 67.22       | 82.79    | 46.58   | 69.78        | 102.08 | 79.01 | 102.43    | 69.66         |
| 2019        | 10    | 65.82         | 114.10        | 206.11           | 75.58        | 63.46          | 63.11       | 80.91    | 38.93   | 65.98        | 100.76 | 73.46 | 102.75    | 63.73         |
| 2019        | 11    | 57.50         | 124.00        | 196.32           | 67.46        | 61.10          | 60.09       | 107.28   | 37.27   | 59.10        | 91.01  | 70.33 | 76.44     | 61.44         |
| 2019        | 12    | 58.98         | 103.80        | 238.29           | 71.21        | 61.47          | 61.63       | 91.55    | 39.55   | 59.14        | 99.82  | 72.71 | 82.38     | 64.69         |
| 2020        | 1     | 57.33         | 129.73        | 146.75           | 75.12        | 65.13          | 63.67       | 89.34    | 42.49   | 57.10        | 96.51  | 76.98 | 75.06     | 67.63         |
| 2020        | 2     | 56.26         | 131.60        | 156.42           | 62.99        | 61.75          | 59.83       | 89.30    | 40.83   | 56.17        | 92.22  | 68.35 | 61.76     | 60.65         |
| 2020        | 3     | 62.34         | 153.92        | 318.66           | 78.05        | 70.47          | 67.83       | 124.45   | 44.53   | 62.03        | 96.06  | 78.15 | 78.14     | 70.26         |
| 2020        | 4     | 55.90         | 149.95        | 208.16           | 52.55        | 49.78          | 49.88       | 75.39    | 33.63   | 55.75        | 83.56  | 58.59 | 52.21     | 51.96         |
| 2020        | 5     | 56.56         | 117.66        | 149.65           | 60.52        | 51.74          | 52.17       | 71.98    | 31.80   | 54.18        | 87.55  | 63.17 | 58.09     | 53.58         |
| 2020        | 6     | 64.90         | 128.54        | 134.51           | 64.91        | 59.46          | 61.32       | 76.08    | 34.41   | 63.95        | 96.04  | 68.70 | 65.14     | 63.11         |
| 2020        | 7     | 66.70         | 127.72        | 183.94           | 70.70        | 63.68          | 62.55       | 77.72    | 46.53   | 67.35        | 98.55  | 73.70 | 71.47     | 64.86         |
| 2020        | 8     | 71.16         | 112.62        | 146.66           | 104.10       | 66.81          | 66.13       | 90.03    | 48.27   | 69.45        | 102.31 | 81.96 | 103.84    | 70.82         |
| 2020        | 9     | 68.74         | 129.58        | 204.88           | 102.85       | 66.81          | 65.47       | 85.30    | 48.16   | 68.46        | 104.10 | 78.16 | 102.22    | 70.82         |
| 2020        | 10    | 64.31         | 83.12         | 126.45           | 66.33        | 62.84          | 60.12       | 79.88    | 37.49   | 64.52        | 98.42  | 70.89 | 66.42     | 62.42         |
| 2020        | 11    | 59.47         | 87.88         | 174.37           | 69.63        | 61.01          | 60.71       | 80.45    | 38.03   | 58.67        | 97.39  | 72.71 | 69.86     | 61.06         |
| 2020        | 12    | 62.25         | 101.75        | 143.95           | 72.60        | 64.34          | 61.64       | 83.99    | 40.37   | 61.49        | 100.87 | 78.19 | 72.60     | 63.51         |
| 2021        | 1     | 59.07         | 112.43        | 273.42           | 79.15        | 67.59          | 69.15       | 91.32    | 43.33   | 59.00        | 101.92 | 77.94 | 77.13     | 69.61         |
| 2021        | 2     | 63.63         | 146.75        | 387.04           | 66.84        | 63.05          | 65.24       | 93.60    | 41.53   | 56.59        | 98.03  | 70.55 | 64.51     | 63.07         |
| 2021        | 3     | 63.90         | 82.72         | 150.50           | 81.45        | 72.21          | 70.29       | 103.68   | 45.51   | 62.44        | 102.08 | 77.97 | 82.17     | 72.09         |
| 2021        | 4     | 57.26         | 84.34         | 279.73           | 54.55        | 51.84          | 52.69       | 79.68    | 34.47   | 57.08        | 85.84  | 60.13 | 55.16     | 53.14         |
| 2021        | 5     | 58.07         | 115.60        | 168.78           | 61.77        | 53.43          | 56.18       | 73.63    | 32.58   | 56.59        | 93.03  | 61.31 | 64.31     | 52.66         |
| 2021        | 6     | 65.18         | 111.80        | 241.81           | 66.72        | 59.98          | 60.78       | 73.62    | 35.08   | 61.65        | 99.35  | 69.97 | 67.65     | 62.19         |
| 2021        | 7     | 67.10         | 99.97         | 141.02           | 93.64        | 65.30          | 65.24       | 83.70    | 47.03   | 67.44        | 102.34 | 76.53 | 105.65    | 66.49         |
| 2021        | 8     | 73.80         | 86.58         | 158.48           | 107.56       | 69.03          | 72.35       | 93.18    | 49.30   | 73.41        | 108.16 | 84.09 | 107.87    | 73.28         |
| 2021        | 9     | 69.93         | 208.54        | 168.87           | 105.28       | 67.52          | 67.19       | 91.91    | 49.17   | 69.69        | 107.41 | 78.37 | 105.03    | 70.49         |
| 2021        | 10    | 67.39         | 123.56        | 117.23           | 71.90        | 63.52          | 63.64       | 82.15    | 36.64   | 66.20        | 102.50 | 74.05 | 73.18     | 65.57         |
| 2021        | 11    | 60.67         | 90.33         | 104.33           | 72.77        | 66.84          | 63.73       | 82.19    | 39.34   | 61.78        | 100.66 | 73.14 | 73.20     | 63.15         |
| 2021        | 12    | 65.27         | 91.29         | 213.61           | 76.29        | 64.71          | 65.33       | 85.97    | 42.40   | 64.45        | 105.20 | 78.65 | 77.26     | 67.32         |
| 2022        | 1     | 58.21         | 90.25         | 130.36           | 76.94        | 68.69          | 70.03       | 94.39    | 44.60   | 58.44        | 109.64 | 81.97 | 82.75     | 67.72         |
| 2022        | 2     | 58.75         | 220.71        | 324.45           | 64.86        | 75.71          | 64.51       | 92.97    | 42.01   | 59.52        | 1      |       |           |               |

**Monthly Maximum Mid Columbia Prices**

| Report_Year | Report_Month | Base Case-Det | Base Case-Stc | Base Case-V. Gas | Avoided Cost | Low Tx Capital | Hydro Shift | High Gas | Low Gas | 5000 MW Wind | EIA    | NCEP  | Boom-Bust | High Coal Esc |
|-------------|--------------|---------------|---------------|------------------|--------------|----------------|-------------|----------|---------|--------------|--------|-------|-----------|---------------|
| 2024        | 1            | 60.91         | 98.86         | 298.24           | 82.21        | 69.90          | 73.83       | 100.40   | 47.48   | 63.82        | 118.38 | 88.43 | 94.23     | 73.66         |
| 2024        | 2            | 60.40         | 78.12         | 97.31            | 67.38        | 65.90          | 67.35       | 97.37    | 44.09   | 60.99        | 108.04 | 76.07 | 84.64     | 67.45         |
| 2024        | 3            | 66.40         | 92.82         | 116.85           | 83.61        | 73.99          | 74.62       | 127.73   | 49.01   | 66.40        | 111.68 | 85.70 | 93.66     | 73.87         |
| 2024        | 4            | 60.22         | 75.15         | 204.07           | 57.98        | 55.23          | 56.79       | 84.57    | 37.50   | 60.57        | 94.98  | 66.00 | 72.14     | 56.88         |
| 2024        | 5            | 59.63         | 81.08         | 124.46           | 63.56        | 54.57          | 58.11       | 78.57    | 35.65   | 59.57        | 93.80  | 64.51 | 71.83     | 56.37         |
| 2024        | 6            | 57.88         | 116.04        | 169.91           | 65.10        | 52.56          | 57.99       | 78.44    | 34.96   | 58.01        | 94.99  | 64.88 | 74.53     | 56.31         |
| 2024        | 7            | 71.63         | 112.38        | 159.20           | 84.25        | 68.22          | 70.33       | 97.50    | 48.90   | 71.73        | 114.35 | 84.79 | 113.40    | 70.32         |
| 2024        | 8            | 74.46         | 85.62         | 124.18           | 114.07       | 71.83          | 78.13       | 100.86   | 51.07   | 76.68        | 115.26 | 92.89 | 114.92    | 76.44         |
| 2024        | 9            | 73.78         | 94.99         | 140.41           | 111.40       | 72.01          | 73.73       | 104.03   | 51.03   | 76.98        | 115.86 | 91.19 | 115.16    | 77.87         |
| 2024        | 10           | 68.68         | 94.38         | 191.61           | 79.10        | 68.14          | 70.04       | 96.47    | 40.20   | 69.71        | 114.52 | 82.28 | 114.62    | 69.97         |
| 2024        | 11           | 60.51         | 98.45         | 143.57           | 75.80        | 64.81          | 66.21       | 87.91    | 41.55   | 61.95        | 109.52 | 80.00 | 84.58     | 66.30         |
| 2024        | 12           | 63.00         | 128.80        | 190.99           | 79.46        | 66.18          | 71.16       | 92.15    | 44.21   | 63.78        | 118.88 | 86.49 | 90.42     | 73.01         |
| 2025        | 1            | 61.24         | 136.29        | 250.76           | 80.20        | 69.99          | 70.98       | 102.17   | 48.01   | 63.11        | 114.80 | 81.23 | 80.72     | 70.78         |
| 2025        | 2            | 62.72         | 202.19        | 235.15           | 68.93        | 66.46          | 68.22       | 101.33   | 44.70   | 62.38        | 108.31 | 76.91 | 69.12     | 68.52         |
| 2025        | 3            | 67.21         | 190.82        | 245.36           | 84.56        | 72.34          | 72.58       | 134.71   | 49.87   | 67.27        | 111.04 | 81.73 | 85.38     | 71.81         |
| 2025        | 4            | 62.29         | 159.15        | 273.67           | 58.34        | 57.47          | 57.98       | 87.13    | 38.75   | 62.29        | 95.96  | 67.24 | 58.27     | 58.03         |
| 2025        | 5            | 59.60         | 189.11        | 174.36           | 64.07        | 55.39          | 57.07       | 84.92    | 36.12   | 60.11        | 94.69  | 64.66 | 64.15     | 56.05         |
| 2025        | 6            | 68.58         | 123.51        | 139.49           | 70.89        | 63.94          | 66.37       | 88.66    | 36.73   | 69.15        | 109.70 | 75.03 | 70.60     | 65.73         |
| 2025        | 7            | 73.16         | 138.90        | 203.20           | 81.85        | 67.83          | 71.00       | 97.02    | 49.46   | 73.26        | 116.28 | 84.93 | 81.85     | 71.79         |
| 2025        | 8            | 77.43         | 121.57        | 285.88           | 116.32       | 73.40          | 77.62       | 106.87   | 54.07   | 77.69        | 117.63 | 91.54 | 116.78    | 77.63         |
| 2025        | 9            | 75.81         | 142.54        | 180.66           | 116.40       | 72.80          | 73.38       | 103.83   | 53.03   | 76.52        | 117.12 | 88.48 | 116.25    | 75.26         |
| 2025        | 10           | 69.06         | 111.75        | 285.94           | 73.76        | 69.94          | 66.65       | 88.88    | 41.07   | 70.75        | 115.13 | 79.95 | 74.06     | 71.30         |
| 2025        | 11           | 64.04         | 96.77         | 228.60           | 76.54        | 64.59          | 65.24       | 89.84    | 42.56   | 64.01        | 107.41 | 77.09 | 75.99     | 64.12         |
| 2025        | 12           | 64.66         | 110.63        | 182.96           | 79.44        | 68.06          | 69.59       | 93.83    | 45.33   | 65.22        | 118.94 | 82.87 | 79.62     | 69.19         |
| 2026        | 1            | 63.74         | 112.17        | 194.44           | 82.99        | 71.19          | 71.75       | 104.95   | 49.17   | 65.03        | 116.16 | 82.82 | 87.19     | 71.47         |
| 2026        | 2            | 64.33         | 109.46        | 210.41           | 70.83        | 67.73          | 69.25       | 104.02   | 45.29   | 63.96        | 110.43 | 77.86 | 70.41     | 68.78         |
| 2026        | 3            | 69.20         | 100.23        | 244.42           | 87.18        | 73.62          | 73.35       | 104.55   | 50.98   | 69.51        | 113.43 | 83.89 | 88.46     | 73.45         |
| 2026        | 4            | 63.92         | 103.82        | 223.56           | 59.77        | 58.95          | 59.22       | 84.92    | 38.58   | 64.75        | 98.35  | 68.42 | 60.91     | 59.26         |
| 2026        | 5            | 62.26         | 173.98        | 294.18           | 66.25        | 56.72          | 56.96       | 81.95    | 36.76   | 62.47        | 96.91  | 66.05 | 67.47     | 56.89         |
| 2026        | 6            | 71.81         | 194.14        | 494.75           | 74.39        | 67.21          | 67.70       | 95.02    | 38.96   | 73.37        | 113.12 | 78.78 | 76.78     | 67.14         |
| 2026        | 7            | 75.71         | 122.03        | 171.41           | 95.84        | 70.11          | 72.26       | 99.01    | 53.00   | 75.42        | 118.76 | 85.74 | 116.90    | 72.06         |
| 2026        | 8            | 81.61         | 103.32        | 192.14           | 119.05       | 74.96          | 76.28       | 110.15   | 54.91   | 82.45        | 119.93 | 94.33 | 119.81    | 78.66         |
| 2026        | 9            | 78.26         | 95.55         | 182.46           | 118.60       | 74.07          | 74.89       | 103.60   | 52.31   | 80.11        | 119.52 | 89.89 | 118.65    | 75.40         |
| 2026        | 10           | 71.87         | 104.96        | 300.31           | 76.24        | 65.81          | 67.03       | 87.12    | 40.53   | 70.69        | 117.32 | 79.47 | 77.39     | 67.36         |
| 2026        | 11           | 65.92         | 117.93        | 180.28           | 79.13        | 68.06          | 65.27       | 97.60    | 44.91   | 66.20        | 109.14 | 78.77 | 80.09     | 64.20         |
| 2026        | 12           | 66.78         | 165.33        | 331.39           | 83.09        | 68.81          | 69.01       | 95.85    | 46.19   | 67.86        | 120.41 | 85.68 | 83.83     | 70.84         |

Monthly Standard Deviation Mid Columbia Prices

| Report Year | Report Month | Base Case-Det | Base Case-Stc | Base Case-V. Gas | Avoided Cost | Low Tx Capital | Hydro Shift | High Gas | Low Gas | 5000 MW Wind | EIA   | NCEP  | Boom-Bust | High Coal Esc |
|-------------|--------------|---------------|---------------|------------------|--------------|----------------|-------------|----------|---------|--------------|-------|-------|-----------|---------------|
| 2007        | 1            | 5.22          | 11.99         | 17.74            | 6.25         | 6.06           | 4.68        | 9.91     | 3.04    | 6.43         | 5.48  | 5.00  | 5.96      | 5.55          |
| 2007        | 2            | 5.39          | 12.70         | 18.86            | 6.01         | 5.68           | 5.08        | 13.53    | 3.15    | 6.53         | 6.13  | 5.51  | 5.92      | 5.49          |
| 2007        | 3            | 4.07          | 11.96         | 17.24            | 5.02         | 4.35           | 4.78        | 10.32    | 2.82    | 3.91         | 4.05  | 3.73  | 5.15      | 4.08          |
| 2007        | 4            | 5.24          | 12.25         | 20.08            | 5.14         | 4.90           | 4.48        | 10.85    | 2.40    | 6.31         | 5.03  | 4.60  | 5.17      | 4.69          |
| 2007        | 5            | 6.76          | 13.87         | 20.04            | 6.81         | 6.41           | 5.59        | 15.82    | 2.70    | 10.81        | 6.21  | 5.81  | 6.64      | 5.83          |
| 2007        | 6            | 13.86         | 13.37         | 16.85            | 12.74        | 12.49          | 10.31       | 23.78    | 3.79    | 14.80        | 12.47 | 12.45 | 13.06     | 12.60         |
| 2007        | 7            | 10.84         | 12.03         | 19.51            | 10.30        | 10.18          | 9.52        | 15.97    | 4.49    | 12.61        | 9.90  | 9.31  | 10.71     | 9.72          |
| 2007        | 8            | 9.71          | 12.36         | 20.58            | 9.21         | 8.98           | 8.41        | 13.27    | 4.57    | 10.55        | 8.97  | 8.56  | 9.22      | 9.04          |
| 2007        | 9            | 8.46          | 12.12         | 20.18            | 8.44         | 7.94           | 7.93        | 10.22    | 4.00    | 9.03         | 7.85  | 7.84  | 8.59      | 7.89          |
| 2007        | 10           | 6.76          | 12.55         | 21.48            | 6.72         | 6.29           | 6.46        | 6.66     | 3.54    | 7.05         | 6.39  | 6.32  | 7.03      | 6.15          |
| 2007        | 11           | 4.68          | 10.76         | 18.48            | 4.95         | 4.87           | 4.26        | 6.40     | 2.50    | 5.10         | 4.73  | 4.90  | 5.10      | 4.97          |
| 2007        | 12           | 5.73          | 11.66         | 17.95            | 5.91         | 5.90           | 5.14        | 6.85     | 2.93    | 6.15         | 5.55  | 5.88  | 5.71      | 6.07          |
| 2008        | 1            | 5.50          | 12.34         | 19.54            | 6.93         | 6.24           | 4.23        | 11.21    | 3.22    | 6.42         | 5.61  | 5.83  | 6.83      | 5.42          |
| 2008        | 2            | 5.93          | 12.35         | 20.22            | 7.61         | 6.58           | 5.62        | 14.20    | 3.03    | 6.28         | 6.50  | 6.03  | 7.30      | 6.81          |
| 2008        | 3            | 3.80          | 11.28         | 19.94            | 5.46         | 5.38           | 3.10        | 10.27    | 3.02    | 3.81         | 4.47  | 3.35  | 5.42      | 5.24          |
| 2008        | 4            | 5.86          | 11.23         | 17.09            | 6.15         | 6.11           | 3.87        | 8.31     | 2.40    | 6.61         | 5.53  | 5.42  | 5.33      | 5.06          |
| 2008        | 5            | 7.49          | 10.72         | 17.42            | 5.85         | 5.69           | 4.78        | 14.34    | 2.64    | 8.94         | 5.64  | 5.72  | 6.22      | 5.52          |
| 2008        | 6            | 12.39         | 10.35         | 18.45            | 11.42        | 10.89          | 7.89        | 21.62    | 3.46    | 13.69        | 10.79 | 10.80 | 11.69     | 10.65         |
| 2008        | 7            | 8.21          | 11.06         | 17.32            | 9.14         | 8.24           | 7.14        | 14.05    | 4.21    | 9.27         | 8.28  | 8.20  | 9.64      | 7.87          |
| 2008        | 8            | 7.97          | 13.01         | 19.42            | 8.60         | 7.74           | 7.06        | 12.73    | 4.36    | 8.09         | 7.91  | 7.72  | 9.15      | 7.47          |
| 2008        | 9            | 7.09          | 12.54         | 18.32            | 7.94         | 7.12           | 6.45        | 9.69     | 3.91    | 7.46         | 7.08  | 6.90  | 8.47      | 6.82          |
| 2008        | 10           | 4.74          | 12.63         | 16.49            | 6.27         | 5.00           | 4.44        | 6.55     | 3.35    | 4.81         | 5.08  | 4.80  | 6.81      | 4.58          |
| 2008        | 11           | 3.96          | 12.77         | 19.04            | 5.10         | 4.20           | 3.61        | 6.51     | 2.58    | 4.38         | 4.12  | 4.00  | 5.04      | 4.26          |
| 2008        | 12           | 5.28          | 12.45         | 18.36            | 5.54         | 5.24           | 4.68        | 8.39     | 2.72    | 5.02         | 5.28  | 5.35  | 5.48      | 5.24          |
| 2009        | 1            | 4.43          | 15.98         | 19.55            | 5.97         | 5.04           | 4.88        | 10.01    | 3.10    | 5.74         | 5.30  | 5.22  | 6.34      | 5.26          |
| 2009        | 2            | 6.00          | 15.62         | 19.40            | 5.89         | 6.32           | 5.43        | 12.76    | 2.71    | 6.10         | 5.83  | 5.87  | 6.04      | 6.46          |
| 2009        | 3            | 4.07          | 16.20         | 20.67            | 5.49         | 4.80           | 3.54        | 9.07     | 3.09    | 4.03         | 4.27  | 4.58  | 6.08      | 5.12          |
| 2009        | 4            | 5.47          | 16.13         | 21.40            | 5.18         | 5.01           | 4.56        | 7.99     | 2.04    | 5.73         | 4.77  | 5.06  | 5.10      | 4.78          |
| 2009        | 5            | 5.61          | 14.25         | 17.47            | 5.33         | 4.91           | 4.61        | 8.12     | 2.28    | 7.35         | 4.98  | 4.88  | 6.09      | 4.77          |
| 2009        | 6            | 10.83         | 14.41         | 19.77            | 9.95         | 9.66           | 7.04        | 19.55    | 3.19    | 11.95        | 9.31  | 9.38  | 10.89     | 9.43          |
| 2009        | 7            | 7.72          | 14.18         | 21.41            | 8.27         | 7.51           | 6.20        | 13.06    | 3.88    | 8.50         | 7.28  | 6.90  | 8.87      | 7.04          |
| 2009        | 8            | 7.38          | 14.42         | 19.38            | 7.93         | 7.18           | 6.74        | 10.80    | 4.40    | 7.86         | 6.95  | 6.82  | 9.91      | 6.95          |
| 2009        | 9            | 6.52          | 11.28         | 13.84            | 7.32         | 6.54           | 6.13        | 9.26     | 4.03    | 6.66         | 6.53  | 6.20  | 8.91      | 6.43          |
| 2009        | 10           | 4.76          | 11.11         | 17.16            | 5.81         | 5.13           | 4.53        | 4.04     | 3.37    | 4.58         | 4.83  | 4.54  | 6.78      | 4.46          |
| 2009        | 11           | 3.63          | 11.28         | 19.75            | 4.83         | 3.87           | 3.38        | 5.49     | 2.50    | 3.94         | 3.69  | 3.69  | 5.29      | 3.83          |
| 2009        | 12           | 4.57          | 12.08         | 16.75            | 5.02         | 4.74           | 4.25        | 7.64     | 2.70    | 4.81         | 4.81  | 4.84  | 5.37      | 4.69          |
| 2010        | 1            | 4.95          | 10.96         | 13.95            | 5.81         | 5.18           | 4.55        | 8.05     | 2.96    | 5.00         | 5.24  | 4.27  | 5.21      | 4.98          |
| 2010        | 2            | 5.28          | 11.04         | 15.23            | 5.33         | 5.30           | 5.19        | 8.83     | 2.40    | 5.42         | 5.22  | 5.42  | 5.20      | 5.17          |
| 2010        | 3            | 4.00          | 10.78         | 18.24            | 5.59         | 3.80           | 3.85        | 7.83     | 3.08    | 3.56         | 4.97  | 3.86  | 5.72      | 4.06          |
| 2010        | 4            | 5.16          | 11.57         | 16.30            | 4.67         | 4.31           | 3.95        | 8.19     | 1.75    | 5.26         | 3.81  | 3.99  | 4.62      | 4.21          |
| 2010        | 5            | 4.92          | 13.75         | 20.10            | 5.14         | 4.58           | 3.93        | 8.30     | 2.11    | 6.24         | 3.97  | 4.19  | 5.02      | 4.29          |
| 2010        | 6            | 9.10          | 9.14          | 18.01            | 8.63         | 8.17           | 6.11        | 17.12    | 2.97    | 10.53        | 5.08  | 6.98  | 8.66      | 7.80          |
| 2010        | 7            | 7.24          | 9.20          | 15.55            | 7.86         | 6.98           | 6.19        | 9.85     | 3.77    | 7.77         | 7.66  | 6.71  | 7.82      | 6.63          |
| 2010        | 8            | 7.07          | 9.48          | 16.86            | 8.05         | 6.79           | 6.49        | 10.09    | 4.31    | 7.30         | 8.68  | 7.16  | 8.12      | 6.58          |
| 2010        | 9            | 6.33          | 9.40          | 16.83            | 6.93         | 6.16           | 6.05        | 8.59     | 3.82    | 6.26         | 7.77  | 6.54  | 6.95      | 6.13          |
| 2010        | 10           | 4.99          | 11.13         | 19.85            | 5.85         | 5.00           | 4.80        | 5.01     | 3.16    | 4.92         | 6.13  | 5.07  | 5.85      | 4.61          |
| 2010        | 11           | 3.44          | 8.14          | 15.82            | 4.90         | 3.56           | 3.60        | 5.18     | 2.55    | 3.54         | 4.65  | 3.92  | 4.88      | 3.57          |
| 2010        | 12           | 3.98          | 8.10          | 13.93            | 4.99         | 4.38           | 4.07        | 5.85     | 2.80    | 4.13         | 4.91  | 4.60  | 4.94      | 4.09          |
| 2011        | 1            | 4.09          | 8.17          | 15.31            | 5.81         | 4.85           | 4.37        | 6.88     | 3.08    | 4.48         | 4.97  | 4.38  | 5.89      | 4.66          |
| 2011        | 2            | 5.06          | 8.56          | 16.13            | 4.99         | 5.22           | 4.53        | 9.04     | 2.48    | 4.90         | 5.10  | 5.36  | 5.07      | 5.04          |
| 2011        | 3            | 3.68          | 9.59          | 19.59            | 5.80         | 3.93           | 3.56        | 7.48     | 3.28    | 3.16         | 4.93  | 3.92  | 6.04      | 3.39          |
| 2011        | 4            | 5.10          | 8.37          | 14.28            | 4.31         | 4.04           | 3.72        | 8.10     | 2.05    | 4.72         | 3.38  | 4.19  | 4.37      | 3.43          |
| 2011        | 5            | 4.83          | 8.63          | 13.38            | 4.99         | 4.37           | 3.82        | 9.43     | 2.17    | 5.55         | 3.56  | 4.09  | 5.04      | 4.09          |
| 2011        | 6            | 8.36          | 8.53          | 13.99            | 8.54         | 7.71           | 5.27        | 16.64    | 2.89    | 10.57        | 4.86  | 6.73  | 8.45      | 7.30          |
| 2011        | 7            | 7.20          | 9.38          | 15.23            | 7.89         | 6.96           | 6.08        | 10.30    | 3.95    | 7.53         | 7.45  | 6.71  | 7.93      | 6.64          |
| 2011        | 8            | 7.04          | 10.48         | 21.26            | 8.71         | 7.00           | 6.65        | 9.67     | 4.50    | 7.23         | 8.62  | 7.27  | 9.13      | 6.69          |
| 2011        | 9            | 6.33          | 10.15         | 24.60            | 7.29         | 6.34           | 6.01        | 8.88     | 3.91    | 6.19         | 7.76  | 6.61  | 7.58      | 6.10          |
| 2011        | 10           | 4.98          | 12.14         | 18.75            | 6.08         | 5.22           | 4.77        | 5.40     | 3.26    | 4.82         | 6.23  | 5.18  | 6.18      | 4.71          |
| 2011        | 11           | 3.11          | 14.14         | 22.47            | 5.12         | 3.41           | 3.43        | 4.65     | 2.69    | 3.31         | 4.24  | 3.73  | 5.16      | 3.41          |
| 2011        | 12           | 3.78          | 11.43         | 15.88            | 5.40         | 4.33           | 3.96        | 5.35     | 3.01    | 4.18         | 4.72  | 4.45  | 5.33      | 4.14          |
| 2012        | 1            | 5.09          | 12.10         | 15.76            | 6.38         | 6.02           | 4.63        | 22.42    | 3.31    | 6.25         | 4.69  | 4.60  | 6.16      | 4.92          |
| 2012        | 2            | 5.57          | 13.08         | 17.48            | 6.29         | 5.95           | 5.52        | 22.18    | 2.56    | 5.50         | 4.98  | 4.91  | 5.03      | 5.59          |
| 2012        | 3            | 3.72          | 12.73         | 20.49            | 5.73         | 3.75           | 3.34        | 11.44    | 3.53    | 4.38         | 5.19  | 3.83  | 6.89      | 3.80          |
| 2012        | 4            | 5.07          | 10.24         | 13.16            | 4.44         | 4.37           | 4.05        | 16.08    | 2.35    | 5.37         | 3.07  | 3.86  | 4.68      | 4.33          |
| 2012        | 5            | 7.09          | 10.99         | 14.77            | 5.79         | 6.72           | 4.55        | 17.92    | 2.55    | 8.81         | 3.90  | 4.18  | 5.67      | 5.03          |
| 2012        | 6            | 10.73         | 12.77         | 17.06            | 9.86         | 10.05          | 8.38        | 17.41    | 3.01    | 11.59        | 4.72  | 6.00  | 7.86      | 9.11          |
| 2012        | 7            | 8.51          | 12.06         | 19.87            | 9.01         | 8.48           | 7.21        | 18.87    | 4.17    | 9.21         | 7.50  | 6.52  | 8.35      | 7.30          |
| 2012        | 8            | 7.60          | 12.63         | 22.41            | 9.03         | 8.02           | 6.93        | 17.37    | 5.07    | 8.47         | 8.83  | 7.40  | 12.13     | 7.40          |
| 2012        | 9            | 6.78          | 9.97          | 13.71            | 8.33         | 6.87           | 6.51        | 13.40    | 4.51    | 6.92         | 8.25  | 6.86  | 10.30     | 6.74          |
| 2012        | 10           | 4.56          | 10.09         | 16.27            | 5.99         | 4.34           | 4.31        | 10.78    | 3.36    | 4.29         | 6.49  | 5.11  | 6.70      | 4.74          |
| 2012        | 11           | 3.82          | 10.21         | 21.01            | 4.67         | 3.83           | 3.62        | 7.06     | 3.01    | 3.80         | 4.58  | 3.70  | 5.78      | 3.64          |
| 2012        | 12           | 4.58          | 12.93         | 23.02            | 5.21         | 5.06           | 4.47        | 11.90    | 3.29    | 4.82         | 5.02  | 4.50  | 6.02      | 4.75          |
| 2013        | 1            | 5.38          | 8.62          | 12.50            | 7.99         | 8.97           | 5.24        | 23.91    | 3.71    | 6.82         | 4.78  | 4.82  | 6.91      | 6.47          |
| 2013        | 2            | 5.94          | 9.55          | 14.01            | 6.66         | 8.97           | 5.30        | 24.21    | 2.81    | 5.90         | 4.73  | 5.37  | 5.38      | 5.67          |
| 2013        | 3            | 3.80          | 11.24         | 16.23            | 6.12         | 5.07           | 3.25        | 16.33    | 3.93    | 3.74         | 4.70  | 4.24  | 7.63      | 3.87          |
| 2013        | 4            | 5.20          | 9.11          | 11.95            | 5.05         | 5.88           | 4.49        | 18.97    | 2.60    | 5.89         | 2.83  | 4.42  | 4.85      | 5.04          |
| 2013        | 5            | 7.04          | 11.59         | 14.03            | 6.71         | 8.50           | 5.64        | 17.26    | 2.58    | 9.52         | 3.30  | 4.14  | 5.64      | 5.96          |
| 2013        | 6            | 11.11         | 11.85         | 16.81            | 10.45        | 10.44          | 9.37        | 15.66    | 2.96    | 11.87        | 4.19  | 5.66  | 8.00      | 9.57          |
| 2013        | 7            | 9.19          | 11.90         | 17.36            | 10.50        | 9.27           | 7.96        | 19.49    | 4.49    | 9.80         | 6.92  | 7.04  | 10.25     | 8.21          |
| 2013        | 8            | 8.32          | 18.12         | 21.62            | 10.73        | 9.39           | 7.20        | 19.90    | 5.48    | 9.08         | 8.83  | 7.59  | 15.31     | 8.17          |
| 2013        | 9            | 7.05          | 14.24         | 17.85            | 9.08         | 7.31           | 6.47        | 17.72    | 4.89    | 7.50         | 8.14  | 7.19  | 12.51     | 6.99          |
| 2013        | 10           | 5.23          | 14.79         | 16.47            | 6.55         | 5.34           | 4.56        | 16.47    | 3.61    | 5.23         | 6.38  | 5.51  | 7.87      | 5.08          |
| 2013        | 11           | 4.10          | 15.86         | 19.55            | 5.04         | 4.24           | 3.52        | 11.26    | 3.31    | 4.05         | 4.15  | 4.05  | 6.71      | 3.87          |
| 2013        | 12           | 4.36          | 14.95         | 20.34            | 5.75         | 5.38           | 4.21        | 19.08    | 3.47    | 4.51         | 4.67  | 4.34  | 6.82      | 4.88          |
| 2014        | 1            | 6.25          | 12.99         | 20.84            | 8.33         | 9.68           | 5.08        | 24.66    | 4.00    | 6.88         | 4.91  | 4.80  | 7.52      | 6.67          |
| 2014        | 2            | 5.81          | 13.54         | 18.83            | 6.13         | 9.24           | 5.45        | 25.23    | 3.07    | 6.89         | 4.37  | 5.18  | 5.72      | 5.67          |
| 2014        | 3            | 4.11          | 14.08         | 20.13            | 6.08         | 4.76           | 3.21        | 18.31    | 4.15    | 4.06         | 5     |       |           |               |

Monthly Standard Deviation Mid Columbia Prices

| Report Year | Month | Base Case-Det | Base Case-Stc | Base Case-V. Gas | Avoided Cost | Low Tx Capital | Hydro Shift | High Gas | Low Gas | 5000 MW Wind | EIA   | NCEP  | Boom-Bust | High Coal Esc |
|-------------|-------|---------------|---------------|------------------|--------------|----------------|-------------|----------|---------|--------------|-------|-------|-----------|---------------|
| 2015        | 7     | 10.34         | 9.19          | 17.37            | 11.95        | 10.64          | 8.49        | 20.53    | 4.62    | 11.17        | 6.46  | 7.24  | 11.95     | 7.73          |
| 2015        | 8     | 8.70          | 9.77          | 15.57            | 12.95        | 10.93          | 7.56        | 21.47    | 6.15    | 10.56        | 8.55  | 8.11  | 12.96     | 8.31          |
| 2015        | 9     | 7.03          | 9.99          | 16.51            | 9.24         | 8.45           | 6.54        | 19.57    | 4.88    | 8.38         | 7.84  | 7.58  | 9.13      | 6.91          |
| 2015        | 10    | 5.37          | 10.73         | 18.65            | 6.72         | 5.81           | 4.78        | 18.48    | 3.54    | 5.73         | 6.03  | 5.71  | 6.56      | 4.88          |
| 2015        | 11    | 4.59          | 8.59          | 12.54            | 5.46         | 4.72           | 4.20        | 11.28    | 3.50    | 4.84         | 4.40  | 4.21  | 5.34      | 4.17          |
| 2015        | 12    | 4.76          | 8.04          | 12.36            | 5.89         | 5.86           | 4.28        | 20.60    | 3.78    | 5.00         | 4.51  | 4.37  | 5.78      | 4.74          |
| 2016        | 1     | 6.73          | 9.04          | 15.75            | 9.35         | 9.54           | 5.29        | 26.45    | 4.41    | 7.13         | 3.63  | 4.36  | 9.38      | 5.59          |
| 2016        | 2     | 6.14          | 9.47          | 16.04            | 7.49         | 8.71           | 5.90        | 26.02    | 3.23    | 7.00         | 3.22  | 4.99  | 8.22      | 5.95          |
| 2016        | 3     | 4.20          | 10.24         | 15.31            | 6.66         | 5.85           | 4.07        | 19.78    | 4.43    | 4.32         | 4.06  | 4.13  | 7.15      | 4.18          |
| 2016        | 4     | 5.35          | 10.68         | 18.33            | 5.25         | 6.44           | 4.51        | 20.80    | 3.01    | 6.24         | 2.59  | 3.97  | 5.58      | 4.60          |
| 2016        | 5     | 9.25          | 8.49          | 13.57            | 8.15         | 9.19           | 5.88        | 19.69    | 2.97    | 11.08        | 4.55  | 3.80  | 7.70      | 6.15          |
| 2016        | 6     | 13.11         | 8.83          | 12.96            | 12.13        | 11.88          | 10.59       | 17.46    | 3.62    | 13.23        | 5.38  | 5.77  | 11.98     | 10.77         |
| 2016        | 7     | 10.62         | 9.41          | 16.33            | 12.41        | 10.66          | 8.48        | 21.31    | 4.96    | 11.23        | 6.47  | 7.35  | 13.04     | 8.37          |
| 2016        | 8     | 8.66          | 10.15         | 16.36            | 14.01        | 10.50          | 7.86        | 22.23    | 6.61    | 10.48        | 8.41  | 8.50  | 16.01     | 8.49          |
| 2016        | 9     | 7.10          | 10.34         | 20.19            | 9.17         | 7.82           | 6.60        | 20.43    | 5.25    | 7.95         | 7.63  | 7.74  | 10.66     | 6.94          |
| 2016        | 10    | 5.22          | 11.69         | 16.46            | 7.00         | 5.20           | 4.75        | 19.47    | 3.67    | 5.54         | 5.70  | 5.95  | 7.34      | 5.03          |
| 2016        | 11    | 4.73          | 12.15         | 15.84            | 5.69         | 4.69           | 4.23        | 13.04    | 3.62    | 4.68         | 4.24  | 4.20  | 6.07      | 4.28          |
| 2016        | 12    | 5.20          | 12.75         | 17.23            | 5.89         | 5.58           | 4.54        | 21.59    | 3.98    | 5.17         | 4.25  | 4.35  | 6.36      | 4.89          |
| 2017        | 1     | 6.26          | 12.97         | 16.66            | 8.82         | 8.97           | 5.16        | 27.15    | 4.39    | 6.40         | 2.79  | 4.26  | 9.89      | 5.29          |
| 2017        | 2     | 6.47          | 12.37         | 19.91            | 6.89         | 8.98           | 5.48        | 26.82    | 3.31    | 6.91         | 2.50  | 5.00  | 7.67      | 6.09          |
| 2017        | 3     | 4.43          | 12.70         | 18.67            | 6.17         | 5.55           | 4.41        | 18.59    | 4.60    | 4.55         | 3.57  | 3.96  | 8.02      | 3.70          |
| 2017        | 4     | 5.51          | 9.58          | 12.87            | 4.91         | 5.16           | 4.11        | 20.99    | 3.02    | 6.23         | 2.97  | 4.20  | 5.69      | 4.41          |
| 2017        | 5     | 9.20          | 11.31         | 16.41            | 8.26         | 9.45           | 5.76        | 20.72    | 3.04    | 11.03        | 3.93  | 4.19  | 8.19      | 5.92          |
| 2017        | 6     | 13.18         | 12.51         | 19.17            | 12.21        | 12.24          | 10.86       | 18.05    | 3.59    | 13.56        | 5.40  | 5.58  | 12.37     | 10.72         |
| 2017        | 7     | 10.51         | 12.20         | 16.86            | 12.36        | 11.26          | 8.85        | 22.08    | 5.01    | 11.16        | 7.06  | 7.02  | 14.93     | 8.03          |
| 2017        | 8     | 8.39          | 11.75         | 18.76            | 13.08        | 10.79          | 8.32        | 22.85    | 6.90    | 10.13        | 8.42  | 8.69  | 18.28     | 8.54          |
| 2017        | 9     | 7.00          | 9.73          | 14.17            | 9.60         | 7.85           | 6.82        | 20.71    | 5.47    | 7.39         | 7.69  | 8.00  | 14.28     | 7.19          |
| 2017        | 10    | 4.94          | 10.10         | 14.56            | 7.02         | 5.50           | 4.86        | 19.78    | 3.91    | 5.25         | 5.09  | 5.77  | 8.02      | 5.12          |
| 2017        | 11    | 5.08          | 10.98         | 17.12            | 5.54         | 4.60           | 4.07        | 13.27    | 3.95    | 4.99         | 3.79  | 3.83  | 7.08      | 4.13          |
| 2017        | 12    | 5.44          | 12.01         | 20.87            | 6.06         | 6.17           | 4.76        | 21.88    | 4.13    | 5.18         | 3.85  | 4.27  | 7.28      | 4.64          |
| 2018        | 1     | 5.36          | 10.92         | 19.22            | 9.16         | 9.61           | 5.69        | 27.93    | 4.65    | 6.11         | 2.98  | 4.83  | 10.18     | 6.00          |
| 2018        | 2     | 6.95          | 15.42         | 23.61            | 7.33         | 9.01           | 6.45        | 27.50    | 3.59    | 6.40         | 2.72  | 5.27  | 7.51      | 6.18          |
| 2018        | 3     | 4.87          | 8.39          | 12.20            | 6.57         | 5.40           | 4.01        | 18.78    | 4.87    | 3.33         | 3.19  | 4.12  | 9.11      | 3.77          |
| 2018        | 4     | 4.33          | 10.14         | 13.91            | 5.09         | 5.87           | 4.56        | 21.96    | 3.15    | 5.60         | 3.55  | 4.47  | 6.26      | 4.34          |
| 2018        | 5     | 7.48          | 11.62         | 19.51            | 7.32         | 9.47           | 5.96        | 21.94    | 3.04    | 9.91         | 4.33  | 4.02  | 8.24      | 5.09          |
| 2018        | 6     | 12.72         | 10.00         | 17.61            | 12.27        | 12.55          | 10.80       | 17.93    | 3.46    | 13.50        | 5.56  | 5.56  | 12.31     | 10.31         |
| 2018        | 7     | 10.38         | 11.60         | 17.95            | 12.90        | 11.45          | 8.71        | 22.29    | 5.27    | 11.15        | 7.79  | 7.71  | 18.13     | 8.25          |
| 2018        | 8     | 7.83          | 9.17          | 11.70            | 14.40        | 11.36          | 9.09        | 23.56    | 7.14    | 9.24         | 9.42  | 9.11  | 20.35     | 8.42          |
| 2018        | 9     | 7.25          | 10.51         | 13.89            | 11.00        | 8.99           | 6.91        | 21.60    | 5.85    | 7.40         | 8.91  | 8.72  | 17.44     | 7.42          |
| 2018        | 10    | 5.58          | 11.98         | 17.82            | 7.63         | 6.32           | 5.16        | 20.34    | 4.31    | 5.60         | 6.43  | 6.38  | 11.04     | 5.68          |
| 2018        | 11    | 5.11          | 12.02         | 18.65            | 5.74         | 4.92           | 4.42        | 10.34    | 4.07    | 5.16         | 4.03  | 4.20  | 8.06      | 4.15          |
| 2018        | 12    | 5.28          | 12.48         | 17.87            | 6.14         | 5.30           | 4.45        | 21.73    | 4.35    | 5.26         | 3.75  | 4.47  | 8.24      | 4.71          |
| 2019        | 1     | 5.65          | 15.71         | 20.09            | 7.94         | 7.83           | 5.23        | 28.93    | 4.98    | 5.52         | 3.34  | 4.43  | 10.24     | 5.24          |
| 2019        | 2     | 6.00          | 15.32         | 19.20            | 6.75         | 7.71           | 6.45        | 28.43    | 3.82    | 5.93         | 3.00  | 5.06  | 7.47      | 6.03          |
| 2019        | 3     | 3.96          | 16.01         | 18.43            | 6.87         | 3.93           | 3.62        | 17.03    | 5.03    | 3.67         | 3.58  | 4.29  | 10.09     | 3.61          |
| 2019        | 4     | 5.63          | 16.13         | 18.76            | 5.46         | 5.79           | 4.74        | 22.42    | 3.44    | 5.47         | 4.08  | 5.02  | 6.79      | 4.61          |
| 2019        | 5     | 6.66          | 16.20         | 21.04            | 6.61         | 8.65           | 5.59        | 22.04    | 3.12    | 9.67         | 4.68  | 4.37  | 9.00      | 5.03          |
| 2019        | 6     | 12.96         | 15.36         | 19.99            | 12.01        | 12.51          | 10.45       | 18.88    | 3.49    | 13.97        | 5.79  | 5.50  | 12.80     | 9.65          |
| 2019        | 7     | 10.09         | 11.88         | 17.42            | 12.02        | 10.80          | 8.86        | 22.78    | 5.29    | 10.73        | 8.36  | 7.73  | 20.16     | 7.82          |
| 2019        | 8     | 8.27          | 13.42         | 16.46            | 13.97        | 10.78          | 8.53        | 24.29    | 7.47    | 9.53         | 9.65  | 9.22  | 22.28     | 8.26          |
| 2019        | 9     | 7.80          | 14.10         | 18.90            | 10.87        | 8.53           | 6.96        | 22.09    | 6.14    | 7.63         | 9.45  | 8.66  | 19.75     | 7.33          |
| 2019        | 10    | 5.48          | 13.74         | 21.80            | 7.40         | 5.73           | 4.96        | 20.82    | 4.34    | 5.31         | 7.17  | 6.04  | 12.15     | 5.10          |
| 2019        | 11    | 4.93          | 14.41         | 20.36            | 5.60         | 4.73           | 4.16        | 14.14    | 4.36    | 4.99         | 4.60  | 4.11  | 8.91      | 4.02          |
| 2019        | 12    | 5.28          | 12.03         | 22.19            | 6.01         | 5.53           | 4.76        | 22.48    | 4.58    | 5.26         | 4.51  | 4.49  | 9.23      | 4.22          |
| 2020        | 1     | 4.98          | 12.32         | 17.39            | 6.67         | 7.10           | 5.04        | 29.45    | 5.14    | 5.82         | 4.35  | 4.60  | 7.03      | 4.80          |
| 2020        | 2     | 5.45          | 12.59         | 17.60            | 6.34         | 7.57           | 5.40        | 28.92    | 3.75    | 5.73         | 3.89  | 5.38  | 6.22      | 6.11          |
| 2020        | 3     | 3.35          | 15.09         | 22.90            | 5.82         | 4.33           | 3.41        | 18.06    | 5.09    | 3.79         | 4.33  | 4.53  | 6.13      | 3.89          |
| 2020        | 4     | 5.25          | 14.93         | 21.06            | 4.86         | 6.06           | 4.13        | 22.46    | 3.50    | 5.87         | 3.65  | 5.13  | 5.16      | 4.12          |
| 2020        | 5     | 7.22          | 13.22         | 17.93            | 6.16         | 7.02           | 5.10        | 22.49    | 3.10    | 8.31         | 4.30  | 4.75  | 6.36      | 4.80          |
| 2020        | 6     | 13.11         | 10.62         | 15.69            | 12.27        | 12.51          | 10.07       | 20.05    | 3.62    | 14.06        | 6.42  | 5.95  | 12.15     | 9.51          |
| 2020        | 7     | 9.05          | 11.47         | 17.24            | 11.24        | 10.27          | 7.82        | 23.57    | 5.51    | 10.02        | 9.40  | 7.83  | 11.27     | 8.23          |
| 2020        | 8     | 7.72          | 12.03         | 17.56            | 13.36        | 10.03          | 8.07        | 24.98    | 7.77    | 8.23         | 10.13 | 9.72  | 13.36     | 8.51          |
| 2020        | 9     | 7.42          | 14.03         | 21.29            | 10.34        | 8.08           | 6.69        | 21.31    | 6.00    | 7.30         | 9.65  | 8.73  | 10.38     | 7.43          |
| 2020        | 10    | 4.65          | 9.02          | 12.44            | 6.95         | 4.84           | 4.07        | 20.22    | 4.31    | 4.70         | 7.68  | 6.11  | 6.92      | 4.87          |
| 2020        | 11    | 4.92          | 9.31          | 14.80            | 5.35         | 4.33           | 4.08        | 12.35    | 4.39    | 4.82         | 5.57  | 4.29  | 5.37      | 3.98          |
| 2020        | 12    | 5.78          | 10.55         | 16.78            | 5.44         | 4.82           | 4.94        | 19.71    | 4.52    | 5.66         | 5.47  | 4.75  | 5.47      | 4.31          |
| 2021        | 1     | 5.51          | 10.86         | 18.72            | 6.47         | 7.70           | 5.05        | 29.46    | 4.96    | 5.10         | 4.93  | 4.02  | 6.84      | 4.39          |
| 2021        | 2     | 5.96          | 10.26         | 19.38            | 6.04         | 8.36           | 5.69        | 28.50    | 3.77    | 6.21         | 4.09  | 5.11  | 6.10      | 6.26          |
| 2021        | 3     | 3.56          | 8.01          | 14.23            | 6.48         | 5.38           | 3.59        | 14.04    | 5.12    | 3.76         | 5.08  | 4.00  | 7.03      | 3.96          |
| 2021        | 4     | 5.45          | 7.79          | 16.18            | 4.64         | 5.85           | 4.33        | 21.85    | 3.43    | 5.98         | 3.43  | 4.80  | 4.98      | 4.63          |
| 2021        | 5     | 6.33          | 9.28          | 13.96            | 6.03         | 8.16           | 4.98        | 23.08    | 3.14    | 7.58         | 3.60  | 4.39  | 6.15      | 4.69          |
| 2021        | 6     | 12.65         | 9.76          | 17.87            | 12.12        | 12.77          | 9.29        | 21.13    | 3.68    | 13.33        | 5.69  | 5.92  | 12.44     | 8.63          |
| 2021        | 7     | 8.52          | 8.06          | 13.88            | 11.33        | 10.78          | 8.38        | 24.36    | 5.38    | 9.54         | 9.94  | 7.73  | 12.20     | 7.75          |
| 2021        | 8     | 8.25          | 8.13          | 14.35            | 16.91        | 11.14          | 8.30        | 24.81    | 7.71    | 8.25         | 10.64 | 10.26 | 17.90     | 8.93          |
| 2021        | 9     | 7.57          | 10.59         | 18.03            | 11.54        | 8.39           | 7.05        | 20.42    | 5.72    | 7.33         | 9.95  | 8.58  | 12.32     | 7.65          |
| 2021        | 10    | 4.83          | 10.36         | 13.42            | 7.57         | 5.53           | 4.58        | 17.87    | 4.25    | 4.70         | 8.25  | 5.82  | 7.99      | 5.16          |
| 2021        | 11    | 4.88          | 9.83          | 12.22            | 5.83         | 5.07           | 3.92        | 11.41    | 4.41    | 4.91         | 5.37  | 4.06  | 6.33      | 4.06          |
| 2021        | 12    | 5.63          | 10.92         | 16.47            | 5.73         | 5.81           | 4.63        | 17.61    | 4.56    | 5.58         | 6.07  | 4.67  | 6.21      | 4.54          |
| 2022        | 1     | 5.10          | 10.91         | 15.12            | 5.83         | 7.92           | 5.12        | 29.70    | 4.86    | 5.37         | 5.56  | 4.34  | 7.39      | 4.23          |
| 2022        | 2     | 6.23          | 12.85         | 24.58            | 6.21         | 6.97           | 5.52        | 27.72    | 3.87    | 5.74         | 4.22  | 5.09  | 5.80      | 4.98          |
| 2022        | 3     | 3.51          | 11.17         | 16.73            | 5.86         | 4.48           | 3.80        | 12.49    | 5.25    | 3.85         | 5.32  | 4.32  | 8.45      | 3.50          |
| 2022        | 4     | 4.88          | 11.13         | 16.04            | 5.15         | 5.52           | 4.12        | 22.14    | 3.60    | 4.93         | 3.76  | 5.15  | 5.29      | 3.66          |
| 2022        | 5     | 6.97          | 12.24         | 15.57            | 5.91         | 6.66           | 5.35        | 23.64    | 3.34    | 6.92         | 4.38  | 4.58  | 6.71      | 4.25          |
| 2022        | 6     | 12.09         | 11.57         | 16.41            | 11.40        | 12.63          | 8.46        | 22.81    | 3.76    | 13.16        | 5.64  | 5.22  | 12.81     | 7.54          |
| 2022        | 7     | 8.05          | 11.74         | 23.56            | 10.63        | 10.65          | 7.61        | 24.95    | 5.42    | 8.89         | 10.78 | 8.40  | 15.06     | 7.39          |
| 2022        | 8     | 8.01          | 9.99          | 15.92            | 14.46        | 11.14          | 8.45        | 24.99    | 7.57    | 7.94         | 11.51 | 11.08 | 20.95     |               |



Monthly Standard Deviation Mid Columbia Prices

| Report Year | Report Month | Base Case-Det | Base Case-Stc | Base Case-V. Gas | Avoided Cost | Low Tx Capital | Hydro Shift | High Gas | Low Gas | 5000 MW Wind | EIA   | NCEP  | Boom-Bust | High Coal Esc |
|-------------|--------------|---------------|---------------|------------------|--------------|----------------|-------------|----------|---------|--------------|-------|-------|-----------|---------------|
| 2024        | 1            | 5.13          | 11.69         | 20.96            | 5.91         | 7.91           | 5.05        | 30.19    | 5.21    | 5.08         | 5.61  | 4.96  | 9.86      | 4.54          |
| 2024        | 2            | 5.93          | 12.72         | 13.76            | 6.52         | 6.96           | 5.24        | 28.75    | 4.19    | 6.05         | 4.01  | 4.96  | 6.27      | 5.76          |
| 2024        | 3            | 3.45          | 13.11         | 15.09            | 6.15         | 4.09           | 3.71        | 15.61    | 5.62    | 4.04         | 4.73  | 4.52  | 10.92     | 3.90          |
| 2024        | 4            | 5.08          | 13.75         | 16.71            | 5.49         | 5.23           | 4.22        | 22.56    | 4.03    | 5.48         | 3.75  | 5.14  | 6.25      | 4.98          |
| 2024        | 5            | 4.96          | 14.25         | 16.61            | 5.78         | 6.63           | 4.74        | 24.33    | 3.58    | 5.64         | 3.45  | 5.08  | 7.67      | 4.51          |
| 2024        | 6            | 9.68          | 14.67         | 19.61            | 9.70         | 12.04          | 5.81        | 24.40    | 3.94    | 11.41        | 4.62  | 4.96  | 13.62     | 6.25          |
| 2024        | 7            | 7.60          | 15.23         | 19.32            | 10.85        | 10.01          | 6.45        | 25.89    | 5.87    | 8.51         | 10.59 | 9.01  | 21.59     | 7.48          |
| 2024        | 8            | 8.64          | 11.09         | 13.20            | 16.73        | 10.21          | 8.73        | 26.25    | 7.58    | 8.74         | 11.83 | 11.69 | 25.65     | 9.30          |
| 2024        | 9            | 7.80          | 11.42         | 16.11            | 12.11        | 8.42           | 7.53        | 21.42    | 5.99    | 8.04         | 11.20 | 9.65  | 22.56     | 8.12          |
| 2024        | 10           | 4.95          | 11.99         | 17.37            | 7.58         | 5.26           | 4.92        | 17.70    | 4.55    | 5.20         | 7.60  | 6.36  | 13.27     | 5.32          |
| 2024        | 11           | 4.36          | 13.05         | 17.47            | 5.31         | 4.89           | 4.16        | 11.84    | 4.73    | 4.60         | 4.88  | 4.45  | 9.87      | 4.18          |
| 2024        | 12           | 4.84          | 14.13         | 22.73            | 5.82         | 5.98           | 4.66        | 16.61    | 5.06    | 4.98         | 6.28  | 5.22  | 10.11     | 4.78          |
| 2025        | 1            | 4.99          | 14.45         | 20.75            | 5.47         | 7.66           | 5.01        | 30.29    | 5.26    | 5.17         | 5.03  | 4.12  | 4.94      | 4.91          |
| 2025        | 2            | 5.54          | 14.61         | 20.80            | 6.53         | 6.08           | 6.65        | 29.02    | 4.35    | 5.75         | 3.83  | 4.44  | 5.40      | 6.43          |
| 2025        | 3            | 3.45          | 14.02         | 20.22            | 5.73         | 4.19           | 4.27        | 14.09    | 5.58    | 4.02         | 4.45  | 4.15  | 5.66      | 4.31          |
| 2025        | 4            | 4.86          | 14.80         | 21.72            | 5.47         | 5.14           | 5.20        | 22.44    | 4.14    | 5.52         | 4.54  | 4.38  | 4.69      | 5.32          |
| 2025        | 5            | 6.46          | 14.48         | 21.07            | 5.61         | 6.32           | 4.48        | 24.51    | 3.80    | 6.12         | 4.04  | 4.58  | 5.31      | 4.49          |
| 2025        | 6            | 9.24          | 12.42         | 17.90            | 9.55         | 11.82          | 5.72        | 25.36    | 3.91    | 11.29        | 5.46  | 4.96  | 9.49      | 6.97          |
| 2025        | 7            | 6.94          | 13.17         | 19.02            | 11.12        | 8.88           | 6.27        | 26.38    | 6.14    | 7.41         | 10.50 | 7.65  | 11.06     | 7.27          |
| 2025        | 8            | 8.72          | 12.89         | 20.72            | 16.21        | 9.99           | 8.74        | 26.88    | 8.31    | 8.83         | 12.11 | 11.01 | 16.31     | 9.59          |
| 2025        | 9            | 7.35          | 13.45         | 18.63            | 11.56        | 7.73           | 7.10        | 21.20    | 6.29    | 7.46         | 11.07 | 8.69  | 11.53     | 7.96          |
| 2025        | 10           | 4.28          | 11.74         | 17.36            | 6.98         | 4.30           | 4.31        | 17.77    | 4.70    | 4.43         | 6.44  | 5.20  | 6.98      | 4.66          |
| 2025        | 11           | 4.10          | 9.78          | 17.38            | 5.22         | 4.88           | 3.83        | 11.62    | 4.81    | 3.97         | 4.28  | 4.19  | 5.21      | 4.13          |
| 2025        | 12           | 4.61          | 10.58         | 15.14            | 5.55         | 5.92           | 4.36        | 14.84    | 5.12    | 4.50         | 5.57  | 4.70  | 5.42      | 4.80          |
| 2026        | 1            | 5.44          | 9.88          | 18.08            | 6.22         | 8.30           | 4.86        | 29.83    | 5.07    | 5.12         | 5.00  | 4.39  | 6.20      | 4.80          |
| 2026        | 2            | 6.54          | 10.45         | 15.24            | 7.08         | 7.18           | 5.48        | 28.41    | 4.16    | 6.38         | 3.70  | 4.80  | 6.38      | 5.28          |
| 2026        | 3            | 4.02          | 9.33          | 16.97            | 6.42         | 4.34           | 3.91        | 12.90    | 5.66    | 4.90         | 4.51  | 4.46  | 6.76      | 4.04          |
| 2026        | 4            | 6.40          | 8.98          | 15.62            | 5.87         | 5.48           | 4.98        | 22.60    | 3.88    | 6.54         | 4.49  | 4.59  | 5.68      | 4.97          |
| 2026        | 5            | 5.02          | 9.87          | 19.00            | 6.36         | 6.99           | 5.12        | 24.87    | 3.94    | 5.72         | 4.63  | 4.36  | 5.85      | 4.67          |
| 2026        | 6            | 10.53         | 9.77          | 21.31            | 11.17        | 12.63          | 8.35        | 25.78    | 4.08    | 11.99        | 5.94  | 5.45  | 10.65     | 7.45          |
| 2026        | 7            | 7.61          | 10.05         | 14.53            | 11.57        | 9.17           | 6.97        | 26.84    | 5.93    | 7.50         | 10.78 | 7.90  | 13.02     | 6.71          |
| 2026        | 8            | 9.27          | 9.37          | 16.13            | 18.17        | 10.10          | 8.61        | 27.02    | 8.02    | 9.42         | 12.28 | 11.34 | 21.18     | 9.04          |
| 2026        | 9            | 7.82          | 9.20          | 14.19            | 12.53        | 7.68           | 7.13        | 21.35    | 5.89    | 7.87         | 11.18 | 8.63  | 13.95     | 7.60          |
| 2026        | 10           | 4.58          | 9.65          | 15.95            | 7.51         | 4.10           | 4.03        | 16.76    | 4.59    | 4.81         | 6.56  | 5.27  | 8.11      | 4.28          |
| 2026        | 11           | 4.69          | 9.69          | 14.78            | 5.60         | 5.05           | 4.39        | 12.25    | 4.74    | 4.70         | 4.71  | 4.21  | 6.14      | 4.25          |
| 2026        | 12           | 5.03          | 10.50         | 16.70            | 6.07         | 5.81           | 4.74        | 14.89    | 5.06    | 5.40         | 5.60  | 4.81  | 6.27      | 4.87          |

# Scenario and Futures Capacity Expansion Results

## Appendix F

## Base Case

| On-line<br>year Area | Plant Type  | Heat<br>Rate | MW Cap | Variable<br>O&M | Fixed<br>O&M | Forced<br>Outage % | Maintenance<br>% |
|----------------------|-------------|--------------|--------|-----------------|--------------|--------------------|------------------|
| 2007 AB              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 AB              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 AB              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 AB              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 AZ              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 AZ              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 AZ              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 AZ              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 BAJA            | CCCT        | 6856         | 610    | 3.02            | 956          | 5                  | 5                |
| 2007 BC              | CCCT        | 6856         | 610    | 3.02            | 956          | 5                  | 5                |
| 2007 BC              | CCCT        | 6856         | 610    | 3.02            | 956          | 5                  | 5                |
| 2007 CO              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 MT              | Wind        | 0            | 100    | 5.4             | 1701         |                    |                  |
| 2007 MT              | Wind        | 0            | 100    | 5.4             | 1701         |                    |                  |
| 2007 NCAL            | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 NCAL            | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 NM              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 SCAL            | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 SCAL            | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 SCAL            | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 SCAL            | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 SCAL            | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 SCAL            | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 SCAL            | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 SCAL            | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 SCAL            | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 SCAL            | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 SCAL            | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 SCAL            | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 SCAL            | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 SCAL            | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 SNV             | CCCT        | 6856         | 610    | 3.02            | 956          | 5                  | 5                |
| 2007 SNV             | CCCT        | 6856         | 610    | 3.02            | 956          | 5                  | 5                |
| 2007 SNV             | CCCT        | 6856         | 610    | 3.02            | 956          | 5                  | 5                |
| 2007 SNV             | CCCT        | 6856         | 610    | 3.02            | 956          | 5                  | 5                |
| 2007 SNV             | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 SNV             | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 SNV             | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2007 UT              | CCCT        | 6856         | 610    | 3.02            | 956          | 5                  | 5                |
| 2007 UT              | CCCT        | 6856         | 610    | 3.02            | 956          | 5                  | 5                |
| 2007 UT              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 3.6                |                  |
| 2008 AB              | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008 AB              | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008 AZ              | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008 AZ              | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008 AZ              | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008 BC              | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008 MT              | Wind        | 0            | 100    | 5.4             | 1646         |                    |                  |
| 2008 MT              | Wind        | 0            | 100    | 5.4             | 1646         |                    |                  |
| 2008 NCAL            | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |

## Base Case

| On-line<br>year | Area | Plant Type  | Heat<br>Rate | MW Cap | Variable<br>O&M | Fixed<br>O&M | Forced<br>Outage % | Maintenance<br>% |
|-----------------|------|-------------|--------------|--------|-----------------|--------------|--------------------|------------------|
| 2008            | NCAL | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008            | NCAL | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008            | NCAL | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008            | NCAL | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008            | NNV  | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008            | SCAL | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SCAL | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SCAL | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SCAL | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SCAL | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SCAL | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SCAL | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SCAL | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SCAL | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SCAL | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SCAL | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SCAL | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SCAL | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SCAL | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SCAL | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SCAL | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SCAL | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SNV  | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008            | SNV  | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008            | SNV  | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008            | SNV  | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008            | SNV  | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SNV  | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | SNV  | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | UT   | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | UT   | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2008            | UT   | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 3.6                |                  |
| 2009            | UT   | SCCT- Frame | 10139        | 94     | 4.32            | 236          | 3.6                |                  |
| 2009            | UT   | SCCT- Frame | 10139        | 94     | 4.32            | 236          | 3.6                |                  |
| 2009            | UT   | SCCT- Frame | 10139        | 94     | 4.32            | 236          | 3.6                |                  |
| 2009            | UT   | SCCT- Frame | 10139        | 94     | 4.32            | 236          | 3.6                |                  |
| 2010            | SNV  | SCCT- Frame | 10088        | 94     | 4.32            | 235          | 3.6                |                  |
| 2011            | AZ   | SCCT- Frame | 10038        | 94     | 4.32            | 234          | 3.6                |                  |
| 2011            | AZ   | SCCT- Frame | 10038        | 94     | 4.32            | 234          | 3.6                |                  |
| 2011            | AZ   | SCCT- Frame | 10038        | 94     | 4.32            | 234          | 3.6                |                  |
| 2011            | NCAL | CCCT        | 6720         | 610    | 3.02            | 936          | 5                  | 5                |
| 2011            | NCAL | CCCT        | 6720         | 610    | 3.02            | 936          | 5                  | 5                |
| 2011            | SCAL | CCCT        | 6720         | 610    | 3.02            | 936          | 5                  | 5                |
| 2011            | SCAL | CCCT        | 6720         | 610    | 3.02            | 936          | 5                  | 5                |
| 2011            | SNV  | CCCT        | 6720         | 610    | 3.02            | 936          | 5                  | 5                |
| 2012            | AB   | Pulverized  | 9313         | 400    | 1.89            | 3531         | 7                  | 7.4              |
| 2012            | AB   | Pulverized  | 9313         | 400    | 1.89            | 3531         | 7                  | 7.4              |
| 2012            | AZ   | SCCT- Frame | 9988         | 94     | 4.32            | 233          | 3.6                |                  |

## Base Case

| On-line<br>year Area | Plant Type  | Heat<br>Rate | MW Cap | Variable<br>O&M | Fixed<br>O&M | Forced<br>Outage % | Maintenance<br>% |
|----------------------|-------------|--------------|--------|-----------------|--------------|--------------------|------------------|
| 2012 BC              | Pulverized  | 9313         | 400    | 1.89            | 3531         | 7                  | 7.4              |
| 2012 BC              | Pulverized  | 9313         | 400    | 1.89            | 3531         | 7                  | 7.4              |
| 2012 CO              | Pulverized  | 9313         | 400    | 1.89            | 3531         | 7                  | 7.4              |
| 2012 MT              | Pulverized  | 9313         | 400    | 1.89            | 3531         | 7                  | 7.4              |
| 2012 MT              | Pulverized  | 9313         | 400    | 1.89            | 3531         | 7                  | 7.4              |
| 2012 NM              | SCCT- Frame | 9988         | 94     | 4.32            | 233          | 3.6                |                  |
| 2012 NM              | SCCT- Frame | 9988         | 94     | 4.32            | 233          | 3.6                |                  |
| 2012 OWI             | Pulverized  | 9313         | 400    | 1.89            | 3531         | 7                  | 7.4              |
| 2012 OWI             | Pulverized  | 9313         | 400    | 1.89            | 3531         | 7                  | 7.4              |
| 2012 SCAL            | CCCT        | 6686         | 610    | 3.02            | 931          | 5                  | 5                |
| 2012 SNV             | CCCT        | 6686         | 610    | 3.02            | 931          | 5                  | 5                |
| 2012 UT              | Pulverized  | 9313         | 400    | 1.89            | 3531         | 7                  | 7.4              |
| 2012 UT              | Pulverized  | 9313         | 400    | 1.89            | 3531         | 7                  | 7.4              |
| 2012 UT              | Pulverized  | 9313         | 400    | 1.89            | 3015         | 7                  | 7.4              |
| 2012 WY              | Pulverized  | 9313         | 400    | 1.89            | 3531         | 7                  | 7.4              |
| 2012 WY              | Pulverized  | 9313         | 400    | 1.89            | 3531         | 7                  | 7.4              |
| 2012 WY              | Pulverized  | 9313         | 400    | 1.89            | 4087         | 7                  | 7.4              |
| 2013 AZ              | SCCT- Frame | 9938         | 94     | 4.32            | 232          | 3.6                |                  |
| 2013 BC              | Pulverized  | 9290         | 400    | 1.89            | 3527         | 7                  | 7.4              |
| 2013 BC              | Pulverized  | 9290         | 400    | 1.89            | 3527         | 7                  | 7.4              |
| 2013 MT              | Pulverized  | 9290         | 400    | 1.89            | 3527         | 7                  | 7.4              |
| 2013 NCAL            | CCCT        | 6653         | 610    | 3.02            | 926          | 5                  | 5                |
| 2013 NCAL            | CCCT        | 6653         | 610    | 3.02            | 926          | 5                  | 5                |
| 2013 NM              | SCCT- Frame | 9938         | 94     | 4.32            | 232          | 3.6                |                  |
| 2013 NM              | SCCT- Frame | 9938         | 94     | 4.32            | 232          | 3.6                |                  |
| 2013 NM              | SCCT- Frame | 9938         | 94     | 4.32            | 232          | 3.6                |                  |
| 2013 UT              | Pulverized  | 9290         | 400    | 1.89            | 3527         | 7                  | 7.4              |
| 2014 BC              | Pulverized  | 9267         | 400    | 1.89            | 3523         | 7                  | 7.4              |
| 2014 BC              | Pulverized  | 9267         | 400    | 1.89            | 3523         | 7                  | 7.4              |
| 2014 MT              | Pulverized  | 9267         | 400    | 1.89            | 3523         | 7                  | 7.4              |
| 2014 NCAL            | CCCT        | 6620         | 610    | 3.02            | 921          | 5                  | 5                |
| 2014 SCAL            | CCCT        | 6620         | 610    | 3.02            | 921          | 5                  | 5                |
| 2014 SCAL            | CCCT        | 6620         | 610    | 3.02            | 921          | 5                  | 5                |
| 2014 UT              | Pulverized  | 9267         | 400    | 1.89            | 3523         | 7                  | 7.4              |
| 2015 BAJA            | CCCT        | 6587         | 610    | 3.02            | 916          | 5                  | 5                |
| 2015 BC              | Pulverized  | 9244         | 400    | 1.89            | 3519         | 7                  | 7.4              |
| 2015 BC              | Pulverized  | 9244         | 400    | 1.89            | 3519         | 7                  | 7.4              |
| 2015 MT              | Pulverized  | 9244         | 400    | 1.89            | 3519         | 7                  | 7.4              |
| 2015 NCAL            | CCCT        | 6587         | 610    | 3.02            | 916          | 5                  | 5                |
| 2015 SCAL            | CCCT        | 6587         | 610    | 3.02            | 916          | 5                  | 5                |
| 2015 UT              | Pulverized  | 9244         | 400    | 1.89            | 3519         | 7                  | 7.4              |
| 2016 AZ              | CCCT        | 6554         | 610    | 3.02            | 911          | 5                  | 5                |
| 2016 BC              | Pulverized  | 9221         | 400    | 1.89            | 3515         | 7                  | 7.4              |
| 2016 NCAL            | CCCT        | 6554         | 610    | 3.02            | 911          | 5                  | 5                |
| 2016 OWI             | Wind        | 0            | 100    | 5.4             | 1289         |                    |                  |
| 2016 OWI             | Wind        | 0            | 100    | 5.4             | 1289         |                    |                  |
| 2016 OWI             | Wind        | 0            | 100    | 5.4             | 1289         |                    |                  |
| 2016 OWI             | Wind        | 0            | 100    | 5.4             | 1289         |                    |                  |

## Base Case

| On-line<br>year Area | Plant Type  | Heat<br>Rate | MW Cap | Variable<br>O&M | Fixed<br>O&M | Forced<br>Outage % | Maintenance<br>% |
|----------------------|-------------|--------------|--------|-----------------|--------------|--------------------|------------------|
| 2016 OWI             | Wind        | 0            | 100    | 5.4             | 1289         |                    |                  |
| 2016 SCAL            | CCCT        | 6554         | 610    | 3.02            | 911          | 5                  | 5                |
| 2016 SCAL            | CCCT        | 6554         | 610    | 3.02            | 911          | 5                  | 5                |
| 2016 SNV             | CCCT        | 6554         | 610    | 3.02            | 911          | 5                  | 5                |
| 2016 WY              | Pulverized  | 9221         | 400    | 1.89            | 3515         | 7                  | 7.4              |
| 2017 AB              | Pulverized  | 9198         | 400    | 1.89            | 3511         | 7                  | 7.4              |
| 2017 NCAL            | CCCT        | 6521         | 610    | 3.02            | 906          | 5                  | 5                |
| 2017 NCAL            | CCCT        | 6521         | 610    | 3.02            | 906          | 5                  | 5                |
| 2017 OWI             | Wind        | 0            | 100    | 5.4             | 1252         |                    |                  |
| 2017 OWI             | Wind        | 0            | 100    | 5.4             | 1252         |                    |                  |
| 2017 OWI             | Wind        | 0            | 100    | 5.4             | 1252         |                    |                  |
| 2017 OWI             | Wind        | 0            | 100    | 5.4             | 1252         |                    |                  |
| 2017 OWI             | Wind        | 0            | 100    | 5.4             | 1252         |                    |                  |
| 2017 SCAL            | CCCT        | 6521         | 610    | 3.02            | 906          | 5                  | 5                |
| 2017 SCAL            | CCCT        | 6521         | 610    | 3.02            | 906          | 5                  | 5                |
| 2017 SCAL            | CCCT        | 6521         | 610    | 3.02            | 906          | 5                  | 5                |
| 2017 SCAL            | CCCT        | 6521         | 610    | 3.02            | 906          | 5                  | 5                |
| 2018 AZ              | CCCT        | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018 NCAL            | CCCT        | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018 NCAL            | CCCT        | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018 NM              | SCCT- Frame | 9692         | 94     | 4.32            | 227          | 3.6                |                  |
| 2018 SCAL            | CCCT        | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018 SCAL            | CCCT        | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018 SCAL            | CCCT        | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018 SCAL            | CCCT        | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018 UT              | Pulverized  | 9175         | 400    | 1.89            | 3507         | 7                  | 7.4              |
| 2019 AB              | CCCT        | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019 AZ              | CCCT        | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019 AZ              | CCCT        | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019 NCAL            | CCCT        | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019 NM              | CCCT        | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019 SCAL            | CCCT        | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019 WY              | Pulverized  | 9152         | 400    | 1.89            | 3503         | 7                  | 7.4              |
| 2020 AZ              | CCCT        | 6424         | 610    | 3.02            | 892          | 5                  | 5                |
| 2020 AZ              | CCCT        | 6424         | 610    | 3.02            | 892          | 5                  | 5                |
| 2020 AZ              | Nuclear     | 9600         | 1100   | 1.08            | 3764         | 10                 | 6.7              |
| 2020 AZ              | SCCT- Frame | 9596         | 94     | 4.32            | 225          | 3.6                |                  |
| 2020 BAJA            | CCCT        | 6424         | 610    | 3.02            | 892          | 5                  | 5                |
| 2020 NCAL            | CCCT        | 6424         | 610    | 3.02            | 892          | 5                  | 5                |
| 2020 NCAL            | CCCT        | 6424         | 610    | 3.02            | 892          | 5                  | 5                |
| 2020 NCAL            | CCCT        | 6424         | 610    | 3.02            | 892          | 5                  | 5                |
| 2020 NCAL            | CCCT        | 6424         | 610    | 3.02            | 892          | 5                  | 5                |
| 2020 NM              | SCCT- Frame | 9596         | 94     | 4.32            | 225          | 3.6                |                  |
| 2020 NM              | SCCT- Frame | 9596         | 94     | 4.32            | 225          | 3.6                |                  |
| 2020 NM              | SCCT- Frame | 9596         | 94     | 4.32            | 225          | 3.6                |                  |
| 2020 SCAL            | CCCT        | 6424         | 610    | 3.02            | 892          | 5                  | 5                |
| 2020 SCAL            | CCCT        | 6424         | 610    | 3.02            | 892          | 5                  | 5                |
| 2020 SNV             | CCCT        | 6424         | 610    | 3.02            | 892          | 5                  | 5                |

## Base Case

| On-line<br>year | Area | Plant Type  | Heat<br>Rate | MW Cap | Variable<br>O&M | Fixed<br>O&M | Forced<br>Outage % | Maintenance<br>% |
|-----------------|------|-------------|--------------|--------|-----------------|--------------|--------------------|------------------|
| 2020            | UT   | Pulverized  | 9129         | 400    | 1.89            | 3499         | 7                  | 7.4              |
| 2021            | BC   | CCCT        | 6392         | 610    | 3.02            | 888          | 5                  | 5                |
| 2021            | CO   | CCCT        | 6392         | 610    | 3.02            | 888          | 5                  | 5                |
| 2021            | CO   | CCCT        | 6392         | 610    | 3.02            | 888          | 5                  | 5                |
| 2021            | NM   | SCCT- Frame | 9548         | 94     | 4.32            | 224          | 3.6                |                  |
| 2021            | SCAL | CCCT        | 6392         | 610    | 3.02            | 888          | 5                  | 5                |
| 2021            | SCAL | CCCT        | 6392         | 610    | 3.02            | 888          | 5                  | 5                |
| 2021            | SNV  | CCCT        | 6392         | 610    | 3.02            | 888          | 5                  | 5                |
| 2021            | UT   | Pulverized  | 9106         | 400    | 1.89            | 3496         | 7                  | 7.4              |
| 2022            | AB   | CCCT        | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | AZ   | CCCT        | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | BC   | CCCT        | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | CO   | CCCT        | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | NCAL | CCCT        | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | OWI  | CCCT        | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | SCAL | CCCT        | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | SCAL | CCCT        | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | SCAL | CCCT        | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | SCAL | CCCT        | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | SCAL | CCCT        | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | SCAL | CCCT        | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | SNV  | CCCT        | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2023            | AZ   | CCCT        | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2023            | CO   | CCCT        | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2023            | MT   | Wind        | 0            | 100    | 5.4             | 1580         |                    |                  |
| 2023            | NCAL | CCCT        | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2023            | NM   | CCCT        | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2023            | OWI  | CCCT        | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2023            | SCAL | CCCT        | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2023            | SCAL | CCCT        | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2024            | AZ   | CCCT        | 6296         | 610    | 3.02            | 876          | 5                  | 5                |
| 2024            | BC   | CCCT        | 6296         | 610    | 3.02            | 876          | 5                  | 5                |
| 2024            | BC   | CCCT        | 6296         | 610    | 3.02            | 876          | 5                  | 5                |
| 2024            | CO   | CCCT        | 6296         | 610    | 3.02            | 876          | 5                  | 5                |
| 2024            | MT   | Wind        | 0            | 100    | 5.4             | 1537         |                    |                  |
| 2024            | MT   | Wind        | 0            | 100    | 5.4             | 1537         |                    |                  |
| 2024            | NCAL | CCCT        | 6296         | 610    | 3.02            | 876          | 5                  | 5                |
| 2024            | NCAL | CCCT        | 6296         | 610    | 3.02            | 876          | 5                  | 5                |
| 2024            | SCAL | CCCT        | 6296         | 610    | 3.02            | 876          | 5                  | 5                |
| 2025            | AZ   | CCCT        | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2025            | AZ   | CCCT        | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2025            | AZ   | CCCT        | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2025            | AZ   | CCCT        | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2025            | CO   | CCCT        | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2025            | MT   | Wind        | 0            | 100    | 5.4             | 1495         |                    |                  |
| 2025            | NCAL | CCCT        | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2025            | NCAL | CCCT        | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2025            | NCAL | CCCT        | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2025            | NCAL | CCCT        | 6265         | 610    | 3.02            | 872          | 5                  | 5                |

## Base Case

| On-line<br>year | Area | Plant Type  | Heat<br>Rate | MW Cap | Variable<br>O&M | Fixed<br>O&M | Forced<br>Outage % | Maintenance<br>% |
|-----------------|------|-------------|--------------|--------|-----------------|--------------|--------------------|------------------|
| 2025            | NCAL | CCCT        | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2025            | NNV  | Wind        | 0            | 100    | 5.4             | 1495         |                    |                  |
| 2025            | SCAL | CCCT        | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2025            | SCAL | CCCT        | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2025            | SCAL | CCCT        | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2025            | SCAL | CCCT        | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2026            | AB   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | AB   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | AB   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | AB   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | AB   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | AZ   | SCCT- Frame | 9359         | 94     | 4.32            | 220          | 3.6                |                  |
| 2026            | AZ   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | AZ   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | AZ   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | AZ   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | AZ   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | BAJA | CCCT        | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2026            | BC   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | BC   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | BC   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | BC   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | BC   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | CO   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | CO   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | CO   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | IDS  | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | IDS  | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | IDS  | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | IDS  | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | IDS  | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | MT   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | MT   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | MT   | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | NCAL | CCCT        | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2026            | NCAL | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | NNV  | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | NNV  | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | NNV  | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | NNV  | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | NNV  | Wind        | 0            | 100    | 5.4             | 1454         |                    |                  |
| 2026            | OWI  | Wind        | 0            | 100    | 9.72            | 1454         |                    |                  |
| 2026            | OWI  | Wind        | 0            | 100    | 9.72            | 1454         |                    |                  |
| 2026            | OWI  | Wind        | 0            | 100    | 9.72            | 1454         |                    |                  |
| 2026            | OWI  | Wind        | 0            | 100    | 9.72            | 1454         |                    |                  |
| 2026            | OWI  | Wind        | 0            | 100    | 9.72            | 1454         |                    |                  |
| 2026            | SCAL | CCCT        | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2026            | SCAL | CCCT        | 6265         | 610    | 3.02            | 872          | 5                  | 5                |



## Base Case

| On-line<br>year | Area | Plant Type | Heat<br>Rate | MW<br>Cap | Variable<br>O&M | Fixed<br>O&M | Forced<br>Outage % | Maintenance<br>% |
|-----------------|------|------------|--------------|-----------|-----------------|--------------|--------------------|------------------|
| 2026            | SCAL | Wind       | 0            | 100       | 5.4             | 1454         |                    |                  |
| 2026            | SCAL | Wind       | 0            | 100       | 5.4             | 1454         |                    |                  |
| 2026            | SNV  | Wind       | 0            | 100       | 5.4             | 1454         |                    |                  |
| 2026            | SNV  | Wind       | 0            | 100       | 5.4             | 1454         |                    |                  |
| 2026            | SNV  | Wind       | 0            | 100       | 5.4             | 1454         |                    |                  |
| 2026            | SNV  | Wind       | 0            | 100       | 5.4             | 1454         |                    |                  |
| 2026            | SNV  | Wind       | 0            | 100       | 5.4             | 1454         |                    |                  |
| 2026            | SNV  | Wind       | 0            | 100       | 5.4             | 1454         |                    |                  |
| 2026            | UT   | Wind       | 0            | 100       | 5.4             | 1454         |                    |                  |
| 2026            | UT   | Wind       | 0            | 100       | 5.4             | 1454         |                    |                  |
| 2026            | UT   | Wind       | 0            | 100       | 5.4             | 1454         |                    |                  |
| 2026            | UT   | Wind       | 0            | 100       | 5.4             | 1454         |                    |                  |
| 2026            | UT   | Wind       | 0            | 100       | 5.4             | 1454         |                    |                  |
| 2026            | WY   | Wind       | 0            | 100       | 5.4             | 1454         |                    |                  |
| 2026            | WY   | Wind       | 0            | 100       | 5.4             | 1454         |                    |                  |
| 2026            | WY   | Wind       | 0            | 100       | 5.4             | 1454         |                    |                  |
| 2026            | WY   | Wind       | 0            | 100       | 5.4             | 1454         |                    |                  |
| 2026            | WY   | Wind       | 0            | 100       | 5.4             | 1454         |                    |                  |

## NCEP Emissions Scenario

| On-line |      |             | Heat        | Variable | Fixed | Forced   | Maintenance |   |
|---------|------|-------------|-------------|----------|-------|----------|-------------|---|
| Year    | Area | Plant Type  | Rate MW Cap | O&M      | O&M   | Outage % | %           |   |
| 2007    | AB   | CCCT        | 6856        | 610      | 3.02  | 956      | 5           | 5 |
| 2007    | AB   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | AB   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | AB   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | AZ   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | AZ   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | AZ   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | AZ   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | BAJA | CCCT        | 6856        | 610      | 3.02  | 956      | 5           | 5 |
| 2007    | BC   | CCCT        | 6856        | 610      | 3.02  | 956      | 5           | 5 |
| 2007    | BC   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | BC   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | BC   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | NCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | NCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | NCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | NM   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | NM   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | NM   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | NM   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | NNV  | CCCT        | 6856        | 610      | 3.02  | 956      | 5           | 5 |
| 2007    | OWI  | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | OWI  | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | CCCT        | 6856        | 610      | 3.02  | 956      | 5           | 5 |
| 2007    | SCAL | CCCT        | 6856        | 610      | 3.02  | 956      | 5           | 5 |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SNV  | CCCT        | 6856        | 610      | 3.02  | 956      | 5           | 5 |
| 2007    | SNV  | CCCT        | 6856        | 610      | 3.02  | 956      | 5           | 5 |
| 2007    | SNV  | CCCT        | 6856        | 610      | 3.02  | 956      | 5           | 5 |
| 2007    | SNV  | CCCT        | 6856        | 610      | 3.02  | 956      | 5           | 5 |
| 2007    | SNV  | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SNV  | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |

## NCEP Emissions Scenario

| On-line |      |             | Heat        | Variable | Fixed | Forced   | Maintenance |     |
|---------|------|-------------|-------------|----------|-------|----------|-------------|-----|
| Year    | Area | Plant Type  | Rate MW Cap | O&M      | O&M   | Outage % | %           |     |
| 2007    | SNV  | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |     |
| 2007    | SNV  | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |     |
| 2007    | UT   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |     |
| 2007    | UT   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |     |
| 2007    | UT   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |     |
| 2007    | UT   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |     |
| 2008    | AZ   | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |     |
| 2008    | BC   | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5   |
| 2008    | CO   | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5   |
| 2008    | NCAL | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5   |
| 2008    | NCAL | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5   |
| 2008    | NCAL | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5   |
| 2008    | NCAL | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5   |
| 2008    | NM   | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |     |
| 2008    | NM   | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |     |
| 2008    | NM   | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |     |
| 2008    | SNV  | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5   |
| 2008    | SNV  | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5   |
| 2008    | SNV  | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5   |
| 2008    | SNV  | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5   |
| 2008    | SNV  | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |     |
| 2008    | SNV  | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |     |
| 2008    | SNV  | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |     |
| 2008    | SNV  | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |     |
| 2009    | BC   | CCCT        | 6788        | 610      | 3.02  | 946      | 5           | 5   |
| 2009    | BC   | CCCT        | 6788        | 610      | 3.02  | 946      | 5           | 5   |
| 2009    | NCAL | CCCT        | 6788        | 610      | 3.02  | 946      | 5           | 5   |
| 2009    | SNV  | SCCT- Frame | 10139       | 94       | 4.32  | 236      | 3.6         |     |
| 2009    | SNV  | SCCT- Frame | 10139       | 94       | 4.32  | 236      | 3.6         |     |
| 2009    | SNV  | SCCT- Frame | 10139       | 94       | 4.32  | 236      | 3.6         |     |
| 2009    | SNV  | SCCT- Frame | 10139       | 94       | 4.32  | 236      | 3.6         |     |
| 2009    | UT   | CCCT        | 6788        | 610      | 3.02  | 946      | 5           | 5   |
| 2009    | UT   | SCCT- Frame | 10139       | 94       | 4.32  | 236      | 3.6         |     |
| 2010    | AB   | CCCT        | 6754        | 610      | 3.02  | 941      | 5           | 5   |
| 2010    | SNV  | CCCT        | 6754        | 610      | 3.02  | 941      | 5           | 5   |
| 2010    | SNV  | SCCT- Frame | 10088       | 94       | 4.32  | 235      | 3.6         |     |
| 2011    | NCAL | CCCT        | 6720        | 610      | 3.02  | 936      | 5           | 5   |
| 2011    | NCAL | CCCT        | 6720        | 610      | 3.02  | 936      | 5           | 5   |
| 2011    | UT   | CCCT        | 6720        | 610      | 3.02  | 936      | 5           | 5   |
| 2012    | BC   | CCCT        | 6686        | 610      | 3.02  | 931      | 5           | 5   |
| 2012    | CO   | CCCT        | 6686        | 610      | 3.02  | 931      | 5           | 5   |
| 2012    | NCAL | CCCT        | 6686        | 610      | 3.02  | 931      | 5           | 5   |
| 2012    | NCAL | CCCT        | 6686        | 610      | 3.02  | 931      | 5           | 5   |
| 2012    | SCAL | CCCT        | 6686        | 610      | 3.02  | 931      | 5           | 5   |
| 2012    | SCAL | Pulverized  | 9313        | 400      | 1.89  | 3015     | 7           | 7.4 |
| 2013    | BC   | CCCT        | 6653        | 610      | 3.02  | 926      | 5           | 5   |
| 2013    | BC   | CCCT        | 6653        | 610      | 3.02  | 926      | 5           | 5   |
| 2013    | SCAL | CCCT        | 6653        | 610      | 3.02  | 926      | 5           | 5   |

## NCEP Emissions Scenario

| On-line |      |             | Heat        | Variable | Fixed | Forced   | Maintenance |
|---------|------|-------------|-------------|----------|-------|----------|-------------|
| Year    | Area | Plant Type  | Rate MW Cap | O&M      | O&M   | Outage % | %           |
| 2014    | AB   | CCCT        | 6620 610    | 3.02     | 921   | 5        | 5           |
| 2014    | BC   | CCCT        | 6620 610    | 3.02     | 921   | 5        | 5           |
| 2014    | NCAL | CCCT        | 6620 610    | 3.02     | 921   | 5        | 5           |
| 2014    | SCAL | CCCT        | 6620 610    | 3.02     | 921   | 5        | 5           |
| 2014    | SNV  | CCCT        | 6620 610    | 3.02     | 921   | 5        | 5           |
| 2014    | SNV  | CCCT        | 6620 610    | 3.02     | 921   | 5        | 5           |
| 2015    | AZ   | SCCT- Frame | 9839 94     | 4.32     | 230   | 3.6      |             |
| 2015    | AZ   | SCCT- Frame | 9839 94     | 4.32     | 230   | 3.6      |             |
| 2015    | MT   | IGCC SQ     | 8704 401    | 1.73     | 4842  | 10       | 7.4         |
| 2015    | NCAL | CCCT        | 6587 610    | 3.02     | 916   | 5        | 5           |
| 2015    | SCAL | CCCT        | 6587 610    | 3.02     | 916   | 5        | 5           |
| 2015    | SCAL | CCCT        | 6587 610    | 3.02     | 916   | 5        | 5           |
| 2015    | SNV  | CCCT        | 6587 610    | 3.02     | 916   | 5        | 5           |
| 2015    | UT   | CCCT        | 6587 610    | 3.02     | 916   | 5        | 5           |
| 2016    | AB   | CCCT        | 6554 610    | 3.02     | 911   | 5        | 5           |
| 2016    | AZ   | SCCT- Frame | 9790 94     | 4.32     | 229   | 3.6      |             |
| 2016    | AZ   | SCCT- Frame | 9790 94     | 4.32     | 229   | 3.6      |             |
| 2016    | AZ   | SCCT- Frame | 9790 94     | 4.32     | 229   | 3.6      |             |
| 2016    | CO   | CCCT        | 6554 610    | 3.02     | 911   | 5        | 5           |
| 2016    | MT   | Wind        | 0 100       | 5.4      | 1945  |          |             |
| 2016    | NCAL | CCCT        | 6554 610    | 3.02     | 911   | 5        | 5           |
| 2016    | NCAL | CCCT        | 6554 610    | 3.02     | 911   | 5        | 5           |
| 2016    | SCAL | CCCT        | 6554 610    | 3.02     | 911   | 5        | 5           |
| 2016    | SCAL | CCCT        | 6554 610    | 3.02     | 911   | 5        | 5           |
| 2017    | AB   | CCCT        | 6521 610    | 3.02     | 906   | 5        | 5           |
| 2017    | AZ   | CCCT        | 6521 610    | 3.02     | 906   | 5        | 5           |
| 2017    | BC   | CCCT        | 6521 610    | 3.02     | 906   | 5        | 5           |
| 2017    | MT   | IGCC SQ     | 8617 401    | 1.73     | 4794  | 10       | 7.4         |
| 2017    | MT   | Wind        | 0 100       | 5.4      | 1908  |          |             |
| 2017    | MT   | Wind        | 0 100       | 5.4      | 1908  |          |             |
| 2017    | NCAL | CCCT        | 6521 610    | 3.02     | 906   | 5        | 5           |
| 2017    | NCAL | CCCT        | 6521 610    | 3.02     | 906   | 5        | 5           |
| 2017    | NM   | CCCT        | 6521 610    | 3.02     | 906   | 5        | 5           |
| 2017    | SCAL | CCCT        | 6521 610    | 3.02     | 906   | 5        | 5           |
| 2017    | SCAL | CCCT        | 6521 610    | 3.02     | 906   | 5        | 5           |
| 2017    | UT   | CCCT        | 6521 610    | 3.02     | 906   | 5        | 5           |
| 2018    | AZ   | CCCT        | 6488 610    | 3.02     | 901   | 5        | 5           |
| 2018    | CO   | CCCT        | 6488 610    | 3.02     | 901   | 5        | 5           |
| 2018    | NCAL | CCCT        | 6488 610    | 3.02     | 901   | 5        | 5           |
| 2018    | NCAL | CCCT        | 6488 610    | 3.02     | 901   | 5        | 5           |
| 2018    | SCAL | CCCT        | 6488 610    | 3.02     | 901   | 5        | 5           |
| 2019    | AZ   | CCCT        | 6456 610    | 3.02     | 896   | 5        | 5           |
| 2019    | BC   | CCCT        | 6456 610    | 3.02     | 896   | 5        | 5           |
| 2019    | CO   | CCCT        | 6456 610    | 3.02     | 896   | 5        | 5           |
| 2019    | MT   | Wind        | 0 100       | 5.4      | 1836  |          |             |
| 2019    | NCAL | CCCT        | 6456 610    | 3.02     | 896   | 5        | 5           |
| 2019    | NCAL | CCCT        | 6456 610    | 3.02     | 896   | 5        | 5           |
| 2019    | NM   | CCCT        | 6456 610    | 3.02     | 896   | 5        | 5           |

## NCEP Emissions Scenario

| On-line |      |            | Heat        | Variable | Fixed | Forced   | Maintenance |
|---------|------|------------|-------------|----------|-------|----------|-------------|
| Year    | Area | Plant Type | Rate MW Cap | O&M      | O&M   | Outage % | %           |
| 2019    | OWI  | Wind       | 0 100       | 5.4      | 1836  |          |             |
| 2019    | SCAL | CCCT       | 6456 610    | 3.02     | 896   | 5        | 5           |
| 2019    | SCAL | CCCT       | 6456 610    | 3.02     | 896   | 5        | 5           |
| 2019    | SNV  | CCCT       | 6456 610    | 3.02     | 896   | 5        | 5           |
| 2019    | UT   | CCCT       | 6456 610    | 3.02     | 896   | 5        | 5           |
| 2020    | AZ   | CCCT       | 6424 610    | 3.02     | 892   | 5        | 5           |
| 2020    | AZ   | Nuclear    | 9600 1100   | 1.08     | 3764  | 10       | 6.7         |
| 2020    | BC   | CCCT       | 6424 610    | 3.02     | 892   | 5        | 5           |
| 2020    | NM   | CCCT       | 6424 610    | 3.02     | 892   | 5        | 5           |
| 2020    | SCAL | CCCT       | 6424 610    | 3.02     | 892   | 5        | 5           |
| 2020    | SCAL | CCCT       | 6424 610    | 3.02     | 892   | 5        | 5           |
| 2020    | SCAL | CCCT       | 6424 610    | 3.02     | 892   | 5        | 5           |
| 2020    | SNV  | CCCT       | 6424 610    | 3.02     | 892   | 5        | 5           |
| 2021    | AB   | CCCT       | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | BAJA | CCCT       | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | BC   | CCCT       | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | CO   | CCCT       | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | CO   | CCCT       | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | NCAL | CCCT       | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | NCAL | CCCT       | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | NCAL | CCCT       | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | OWI  | Wind       | 0 100       | 5.4      | 1767  |          |             |
| 2021    | OWI  | Wind       | 0 100       | 5.4      | 1767  |          |             |
| 2021    | OWI  | Wind       | 0 100       | 5.4      | 1767  |          |             |
| 2021    | OWI  | Wind       | 0 100       | 5.4      | 1767  |          |             |
| 2021    | SCAL | CCCT       | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | SCAL | CCCT       | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2022    | AB   | CCCT       | 6360 610    | 3.02     | 884   | 5        | 5           |
| 2022    | NCAL | CCCT       | 6360 610    | 3.02     | 884   | 5        | 5           |
| 2022    | NCAL | CCCT       | 6360 610    | 3.02     | 884   | 5        | 5           |
| 2022    | NCAL | CCCT       | 6360 610    | 3.02     | 884   | 5        | 5           |
| 2022    | NCAL | CCCT       | 6360 610    | 3.02     | 884   | 5        | 5           |
| 2022    | NM   | CCCT       | 6360 610    | 3.02     | 884   | 5        | 5           |
| 2022    | OWI  | Wind       | 0 100       | 5.4      | 1734  |          |             |
| 2022    | OWI  | Wind       | 0 100       | 5.4      | 1734  |          |             |
| 2022    | OWI  | Wind       | 0 100       | 5.4      | 1734  |          |             |
| 2022    | OWI  | Wind       | 0 100       | 5.4      | 1734  |          |             |
| 2023    | AZ   | CCCT       | 6328 610    | 3.02     | 880   | 5        | 5           |
| 2023    | AZ   | CCCT       | 6328 610    | 3.02     | 880   | 5        | 5           |
| 2023    | AZ   | CCCT       | 6328 610    | 3.02     | 880   | 5        | 5           |
| 2023    | BAJA | CCCT       | 6328 610    | 3.02     | 880   | 5        | 5           |
| 2023    | NCAL | CCCT       | 6328 610    | 3.02     | 880   | 5        | 5           |
| 2023    | NCAL | CCCT       | 6328 610    | 3.02     | 880   | 5        | 5           |
| 2023    | OWI  | CCCT       | 6328 610    | 3.02     | 880   | 5        | 5           |
| 2023    | OWI  | Wind       | 0 100       | 5.4      | 1701  |          |             |
| 2023    | SCAL | CCCT       | 6328 610    | 3.02     | 880   | 5        | 5           |
| 2023    | SCAL | CCCT       | 6328 610    | 3.02     | 880   | 5        | 5           |
| 2023    | SCAL | CCCT       | 6328 610    | 3.02     | 880   | 5        | 5           |

## NCEP Emissions Scenario

| On-line |      |            | Heat        | Variable | Fixed | Forced   | Maintenance |
|---------|------|------------|-------------|----------|-------|----------|-------------|
| Year    | Area | Plant Type | Rate MW Cap | O&M      | O&M   | Outage % | %           |
| 2024    | AZ   | CCCT       | 6296 610    | 3.02     | 876   | 5        | 5           |
| 2024    | AZ   | CCCT       | 6296 610    | 3.02     | 876   | 5        | 5           |
| 2024    | AZ   | CCCT       | 6296 610    | 3.02     | 876   | 5        | 5           |
| 2024    | AZ   | CCCT       | 6296 610    | 3.02     | 876   | 5        | 5           |
| 2024    | BC   | CCCT       | 6296 610    | 3.02     | 876   | 5        | 5           |
| 2024    | CO   | CCCT       | 6296 610    | 3.02     | 876   | 5        | 5           |
| 2024    | OWI  | CCCT       | 6296 610    | 3.02     | 876   | 5        | 5           |
| 2024    | SCAL | CCCT       | 6296 610    | 3.02     | 876   | 5        | 5           |
| 2024    | SCAL | CCCT       | 6296 610    | 3.02     | 876   | 5        | 5           |
| 2025    | AB   | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | AZ   | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | AZ   | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | AZ   | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | CO   | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | CO   | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | NCAL | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | NCAL | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | NCAL | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | NCAL | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | NM   | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | OWI  | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | OWI  | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | SCAL | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | SCAL | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | SCAL | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | SCAL | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | SCAL | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | UT   | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2026    | AZ   | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2026    | BC   | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2026    | OWI  | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2026    | OWI  | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2026    | SCAL | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2026    | SCAL | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |

## SB 342 Emissions Scenario

| On-line<br>year Area | Plant Type  | Heat<br>Rate | MW Cap | Variable<br>O&M | Fixed<br>O&M | Forced<br>Outage % | Maintenance<br>% |
|----------------------|-------------|--------------|--------|-----------------|--------------|--------------------|------------------|
| 2007 AB              | CCCT        | 6856         | 610    | 3.02            | 956          | 5                  | 5                |
| 2007 AB              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 4                  |                  |
| 2007 AB              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 4                  |                  |
| 2007 AB              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 4                  |                  |
| 2007 AB              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 4                  |                  |
| 2007 AZ              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 4                  |                  |
| 2007 AZ              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 4                  |                  |
| 2007 AZ              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 4                  |                  |
| 2007 AZ              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 4                  |                  |
| 2007 BC              | CCCT        | 6856         | 610    | 3.02            | 956          | 5                  | 5                |
| 2007 BC              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 4                  |                  |
| 2007 BC              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 4                  |                  |
| 2007 BC              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 4                  |                  |
| 2007 BC              | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 4                  |                  |
| 2007 NCAL            | CCCT        | 6856         | 610    | 3.02            | 956          | 5                  | 5                |
| 2007 NCAL            | CCCT        | 6856         | 610    | 3.02            | 956          | 5                  | 5                |
| 2007 SNV             | CCCT        | 6856         | 610    | 3.02            | 956          | 5                  | 5                |
| 2007 SNV             | CCCT        | 6856         | 610    | 3.02            | 956          | 5                  | 5                |
| 2007 SNV             | CCCT        | 6856         | 610    | 3.02            | 956          | 5                  | 5                |
| 2007 SNV             | CCCT        | 6856         | 610    | 3.02            | 956          | 5                  | 5                |
| 2007 SNV             | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 4                  |                  |
| 2007 SNV             | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 4                  |                  |
| 2007 SNV             | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 4                  |                  |
| 2007 SNV             | SCCT- Frame | 10241        | 94     | 4.32            | 238          | 4                  |                  |
| 2007 UT              | CCCT        | 6856         | 610    | 3.02            | 956          | 5                  | 5                |
| 2008 BC              | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008 BC              | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008 BC              | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 4                  |                  |
| 2008 NCAL            | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008 NCAL            | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008 SCAL            | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008 SCAL            | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008 SNV             | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008 SNV             | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008 SNV             | SCCT- Frame | 10190        | 94     | 4.32            | 237          | 4                  |                  |
| 2008 UT              | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2008 UT              | CCCT        | 6822         | 610    | 3.02            | 951          | 5                  | 5                |
| 2009 NCAL            | CCCT        | 6788         | 610    | 3.02            | 946          | 5                  | 5                |
| 2009 NNV             | CCCT        | 6788         | 610    | 3.02            | 946          | 5                  | 5                |
| 2010 AB              | CCCT        | 6754         | 610    | 3.02            | 941          | 5                  | 5                |
| 2010 SNV             | CCCT        | 6754         | 610    | 3.02            | 941          | 5                  | 5                |
| 2010 WY              | CCCT        | 6754         | 610    | 3.02            | 941          | 5                  | 5                |
| 2011 NCAL            | CCCT        | 6720         | 610    | 3.02            | 936          | 5                  | 5                |
| 2011 NCAL            | CCCT        | 6720         | 610    | 3.02            | 936          | 5                  | 5                |
| 2011 NCAL            | CCCT        | 6720         | 610    | 3.02            | 936          | 5                  | 5                |
| 2011 SNV             | CCCT        | 6720         | 610    | 3.02            | 936          | 5                  | 5                |
| 2012 BC              | CCCT        | 6686         | 610    | 3.02            | 931          | 5                  | 5                |
| 2012 NCAL            | CCCT        | 6686         | 610    | 3.02            | 931          | 5                  | 5                |

## SB 342 Emissions Scenario

| On-line<br>year | Area | Plant Type | Heat<br>Rate | MW Cap | Variable<br>O&M | Fixed<br>O&M | Forced<br>Outage % | Maintenance<br>% |
|-----------------|------|------------|--------------|--------|-----------------|--------------|--------------------|------------------|
| 2012            | SNV  | CCCT       | 6686         | 610    | 3.02            | 931          | 5                  | 5                |
| 2012            | UT   | CCCT       | 6686         | 610    | 3.02            | 931          | 5                  | 5                |
| 2013            | CO   | CCCT       | 6653         | 610    | 3.02            | 926          | 5                  | 5                |
| 2013            | MT   | IGCC SQ    | 8792         | 401    | 1.73            | 4,890        | 10                 | 7.4              |
| 2013            | MT   | Wind       | 0            | 100    | 5.4             | 2,065        |                    |                  |
| 2013            | MT   | Wind       | 0            | 100    | 5.4             | 2,065        |                    |                  |
| 2013            | NCAL | CCCT       | 6653         | 610    | 3.02            | 926          | 5                  | 5                |
| 2013            | NCAL | CCCT       | 6653         | 610    | 3.02            | 926          | 5                  | 5                |
| 2013            | NCAL | CCCT       | 6653         | 610    | 3.02            | 926          | 5                  | 5                |
| 2013            | NCAL | CCCT       | 6653         | 610    | 3.02            | 926          | 5                  | 5                |
| 2013            | NM   | CCCT       | 6653         | 610    | 3.02            | 926          | 5                  | 5                |
| 2013            | SCAL | CCCT       | 6653         | 610    | 3.02            | 926          | 5                  | 5                |
| 2013            | SNV  | CCCT       | 6653         | 610    | 3.02            | 926          | 5                  | 5                |
| 2014            | AZ   | CCCT       | 6620         | 610    | 3.02            | 921          | 5                  | 5                |
| 2014            | BC   | CCCT       | 6620         | 610    | 3.02            | 921          | 5                  | 5                |
| 2014            | MT   | IGCC SQ    | 8748         | 401    | 1.73            | 4,866        | 10                 | 7.4              |
| 2014            | MT   | Wind       | 0            | 100    | 5.4             | 2,021        |                    |                  |
| 2014            | MT   | Wind       | 0            | 100    | 5.4             | 2,021        |                    |                  |
| 2014            | NCAL | CCCT       | 6620         | 610    | 3.02            | 921          | 5                  | 5                |
| 2014            | WY   | IGCC SQ    | 8748         | 401    | 1.73            | 4,866        | 10                 | 7.4              |
| 2015            | AB   | CCCT       | 6587         | 610    | 3.02            | 916          | 5                  | 5                |
| 2015            | BAJA | CCCT       | 6587         | 610    | 3.02            | 916          | 5                  | 5                |
| 2015            | BC   | CCCT       | 6587         | 610    | 3.02            | 916          | 5                  | 5                |
| 2015            | NCAL | CCCT       | 6587         | 610    | 3.02            | 916          | 5                  | 5                |
| 2015            | NM   | CCCT       | 6587         | 610    | 3.02            | 916          | 5                  | 5                |
| 2015            | NM   | CCCT       | 6587         | 610    | 3.02            | 916          | 5                  | 5                |
| 2015            | OWI  | Wind       | 0            | 100    | 5.4             | 1,983        |                    |                  |
| 2015            | OWI  | Wind       | 0            | 100    | 5.4             | 1,983        |                    |                  |
| 2015            | OWI  | Wind       | 0            | 100    | 5.4             | 1,983        |                    |                  |
| 2015            | OWI  | Wind       | 0            | 100    | 5.4             | 1,983        |                    |                  |
| 2015            | OWI  | Wind       | 0            | 100    | 5.4             | 1,983        |                    |                  |
| 2015            | SCAL | CCCT       | 6587         | 610    | 3.02            | 916          | 5                  | 5                |
| 2015            | SCAL | CCCT       | 6587         | 610    | 3.02            | 916          | 5                  | 5                |
| 2015            | SCAL | CCCT       | 6587         | 610    | 3.02            | 916          | 5                  | 5                |
| 2015            | WY   | CCCT       | 6587         | 610    | 3.02            | 916          | 5                  | 5                |
| 2015            | WY   | IGCC SQ    | 8704         | 401    | 1.73            | 4,842        | 10                 | 7.4              |
| 2016            | AB   | CCCT       | 6554         | 610    | 3.02            | 911          | 5                  | 5                |
| 2016            | NCAL | CCCT       | 6554         | 610    | 3.02            | 911          | 5                  | 5                |
| 2016            | NM   | CCCT       | 6554         | 610    | 3.02            | 911          | 5                  | 5                |
| 2016            | OWI  | Wind       | 0            | 100    | 5.4             | 1,945        |                    |                  |
| 2016            | OWI  | Wind       | 0            | 100    | 5.4             | 1,945        |                    |                  |
| 2016            | OWI  | Wind       | 0            | 100    | 5.4             | 1,945        |                    |                  |
| 2016            | OWI  | Wind       | 0            | 100    | 5.4             | 1,945        |                    |                  |
| 2016            | OWI  | Wind       | 0            | 100    | 5.4             | 1,945        |                    |                  |
| 2016            | SCAL | CCCT       | 6554         | 610    | 3.02            | 911          | 5                  | 5                |
| 2016            | SCAL | CCCT       | 6554         | 610    | 3.02            | 911          | 5                  | 5                |
| 2016            | SCAL | CCCT       | 6554         | 610    | 3.02            | 911          | 5                  | 5                |
| 2016            | SCAL | CCCT       | 6554         | 610    | 3.02            | 911          | 5                  | 5                |



## SB 342 Emissions Scenario

| On-line<br>year | Area | Plant Type | Heat<br>Rate | MW Cap | Variable<br>O&M | Fixed<br>O&M | Forced<br>Outage % | Maintenance<br>% |
|-----------------|------|------------|--------------|--------|-----------------|--------------|--------------------|------------------|
| 2016            | SCAL | CCCT       | 6554         | 610    | 3.02            | 911          | 5                  | 5                |
| 2017            | AB   | CCCT       | 6521         | 610    | 3.02            | 906          | 5                  | 5                |
| 2017            | AB   | CCCT       | 6521         | 610    | 3.02            | 906          | 5                  | 5                |
| 2017            | AZ   | CCCT       | 6521         | 610    | 3.02            | 906          | 5                  | 5                |
| 2017            | AZ   | CCCT       | 6521         | 610    | 3.02            | 906          | 5                  | 5                |
| 2017            | BAJA | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2017            | BC   | CCCT       | 6521         | 610    | 3.02            | 906          | 5                  | 5                |
| 2017            | NM   | CCCT       | 6521         | 610    | 3.02            | 906          | 5                  | 5                |
| 2017            | NM   | CCCT       | 6521         | 610    | 3.02            | 906          | 5                  | 5                |
| 2017            | OWI  | CCCT       | 6521         | 610    | 3.02            | 906          | 5                  | 5                |
| 2017            | SCAL | CCCT       | 6521         | 610    | 3.02            | 906          | 5                  | 5                |
| 2017            | UT   | CCCT       | 6521         | 610    | 3.02            | 906          | 5                  | 5                |
| 2017            | WY   | CCCT       | 6521         | 610    | 3.02            | 906          | 5                  | 5                |
| 2018            | AB   | CCCT       | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018            | AB   | CCCT       | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018            | AB   | CCCT       | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018            | AZ   | CCCT       | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018            | BAJA | CCCT       | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018            | BC   | CCCT       | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018            | CO   | CCCT       | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018            | CO   | CCCT       | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018            | CO   | CCCT       | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018            | MT   | Wind       | 0            | 100    | 5.4             | 2,461        |                    |                  |
| 2018            | NM   | CCCT       | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018            | NNV  | CCCT       | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018            | SCAL | CCCT       | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018            | SNV  | CCCT       | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2018            | UT   | CCCT       | 6488         | 610    | 3.02            | 901          | 5                  | 5                |
| 2019            | AB   | CCCT       | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019            | AB   | CCCT       | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019            | AB   | CCCT       | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019            | AZ   | CCCT       | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019            | AZ   | CCCT       | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019            | AZ   | CCCT       | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019            | BC   | Wind       | 0            | 100    | 5.4             | 2,415        |                    |                  |
| 2019            | BC   | Wind       | 0            | 100    | 5.4             | 2,415        |                    |                  |
| 2019            | BC   | Wind       | 0            | 100    | 5.4             | 2,415        |                    |                  |
| 2019            | BC   | Wind       | 0            | 100    | 5.4             | 2,415        |                    |                  |
| 2019            | BC   | Wind       | 0            | 100    | 5.4             | 2,415        |                    |                  |
| 2019            | CO   | CCCT       | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019            | CO   | CCCT       | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019            | CO   | CCCT       | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019            | CO   | CCCT       | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019            | MT   | Wind       | 0            | 100    | 5.4             | 2,415        |                    |                  |
| 2019            | MT   | Wind       | 0            | 100    | 5.4             | 2,415        |                    |                  |
| 2019            | MT   | Wind       | 0            | 100    | 5.4             | 2,415        |                    |                  |
| 2019            | MT   | Wind       | 0            | 100    | 5.4             | 2,415        |                    |                  |
| 2019            | MT   | Wind       | 0            | 100    | 5.4             | 2,415        |                    |                  |

## SB 342 Emissions Scenario

| On-line<br>year | Area | Plant Type | Heat<br>Rate | MW Cap | Variable<br>O&M | Fixed<br>O&M | Forced<br>Outage % | Maintenance<br>% |
|-----------------|------|------------|--------------|--------|-----------------|--------------|--------------------|------------------|
| 2019            | NCAL | CCCT       | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019            | NM   | CCCT       | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019            | OWI  | IGCC SQ    | 8531         | 401    | 1.73            | 6,074        | 10                 | 7.4              |
| 2019            | OWI  | Manure     | 11100        | 1      | 0               | 8,200        | 10                 | 5                |
| 2019            | SCAL | CCCT       | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019            | SCAL | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2019            | SCAL | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2019            | SCAL | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2019            | SNV  | CCCT       | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019            | UT   | CCCT       | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019            | WY   | CCCT       | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2019            | WY   | CCCT       | 6456         | 610    | 3.02            | 896          | 5                  | 5                |
| 2020            | AB   | CCCT       | 6424         | 610    | 3.02            | 892          | 5                  | 5                |
| 2020            | AB   | CCCT       | 6424         | 610    | 3.02            | 892          | 5                  | 5                |
| 2020            | AB   | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | AB   | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | AB   | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | AB   | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | AB   | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | AZ   | Nuclear    | 9600         | 1100   | 1.08            | 3,764        | 10                 | 6.7              |
| 2020            | AZ   | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | BAJA | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2020            | BC   | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | BC   | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | BC   | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | BC   | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | BC   | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | CCAL | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2020            | CO   | CCCT       | 6424         | 610    | 3.02            | 892          | 5                  | 5                |
| 2020            | IDS  | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | IDS  | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | IDS  | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | IDS  | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | IDS  | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | MT   | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | MT   | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | MT   | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | MT   | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | NCAL | CCCT       | 6424         | 610    | 3.02            | 892          | 5                  | 5                |
| 2020            | NCAL | CCCT       | 6424         | 610    | 3.02            | 892          | 5                  | 5                |
| 2020            | NCAL | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2020            | NCAL | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2020            | NCAL | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2020            | NNV  | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | NNV  | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | NNV  | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | NNV  | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2020            | NNV  | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |

## SB 342 Emissions Scenario

| On-line<br>year | Area | Plant Type | Heat<br>Rate | MW Cap | Variable<br>O&M | Fixed<br>O&M | Forced<br>Outage % | Maintenance<br>% |
|-----------------|------|------------|--------------|--------|-----------------|--------------|--------------------|------------------|
| 2020            | OWI  | IGCC SQ    | 8488         | 401    | 1.73            | 6,044        | 10                 | 7.4              |
| 2020            | OWI  | Manure     | 11100        | 1      | 0               | 8,200        | 10                 | 5                |
| 2020            | SCAL | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2020            | SCAL | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2020            | SCAL | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2020            | SCAL | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2020            | SNV  | CCCT       | 6424         | 610    | 3.02            | 892          | 5                  | 5                |
| 2020            | SNV  | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2020            | UT   | CCCT       | 6424         | 610    | 3.02            | 892          | 5                  | 5                |
| 2020            | UT   | CCCT       | 6424         | 610    | 3.02            | 892          | 5                  | 5                |
| 2020            | WY   | CCCT       | 6424         | 610    | 3.02            | 892          | 5                  | 5                |
| 2020            | WY   | Wind       | 0            | 100    | 5.4             | 2,369        |                    |                  |
| 2021            | AB   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | AB   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | AB   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | AB   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | AB   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | AB   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | AZ   | CCCT       | 6392         | 610    | 3.02            | 888          | 5                  | 5                |
| 2021            | AZ   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | AZ   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | AZ   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | AZ   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | AZ   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | BAJA | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | BAJA | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | CCAL | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2021            | CO   | CCCT       | 6392         | 610    | 3.02            | 888          | 5                  | 5                |
| 2021            | CO   | CCCT       | 6392         | 610    | 3.02            | 888          | 5                  | 5                |
| 2021            | CO   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | CO   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | CO   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | CO   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | CO   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | IDS  | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | IDS  | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | IDS  | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | IDS  | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | IDS  | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | NCAL | CCCT       | 6392         | 610    | 3.02            | 888          | 5                  | 5                |
| 2021            | NCAL | CCCT       | 6392         | 610    | 3.02            | 888          | 5                  | 5                |
| 2021            | NCAL | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2021            | NCAL | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2021            | NCAL | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2021            | NM   | CCCT       | 6392         | 610    | 3.02            | 888          | 5                  | 5                |
| 2021            | NM   | CCCT       | 6392         | 610    | 3.02            | 888          | 5                  | 5                |
| 2021            | NNV  | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | NNV  | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | NNV  | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |

## SB 342 Emissions Scenario

| On-line<br>year | Area | Plant Type | Heat<br>Rate | MW Cap | Variable<br>O&M | Fixed<br>O&M | Forced<br>Outage % | Maintenance<br>% |
|-----------------|------|------------|--------------|--------|-----------------|--------------|--------------------|------------------|
| 2021            | NNV  | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | NNV  | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | OWI  | CCCT       | 6392         | 610    | 3.02            | 888          | 5                  | 5                |
| 2021            | OWI  | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2021            | OWI  | Wind       | 0            | 100    | 9.72            | 2,324        |                    |                  |
| 2021            | OWI  | Wind       | 0            | 100    | 9.72            | 2,324        |                    |                  |
| 2021            | OWI  | Wind       | 0            | 100    | 9.72            | 2,324        |                    |                  |
| 2021            | OWI  | Wind       | 0            | 100    | 9.72            | 2,324        |                    |                  |
| 2021            | OWI  | Wind       | 0            | 100    | 9.72            | 2,324        |                    |                  |
| 2021            | SCAL | CCCT       | 6392         | 610    | 3.02            | 888          | 5                  | 5                |
| 2021            | SCAL | CCCT       | 6392         | 610    | 3.02            | 888          | 5                  | 5                |
| 2021            | SCAL | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2021            | SCAL | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | SCAL | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | SCAL | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | SCAL | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | SCAL | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | SCAL | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | SCAL | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | SCAL | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | SNV  | CCCT       | 6392         | 610    | 3.02            | 888          | 5                  | 5                |
| 2021            | SNV  | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2021            | SNV  | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | SNV  | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | SNV  | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | SNV  | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | SNV  | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | UT   | CCCT       | 6392         | 610    | 3.02            | 888          | 5                  | 5                |
| 2021            | UT   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | UT   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | UT   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | UT   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | UT   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | WY   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | WY   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | WY   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | WY   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2021            | WY   | Wind       | 0            | 100    | 5.4             | 2,324        |                    |                  |
| 2022            | AB   | CCCT       | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | AB   | Wind       | 0            | 100    | 9.72            | 2,280        |                    |                  |
| 2022            | AB   | Wind       | 0            | 100    | 9.72            | 2,280        |                    |                  |
| 2022            | AZ   | CCCT       | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | AZ   | CCCT       | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | AZ   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | AZ   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | AZ   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | AZ   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | BAJA | CCCT       | 6360         | 610    | 3.02            | 884          | 5                  | 5                |

## SB 342 Emissions Scenario

| On-line<br>year | Area | Plant Type | Heat<br>Rate | MW Cap | Variable<br>O&M | Fixed<br>O&M | Forced<br>Outage % | Maintenance<br>% |
|-----------------|------|------------|--------------|--------|-----------------|--------------|--------------------|------------------|
| 2022            | BC   | Wind       | 0            | 100    | 9.72            | 2,280        |                    |                  |
| 2022            | BC   | Wind       | 0            | 100    | 9.72            | 2,280        |                    |                  |
| 2022            | BC   | Wind       | 0            | 100    | 9.72            | 2,280        |                    |                  |
| 2022            | BC   | Wind       | 0            | 100    | 9.72            | 2,280        |                    |                  |
| 2022            | BC   | Wind       | 0            | 100    | 9.72            | 2,280        |                    |                  |
| 2022            | CO   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | CO   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | CO   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | CO   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | CO   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | IDS  | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2022            | MT   | Wind       | 0            | 100    | 9.72            | 2,280        |                    |                  |
| 2022            | MT   | Wind       | 0            | 100    | 9.72            | 2,280        |                    |                  |
| 2022            | MT   | Wind       | 0            | 100    | 9.72            | 2,280        |                    |                  |
| 2022            | MT   | Wind       | 0            | 100    | 9.72            | 2,280        |                    |                  |
| 2022            | MT   | Wind       | 0            | 100    | 9.72            | 2,280        |                    |                  |
| 2022            | NCAL | CCCT       | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | NCAL | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | NCAL | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | NM   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | OWI  | CCCT       | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | OWI  | Geothermal | 9300         | 50     | 0               | 6,660        | 8                  | 5                |
| 2022            | OWI  | Wind       | 0            | 100    | 9.72            | 2,280        |                    |                  |
| 2022            | OWI  | Wind       | 0            | 100    | 9.72            | 2,280        |                    |                  |
| 2022            | OWI  | Wind       | 0            | 100    | 9.72            | 2,280        |                    |                  |
| 2022            | OWI  | Wind       | 0            | 100    | 9.72            | 2,280        |                    |                  |
| 2022            | OWI  | Wind       | 0            | 100    | 9.72            | 2,280        |                    |                  |
| 2022            | SCAL | CCCT       | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | SCAL | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | SCAL | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | SNV  | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | SNV  | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | SNV  | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | SNV  | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | SNV  | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | UT   | CCCT       | 6360         | 610    | 3.02            | 884          | 5                  | 5                |
| 2022            | UT   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | UT   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | UT   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | UT   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | UT   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | WY   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | WY   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | WY   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2022            | WY   | Wind       | 0            | 100    | 5.4             | 2,280        |                    |                  |
| 2023            | AB   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | AB   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | AB   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |

## SB 342 Emissions Scenario

| On-line<br>year | Area | Plant Type | Heat<br>Rate | MW Cap | Variable<br>O&M | Fixed<br>O&M | Forced<br>Outage % | Maintenance<br>% |
|-----------------|------|------------|--------------|--------|-----------------|--------------|--------------------|------------------|
| 2023            | AB   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | AB   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | AZ   | CCCT       | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2023            | AZ   | CCCT       | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2023            | BC   | CCCT       | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2023            | BC   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | BC   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | BC   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | BC   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | BC   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | CCAL | Wind       | 0            | 100    | 5.4             | 2,236        |                    |                  |
| 2023            | CCAL | Wind       | 0            | 100    | 5.4             | 2,236        |                    |                  |
| 2023            | CO   | CCCT       | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2023            | CO   | CCCT       | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2023            | MT   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | MT   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | MT   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | MT   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | MT   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | NCAL | CCCT       | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2023            | NCAL | CCCT       | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2023            | NCAL | CCCT       | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2023            | NCAL | CCCT       | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2023            | NCAL | Wind       | 0            | 100    | 5.4             | 2,236        |                    |                  |
| 2023            | NCAL | Wind       | 0            | 100    | 5.4             | 2,236        |                    |                  |
| 2023            | NCAL | Wind       | 0            | 100    | 5.4             | 2,236        |                    |                  |
| 2023            | NCAL | Wind       | 0            | 100    | 5.4             | 2,236        |                    |                  |
| 2023            | NCAL | Wind       | 0            | 100    | 5.4             | 2,236        |                    |                  |
| 2023            | NCAL | Wind       | 0            | 100    | 5.4             | 2,236        |                    |                  |
| 2023            | NM   | Wind       | 0            | 100    | 5.4             | 2,236        |                    |                  |
| 2023            | NM   | Wind       | 0            | 100    | 5.4             | 2,236        |                    |                  |
| 2023            | NM   | Wind       | 0            | 100    | 5.4             | 2,236        |                    |                  |
| 2023            | NM   | Wind       | 0            | 100    | 5.4             | 2,236        |                    |                  |
| 2023            | OWI  | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | OWI  | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | OWI  | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | OWI  | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | OWI  | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | SCAL | CCCT       | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2023            | SCAL | CCCT       | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2023            | SNV  | CCCT       | 6328         | 610    | 3.02            | 880          | 5                  | 5                |
| 2023            | WY   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | WY   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | WY   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | WY   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2023            | WY   | Wind       | 0            | 100    | 9.72            | 2,236        |                    |                  |
| 2024            | AB   | Wind       | 0            | 100    | 9.72            | 2,194        |                    |                  |
| 2024            | AB   | Wind       | 0            | 100    | 9.72            | 2,194        |                    |                  |



## SB 342 Emissions Scenario

| On-line<br>year | Area | Plant Type | Heat<br>Rate | MW Cap | Variable<br>O&M | Fixed<br>O&M | Forced<br>Outage % | Maintenance<br>% |
|-----------------|------|------------|--------------|--------|-----------------|--------------|--------------------|------------------|
| 2025            | SCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2025            | SCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2025            | SNV  | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2025            | SNV  | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2025            | UT   | CCCT       | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2026            | BAJA | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | BAJA | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | BC   | CCCT       | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2026            | CCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | CCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | NCAL | CCCT       | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2026            | NCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | NCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | NCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | NCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | NCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | NCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | NCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | NM   | CCCT       | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2026            | SCAL | CCCT       | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2026            | SCAL | CCCT       | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2026            | SCAL | CCCT       | 6265         | 610    | 3.02            | 872          | 5                  | 5                |
| 2026            | SCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | SCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | SCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | SCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | SCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | SCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | SCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | SCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | SCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | SCAL | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | SNV  | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | SNV  | Solar      | 0            | 2      | 4.32            | 2,172        |                    | 7.4              |
| 2026            | UT   | CCCT       | 6265         | 610    | 3.02            | 872          | 5                  | 5                |



## High Gas Price Scenario

| On-line |      |             | Heat        | Variable | Fixed | Forced   | Maintenance |
|---------|------|-------------|-------------|----------|-------|----------|-------------|
| Year    | Area | Plant Type  | Rate MW Cap | O&M      | O&M   | Outage % | %           |
| 2007    | AB   | Geothermal  | 9300 50     | 0        | 4706  | 8        | 5           |
| 2007    | AB   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | AB   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | AB   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | AB   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | AB   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | AZ   | CCCT        | 6856 610    | 3.02     | 956   | 5        | 5           |
| 2007    | AZ   | Geothermal  | 9300 50     | 0        | 4706  | 8        | 5           |
| 2007    | AZ   | SCCT- Frame | 10241 94    | 4.32     | 238   | 3.6      |             |
| 2007    | AZ   | SCCT- Frame | 10241 94    | 4.32     | 238   | 3.6      |             |
| 2007    | AZ   | SCCT- Frame | 10241 94    | 4.32     | 238   | 3.6      |             |
| 2007    | AZ   | SCCT- Frame | 10241 94    | 4.32     | 238   | 3.6      |             |
| 2007    | AZ   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | AZ   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | AZ   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | AZ   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | AZ   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | BAJA | Geothermal  | 9300 50     | 0        | 4706  | 8        | 5           |
| 2007    | BC   | CCCT        | 6856 610    | 3.02     | 956   | 5        | 5           |
| 2007    | BC   | Geothermal  | 9300 50     | 0        | 4706  | 8        | 5           |
| 2007    | BC   | SCCT- Frame | 10241 94    | 4.32     | 238   | 3.6      |             |
| 2007    | BC   | SCCT- Frame | 10241 94    | 4.32     | 238   | 3.6      |             |
| 2007    | BC   | SCCT- Frame | 10241 94    | 4.32     | 238   | 3.6      |             |
| 2007    | BC   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | BC   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | BC   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | BC   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | BC   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | CCAL | Geothermal  | 9300 50     | 0        | 4706  | 8        | 5           |
| 2007    | CO   | Geothermal  | 9300 50     | 0        | 4706  | 8        | 5           |
| 2007    | CO   | SCCT- Frame | 10241 94    | 4.32     | 238   | 3.6      |             |
| 2007    | CO   | SCCT- Frame | 10241 94    | 4.32     | 238   | 3.6      |             |
| 2007    | CO   | SCCT- Frame | 10241 94    | 4.32     | 238   | 3.6      |             |
| 2007    | IDS  | Geothermal  | 9300 50     | 0        | 4706  | 8        | 5           |
| 2007    | MT   | Wind        | 0 100       | 5.4      | 1701  |          |             |
| 2007    | MT   | Wind        | 0 100       | 5.4      | 1701  |          |             |
| 2007    | MT   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | MT   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | MT   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | MT   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | MT   | Wind        | 0 100       | 5.4      | 2443  |          |             |
| 2007    | NCAL | CCCT        | 6856 610    | 3.02     | 956   | 5        | 5           |
| 2007    | NCAL | CCCT        | 6856 610    | 3.02     | 956   | 5        | 5           |
| 2007    | NCAL | CCCT        | 6856 610    | 3.02     | 956   | 5        | 5           |
| 2007    | NCAL | CCCT        | 6856 610    | 3.02     | 956   | 5        | 5           |
| 2007    | NCAL | CCCT        | 6856 610    | 3.02     | 956   | 5        | 5           |
| 2007    | NCAL | CCCT        | 6856 610    | 3.02     | 956   | 5        | 5           |
| 2007    | NCAL | CCCT        | 6856 610    | 3.02     | 956   | 5        | 5           |



## High Gas Price Scenario

| On-line | Year Area | Plant Type  | Heat Rate | MW Cap | Variable O&M | Fixed O&M | Forced Outage % | Maintenance % |
|---------|-----------|-------------|-----------|--------|--------------|-----------|-----------------|---------------|
|         | 2007 SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SCAL | Wind        | 0         | 100    | 5.4          | 2443      |                 |               |
|         | 2007 SCAL | Wind        | 0         | 100    | 5.4          | 2443      |                 |               |
|         | 2007 SNV  | CCCT        | 6856      | 610    | 3.02         | 956       | 5               | 5             |
|         | 2007 SNV  | CCCT        | 6856      | 610    | 3.02         | 956       | 5               | 5             |
|         | 2007 SNV  | CCCT        | 6856      | 610    | 3.02         | 956       | 5               | 5             |
|         | 2007 SNV  | CCCT        | 6856      | 610    | 3.02         | 956       | 5               | 5             |
|         | 2007 SNV  | Geothermal  | 9300      | 50     | 0            | 4706      | 8               | 5             |
|         | 2007 SNV  | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SNV  | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SNV  | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SNV  | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SNV  | Wind        | 0         | 100    | 5.4          | 2443      |                 |               |
|         | 2007 SNV  | Wind        | 0         | 100    | 5.4          | 2443      |                 |               |
|         | 2007 SNV  | Wind        | 0         | 100    | 5.4          | 2443      |                 |               |
|         | 2007 SNV  | Wind        | 0         | 100    | 5.4          | 2443      |                 |               |
|         | 2007 SNV  | Wind        | 0         | 100    | 5.4          | 2443      |                 |               |
|         | 2007 UT   | Geothermal  | 9300      | 50     | 0            | 4706      | 8               | 5             |
|         | 2007 UT   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 UT   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2008 AB   | Geothermal  | 9300      | 50     | 0            | 4705      | 8               | 5             |
|         | 2008 AZ   | Geothermal  | 9300      | 50     | 0            | 4705      | 8               | 5             |
|         | 2008 AZ   | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 AZ   | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 AZ   | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 AZ   | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 AZ   | Wind        | 0         | 100    | 5.4          | 2371      |                 |               |
|         | 2008 AZ   | Wind        | 0         | 100    | 5.4          | 2371      |                 |               |
|         | 2008 AZ   | Wind        | 0         | 100    | 5.4          | 2371      |                 |               |
|         | 2008 AZ   | Wind        | 0         | 100    | 5.4          | 2371      |                 |               |
|         | 2008 AZ   | Wind        | 0         | 100    | 5.4          | 2371      |                 |               |
|         | 2008 BAJA | Geothermal  | 9300      | 50     | 0            | 4705      | 8               | 5             |
|         | 2008 BC   | CCCT        | 6822      | 610    | 3.02         | 951       | 5               | 5             |
|         | 2008 BC   | CCCT        | 6822      | 610    | 3.02         | 951       | 5               | 5             |
|         | 2008 BC   | Geothermal  | 9300      | 50     | 0            | 4705      | 8               | 5             |
|         | 2008 BC   | Wind        | 0         | 100    | 5.4          | 2371      |                 |               |

## High Gas Price Scenario

| On-line | Year Area | Plant Type  | Heat Rate | MW Cap | Variable O&M | Fixed O&M | Forced Outage % | Maintenance % |
|---------|-----------|-------------|-----------|--------|--------------|-----------|-----------------|---------------|
|         | 2008 BC   | Wind        | 0         | 100    | 5.4          | 2371      |                 |               |
|         | 2008 BC   | Wind        | 0         | 100    | 5.4          | 2371      |                 |               |
|         | 2008 BC   | Wind        | 0         | 100    | 5.4          | 2371      |                 |               |
|         | 2008 CCAL | Geothermal  | 9300      | 50     | 0            | 4705      | 8               | 5             |
|         | 2008 MT   | Wind        | 0         | 100    | 5.4          | 1646      |                 |               |
|         | 2008 MT   | Wind        | 0         | 100    | 5.4          | 1646      |                 |               |
|         | 2008 NCAL | CCCT        | 6822      | 610    | 3.02         | 951       | 5               | 5             |
|         | 2008 NCAL | Geothermal  | 9300      | 50     | 0            | 4705      | 8               | 5             |
|         | 2008 NCAL | Geothermal  | 9300      | 50     | 0            | 4705      | 8               | 5             |
|         | 2008 NCAL | Geothermal  | 9300      | 50     | 0            | 4705      | 8               | 5             |
|         | 2008 NM   | Geothermal  | 9300      | 50     | 0            | 4705      | 8               | 5             |
|         | 2008 OWI  | Geothermal  | 9300      | 50     | 0            | 4705      | 8               | 5             |
|         | 2008 OWI  | Manure      | 11100     | 1      | 0            | 6291      | 10              | 5             |
|         | 2008 OWI  | Wind        | 0         | 100    | 5.4          | 1646      |                 |               |
|         | 2008 OWI  | Wind        | 0         | 100    | 5.4          | 1646      |                 |               |
|         | 2008 OWI  | Wind        | 0         | 100    | 5.4          | 1646      |                 |               |
|         | 2008 OWI  | Wind        | 0         | 100    | 5.4          | 1646      |                 |               |
|         | 2008 OWI  | Wind        | 0         | 100    | 5.4          | 1646      |                 |               |
|         | 2008 SCAL | Geothermal  | 9300      | 50     | 0            | 4705      | 8               | 5             |
|         | 2008 SCAL | Geothermal  | 9300      | 50     | 0            | 4705      | 8               | 5             |
|         | 2008 SCAL | Geothermal  | 9300      | 50     | 0            | 4705      | 8               | 5             |
|         | 2008 SCAL | Geothermal  | 9300      | 50     | 0            | 4705      | 8               | 5             |
|         | 2008 SNV  | CCCT        | 6822      | 610    | 3.02         | 951       | 5               | 5             |
|         | 2008 SNV  | CCCT        | 6822      | 610    | 3.02         | 951       | 5               | 5             |
|         | 2008 SNV  | CCCT        | 6822      | 610    | 3.02         | 951       | 5               | 5             |
|         | 2008 SNV  | CCCT        | 6822      | 610    | 3.02         | 951       | 5               | 5             |
|         | 2008 SNV  | Geothermal  | 9300      | 50     | 0            | 4705      | 8               | 5             |
|         | 2008 SNV  | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 SNV  | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2009 AZ   | SCCT- Frame | 10139     | 94     | 4.32         | 236       | 3.6             |               |
|         | 2009 AZ   | SCCT- Frame | 10139     | 94     | 4.32         | 236       | 3.6             |               |
|         | 2009 AZ   | SCCT- Frame | 10139     | 94     | 4.32         | 236       | 3.6             |               |
|         | 2009 AZ   | SCCT- Frame | 10139     | 94     | 4.32         | 236       | 3.6             |               |
|         | 2009 SNV  | CCCT        | 6788      | 610    | 3.02         | 946       | 5               | 5             |
|         | 2009 SNV  | CCCT        | 6788      | 610    | 3.02         | 946       | 5               | 5             |
|         | 2009 SNV  | CCCT        | 6788      | 610    | 3.02         | 946       | 5               | 5             |
|         | 2010 AZ   | SCCT- Frame | 10088     | 94     | 4.32         | 235       | 3.6             |               |
|         | 2011 OWI  | IGCC        | 7528      | 0      | 1.62         | 4142      | 10              | 7.4           |
|         | 2012 AB   | IGCC        | 7528      | 425    | 1.62         | 4142      | 10              | 7.4           |
|         | 2012 AB   | Pulverized  | 9313      | 400    | 1.89         | 3531      | 7               | 7.4           |
|         | 2012 AB   | Pulverized  | 9313      | 400    | 1.89         | 3531      | 7               | 7.4           |
|         | 2012 AZ   | IGCC        | 7528      | 425    | 1.62         | 4142      | 10              | 7.4           |
|         | 2012 AZ   | IGCC        | 7528      | 425    | 1.62         | 4142      | 10              | 7.4           |
|         | 2012 AZ   | Pulverized  | 9313      | 400    | 1.89         | 3531      | 7               | 7.4           |
|         | 2012 AZ   | Pulverized  | 9313      | 400    | 1.89         | 3531      | 7               | 7.4           |
|         | 2012 BAJA | Pulverized  | 9313      | 400    | 1.89         | 6850      | 7               | 7.4           |
|         | 2012 BC   | IGCC        | 7528      | 425    | 1.62         | 4142      | 10              | 7.4           |
|         | 2012 BC   | IGCC        | 7528      | 425    | 1.62         | 4142      | 10              | 7.4           |

## High Gas Price Scenario

| On-line |      |            | Heat        | Variable | Fixed | Forced   | Maintenance |
|---------|------|------------|-------------|----------|-------|----------|-------------|
| Year    | Area | Plant Type | Rate MW Cap | O&M      | O&M   | Outage % | %           |
| 2012    | BC   | Pulverized | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | BC   | Pulverized | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | CO   | Pulverized | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | CO   | Pulverized | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | IDS  | Pulverized | 9313 400    | 1.89     | 4087  | 7        | 7.4         |
| 2012    | MT   | Pulverized | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | MT   | Pulverized | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | NM   | Pulverized | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | NM   | Pulverized | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | NNV  | Pulverized | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | NNV  | Pulverized | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | OWI  | IGCC       | 7528 425    | 1.62     | 4142  | 10       | 7.4         |
| 2012    | OWI  | IGCC       | 7528 425    | 1.62     | 4142  | 10       | 7.4         |
| 2012    | OWI  | Pulverized | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | OWI  | Pulverized | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | OWI  | Pulverized | 9313 400    | 1.89     | 4968  | 7        | 7.4         |
| 2012    | OWI  | Pulverized | 9313 400    | 1.89     | 4968  | 7        | 7.4         |
| 2012    | SCAL | Pulverized | 9313 400    | 1.89     | 3015  | 7        | 7.4         |
| 2012    | SCAL | Pulverized | 9313 400    | 1.89     | 6850  | 7        | 7.4         |
| 2012    | SCAL | Pulverized | 9313 400    | 1.89     | 6850  | 7        | 7.4         |
| 2012    | SCAL | Pulverized | 9313 400    | 1.89     | 6850  | 7        | 7.4         |
| 2012    | SNV  | IGCC       | 7528 425    | 1.62     | 6121  | 10       | 7.4         |
| 2012    | SNV  | Pulverized | 9313 400    | 1.89     | 5592  | 7        | 7.4         |
| 2012    | SNV  | Pulverized | 9313 400    | 1.89     | 5592  | 7        | 7.4         |
| 2012    | UT   | Pulverized | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | UT   | Pulverized | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | UT   | Pulverized | 9313 400    | 1.89     | 3921  | 7        | 7.4         |
| 2012    | UT   | Pulverized | 9313 400    | 1.89     | 3921  | 7        | 7.4         |
| 2012    | WY   | Pulverized | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | WY   | Pulverized | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2013    | AB   | Pulverized | 9290 400    | 1.89     | 3527  | 7        | 7.4         |
| 2013    | AB   | Pulverized | 9290 400    | 1.89     | 3527  | 7        | 7.4         |
| 2013    | AZ   | IGCC       | 7490 425    | 1.62     | 4121  | 10       | 7.4         |
| 2013    | AZ   | IGCC       | 7490 425    | 1.62     | 4121  | 10       | 7.4         |
| 2013    | AZ   | Pulverized | 9290 400    | 1.89     | 3527  | 7        | 7.4         |
| 2013    | AZ   | Pulverized | 9290 400    | 1.89     | 3527  | 7        | 7.4         |
| 2013    | BC   | IGCC       | 7490 425    | 1.62     | 4121  | 10       | 7.4         |
| 2013    | BC   | Pulverized | 9290 400    | 1.89     | 3527  | 7        | 7.4         |
| 2013    | BC   | Pulverized | 9290 400    | 1.89     | 3527  | 7        | 7.4         |
| 2013    | CO   | Pulverized | 9290 400    | 1.89     | 3527  | 7        | 7.4         |
| 2013    | CO   | Pulverized | 9290 400    | 1.89     | 3527  | 7        | 7.4         |
| 2013    | MT   | Pulverized | 9290 400    | 1.89     | 3527  | 7        | 7.4         |
| 2013    | MT   | Pulverized | 9290 400    | 1.89     | 3527  | 7        | 7.4         |
| 2013    | OWI  | Pulverized | 9290 400    | 1.89     | 4963  | 7        | 7.4         |
| 2013    | SCAL | Pulverized | 9290 400    | 1.89     | 6843  | 7        | 7.4         |
| 2013    | SCAL | Pulverized | 9290 400    | 1.89     | 6843  | 7        | 7.4         |
| 2013    | SCAL | Pulverized | 9290 400    | 1.89     | 6843  | 7        | 7.4         |
| 2013    | SCAL | Pulverized | 9290 400    | 1.89     | 6843  | 7        | 7.4         |

## High Gas Price Scenario

| On-line | Year Area | Plant Type | Heat Rate | MW Cap | Variable O&M | Fixed O&M | Forced Outage % | Maintenance % |
|---------|-----------|------------|-----------|--------|--------------|-----------|-----------------|---------------|
|         | 2013 UT   | Pulverized | 9290      | 400    | 1.89         | 3527      | 7               | 7.4           |
|         | 2013 UT   | Pulverized | 9290      | 400    | 1.89         | 3527      | 7               | 7.4           |
|         | 2013 UT   | Pulverized | 9290      | 400    | 1.89         | 3917      | 7               | 7.4           |
|         | 2013 WY   | Pulverized | 9290      | 400    | 1.89         | 3527      | 7               | 7.4           |
|         | 2014 AB   | Pulverized | 9267      | 400    | 1.89         | 3523      | 7               | 7.4           |
|         | 2014 AZ   | IGCC       | 7453      | 425    | 1.62         | 4100      | 10              | 7.4           |
|         | 2014 AZ   | Pulverized | 9267      | 400    | 1.89         | 3523      | 7               | 7.4           |
|         | 2014 BC   | Pulverized | 9267      | 400    | 1.89         | 3523      | 7               | 7.4           |
|         | 2014 NM   | Pulverized | 9267      | 400    | 1.89         | 3523      | 7               | 7.4           |
|         | 2014 SCAL | Pulverized | 9267      | 400    | 1.89         | 6836      | 7               | 7.4           |
|         | 2014 UT   | Pulverized | 9267      | 400    | 1.89         | 3523      | 7               | 7.4           |
|         | 2014 WY   | Pulverized | 9267      | 400    | 1.89         | 3523      | 7               | 7.4           |
|         | 2015 BAJA | Pulverized | 9244      | 400    | 1.89         | 6829      | 7               | 7.4           |
|         | 2015 BAJA | Wind       | 0         | 100    | 5.4          | 1951      |                 |               |
|         | 2015 OWI  | IGCC       | 7416      | 425    | 1.62         | 4080      | 10              | 7.4           |
|         | 2015 OWI  | IGCC       | 7416      | 425    | 1.62         | 4080      | 10              | 7.4           |
|         | 2015 SCAL | Wind       | 0         | 100    | 5.4          | 1951      |                 |               |
|         | 2015 SCAL | Wind       | 0         | 100    | 5.4          | 1951      |                 |               |
|         | 2015 SCAL | Wind       | 0         | 100    | 5.4          | 1951      |                 |               |
|         | 2015 SCAL | Wind       | 0         | 100    | 5.4          | 1951      |                 |               |
|         | 2015 SCAL | Wind       | 0         | 100    | 5.4          | 1951      |                 |               |
|         | 2015 SNV  | Wind       | 0         | 100    | 5.4          | 1951      |                 |               |
|         | 2015 UT   | Pulverized | 9244      | 400    | 1.89         | 3909      | 7               | 7.4           |
|         | 2016 BAJA | Wind       | 0         | 100    | 5.4          | 1902      |                 |               |
|         | 2016 CO   | Pulverized | 9221      | 400    | 1.89         | 3515      | 7               | 7.4           |
|         | 2016 NCAL | Wind       | 0         | 100    | 5.4          | 1902      |                 |               |
|         | 2016 OWI  | IGCC       | 7379      | 425    | 1.62         | 4060      | 10              | 7.4           |
|         | 2016 OWI  | Pulverized | 9221      | 400    | 1.89         | 4948      | 7               | 7.4           |
|         | 2016 SCAL | CCCT       | 6554      | 610    | 3.02         | 911       | 5               | 5             |
|         | 2016 SCAL | CCCT       | 6554      | 610    | 3.02         | 911       | 5               | 5             |
|         | 2016 SCAL | CCCT       | 6554      | 610    | 3.02         | 911       | 5               | 5             |
|         | 2016 SCAL | Wind       | 0         | 100    | 5.4          | 1902      |                 |               |
|         | 2016 SCAL | Wind       | 0         | 100    | 5.4          | 1902      |                 |               |
|         | 2016 SCAL | Wind       | 0         | 100    | 5.4          | 1902      |                 |               |
|         | 2016 SNV  | Wind       | 0         | 100    | 5.4          | 1902      |                 |               |
|         | 2016 SNV  | Wind       | 0         | 100    | 5.4          | 1902      |                 |               |
|         | 2016 SNV  | Wind       | 0         | 100    | 5.4          | 1902      |                 |               |
|         | 2016 SNV  | Wind       | 0         | 100    | 5.4          | 1902      |                 |               |
|         | 2017 AB   | IGCC       | 7342      | 425    | 1.62         | 4040      | 10              | 7.4           |
|         | 2017 NCAL | CCCT       | 6521      | 610    | 3.02         | 906       | 5               | 5             |
|         | 2017 NCAL | CCCT       | 6521      | 610    | 3.02         | 906       | 5               | 5             |
|         | 2017 NCAL | CCCT       | 6521      | 610    | 3.02         | 906       | 5               | 5             |
|         | 2017 NCAL | CCCT       | 6521      | 610    | 3.02         | 906       | 5               | 5             |
|         | 2017 NCAL | CCCT       | 6521      | 610    | 3.02         | 906       | 5               | 5             |
|         | 2017 NCAL | Wind       | 0         | 100    | 5.4          | 1853      |                 |               |
|         | 2017 OWI  | Pulverized | 9198      | 400    | 1.89         | 4943      | 7               | 7.4           |
|         | 2017 SCAL | CCCT       | 6521      | 610    | 3.02         | 906       | 5               | 5             |
|         | 2017 UT   | Pulverized | 9198      | 400    | 1.89         | 3901      | 7               | 7.4           |

## High Gas Price Scenario

| On-line |      |            | Heat        | Variable | Fixed | Forced   | Maintenance |
|---------|------|------------|-------------|----------|-------|----------|-------------|
| Year    | Area | Plant Type | Rate MW Cap | O&M      | O&M   | Outage % | %           |
| 2018    | BC   | IGCC       | 7305 425    | 1.62     | 4020  | 10       | 7.4         |
| 2018    | CCAL | Wind       | 0 100       | 5.4      | 1805  |          |             |
| 2018    | NCAL | CCCT       | 6488 610    | 3.02     | 901   | 5        | 5           |
| 2018    | NCAL | Wind       | 0 100       | 5.4      | 1805  |          |             |
| 2018    | NCAL | Wind       | 0 100       | 5.4      | 1805  |          |             |
| 2018    | NM   | Pulverized | 9175 400    | 1.89     | 3507  | 7        | 7.4         |
| 2018    | SCAL | CCCT       | 6488 610    | 3.02     | 901   | 5        | 5           |
| 2018    | SCAL | IGCC       | 7305 425    | 1.62     | 7110  | 10       | 7.4         |
| 2018    | SCAL | IGCC       | 7305 425    | 1.62     | 7110  | 10       | 7.4         |
| 2018    | SNV  | IGCC       | 7305 425    | 1.62     | 5940  | 10       | 7.4         |
| 2018    | UT   | IGCC       | 7305 425    | 1.62     | 4020  | 10       | 7.4         |
| 2019    | AB   | IGCC       | 7268 425    | 1.62     | 4000  | 10       | 7.4         |
| 2019    | BAJA | CCCT       | 6456 610    | 3.02     | 896   | 5        | 5           |
| 2019    | BC   | IGCC       | 7268 425    | 1.62     | 4000  | 10       | 7.4         |
| 2019    | CCAL | Wind       | 0 100       | 5.4      | 1759  |          |             |
| 2019    | IDS  | IGCC       | 7268 425    | 1.62     | 4511  | 10       | 7.4         |
| 2019    | NCAL | Wind       | 0 100       | 5.4      | 1759  |          |             |
| 2019    | NCAL | Wind       | 0 100       | 5.4      | 1759  |          |             |
| 2019    | NCAL | Wind       | 0 100       | 5.4      | 1759  |          |             |
| 2019    | NCAL | Wind       | 0 100       | 5.4      | 1759  |          |             |
| 2019    | NM   | Pulverized | 9152 400    | 1.89     | 3503  | 7        | 7.4         |
| 2019    | SCAL | CCCT       | 6456 610    | 3.02     | 896   | 5        | 5           |
| 2019    | SCAL | CCCT       | 6456 610    | 3.02     | 896   | 5        | 5           |
| 2020    | AZ   | Nuclear    | 9600 1100   | 1.08     | 3764  | 10       | 6.7         |
| 2020    | NCAL | CCCT       | 6424 610    | 3.02     | 892   | 5        | 5           |
| 2020    | NCAL | CCCT       | 6424 610    | 3.02     | 892   | 5        | 5           |
| 2020    | SCAL | CCCT       | 6424 610    | 3.02     | 892   | 5        | 5           |
| 2020    | SCAL | IGCC       | 7232 425    | 1.62     | 7039  | 10       | 7.4         |
| 2020    | SCAL | Wind       | 0 100       | 9.72     | 1713  |          |             |
| 2020    | SCAL | Wind       | 0 100       | 9.72     | 1713  |          |             |
| 2020    | SCAL | Wind       | 0 100       | 9.72     | 1713  |          |             |
| 2020    | UT   | IGCC       | 7232 425    | 1.62     | 3980  | 10       | 7.4         |
| 2021    | AB   | IGCC       | 7196 425    | 1.62     | 3960  | 10       | 7.4         |
| 2021    | AZ   | CCCT       | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | AZ   | Wind       | 0 100       | 9.72     | 1667  |          |             |
| 2021    | MT   | Pulverized | 9106 400    | 1.89     | 3496  | 7        | 7.4         |
| 2021    | NCAL | CCCT       | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | NCAL | CCCT       | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | NCAL | CCCT       | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | NCAL | CCCT       | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | SCAL | IGCC       | 7196 425    | 1.62     | 7004  | 10       | 7.4         |
| 2021    | SCAL | Wind       | 0 100       | 9.72     | 1667  |          |             |
| 2021    | SCAL | Wind       | 0 100       | 9.72     | 1667  |          |             |
| 2021    | SNV  | Wind       | 0 100       | 9.72     | 1667  |          |             |
| 2021    | SNV  | Wind       | 0 100       | 9.72     | 1667  |          |             |
| 2022    | AB   | IGCC       | 7160 425    | 1.62     | 3940  | 10       | 7.4         |
| 2022    | AZ   | Wind       | 0 100       | 9.72     | 1623  |          |             |
| 2022    | AZ   | Wind       | 0 100       | 9.72     | 1623  |          |             |

## High Gas Price Scenario

| On-line |      |            | Heat        | Variable | Fixed | Forced   | Maintenance |     |
|---------|------|------------|-------------|----------|-------|----------|-------------|-----|
| Year    | Area | Plant Type | Rate MW Cap | O&M      | O&M   | Outage % | %           |     |
| 2022    | AZ   | Wind       | 0           | 100      | 9.72  | 1623     |             |     |
| 2022    | AZ   | Wind       | 0           | 100      | 9.72  | 1623     |             |     |
| 2022    | AZ   | Wind       | 0           | 100      | 9.72  | 1623     |             |     |
| 2022    | BC   | Wind       | 0           | 100      | 5.4   | 1623     |             |     |
| 2022    | CO   | IGCC       | 7160        | 425      | 1.62  | 3940     | 10          | 7.4 |
| 2022    | NCAL | CCCT       | 6360        | 610      | 3.02  | 884      | 5           | 5   |
| 2022    | NNV  | Wind       | 0           | 100      | 5.4   | 1623     |             |     |
| 2022    | SCAL | CCCT       | 6360        | 610      | 3.02  | 884      | 5           | 5   |
| 2022    | SCAL | CCCT       | 6360        | 610      | 3.02  | 884      | 5           | 5   |
| 2022    | SCAL | CCCT       | 6360        | 610      | 3.02  | 884      | 5           | 5   |
| 2022    | SNV  | Wind       | 0           | 100      | 9.72  | 1623     |             |     |
| 2022    | SNV  | Wind       | 0           | 100      | 9.72  | 1623     |             |     |
| 2022    | SNV  | Wind       | 0           | 100      | 9.72  | 1623     |             |     |
| 2022    | SNV  | Wind       | 0           | 100      | 9.72  | 1623     |             |     |
| 2022    | SNV  | Wind       | 0           | 100      | 9.72  | 1623     |             |     |
| 2023    | AZ   | CCCT       | 6328        | 610      | 3.02  | 880      | 5           | 5   |
| 2023    | AZ   | CCCT       | 6328        | 610      | 3.02  | 880      | 5           | 5   |
| 2023    | AZ   | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | AZ   | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | AZ   | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | AZ   | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | BAJA | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | BAJA | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | CO   | IGCC       | 7124        | 425      | 1.62  | 3920     | 10          | 7.4 |
| 2023    | NCAL | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | NCAL | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | NNV  | Wind       | 0           | 100      | 5.4   | 1580     |             |     |
| 2023    | OWI  | IGCC       | 7124        | 425      | 1.62  | 5222     | 10          | 7.4 |
| 2023    | OWI  | IGCC       | 7124        | 425      | 1.62  | 5222     | 10          | 7.4 |
| 2023    | SCAL | CCCT       | 6328        | 610      | 3.02  | 880      | 5           | 5   |
| 2023    | SCAL | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | SCAL | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | SCAL | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | SCAL | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | SCAL | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | SCAL | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | SCAL | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | SCAL | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | SCAL | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | SCAL | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | SNV  | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | SNV  | Wind       | 0           | 100      | 9.72  | 1580     |             |     |
| 2023    | UT   | IGCC       | 7124        | 425      | 1.62  | 3920     | 10          | 7.4 |
| 2024    | AB   | Wind       | 0           | 100      | 9.72  | 1537     |             |     |
| 2024    | AZ   | CCCT       | 6296        | 610      | 3.02  | 876      | 5           | 5   |
| 2024    | AZ   | CCCT       | 6296        | 610      | 3.02  | 876      | 5           | 5   |
| 2024    | CCAL | Wind       | 0           | 100      | 9.72  | 1537     |             |     |
| 2024    | CO   | IGCC       | 7088        | 425      | 1.62  | 3900     | 10          | 7.4 |
| 2024    | NCAL | CCCT       | 6296        | 610      | 3.02  | 876      | 5           | 5   |
| 2024    | NM   | IGCC       | 7088        | 425      | 1.62  | 3900     | 10          | 7.4 |



## High Gas Price Scenario

| On-line |      |            | Heat        | Variable | Fixed | Forced   | Maintenance |
|---------|------|------------|-------------|----------|-------|----------|-------------|
| Year    | Area | Plant Type | Rate MW Cap | O&M      | O&M   | Outage % | %           |
| 2024    | NNV  | Wind       | 0 100       | 5.4      | 1537  |          |             |
| 2024    | NNV  | Wind       | 0 100       | 5.4      | 1537  |          |             |
| 2024    | NNV  | Wind       | 0 100       | 5.4      | 1537  |          |             |
| 2024    | OWI  | Wind       | 0 100       | 9.72     | 1537  |          |             |
| 2024    | OWI  | Wind       | 0 100       | 9.72     | 1537  |          |             |
| 2024    | OWI  | Wind       | 0 100       | 9.72     | 1537  |          |             |
| 2024    | SCAL | CCCT       | 6296 610    | 3.02     | 876   | 5        | 5           |
| 2024    | SCAL | IGCC       | 7088 425    | 1.62     | 6899  | 10       | 7.4         |
| 2024    | SCAL | IGCC       | 7088 425    | 1.62     | 6899  | 10       | 7.4         |
| 2024    | SCAL | IGCC       | 7088 425    | 1.62     | 6899  | 10       | 7.4         |
| 2024    | SCAL | Wind       | 0 100       | 9.72     | 1537  |          |             |
| 2024    | SCAL | Wind       | 0 100       | 9.72     | 1537  |          |             |
| 2024    | SCAL | Wind       | 0 100       | 9.72     | 1537  |          |             |
| 2024    | SCAL | Wind       | 0 100       | 9.72     | 1537  |          |             |
| 2024    | SCAL | Wind       | 0 100       | 9.72     | 1537  |          |             |
| 2024    | SCAL | Wind       | 0 100       | 9.72     | 1537  |          |             |
| 2024    | SCAL | Wind       | 0 100       | 9.72     | 1537  |          |             |
| 2024    | SNV  | Wind       | 0 100       | 9.72     | 1537  |          |             |
| 2025    | AB   | Wind       | 0 100       | 5.4      | 1495  |          |             |
| 2025    | AB   | Wind       | 0 100       | 9.72     | 1495  |          |             |
| 2025    | AZ   | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | AZ   | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | AZ   | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | AZ   | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | BAJA | Solar      | 0 2         | 4.32     | 1888  |          | 7.4         |
| 2025    | BAJA | Solar      | 0 2         | 4.32     | 1888  |          | 7.4         |
| 2025    | BC   | Wind       | 0 100       | 9.72     | 1495  |          |             |
| 2025    | BC   | Wind       | 0 100       | 9.72     | 1495  |          |             |
| 2025    | CCAL | Solar      | 0 2         | 4.32     | 1888  |          | 7.4         |
| 2025    | CCAL | Solar      | 0 2         | 4.32     | 1888  |          | 7.4         |
| 2025    | CO   | Wind       | 0 100       | 5.4      | 1495  |          |             |
| 2025    | IDS  | Wind       | 0 100       | 5.4      | 1495  |          |             |
| 2025    | IDS  | Wind       | 0 100       | 5.4      | 1495  |          |             |
| 2025    | MT   | Wind       | 0 100       | 5.4      | 1495  |          |             |
| 2025    | NCAL | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | NCAL | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | NCAL | CCCT       | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | NCAL | Solar      | 0 2         | 4.32     | 1888  |          | 7.4         |
| 2025    | NCAL | Solar      | 0 2         | 4.32     | 1888  |          | 7.4         |
| 2025    | NCAL | Solar      | 0 2         | 4.32     | 1888  |          | 7.4         |
| 2025    | NCAL | Solar      | 0 2         | 4.32     | 1888  |          | 7.4         |
| 2025    | NCAL | Solar      | 0 2         | 4.32     | 1888  |          | 7.4         |
| 2025    | NCAL | Solar      | 0 2         | 4.32     | 1888  |          | 7.4         |
| 2025    | NCAL | Wind       | 0 100       | 9.72     | 1495  |          |             |
| 2025    | NNV  | Wind       | 0 100       | 5.4      | 1495  |          |             |
| 2025    | NNV  | Wind       | 0 100       | 5.4      | 1495  |          |             |
| 2025    | NNV  | Wind       | 0 100       | 5.4      | 1495  |          |             |
| 2025    | OWI  | IGCC       | 7053 425    | 1.62     | 5170  | 10       | 7.4         |
| 2025    | OWI  | Wind       | 0 100       | 9.72     | 1495  |          |             |

## High Gas Price Scenario

| On-line |      |            | Heat        | Variable | Fixed | Forced   | Maintenance |
|---------|------|------------|-------------|----------|-------|----------|-------------|
| Year    | Area | Plant Type | Rate MW Cap | O&M      | O&M   | Outage % | %           |
| 2025    | OWI  | Wind       | 0           | 100      | 9.72  | 1495     |             |
| 2025    | OWI  | Wind       | 0           | 100      | 9.72  | 1495     |             |
| 2025    | OWI  | Wind       | 0           | 100      | 9.72  | 1495     |             |
| 2025    | OWI  | Wind       | 0           | 100      | 9.72  | 1495     |             |
| 2025    | SCAL | CCCT       | 6265        | 610      | 3.02  | 872      | 5           |
| 2025    | SCAL | CCCT       | 6265        | 610      | 3.02  | 872      | 5           |
| 2025    | SCAL | IGCC       | 7053        | 425      | 1.62  | 6865     | 10          |
| 2025    | SCAL | Solar      | 0           | 2        | 4.32  | 1888     |             |
| 2025    | SCAL | Solar      | 0           | 2        | 4.32  | 1888     |             |
| 2025    | SCAL | Solar      | 0           | 2        | 4.32  | 1888     |             |
| 2025    | SCAL | Solar      | 0           | 2        | 4.32  | 1888     |             |
| 2025    | SCAL | Solar      | 0           | 2        | 4.32  | 1888     |             |
| 2025    | SCAL | Solar      | 0           | 2        | 4.32  | 1888     |             |
| 2025    | SCAL | Solar      | 0           | 2        | 4.32  | 1888     |             |
| 2025    | SCAL | Solar      | 0           | 2        | 4.32  | 1888     |             |
| 2025    | SCAL | Solar      | 0           | 2        | 4.32  | 1888     |             |
| 2025    | SNV  | CCCT       | 6265        | 610      | 3.02  | 872      | 5           |
| 2025    | SNV  | Solar      | 0           | 2        | 4.32  | 1888     |             |
| 2025    | SNV  | Solar      | 0           | 2        | 4.32  | 1888     |             |
| 2025    | WY   | Wind       | 0           | 100      | 5.4   | 1495     |             |
| 2026    | AB   | Wind       | 0           | 100      | 5.4   | 1454     |             |
| 2026    | AB   | Wind       | 0           | 100      | 5.4   | 1454     |             |
| 2026    | AB   | Wind       | 0           | 100      | 5.4   | 1454     |             |
| 2026    | AB   | Wind       | 0           | 100      | 9.72  | 1454     |             |
| 2026    | AB   | Wind       | 0           | 100      | 9.72  | 1454     |             |
| 2026    | AZ   | CCCT       | 6265        | 610      | 3.02  | 872      | 5           |
| 2026    | BAJA | CCCT       | 6265        | 610      | 3.02  | 872      | 5           |
| 2026    | BAJA | Solar      | 0           | 2        | 4.32  | 1888     |             |
| 2026    | BAJA | Solar      | 0           | 2        | 4.32  | 1888     |             |
| 2026    | BC   | Wind       | 0           | 100      | 9.72  | 1454     |             |
| 2026    | BC   | Wind       | 0           | 100      | 9.72  | 1454     |             |
| 2026    | BC   | Wind       | 0           | 100      | 9.72  | 1454     |             |
| 2026    | BC   | Wind       | 0           | 100      | 9.72  | 1454     |             |
| 2026    | CCAL | Solar      | 0           | 2        | 4.32  | 1888     |             |
| 2026    | CCAL | Solar      | 0           | 2        | 4.32  | 1888     |             |
| 2026    | CCAL | Wind       | 0           | 100      | 9.72  | 1454     |             |
| 2026    | CCAL | Wind       | 0           | 100      | 9.72  | 1454     |             |
| 2026    | CO   | Wind       | 0           | 100      | 5.4   | 1454     |             |
| 2026    | CO   | Wind       | 0           | 100      | 5.4   | 1454     |             |
| 2026    | IDS  | Wind       | 0           | 100      | 5.4   | 1454     |             |
| 2026    | IDS  | Wind       | 0           | 100      | 5.4   | 1454     |             |
| 2026    | IDS  | Wind       | 0           | 100      | 5.4   | 1454     |             |
| 2026    | IDS  | Wind       | 0           | 100      | 5.4   | 1454     |             |
| 2026    | MT   | Wind       | 0           | 100      | 5.4   | 1454     |             |
| 2026    | MT   | Wind       | 0           | 100      | 5.4   | 1454     |             |
| 2026    | MT   | Wind       | 0           | 100      | 5.4   | 1454     |             |
| 2026    | NCAL | CCCT       | 6265        | 610      | 3.02  | 872      | 5           |
| 2026    | NCAL | CCCT       | 6265        | 610      | 3.02  | 872      | 5           |
| 2026    | NCAL | Solar      | 0           | 2        | 4.32  | 1888     |             |

## High Gas Price Scenario

| On-line |      |            | Heat | Variable | Fixed | Forced | Maintenance |     |
|---------|------|------------|------|----------|-------|--------|-------------|-----|
| Year    | Area | Plant Type | Rate | MW Cap   | O&M   | O&M    | Outage %    | %   |
| 2026    | NCAL | Solar      | 0    | 2        | 4.32  | 1888   |             | 7.4 |
| 2026    | NCAL | Solar      | 0    | 2        | 4.32  | 1888   |             | 7.4 |
| 2026    | NCAL | Solar      | 0    | 2        | 4.32  | 1888   |             | 7.4 |
| 2026    | NCAL | Solar      | 0    | 2        | 4.32  | 1888   |             | 7.4 |
| 2026    | NCAL | Solar      | 0    | 2        | 4.32  | 1888   |             | 7.4 |
| 2026    | NCAL | Wind       | 0    | 100      | 9.72  | 1454   |             |     |
| 2026    | NCAL | Wind       | 0    | 100      | 9.72  | 1454   |             |     |
| 2026    | NCAL | Wind       | 0    | 100      | 9.72  | 1454   |             |     |
| 2026    | NCAL | Wind       | 0    | 100      | 9.72  | 1454   |             |     |
| 2026    | NCAL | Wind       | 0    | 100      | 9.72  | 1454   |             |     |
| 2026    | NCAL | Wind       | 0    | 100      | 9.72  | 1454   |             |     |
| 2026    | NNV  | Wind       | 0    | 100      | 5.4   | 1454   |             |     |
| 2026    | OWI  | Wind       | 0    | 100      | 9.72  | 1454   |             |     |
| 2026    | OWI  | Wind       | 0    | 100      | 9.72  | 1454   |             |     |
| 2026    | OWI  | Wind       | 0    | 100      | 9.72  | 1454   |             |     |
| 2026    | OWI  | Wind       | 0    | 100      | 9.72  | 1454   |             |     |
| 2026    | OWI  | Wind       | 0    | 100      | 9.72  | 1454   |             |     |
| 2026    | SCAL | CCCT       | 6265 | 610      | 3.02  | 872    | 5           | 5   |
| 2026    | SCAL | CCCT       | 6265 | 610      | 3.02  | 872    | 5           | 5   |
| 2026    | SCAL | Solar      | 0    | 2        | 4.32  | 1888   |             | 7.4 |
| 2026    | SCAL | Solar      | 0    | 2        | 4.32  | 1888   |             | 7.4 |
| 2026    | SCAL | Solar      | 0    | 2        | 4.32  | 1888   |             | 7.4 |
| 2026    | SCAL | Solar      | 0    | 2        | 4.32  | 1888   |             | 7.4 |
| 2026    | SCAL | Solar      | 0    | 2        | 4.32  | 1888   |             | 7.4 |
| 2026    | SCAL | Solar      | 0    | 2        | 4.32  | 1888   |             | 7.4 |
| 2026    | SCAL | Solar      | 0    | 2        | 4.32  | 1888   |             | 7.4 |
| 2026    | SCAL | Solar      | 0    | 2        | 4.32  | 1888   |             | 7.4 |
| 2026    | SCAL | Solar      | 0    | 2        | 4.32  | 1888   |             | 7.4 |
| 2026    | SCAL | Wind       | 0    | 100      | 9.72  | 1454   |             |     |
| 2026    | SNV  | Solar      | 0    | 2        | 4.32  | 1888   |             | 7.4 |
| 2026    | SNV  | Solar      | 0    | 2        | 4.32  | 1888   |             | 7.4 |
| 2026    | UT   | Wind       | 0    | 100      | 5.4   | 1454   |             |     |
| 2026    | UT   | Wind       | 0    | 100      | 5.4   | 1454   |             |     |
| 2026    | WY   | Wind       | 0    | 100      | 5.4   | 1454   |             |     |
| 2026    | WY   | Wind       | 0    | 100      | 5.4   | 1454   |             |     |

## Low Gas Price Scenario

| On-line |      |             | Heat        | Variable | Fixed | Forced   | Maintenance |   |
|---------|------|-------------|-------------|----------|-------|----------|-------------|---|
| Year    | Area | Plant Type  | Rate MW Cap | O&M      | O&M   | Outage % | %           |   |
| 2007    | AB   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | AB   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | AB   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | AZ   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | BC   | CCCT        | 6856        | 610      | 3.02  | 956      | 5           | 5 |
| 2007    | BC   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | BC   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | BC   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | NM   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | NNV  | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SNV  | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SNV  | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SNV  | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SNV  | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | UT   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | WY   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2008    | AB   | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | BC   | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | BC   | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | BC   | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | BC   | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | NNV  | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | NNV  | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | NNV  | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | SNV  | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | SNV  | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | SNV  | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | SNV  | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | SNV  | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | SNV  | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | SNV  | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | SNV  | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | SNV  | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2009    | AB   | SCCT- Frame | 10139       | 94       | 4.32  | 236      | 3.6         |   |
| 2009    | AB   | SCCT- Frame | 10139       | 94       | 4.32  | 236      | 3.6         |   |
| 2009    | BC   | SCCT- Frame | 10139       | 94       | 4.32  | 236      | 3.6         |   |
| 2009    | NNV  | SCCT- Frame | 10139       | 94       | 4.32  | 236      | 3.6         |   |
| 2009    | SNV  | SCCT- Frame | 10139       | 94       | 4.32  | 236      | 3.6         |   |
| 2009    | SNV  | SCCT- Frame | 10139       | 94       | 4.32  | 236      | 3.6         |   |
| 2009    | SNV  | SCCT- Frame | 10139       | 94       | 4.32  | 236      | 3.6         |   |
| 2009    | SNV  | SCCT- Frame | 10139       | 94       | 4.32  | 236      | 3.6         |   |
| 2009    | SNV  | SCCT- Frame | 10139       | 94       | 4.32  | 236      | 3.6         |   |
| 2009    | WY   | SCCT- Frame | 10139       | 94       | 4.32  | 236      | 3.6         |   |
| 2010    | BC   | SCCT- Frame | 10088       | 94       | 4.32  | 235      | 3.6         |   |
| 2010    | BC   | SCCT- Frame | 10088       | 94       | 4.32  | 235      | 3.6         |   |
| 2010    | NCAL | SCCT- Frame | 10088       | 94       | 4.32  | 235      | 3.6         |   |
| 2010    | NNV  | SCCT- Frame | 10088       | 94       | 4.32  | 235      | 3.6         |   |
| 2010    | NNV  | SCCT- Frame | 10088       | 94       | 4.32  | 235      | 3.6         |   |
| 2010    | SNV  | CCCT        | 6754        | 610      | 3.02  | 941      | 5           | 5 |
| 2010    | SNV  | SCCT- Frame | 10088       | 94       | 4.32  | 235      | 3.6         |   |
| 2010    | SNV  | SCCT- Frame | 10088       | 94       | 4.32  | 235      | 3.6         |   |
| 2011    | AB   | CCCT        | 6720        | 610      | 3.02  | 936      | 5           | 5 |
| 2011    | BC   | SCCT- Frame | 10038       | 94       | 4.32  | 234      | 3.6         |   |
| 2011    | BC   | SCCT- Frame | 10038       | 94       | 4.32  | 234      | 3.6         |   |



## Low Gas Price Scenario

| On-line |      |             | Heat        | Variable | Fixed | Forced   | Maintenance |   |
|---------|------|-------------|-------------|----------|-------|----------|-------------|---|
| Year    | Area | Plant Type  | Rate MW Cap | O&M      | O&M   | Outage % | %           |   |
| 2014    | SCAL | SCCT- Frame | 9888        | 94       | 4.32  | 231      | 3.6         |   |
| 2014    | SCAL | SCCT- Frame | 9888        | 94       | 4.32  | 231      | 3.6         |   |
| 2014    | SCAL | SCCT- Frame | 9888        | 94       | 4.32  | 231      | 3.6         |   |
| 2014    | SNV  | CCCT        | 6620        | 610      | 3.02  | 921      | 5           | 5 |
| 2014    | SNV  | CCCT        | 6620        | 610      | 3.02  | 921      | 5           | 5 |
| 2014    | WY   | SCCT- Frame | 9888        | 94       | 4.32  | 231      | 3.6         |   |
| 2015    | AB   | CCCT        | 6587        | 610      | 3.02  | 916      | 5           | 5 |
| 2015    | BC   | CCCT        | 6587        | 610      | 3.02  | 916      | 5           | 5 |
| 2015    | CO   | SCCT- Frame | 9839        | 94       | 4.32  | 230      | 3.6         |   |
| 2015    | NCAL | CCCT        | 6587        | 610      | 3.02  | 916      | 5           | 5 |
| 2015    | NCAL | CCCT        | 6587        | 610      | 3.02  | 916      | 5           | 5 |
| 2015    | NM   | SCCT- Frame | 9839        | 94       | 4.32  | 230      | 3.6         |   |
| 2015    | NM   | SCCT- Frame | 9839        | 94       | 4.32  | 230      | 3.6         |   |
| 2015    | NM   | SCCT- Frame | 9839        | 94       | 4.32  | 230      | 3.6         |   |
| 2015    | NM   | SCCT- Frame | 9839        | 94       | 4.32  | 230      | 3.6         |   |
| 2015    | OWI  | SCCT- Frame | 9839        | 94       | 4.32  | 230      | 3.6         |   |
| 2015    | OWI  | SCCT- Frame | 9839        | 94       | 4.32  | 230      | 3.6         |   |
| 2015    | SCAL | SCCT- Frame | 9839        | 94       | 4.32  | 230      | 3.6         |   |
| 2015    | SCAL | SCCT- Frame | 9839        | 94       | 4.32  | 230      | 3.6         |   |
| 2015    | UT   | CCCT        | 6587        | 610      | 3.02  | 916      | 5           | 5 |
| 2015    | WY   | SCCT- Frame | 9839        | 94       | 4.32  | 230      | 3.6         |   |
| 2015    | WY   | SCCT- Frame | 9839        | 94       | 4.32  | 230      | 3.6         |   |
| 2016    | AZ   | SCCT- Frame | 9790        | 94       | 4.32  | 229      | 3.6         |   |
| 2016    | AZ   | SCCT- Frame | 9790        | 94       | 4.32  | 229      | 3.6         |   |
| 2016    | AZ   | SCCT- Frame | 9790        | 94       | 4.32  | 229      | 3.6         |   |
| 2016    | BC   | CCCT        | 6554        | 610      | 3.02  | 911      | 5           | 5 |
| 2016    | NCAL | SCCT- Frame | 9790        | 94       | 4.32  | 229      | 3.6         |   |
| 2016    | NM   | SCCT- Frame | 9790        | 94       | 4.32  | 229      | 3.6         |   |
| 2016    | OWI  | SCCT- Frame | 9790        | 94       | 4.32  | 229      | 3.6         |   |
| 2016    | OWI  | SCCT- Frame | 9790        | 94       | 4.32  | 229      | 3.6         |   |
| 2016    | OWI  | SCCT- Frame | 9790        | 94       | 4.32  | 229      | 3.6         |   |
| 2016    | OWI  | SCCT- Frame | 9790        | 94       | 4.32  | 229      | 3.6         |   |
| 2016    | OWI  | SCCT- Frame | 9790        | 94       | 4.32  | 229      | 3.6         |   |
| 2016    | SCAL | SCCT- Frame | 9790        | 94       | 4.32  | 229      | 3.6         |   |
| 2016    | SCAL | SCCT- Frame | 9790        | 94       | 4.32  | 229      | 3.6         |   |
| 2016    | SCAL | SCCT- Frame | 9790        | 94       | 4.32  | 229      | 3.6         |   |
| 2016    | SNV  | CCCT        | 6554        | 610      | 3.02  | 911      | 5           | 5 |
| 2017    | BC   | CCCT        | 6521        | 610      | 3.02  | 906      | 5           | 5 |
| 2017    | BC   | CCCT        | 6521        | 610      | 3.02  | 906      | 5           | 5 |
| 2017    | CO   | SCCT- Frame | 9741        | 94       | 4.32  | 228      | 3.6         |   |
| 2017    | CO   | SCCT- Frame | 9741        | 94       | 4.32  | 228      | 3.6         |   |
| 2017    | CO   | SCCT- Frame | 9741        | 94       | 4.32  | 228      | 3.6         |   |
| 2017    | NCAL | CCCT        | 6521        | 610      | 3.02  | 906      | 5           | 5 |
| 2017    | NCAL | CCCT        | 6521        | 610      | 3.02  | 906      | 5           | 5 |
| 2017    | NM   | SCCT- Frame | 9741        | 94       | 4.32  | 228      | 3.6         |   |
| 2017    | NM   | SCCT- Frame | 9741        | 94       | 4.32  | 228      | 3.6         |   |
| 2017    | OWI  | SCCT- Frame | 9741        | 94       | 4.32  | 228      | 3.6         |   |
| 2017    | OWI  | SCCT- Frame | 9741        | 94       | 4.32  | 228      | 3.6         |   |
| 2017    | SCAL | SCCT- Frame | 9741        | 94       | 4.32  | 228      | 3.6         |   |



## Low Gas Price Scenario

| On-line |      |             | Heat        | Variable | Fixed | Forced   | Maintenance |
|---------|------|-------------|-------------|----------|-------|----------|-------------|
| Year    | Area | Plant Type  | Rate MW Cap | O&M      | O&M   | Outage % | %           |
| 2020    | NM   | CCCT        | 6424 610    | 3.02     | 892   | 5        | 5           |
| 2020    | SCAL | CCCT        | 6424 610    | 3.02     | 892   | 5        | 5           |
| 2020    | SCAL | CCCT        | 6424 610    | 3.02     | 892   | 5        | 5           |
| 2020    | UT   | SCCT- Frame | 9596 94     | 4.32     | 225   | 3.6      |             |
| 2020    | UT   | SCCT- Frame | 9596 94     | 4.32     | 225   | 3.6      |             |
| 2020    | UT   | SCCT- Frame | 9596 94     | 4.32     | 225   | 3.6      |             |
| 2021    | AZ   | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2021    | AZ   | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2021    | AZ   | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2021    | AZ   | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2021    | CO   | CCCT        | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | CO   | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2021    | NCAL | CCCT        | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | NCAL | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2021    | NCAL | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2021    | NCAL | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2021    | NCAL | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2021    | NCAL | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2021    | NCAL | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2021    | OWI  | CCCT        | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | SCAL | CCCT        | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | SCAL | CCCT        | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | SCAL | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2021    | SCAL | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2021    | SCAL | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2021    | SCAL | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2021    | SCAL | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2021    | SCAL | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2021    | SCAL | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2021    | UT   | CCCT        | 6392 610    | 3.02     | 888   | 5        | 5           |
| 2021    | UT   | SCCT- Frame | 9548 94     | 4.32     | 224   | 3.6      |             |
| 2022    | AZ   | CCCT        | 6360 610    | 3.02     | 884   | 5        | 5           |
| 2022    | BC   | CCCT        | 6360 610    | 3.02     | 884   | 5        | 5           |
| 2022    | CO   | SCCT- Frame | 9500 94     | 4.32     | 223   | 3.6      |             |
| 2022    | CO   | SCCT- Frame | 9500 94     | 4.32     | 223   | 3.6      |             |
| 2022    | NCAL | SCCT- Frame | 9500 94     | 4.32     | 223   | 3.6      |             |
| 2022    | NCAL | SCCT- Frame | 9500 94     | 4.32     | 223   | 3.6      |             |
| 2022    | NCAL | SCCT- Frame | 9500 94     | 4.32     | 223   | 3.6      |             |
| 2022    | NCAL | SCCT- Frame | 9500 94     | 4.32     | 223   | 3.6      |             |
| 2022    | NCAL | SCCT- Frame | 9500 94     | 4.32     | 223   | 3.6      |             |
| 2022    | NCAL | SCCT- Frame | 9500 94     | 4.32     | 223   | 3.6      |             |
| 2022    | NCAL | SCCT- Frame | 9500 94     | 4.32     | 223   | 3.6      |             |
| 2022    | NCAL | SCCT- Frame | 9500 94     | 4.32     | 223   | 3.6      |             |
| 2022    | NCAL | SCCT- Frame | 9500 94     | 4.32     | 223   | 3.6      |             |
| 2022    | NCAL | SCCT- Frame | 9500 94     | 4.32     | 223   | 3.6      |             |
| 2022    | NCAL | SCCT- Frame | 9500 94     | 4.32     | 223   | 3.6      |             |
| 2022    | NCAL | SCCT- Frame | 9500 94     | 4.32     | 223   | 3.6      |             |
| 2022    | NM   | CCCT        | 6360 610    | 3.02     | 884   | 5        | 5           |
| 2022    | OWI  | CCCT        | 6360 610    | 3.02     | 884   | 5        | 5           |
| 2022    | SCAL | CCCT        | 6360 610    | 3.02     | 884   | 5        | 5           |
| 2022    | SCAL | SCCT- Frame | 9500 94     | 4.32     | 223   | 3.6      |             |





## Low Gas Price Scenario

| On-line |      |             | Heat        | Variable | Fixed | Forced   | Maintenance |
|---------|------|-------------|-------------|----------|-------|----------|-------------|
| Year    | Area | Plant Type  | Rate MW Cap | O&M      | O&M   | Outage % | %           |
| 2024    | SCAL | CCCT        | 6296 610    | 3.02     | 876   | 5        | 5           |
| 2024    | SCAL | CCCT        | 6296 610    | 3.02     | 876   | 5        | 5           |
| 2024    | SCAL | CCCT        | 6296 610    | 3.02     | 876   | 5        | 5           |
| 2025    | AB   | CCCT        | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | CO   | SCCT- Frame | 9359 94     | 4.32     | 220   | 3.6      |             |
| 2025    | MT   | SCCT- Frame | 9359 94     | 4.32     | 220   | 3.6      |             |
| 2025    | MT   | SCCT- Frame | 9359 94     | 4.32     | 220   | 3.6      |             |
| 2025    | NCAL | CCCT        | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | NCAL | CCCT        | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | NCAL | CCCT        | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | SCAL | CCCT        | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | SCAL | CCCT        | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2025    | WY   | SCCT- Frame | 9359 94     | 4.32     | 220   | 3.6      |             |
| 2026    | AZ   | CCCT        | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2026    | AZ   | CCCT        | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2026    | AZ   | CCCT        | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2026    | CO   | CCCT        | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2026    | MT   | SCCT- Frame | 9359 94     | 4.32     | 220   | 3.6      |             |
| 2026    | MT   | SCCT- Frame | 9359 94     | 4.32     | 220   | 3.6      |             |
| 2026    | MT   | SCCT- Frame | 9359 94     | 4.32     | 220   | 3.6      |             |
| 2026    | NCAL | CCCT        | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2026    | NM   | SCCT- Frame | 9359 94     | 4.32     | 220   | 3.6      |             |
| 2026    | OWI  | CCCT        | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2026    | SCAL | CCCT        | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2026    | SCAL | CCCT        | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2026    | SCAL | CCCT        | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2026    | UT   | CCCT        | 6265 610    | 3.02     | 872   | 5        | 5           |
| 2026    | UT   | SCCT- Frame | 9359 94     | 4.32     | 220   | 3.6      |             |



## High (Doubled) Coal Price Escalation Scenario

| On-line | Year Area | Plant Type | Heat Rate   | MW Cap | Variable O&M | Fixed O&M | Forced Outage % | Maintenance % |   |
|---------|-----------|------------|-------------|--------|--------------|-----------|-----------------|---------------|---|
|         | 2007      | SCAL       | SCCT- Frame | 10241  | 94           | 4.32      | 238.00          | 3.60          |   |
|         | 2007      | SCAL       | SCCT- Frame | 10241  | 94           | 4.32      | 238.00          | 3.60          |   |
|         | 2007      | SCAL       | SCCT- Frame | 10241  | 94           | 4.32      | 238.00          | 3.60          |   |
|         | 2007      | SNV        | CCCT        | 6856   | 610          | 3.02      | 956.00          | 5.00          | 5 |
|         | 2007      | SNV        | CCCT        | 6856   | 610          | 3.02      | 956.00          | 5.00          | 5 |
|         | 2007      | SNV        | CCCT        | 6856   | 610          | 3.02      | 956.00          | 5.00          | 5 |
|         | 2007      | SNV        | CCCT        | 6856   | 610          | 3.02      | 956.00          | 5.00          | 5 |
|         | 2007      | SNV        | SCCT- Frame | 10241  | 94           | 4.32      | 238.00          | 3.60          |   |
|         | 2007      | SNV        | SCCT- Frame | 10241  | 94           | 4.32      | 238.00          | 3.60          |   |
|         | 2007      | SNV        | SCCT- Frame | 10241  | 94           | 4.32      | 238.00          | 3.60          |   |
|         | 2007      | SNV        | SCCT- Frame | 10241  | 94           | 4.32      | 238.00          | 3.60          |   |
|         | 2007      | UT         | CCCT        | 6856   | 610          | 3.02      | 956.00          | 5.00          | 5 |
|         | 2007      | UT         | SCCT- Frame | 10241  | 94           | 4.32      | 238.00          | 3.60          |   |
|         | 2007      | UT         | SCCT- Frame | 10241  | 94           | 4.32      | 238.00          | 3.60          |   |
|         | 2008      | AB         | CCCT        | 6822   | 610          | 3.02      | 951.00          | 5.00          | 5 |
|         | 2008      | AZ         | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | AZ         | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | BC         | CCCT        | 6822   | 610          | 3.02      | 951.00          | 5.00          | 5 |
|         | 2008      | MT         | Wind        | 0      | 100          | 5.4       | 1,646.00        |               |   |
|         | 2008      | MT         | Wind        | 0      | 100          | 5.4       | 1,646.00        |               |   |
|         | 2008      | NCAL       | CCCT        | 6822   | 610          | 3.02      | 951.00          | 5.00          | 5 |
|         | 2008      | NCAL       | CCCT        | 6822   | 610          | 3.02      | 951.00          | 5.00          | 5 |
|         | 2008      | NCAL       | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | NCAL       | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | NCAL       | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | NCAL       | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | NM         | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | NM         | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | NM         | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | NM         | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | SCAL       | CCCT        | 6822   | 610          | 3.02      | 951.00          | 5.00          | 5 |
|         | 2008      | SCAL       | CCCT        | 6822   | 610          | 3.02      | 951.00          | 5.00          | 5 |
|         | 2008      | SCAL       | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | SCAL       | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | SCAL       | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | SCAL       | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | SNV        | CCCT        | 6822   | 610          | 3.02      | 951.00          | 5.00          | 5 |
|         | 2008      | SNV        | CCCT        | 6822   | 610          | 3.02      | 951.00          | 5.00          | 5 |
|         | 2008      | SNV        | CCCT        | 6822   | 610          | 3.02      | 951.00          | 5.00          | 5 |
|         | 2008      | SNV        | CCCT        | 6822   | 610          | 3.02      | 951.00          | 5.00          | 5 |
|         | 2008      | SNV        | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | SNV        | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | SNV        | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | SNV        | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | UT         | CCCT        | 6822   | 610          | 3.02      | 951.00          | 5.00          | 5 |
|         | 2008      | UT         | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2008      | UT         | SCCT- Frame | 10190  | 94           | 4.32      | 237.00          | 3.60          |   |
|         | 2009      | BC         | CCCT        | 6788   | 610          | 3.02      | 946.00          | 5.00          | 5 |

## High (Doubled) Coal Price Escalation Scenario

| On-line |      |             | Heat        | Variable | Fixed    | Forced   | Maintenance |
|---------|------|-------------|-------------|----------|----------|----------|-------------|
| Year    | Area | Plant Type  | Rate MW Cap | O&M      | O&M      | Outage % | %           |
| 2009    | NCAL | CCCT        | 6788 610    | 3.02     | 946.00   | 5.00     | 5           |
| 2009    | NCAL | CCCT        | 6788 610    | 3.02     | 946.00   | 5.00     | 5           |
| 2009    | NM   | SCCT- Frame | 10139 94    | 4.32     | 236.00   | 3.60     |             |
| 2009    | NM   | SCCT- Frame | 10139 94    | 4.32     | 236.00   | 3.60     |             |
| 2009    | SNV  | SCCT- Frame | 10139 94    | 4.32     | 236.00   | 3.60     |             |
| 2009    | UT   | SCCT- Frame | 10139 94    | 4.32     | 236.00   | 3.60     |             |
| 2009    | UT   | SCCT- Frame | 10139 94    | 4.32     | 236.00   | 3.60     |             |
| 2009    | UT   | SCCT- Frame | 10139 94    | 4.32     | 236.00   | 3.60     |             |
| 2010    | SNV  | SCCT- Frame | 10088 94    | 4.32     | 235.00   | 3.60     |             |
| 2011    | AZ   | SCCT- Frame | 10038 94    | 4.32     | 234.00   | 3.60     |             |
| 2011    | NCAL | CCCT        | 6720 610    | 3.02     | 936.00   | 5.00     | 5           |
| 2011    | SCAL | CCCT        | 6720 610    | 3.02     | 936.00   | 5.00     | 5           |
| 2011    | SNV  | CCCT        | 6720 610    | 3.02     | 936.00   | 5.00     | 5           |
| 2011    | SNV  | SCCT- Frame | 10038 94    | 4.32     | 234.00   | 3.60     |             |
| 2011    | SNV  | SCCT- Frame | 10038 94    | 4.32     | 234.00   | 3.60     |             |
| 2012    | BC   | Pulverized  | 9313 400    | 1.89     | 3,531.00 | 7.00     | 7.4         |
| 2012    | BC   | Pulverized  | 9313 400    | 1.89     | 3,531.00 | 7.00     | 7.4         |
| 2012    | MT   | Pulverized  | 9313 400    | 1.89     | 3,531.00 | 7.00     | 7.4         |
| 2012    | MT   | Pulverized  | 9313 400    | 1.89     | 3,531.00 | 7.00     | 7.4         |
| 2012    | OWI  | Pulverized  | 9313 400    | 1.89     | 3,531.00 | 7.00     | 7.4         |
| 2012    | OWI  | Pulverized  | 9313 400    | 1.89     | 3,531.00 | 7.00     | 7.4         |
| 2012    | SCAL | CCCT        | 6686 610    | 3.02     | 931.00   | 5.00     | 5           |
| 2012    | SCAL | Pulverized  | 9313 400    | 1.89     | 3,015.00 | 7.00     | 7.4         |
| 2012    | SNV  | SCCT- Frame | 9988 94     | 4.32     | 233.00   | 3.60     |             |
| 2012    | UT   | Pulverized  | 9313 400    | 1.89     | 3,531.00 | 7.00     | 7.4         |
| 2012    | UT   | Pulverized  | 9313 400    | 1.89     | 3,531.00 | 7.00     | 7.4         |
| 2012    | WY   | Pulverized  | 9313 400    | 1.89     | 3,531.00 | 7.00     | 7.4         |
| 2012    | WY   | Pulverized  | 9313 400    | 1.89     | 3,531.00 | 7.00     | 7.4         |
| 2013    | AZ   | SCCT- Frame | 9938 94     | 4.32     | 232.00   | 3.60     |             |
| 2013    | AZ   | SCCT- Frame | 9938 94     | 4.32     | 232.00   | 3.60     |             |
| 2013    | AZ   | SCCT- Frame | 9938 94     | 4.32     | 232.00   | 3.60     |             |
| 2013    | AZ   | SCCT- Frame | 9938 94     | 4.32     | 232.00   | 3.60     |             |
| 2013    | BC   | Pulverized  | 9290 400    | 1.89     | 3,527.00 | 7.00     | 7.4         |
| 2013    | BC   | Pulverized  | 9290 400    | 1.89     | 3,527.00 | 7.00     | 7.4         |
| 2013    | IDS  | Pulverized  | 9290 400    | 1.89     | 4,083.00 | 7.00     | 7.4         |
| 2013    | MT   | Pulverized  | 9290 400    | 1.89     | 3,527.00 | 7.00     | 7.4         |
| 2013    | MT   | Pulverized  | 9290 400    | 1.89     | 3,527.00 | 7.00     | 7.4         |
| 2013    | SCAL | CCCT        | 6653 610    | 3.02     | 926.00   | 5.00     | 5           |
| 2013    | UT   | Pulverized  | 9290 400    | 1.89     | 3,527.00 | 7.00     | 7.4         |
| 2014    | AB   | CCCT        | 6620 610    | 3.02     | 921.00   | 5.00     | 5           |
| 2014    | BAJA | CCCT        | 6620 610    | 3.02     | 921.00   | 5.00     | 5           |
| 2014    | IDS  | Pulverized  | 9267 400    | 1.89     | 4,079.00 | 7.00     | 7.4         |
| 2014    | NCAL | CCCT        | 6620 610    | 3.02     | 921.00   | 5.00     | 5           |
| 2014    | NCAL | CCCT        | 6620 610    | 3.02     | 921.00   | 5.00     | 5           |
| 2014    | SCAL | CCCT        | 6620 610    | 3.02     | 921.00   | 5.00     | 5           |
| 2014    | SNV  | CCCT        | 6620 610    | 3.02     | 921.00   | 5.00     | 5           |
| 2014    | UT   | Pulverized  | 9267 400    | 1.89     | 3,523.00 | 7.00     | 7.4         |
| 2014    | WY   | Pulverized  | 9267 400    | 1.89     | 3,523.00 | 7.00     | 7.4         |

## High (Doubled) Coal Price Escalation Scenario

| On-line |      |             | Heat        | Variable | Fixed    | Forced   | Maintenance |
|---------|------|-------------|-------------|----------|----------|----------|-------------|
| Year    | Area | Plant Type  | Rate MW Cap | O&M      | O&M      | Outage % | %           |
| 2015    | AB   | CCCT        | 6587 610    | 3.02     | 916.00   | 5.00     | 5           |
| 2015    | MT   | Pulverized  | 9244 400    | 1.89     | 3,519.00 | 7.00     | 7.4         |
| 2015    | NCAL | CCCT        | 6587 610    | 3.02     | 916.00   | 5.00     | 5           |
| 2015    | NCAL | CCCT        | 6587 610    | 3.02     | 916.00   | 5.00     | 5           |
| 2015    | OWI  | Wind        | 0 100       | 5.4      | 1,327.00 |          |             |
| 2015    | OWI  | Wind        | 0 100       | 5.4      | 1,327.00 |          |             |
| 2015    | OWI  | Wind        | 0 100       | 5.4      | 1,327.00 |          |             |
| 2015    | OWI  | Wind        | 0 100       | 5.4      | 1,327.00 |          |             |
| 2015    | OWI  | Wind        | 0 100       | 5.4      | 1,327.00 |          |             |
| 2015    | SCAL | CCCT        | 6587 610    | 3.02     | 916.00   | 5.00     | 5           |
| 2015    | SCAL | CCCT        | 6587 610    | 3.02     | 916.00   | 5.00     | 5           |
| 2016    | AB   | SCCT- Frame | 9790 94     | 4.32     | 229.00   | 3.60     |             |
| 2016    | AZ   | SCCT- Frame | 9790 94     | 4.32     | 229.00   | 3.60     |             |
| 2016    | BC   | CCCT        | 6554 610    | 3.02     | 911.00   | 5.00     | 5           |
| 2016    | NCAL | CCCT        | 6554 610    | 3.02     | 911.00   | 5.00     | 5           |
| 2016    | NM   | CCCT        | 6554 610    | 3.02     | 911.00   | 5.00     | 5           |
| 2016    | OWI  | Wind        | 0 100       | 5.4      | 1,289.00 |          |             |
| 2016    | OWI  | Wind        | 0 100       | 5.4      | 1,289.00 |          |             |
| 2016    | OWI  | Wind        | 0 100       | 5.4      | 1,289.00 |          |             |
| 2016    | OWI  | Wind        | 0 100       | 5.4      | 1,289.00 |          |             |
| 2016    | SNV  | CCCT        | 6554 610    | 3.02     | 911.00   | 5.00     | 5           |
| 2016    | SNV  | CCCT        | 6554 610    | 3.02     | 911.00   | 5.00     | 5           |
| 2016    | UT   | Pulverized  | 9221 400    | 1.89     | 3,515.00 | 7.00     | 7.4         |
| 2017    | AZ   | SCCT- Frame | 9741 94     | 4.32     | 228.00   | 3.60     |             |
| 2017    | BC   | CCCT        | 6521 610    | 3.02     | 906.00   | 5.00     | 5           |
| 2017    | NM   | CCCT        | 6521 610    | 3.02     | 906.00   | 5.00     | 5           |
| 2017    | OWI  | Wind        | 0 100       | 5.4      | 1,252.00 |          |             |
| 2017    | SCAL | CCCT        | 6521 610    | 3.02     | 906.00   | 5.00     | 5           |
| 2017    | SCAL | CCCT        | 6521 610    | 3.02     | 906.00   | 5.00     | 5           |
| 2017    | SCAL | CCCT        | 6521 610    | 3.02     | 906.00   | 5.00     | 5           |
| 2018    | AZ   | CCCT        | 6488 610    | 3.02     | 901.00   | 5.00     | 5           |
| 2018    | AZ   | SCCT- Frame | 9692 94     | 4.32     | 227.00   | 3.60     |             |
| 2018    | BC   | CCCT        | 6488 610    | 3.02     | 901.00   | 5.00     | 5           |
| 2018    | NCAL | CCCT        | 6488 610    | 3.02     | 901.00   | 5.00     | 5           |
| 2018    | NCAL | CCCT        | 6488 610    | 3.02     | 901.00   | 5.00     | 5           |
| 2018    | SCAL | CCCT        | 6488 610    | 3.02     | 901.00   | 5.00     | 5           |
| 2019    | AB   | CCCT        | 6456 610    | 3.02     | 896.00   | 5.00     | 5           |
| 2019    | BAJA | CCCT        | 6456 610    | 3.02     | 896.00   | 5.00     | 5           |
| 2019    | BC   | CCCT        | 6456 610    | 3.02     | 896.00   | 5.00     | 5           |
| 2019    | CO   | CCCT        | 6456 610    | 3.02     | 896.00   | 5.00     | 5           |
| 2019    | NCAL | CCCT        | 6456 610    | 3.02     | 896.00   | 5.00     | 5           |
| 2019    | NCAL | CCCT        | 6456 610    | 3.02     | 896.00   | 5.00     | 5           |
| 2019    | SCAL | CCCT        | 6456 610    | 3.02     | 896.00   | 5.00     | 5           |
| 2019    | SCAL | CCCT        | 6456 610    | 3.02     | 896.00   | 5.00     | 5           |
| 2019    | SNV  | CCCT        | 6456 610    | 3.02     | 896.00   | 5.00     | 5           |
| 2020    | AZ   | CCCT        | 6424 610    | 3.02     | 892.00   | 5.00     | 5           |
| 2020    | AZ   | Nuclear     | 9600 1100   | 1.08     | 3,764.00 | 10.00    | 6.7         |
| 2020    | NCAL | CCCT        | 6424 610    | 3.02     | 892.00   | 5.00     | 5           |

## High (Doubled) Coal Price Escalation Scenario

| On-line | Year Area | Plant Type | Heat Rate | MW Cap | Variable O&M | Fixed O&M | Forced Outage % | Maintenance % |   |
|---------|-----------|------------|-----------|--------|--------------|-----------|-----------------|---------------|---|
|         | 2020      | NCAL       | CCCT      | 6424   | 610          | 3.02      | 892.00          | 5.00          | 5 |
|         | 2020      | NM         | CCCT      | 6424   | 610          | 3.02      | 892.00          | 5.00          | 5 |
|         | 2020      | SCAL       | CCCT      | 6424   | 610          | 3.02      | 892.00          | 5.00          | 5 |
|         | 2020      | SCAL       | CCCT      | 6424   | 610          | 3.02      | 892.00          | 5.00          | 5 |
|         | 2020      | SCAL       | CCCT      | 6424   | 610          | 3.02      | 892.00          | 5.00          | 5 |
|         | 2021      | AZ         | CCCT      | 6392   | 610          | 3.02      | 888.00          | 5.00          | 5 |
|         | 2021      | AZ         | CCCT      | 6392   | 610          | 3.02      | 888.00          | 5.00          | 5 |
|         | 2021      | BC         | CCCT      | 6392   | 610          | 3.02      | 888.00          | 5.00          | 5 |
|         | 2021      | CO         | CCCT      | 6392   | 610          | 3.02      | 888.00          | 5.00          | 5 |
|         | 2021      | NCAL       | CCCT      | 6392   | 610          | 3.02      | 888.00          | 5.00          | 5 |
|         | 2021      | NCAL       | CCCT      | 6392   | 610          | 3.02      | 888.00          | 5.00          | 5 |
|         | 2021      | SCAL       | CCCT      | 6392   | 610          | 3.02      | 888.00          | 5.00          | 5 |
|         | 2021      | SNV        | CCCT      | 6392   | 610          | 3.02      | 888.00          | 5.00          | 5 |
|         | 2022      | AZ         | CCCT      | 6360   | 610          | 3.02      | 884.00          | 5.00          | 5 |
|         | 2022      | AZ         | CCCT      | 6360   | 610          | 3.02      | 884.00          | 5.00          | 5 |
|         | 2022      | BC         | CCCT      | 6360   | 610          | 3.02      | 884.00          | 5.00          | 5 |
|         | 2022      | CO         | CCCT      | 6360   | 610          | 3.02      | 884.00          | 5.00          | 5 |
|         | 2022      | NCAL       | CCCT      | 6360   | 610          | 3.02      | 884.00          | 5.00          | 5 |
|         | 2022      | NCAL       | CCCT      | 6360   | 610          | 3.02      | 884.00          | 5.00          | 5 |
|         | 2022      | OWI        | CCCT      | 6360   | 610          | 3.02      | 884.00          | 5.00          | 5 |
|         | 2022      | SCAL       | CCCT      | 6360   | 610          | 3.02      | 884.00          | 5.00          | 5 |
|         | 2022      | SCAL       | CCCT      | 6360   | 610          | 3.02      | 884.00          | 5.00          | 5 |
|         | 2022      | SCAL       | CCCT      | 6360   | 610          | 3.02      | 884.00          | 5.00          | 5 |
|         | 2023      | AB         | CCCT      | 6328   | 610          | 3.02      | 880.00          | 5.00          | 5 |
|         | 2023      | AZ         | CCCT      | 6328   | 610          | 3.02      | 880.00          | 5.00          | 5 |
|         | 2023      | AZ         | CCCT      | 6328   | 610          | 3.02      | 880.00          | 5.00          | 5 |
|         | 2023      | CO         | CCCT      | 6328   | 610          | 3.02      | 880.00          | 5.00          | 5 |
|         | 2023      | MT         | Wind      | 0      | 100          | 5.4       | 1,580.00        |               |   |
|         | 2023      | NCAL       | CCCT      | 6328   | 610          | 3.02      | 880.00          | 5.00          | 5 |
|         | 2023      | NM         | CCCT      | 6328   | 610          | 3.02      | 880.00          | 5.00          | 5 |
|         | 2023      | SCAL       | CCCT      | 6328   | 610          | 3.02      | 880.00          | 5.00          | 5 |
|         | 2024      | AZ         | CCCT      | 6296   | 610          | 3.02      | 876.00          | 5.00          | 5 |
|         | 2024      | AZ         | CCCT      | 6296   | 610          | 3.02      | 876.00          | 5.00          | 5 |
|         | 2024      | CO         | CCCT      | 6296   | 610          | 3.02      | 876.00          | 5.00          | 5 |
|         | 2024      | MT         | Wind      | 0      | 100          | 5.4       | 1,537.00        |               |   |
|         | 2024      | MT         | Wind      | 0      | 100          | 5.4       | 1,537.00        |               |   |
|         | 2024      | MT         | Wind      | 0      | 100          | 5.4       | 1,537.00        |               |   |
|         | 2024      | MT         | Wind      | 0      | 100          | 5.4       | 1,537.00        |               |   |
|         | 2024      | MT         | Wind      | 0      | 100          | 5.4       | 1,537.00        |               |   |
|         | 2024      | NCAL       | CCCT      | 6296   | 610          | 3.02      | 876.00          | 5.00          | 5 |
|         | 2024      | NCAL       | CCCT      | 6296   | 610          | 3.02      | 876.00          | 5.00          | 5 |
|         | 2024      | NCAL       | CCCT      | 6296   | 610          | 3.02      | 876.00          | 5.00          | 5 |
|         | 2024      | NNV        | Wind      | 0      | 100          | 5.4       | 1,537.00        |               |   |
|         | 2024      | NNV        | Wind      | 0      | 100          | 5.4       | 1,537.00        |               |   |
|         | 2024      | SCAL       | CCCT      | 6296   | 610          | 3.02      | 876.00          | 5.00          | 5 |
|         | 2024      | SCAL       | CCCT      | 6296   | 610          | 3.02      | 876.00          | 5.00          | 5 |
|         | 2024      | SCAL       | CCCT      | 6296   | 610          | 3.02      | 876.00          | 5.00          | 5 |
|         | 2024      | SCAL       | CCCT      | 6296   | 610          | 3.02      | 876.00          | 5.00          | 5 |

## High (Doubled) Coal Price Escalation Scenario

| On-line | Year Area | Plant Type  | Heat Rate | MW Cap | Variable O&M | Fixed O&M | Forced Outage % | Maintenance % |
|---------|-----------|-------------|-----------|--------|--------------|-----------|-----------------|---------------|
|         | 2025 AZ   | CCCT        | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2025 AZ   | CCCT        | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2025 BAJA | CCCT        | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2025 BC   | CCCT        | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2025 CO   | CCCT        | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2025 MT   | Wind        | 0         | 100    | 5.4          | 1,495.00  |                 |               |
|         | 2025 NCAL | CCCT        | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2025 NCAL | CCCT        | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2025 NCAL | CCCT        | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2025 NNV  | Wind        | 0         | 100    | 5.4          | 1,495.00  |                 |               |
|         | 2025 SCAL | CCCT        | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2025 SCAL | CCCT        | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2025 SCAL | CCCT        | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2025 SCAL | CCCT        | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2025 SCAL | CCCT        | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2025 UT   | CCCT        | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2026 AB   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 AB   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 AB   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 AB   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 AB   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 AZ   | CCCT        | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2026 AZ   | CCCT        | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2026 AZ   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 AZ   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 AZ   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 AZ   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 AZ   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 BC   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 BC   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 BC   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 BC   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 BC   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 CO   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 CO   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 CO   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 CO   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 CO   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 CO   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 IDS  | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 IDS  | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 IDS  | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 IDS  | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 MT   | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 NCAL | CCCT        | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2026 NM   | SCCT- Frame | 9359      | 94     | 4.32         | 220.00    | 3.60            |               |
|         | 2026 NM   | SCCT- Frame | 9359      | 94     | 4.32         | 220.00    | 3.60            |               |
|         | 2026 NNV  | Wind        | 0         | 100    | 5.4          | 1,454.00  |                 |               |



## High (Doubled) Coal Price Escalation Scenario

| On-line | Year Area | Plant Type | Heat Rate | MW Cap | Variable O&M | Fixed O&M | Forced Outage % | Maintenance % |
|---------|-----------|------------|-----------|--------|--------------|-----------|-----------------|---------------|
|         | 2026 NNV  | Wind       | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 OWI  | CCCT       | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2026 OWI  | CCCT       | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2026 OWI  | CCCT       | 6265      | 610    | 3.02         | 872.00    | 5.00            | 5             |
|         | 2026 OWI  | Wind       | 0         | 100    | 9.72         | 1,454.00  |                 |               |
|         | 2026 OWI  | Wind       | 0         | 100    | 9.72         | 1,454.00  |                 |               |
|         | 2026 OWI  | Wind       | 0         | 100    | 9.72         | 1,454.00  |                 |               |
|         | 2026 OWI  | Wind       | 0         | 100    | 9.72         | 1,454.00  |                 |               |
|         | 2026 OWI  | Wind       | 0         | 100    | 9.72         | 1,454.00  |                 |               |
|         | 2026 SCAL | Wind       | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 SCAL | Wind       | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 SNV  | Wind       | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 SNV  | Wind       | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 SNV  | Wind       | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 SNV  | Wind       | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 SNV  | Wind       | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 UT   | Wind       | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 UT   | Wind       | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 UT   | Wind       | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 UT   | Wind       | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 UT   | Wind       | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 WY   | Wind       | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 WY   | Wind       | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 WY   | Wind       | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 WY   | Wind       | 0         | 100    | 5.4          | 1,454.00  |                 |               |
|         | 2026 WY   | Wind       | 0         | 100    | 5.4          | 1,454.00  |                 |               |

## Hydro Shift Scenario

| On-Line | Year Area | Plant Type  | Heat Rate | MW Cap | Variable O&M | Fixed O&M | Forced Outage % | Maintenance % |
|---------|-----------|-------------|-----------|--------|--------------|-----------|-----------------|---------------|
|         | 2007 AB   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 AB   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 AB   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 AB   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 AZ   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 AZ   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 AZ   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 AZ   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 BC   | CCCT        | 6856      | 610    | 3.02         | 956       | 5               | 5             |
|         | 2007 BC   | CCCT        | 6856      | 610    | 3.02         | 956       | 5               | 5             |
|         | 2007 BC   | CCCT        | 6856      | 610    | 3.02         | 956       | 5               | 5             |
|         | 2007 BC   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 BC   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 BC   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 CO   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 CO   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 CO   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 MT   | Wind        | 0         | 100    | 5.4          | 1701      |                 |               |
|         | 2007 MT   | Wind        | 0         | 100    | 5.4          | 1701      |                 |               |
|         | 2007 NCAL | CCCT        | 6856      | 610    | 3.02         | 956       | 5               | 5             |
|         | 2007 NCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 NCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 NCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 NCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 NCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 NCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 NCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 NCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 NCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 NCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 NCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 NCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 NCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 NCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 NM   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 NM   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 NM   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 NM   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 NNV  | CCCT        | 6856      | 610    | 3.02         | 956       | 5               | 5             |
|         | 2007 OWI  | Wind        | 0         | 100    | 5.4          | 1701      |                 |               |
|         | 2007 OWI  | Wind        | 0         | 100    | 5.4          | 1701      |                 |               |
|         | 2007 OWI  | Wind        | 0         | 100    | 5.4          | 1701      |                 |               |
|         | 2007 OWI  | Wind        | 0         | 100    | 5.4          | 1701      |                 |               |
|         | 2007 OWI  | Wind        | 0         | 100    | 5.4          | 1701      |                 |               |
|         | 2007 SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |

## Hydro Shift Scenario

| On-Line |      |             | Heat        | Variable | Fixed | Forced   | Maintenance |   |
|---------|------|-------------|-------------|----------|-------|----------|-------------|---|
| Year    | Area | Plant Type  | Rate MW Cap | O&M      | O&M   | Outage % | %           |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SCAL | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SNV  | CCCT        | 6856        | 610      | 3.02  | 956      | 5           | 5 |
| 2007    | SNV  | CCCT        | 6856        | 610      | 3.02  | 956      | 5           | 5 |
| 2007    | SNV  | CCCT        | 6856        | 610      | 3.02  | 956      | 5           | 5 |
| 2007    | SNV  | CCCT        | 6856        | 610      | 3.02  | 956      | 5           | 5 |
| 2007    | SNV  | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SNV  | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SNV  | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | SNV  | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | UT   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | UT   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2007    | UT   | SCCT- Frame | 10241       | 94       | 4.32  | 238      | 3.6         |   |
| 2008    | AB   | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5 |
| 2008    | AZ   | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | AZ   | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | AZ   | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | AZ   | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | BAJA | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5 |
| 2008    | BC   | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5 |
| 2008    | BC   | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5 |
| 2008    | BC   | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5 |
| 2008    | MT   | Wind        | 0           | 100      | 5.4   | 1646     |             |   |
| 2008    | MT   | Wind        | 0           | 100      | 5.4   | 1646     |             |   |
| 2008    | NCAL | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5 |
| 2008    | NCAL | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5 |
| 2008    | NCAL | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5 |
| 2008    | NCAL | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5 |
| 2008    | NCAL | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5 |
| 2008    | NCAL | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | NM   | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | NM   | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | NNV  | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5 |
| 2008    | SCAL | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | SCAL | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | SCAL | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | SCAL | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | SCAL | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |   |
| 2008    | SNV  | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5 |
| 2008    | SNV  | CCCT        | 6822        | 610      | 3.02  | 951      | 5           | 5 |

## Hydro Shift Scenario

| On-Line |      |             | Heat        | Variable | Fixed | Forced   | Maintenance |
|---------|------|-------------|-------------|----------|-------|----------|-------------|
| Year    | Area | Plant Type  | Rate MW Cap | O&M      | O&M   | Outage % | %           |
| 2008    | SNV  | CCCT        | 6822 610    | 3.02     | 951   | 5        | 5           |
| 2008    | SNV  | CCCT        | 6822 610    | 3.02     | 951   | 5        | 5           |
| 2008    | SNV  | SCCT- Frame | 10190 94    | 4.32     | 237   | 3.6      |             |
| 2008    | SNV  | SCCT- Frame | 10190 94    | 4.32     | 237   | 3.6      |             |
| 2008    | SNV  | SCCT- Frame | 10190 94    | 4.32     | 237   | 3.6      |             |
| 2008    | SNV  | SCCT- Frame | 10190 94    | 4.32     | 237   | 3.6      |             |
| 2008    | UT   | CCCT        | 6822 610    | 3.02     | 951   | 5        | 5           |
| 2009    | SCAL | CCCT        | 6788 610    | 3.02     | 946   | 5        | 5           |
| 2009    | SNV  | SCCT- Frame | 10139 94    | 4.32     | 236   | 3.6      |             |
| 2009    | SNV  | SCCT- Frame | 10139 94    | 4.32     | 236   | 3.6      |             |
| 2010    | AZ   | SCCT- Frame | 10088 94    | 4.32     | 235   | 3.6      |             |
| 2010    | NM   | SCCT- Frame | 10088 94    | 4.32     | 235   | 3.6      |             |
| 2010    | SNV  | SCCT- Frame | 10088 94    | 4.32     | 235   | 3.6      |             |
| 2010    | SNV  | SCCT- Frame | 10088 94    | 4.32     | 235   | 3.6      |             |
| 2011    | AZ   | SCCT- Frame | 10038 94    | 4.32     | 234   | 3.6      |             |
| 2011    | NCAL | CCCT        | 6720 610    | 3.02     | 936   | 5        | 5           |
| 2011    | NCAL | CCCT        | 6720 610    | 3.02     | 936   | 5        | 5           |
| 2011    | SCAL | CCCT        | 6720 610    | 3.02     | 936   | 5        | 5           |
| 2011    | SNV  | CCCT        | 6720 610    | 3.02     | 936   | 5        | 5           |
| 2012    | AB   | Pulverized  | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | AB   | Pulverized  | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | BC   | Pulverized  | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | BC   | Pulverized  | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | CO   | Pulverized  | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | IDS  | Pulverized  | 9313 400    | 1.89     | 4087  | 7        | 7.4         |
| 2012    | IDS  | Pulverized  | 9313 400    | 1.89     | 4087  | 7        | 7.4         |
| 2012    | MT   | Pulverized  | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | MT   | Pulverized  | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | OWI  | Pulverized  | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | SCAL | CCCT        | 6686 610    | 3.02     | 931   | 5        | 5           |
| 2012    | SCAL | Pulverized  | 9313 400    | 1.89     | 3015  | 7        | 7.4         |
| 2012    | SNV  | CCCT        | 6686 610    | 3.02     | 931   | 5        | 5           |
| 2012    | UT   | Pulverized  | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | UT   | Pulverized  | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | WY   | Pulverized  | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2012    | WY   | Pulverized  | 9313 400    | 1.89     | 3531  | 7        | 7.4         |
| 2013    | AB   | Pulverized  | 9290 400    | 1.89     | 3527  | 7        | 7.4         |
| 2013    | BC   | Pulverized  | 9290 400    | 1.89     | 3527  | 7        | 7.4         |
| 2013    | BC   | Pulverized  | 9290 400    | 1.89     | 3527  | 7        | 7.4         |
| 2013    | MT   | Pulverized  | 9290 400    | 1.89     | 3527  | 7        | 7.4         |
| 2013    | MT   | Pulverized  | 9290 400    | 1.89     | 3527  | 7        | 7.4         |
| 2013    | SCAL | CCCT        | 6653 610    | 3.02     | 926   | 5        | 5           |
| 2013    | UT   | Pulverized  | 9290 400    | 1.89     | 3527  | 7        | 7.4         |
| 2013    | WY   | Pulverized  | 9290 400    | 1.89     | 3527  | 7        | 7.4         |
| 2014    | AB   | Pulverized  | 9267 400    | 1.89     | 3523  | 7        | 7.4         |
| 2014    | BAJA | CCCT        | 6620 610    | 3.02     | 921   | 5        | 5           |
| 2014    | BC   | Pulverized  | 9267 400    | 1.89     | 3523  | 7        | 7.4         |
| 2014    | MT   | Pulverized  | 9267 400    | 1.89     | 3523  | 7        | 7.4         |

## Hydro Shift Scenario

| On-Line |      |             | Heat        | Variable | Fixed | Forced   | Maintenance |
|---------|------|-------------|-------------|----------|-------|----------|-------------|
| Year    | Area | Plant Type  | Rate MW Cap | O&M      | O&M   | Outage % | %           |
| 2014    | NCAL | CCCT        | 6620 610    | 3.02     | 921   | 5        | 5           |
| 2014    | OWI  | Wind        | 0 100       | 5.4      | 1365  |          |             |
| 2014    | OWI  | Wind        | 0 100       | 5.4      | 1365  |          |             |
| 2014    | OWI  | Wind        | 0 100       | 5.4      | 1365  |          |             |
| 2014    | SCAL | CCCT        | 6620 610    | 3.02     | 921   | 5        | 5           |
| 2014    | SCAL | CCCT        | 6620 610    | 3.02     | 921   | 5        | 5           |
| 2014    | UT   | Pulverized  | 9267 400    | 1.89     | 3523  | 7        | 7.4         |
| 2015    | NCAL | CCCT        | 6587 610    | 3.02     | 916   | 5        | 5           |
| 2015    | NCAL | CCCT        | 6587 610    | 3.02     | 916   | 5        | 5           |
| 2015    | OWI  | Wind        | 0 100       | 5.4      | 1327  |          |             |
| 2015    | OWI  | Wind        | 0 100       | 5.4      | 1327  |          |             |
| 2015    | SCAL | CCCT        | 6587 610    | 3.02     | 916   | 5        | 5           |
| 2015    | SCAL | CCCT        | 6587 610    | 3.02     | 916   | 5        | 5           |
| 2015    | UT   | Pulverized  | 9244 400    | 1.89     | 3519  | 7        | 7.4         |
| 2016    | AZ   | CCCT        | 6554 610    | 3.02     | 911   | 5        | 5           |
| 2016    | NCAL | CCCT        | 6554 610    | 3.02     | 911   | 5        | 5           |
| 2016    | NM   | SCCT- Frame | 9790 94     | 4.32     | 229   | 3.6      |             |
| 2016    | NM   | SCCT- Frame | 9790 94     | 4.32     | 229   | 3.6      |             |
| 2016    | NM   | SCCT- Frame | 9790 94     | 4.32     | 229   | 3.6      |             |
| 2016    | OWI  | Pulverized  | 9221 400    | 1.89     | 3515  | 7        | 7.4         |
| 2016    | SCAL | CCCT        | 6554 610    | 3.02     | 911   | 5        | 5           |
| 2016    | SCAL | CCCT        | 6554 610    | 3.02     | 911   | 5        | 5           |
| 2016    | WY   | Pulverized  | 9221 400    | 1.89     | 3515  | 7        | 7.4         |
| 2017    | AZ   | SCCT- Frame | 9741 94     | 4.32     | 228   | 3.6      |             |
| 2017    | NCAL | CCCT        | 6521 610    | 3.02     | 906   | 5        | 5           |
| 2017    | NCAL | CCCT        | 6521 610    | 3.02     | 906   | 5        | 5           |
| 2017    | NM   | SCCT- Frame | 9741 94     | 4.32     | 228   | 3.6      |             |
| 2017    | OWI  | IGCC        | 7342 425    | 1.62     | 4040  | 10       | 7.4         |
| 2017    | OWI  | IGCC        | 7342 425    | 1.62     | 4040  | 10       | 7.4         |
| 2017    | SNV  | CCCT        | 6521 610    | 3.02     | 906   | 5        | 5           |
| 2017    | SNV  | CCCT        | 6521 610    | 3.02     | 906   | 5        | 5           |
| 2018    | AB   | SCCT- Frame | 9692 94     | 4.32     | 227   | 3.6      |             |
| 2018    | AZ   | CCCT        | 6488 610    | 3.02     | 901   | 5        | 5           |
| 2018    | BC   | CCCT        | 6488 610    | 3.02     | 901   | 5        | 5           |
| 2018    | BC   | CCCT        | 6488 610    | 3.02     | 901   | 5        | 5           |
| 2018    | NCAL | CCCT        | 6488 610    | 3.02     | 901   | 5        | 5           |
| 2018    | NCAL | CCCT        | 6488 610    | 3.02     | 901   | 5        | 5           |
| 2018    | OWI  | IGCC        | 7305 425    | 1.62     | 4020  | 10       | 7.4         |
| 2018    | OWI  | IGCC        | 7305 425    | 1.62     | 4020  | 10       | 7.4         |
| 2018    | SCAL | CCCT        | 6488 610    | 3.02     | 901   | 5        | 5           |
| 2018    | SCAL | CCCT        | 6488 610    | 3.02     | 901   | 5        | 5           |
| 2018    | UT   | Pulverized  | 9175 400    | 1.89     | 3897  | 7        | 7.4         |
| 2019    | AB   | CCCT        | 6456 610    | 3.02     | 896   | 5        | 5           |
| 2019    | AZ   | CCCT        | 6456 610    | 3.02     | 896   | 5        | 5           |
| 2019    | BAJA | CCCT        | 6456 610    | 3.02     | 896   | 5        | 5           |
| 2019    | NCAL | CCCT        | 6456 610    | 3.02     | 896   | 5        | 5           |
| 2019    | SCAL | CCCT        | 6456 610    | 3.02     | 896   | 5        | 5           |
| 2019    | SCAL | CCCT        | 6456 610    | 3.02     | 896   | 5        | 5           |

## Hydro Shift Scenario

| On-Line |      | Plant Type  | Heat |        | Variable<br>O&M | Fixed<br>O&M | Forced<br>Outage % | Maintenance<br>% |
|---------|------|-------------|------|--------|-----------------|--------------|--------------------|------------------|
| Year    | Area |             | Rate | MW Cap |                 |              |                    |                  |
| 2019    | SCAL | CCCT        | 6456 | 610    | 3.02            | 896          | 5                  | 5                |
| 2019    | SNV  | CCCT        | 6456 | 610    | 3.02            | 896          | 5                  | 5                |
| 2020    | AZ   | CCCT        | 6424 | 610    | 3.02            | 892          | 5                  | 5                |
| 2020    | AZ   | CCCT        | 6424 | 610    | 3.02            | 892          | 5                  | 5                |
| 2020    | AZ   | Nuclear     | 9600 | 1100   | 1.08            | 3764         | 10                 | 6.7              |
| 2020    | BC   | CCCT        | 6424 | 610    | 3.02            | 892          | 5                  | 5                |
| 2020    | CO   | CCCT        | 6424 | 610    | 3.02            | 892          | 5                  | 5                |
| 2020    | NCAL | CCCT        | 6424 | 610    | 3.02            | 892          | 5                  | 5                |
| 2020    | NCAL | CCCT        | 6424 | 610    | 3.02            | 892          | 5                  | 5                |
| 2020    | NCAL | CCCT        | 6424 | 610    | 3.02            | 892          | 5                  | 5                |
| 2020    | NM   | SCCT- Frame | 9596 | 94     | 4.32            | 225          | 3.6                |                  |
| 2020    | OWI  | CCCT        | 6424 | 610    | 3.02            | 892          | 5                  | 5                |
| 2020    | SCAL | CCCT        | 6424 | 610    | 3.02            | 892          | 5                  | 5                |
| 2020    | SCAL | CCCT        | 6424 | 610    | 3.02            | 892          | 5                  | 5                |
| 2021    | AZ   | CCCT        | 6392 | 610    | 3.02            | 888          | 5                  | 5                |
| 2021    | AZ   | SCCT- Frame | 9548 | 94     | 4.32            | 224          | 3.6                |                  |
| 2021    | AZ   | SCCT- Frame | 9548 | 94     | 4.32            | 224          | 3.6                |                  |
| 2021    | AZ   | SCCT- Frame | 9548 | 94     | 4.32            | 224          | 3.6                |                  |
| 2021    | AZ   | SCCT- Frame | 9548 | 94     | 4.32            | 224          | 3.6                |                  |
| 2021    | CO   | CCCT        | 6392 | 610    | 3.02            | 888          | 5                  | 5                |
| 2021    | NM   | SCCT- Frame | 9548 | 94     | 4.32            | 224          | 3.6                |                  |
| 2021    | NM   | SCCT- Frame | 9548 | 94     | 4.32            | 224          | 3.6                |                  |
| 2021    | SCAL | CCCT        | 6392 | 610    | 3.02            | 888          | 5                  | 5                |
| 2021    | SCAL | CCCT        | 6392 | 610    | 3.02            | 888          | 5                  | 5                |
| 2022    | AZ   | CCCT        | 6360 | 610    | 3.02            | 884          | 5                  | 5                |
| 2022    | AZ   | CCCT        | 6360 | 610    | 3.02            | 884          | 5                  | 5                |
| 2022    | AZ   | CCCT        | 6360 | 610    | 3.02            | 884          | 5                  | 5                |
| 2022    | AZ   | CCCT        | 6360 | 610    | 3.02            | 884          | 5                  | 5                |
| 2022    | BC   | CCCT        | 6360 | 610    | 3.02            | 884          | 5                  | 5                |
| 2022    | CO   | CCCT        | 6360 | 610    | 3.02            | 884          | 5                  | 5                |
| 2022    | NCAL | CCCT        | 6360 | 610    | 3.02            | 884          | 5                  | 5                |
| 2022    | NM   | SCCT- Frame | 9500 | 94     | 4.32            | 223          | 3.6                |                  |
| 2022    | SCAL | CCCT        | 6360 | 610    | 3.02            | 884          | 5                  | 5                |
| 2022    | SCAL | CCCT        | 6360 | 610    | 3.02            | 884          | 5                  | 5                |
| 2023    | AB   | CCCT        | 6328 | 610    | 3.02            | 880          | 5                  | 5                |
| 2023    | MT   | Wind        | 0    | 100    | 5.4             | 1580         |                    |                  |
| 2023    | NCAL | CCCT        | 6328 | 610    | 3.02            | 880          | 5                  | 5                |
| 2023    | NCAL | CCCT        | 6328 | 610    | 3.02            | 880          | 5                  | 5                |
| 2023    | NM   | CCCT        | 6328 | 610    | 3.02            | 880          | 5                  | 5                |
| 2023    | SCAL | CCCT        | 6328 | 610    | 3.02            | 880          | 5                  | 5                |
| 2023    | SCAL | CCCT        | 6328 | 610    | 3.02            | 880          | 5                  | 5                |
| 2023    | SCAL | CCCT        | 6328 | 610    | 3.02            | 880          | 5                  | 5                |
| 2024    | AB   | CCCT        | 6296 | 610    | 3.02            | 876          | 5                  | 5                |
| 2024    | AZ   | CCCT        | 6296 | 610    | 3.02            | 876          | 5                  | 5                |
| 2024    | BC   | CCCT        | 6296 | 610    | 3.02            | 876          | 5                  | 5                |
| 2024    | CO   | CCCT        | 6296 | 610    | 3.02            | 876          | 5                  | 5                |
| 2024    | MT   | Wind        | 0    | 100    | 5.4             | 1537         |                    |                  |
| 2024    | MT   | Wind        | 0    | 100    | 5.4             | 1537         |                    |                  |

## Hydro Shift Scenario

| On-Line |      | Plant Type | Heat |        | Variable O&M | Fixed O&M | Forced Outage % | Maintenance % |
|---------|------|------------|------|--------|--------------|-----------|-----------------|---------------|
| Year    | Area |            | Rate | MW Cap |              |           |                 |               |
| 2024    | MT   | Wind       | 0    | 100    | 5.4          | 1537      |                 |               |
| 2024    | NCAL | CCCT       | 6296 | 610    | 3.02         | 876       | 5               | 5             |
| 2024    | NCAL | CCCT       | 6296 | 610    | 3.02         | 876       | 5               | 5             |
| 2024    | NCAL | CCCT       | 6296 | 610    | 3.02         | 876       | 5               | 5             |
| 2024    | NNV  | Wind       | 0    | 100    | 5.4          | 1537      |                 |               |
| 2024    | SCAL | CCCT       | 6296 | 610    | 3.02         | 876       | 5               | 5             |
| 2025    | AZ   | CCCT       | 6265 | 610    | 3.02         | 872       | 5               | 5             |
| 2025    | AZ   | CCCT       | 6265 | 610    | 3.02         | 872       | 5               | 5             |
| 2025    | CO   | CCCT       | 6265 | 610    | 3.02         | 872       | 5               | 5             |
| 2025    | MT   | Wind       | 0    | 100    | 5.4          | 1495      |                 |               |
| 2025    | MT   | Wind       | 0    | 100    | 5.4          | 1495      |                 |               |
| 2025    | MT   | Wind       | 0    | 100    | 5.4          | 1495      |                 |               |
| 2025    | NCAL | CCCT       | 6265 | 610    | 3.02         | 872       | 5               | 5             |
| 2025    | NCAL | CCCT       | 6265 | 610    | 3.02         | 872       | 5               | 5             |
| 2025    | NCAL | CCCT       | 6265 | 610    | 3.02         | 872       | 5               | 5             |
| 2025    | NCAL | CCCT       | 6265 | 610    | 3.02         | 872       | 5               | 5             |
| 2025    | NM   | CCCT       | 6265 | 610    | 3.02         | 872       | 5               | 5             |
| 2025    | SCAL | CCCT       | 6265 | 610    | 3.02         | 872       | 5               | 5             |
| 2025    | SCAL | CCCT       | 6265 | 610    | 3.02         | 872       | 5               | 5             |
| 2025    | SCAL | CCCT       | 6265 | 610    | 3.02         | 872       | 5               | 5             |
| 2025    | SCAL | CCCT       | 6265 | 610    | 3.02         | 872       | 5               | 5             |
| 2025    | SCAL | CCCT       | 6265 | 610    | 3.02         | 872       | 5               | 5             |
| 2025    | SCAL | CCCT       | 6265 | 610    | 3.02         | 872       | 5               | 5             |
| 2026    | AB   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | AB   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | AB   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | AB   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | AB   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | AZ   | CCCT       | 6265 | 610    | 3.02         | 872       | 5               | 5             |
| 2026    | AZ   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | AZ   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | AZ   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | AZ   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | BC   | CCCT       | 6265 | 610    | 3.02         | 872       | 5               | 5             |
| 2026    | BC   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | BC   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | BC   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | BC   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | BC   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | CO   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | CO   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | CO   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | CO   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | CO   | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | IDS  | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | IDS  | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |
| 2026    | IDS  | Wind       | 0    | 100    | 5.4          | 1454      |                 |               |

## Hydro Shift Scenario

| On-Line | Year | Area | Plant Type | Heat Rate | MW Cap | Variable O&M | Fixed O&M | Forced Outage % | Maintenance % |
|---------|------|------|------------|-----------|--------|--------------|-----------|-----------------|---------------|
|         | 2026 | IDS  | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | IDS  | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | MT   | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | NCAL | CCCT       | 6265      | 610    | 3.02         | 872       | 5               | 5             |
|         | 2026 | NCAL | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | NCAL | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | NNV  | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | NNV  | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | NNV  | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | NNV  | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | OWI  | CCCT       | 6265      | 610    | 3.02         | 872       | 5               | 5             |
|         | 2026 | OWI  | CCCT       | 6265      | 610    | 3.02         | 872       | 5               | 5             |
|         | 2026 | OWI  | Wind       | 0         | 100    | 9.72         | 1454      |                 |               |
|         | 2026 | OWI  | Wind       | 0         | 100    | 9.72         | 1454      |                 |               |
|         | 2026 | OWI  | Wind       | 0         | 100    | 9.72         | 1454      |                 |               |
|         | 2026 | OWI  | Wind       | 0         | 100    | 9.72         | 1454      |                 |               |
|         | 2026 | OWI  | Wind       | 0         | 100    | 9.72         | 1454      |                 |               |
|         | 2026 | SCAL | CCCT       | 6265      | 610    | 3.02         | 872       | 5               | 5             |
|         | 2026 | SCAL | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | SCAL | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | SNV  | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | SNV  | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | SNV  | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | SNV  | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | SNV  | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | UT   | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | UT   | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | UT   | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | UT   | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | UT   | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | WY   | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | WY   | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | WY   | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | WY   | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |
|         | 2026 | WY   | Wind       | 0         | 100    | 5.4          | 1454      |                 |               |





### 30% Lower Transmission Capital Cost Scenario

| On-Line | Year | Area | Plant Type  | Heat Rate | MW Cap | Variable O&M | Fixed O&M | Forced Outage % | Maintenance % |
|---------|------|------|-------------|-----------|--------|--------------|-----------|-----------------|---------------|
|         | 2007 | SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 | SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 | SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 | SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 | SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 | SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 | SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 | SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 | SCAL | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 | SNV  | CCCT        | 6856      | 610    | 3.02         | 956       | 5               | 5             |
|         | 2007 | SNV  | CCCT        | 6856      | 610    | 3.02         | 956       | 5               | 5             |
|         | 2007 | SNV  | CCCT        | 6856      | 610    | 3.02         | 956       | 5               | 5             |
|         | 2007 | SNV  | CCCT        | 6856      | 610    | 3.02         | 956       | 5               | 5             |
|         | 2007 | SNV  | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 | SNV  | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 | SNV  | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 | SNV  | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 | UT   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 | UT   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 | UT   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2007 | UT   | SCCT- Frame | 10241     | 94     | 4.32         | 238       | 3.6             |               |
|         | 2008 | AB   | CCCT        | 6822      | 610    | 3.02         | 951       | 5               | 5             |
|         | 2008 | AZ   | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 | AZ   | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 | AZ   | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 | AZ   | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 | BC   | CCCT        | 6822      | 610    | 3.02         | 951       | 5               | 5             |
|         | 2008 | BC   | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 | CO   | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 | CO   | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 | MT   | Wind        | 0         | 100    | 5.4          | 1646      |                 |               |
|         | 2008 | NCAL | CCCT        | 6822      | 610    | 3.02         | 951       | 5               | 5             |
|         | 2008 | NCAL | CCCT        | 6822      | 610    | 3.02         | 951       | 5               | 5             |
|         | 2008 | NCAL | CCCT        | 6822      | 610    | 3.02         | 951       | 5               | 5             |
|         | 2008 | NNV  | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 | SCAL | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 | SCAL | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 | SCAL | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 | SCAL | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 | SNV  | CCCT        | 6822      | 610    | 3.02         | 951       | 5               | 5             |
|         | 2008 | SNV  | CCCT        | 6822      | 610    | 3.02         | 951       | 5               | 5             |
|         | 2008 | SNV  | CCCT        | 6822      | 610    | 3.02         | 951       | 5               | 5             |
|         | 2008 | SNV  | CCCT        | 6822      | 610    | 3.02         | 951       | 5               | 5             |
|         | 2008 | SNV  | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 | SNV  | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 | SNV  | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 | SNV  | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |
|         | 2008 | UT   | SCCT- Frame | 10190     | 94     | 4.32         | 237       | 3.6             |               |

## 30% Lower Transmission Capital Cost Scenario

| On-Line |      |             | Heat        | Variable | Fixed | Forced   | Maintenance |     |
|---------|------|-------------|-------------|----------|-------|----------|-------------|-----|
| Year    | Area | Plant Type  | Rate MW Cap | O&M      | O&M   | Outage % | %           |     |
| 2008    | UT   | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |     |
| 2008    | UT   | SCCT- Frame | 10190       | 94       | 4.32  | 237      | 3.6         |     |
| 2009    | NCAL | CCCT        | 6788        | 610      | 3.02  | 946      | 5           | 5   |
| 2010    | AZ   | SCCT- Frame | 10088       | 94       | 4.32  | 235      | 3.6         |     |
| 2010    | BC   | SCCT- Frame | 10088       | 94       | 4.32  | 235      | 3.6         |     |
| 2010    | NCAL | CCCT        | 6754        | 610      | 3.02  | 941      | 5           | 5   |
| 2010    | SCAL | CCCT        | 6754        | 610      | 3.02  | 941      | 5           | 5   |
| 2011    | NCAL | CCCT        | 6720        | 610      | 3.02  | 936      | 5           | 5   |
| 2011    | NCAL | CCCT        | 6720        | 610      | 3.02  | 936      | 5           | 5   |
| 2012    | AB   | Pulverized  | 9313        | 400      | 1.89  | 3362     | 7           | 7.4 |
| 2012    | AB   | Pulverized  | 9313        | 400      | 1.89  | 3362     | 7           | 7.4 |
| 2012    | AZ   | Pulverized  | 9313        | 400      | 1.89  | 3362     | 7           | 7.4 |
| 2012    | AZ   | Pulverized  | 9313        | 400      | 1.89  | 3362     | 7           | 7.4 |
| 2012    | BC   | Pulverized  | 9313        | 400      | 1.89  | 3362     | 7           | 7.4 |
| 2012    | BC   | Pulverized  | 9313        | 400      | 1.89  | 3362     | 7           | 7.4 |
| 2012    | CO   | Pulverized  | 9313        | 400      | 1.89  | 3362     | 7           | 7.4 |
| 2012    | IDS  | Pulverized  | 9313        | 400      | 1.89  | 3740     | 7           | 7.4 |
| 2012    | MT   | Pulverized  | 9313        | 400      | 1.89  | 3362     | 7           | 7.4 |
| 2012    | MT   | Pulverized  | 9313        | 400      | 1.89  | 3362     | 7           | 7.4 |
| 2012    | OWI  | Pulverized  | 9313        | 400      | 1.89  | 3362     | 7           | 7.4 |
| 2012    | OWI  | Pulverized  | 9313        | 400      | 1.89  | 4363     | 7           | 7.4 |
| 2012    | SCAL | CCCT        | 6686        | 610      | 3.02  | 931      | 5           | 5   |
| 2012    | SCAL | CCCT        | 6686        | 610      | 3.02  | 931      | 5           | 5   |
| 2012    | SCAL | Pulverized  | 9313        | 400      | 1.89  | 3015     | 7           | 7.4 |
| 2012    | UT   | Pulverized  | 9313        | 400      | 1.89  | 3362     | 7           | 7.4 |
| 2012    | UT   | Pulverized  | 9313        | 400      | 1.89  | 3362     | 7           | 7.4 |
| 2012    | UT   | Pulverized  | 9313        | 400      | 1.89  | 3624     | 7           | 7.4 |
| 2012    | UT   | Pulverized  | 9313        | 400      | 1.89  | 3624     | 7           | 7.4 |
| 2012    | WY   | Pulverized  | 9313        | 400      | 1.89  | 3362     | 7           | 7.4 |
| 2012    | WY   | Pulverized  | 9313        | 400      | 1.89  | 3362     | 7           | 7.4 |
| 2013    | AB   | Pulverized  | 9290        | 400      | 1.89  | 3359     | 7           | 7.4 |
| 2013    | AZ   | Pulverized  | 9290        | 400      | 1.89  | 3359     | 7           | 7.4 |
| 2013    | AZ   | Pulverized  | 9290        | 400      | 1.89  | 3359     | 7           | 7.4 |
| 2013    | BC   | Pulverized  | 9290        | 400      | 1.89  | 3359     | 7           | 7.4 |
| 2013    | BC   | Pulverized  | 9290        | 400      | 1.89  | 3359     | 7           | 7.4 |
| 2013    | MT   | Pulverized  | 9290        | 400      | 1.89  | 3359     | 7           | 7.4 |
| 2013    | MT   | Pulverized  | 9290        | 400      | 1.89  | 3359     | 7           | 7.4 |
| 2013    | NM   | SCCT- Frame | 9938        | 94       | 4.32  | 232      | 3.6         |     |
| 2013    | NM   | SCCT- Frame | 9938        | 94       | 4.32  | 232      | 3.6         |     |
| 2013    | OWI  | Pulverized  | 9290        | 400      | 1.89  | 3359     | 7           | 7.4 |
| 2013    | UT   | Pulverized  | 9290        | 400      | 1.89  | 3620     | 7           | 7.4 |
| 2013    | WY   | Pulverized  | 9290        | 400      | 1.89  | 3359     | 7           | 7.4 |
| 2014    | AB   | Pulverized  | 9267        | 400      | 1.89  | 3356     | 7           | 7.4 |
| 2014    | AZ   | Pulverized  | 9267        | 400      | 1.89  | 3356     | 7           | 7.4 |
| 2014    | AZ   | SCCT- Frame | 9888        | 94       | 4.32  | 231      | 3.6         |     |
| 2014    | BC   | Pulverized  | 9267        | 400      | 1.89  | 3356     | 7           | 7.4 |
| 2014    | NM   | SCCT- Frame | 9888        | 94       | 4.32  | 231      | 3.6         |     |
| 2014    | NM   | SCCT- Frame | 9888        | 94       | 4.32  | 231      | 3.6         |     |

### 30% Lower Transmission Capital Cost Scenario

| On-Line | Year Area | Plant Type  | Heat Rate | MW Cap | Variable O&M | Fixed O&M | Forced Outage % | Maintenance % |
|---------|-----------|-------------|-----------|--------|--------------|-----------|-----------------|---------------|
|         | 2014 OWI  | Pulverized  | 9267      | 400    | 1.89         | 4355      | 7               | 7.4           |
|         | 2014 SCAL | CCCT        | 6620      | 610    | 3.02         | 921       | 5               | 5             |
|         | 2014 SCAL | CCCT        | 6620      | 610    | 3.02         | 921       | 5               | 5             |
|         | 2014 WY   | Pulverized  | 9267      | 400    | 1.89         | 3356      | 7               | 7.4           |
|         | 2015 NM   | SCCT- Frame | 9839      | 94     | 4.32         | 230       | 3.6             |               |
|         | 2015 OWI  | Pulverized  | 9244      | 400    | 1.89         | 4351      | 7               | 7.4           |
|         | 2015 SCAL | CCCT        | 6587      | 610    | 3.02         | 916       | 5               | 5             |
|         | 2015 SCAL | CCCT        | 6587      | 610    | 3.02         | 916       | 5               | 5             |
|         | 2015 SNV  | CCCT        | 6587      | 610    | 3.02         | 916       | 5               | 5             |
|         | 2015 UT   | Pulverized  | 9244      | 400    | 1.89         | 3353      | 7               | 7.4           |
|         | 2016 AB   | Pulverized  | 9221      | 400    | 1.89         | 3350      | 7               | 7.4           |
|         | 2016 AZ   | SCCT- Frame | 9790      | 94     | 4.32         | 229       | 3.6             |               |
|         | 2016 NCAL | CCCT        | 6554      | 610    | 3.02         | 911       | 5               | 5             |
|         | 2016 NCAL | CCCT        | 6554      | 610    | 3.02         | 911       | 5               | 5             |
|         | 2016 NCAL | CCCT        | 6554      | 610    | 3.02         | 911       | 5               | 5             |
|         | 2016 NM   | SCCT- Frame | 9790      | 94     | 4.32         | 229       | 3.6             |               |
|         | 2016 SCAL | CCCT        | 6554      | 610    | 3.02         | 911       | 5               | 5             |
|         | 2016 SCAL | CCCT        | 6554      | 610    | 3.02         | 911       | 5               | 5             |
|         | 2016 SNV  | CCCT        | 6554      | 610    | 3.02         | 911       | 5               | 5             |
|         | 2016 UT   | Pulverized  | 9221      | 400    | 1.89         | 3350      | 7               | 7.4           |
|         | 2017 CO   | SCCT- Frame | 9741      | 94     | 4.32         | 228       | 3.6             |               |
|         | 2017 NM   | SCCT- Frame | 9741      | 94     | 4.32         | 228       | 3.6             |               |
|         | 2017 NM   | SCCT- Frame | 9741      | 94     | 4.32         | 228       | 3.6             |               |
|         | 2017 NM   | SCCT- Frame | 9741      | 94     | 4.32         | 228       | 3.6             |               |
|         | 2017 OWI  | Wind        | 0         | 100    | 5.4          | 1252      |                 |               |
|         | 2017 OWI  | Wind        | 0         | 100    | 5.4          | 1252      |                 |               |
|         | 2017 OWI  | Wind        | 0         | 100    | 5.4          | 1252      |                 |               |
|         | 2017 OWI  | Wind        | 0         | 100    | 5.4          | 1252      |                 |               |
|         | 2017 OWI  | Wind        | 0         | 100    | 5.4          | 1252      |                 |               |
|         | 2017 SCAL | CCCT        | 6521      | 610    | 3.02         | 906       | 5               | 5             |
|         | 2017 SCAL | CCCT        | 6521      | 610    | 3.02         | 906       | 5               | 5             |
|         | 2017 SNV  | CCCT        | 6521      | 610    | 3.02         | 906       | 5               | 5             |
|         | 2017 UT   | Pulverized  | 9198      | 400    | 1.89         | 3347      | 7               | 7.4           |
|         | 2018 BC   | CCCT        | 6488      | 610    | 3.02         | 901       | 5               | 5             |
|         | 2018 MT   | Pulverized  | 9175      | 400    | 1.89         | 3344      | 7               | 7.4           |
|         | 2018 NCAL | CCCT        | 6488      | 610    | 3.02         | 901       | 5               | 5             |
|         | 2018 NCAL | CCCT        | 6488      | 610    | 3.02         | 901       | 5               | 5             |
|         | 2018 NM   | CCCT        | 6488      | 610    | 3.02         | 901       | 5               | 5             |
|         | 2018 OWI  | IGCC        | 7305      | 425    | 1.62         | 3854      | 10              | 7.4           |
|         | 2018 OWI  | Pulverized  | 9175      | 400    | 1.89         | 4339      | 7               | 7.4           |
|         | 2018 OWI  | Wind        | 0         | 100    | 5.4          | 1216      |                 |               |
|         | 2018 OWI  | Wind        | 0         | 100    | 5.4          | 1216      |                 |               |
|         | 2018 OWI  | Wind        | 0         | 100    | 5.4          | 1216      |                 |               |
|         | 2018 OWI  | Wind        | 0         | 100    | 5.4          | 1216      |                 |               |
|         | 2018 OWI  | Wind        | 0         | 100    | 5.4          | 1216      |                 |               |
|         | 2018 SCAL | CCCT        | 6488      | 610    | 3.02         | 901       | 5               | 5             |
|         | 2018 SCAL | CCCT        | 6488      | 610    | 3.02         | 901       | 5               | 5             |
|         | 2018 SCAL | CCCT        | 6488      | 610    | 3.02         | 901       | 5               | 5             |

## 30% Lower Transmission Capital Cost Scenario

| On-Line |      | Heat        | Variable | Fixed | Forced | Maintenance |     |     |
|---------|------|-------------|----------|-------|--------|-------------|-----|-----|
| Year    | Area | Rate        | MW Cap   | O&M   | O&M    | Outage %    | %   |     |
| 2019    | AZ   | CCCT        | 6456     | 610   | 3.02   | 896         | 5   | 5   |
| 2019    | AZ   | CCCT        | 6456     | 610   | 3.02   | 896         | 5   | 5   |
| 2019    | BAJA | CCCT        | 6456     | 610   | 3.02   | 896         | 5   | 5   |
| 2019    | BC   | CCCT        | 6456     | 610   | 3.02   | 896         | 5   | 5   |
| 2019    | MT   | Wind        | 0        | 100   | 5.4    | 1180        |     |     |
| 2019    | NCAL | CCCT        | 6456     | 610   | 3.02   | 896         | 5   | 5   |
| 2019    | NCAL | CCCT        | 6456     | 610   | 3.02   | 896         | 5   | 5   |
| 2019    | NM   | SCCT- Frame | 9644     | 94    | 4.32   | 226         | 3.6 |     |
| 2019    | SCAL | CCCT        | 6456     | 610   | 3.02   | 896         | 5   | 5   |
| 2019    | SNV  | CCCT        | 6456     | 610   | 3.02   | 896         | 5   | 5   |
| 2019    | SNV  | CCCT        | 6456     | 610   | 3.02   | 896         | 5   | 5   |
| 2020    | AZ   | Nuclear     | 9600     | 1100  | 1.08   | 3764        | 10  | 6.7 |
| 2020    | AZ   | SCCT- Frame | 9596     | 94    | 4.32   | 225         | 3.6 |     |
| 2020    | BC   | CCCT        | 6424     | 610   | 3.02   | 892         | 5   | 5   |
| 2020    | NCAL | CCCT        | 6424     | 610   | 3.02   | 892         | 5   | 5   |
| 2020    | NCAL | CCCT        | 6424     | 610   | 3.02   | 892         | 5   | 5   |
| 2020    | SCAL | CCCT        | 6424     | 610   | 3.02   | 892         | 5   | 5   |
| 2020    | SCAL | CCCT        | 6424     | 610   | 3.02   | 892         | 5   | 5   |
| 2020    | SCAL | CCCT        | 6424     | 610   | 3.02   | 892         | 5   | 5   |
| 2021    | AB   | CCCT        | 6392     | 610   | 3.02   | 888         | 5   | 5   |
| 2021    | AZ   | CCCT        | 6392     | 610   | 3.02   | 888         | 5   | 5   |
| 2021    | AZ   | SCCT- Frame | 9548     | 94    | 4.32   | 224         | 3.6 |     |
| 2021    | IDS  | Pulverized  | 9106     | 400   | 1.89   | 3704        | 7   | 7.4 |
| 2021    | NCAL | CCCT        | 6392     | 610   | 3.02   | 888         | 5   | 5   |
| 2021    | OWI  | IGCC        | 7196     | 425   | 1.62   | 3797        | 10  | 7.4 |
| 2021    | UT   | Pulverized  | 9106     | 400   | 1.89   | 3588        | 7   | 7.4 |
| 2022    | AZ   | CCCT        | 6360     | 610   | 3.02   | 884         | 5   | 5   |
| 2022    | AZ   | CCCT        | 6360     | 610   | 3.02   | 884         | 5   | 5   |
| 2022    | BAJA | CCCT        | 6360     | 610   | 3.02   | 884         | 5   | 5   |
| 2022    | BC   | CCCT        | 6360     | 610   | 3.02   | 884         | 5   | 5   |
| 2022    | CO   | CCCT        | 6360     | 610   | 3.02   | 884         | 5   | 5   |
| 2022    | CO   | SCCT- Frame | 9500     | 94    | 4.32   | 223         | 3.6 |     |
| 2022    | MT   | Wind        | 0        | 100   | 5.4    | 1525        |     |     |
| 2022    | NCAL | CCCT        | 6360     | 610   | 3.02   | 884         | 5   | 5   |
| 2022    | OWI  | IGCC        | 7160     | 425   | 1.62   | 3778        | 10  | 7.4 |
| 2022    | SCAL | CCCT        | 6360     | 610   | 3.02   | 884         | 5   | 5   |
| 2022    | SCAL | CCCT        | 6360     | 610   | 3.02   | 884         | 5   | 5   |
| 2022    | SCAL | CCCT        | 6360     | 610   | 3.02   | 884         | 5   | 5   |
| 2023    | AZ   | CCCT        | 6328     | 610   | 3.02   | 880         | 5   | 5   |
| 2023    | AZ   | CCCT        | 6328     | 610   | 3.02   | 880         | 5   | 5   |
| 2023    | BC   | CCCT        | 6328     | 610   | 3.02   | 880         | 5   | 5   |
| 2023    | MT   | Wind        | 0        | 100   | 5.4    | 1484        |     |     |
| 2023    | MT   | Wind        | 0        | 100   | 5.4    | 1484        |     |     |
| 2023    | MT   | Wind        | 0        | 100   | 5.4    | 1484        |     |     |
| 2023    | NCAL | CCCT        | 6328     | 610   | 3.02   | 880         | 5   | 5   |
| 2023    | NCAL | CCCT        | 6328     | 610   | 3.02   | 880         | 5   | 5   |
| 2023    | NM   | CCCT        | 6328     | 610   | 3.02   | 880         | 5   | 5   |
| 2023    | OWI  | IGCC        | 7124     | 425   | 1.62   | 3759        | 10  | 7.4 |

### 30% Lower Transmission Capital Cost Scenario

| On-Line |      |            | Heat | Variable | Fixed | Forced | Maintenance |     |
|---------|------|------------|------|----------|-------|--------|-------------|-----|
| Year    | Area | Plant Type | Rate | MW Cap   | O&M   | O&M    | Outage %    | %   |
| 2023    | OWI  | IGCC       | 7124 | 425      | 1.62  | 3759   | 10          | 7.4 |
| 2023    | SCAL | CCCT       | 6328 | 610      | 3.02  | 880    | 5           | 5   |
| 2024    | AB   | Wind       | 0    | 100      | 5.4   | 1443   |             |     |
| 2024    | AB   | Wind       | 0    | 100      | 5.4   | 1443   |             |     |
| 2024    | AB   | Wind       | 0    | 100      | 5.4   | 1443   |             |     |
| 2024    | AZ   | CCCT       | 6296 | 610      | 3.02  | 876    | 5           | 5   |
| 2024    | AZ   | CCCT       | 6296 | 610      | 3.02  | 876    | 5           | 5   |
| 2024    | MT   | Wind       | 0    | 100      | 5.4   | 1443   |             |     |
| 2024    | MT   | Wind       | 0    | 100      | 5.4   | 1443   |             |     |
| 2024    | NCAL | CCCT       | 6296 | 610      | 3.02  | 876    | 5           | 5   |
| 2024    | NCAL | CCCT       | 6296 | 610      | 3.02  | 876    | 5           | 5   |
| 2024    | NCAL | CCCT       | 6296 | 610      | 3.02  | 876    | 5           | 5   |
| 2024    | NCAL | CCCT       | 6296 | 610      | 3.02  | 876    | 5           | 5   |
| 2024    | NNV  | Wind       | 0    | 100      | 5.4   | 1443   |             |     |
| 2024    | NNV  | Wind       | 0    | 100      | 5.4   | 1443   |             |     |
| 2024    | SCAL | CCCT       | 6296 | 610      | 3.02  | 876    | 5           | 5   |
| 2024    | SCAL | CCCT       | 6296 | 610      | 3.02  | 876    | 5           | 5   |
| 2024    | SCAL | CCCT       | 6296 | 610      | 3.02  | 876    | 5           | 5   |
| 2024    | SCAL | CCCT       | 6296 | 610      | 3.02  | 876    | 5           | 5   |
| 2025    | AB   | CCCT       | 6265 | 610      | 3.02  | 872    | 5           | 5   |
| 2025    | AB   | Wind       | 0    | 100      | 5.4   | 1403   |             |     |
| 2025    | AZ   | CCCT       | 6265 | 610      | 3.02  | 872    | 5           | 5   |
| 2025    | AZ   | CCCT       | 6265 | 610      | 3.02  | 872    | 5           | 5   |
| 2025    | BC   | CCCT       | 6265 | 610      | 3.02  | 872    | 5           | 5   |
| 2025    | CO   | CCCT       | 6265 | 610      | 3.02  | 872    | 5           | 5   |
| 2025    | CO   | Wind       | 0    | 100      | 5.4   | 1403   |             |     |
| 2025    | MT   | Wind       | 0    | 100      | 5.4   | 1403   |             |     |
| 2025    | NCAL | CCCT       | 6265 | 610      | 3.02  | 872    | 5           | 5   |
| 2025    | NCAL | CCCT       | 6265 | 610      | 3.02  | 872    | 5           | 5   |
| 2025    | NCAL | CCCT       | 6265 | 610      | 3.02  | 872    | 5           | 5   |
| 2025    | NNV  | Wind       | 0    | 100      | 5.4   | 1403   |             |     |
| 2025    | NNV  | Wind       | 0    | 100      | 5.4   | 1403   |             |     |
| 2025    | OWI  | Wind       | 0    | 100      | 9.72  | 1403   |             |     |
| 2025    | OWI  | Wind       | 0    | 100      | 9.72  | 1403   |             |     |
| 2025    | SCAL | CCCT       | 6265 | 610      | 3.02  | 872    | 5           | 5   |
| 2025    | SCAL | CCCT       | 6265 | 610      | 3.02  | 872    | 5           | 5   |
| 2025    | SCAL | CCCT       | 6265 | 610      | 3.02  | 872    | 5           | 5   |
| 2025    | SCAL | CCCT       | 6265 | 610      | 3.02  | 872    | 5           | 5   |
| 2025    | SNV  | CCCT       | 6265 | 610      | 3.02  | 872    | 5           | 5   |
| 2026    | AB   | Wind       | 0    | 100      | 5.4   | 1363   |             |     |
| 2026    | AB   | Wind       | 0    | 100      | 5.4   | 1363   |             |     |
| 2026    | AB   | Wind       | 0    | 100      | 5.4   | 1363   |             |     |
| 2026    | AB   | Wind       | 0    | 100      | 5.4   | 1363   |             |     |
| 2026    | AB   | Wind       | 0    | 100      | 9.72  | 1363   |             |     |
| 2026    | AB   | Wind       | 0    | 100      | 9.72  | 1363   |             |     |
| 2026    | AB   | Wind       | 0    | 100      | 9.72  | 1363   |             |     |
| 2026    | AB   | Wind       | 0    | 100      | 9.72  | 1363   |             |     |
| 2026    | AZ   | Wind       | 0    | 100      | 5.4   | 1363   |             |     |

### 30% Lower Transmission Capital Cost Scenario

| On-Line | Year Area | Plant Type | Heat Rate | MW Cap | Variable O&M | Fixed O&M | Forced Outage % | Maintenance % |
|---------|-----------|------------|-----------|--------|--------------|-----------|-----------------|---------------|
|         | 2026 AZ   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 AZ   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 AZ   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 AZ   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 BC   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 BC   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 BC   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 BC   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 BC   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 CO   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 CO   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 CO   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 CO   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 CO   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 IDS  | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 IDS  | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 IDS  | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 IDS  | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 IDS  | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 MT   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 NCAL | CCCT       | 6265      | 610    | 3.02         | 872       | 5               | 5             |
|         | 2026 NCAL | CCCT       | 6265      | 610    | 3.02         | 872       | 5               | 5             |
|         | 2026 NCAL | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 NCAL | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 NM   | CCCT       | 6265      | 610    | 3.02         | 872       | 5               | 5             |
|         | 2026 NNV  | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 NNV  | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 OWI  | Wind       | 0         | 100    | 9.72         | 1363      |                 |               |
|         | 2026 OWI  | Wind       | 0         | 100    | 9.72         | 1363      |                 |               |
|         | 2026 OWI  | Wind       | 0         | 100    | 9.72         | 1363      |                 |               |
|         | 2026 OWI  | Wind       | 0         | 100    | 9.72         | 1363      |                 |               |
|         | 2026 OWI  | Wind       | 0         | 100    | 9.72         | 1363      |                 |               |
|         | 2026 SCAL | CCCT       | 6265      | 610    | 3.02         | 872       | 5               | 5             |
|         | 2026 SCAL | CCCT       | 6265      | 610    | 3.02         | 872       | 5               | 5             |
|         | 2026 SCAL | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 SCAL | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 SCAL | Wind       | 0         | 100    | 9.72         | 1363      |                 |               |
|         | 2026 SNV  | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 SNV  | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 SNV  | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 SNV  | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 SNV  | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 UT   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 UT   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 UT   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 UT   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 UT   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |
|         | 2026 WY   | Wind       | 0         | 100    | 5.4          | 1363      |                 |               |

## 30% Lower Transmission Capital Cost Scenario

| On-Line |      |            | Heat |        | Variable | Fixed | Forced   | Maintenance |
|---------|------|------------|------|--------|----------|-------|----------|-------------|
| Year    | Area | Plant Type | Rate | MW Cap | O&M      | O&M   | Outage % | %           |
| 2026    | WY   | Wind       | 0    | 100    | 5.4      | 1363  |          |             |
| 2026    | WY   | Wind       | 0    | 100    | 5.4      | 1363  |          |             |
| 2026    | WY   | Wind       | 0    | 100    | 5.4      | 1363  |          |             |
| 2026    | WY   | Wind       | 0    | 100    | 5.4      | 1363  |          |             |



## No Capacity Credit/ Avoided Cost Scenario

| On-Line | Year Area | Plant Type | Heat Rate | MW Cap | Variable O&M | Fixed O&M | Forced Outage % | Maintenance % |
|---------|-----------|------------|-----------|--------|--------------|-----------|-----------------|---------------|
|         | 2007 AB   | CCCT       | 6856      | 610    | 3.02         | 1590      | 5               | 5             |
|         | 2007 BC   | CCCT       | 6856      | 610    | 3.02         | 1590      | 5               | 5             |
|         | 2007 MT   | Wind       | 0         | 100    | 5.4          | 1841      |                 |               |
|         | 2007 MT   | Wind       | 0         | 100    | 5.4          | 1841      |                 |               |
|         | 2007 SNV  | CCCT       | 6856      | 610    | 3.02         | 1590      | 5               | 5             |
|         | 2008 BC   | CCCT       | 6822      | 610    | 3.02         | 1582      | 5               | 5             |
|         | 2008 MT   | Wind       | 0         | 100    | 5.4          | 1783      |                 |               |
|         | 2008 MT   | Wind       | 0         | 100    | 5.4          | 1783      |                 |               |
|         | 2008 SNV  | CCCT       | 6822      | 610    | 3.02         | 1582      | 5               | 5             |
|         | 2009 AB   | CCCT       | 6788      | 610    | 3.02         | 1574      | 5               | 5             |
|         | 2009 BC   | CCCT       | 6788      | 610    | 3.02         | 1574      | 5               | 5             |
|         | 2009 SNV  | CCCT       | 6788      | 610    | 3.02         | 1574      | 5               | 5             |
|         | 2009 SNV  | CCCT       | 6788      | 610    | 3.02         | 1574      | 5               | 5             |
|         | 2009 SNV  | CCCT       | 6788      | 610    | 3.02         | 1574      | 5               | 5             |
|         | 2010 SNV  | CCCT       | 6754      | 610    | 3.02         | 1566      | 5               | 5             |
|         | 2011 SNV  | CCCT       | 6720      | 610    | 3.02         | 1558      | 5               | 5             |
|         | 2012 AB   | Pulverized | 9313      | 400    | 1.89         | 4166      | 7               | 7.4           |
|         | 2012 AB   | Pulverized | 9313      | 400    | 1.89         | 4166      | 7               | 7.4           |
|         | 2012 BC   | Pulverized | 9313      | 400    | 1.89         | 4166      | 7               | 7.4           |
|         | 2012 BC   | Pulverized | 9313      | 400    | 1.89         | 4166      | 7               | 7.4           |
|         | 2012 MT   | Pulverized | 9313      | 400    | 1.89         | 4166      | 7               | 7.4           |
|         | 2012 MT   | Pulverized | 9313      | 400    | 1.89         | 4166      | 7               | 7.4           |
|         | 2012 OWI  | Pulverized | 9313      | 400    | 1.89         | 4166      | 7               | 7.4           |
|         | 2012 SCAL | Pulverized | 9313      | 400    | 1.89         | 3639      | 7               | 7.4           |
|         | 2012 UT   | Pulverized | 9313      | 400    | 1.89         | 4166      | 7               | 7.4           |
|         | 2012 UT   | Pulverized | 9313      | 400    | 1.89         | 4166      | 7               | 7.4           |
|         | 2012 WY   | Pulverized | 9313      | 400    | 1.89         | 4166      | 7               | 7.4           |
|         | 2013 BC   | Pulverized | 9290      | 400    | 1.89         | 4162      | 7               | 7.4           |
|         | 2013 BC   | Pulverized | 9290      | 400    | 1.89         | 4162      | 7               | 7.4           |
|         | 2013 MT   | Pulverized | 9290      | 400    | 1.89         | 4162      | 7               | 7.4           |
|         | 2013 MT   | Pulverized | 9290      | 400    | 1.89         | 4162      | 7               | 7.4           |
|         | 2013 UT   | Pulverized | 9290      | 400    | 1.89         | 4162      | 7               | 7.4           |
|         | 2013 UT   | Pulverized | 9290      | 400    | 1.89         | 4162      | 7               | 7.4           |
|         | 2014 BAJA | CCCT       | 6620      | 610    | 3.02         | 1534      | 5               | 5             |
|         | 2014 BC   | Pulverized | 9267      | 400    | 1.89         | 4158      | 7               | 7.4           |
|         | 2014 BC   | Pulverized | 9267      | 400    | 1.89         | 4158      | 7               | 7.4           |
|         | 2014 NCAL | CCCT       | 6620      | 610    | 3.02         | 1534      | 5               | 5             |
|         | 2014 NCAL | CCCT       | 6620      | 610    | 3.02         | 1534      | 5               | 5             |
|         | 2014 OWI  | Wind       | 0         | 100    | 5.4          | 1485      |                 |               |
|         | 2014 OWI  | Wind       | 0         | 100    | 5.4          | 1485      |                 |               |
|         | 2014 SCAL | CCCT       | 6620      | 610    | 3.02         | 1534      | 5               | 5             |
|         | 2014 UT   | Pulverized | 9267      | 400    | 1.89         | 4158      | 7               | 7.4           |
|         | 2015 BC   | Pulverized | 9244      | 400    | 1.89         | 4154      | 7               | 7.4           |
|         | 2015 BC   | Pulverized | 9244      | 400    | 1.89         | 4154      | 7               | 7.4           |
|         | 2015 IDS  | Pulverized | 9244      | 400    | 1.89         | 4697      | 7               | 7.4           |
|         | 2015 OWI  | Wind       | 0         | 100    | 5.4          | 1444      |                 |               |
|         | 2015 OWI  | Wind       | 0         | 100    | 5.4          | 1444      |                 |               |
|         | 2015 OWI  | Wind       | 0         | 100    | 5.4          | 1444      |                 |               |

## No Capacity Credit/ Avoided Cost Scenario

| On-Line | Year | Area | Plant Type | Heat Rate | MW Cap | Variable O&M | Fixed O&M | Forced Outage % | Maintenance % |
|---------|------|------|------------|-----------|--------|--------------|-----------|-----------------|---------------|
|         | 2015 | SCAL | CCCT       | 6587      | 610    | 3.02         | 1526      | 5               | 5             |
|         | 2015 | SCAL | CCCT       | 6587      | 610    | 3.02         | 1526      | 5               | 5             |
|         | 2015 | SNV  | CCCT       | 6587      | 610    | 3.02         | 1526      | 5               | 5             |
|         | 2015 | UT   | Pulverized | 9244      | 400    | 1.89         | 4154      | 7               | 7.4           |
|         | 2016 | IDS  | Pulverized | 9221      | 400    | 1.89         | 4692      | 7               | 7.4           |
|         | 2016 | NCAL | CCCT       | 6554      | 610    | 3.02         | 1518      | 5               | 5             |
|         | 2016 | NCAL | CCCT       | 6554      | 610    | 3.02         | 1518      | 5               | 5             |
|         | 2016 | NCAL | CCCT       | 6554      | 610    | 3.02         | 1518      | 5               | 5             |
|         | 2016 | OWI  | Wind       | 0         | 100    | 5.4          | 1405      |                 |               |
|         | 2016 | OWI  | Wind       | 0         | 100    | 5.4          | 1405      |                 |               |
|         | 2016 | OWI  | Wind       | 0         | 100    | 5.4          | 1405      |                 |               |
|         | 2016 | UT   | Pulverized | 9221      | 400    | 1.89         | 4150      | 7               | 7.4           |
|         | 2017 | NCAL | CCCT       | 6521      | 610    | 3.02         | 1510      | 5               | 5             |
|         | 2017 | OWI  | Wind       | 0         | 100    | 5.4          | 1365      |                 |               |
|         | 2017 | OWI  | Wind       | 0         | 100    | 5.4          | 1365      |                 |               |
|         | 2017 | SCAL | CCCT       | 6521      | 610    | 3.02         | 1510      | 5               | 5             |
|         | 2017 | SCAL | CCCT       | 6521      | 610    | 3.02         | 1510      | 5               | 5             |
|         | 2017 | SCAL | CCCT       | 6521      | 610    | 3.02         | 1510      | 5               | 5             |
|         | 2017 | SNV  | CCCT       | 6521      | 610    | 3.02         | 1510      | 5               | 5             |
|         | 2017 | SNV  | CCCT       | 6521      | 610    | 3.02         | 1510      | 5               | 5             |
|         | 2017 | SNV  | CCCT       | 6521      | 610    | 3.02         | 1510      | 5               | 5             |
|         | 2017 | WY   | Pulverized | 9198      | 400    | 1.89         | 4146      | 7               | 7.4           |
|         | 2018 | NCAL | CCCT       | 6488      | 610    | 3.02         | 1502      | 5               | 5             |
|         | 2018 | OWI  | IGCC       | 7305      | 425    | 1.62         | 4586      | 10              | 7.4           |
|         | 2018 | SCAL | CCCT       | 6488      | 610    | 3.02         | 1502      | 5               | 5             |
|         | 2018 | SCAL | CCCT       | 6488      | 610    | 3.02         | 1502      | 5               | 5             |
|         | 2018 | SNV  | CCCT       | 6488      | 610    | 3.02         | 1502      | 5               | 5             |
|         | 2018 | UT   | Pulverized | 9175      | 400    | 1.89         | 4142      | 7               | 7.4           |
|         | 2019 | AZ   | CCCT       | 6456      | 610    | 3.02         | 1494      | 5               | 5             |
|         | 2019 | BAJA | CCCT       | 6456      | 610    | 3.02         | 1494      | 5               | 5             |
|         | 2019 | NCAL | CCCT       | 6456      | 610    | 3.02         | 1494      | 5               | 5             |
|         | 2019 | NCAL | CCCT       | 6456      | 610    | 3.02         | 1494      | 5               | 5             |
|         | 2019 | NCAL | CCCT       | 6456      | 610    | 3.02         | 1494      | 5               | 5             |
|         | 2019 | NCAL | CCCT       | 6456      | 610    | 3.02         | 1494      | 5               | 5             |
|         | 2019 | NM   | CCCT       | 6456      | 610    | 3.02         | 1494      | 5               | 5             |
|         | 2019 | SCAL | CCCT       | 6456      | 610    | 3.02         | 1494      | 5               | 5             |
|         | 2019 | SCAL | CCCT       | 6456      | 610    | 3.02         | 1494      | 5               | 5             |
|         | 2020 | AB   | CCCT       | 6424      | 610    | 3.02         | 1487      | 5               | 5             |
|         | 2020 | AZ   | Nuclear    | 9600      | 1100   | 1.08         | 4378      | 10              | 6.7           |
|         | 2020 | BC   | CCCT       | 6424      | 610    | 3.02         | 1487      | 5               | 5             |
|         | 2020 | NCAL | CCCT       | 6424      | 610    | 3.02         | 1487      | 5               | 5             |
|         | 2020 | NCAL | CCCT       | 6424      | 610    | 3.02         | 1487      | 5               | 5             |
|         | 2020 | SCAL | CCCT       | 6424      | 610    | 3.02         | 1487      | 5               | 5             |
|         | 2020 | SCAL | CCCT       | 6424      | 610    | 3.02         | 1487      | 5               | 5             |
|         | 2020 | SCAL | CCCT       | 6424      | 610    | 3.02         | 1487      | 5               | 5             |
|         | 2020 | SCAL | CCCT       | 6424      | 610    | 3.02         | 1487      | 5               | 5             |
|         | 2020 | WY   | Pulverized | 9129      | 400    | 1.89         | 4134      | 7               | 7.4           |
|         | 2021 | AB   | CCCT       | 6392      | 610    | 3.02         | 1480      | 5               | 5             |

## No Capacity Credit/ Avoided Cost Scenario

| On-Line | Year Area | Plant Type | Heat Rate | MW Cap | Variable O&M | Fixed O&M | Forced Outage % | Maintenance % |
|---------|-----------|------------|-----------|--------|--------------|-----------|-----------------|---------------|
|         | 2021 AZ   | CCCT       | 6392      | 610    | 3.02         | 1480      | 5               | 5             |
|         | 2021 NCAL | CCCT       | 6392      | 610    | 3.02         | 1480      | 5               | 5             |
|         | 2022 AZ   | CCCT       | 6360      | 610    | 3.02         | 1473      | 5               | 5             |
|         | 2022 AZ   | CCCT       | 6360      | 610    | 3.02         | 1473      | 5               | 5             |
|         | 2022 BC   | CCCT       | 6360      | 610    | 3.02         | 1473      | 5               | 5             |
|         | 2022 CO   | CCCT       | 6360      | 610    | 3.02         | 1473      | 5               | 5             |
|         | 2022 CO   | CCCT       | 6360      | 610    | 3.02         | 1473      | 5               | 5             |
|         | 2022 NCAL | CCCT       | 6360      | 610    | 3.02         | 1473      | 5               | 5             |
|         | 2022 NCAL | CCCT       | 6360      | 610    | 3.02         | 1473      | 5               | 5             |
|         | 2022 NCAL | CCCT       | 6360      | 610    | 3.02         | 1473      | 5               | 5             |
|         | 2022 NM   | CCCT       | 6360      | 610    | 3.02         | 1473      | 5               | 5             |
|         | 2022 OWI  | IGCC       | 7160      | 425    | 1.62         | 4494      | 10              | 7.4           |
|         | 2022 SCAL | CCCT       | 6360      | 610    | 3.02         | 1473      | 5               | 5             |
|         | 2022 SCAL | CCCT       | 6360      | 610    | 3.02         | 1473      | 5               | 5             |
|         | 2022 SCAL | CCCT       | 6360      | 610    | 3.02         | 1473      | 5               | 5             |
|         | 2023 AB   | CCCT       | 6328      | 610    | 3.02         | 1466      | 5               | 5             |
|         | 2023 AZ   | CCCT       | 6328      | 610    | 3.02         | 1466      | 5               | 5             |
|         | 2023 AZ   | CCCT       | 6328      | 610    | 3.02         | 1466      | 5               | 5             |
|         | 2023 BC   | CCCT       | 6328      | 610    | 3.02         | 1466      | 5               | 5             |
|         | 2023 BC   | Wind       | 0         | 100    | 5.4          | 1700      |                 |               |
|         | 2023 NCAL | CCCT       | 6328      | 610    | 3.02         | 1466      | 5               | 5             |
|         | 2023 NNV  | Wind       | 0         | 100    | 5.4          | 1700      |                 |               |
|         | 2023 NNV  | Wind       | 0         | 100    | 5.4          | 1700      |                 |               |
|         | 2023 NNV  | Wind       | 0         | 100    | 5.4          | 1700      |                 |               |
|         | 2023 NNV  | Wind       | 0         | 100    | 5.4          | 1700      |                 |               |
|         | 2023 SCAL | CCCT       | 6328      | 610    | 3.02         | 1466      | 5               | 5             |
|         | 2023 SCAL | CCCT       | 6328      | 610    | 3.02         | 1466      | 5               | 5             |
|         | 2024 AZ   | CCCT       | 6296      | 610    | 3.02         | 1459      | 5               | 5             |
|         | 2024 AZ   | CCCT       | 6296      | 610    | 3.02         | 1459      | 5               | 5             |
|         | 2024 CO   | CCCT       | 6296      | 610    | 3.02         | 1459      | 5               | 5             |
|         | 2024 MT   | Wind       | 0         | 100    | 5.4          | 1655      |                 |               |
|         | 2024 MT   | Wind       | 0         | 100    | 5.4          | 1655      |                 |               |
|         | 2024 MT   | Wind       | 0         | 100    | 5.4          | 1655      |                 |               |
|         | 2024 MT   | Wind       | 0         | 100    | 5.4          | 1655      |                 |               |
|         | 2024 NCAL | CCCT       | 6296      | 610    | 3.02         | 1459      | 5               | 5             |
|         | 2024 NCAL | CCCT       | 6296      | 610    | 3.02         | 1459      | 5               | 5             |
|         | 2024 SCAL | CCCT       | 6296      | 610    | 3.02         | 1459      | 5               | 5             |
|         | 2024 SCAL | CCCT       | 6296      | 610    | 3.02         | 1459      | 5               | 5             |
|         | 2024 SCAL | CCCT       | 6296      | 610    | 3.02         | 1459      | 5               | 5             |
|         | 2025 AB   | Wind       | 0         | 100    | 5.4          | 1611      |                 |               |
|         | 2025 AZ   | CCCT       | 6265      | 610    | 3.02         | 1452      | 5               | 5             |
|         | 2025 AZ   | CCCT       | 6265      | 610    | 3.02         | 1452      | 5               | 5             |
|         | 2025 BC   | CCCT       | 6265      | 610    | 3.02         | 1452      | 5               | 5             |
|         | 2025 BC   | Wind       | 0         | 100    | 5.4          | 1611      |                 |               |
|         | 2025 BC   | Wind       | 0         | 100    | 5.4          | 1611      |                 |               |
|         | 2025 CO   | CCCT       | 6265      | 610    | 3.02         | 1452      | 5               | 5             |
|         | 2025 NCAL | CCCT       | 6265      | 610    | 3.02         | 1452      | 5               | 5             |
|         | 2025 NCAL | CCCT       | 6265      | 610    | 3.02         | 1452      | 5               | 5             |

## No Capacity Credit/ Avoided Cost Scenario

| On-Line | Year Area | Plant Type | Heat Rate | MW Cap | Variable O&M | Fixed O&M | Forced Outage % | Maintenance % |
|---------|-----------|------------|-----------|--------|--------------|-----------|-----------------|---------------|
| 2025    | NNV       | Wind       | 0         | 100    | 5.4          | 1611      |                 |               |
| 2025    | OWI       | Wind       | 0         | 100    | 9.72         | 1611      |                 |               |
| 2025    | OWI       | Wind       | 0         | 100    | 9.72         | 1611      |                 |               |
| 2025    | OWI       | Wind       | 0         | 100    | 9.72         | 1611      |                 |               |
| 2025    | OWI       | Wind       | 0         | 100    | 9.72         | 1611      |                 |               |
| 2025    | SCAL      | CCCT       | 6265      | 610    | 3.02         | 1452      | 5               | 5             |
| 2025    | SCAL      | CCCT       | 6265      | 610    | 3.02         | 1452      | 5               | 5             |
| 2025    | SCAL      | CCCT       | 6265      | 610    | 3.02         | 1452      | 5               | 5             |
| 2025    | SCAL      | CCCT       | 6265      | 610    | 3.02         | 1452      | 5               | 5             |
| 2025    | SCAL      | CCCT       | 6265      | 610    | 3.02         | 1452      | 5               | 5             |
| 2026    | AB        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | AB        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | AB        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | AB        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | AB        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | AZ        | CCCT       | 6265      | 610    | 3.02         | 1452      | 5               | 5             |
| 2026    | AZ        | CCCT       | 6265      | 610    | 3.02         | 1452      | 5               | 5             |
| 2026    | AZ        | CCCT       | 6265      | 610    | 3.02         | 1452      | 5               | 5             |
| 2026    | AZ        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | AZ        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | AZ        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | AZ        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | AZ        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | BAJA      | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | BC        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | BC        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | BC        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | BC        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | BC        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | BC        | Wind       | 0         | 100    | 9.72         | 1567      |                 |               |
| 2026    | BC        | Wind       | 0         | 100    | 9.72         | 1567      |                 |               |
| 2026    | BC        | Wind       | 0         | 100    | 9.72         | 1567      |                 |               |
| 2026    | CO        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | CO        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | CO        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | CO        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | CO        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | IDS       | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | IDS       | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | IDS       | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | IDS       | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | IDS       | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | MT        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | MT        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | MT        | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | NCAL      | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | NCAL      | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |
| 2026    | NNV       | Wind       | 0         | 100    | 5.4          | 1567      |                 |               |

## No Capacity Credit/ Avoided Cost Scenario

| On-Line |      |            | Heat        | Variable | Fixed | Forced   | Maintenance |
|---------|------|------------|-------------|----------|-------|----------|-------------|
| Year    | Area | Plant Type | Rate MW Cap | O&M      | O&M   | Outage % | %           |
| 2026    | OWI  | Wind       | 0 100       | 9.72     | 1567  |          |             |
| 2026    | OWI  | Wind       | 0 100       | 9.72     | 1567  |          |             |
| 2026    | OWI  | Wind       | 0 100       | 9.72     | 1567  |          |             |
| 2026    | OWI  | Wind       | 0 100       | 9.72     | 1567  |          |             |
| 2026    | OWI  | Wind       | 0 100       | 9.72     | 1567  |          |             |
| 2026    | SCAL | Wind       | 0 100       | 5.4      | 1567  |          |             |
| 2026    | SCAL | Wind       | 0 100       | 5.4      | 1567  |          |             |
| 2026    | SCAL | Wind       | 0 100       | 9.72     | 1567  |          |             |
| 2026    | SCAL | Wind       | 0 100       | 9.72     | 1567  |          |             |
| 2026    | SCAL | Wind       | 0 100       | 9.72     | 1567  |          |             |
| 2026    | SCAL | Wind       | 0 100       | 5.4      | 1567  |          |             |
| 2026    | SCAL | Wind       | 0 100       | 9.72     | 1567  |          |             |
| 2026    | SNV  | Wind       | 0 100       | 5.4      | 1567  |          |             |
| 2026    | SNV  | Wind       | 0 100       | 5.4      | 1567  |          |             |
| 2026    | SNV  | Wind       | 0 100       | 5.4      | 1567  |          |             |
| 2026    | SNV  | Wind       | 0 100       | 5.4      | 1567  |          |             |
| 2026    | SNV  | Wind       | 0 100       | 5.4      | 1567  |          |             |
| 2026    | UT   | Wind       | 0 100       | 5.4      | 1567  |          |             |
| 2026    | UT   | Wind       | 0 100       | 5.4      | 1567  |          |             |
| 2026    | UT   | Wind       | 0 100       | 5.4      | 1567  |          |             |
| 2026    | UT   | Wind       | 0 100       | 5.4      | 1567  |          |             |
| 2026    | UT   | Wind       | 0 100       | 5.4      | 1567  |          |             |
| 2026    | WY   | Wind       | 0 100       | 5.4      | 1567  |          |             |
| 2026    | WY   | Wind       | 0 100       | 5.4      | 1567  |          |             |
| 2026    | WY   | Wind       | 0 100       | 5.4      | 1567  |          |             |
| 2026    | WY   | Wind       | 0 100       | 5.4      | 1567  |          |             |
| 2026    | WY   | Wind       | 0 100       | 5.4      | 1567  |          |             |

**Renewable Resources Forced into AURORA to meeting State Renewable Portfolio Standards**

| Sum of Capacity    |                 | On-Line Year |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            | Grand Total |            |            |               |
|--------------------|-----------------|--------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|------------|------------|---------------|
| Area               | Fuel Type       | 2007         | 2008       | 2009       | 2010       | 2011       | 2012       | 2013       | 2014       | 2015       | 2016       | 2017       | 2018       | 2019       | 2020       | 2021       | 2022       | 2023       | 2024       | 2025       | 2026       | 2027        | 2028       |            |               |
| AZ                 | Solar           | 59           | 59         | 59         | 59         | 59         | 8          | 8          | 8          | 8          | 8          | 8          | 8          | 8          | 8          | 8          | 8          | 8          | 8          | 8          | 8          | 8           | 8          | 433        |               |
| CO                 | Solar           | 6            | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2           | 2          | 42         |               |
|                    | Wind            | 25           | 25         | 25         | 25         | 200        | 25         | 25         | 250        | 50         | 50         | 50         | 50         | 50         | 50         | 50         | 50         | 50         | 50         | 50         | 50         | 50          | 50         | 1,300      |               |
| NCAL               | Geothermal      | 19           | 19         | 19         | 19         | 69         | 69         | 69         | 69         | 69         | 69         | 69         | 69         | 69         | 69         | 69         | 69         | 69         | 69         | 69         | 69         | 69          | 69         | 1,317      |               |
|                    | Other Renewable | 13           | 13         | 13         | 13         | 29         | 29         | 29         | 29         | 29         | 29         | 29         | 29         | 29         | 29         | 29         | 29         | 29         | 29         | 29         | 29         | 29          | 29         | 564        |               |
|                    | Wind            | 91           | 91         | 91         | 91         | 101        | 101        | 101        | 101        | 101        | 101        | 101        | 101        | 101        | 101        | 101        | 101        | 101        | 101        | 101        | 101        | 101         | 101        | 2,186      |               |
| NM                 | Wind            | 71           | 83         | 89         | 93         | 99         | 104        | 110        | 116        | 116        | 116        | 116        | 116        | 116        | 116        | 116        | 116        | 116        | 116        | 116        | 116        | 116         | 116        | 2,389      |               |
| NNV                | Geothermal      | 17           | 8          | 11         | 11         | 11         | 12         | 13         | 14         | 14         | 14         | 15         | 15         | 15         | 15         | 15         | 15         | 15         | 15         | 15         | 15         | 15          | 15         | 304        |               |
|                    | Solar           | 19           | 5          | 5          | 5          | 5          | 5          | 5          | 6          | 6          | 6          | 7          | 7          | 7          | 7          | 7          | 7          | 7          | 7          | 7          | 7          | 7           | 7          | 127        |               |
|                    | Wind            | 53           | 24         | 35         | 36         | 37         | 39         | 41         | 42         | 45         | 47         | 49         | 49         | 49         | 49         | 49         | 49         | 49         | 49         | 49         | 49         | 49          | 49         | 983        |               |
| SCAL               | Geothermal      | 2            | 2          | 2          | 2          | 9          | 9          | 9          | 9          | 9          | 9          | 9          | 9          | 9          | 9          | 9          | 9          | 9          | 9          | 9          | 9          | 9           | 9          | 171        |               |
|                    | Other Renewable | 11           | 11         | 11         | 11         | 27         | 27         | 27         | 27         | 27         | 27         | 27         | 27         | 27         | 27         | 27         | 27         | 27         | 27         | 27         | 27         | 27          | 27         | 531        |               |
|                    | Wind            | 53           | 53         | 53         | 59         | 59         | 59         | 59         | 59         | 59         | 59         | 59         | 59         | 59         | 59         | 59         | 59         | 59         | 59         | 59         | 59         | 59          | 59         | 1,286      |               |
| SNV                | Geothermal      | 5            | 3          | 3          | 4          | 4          | 4          | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5           | 5          | 104        |               |
|                    | Solar           | 6            | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2           | 2          | 42         |               |
|                    | Wind            | 17           | 8          | 11         | 12         | 12         | 13         | 14         | 14         | 14         | 16         | 16         | 16         | 16         | 16         | 16         | 16         | 16         | 16         | 16         | 16         | 16          | 16         | 320        |               |
| <b>Grand Total</b> |                 | <b>466</b>   | <b>406</b> | <b>429</b> | <b>443</b> | <b>726</b> | <b>506</b> | <b>517</b> | <b>752</b> | <b>555</b> | <b>560</b> | <b>564</b> | <b>564</b> | <b>564</b> | <b>564</b> | <b>564</b> | <b>564</b> | <b>564</b> | <b>564</b> | <b>564</b> | <b>564</b> | <b>553</b>  | <b>553</b> | <b>553</b> | <b>12,097</b> |

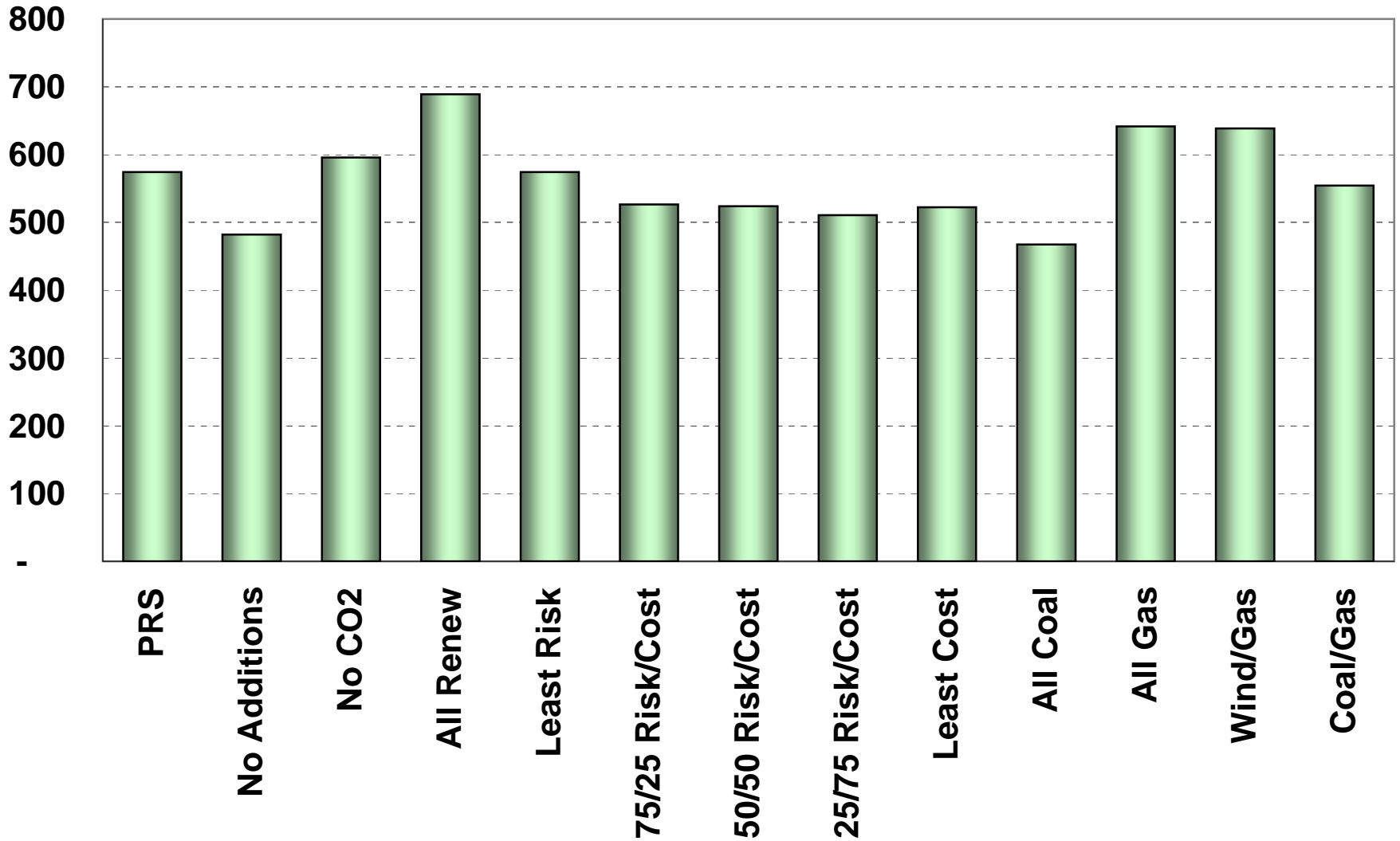
# Scenario and Futures Portfolio Results Comparisons

## Appendix G

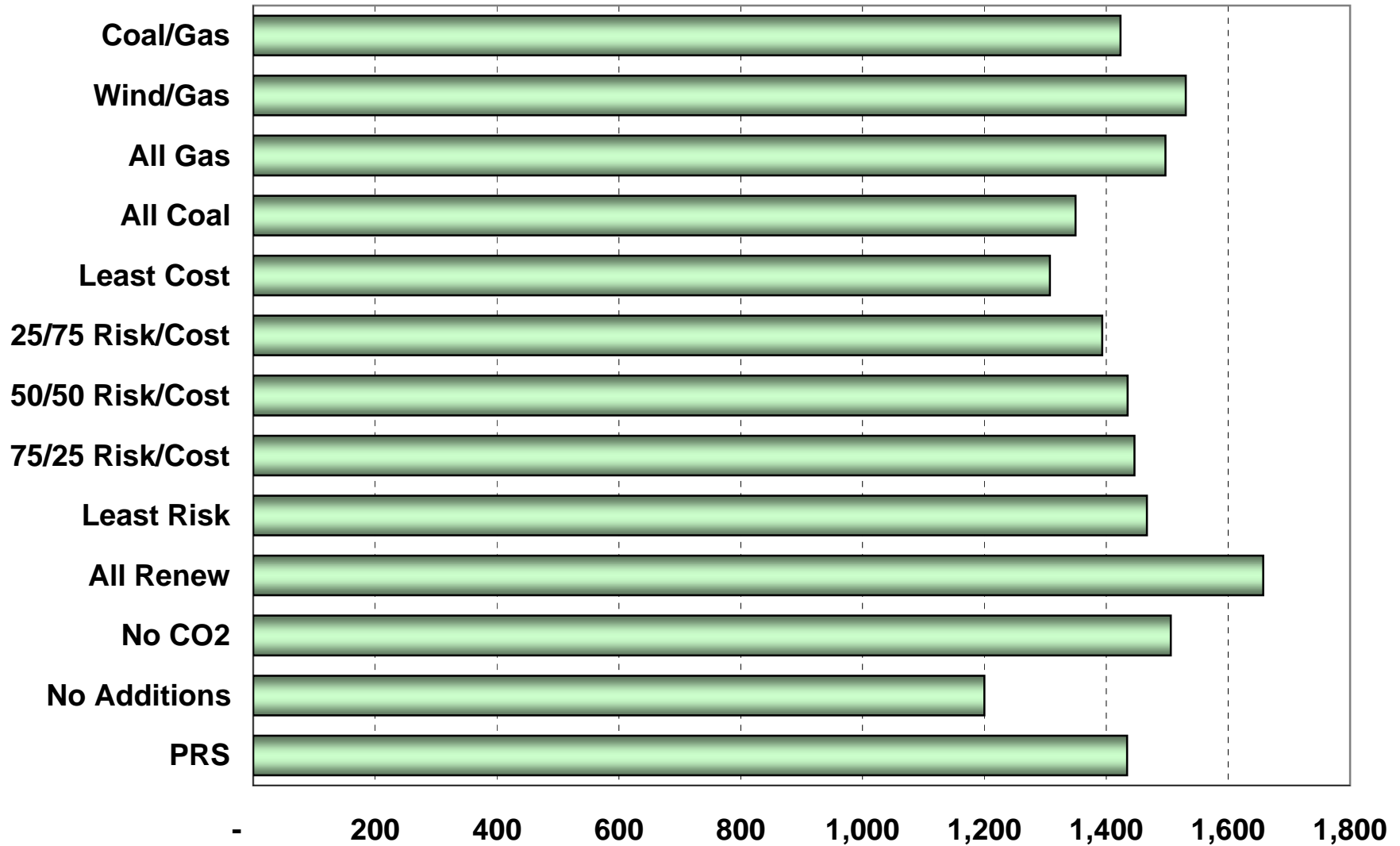
## **Base Case No MC**



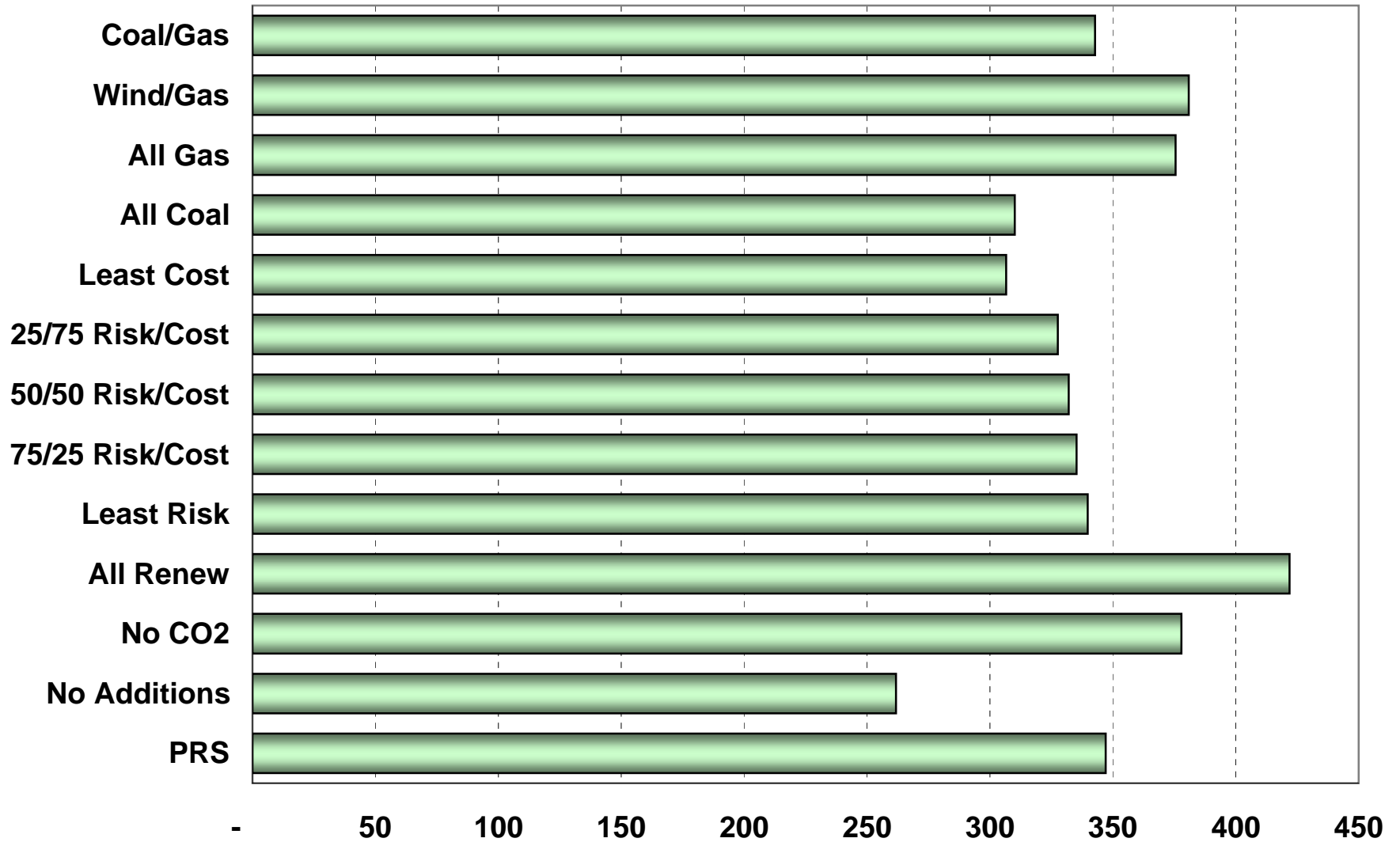
# PSE 2026



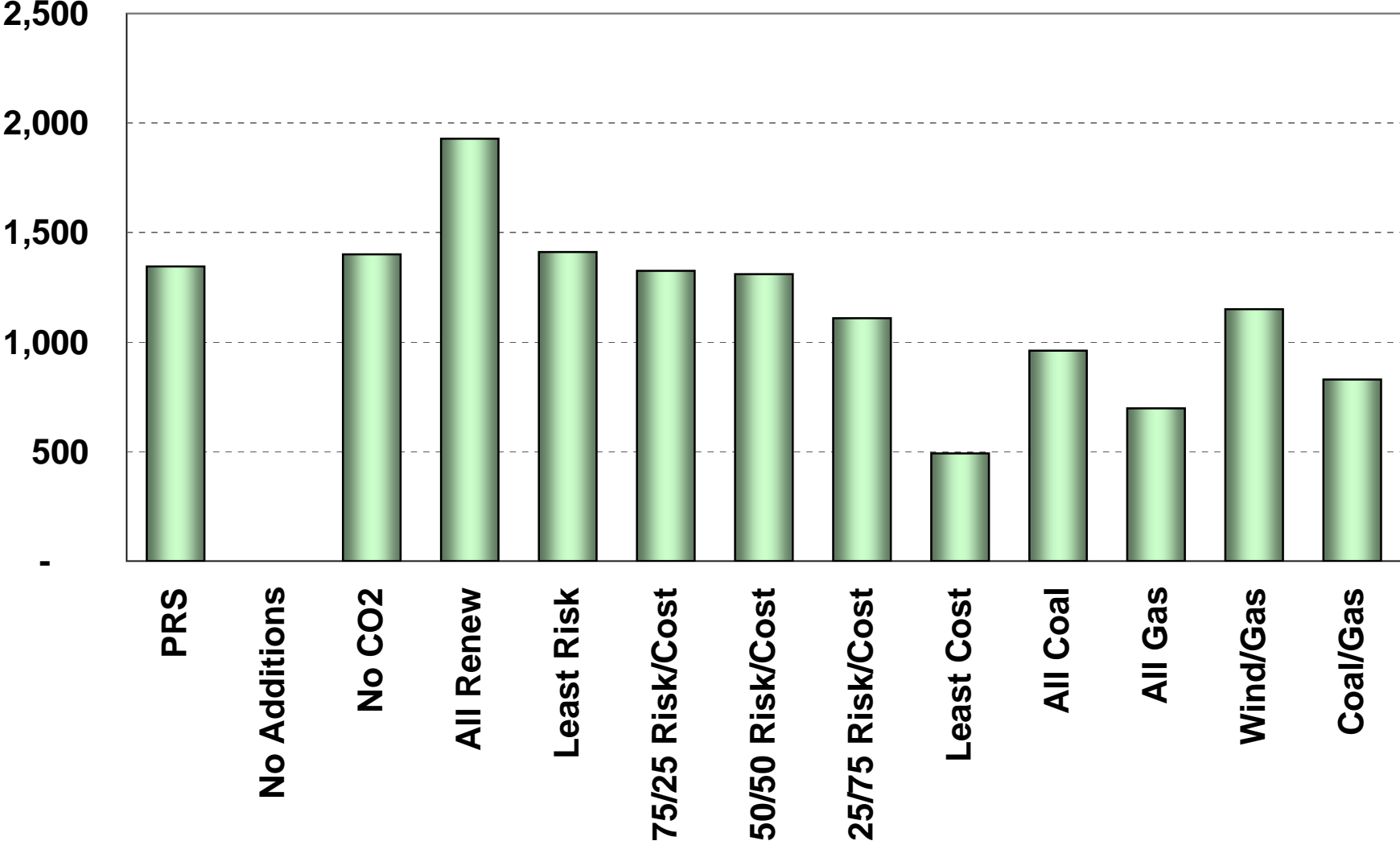
### PSE 07-16 NPV



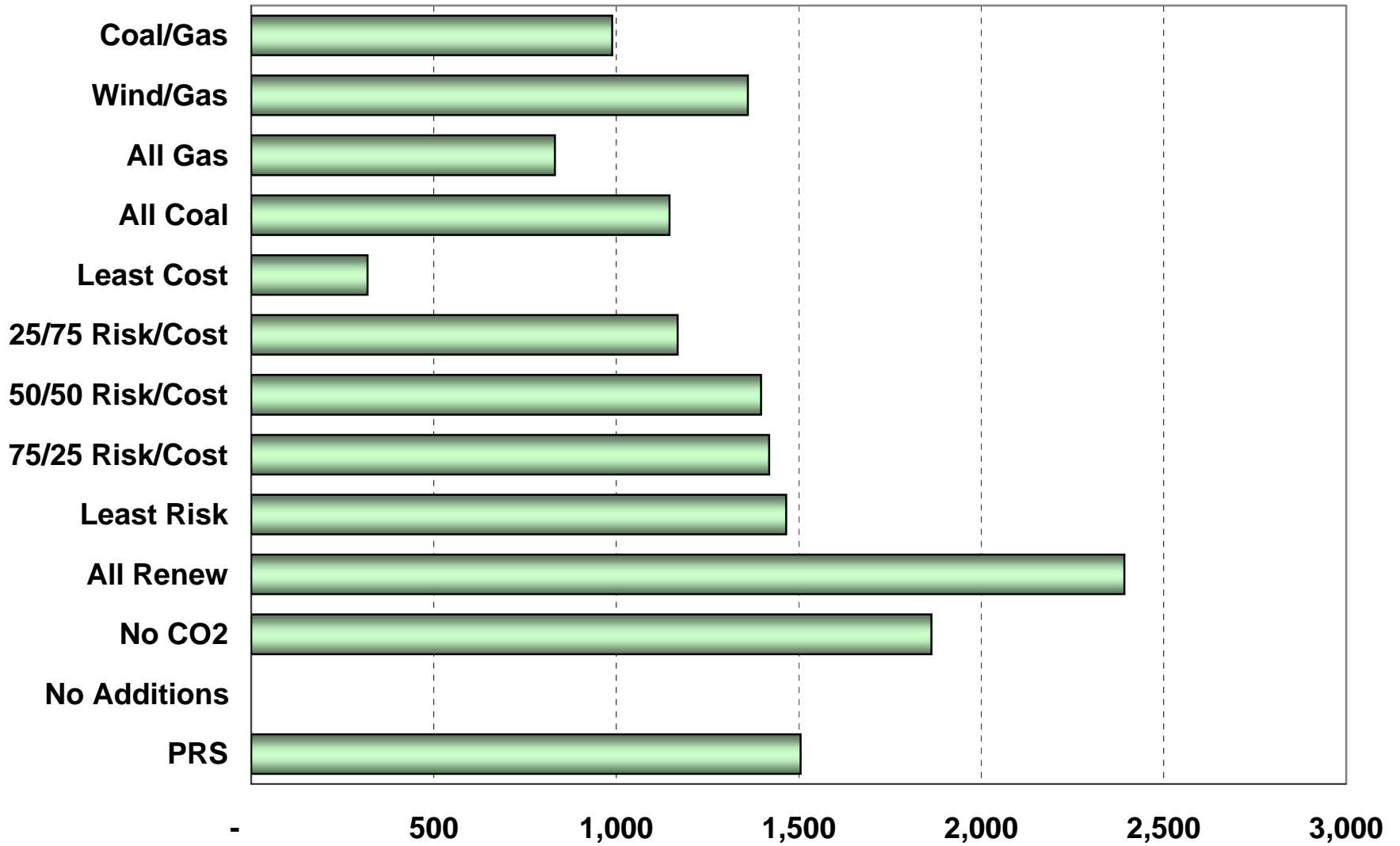
# PSE 2016



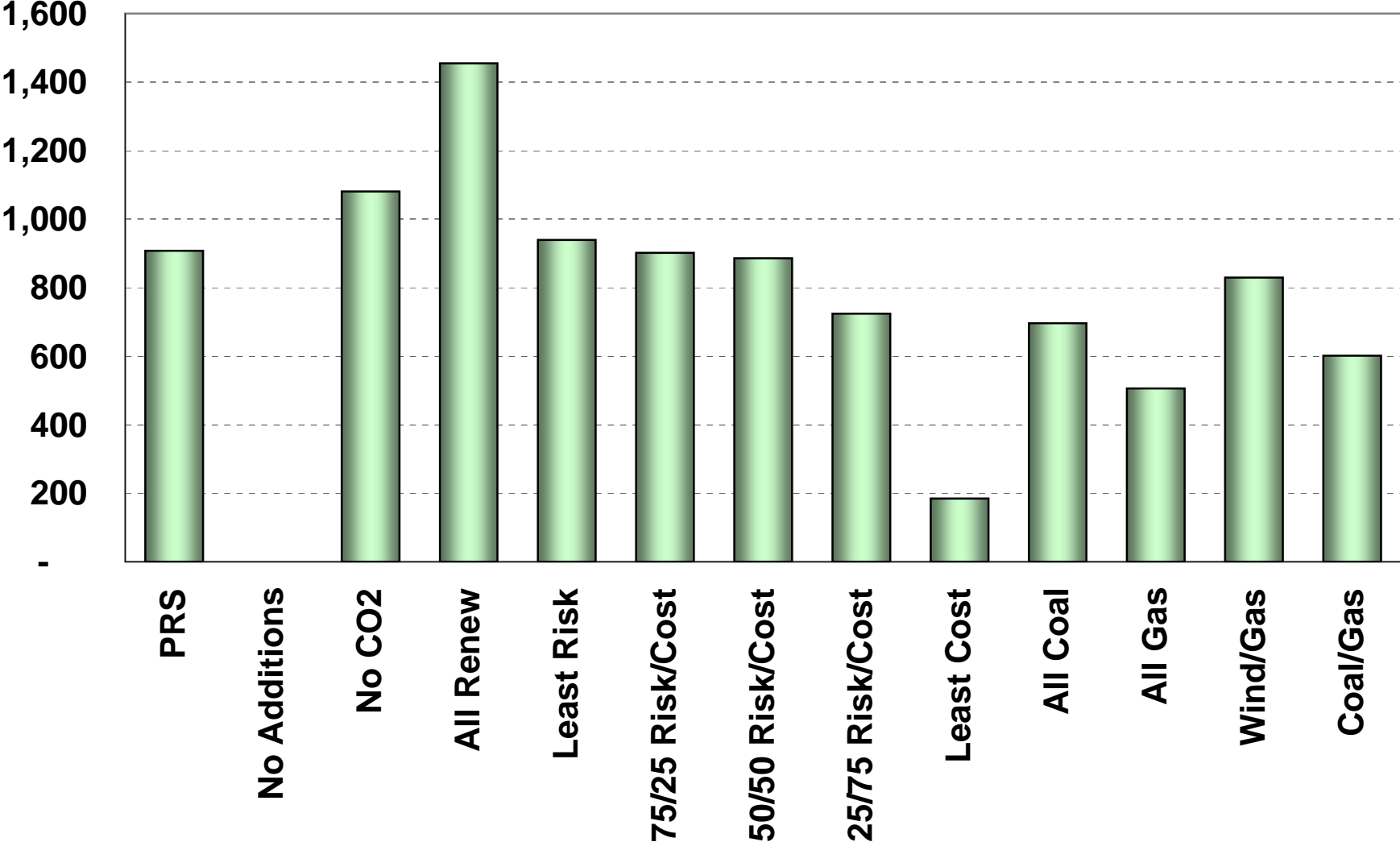
Capital NPV 07-26



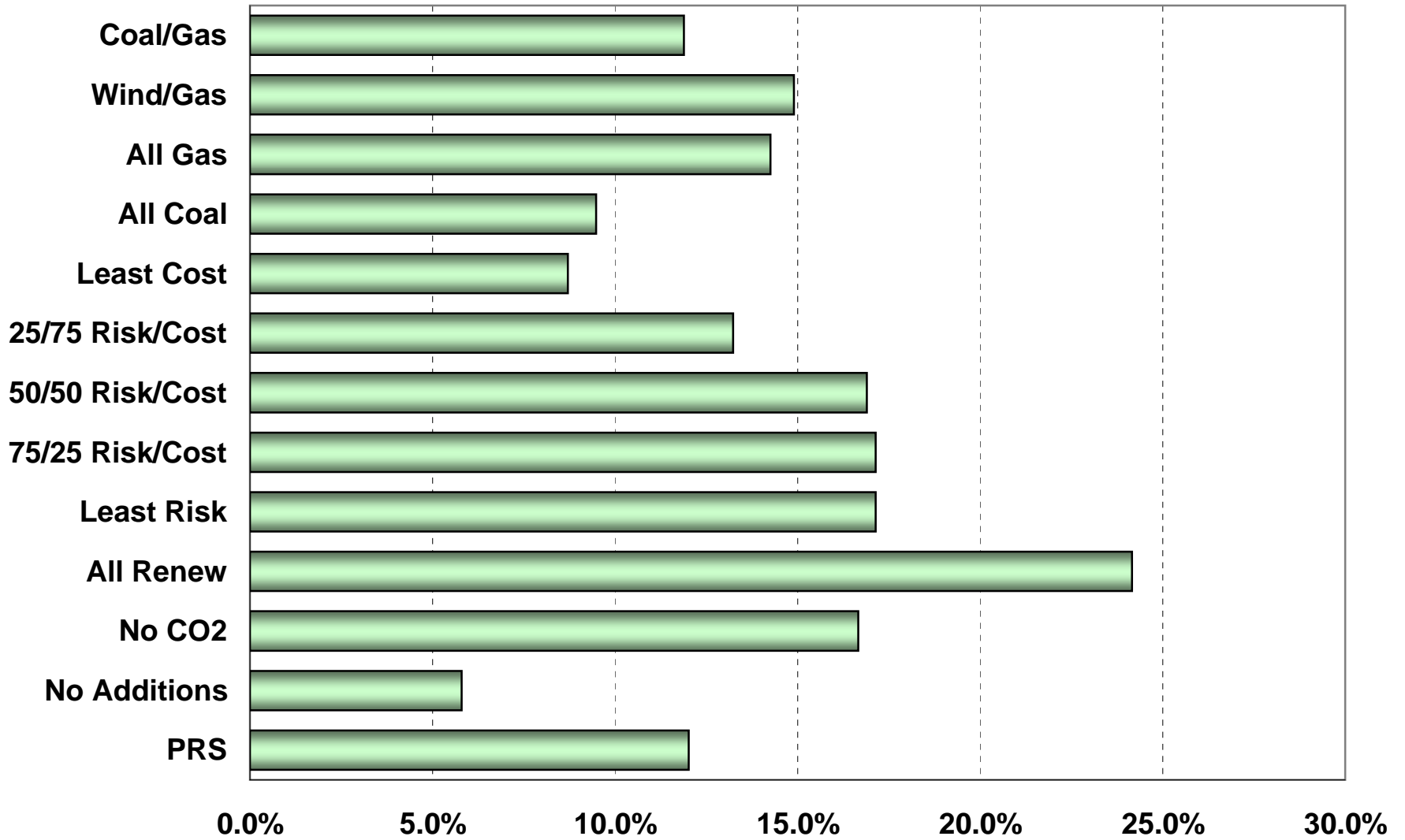
### Capital Nominal 07-16



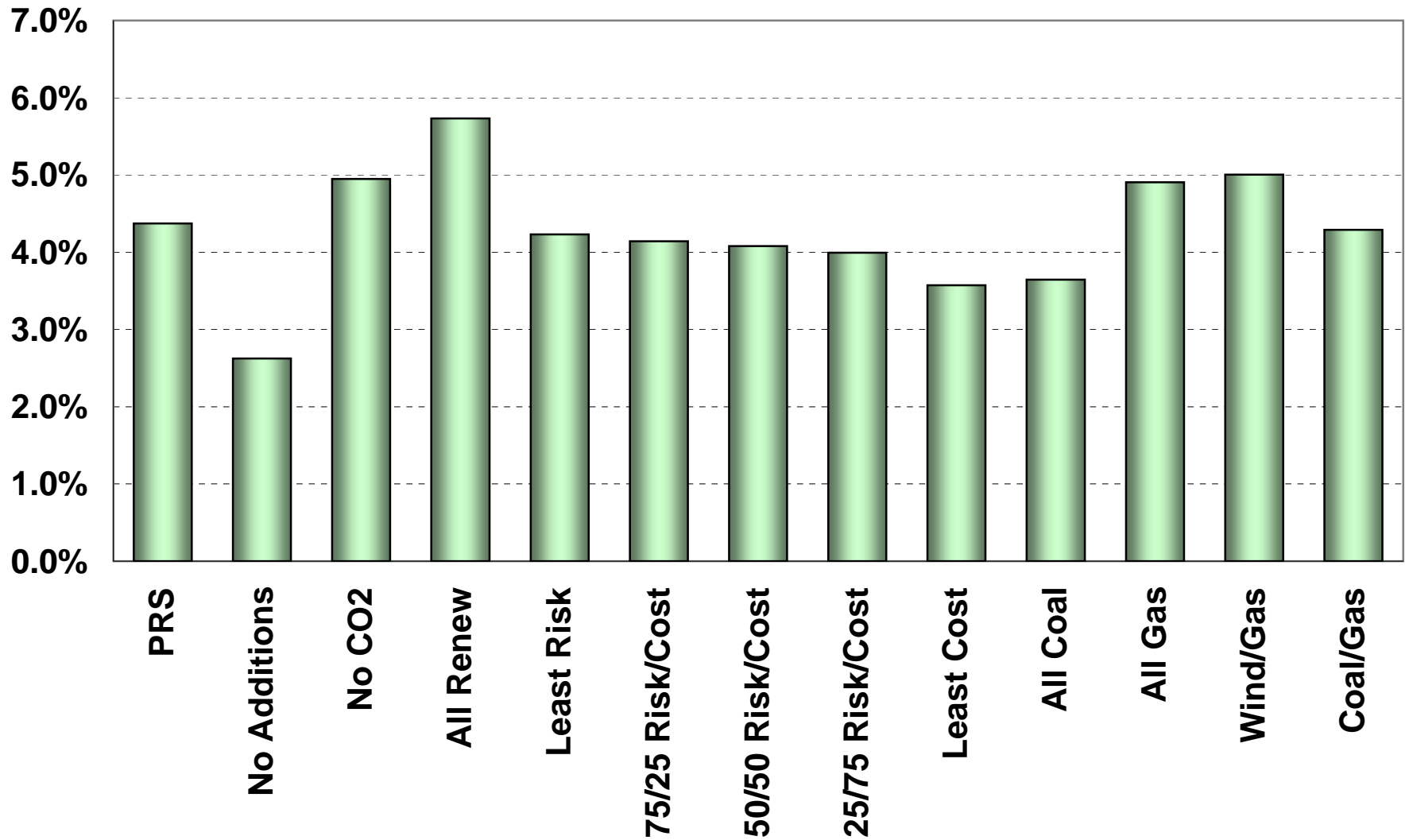
Capital NPV 07-16



### Max Rate Increase

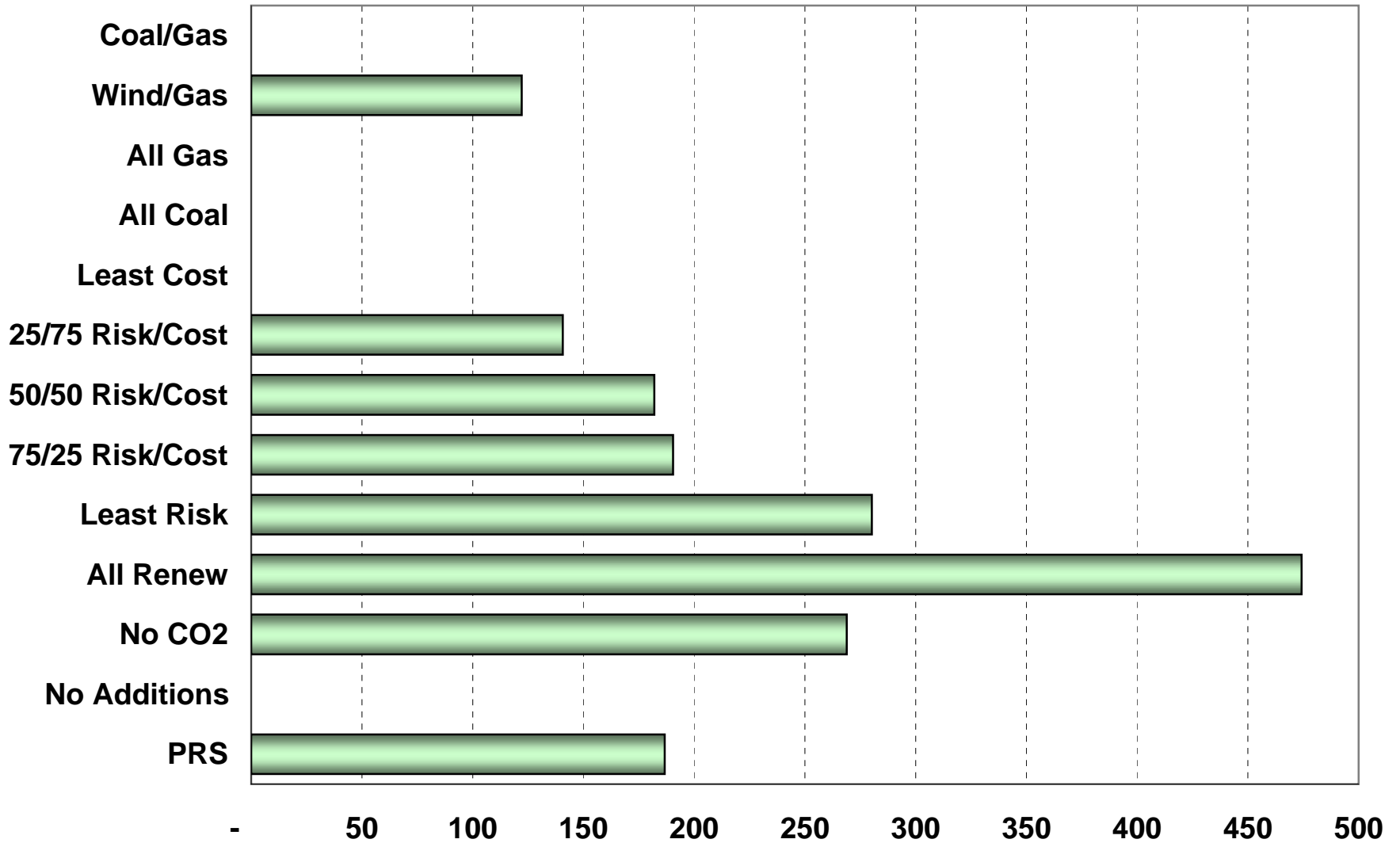


### Rate Increase 07-16

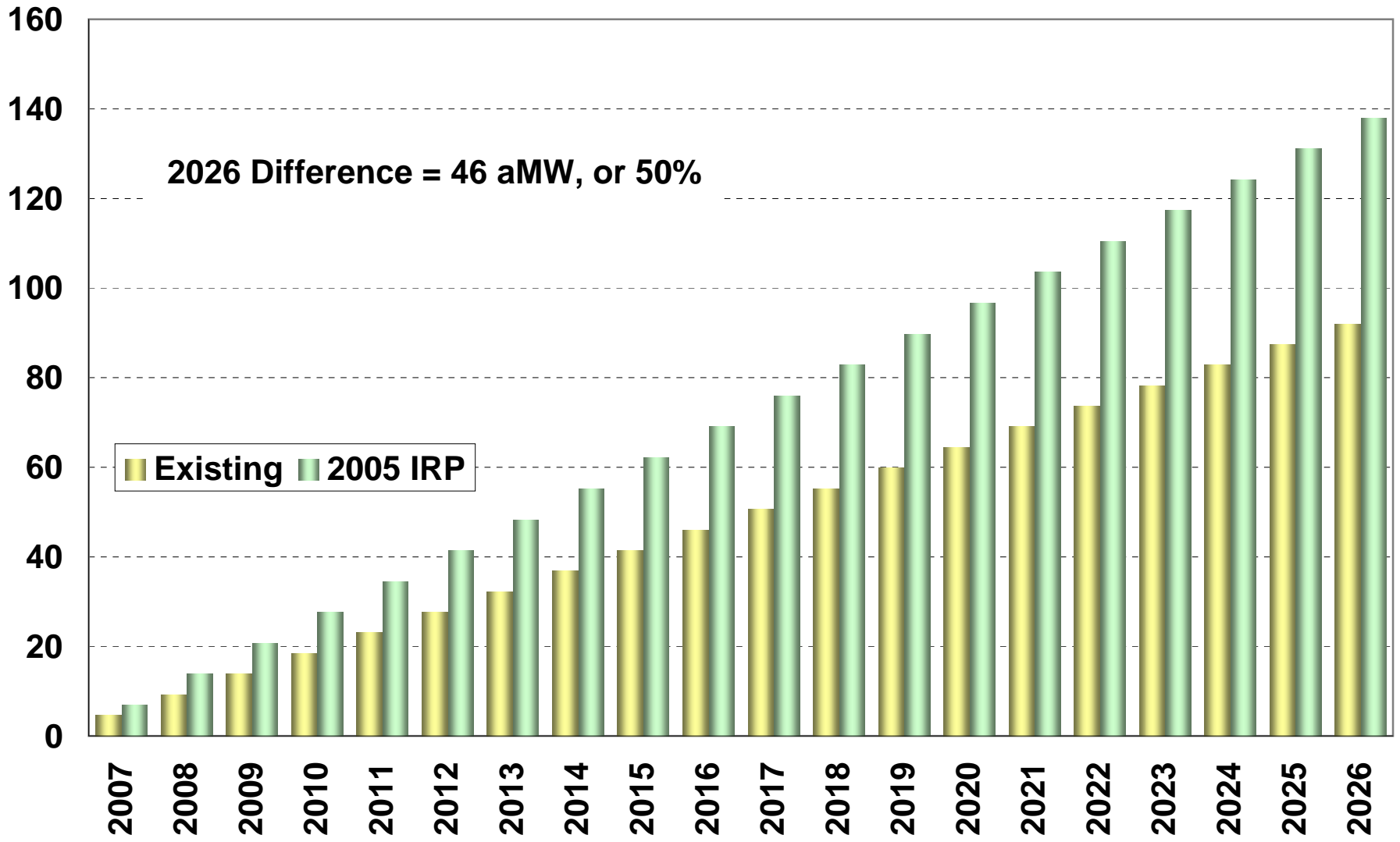




### Renewables aMW 2016



### DSM Acquisition



**Portfolio Options Summary—Base Case No MC**

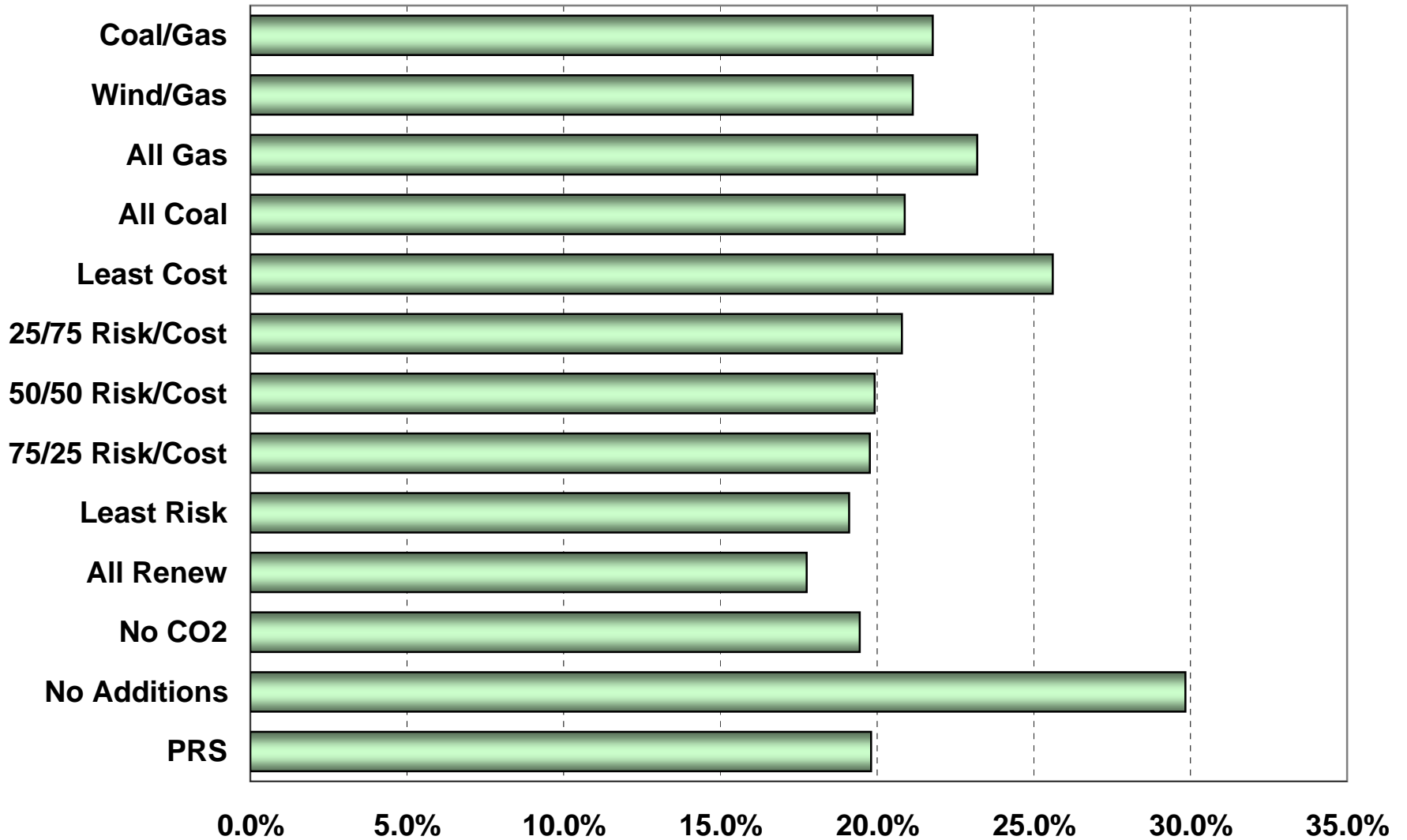
|                                  | 1     | 13               | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|----------------------------------|-------|------------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                  | PRS   | No Additio<br>ns | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| <b>Average Rate Increase</b>     |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 4.4%  | 2.6%             | 4.9%   | 5.7%      | 4.2%       | 4.1%            | 4.1%            | 4.0%            | 3.6%       | 3.6%     | 4.9%    | 5.0%     | 4.3%     |
| 2007-2026                        | 3.5%  | 2.9%             | 3.6%   | 4.1%      | 3.5%       | 3.2%            | 3.2%            | 3.1%            | 3.2%       | 2.8%     | 3.9%    | 3.9%     | 3.4%     |
| <b>Max Rate Increase</b>         |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 12.0% | 5.8%             | 16.7%  | 24.2%     | 17.1%      | 17.1%           | 16.9%           | 13.2%           | 8.7%       | 9.5%     | 14.3%   | 14.9%    | 11.9%    |
| <b>Capital NPV</b>               |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 907   | -                | 1,081  | 1,455     | 939        | 901             | 886             | 724             | 185        | 696      | 506     | 829      | 601      |
| 2007-2026                        | 1,345 | -                | 1,400  | 1,929     | 1,411      | 1,326           | 1,310           | 1,109           | 491        | 961      | 698     | 1,150    | 829      |
| <b>Capital Nominal \$</b>        |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,505 | -                | 1,864  | 2,392     | 1,466      | 1,419           | 1,397           | 1,169           | 319        | 1,146    | 832     | 1,361    | 989      |
| 2007-2026                        | 3,019 | -                | 3,067  | 4,140     | 3,251      | 3,097           | 3,075           | 2,657           | 1,420      | 2,129    | 1,546   | 2,504    | 1,838    |
| <b>Power Supply Expense</b>      |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| in 2016                          | 347   | 262              | 378    | 422       | 340        | 335             | 332             | 328             | 307        | 310      | 375     | 381      | 343      |
| in 2026                          | 574   | 482              | 596    | 689       | 574        | 526             | 524             | 510             | 522        | 467      | 642     | 639      | 554      |
| <b>Power Supply Expense NPV</b>  |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,434 | 1,200            | 1,506  | 1,658     | 1,467      | 1,446           | 1,435           | 1,393           | 1,307      | 1,349    | 1,497   | 1,530    | 1,423    |
| 2007-2026                        | 2,776 | 2,291            | 2,910  | 3,250     | 2,790      | 2,686           | 2,666           | 2,614           | 2,527      | 2,496    | 2,974   | 3,008    | 2,735    |
| <b>Risk (StDev)</b>              |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007 In 2016\$                   | (0)   | -                | -      | -         | (0)        | -               | -               | (0)             | -          | -        | (0)     | (0)      | -        |
| 2016                             | 0     | -                | -      | -         | 0          | -               | -               | 0               | -          | -        | 0       | 0        | -        |
| 2026                             | 0     | 0                | -      | 0         | -          | 0               | 0               | -               | 0          | -        | 0       | -        | -        |
| <b>Risk (StDev NPV)</b>          |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 0     | 0                | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| 2007-2026                        | 0     | 0                | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| <b>Covariance (stdev/mean)</b>   |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>95th% Max Var (NPV)</b>       |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | (0)   | 0                | (0)    | (0)       | 0          | 0               | 0               | (0)             | (0)        | (0)      | (0)     | (0)      | (0)      |
| 2007-2026                        | (0)   | (0)              | 0      | (0)       | 0          | (0)             | (0)             | (0)             | (0)        | (0)      | (0)     | (0)      | (0)      |
| <b>95th% Max Var (95th/mean)</b> |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>Build Out 2007-16 (MW)</b>    |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 250   | -                | -      | -         | 124        | 227             | 227             | 218             | 49         | 511      | -       | -        | 256      |
| CT MW                            | -     | -                | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -                | -      | -         | 2          | 2               | -               | -               | -          | -        | 511     | 411      | 256      |
| Wind MW                          | 400   | -                | 650    | 980       | 400        | 400             | 400             | 275             | -          | -        | -       | 400      | -        |
| Renews MW                        | 80    | -                | 100    | 228       | 183        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -                | 175    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -                | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -                | -      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -                | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total MW                         | 755   | -                | 949    | 1,208     | 761        | 761             | 761             | 668             | 461        | 511      | 511     | 811      | 511      |
| <b>Build Out 2007-26 (MW)</b>    |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 450   | -                | -      | -         | 296        | 598             | 598             | 620             | 436        | 853      | -       | -        | 427      |
| CT MW                            | -     | -                | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -                | -      | -         | 2          | 2               | -               | -               | -          | -        | 853     | 691      | 427      |
| Wind MW                          | 650   | -                | 650    | 1,330     | 650        | 650             | 650             | 400             | -          | -        | -       | 650      | -        |
| Renews MW                        | 180   | -                | 180    | 483       | 383        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -                | 475    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -                | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -                | 5      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -                | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |

**Portfolio Options Summary—Base Case No MC**

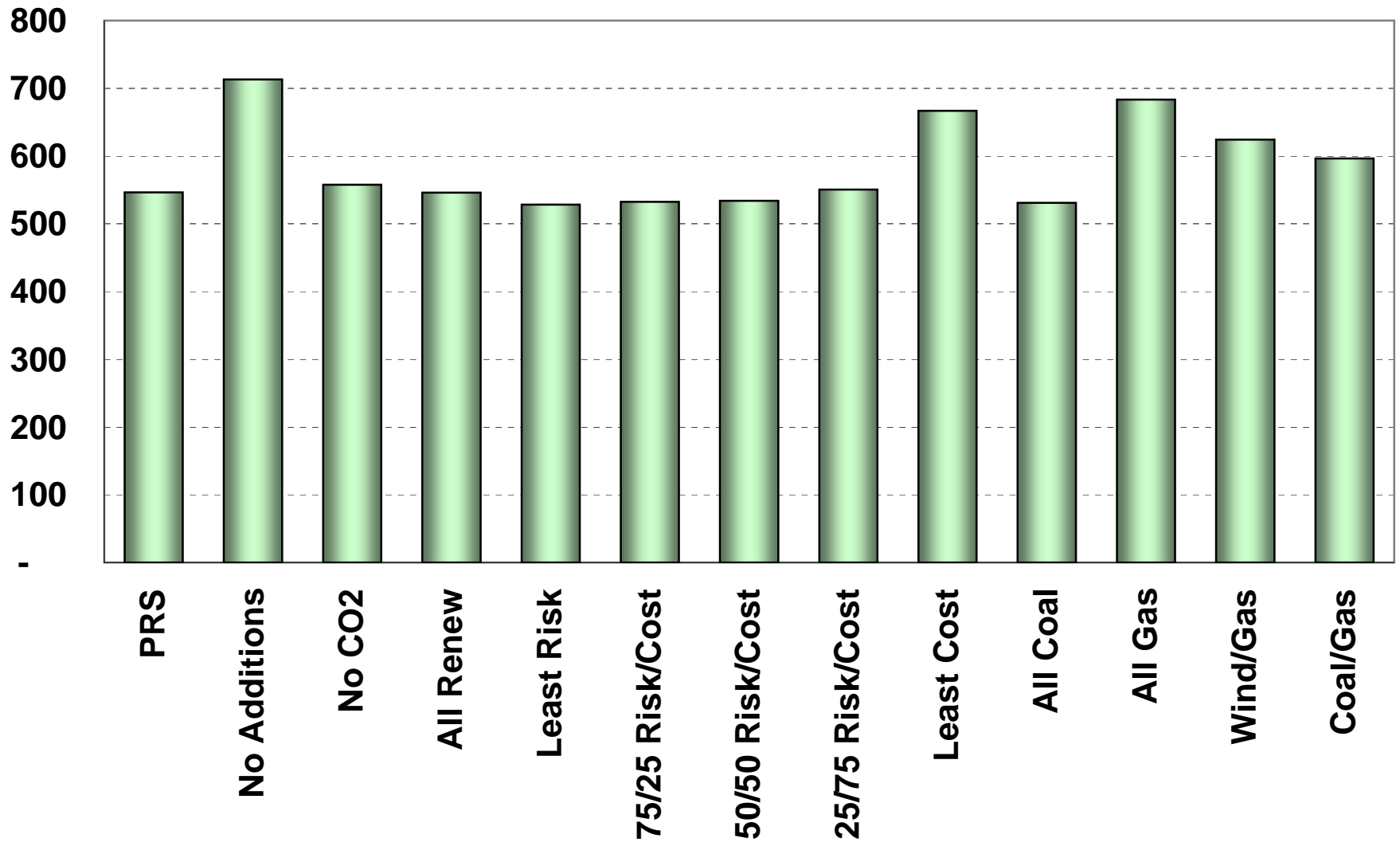
|                                | 1          | 13           | 2          | 3          | 4          | 5               | 6               | 7               | 8          | 9          | 10         | 12         | 11         |
|--------------------------------|------------|--------------|------------|------------|------------|-----------------|-----------------|-----------------|------------|------------|------------|------------|------------|
|                                | PRS        | No Additions | No CO2     | All Renew  | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal   | All Gas    | Wind/Gas   | Coal/Gas   |
| <b>Total MW</b>                | 1,305      | -            | 1,291      | 1,813      | 1,341      | 1,341           | 1,341           | 1,153           | 803        | 853        | 853        | 1,341      | 853        |
| <b>Build Out 2007-16 (aMW)</b> |            |              |            |            |            |                 |                 |                 |            |            |            |            |            |
| Coal aMW                       | 215        | -            | -          | -          | 107        | 195             | 195             | 187             | 42         | 441        | -          | -          | 220        |
| CT aMW                         | -          | -            | -          | -          | -          | -               | 11              | 46              | 319        | -          | -          | -          | -          |
| CCCT aMW                       | -          | -            | -          | -          | 2          | 2               | -               | -               | -          | -          | 461        | 371        | 231        |
| Wind aMW                       | 122        | -            | 188        | 285        | 122        | 122             | 122             | 81              | -          | -          | -          | 122        | -          |
| Renews aMW                     | 65         | -            | 81         | 190        | 158        | 68              | 60              | 60              | -          | -          | -          | -          | -          |
| Nuclear aMW                    | -          | -            | 147        | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| OilSands aMW                   | -          | -            | -          | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| Cogen aMW                      | -          | -            | -          | -          | 9          | 9               | 9               | 9               | -          | -          | -          | -          | -          |
| Market aMW                     | 25         | -            | 24         | -          | 42         | 42              | 42              | 42              | 45         | -          | -          | -          | -          |
| <b>Total aMW</b>               | <b>427</b> | <b>-</b>     | <b>440</b> | <b>474</b> | <b>440</b> | <b>439</b>      | <b>439</b>      | <b>425</b>      | <b>406</b> | <b>441</b> | <b>461</b> | <b>493</b> | <b>451</b> |
| <b>Build Out 2007-26 (aMW)</b> |            |              |            |            |            |                 |                 |                 |            |            |            |            |            |
| Coal aMW                       | 388        | -            | -          | -          | 255        | 515             | 515             | 534             | 376        | 735        | -          | -          | 368        |
| CT aMW                         | -          | -            | -          | -          | -          | -               | 11              | 46              | 319        | -          | -          | -          | -          |
| CCCT aMW                       | -          | -            | -          | -          | 2          | 2               | -               | -               | -          | -          | 770        | 623        | 385        |
| Wind aMW                       | 188        | -            | 188        | 386        | 188        | 188             | 188             | 122             | -          | -          | -          | 188        | -          |
| Renews aMW                     | 145        | -            | 145        | 402        | 333        | 68              | 60              | 60              | -          | -          | -          | -          | -          |
| Nuclear aMW                    | -          | -            | 399        | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| OilSands aMW                   | -          | -            | -          | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| Cogen aMW                      | -          | -            | 4          | -          | 9          | 9               | 9               | 9               | -          | -          | -          | -          | -          |
| Market aMW                     | 25         | -            | (20)       | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| <b>Total aMW</b>               | <b>746</b> | <b>-</b>     | <b>717</b> | <b>788</b> | <b>786</b> | <b>783</b>      | <b>783</b>      | <b>771</b>      | <b>694</b> | <b>735</b> | <b>770</b> | <b>811</b> | <b>752</b> |

## **Base Case MC**

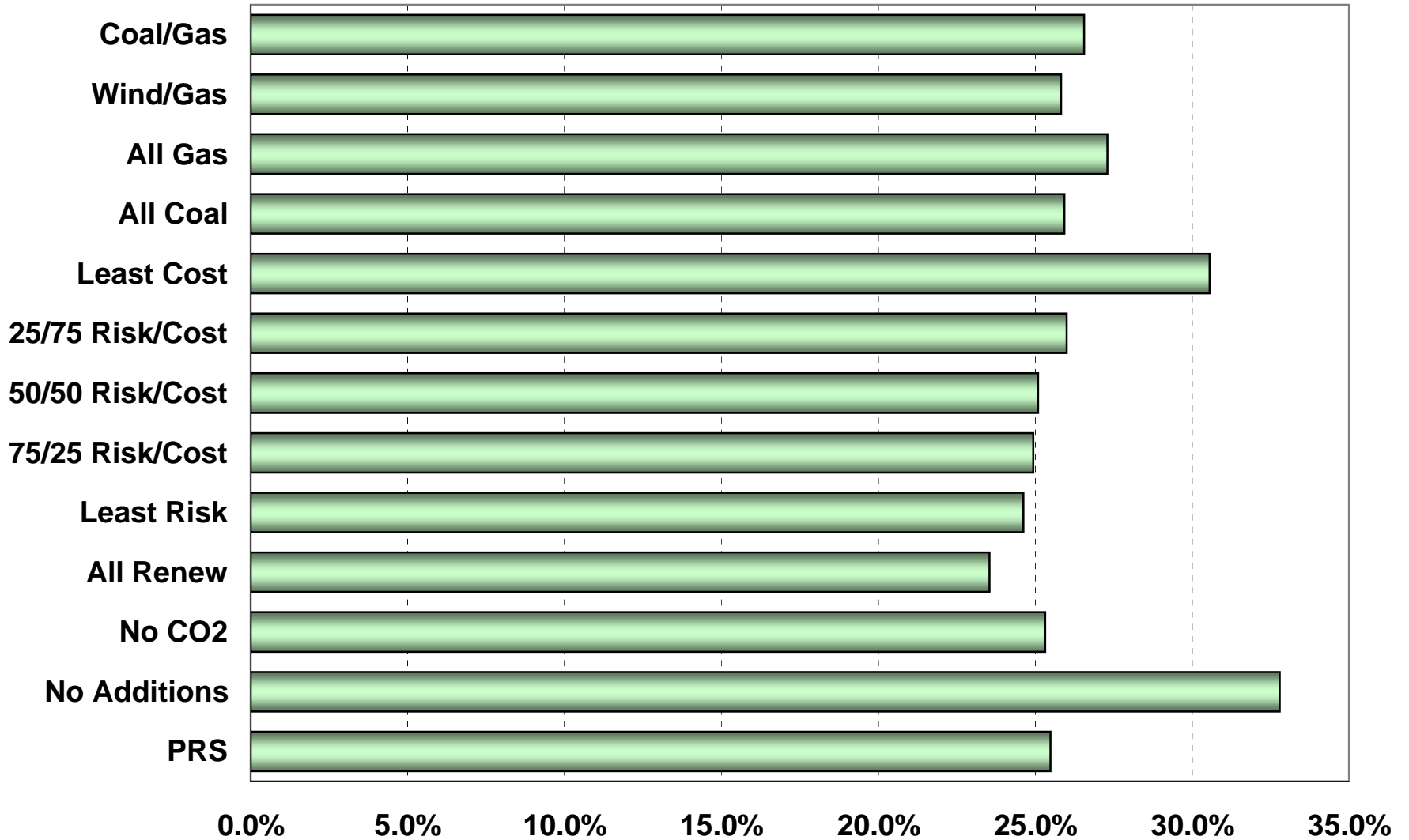
**95th % Var Avg 07-26**



### 95th Var NPV 07-26

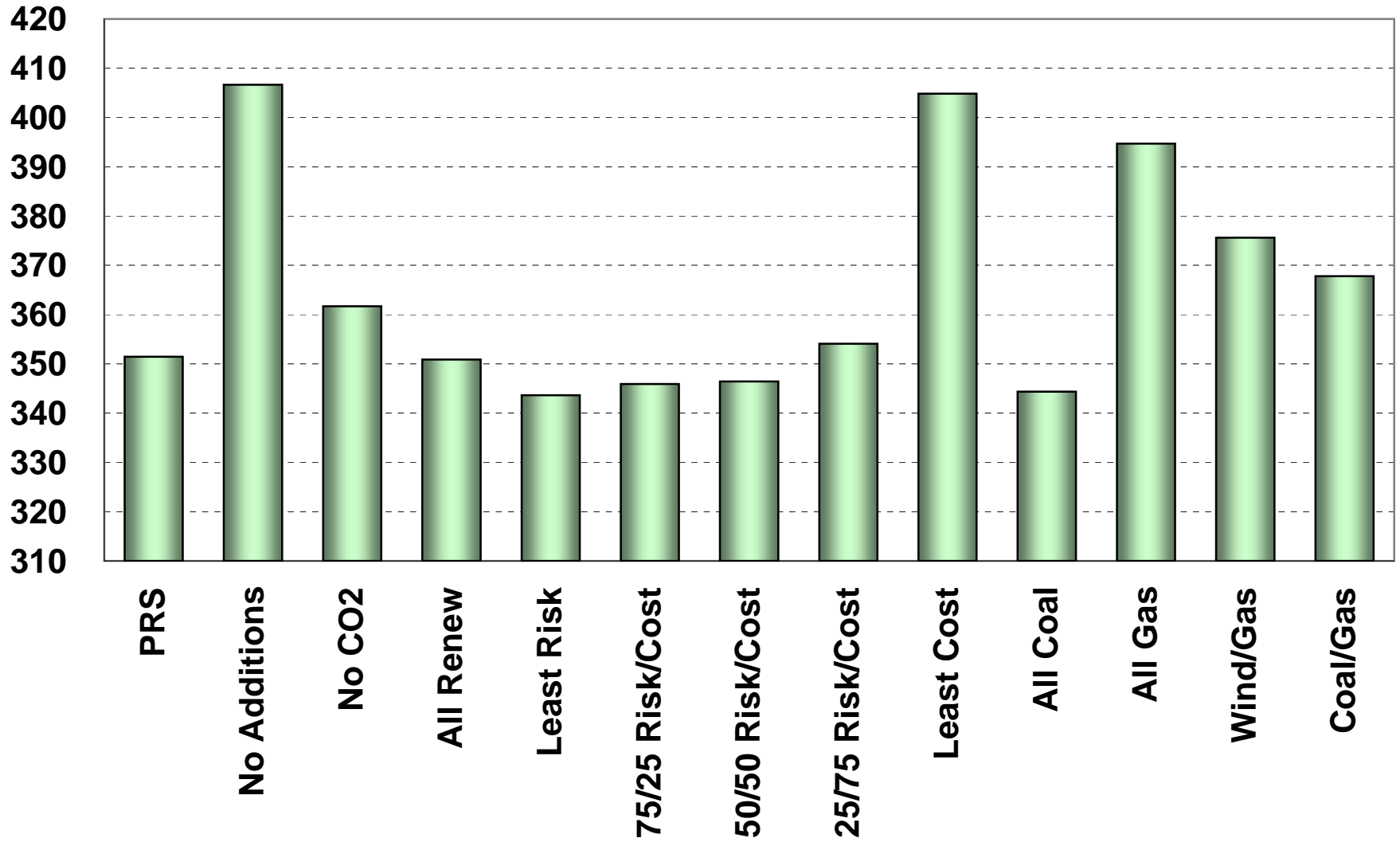


**95th % Var Avg 07-16**

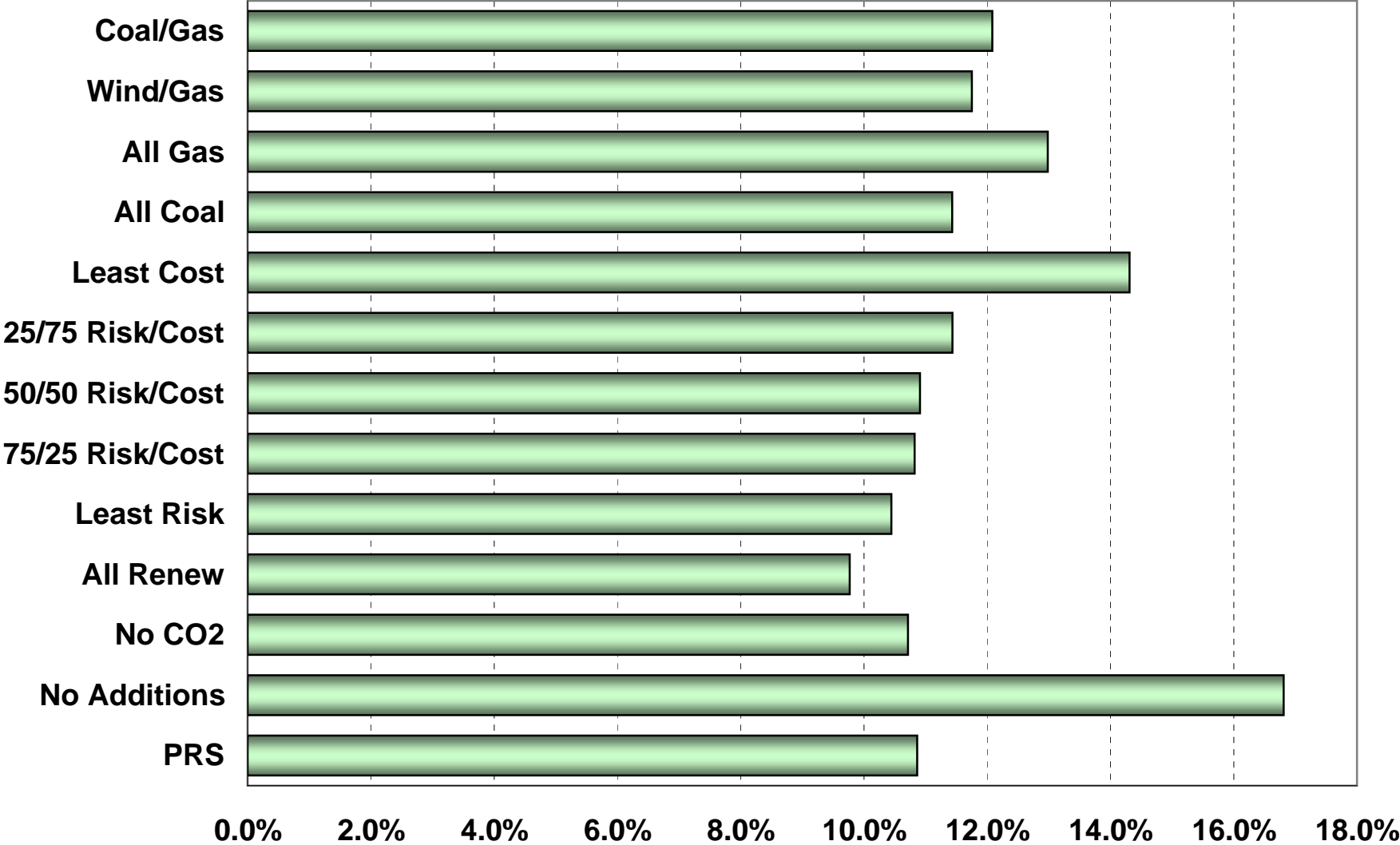




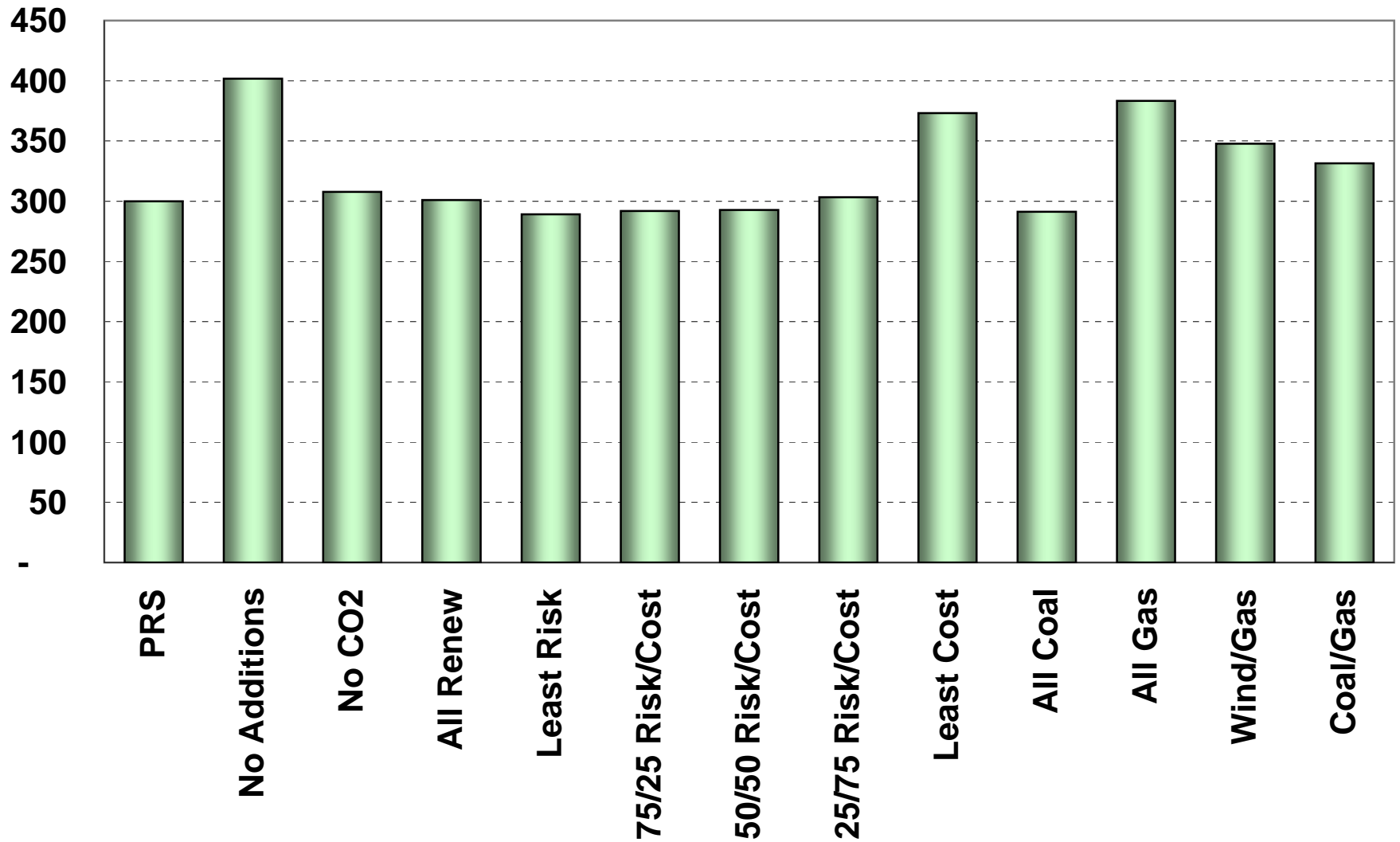
### 95th Var NPV 07-16



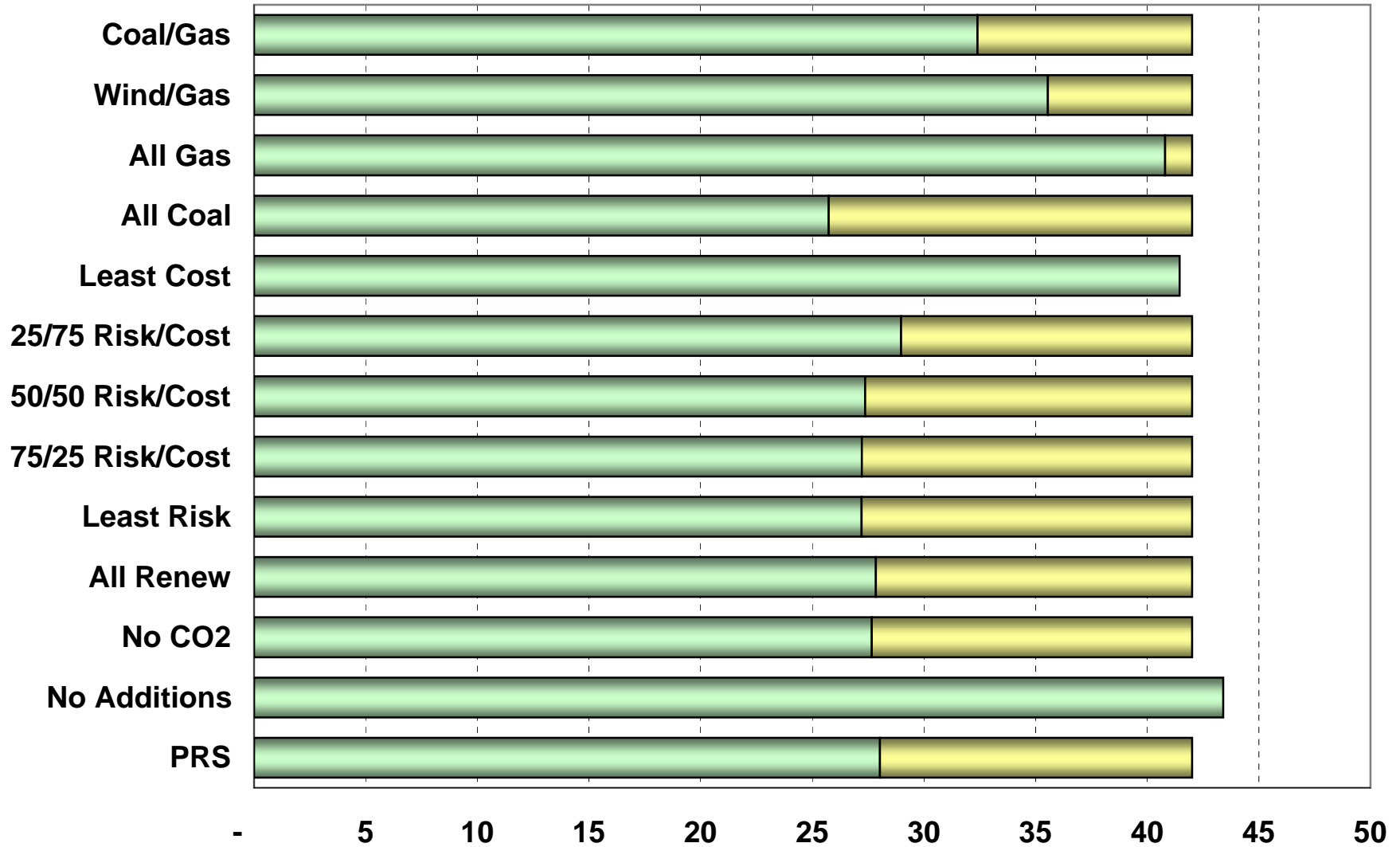
**Risk COV 07-26**



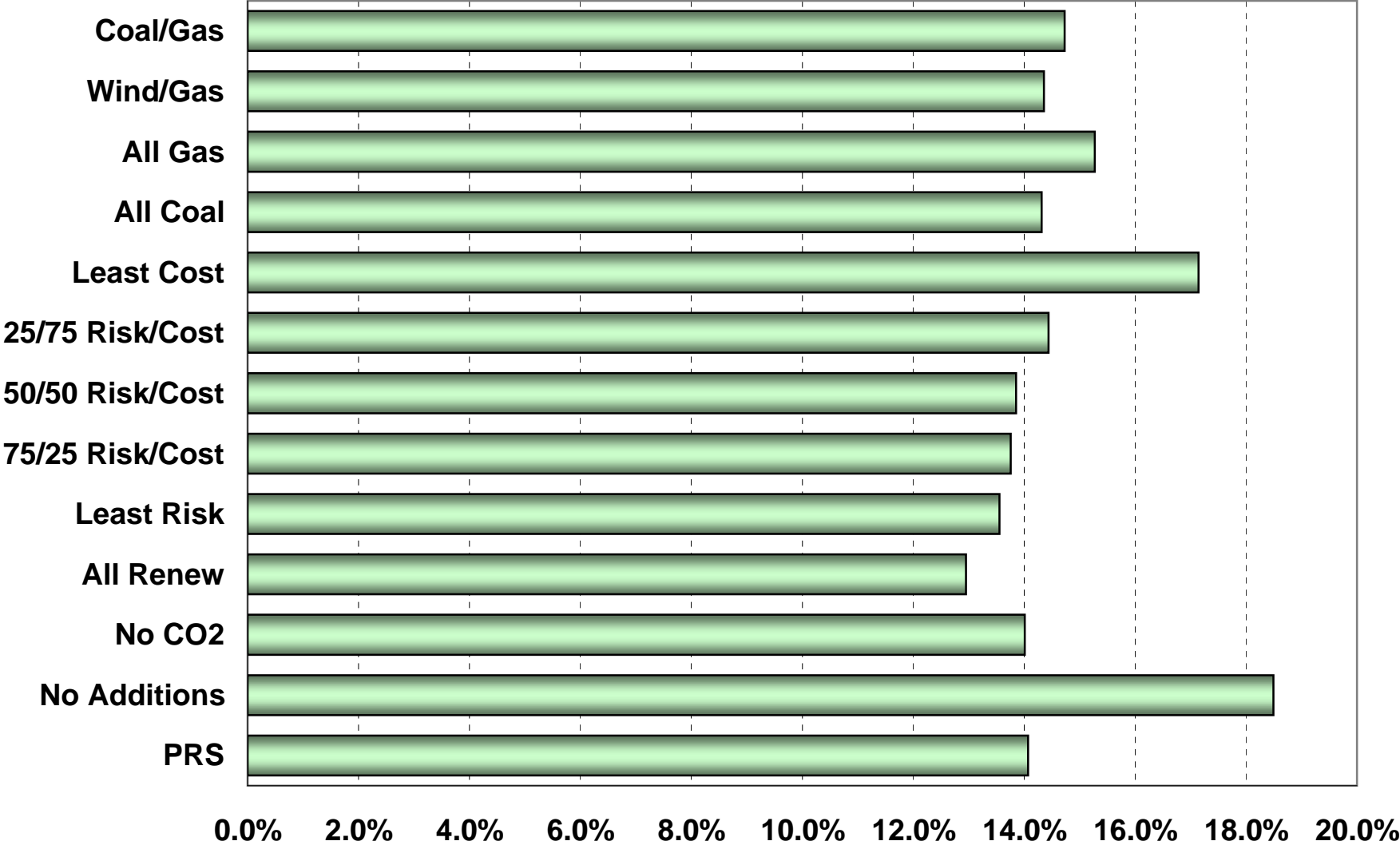
### Risk NPV 07-26



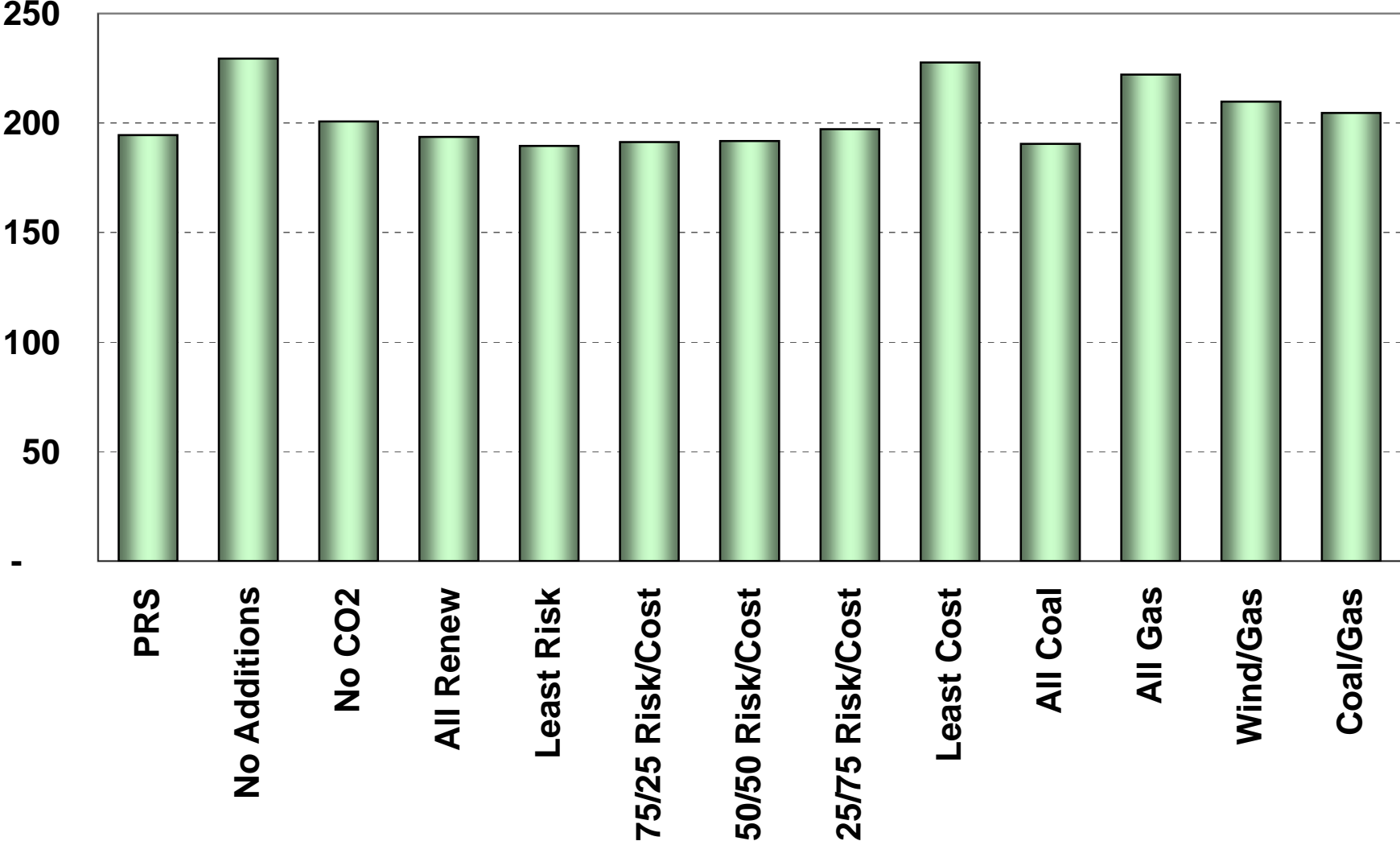
### Risk StDev 2016



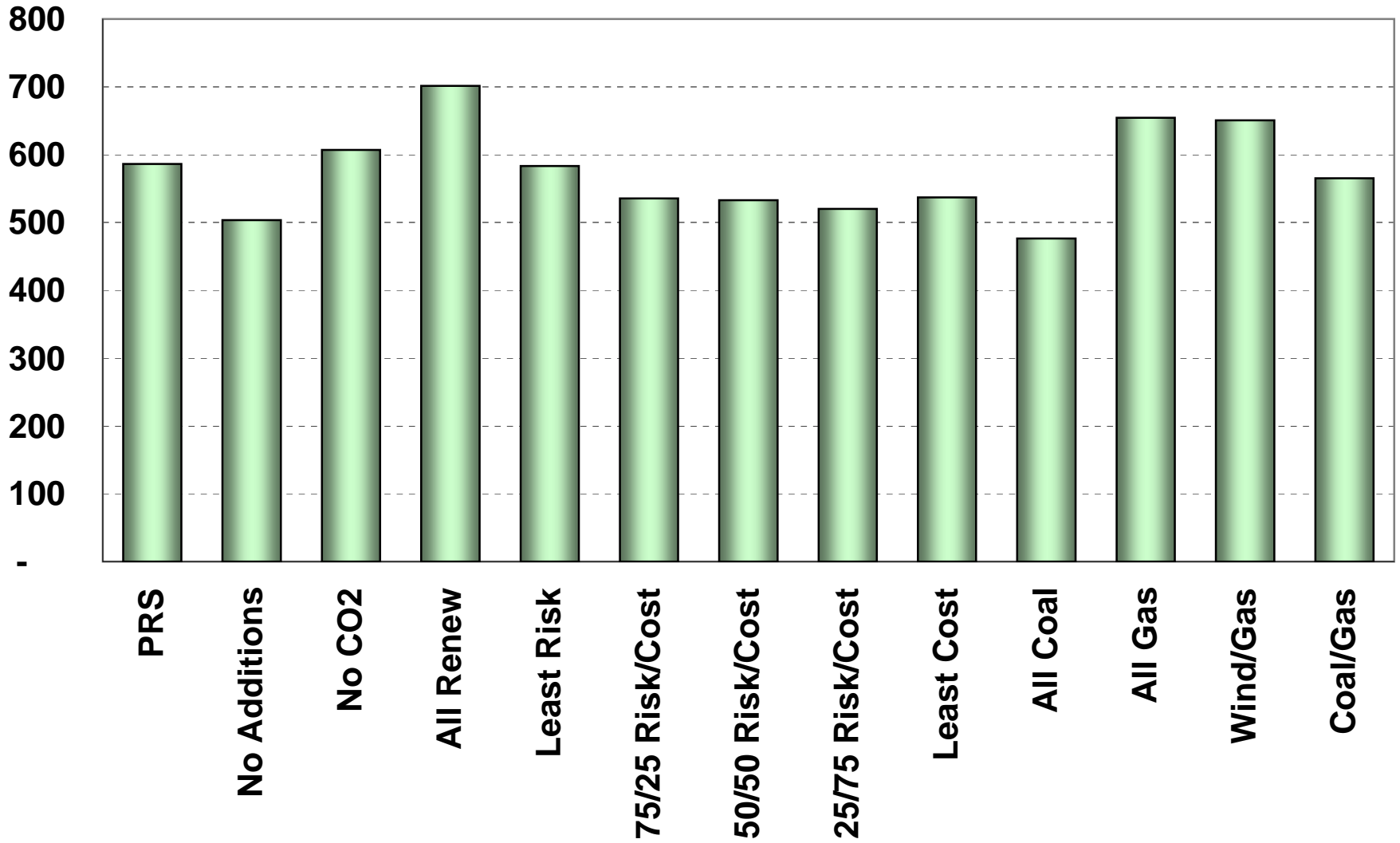
**Risk COV 07-16**



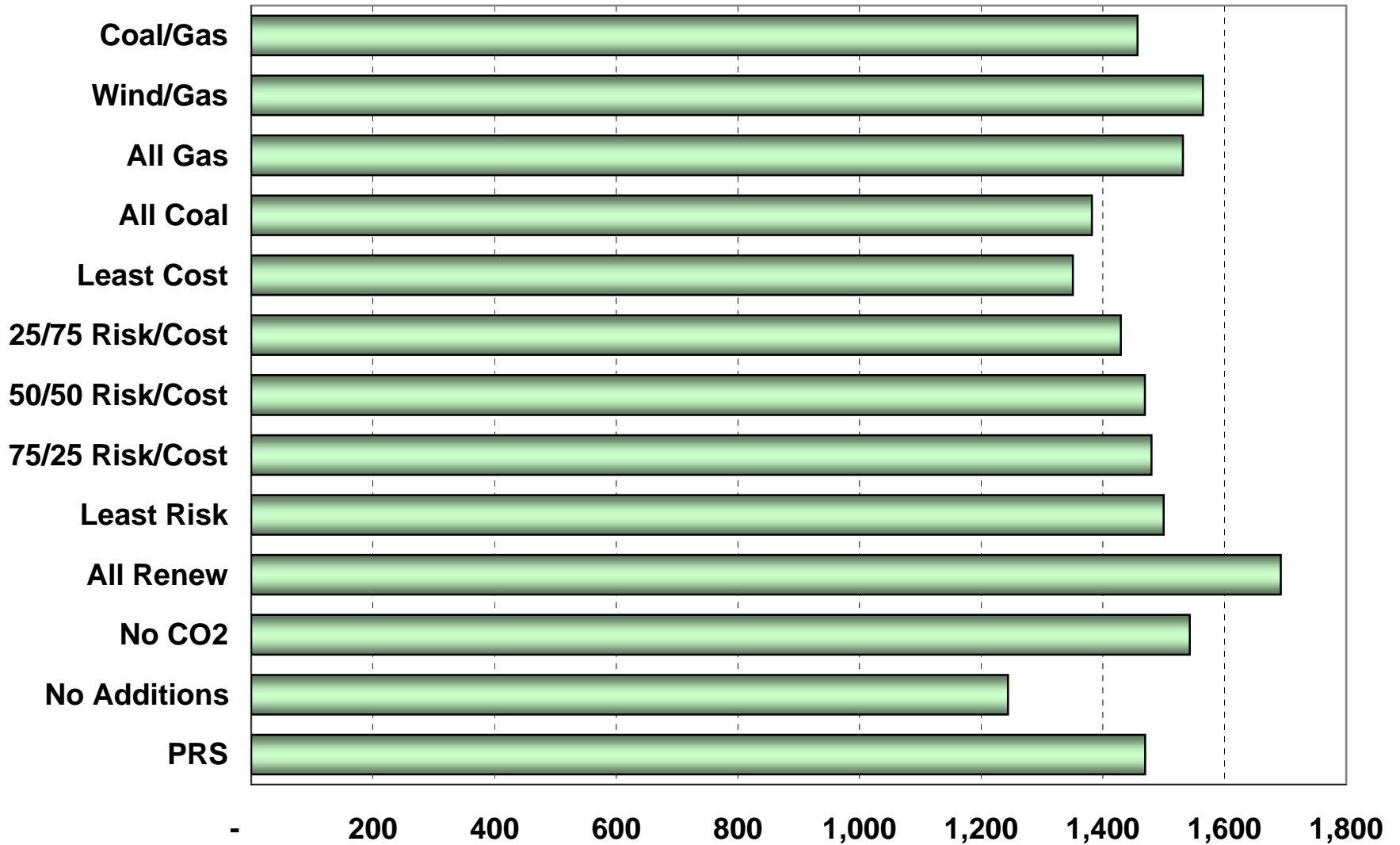
Risk NPV 07-16



PSE 2026

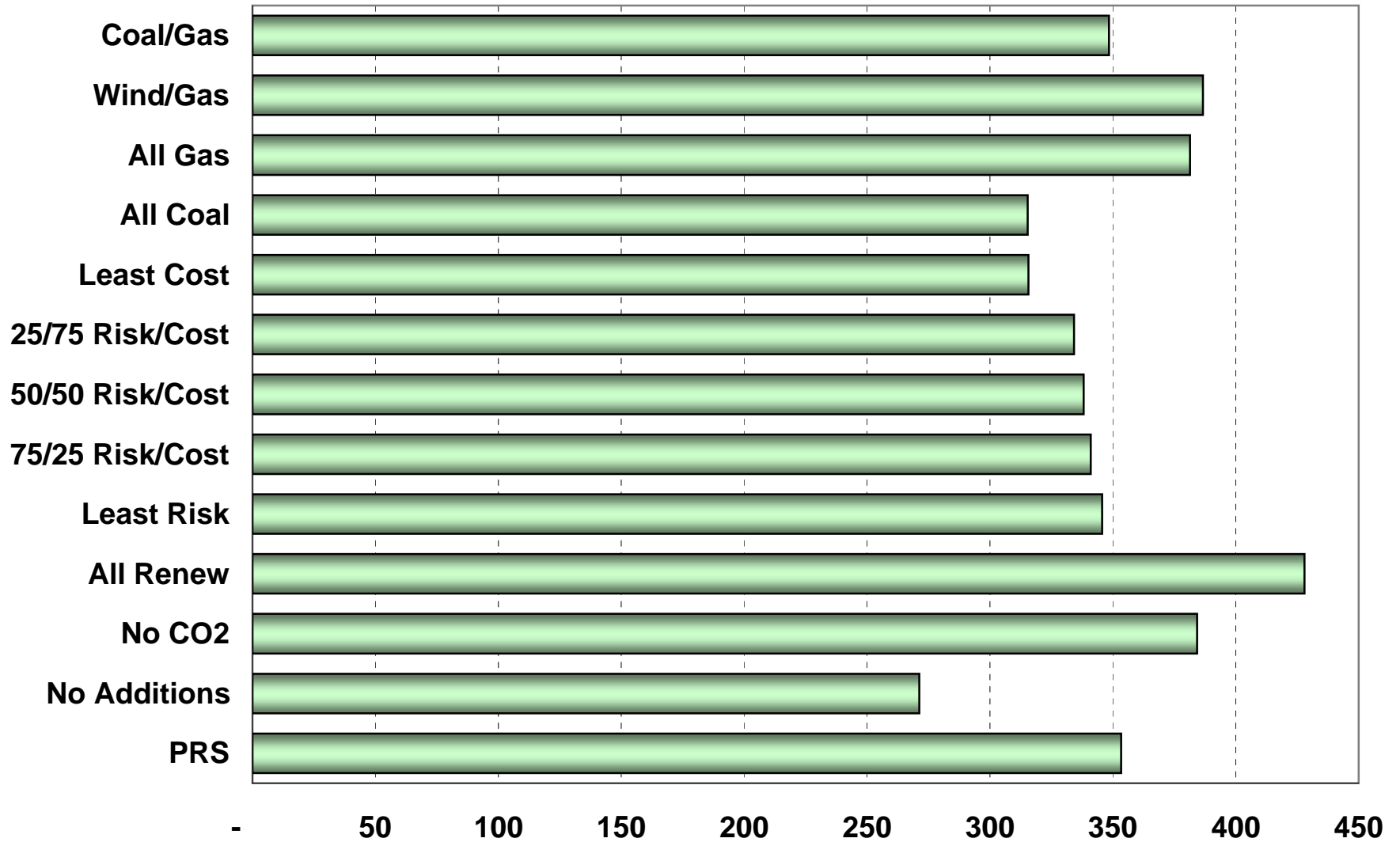


### PSE 07-16 NPV

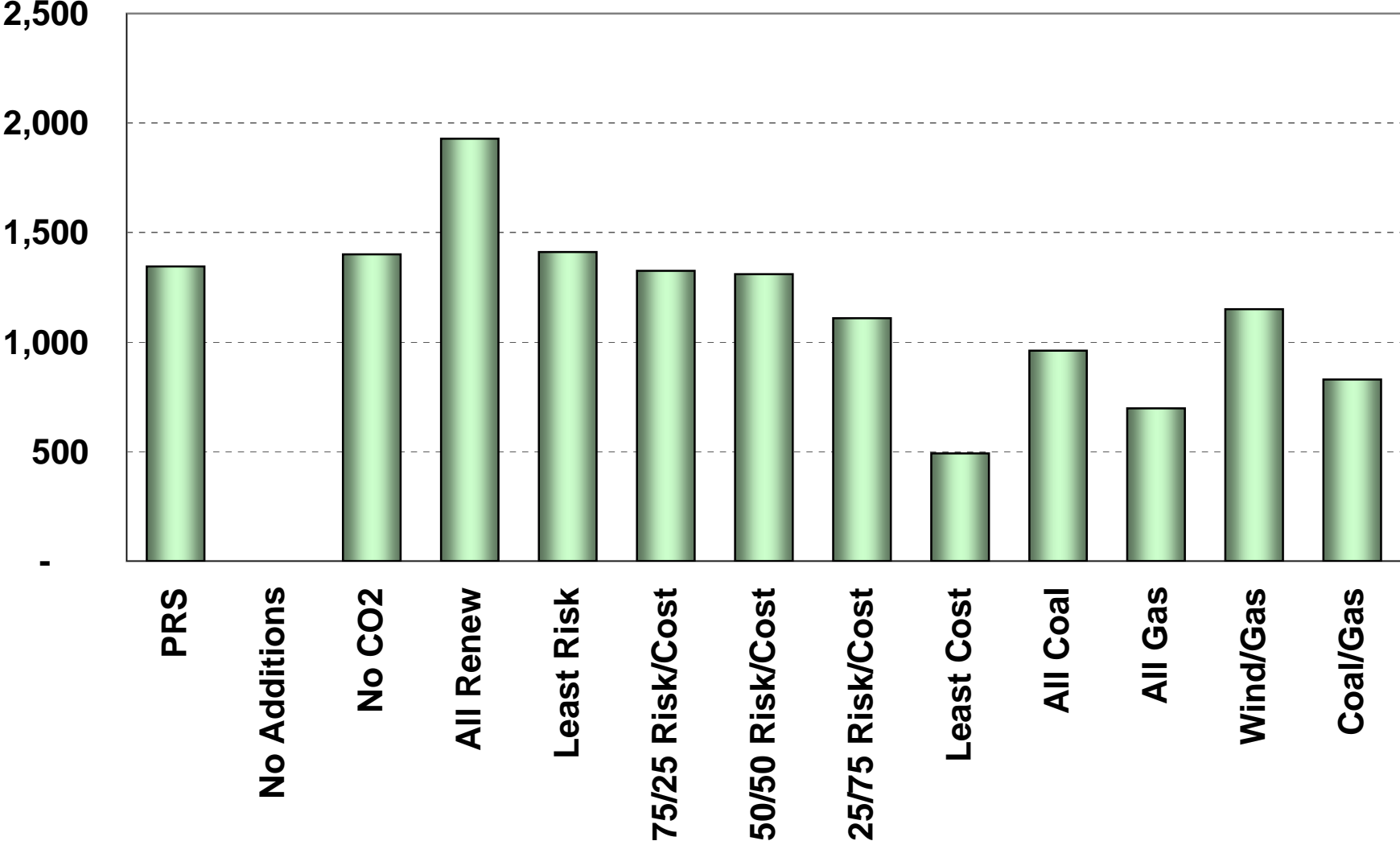




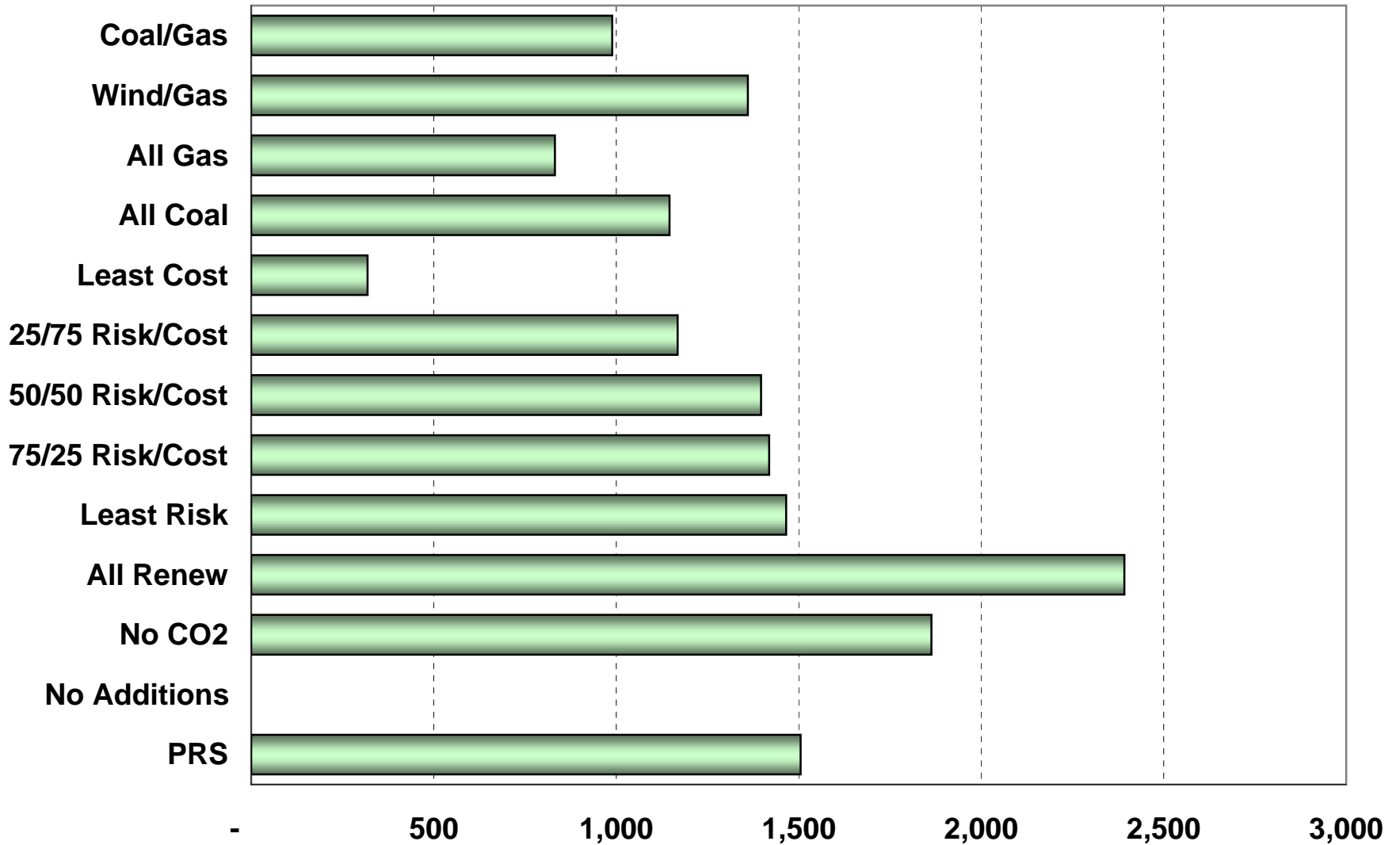
# PSE 2016



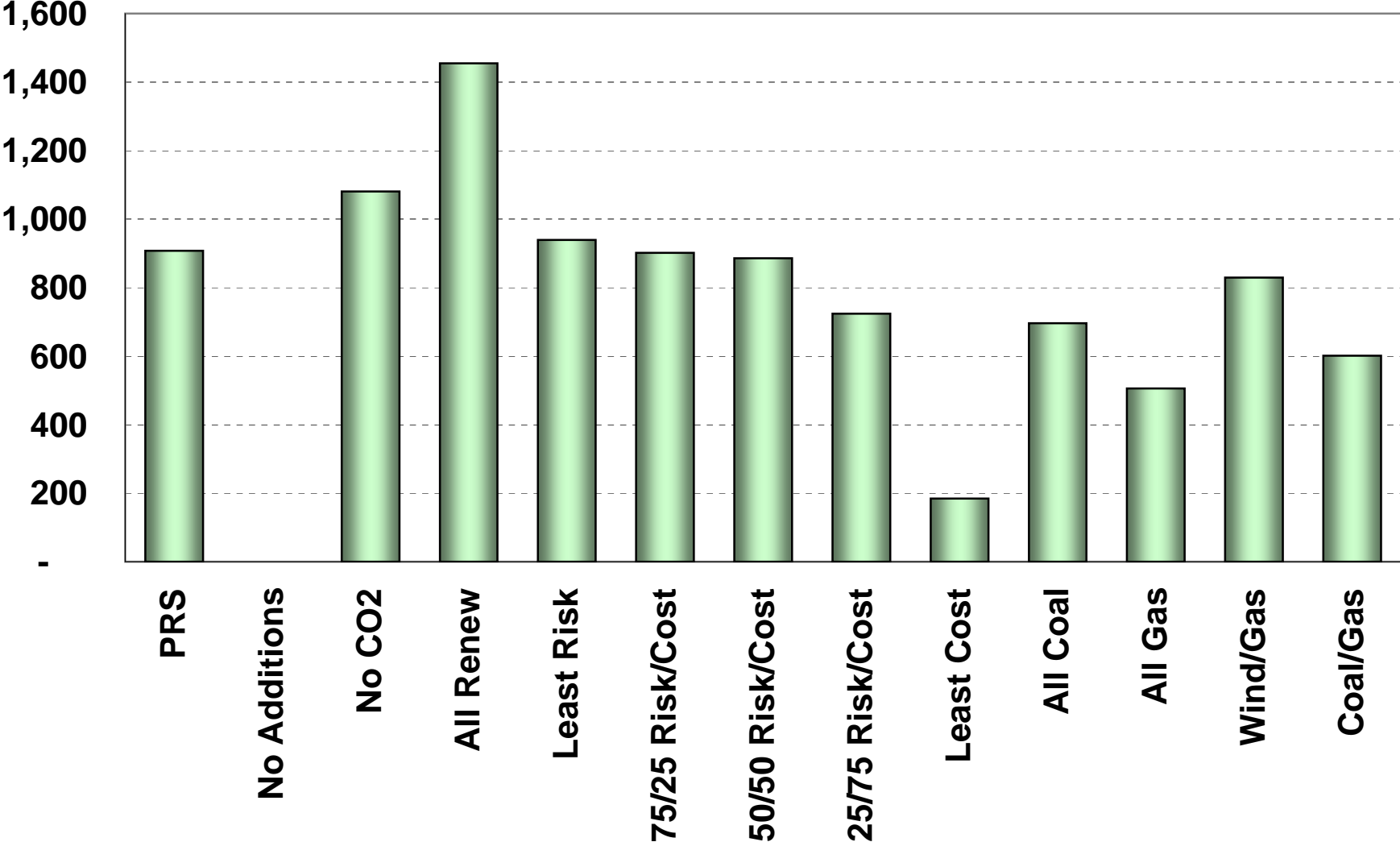
Capital NPV 07-26



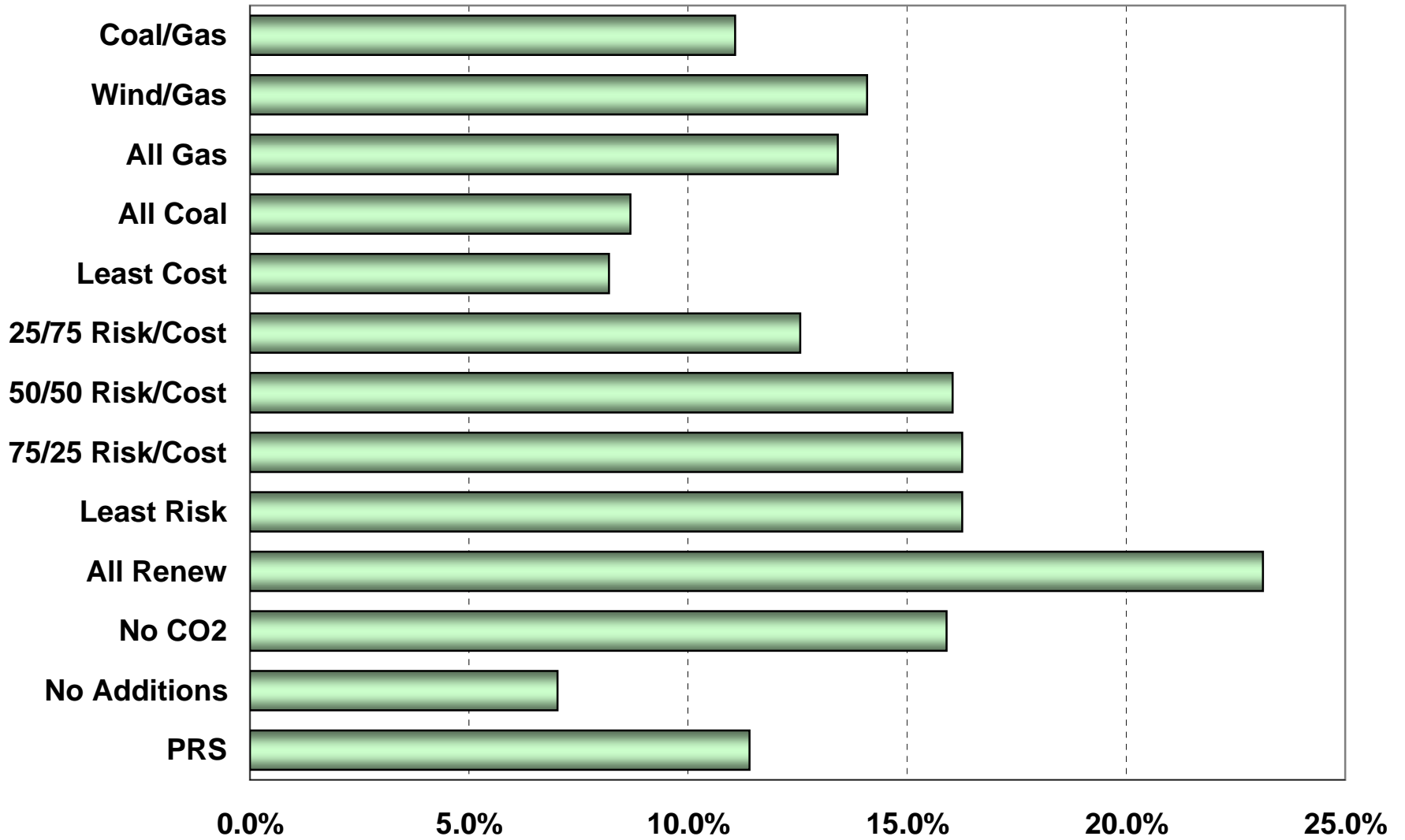
### Capital Nominal 07-16



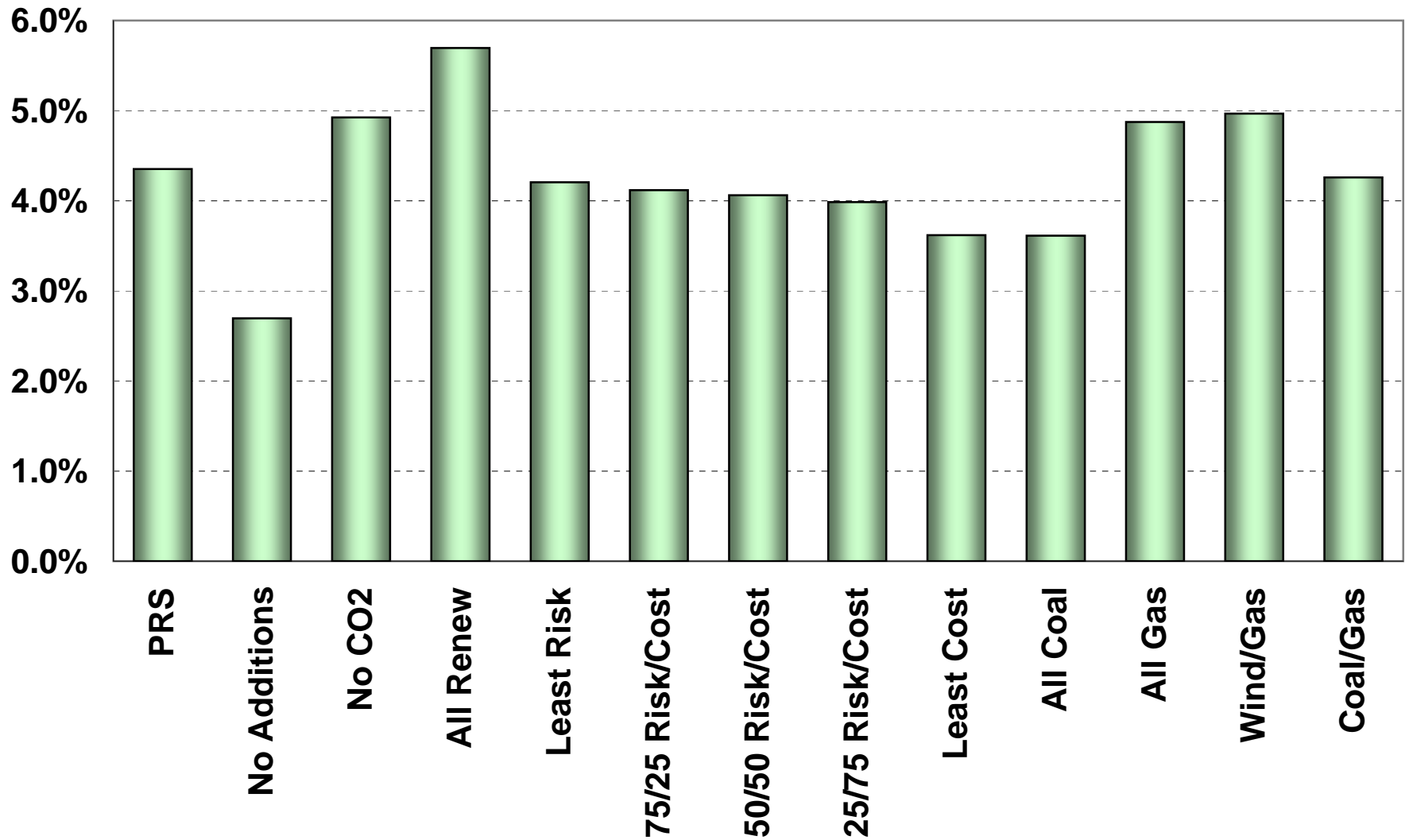
Capital NPV 07-16



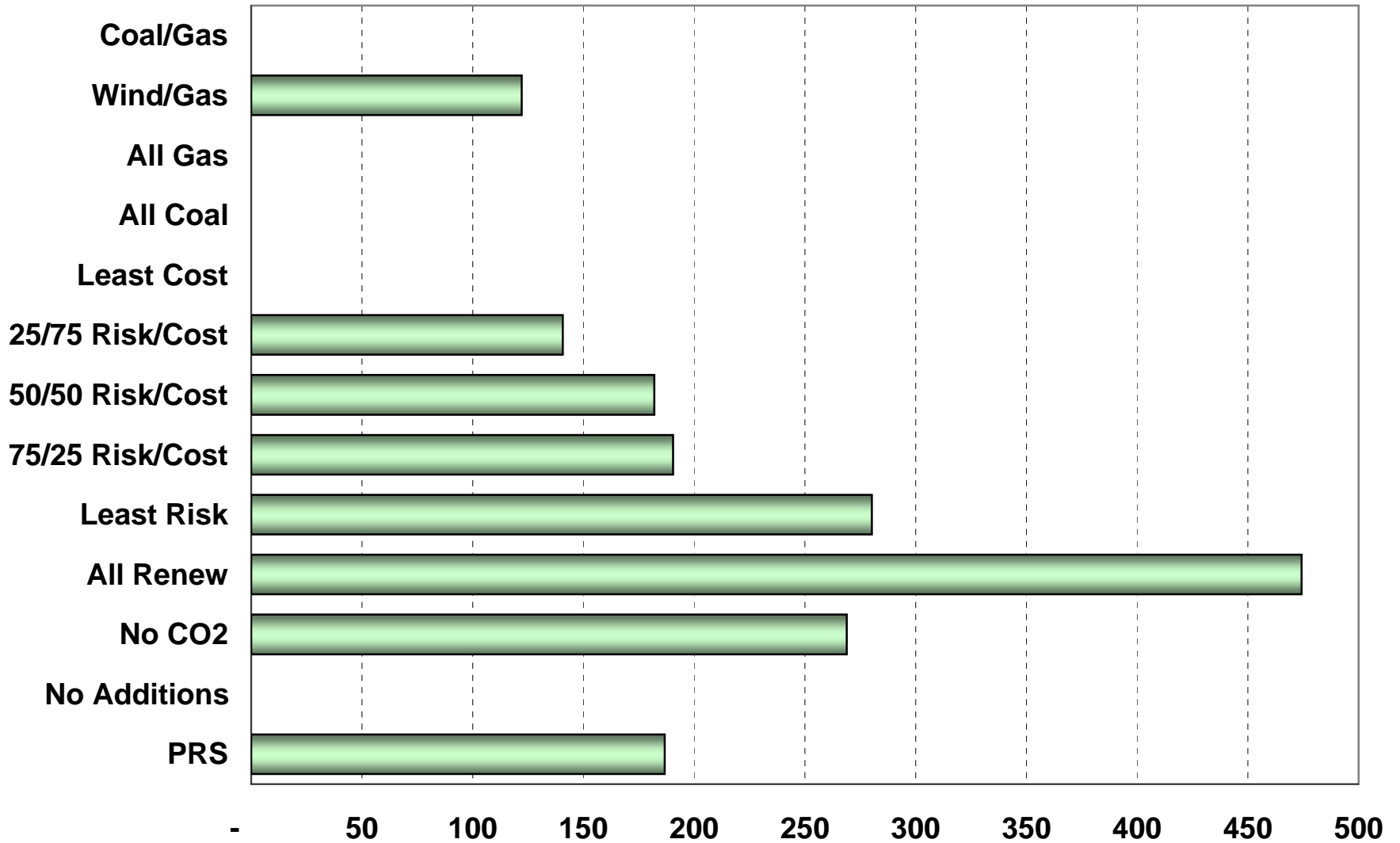
### Max Rate Increase



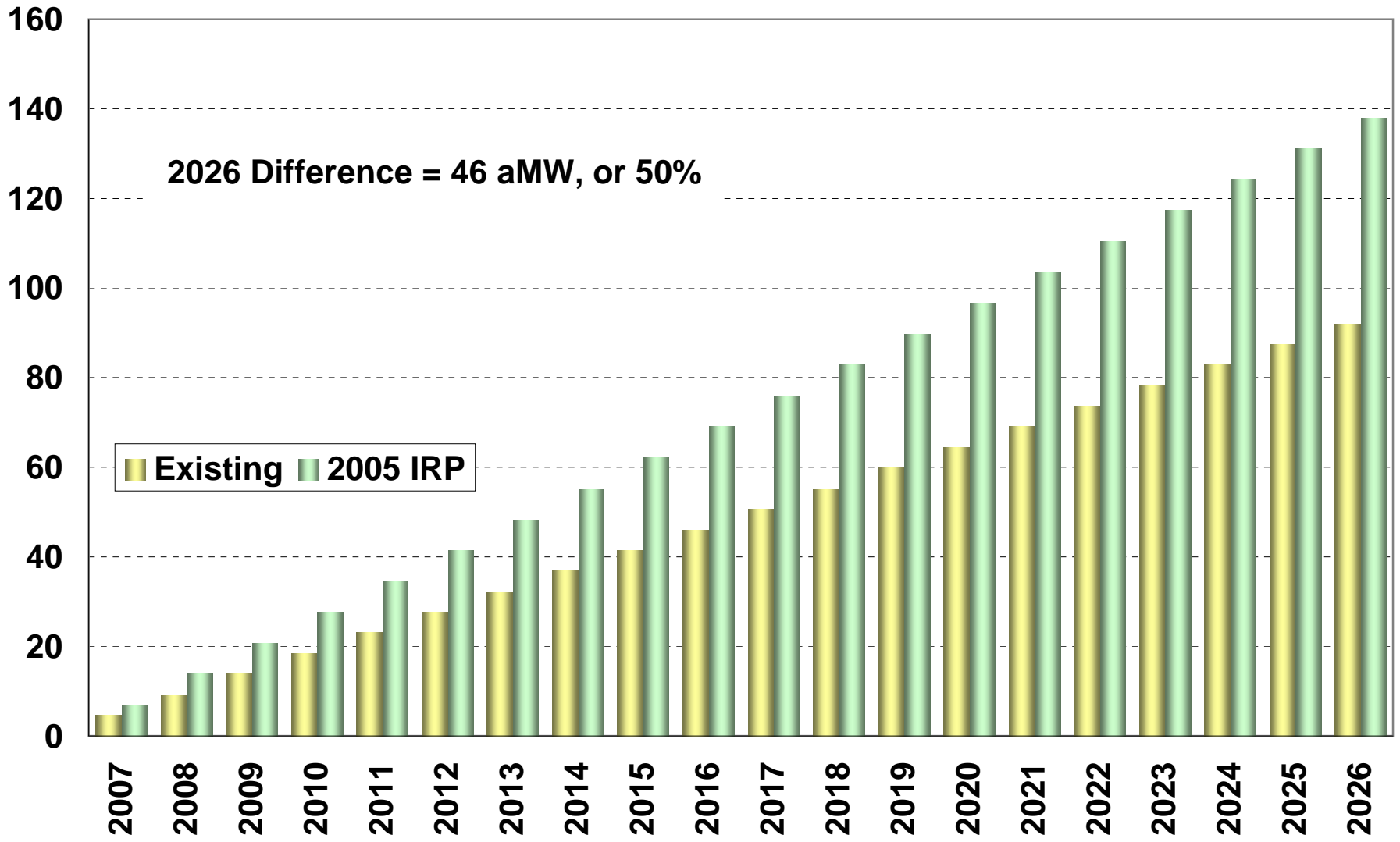
### Rate Increase 07-16



### Renewables aMW 2016



### DSM Acquisition





**Portfolio Options Summary—Base Case MC**

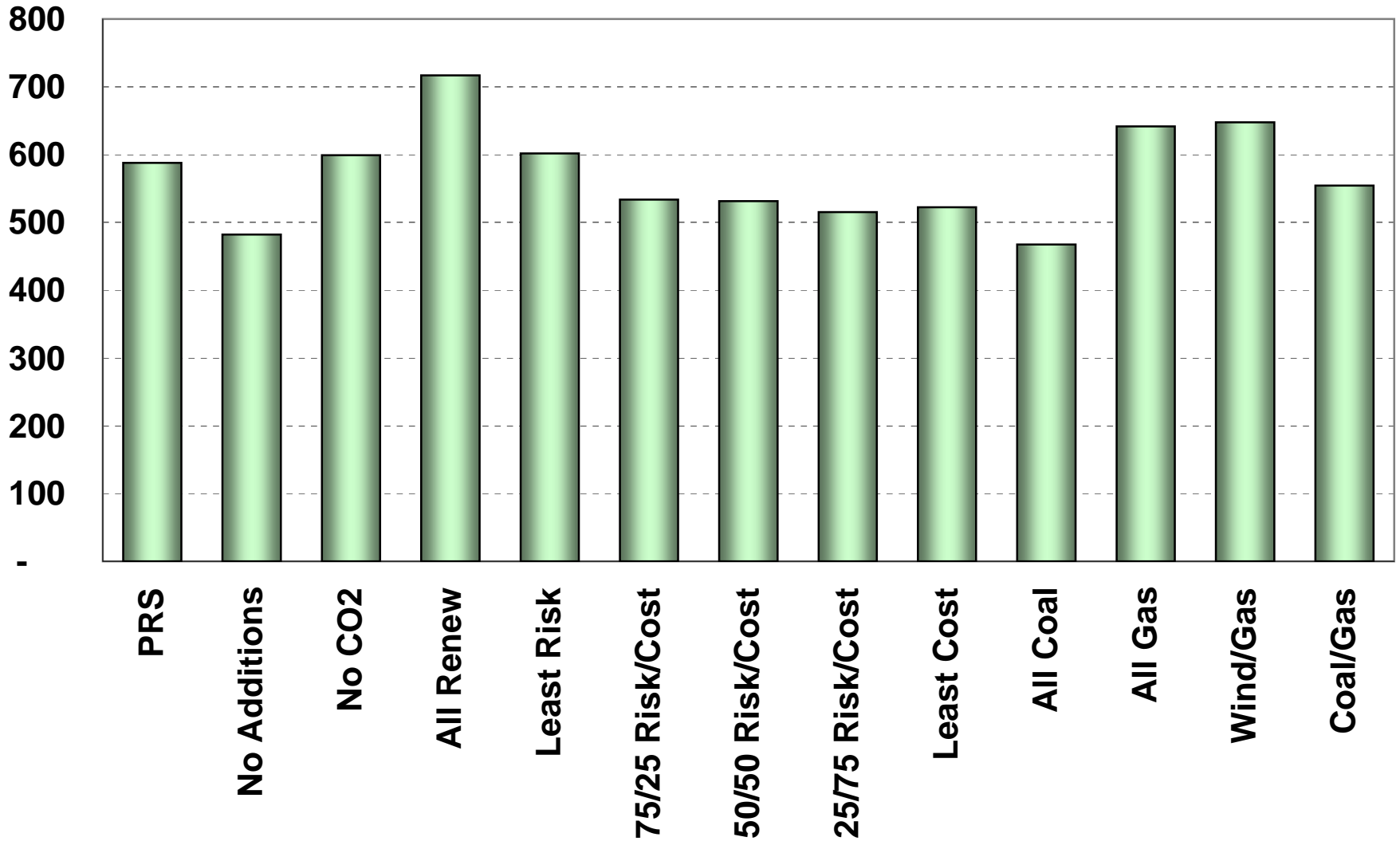
|                                  | 1     | 13               | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|----------------------------------|-------|------------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                  | PRS   | No Additio<br>ns | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| <b>Average Rate Increase</b>     |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 4.4%  | 2.7%             | 4.9%   | 5.7%      | 4.2%       | 4.1%            | 4.1%            | 4.0%            | 3.6%       | 3.6%     | 4.9%    | 5.0%     | 4.3%     |
| 2007-2026                        | 3.5%  | 3.0%             | 3.6%   | 4.1%      | 3.5%       | 3.2%            | 3.2%            | 3.1%            | 3.2%       | 2.8%     | 3.9%    | 3.9%     | 3.4%     |
| <b>Max Rate Increase</b>         |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 11.4% | 7.0%             | 15.9%  | 23.1%     | 16.3%      | 16.3%           | 16.0%           | 12.6%           | 8.2%       | 8.7%     | 13.4%   | 14.1%    | 11.1%    |
| <b>Capital NPV</b>               |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 907   | -                | 1,081  | 1,455     | 939        | 901             | 886             | 724             | 185        | 696      | 506     | 829      | 601      |
| 2007-2026                        | 1,345 | -                | 1,400  | 1,929     | 1,411      | 1,326           | 1,310           | 1,109           | 491        | 961      | 698     | 1,150    | 829      |
| <b>Capital Nominal \$</b>        |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,505 | -                | 1,864  | 2,392     | 1,466      | 1,419           | 1,397           | 1,169           | 319        | 1,146    | 832     | 1,361    | 989      |
| 2007-2026                        | 3,019 | -                | 3,067  | 4,140     | 3,251      | 3,097           | 3,075           | 2,657           | 1,420      | 2,129    | 1,546   | 2,504    | 1,838    |
| <b>Power Supply Expense</b>      |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| in 2016                          | 353   | 271              | 384    | 428       | 346        | 341             | 338             | 334             | 316        | 315      | 381     | 387      | 348      |
| in 2026                          | 586   | 503              | 607    | 701       | 583        | 535             | 533             | 520             | 537        | 476      | 654     | 650      | 565      |
| <b>Power Supply Expense NPV</b>  |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,470 | 1,244            | 1,543  | 1,693     | 1,500      | 1,480           | 1,469           | 1,430           | 1,351      | 1,382    | 1,532   | 1,565    | 1,457    |
| 2007-2026                        | 2,841 | 2,382            | 2,978  | 3,317     | 2,851      | 2,747           | 2,729           | 2,680           | 2,611      | 2,555    | 3,039   | 3,071    | 2,797    |
| <b>Risk (StDev)</b>              |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007 In 2016\$                   | 14    | -                | 14     | 14        | 15         | 15              | 15              | 13              | -          | 16       | 1       | 6        | 10       |
| 2016                             | 28    | 43               | 28     | 28        | 27         | 27              | 27              | 29              | 41         | 26       | 41      | 36       | 32       |
| 2026                             | 44    | 76               | 44     | 45        | 39         | 39              | 39              | 40              | 56         | 41       | 70      | 60       | 53       |
| <b>Risk (StDev NPV)</b>          |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 195   | 229              | 201    | 194       | 190        | 191             | 192             | 197             | 228        | 190      | 222     | 210      | 205      |
| 2007-2026                        | 300   | 402              | 308    | 301       | 289        | 292             | 293             | 303             | 373        | 291      | 383     | 348      | 331      |
| <b>Covariance (stdev/mean)</b>   |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 14.1% | 18.5%            | 14.0%  | 13.0%     | 13.6%      | 13.8%           | 13.9%           | 14.4%           | 17.1%      | 14.3%    | 15.3%   | 14.4%    | 14.7%    |
| 2007-2026 Average                | 10.9% | 16.8%            | 10.7%  | 9.8%      | 10.4%      | 10.8%           | 10.9%           | 11.4%           | 14.3%      | 11.4%    | 13.0%   | 11.7%    | 12.1%    |
| <b>95th% Max Var (NPV)</b>       |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 351   | 407              | 362    | 351       | 344        | 346             | 346             | 354             | 405        | 344      | 395     | 376      | 368      |
| 2007-2026                        | 546   | 713              | 558    | 546       | 528        | 533             | 534             | 551             | 667        | 531      | 683     | 624      | 597      |
| <b>95th% Max Var (95th/mean)</b> |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 25.5% | 32.8%            | 25.3%  | 23.5%     | 24.6%      | 24.9%           | 25.1%           | 26.0%           | 30.6%      | 25.9%    | 27.3%   | 25.8%    | 26.6%    |
| 2007-2026 Average                | 19.8% | 29.8%            | 19.4%  | 17.8%     | 19.1%      | 19.8%           | 19.9%           | 20.8%           | 25.6%      | 20.9%    | 23.2%   | 21.1%    | 21.8%    |
| <b>Build Out 2007-16 (MW)</b>    |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 250   | -                | -      | -         | 124        | 227             | 227             | 218             | 49         | 511      | -       | -        | 256      |
| CT MW                            | -     | -                | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -                | -      | -         | 2          | 2               | -               | -               | -          | -        | 511     | 411      | 256      |
| Wind MW                          | 400   | -                | 650    | 980       | 400        | 400             | 400             | 275             | -          | -        | -       | 400      | -        |
| Renews MW                        | 80    | -                | 100    | 228       | 183        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -                | 175    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -                | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -                | -      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -                | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total MW                         | 755   | -                | 949    | 1,208     | 761        | 761             | 761             | 668             | 461        | 511      | 511     | 811      | 511      |
| <b>Build Out 2007-26 (MW)</b>    |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 450   | -                | -      | -         | 296        | 598             | 598             | 620             | 436        | 853      | -       | -        | 427      |
| CT MW                            | -     | -                | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -                | -      | -         | 2          | 2               | -               | -               | -          | -        | 853     | 691      | 427      |
| Wind MW                          | 650   | -                | 650    | 1,330     | 650        | 650             | 650             | 400             | -          | -        | -       | 650      | -        |
| Renews MW                        | 180   | -                | 180    | 483       | 383        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -                | 475    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -                | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -                | 5      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -                | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |

**Portfolio Options Summary—Base Case MC**

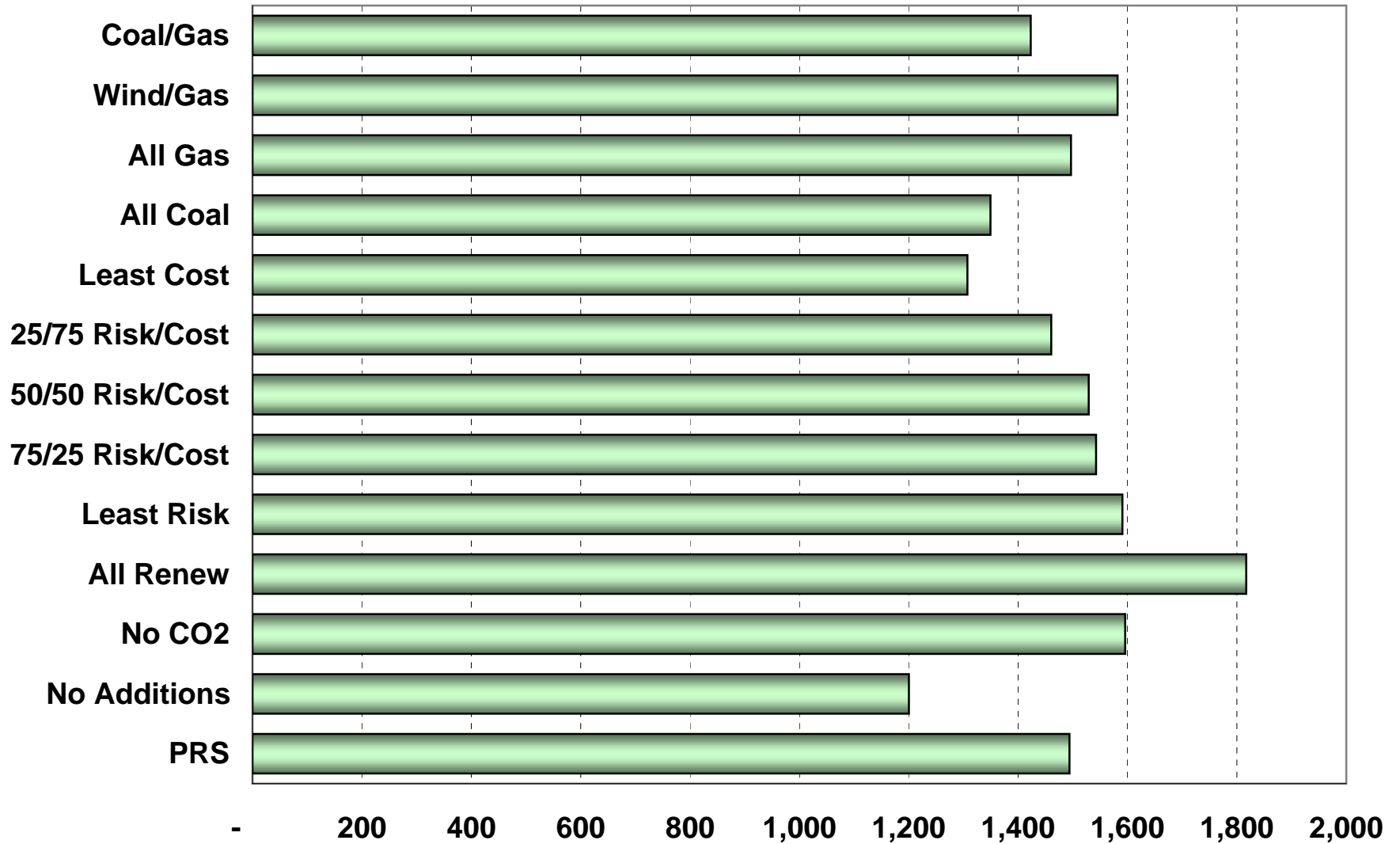
|                                | 1          | 13           | 2          | 3          | 4          | 5               | 6               | 7               | 8          | 9          | 10         | 12         | 11         |
|--------------------------------|------------|--------------|------------|------------|------------|-----------------|-----------------|-----------------|------------|------------|------------|------------|------------|
|                                | PRS        | No Additions | No CO2     | All Renew  | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal   | All Gas    | Wind/Gas   | Coal/Gas   |
| <b>Total MW</b>                | 1,305      | -            | 1,291      | 1,813      | 1,341      | 1,341           | 1,341           | 1,153           | 803        | 853        | 853        | 1,341      | 853        |
| <b>Build Out 2007-16 (aMW)</b> |            |              |            |            |            |                 |                 |                 |            |            |            |            |            |
| Coal aMW                       | 215        | -            | -          | -          | 107        | 195             | 195             | 187             | 42         | 441        | -          | -          | 220        |
| CT aMW                         | -          | -            | -          | -          | -          | -               | 11              | 46              | 319        | -          | -          | -          | -          |
| CCCT aMW                       | -          | -            | -          | -          | 2          | 2               | -               | -               | -          | -          | 461        | 371        | 231        |
| Wind aMW                       | 122        | -            | 188        | 285        | 122        | 122             | 122             | 81              | -          | -          | -          | 122        | -          |
| Renews aMW                     | 65         | -            | 81         | 190        | 158        | 68              | 60              | 60              | -          | -          | -          | -          | -          |
| Nuclear aMW                    | -          | -            | 147        | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| OilSands aMW                   | -          | -            | -          | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| Cogen aMW                      | -          | -            | -          | -          | 9          | 9               | 9               | 9               | -          | -          | -          | -          | -          |
| Market aMW                     | 25         | -            | 24         | -          | 42         | 42              | 42              | 42              | 45         | -          | -          | -          | -          |
| <b>Total aMW</b>               | <b>427</b> | <b>-</b>     | <b>440</b> | <b>474</b> | <b>440</b> | <b>439</b>      | <b>439</b>      | <b>425</b>      | <b>406</b> | <b>441</b> | <b>461</b> | <b>493</b> | <b>451</b> |
| <b>Build Out 2007-26 (aMW)</b> |            |              |            |            |            |                 |                 |                 |            |            |            |            |            |
| Coal aMW                       | 388        | -            | -          | -          | 255        | 515             | 515             | 534             | 376        | 735        | -          | -          | 368        |
| CT aMW                         | -          | -            | -          | -          | -          | -               | 11              | 46              | 319        | -          | -          | -          | -          |
| CCCT aMW                       | -          | -            | -          | -          | 2          | 2               | -               | -               | -          | -          | 770        | 623        | 385        |
| Wind aMW                       | 188        | -            | 188        | 386        | 188        | 188             | 188             | 122             | -          | -          | -          | 188        | -          |
| Renews aMW                     | 145        | -            | 145        | 402        | 333        | 68              | 60              | 60              | -          | -          | -          | -          | -          |
| Nuclear aMW                    | -          | -            | 399        | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| OilSands aMW                   | -          | -            | -          | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| Cogen aMW                      | -          | -            | 4          | -          | 9          | 9               | 9               | 9               | -          | -          | -          | -          | -          |
| Market aMW                     | 25         | -            | (20)       | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| <b>Total aMW</b>               | <b>746</b> | <b>-</b>     | <b>717</b> | <b>788</b> | <b>786</b> | <b>783</b>      | <b>783</b>      | <b>771</b>      | <b>694</b> | <b>735</b> | <b>770</b> | <b>811</b> | <b>752</b> |

## **Base Case MC, No PTC**

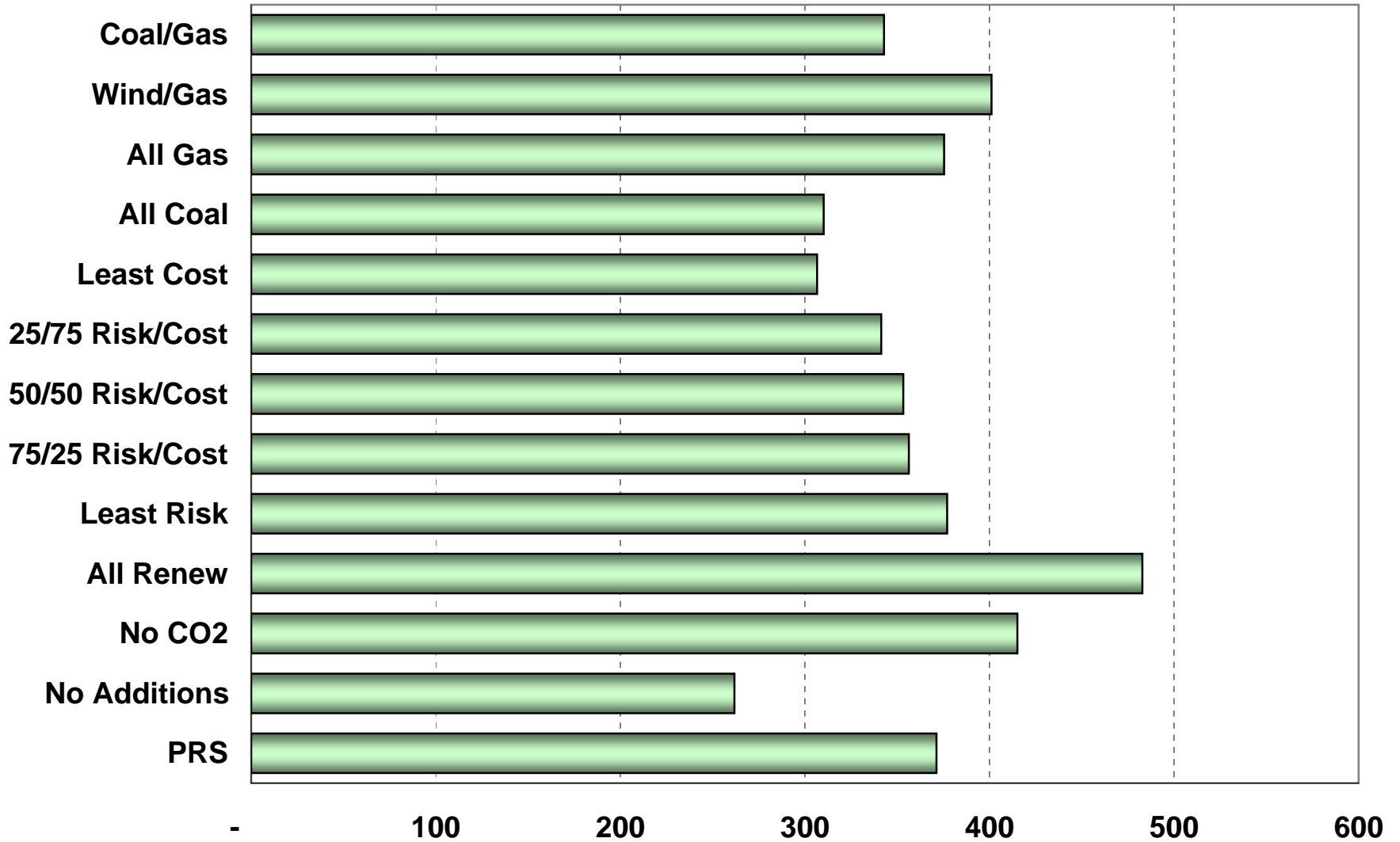
# PSE 2026



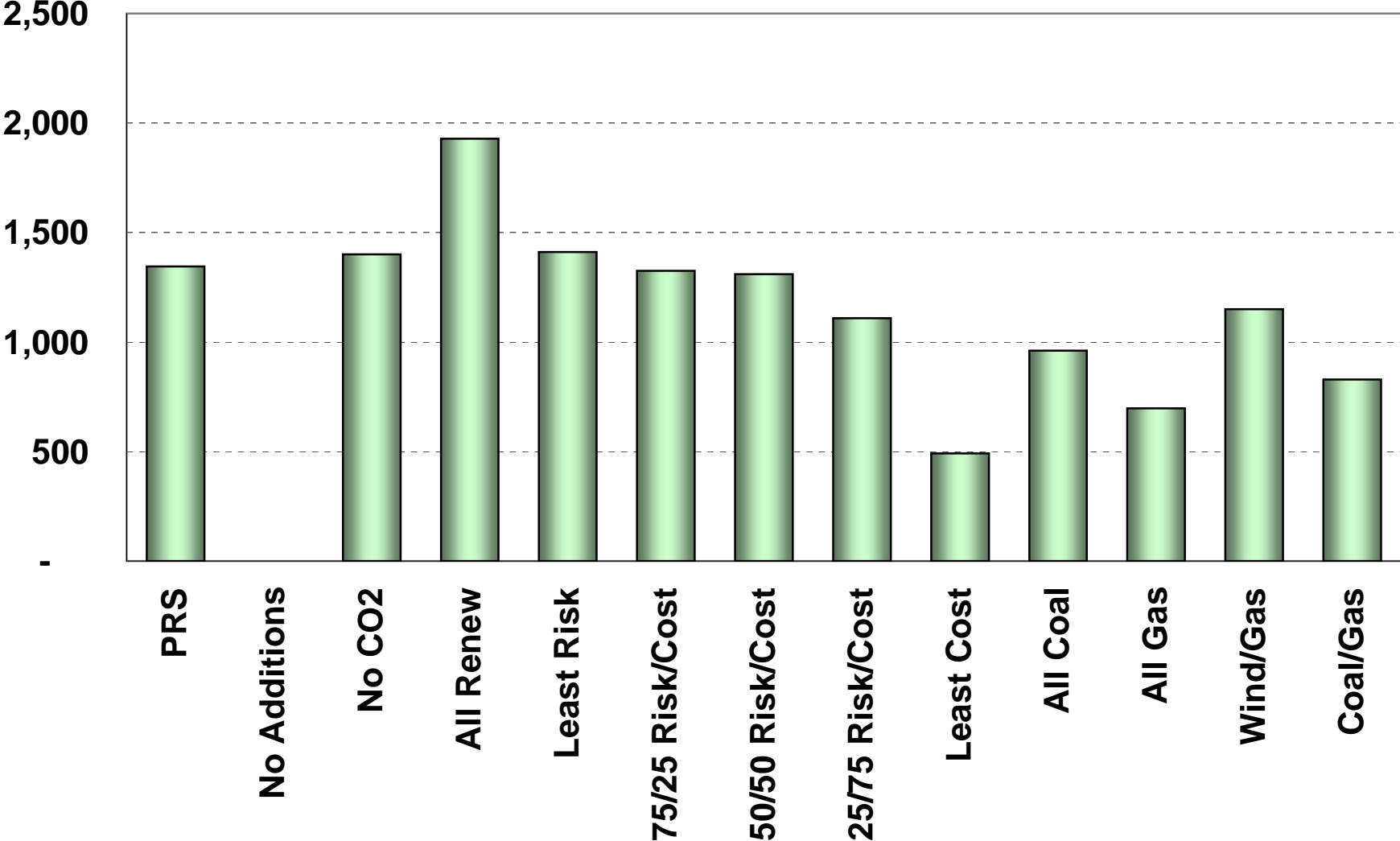
### PSE 07-16 NPV



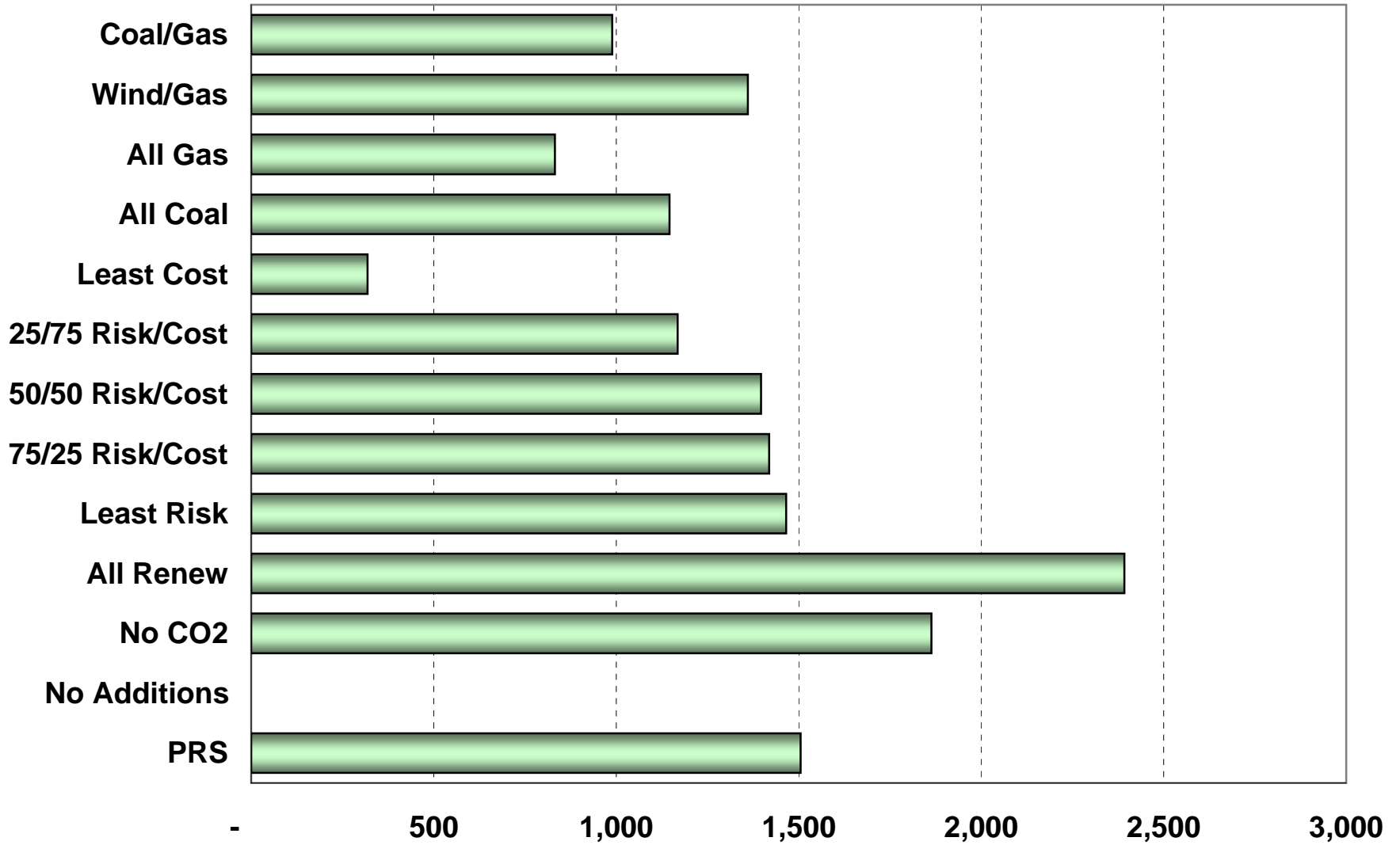
# PSE 2016



Capital NPV 07-26

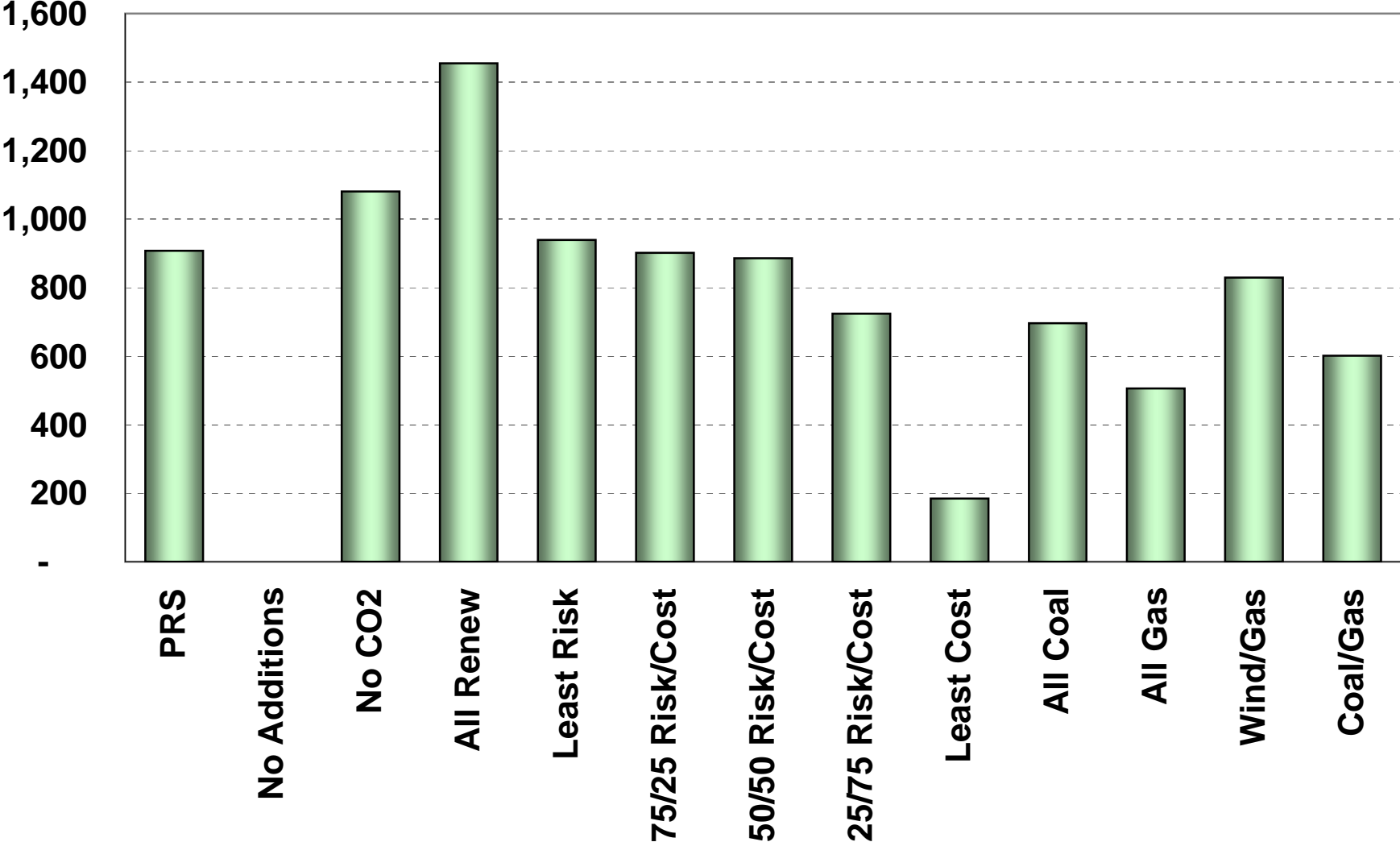


### Capital Nominal 07-16

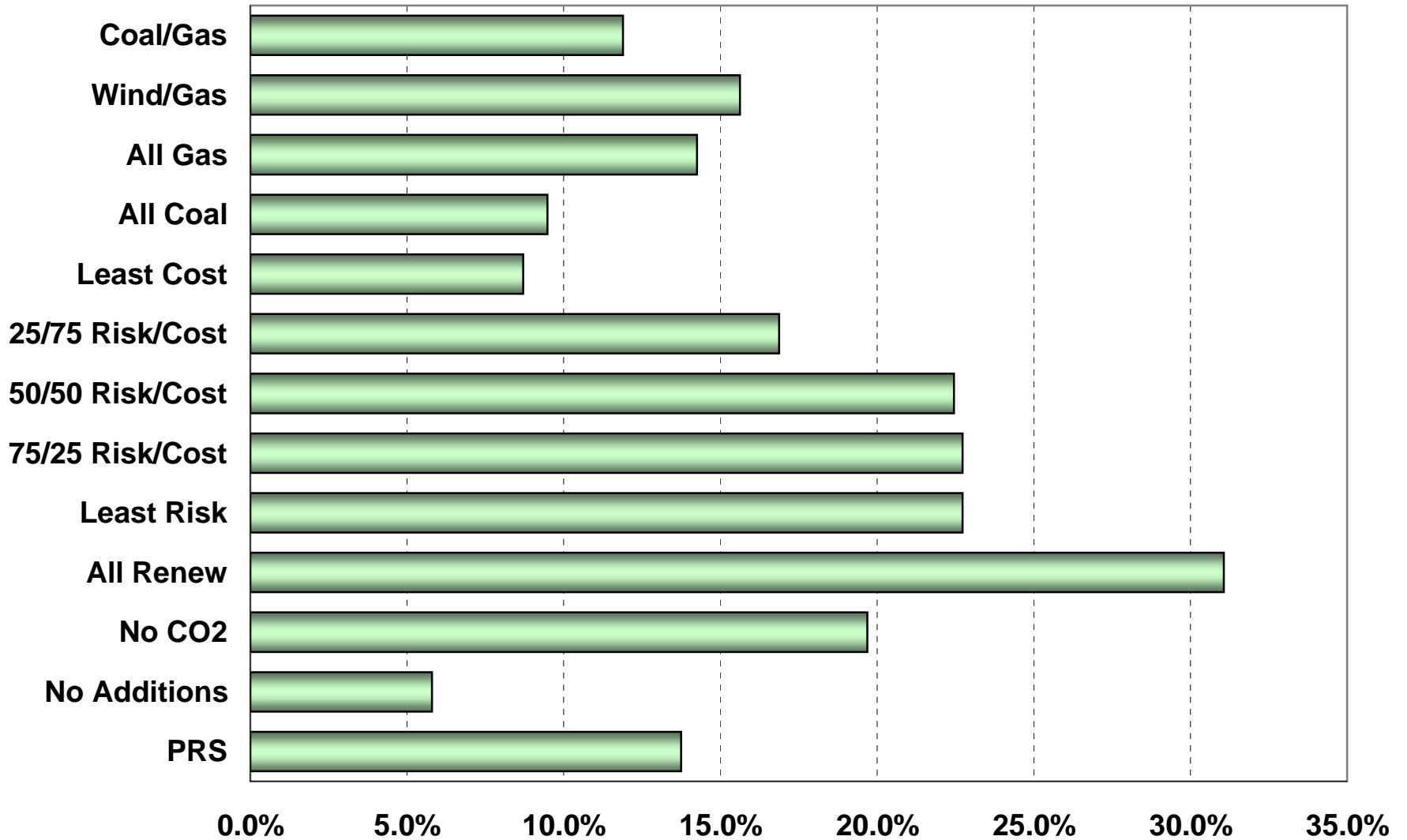




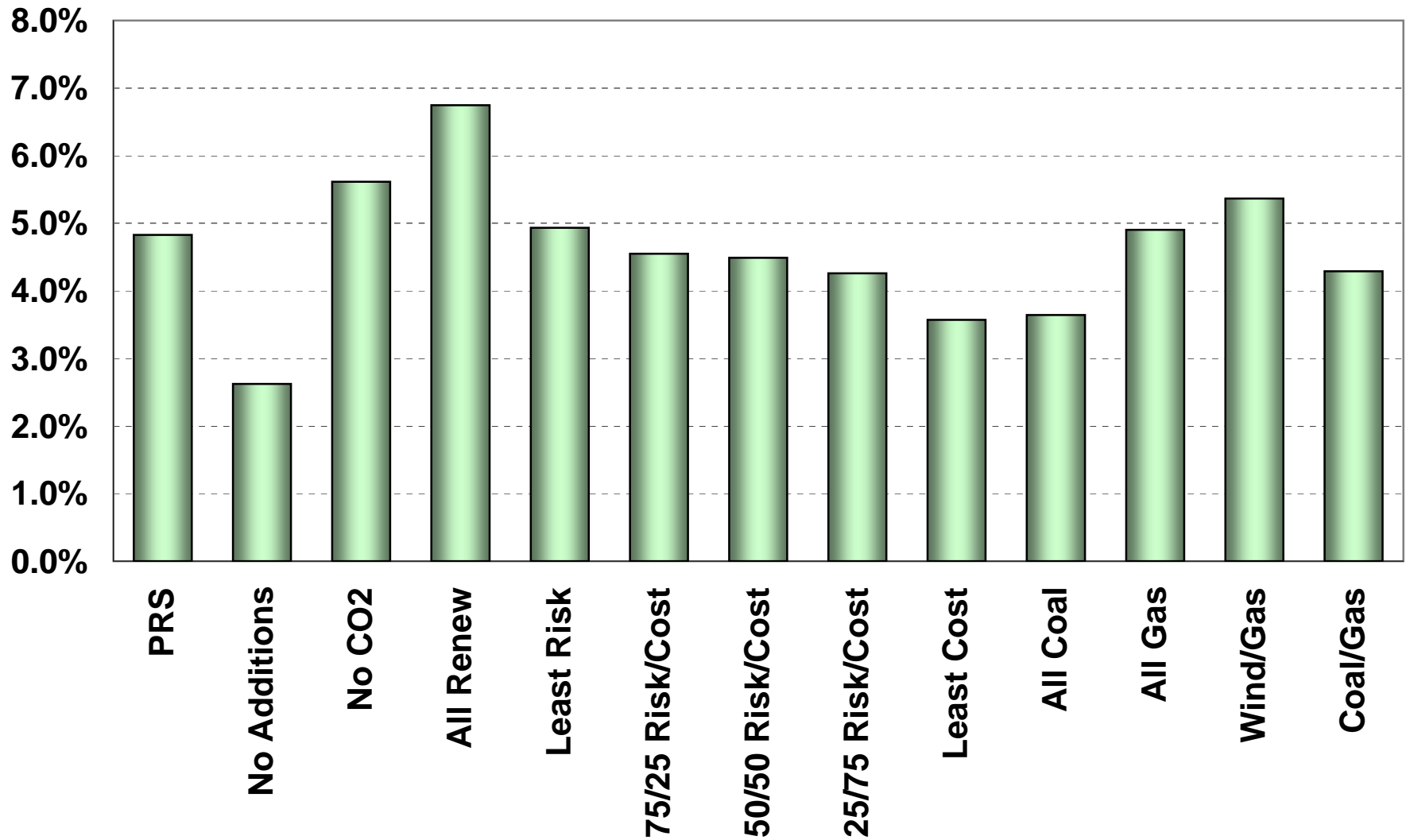
Capital NPV 07-16



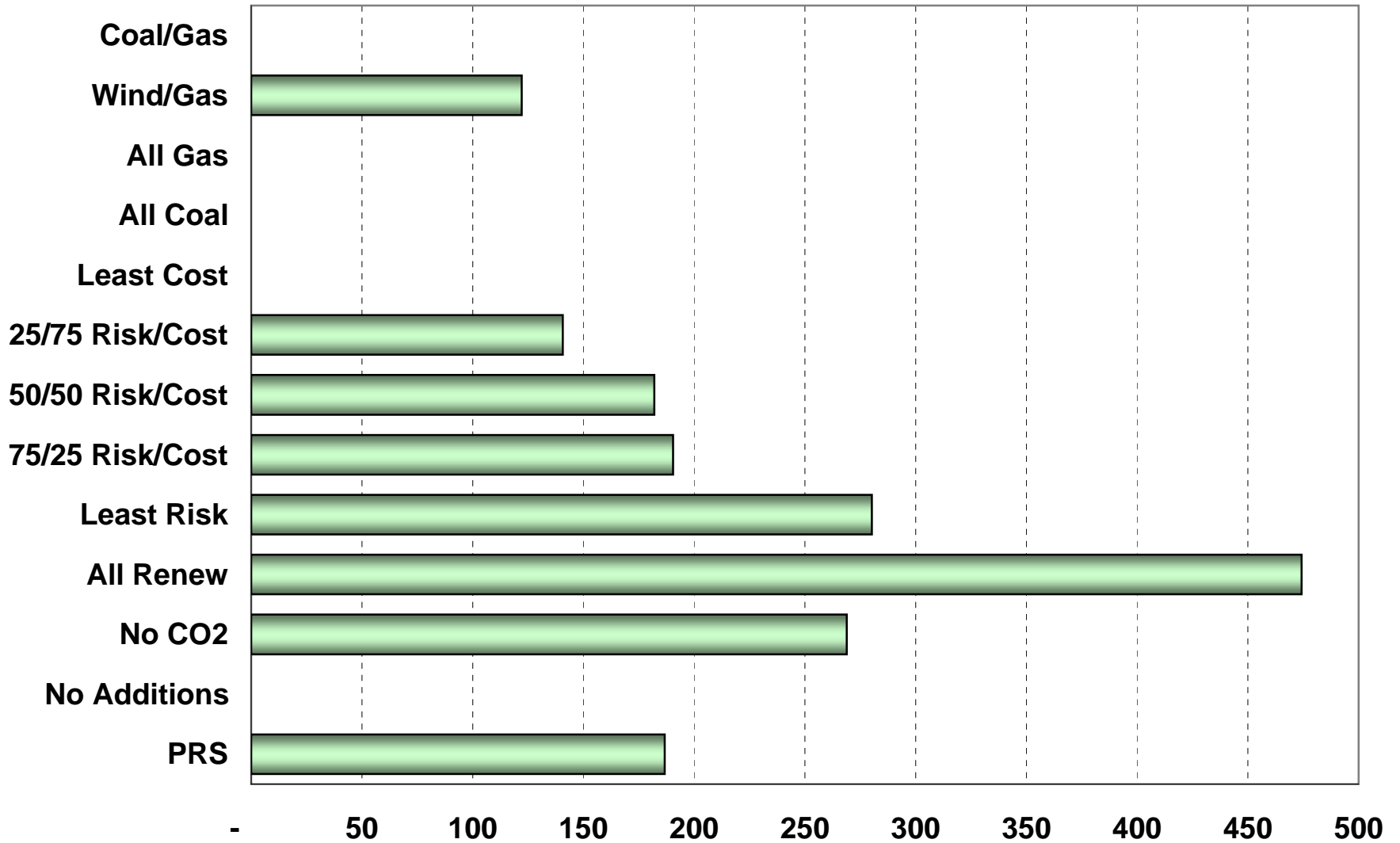
### Max Rate Increase



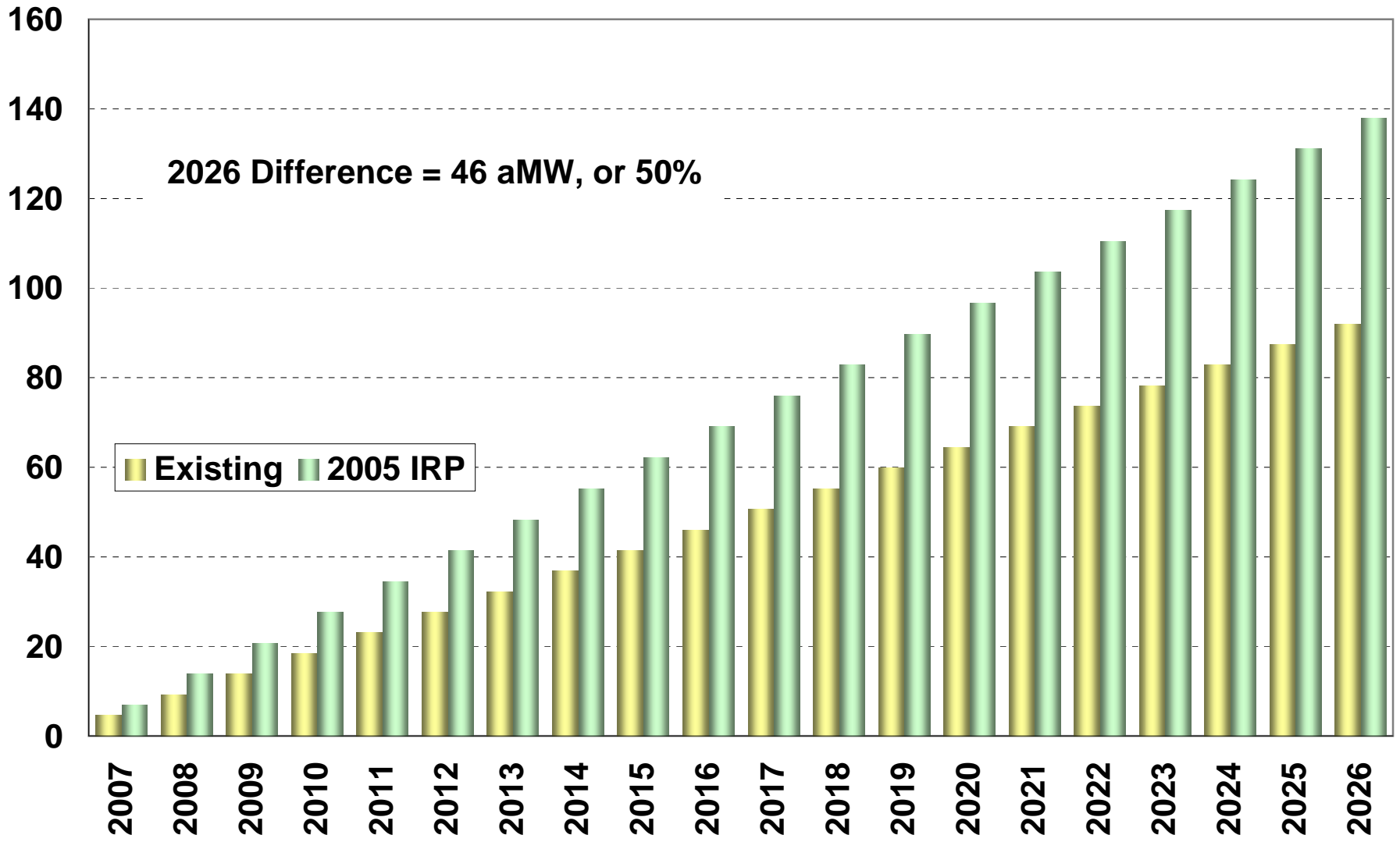
### Rate Increase 07-16



### Renewables aMW 2016



# DSM Acquisition



**Portfolio Options Summary—Base Case MC, No PTC**

|                                  | 1     | 13           | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|----------------------------------|-------|--------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                  | PRS   | No Additions | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| <b>Average Rate Increase</b>     |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 4.8%  | 2.6%         | 5.6%   | 6.7%      | 4.9%       | 4.5%            | 4.5%            | 4.3%            | 3.6%       | 3.6%     | 4.9%    | 5.4%     | 4.3%     |
| 2007-2026                        | 3.6%  | 2.9%         | 3.6%   | 4.3%      | 3.7%       | 3.2%            | 3.2%            | 3.1%            | 3.2%       | 2.8%     | 3.9%    | 3.9%     | 3.4%     |
| <b>Max Rate Increase</b>         |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 13.7% | 5.8%         | 19.7%  | 31.1%     | 22.7%      | 22.7%           | 22.5%           | 16.9%           | 8.7%       | 9.5%     | 14.3%   | 15.6%    | 11.9%    |
| <b>Capital NPV</b>               |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 907   | -            | 1,081  | 1,455     | 939        | 901             | 886             | 724             | 185        | 696      | 506     | 829      | 601      |
| 2007-2026                        | 1,345 | -            | 1,400  | 1,929     | 1,411      | 1,326           | 1,310           | 1,109           | 491        | 961      | 698     | 1,150    | 829      |
| <b>Capital Nominal \$</b>        |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,505 | -            | 1,864  | 2,392     | 1,466      | 1,419           | 1,397           | 1,169           | 319        | 1,146    | 832     | 1,361    | 989      |
| 2007-2026                        | 3,019 | -            | 3,067  | 4,140     | 3,251      | 3,097           | 3,075           | 2,657           | 1,420      | 2,129    | 1,546   | 2,504    | 1,838    |
| <b>Power Supply Expense</b>      |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| in 2016                          | 371   | 262          | 415    | 483       | 377        | 356             | 353             | 341             | 307        | 310      | 375     | 401      | 343      |
| in 2026                          | 588   | 482          | 599    | 717       | 602        | 534             | 531             | 515             | 522        | 467      | 642     | 648      | 554      |
| <b>Power Supply Expense NPV</b>  |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,494 | 1,200        | 1,596  | 1,817     | 1,590      | 1,542           | 1,529           | 1,460           | 1,307      | 1,349    | 1,497   | 1,582    | 1,423    |
| 2007-2026                        | 2,899 | 2,291        | 3,070  | 3,545     | 2,994      | 2,818           | 2,796           | 2,705           | 2,527      | 2,496    | 2,974   | 3,111    | 2,735    |
| <b>Risk (StDev)</b>              |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007 In 2016\$                   | -     | -            | (0)    | (0)       | (0)        | (0)             | -               | -               | -          | -        | (0)     | -        | -        |
| 2016                             | -     | -            | 0      | 0         | 0          | 0               | -               | -               | -          | -        | 0       | -        | -        |
| 2026                             | -     | 0            | 0      | 0         | -          | 0               | 0               | -               | 0          | -        | 0       | 0        | -        |
| <b>Risk (StDev NPV)</b>          |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 0     | 0            | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| 2007-2026                        | 0     | 0            | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| <b>Covariance (stdev/mean)</b>   |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>95th% Max Var (NPV)</b>       |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 0     | 0            | (0)    | 0         | 0          | (0)             | (0)             | 0               | (0)        | (0)      | (0)     | (0)      | (0)      |
| 2007-2026                        | 0     | (0)          | (0)    | (0)       | 0          | (0)             | (0)             | (0)             | (0)        | (0)      | (0)     | 0        | (0)      |
| <b>95th% Max Var (95th/mean)</b> |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>Build Out 2007-16 (MW)</b>    |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 250   | -            | -      | -         | 124        | 227             | 227             | 218             | 49         | 511      | -       | -        | 256      |
| CT MW                            | -     | -            | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 511     | 411      | 256      |
| Wind MW                          | 400   | -            | 650    | 980       | 400        | 400             | 400             | 275             | -          | -        | -       | 400      | -        |
| Renews MW                        | 80    | -            | 100    | 228       | 183        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -            | 175    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -            | -      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -            | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total MW                         | 755   | -            | 949    | 1,208     | 761        | 761             | 761             | 668             | 461        | 511      | 511     | 811      | 511      |
| <b>Build Out 2007-26 (MW)</b>    |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 450   | -            | -      | -         | 296        | 598             | 598             | 620             | 436        | 853      | -       | -        | 427      |
| CT MW                            | -     | -            | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 853     | 691      | 427      |
| Wind MW                          | 650   | -            | 650    | 1,330     | 650        | 650             | 650             | 400             | -          | -        | -       | 650      | -        |
| Renews MW                        | 180   | -            | 180    | 483       | 383        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -            | 475    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -            | 5      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -            | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |

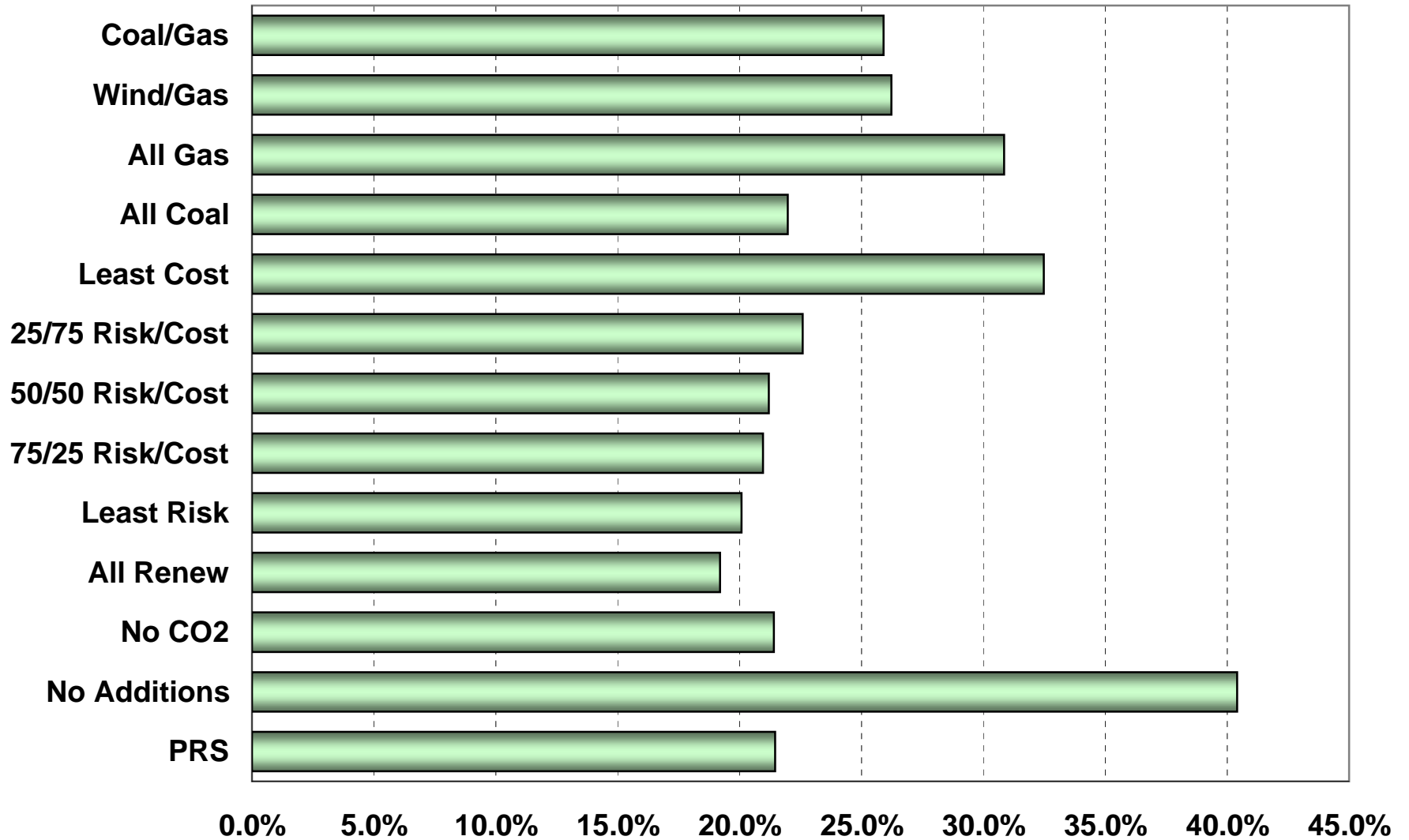
**Portfolio Options Summary—Base Case MC, No PTC**

|                                | 1          | 13           | 2          | 3          | 4          | 5               | 6               | 7               | 8          | 9          | 10         | 12         | 11         |
|--------------------------------|------------|--------------|------------|------------|------------|-----------------|-----------------|-----------------|------------|------------|------------|------------|------------|
|                                | PRS        | No Additions | No CO2     | All Renew  | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal   | All Gas    | Wind/Gas   | Coal/Gas   |
| <b>Total MW</b>                | 1,305      | -            | 1,291      | 1,813      | 1,341      | 1,341           | 1,341           | 1,153           | 803        | 853        | 853        | 1,341      | 853        |
| <b>Build Out 2007-16 (aMW)</b> |            |              |            |            |            |                 |                 |                 |            |            |            |            |            |
| Coal aMW                       | 215        | -            | -          | -          | 107        | 195             | 195             | 187             | 42         | 441        | -          | -          | 220        |
| CT aMW                         | -          | -            | -          | -          | -          | -               | 11              | 46              | 319        | -          | -          | -          | -          |
| CCCT aMW                       | -          | -            | -          | -          | 2          | 2               | -               | -               | -          | -          | 461        | 371        | 231        |
| Wind aMW                       | 122        | -            | 188        | 285        | 122        | 122             | 122             | 81              | -          | -          | -          | 122        | -          |
| Renews aMW                     | 65         | -            | 81         | 190        | 158        | 68              | 60              | 60              | -          | -          | -          | -          | -          |
| Nuclear aMW                    | -          | -            | 147        | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| OilSands aMW                   | -          | -            | -          | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| Cogen aMW                      | -          | -            | -          | -          | 9          | 9               | 9               | 9               | -          | -          | -          | -          | -          |
| Market aMW                     | 25         | -            | 24         | -          | 42         | 42              | 42              | 42              | 45         | -          | -          | -          | -          |
| <b>Total aMW</b>               | <b>427</b> | <b>-</b>     | <b>440</b> | <b>474</b> | <b>440</b> | <b>439</b>      | <b>439</b>      | <b>425</b>      | <b>406</b> | <b>441</b> | <b>461</b> | <b>493</b> | <b>451</b> |
| <b>Build Out 2007-26 (aMW)</b> |            |              |            |            |            |                 |                 |                 |            |            |            |            |            |
| Coal aMW                       | 388        | -            | -          | -          | 255        | 515             | 515             | 534             | 376        | 735        | -          | -          | 368        |
| CT aMW                         | -          | -            | -          | -          | -          | -               | 11              | 46              | 319        | -          | -          | -          | -          |
| CCCT aMW                       | -          | -            | -          | -          | 2          | 2               | -               | -               | -          | -          | 770        | 623        | 385        |
| Wind aMW                       | 188        | -            | 188        | 386        | 188        | 188             | 188             | 122             | -          | -          | -          | 188        | -          |
| Renews aMW                     | 145        | -            | 145        | 402        | 333        | 68              | 60              | 60              | -          | -          | -          | -          | -          |
| Nuclear aMW                    | -          | -            | 399        | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| OilSands aMW                   | -          | -            | -          | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| Cogen aMW                      | -          | -            | 4          | -          | 9          | 9               | 9               | 9               | -          | -          | -          | -          | -          |
| Market aMW                     | 25         | -            | (20)       | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| <b>Total aMW</b>               | <b>746</b> | <b>-</b>     | <b>717</b> | <b>788</b> | <b>786</b> | <b>783</b>      | <b>783</b>      | <b>771</b>      | <b>694</b> | <b>735</b> | <b>770</b> | <b>811</b> | <b>752</b> |

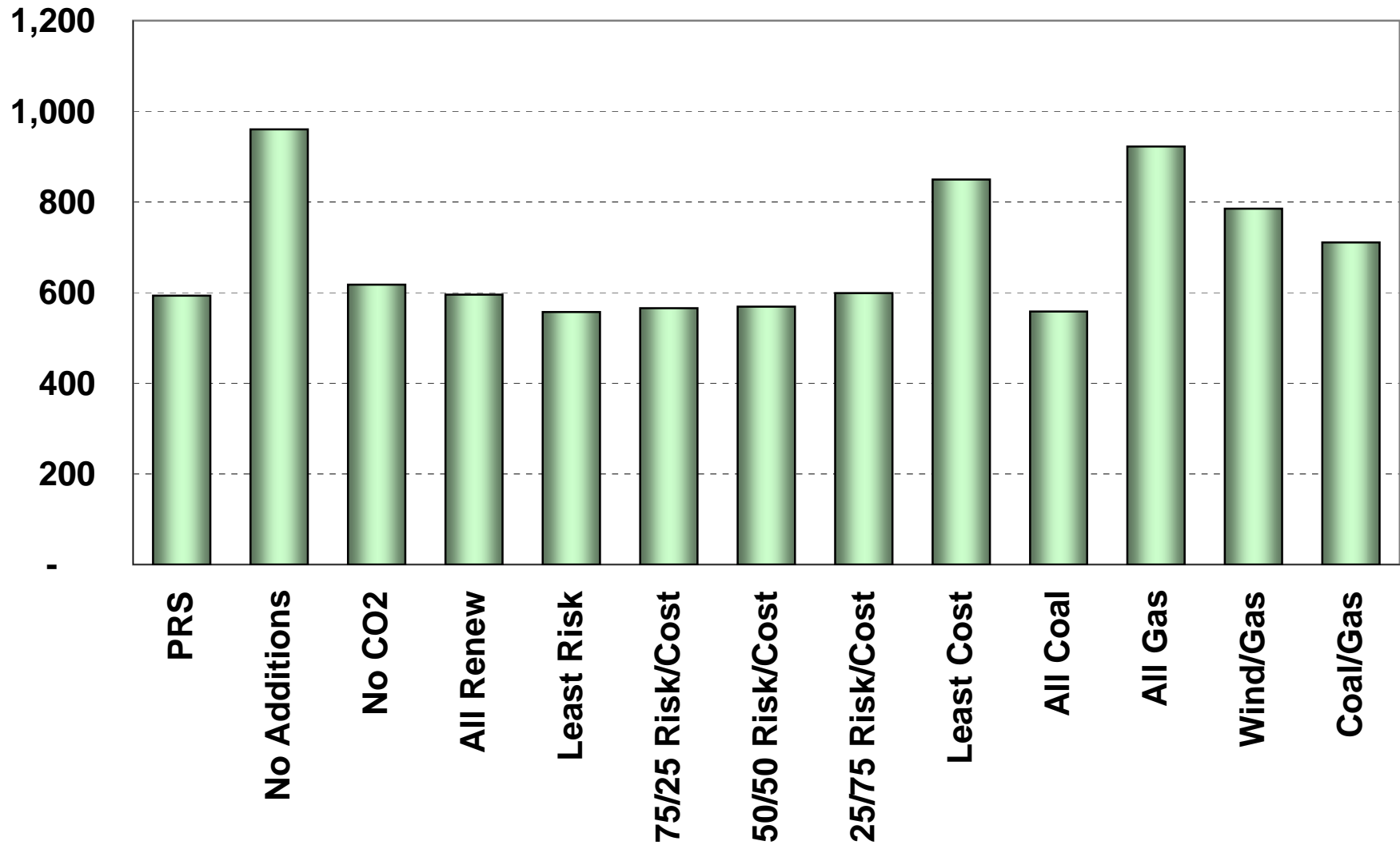
# **Volatile Gas**



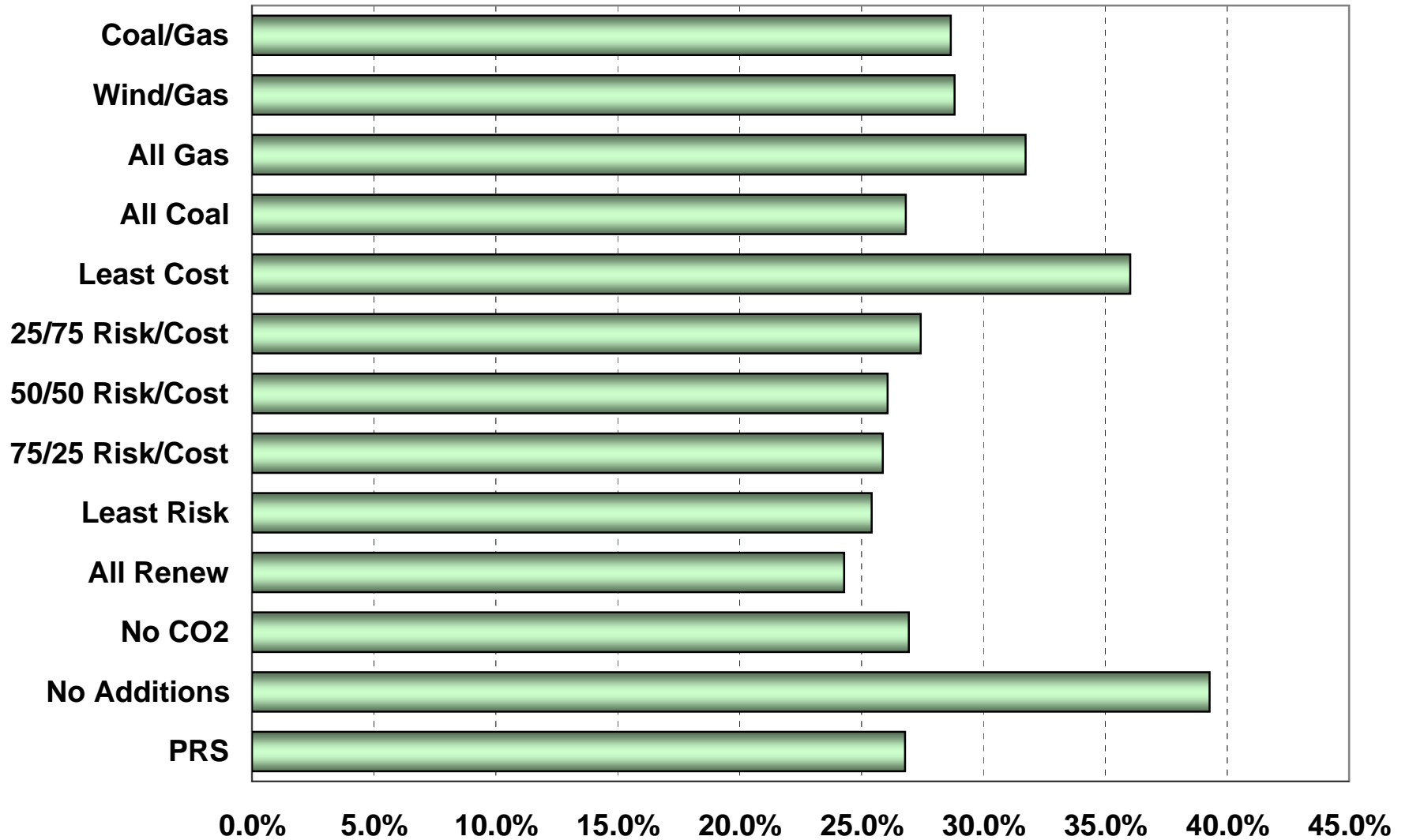
95th % Var Avg 07-26



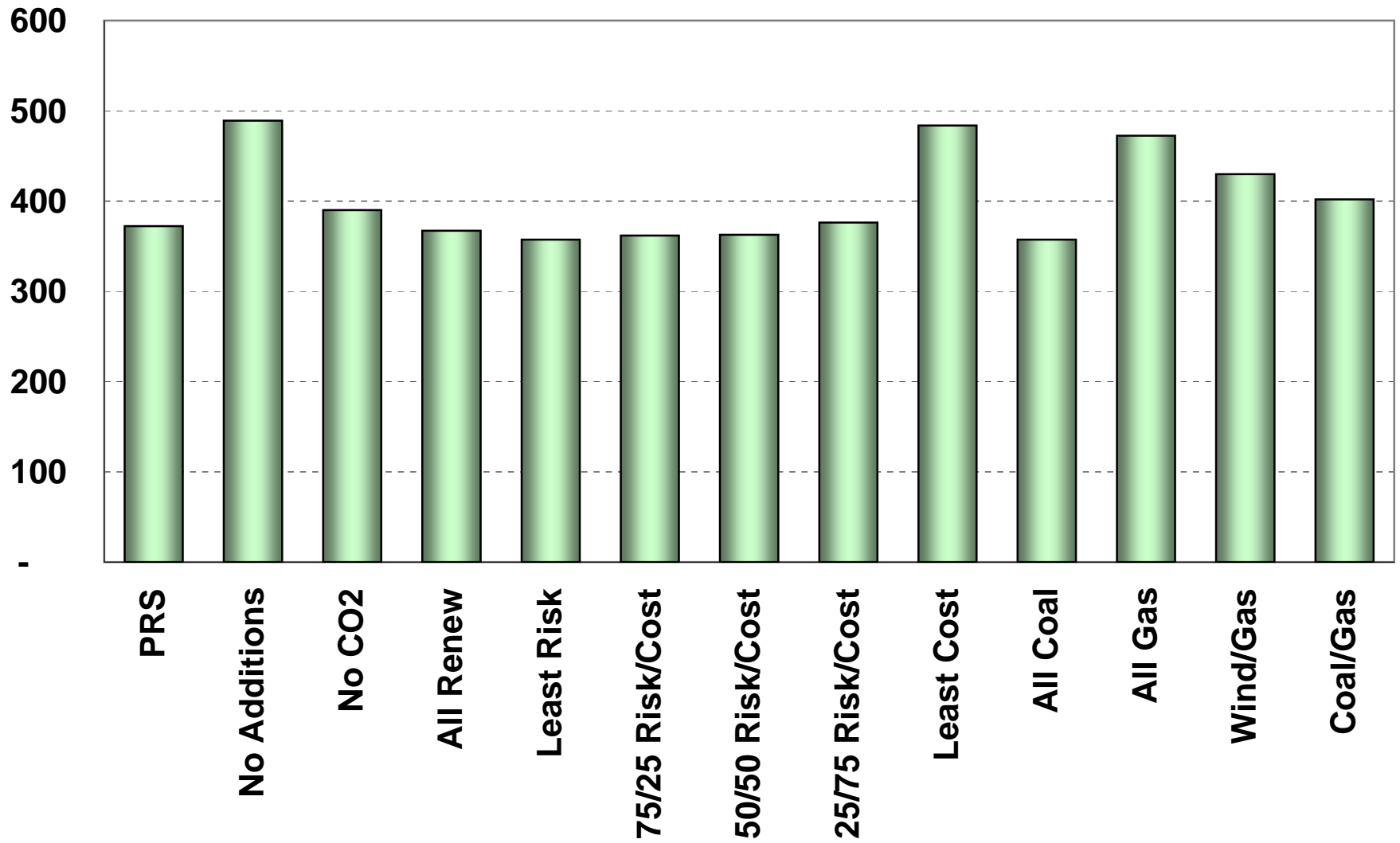
### 95th Var NPV 07-26



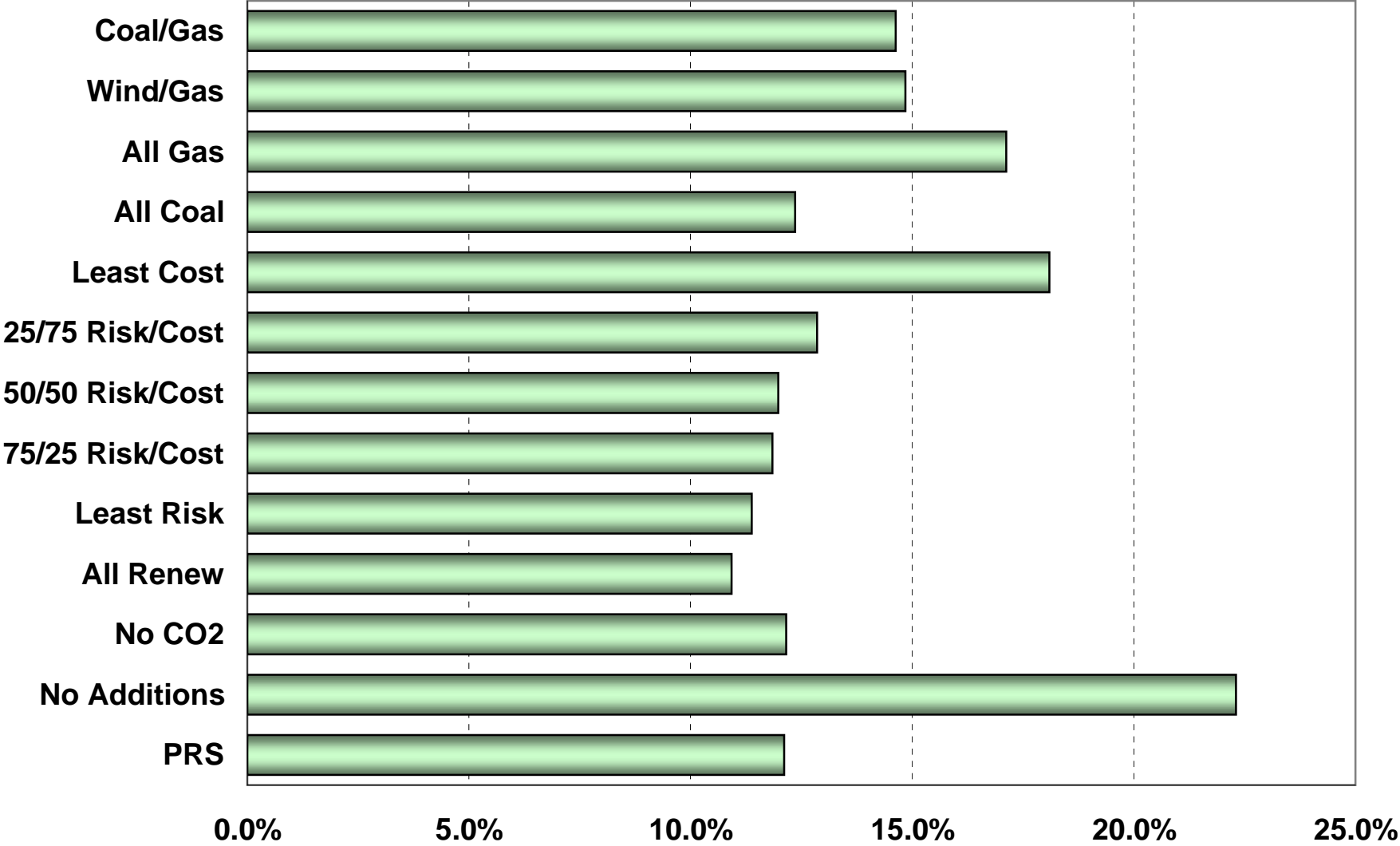
95th % Var Avg 07-16



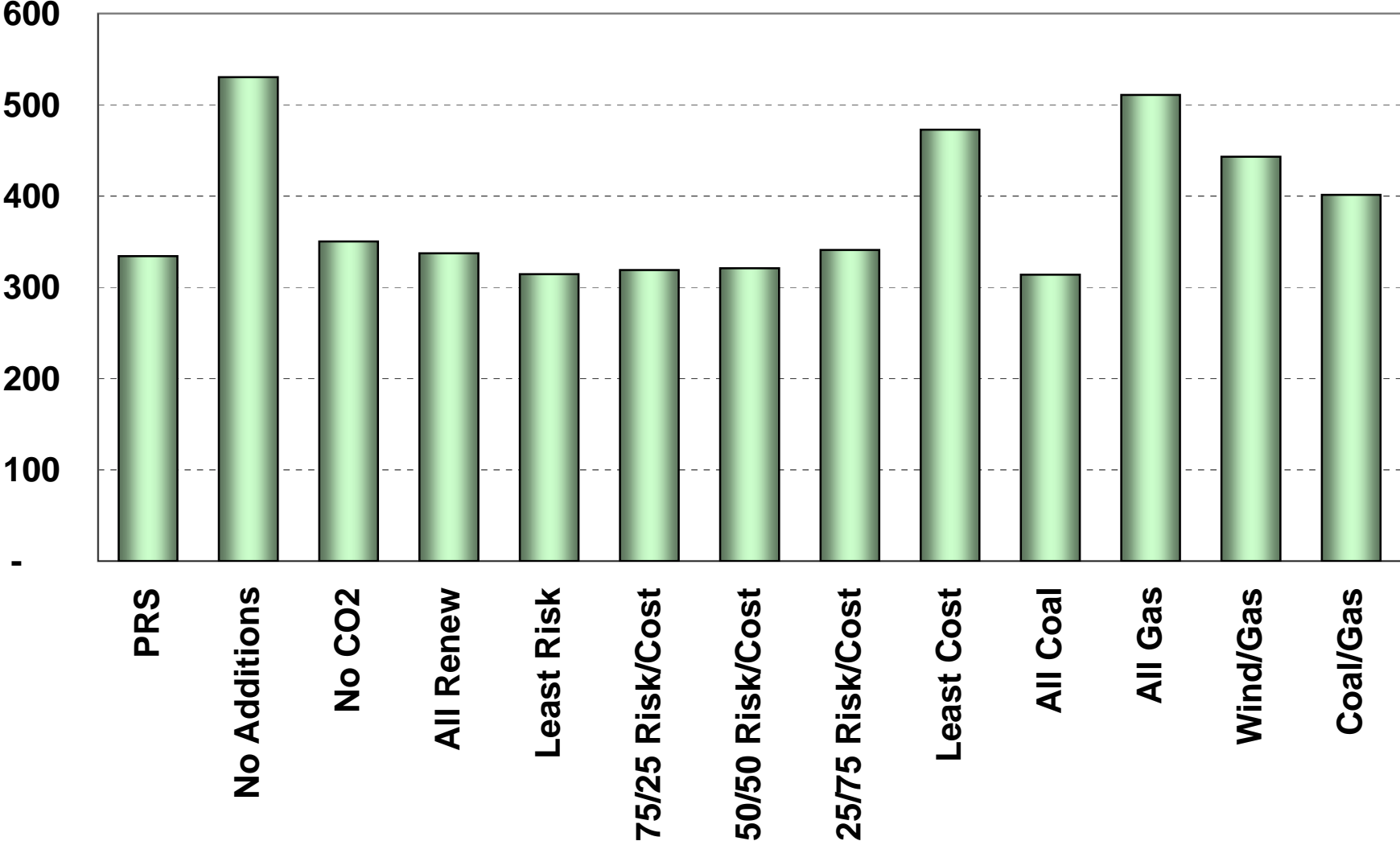
### 95th Var NPV 07-16



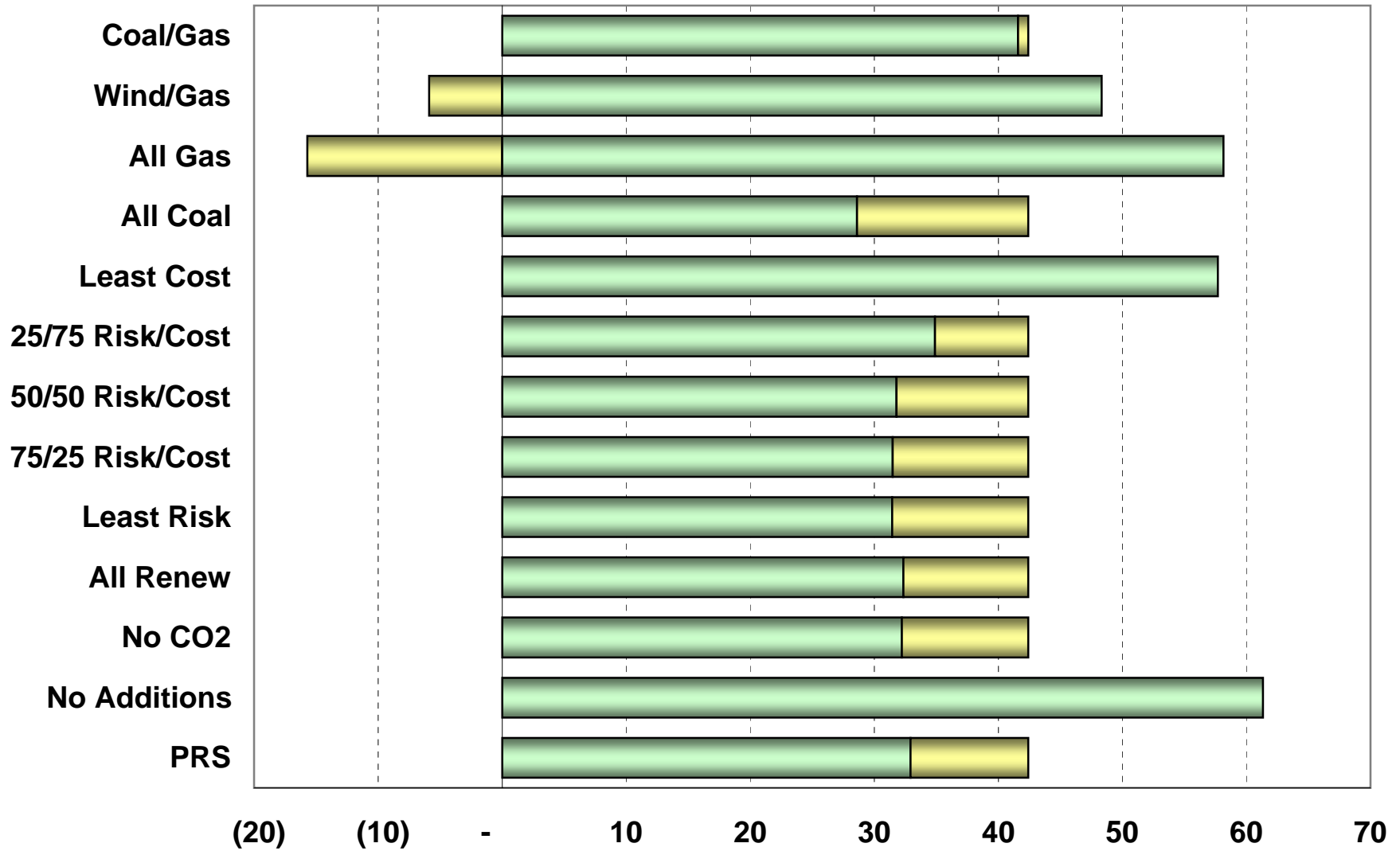
**Risk COV 07-26**



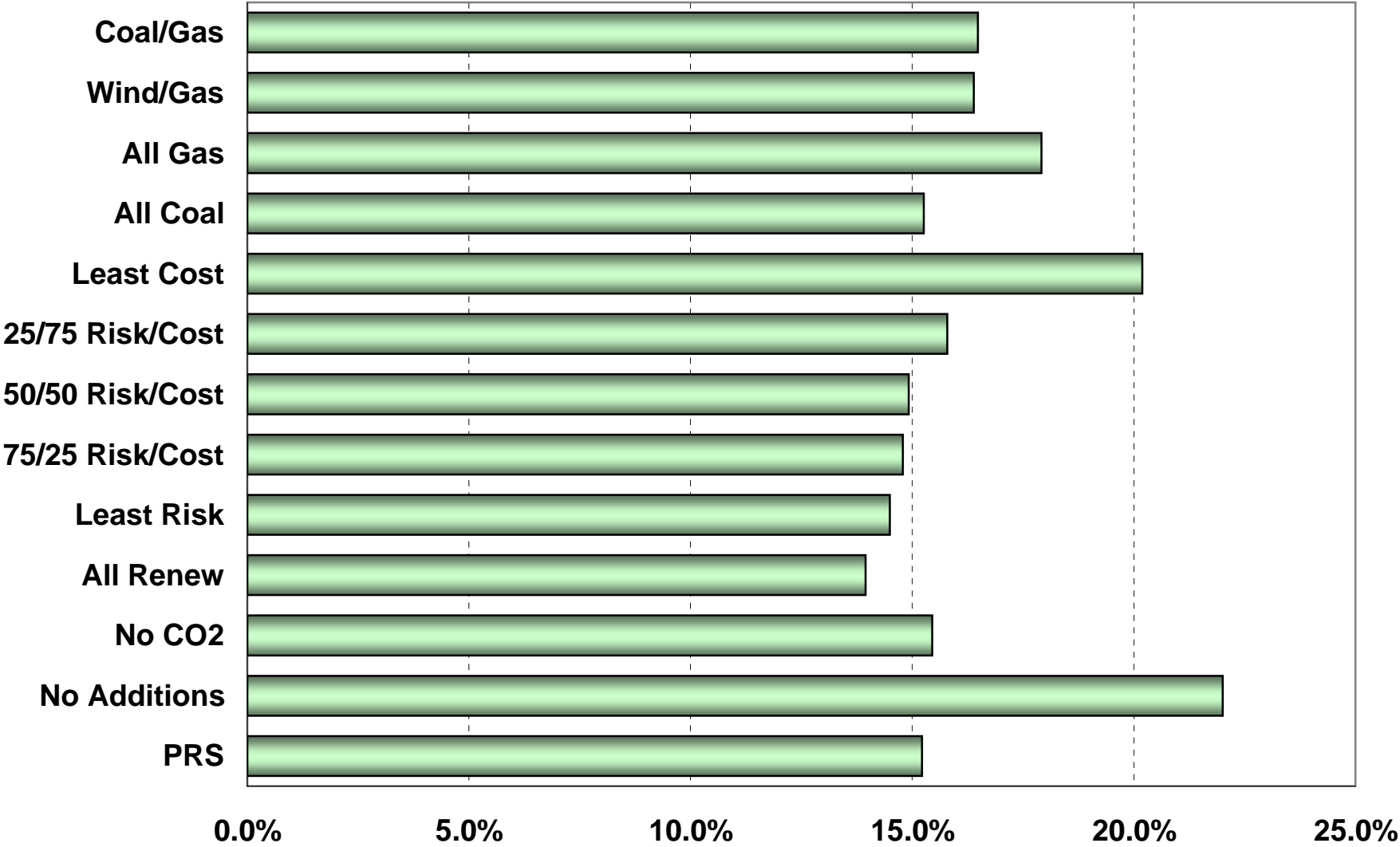
Risk NPV 07-26



### Risk StDev 2016

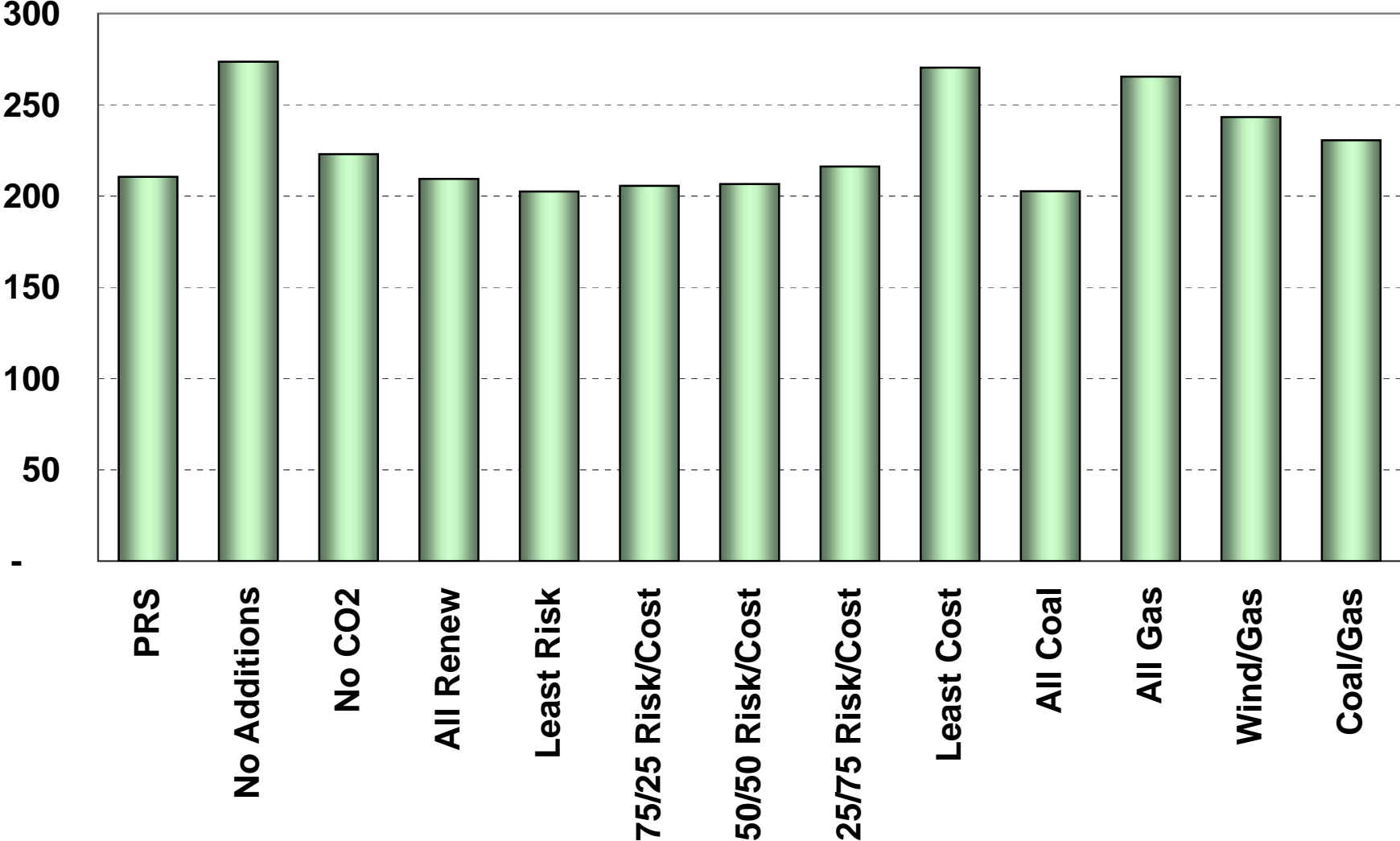


**Risk COV 07-16**

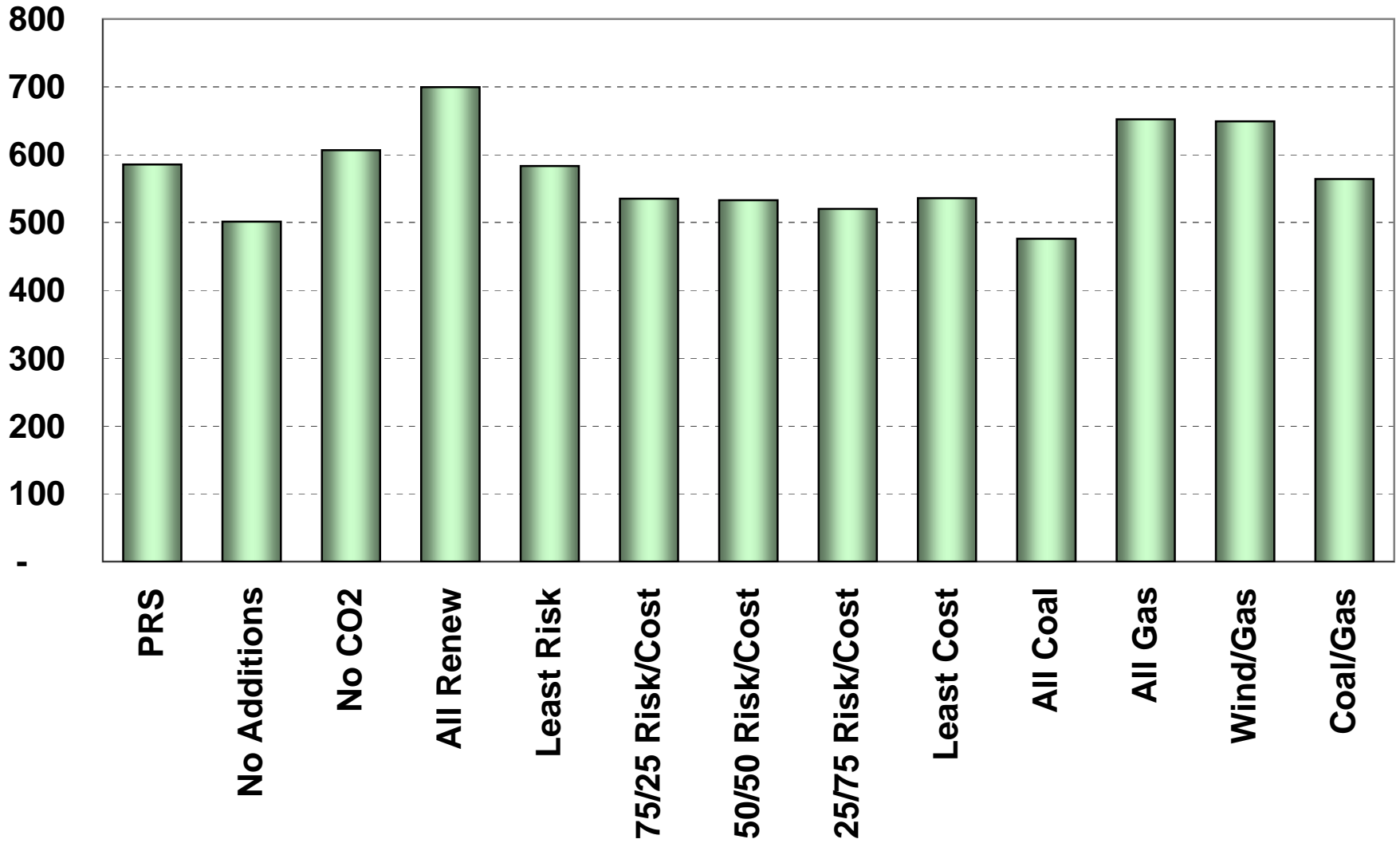




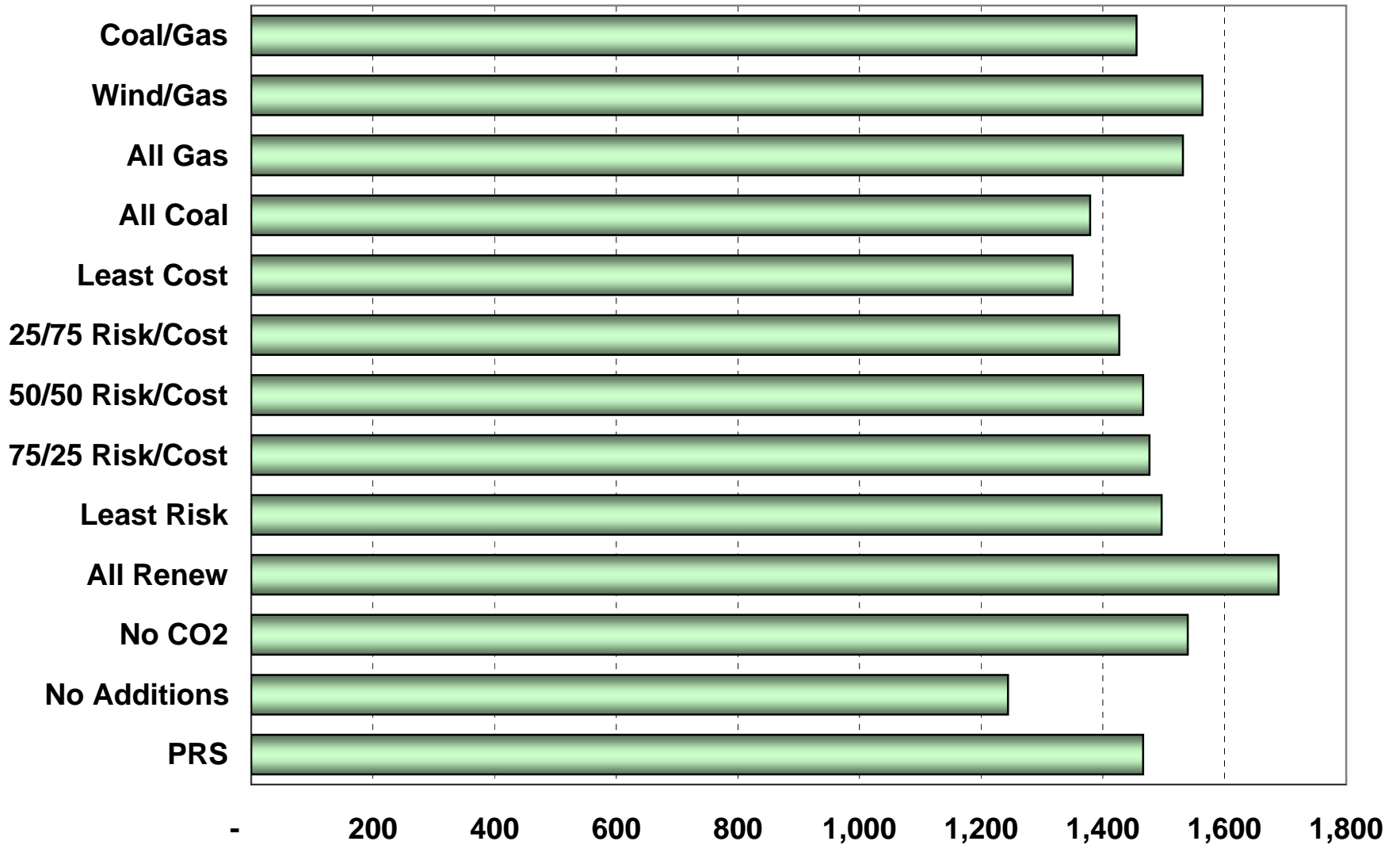
Risk NPV 07-16



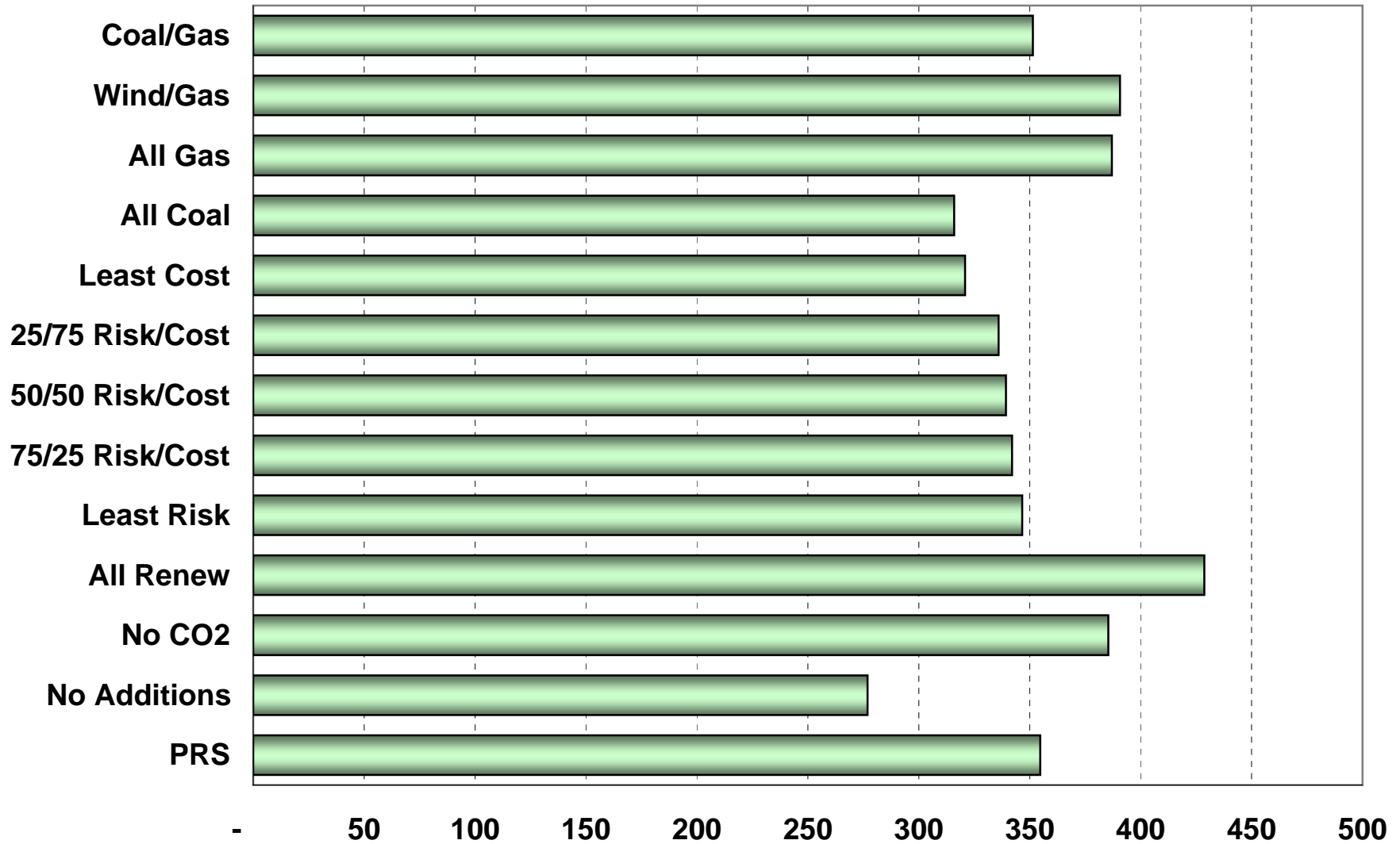
PSE 2026



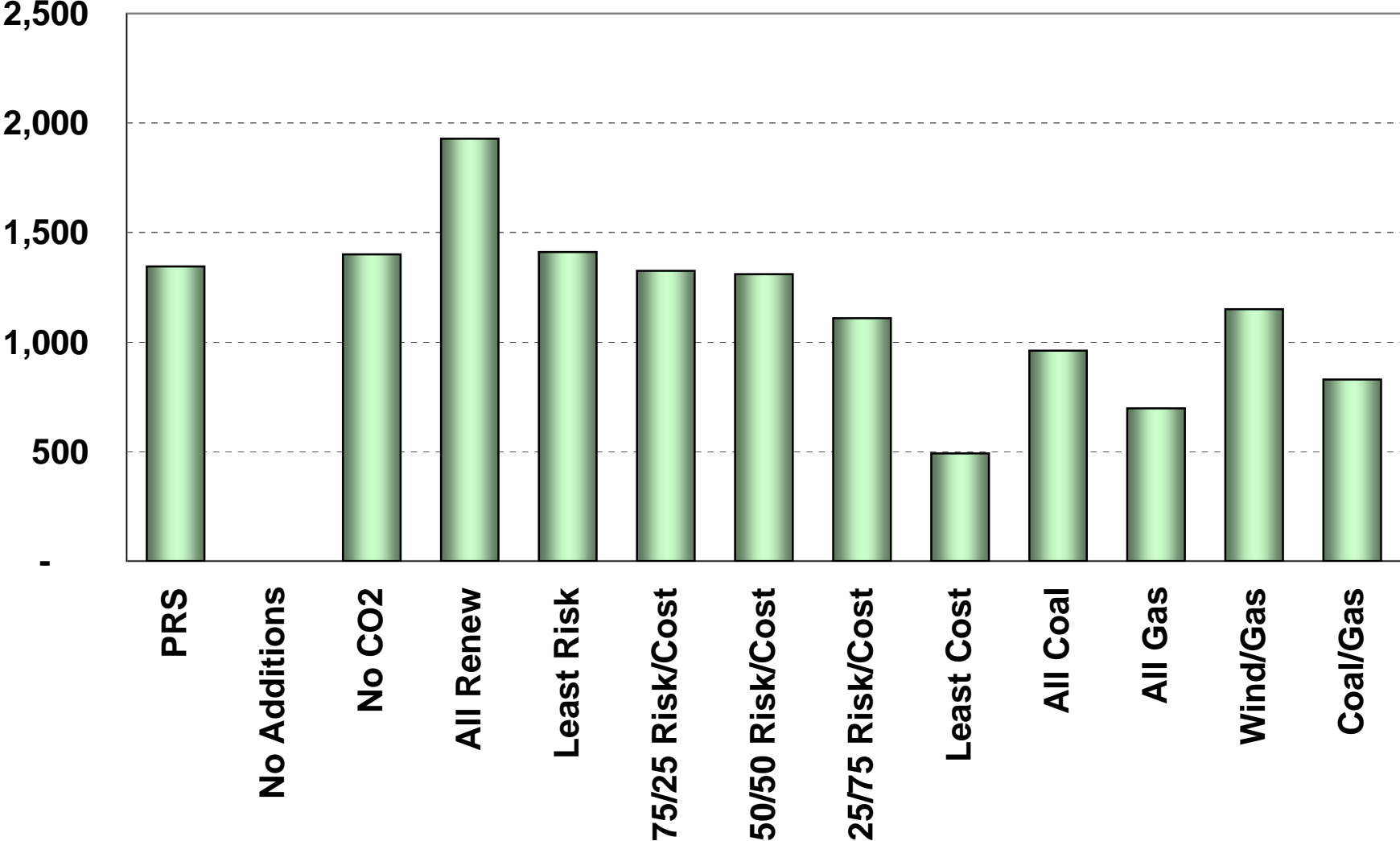
### PSE 07-16 NPV



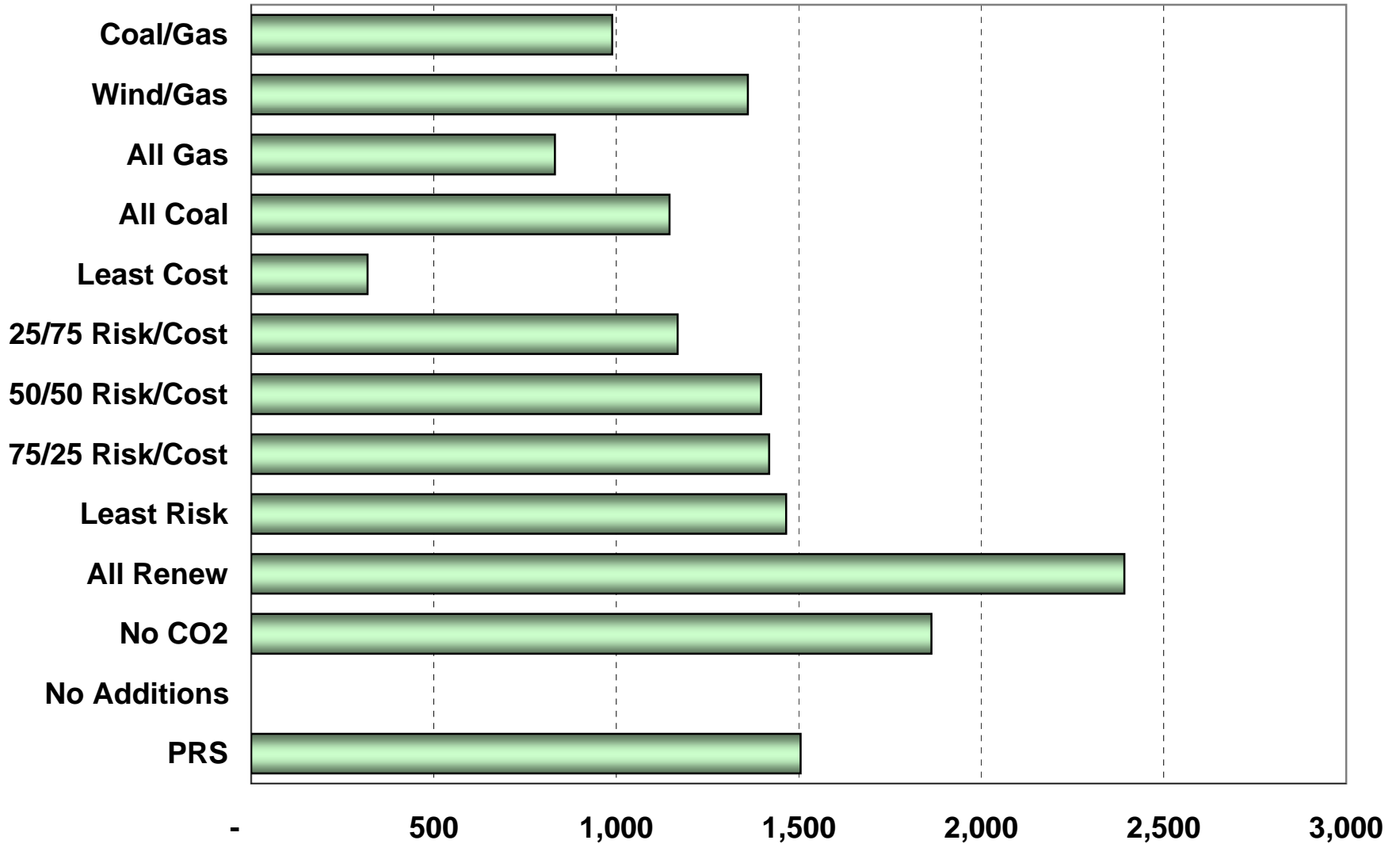
# PSE 2016



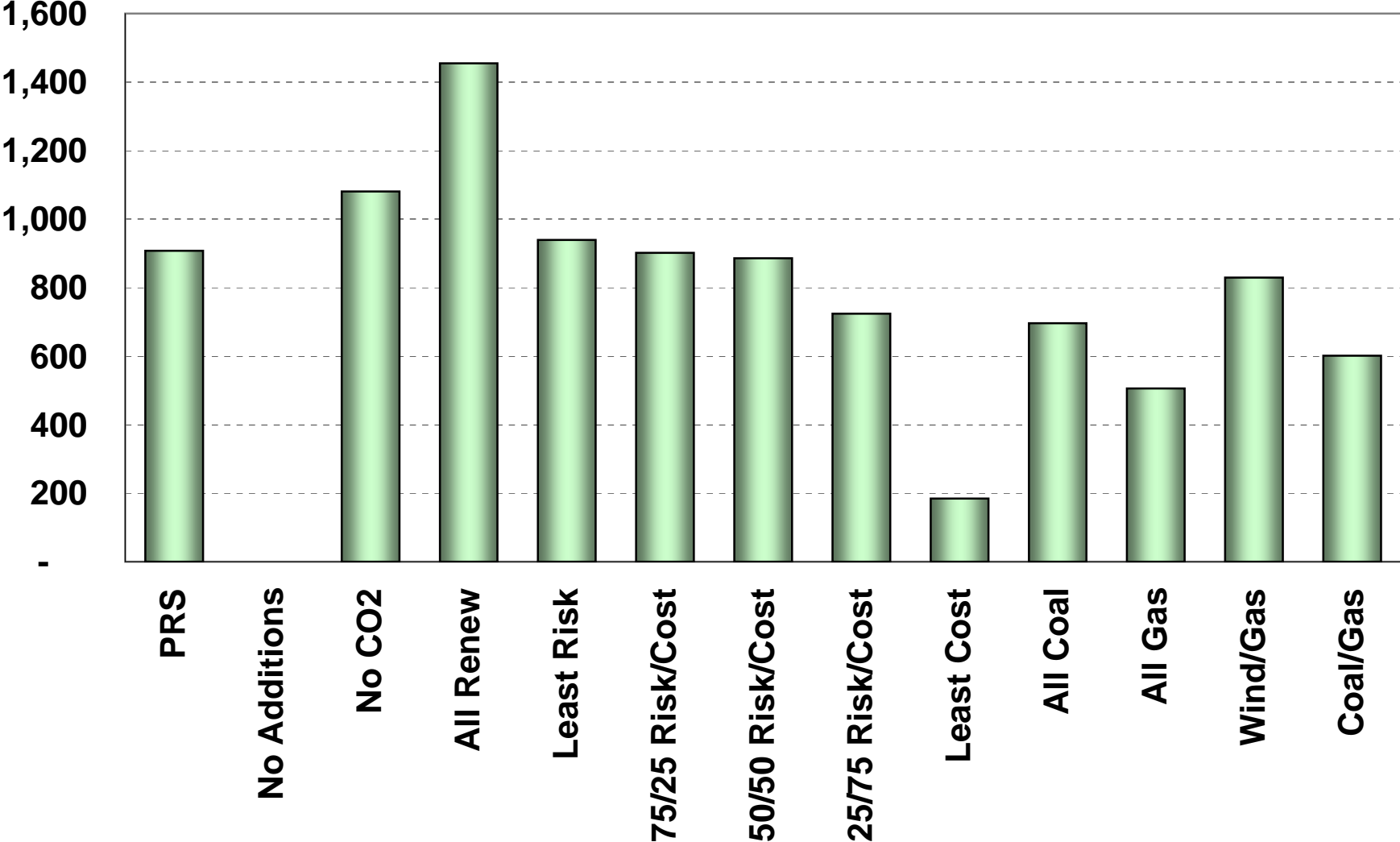
Capital NPV 07-26



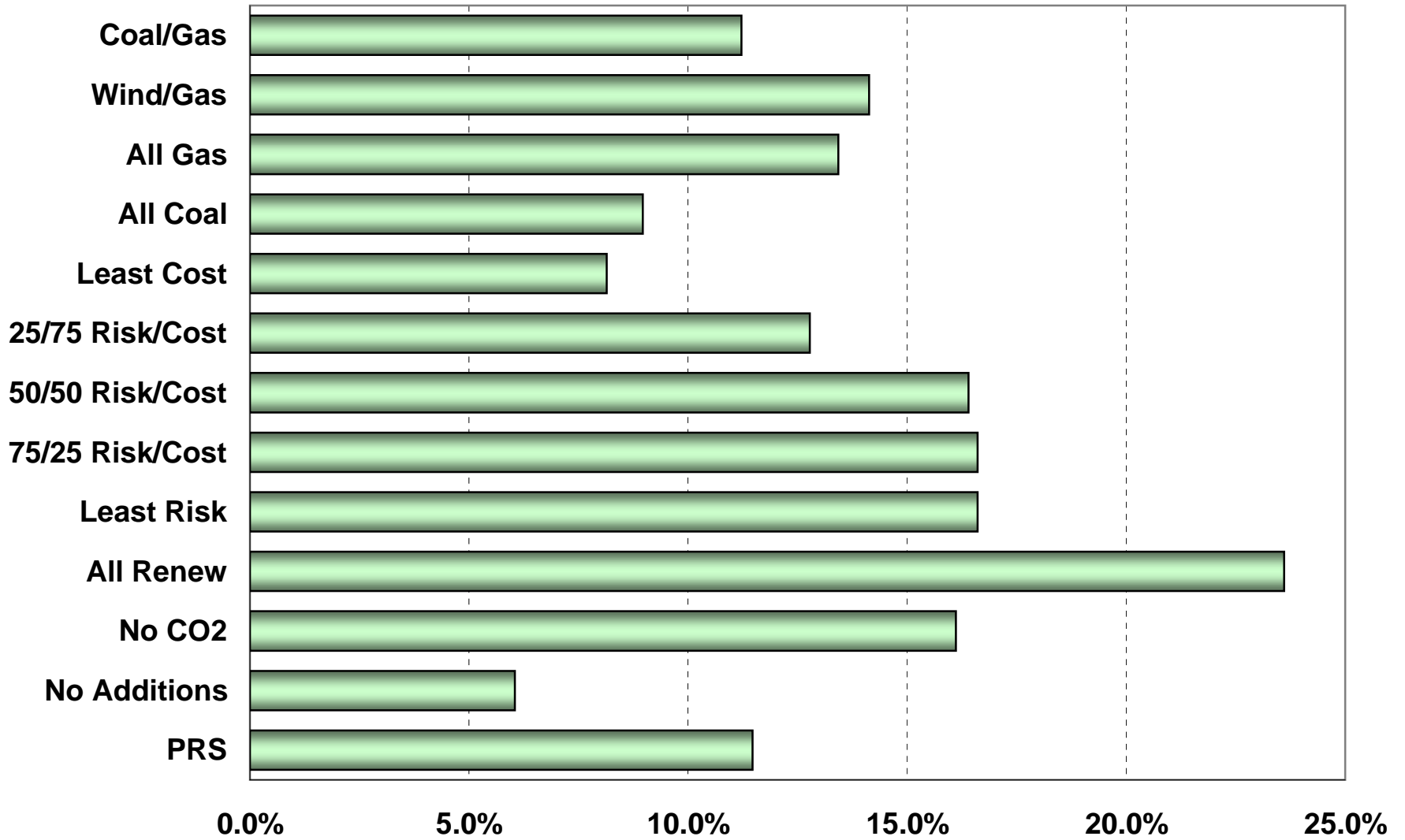
### Capital Nominal 07-16



**Capital NPV 07-16**

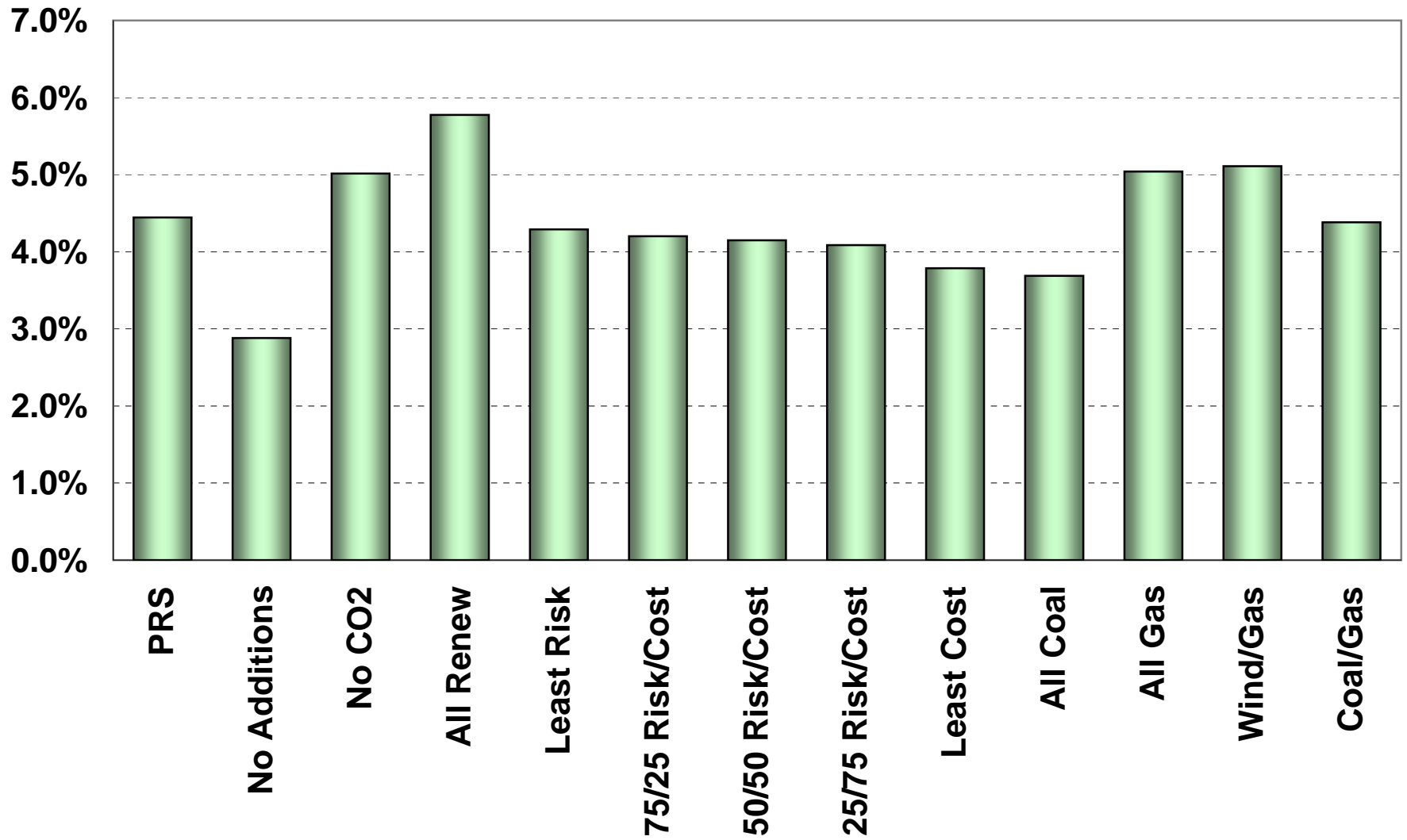


### Max Rate Increase

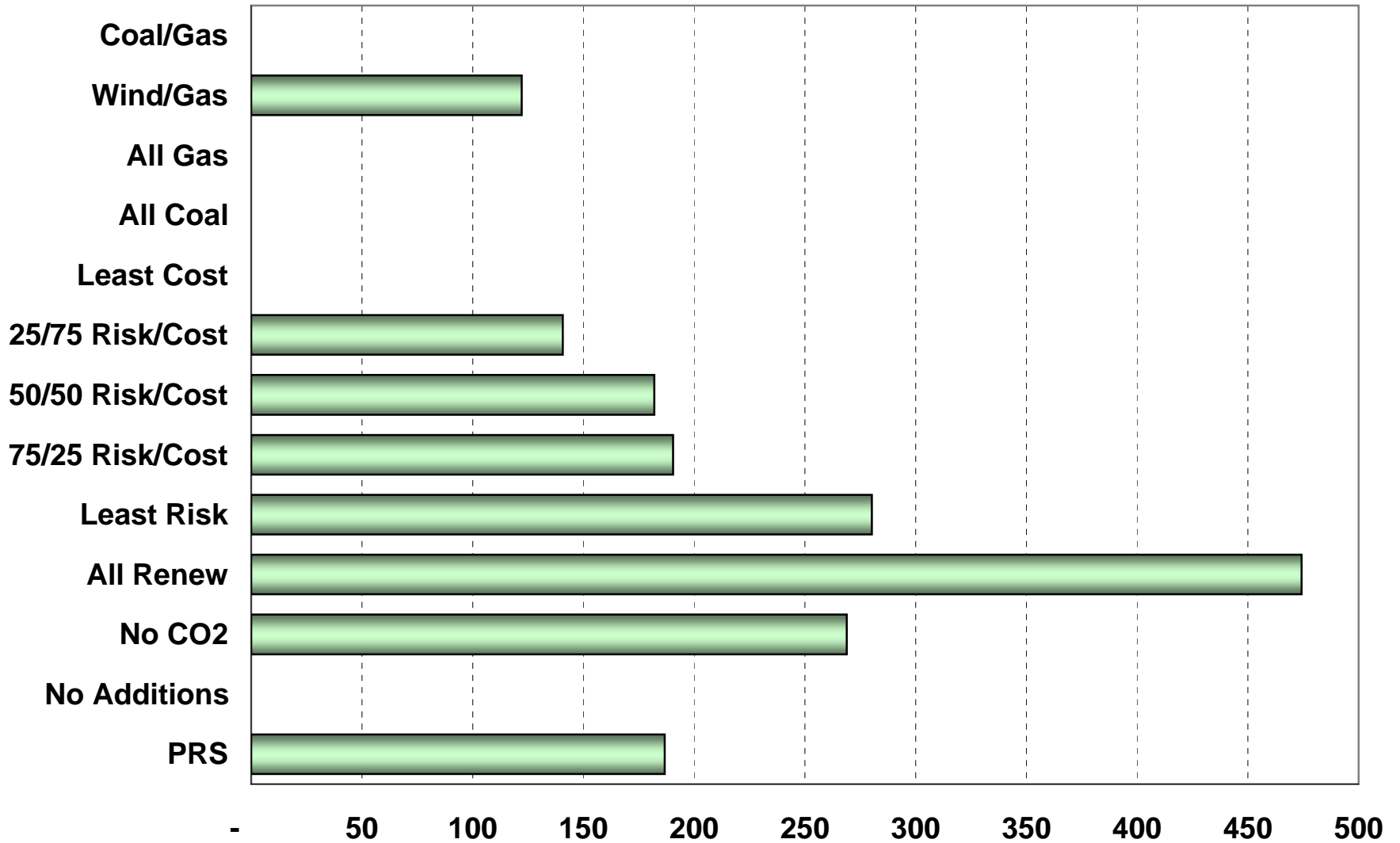




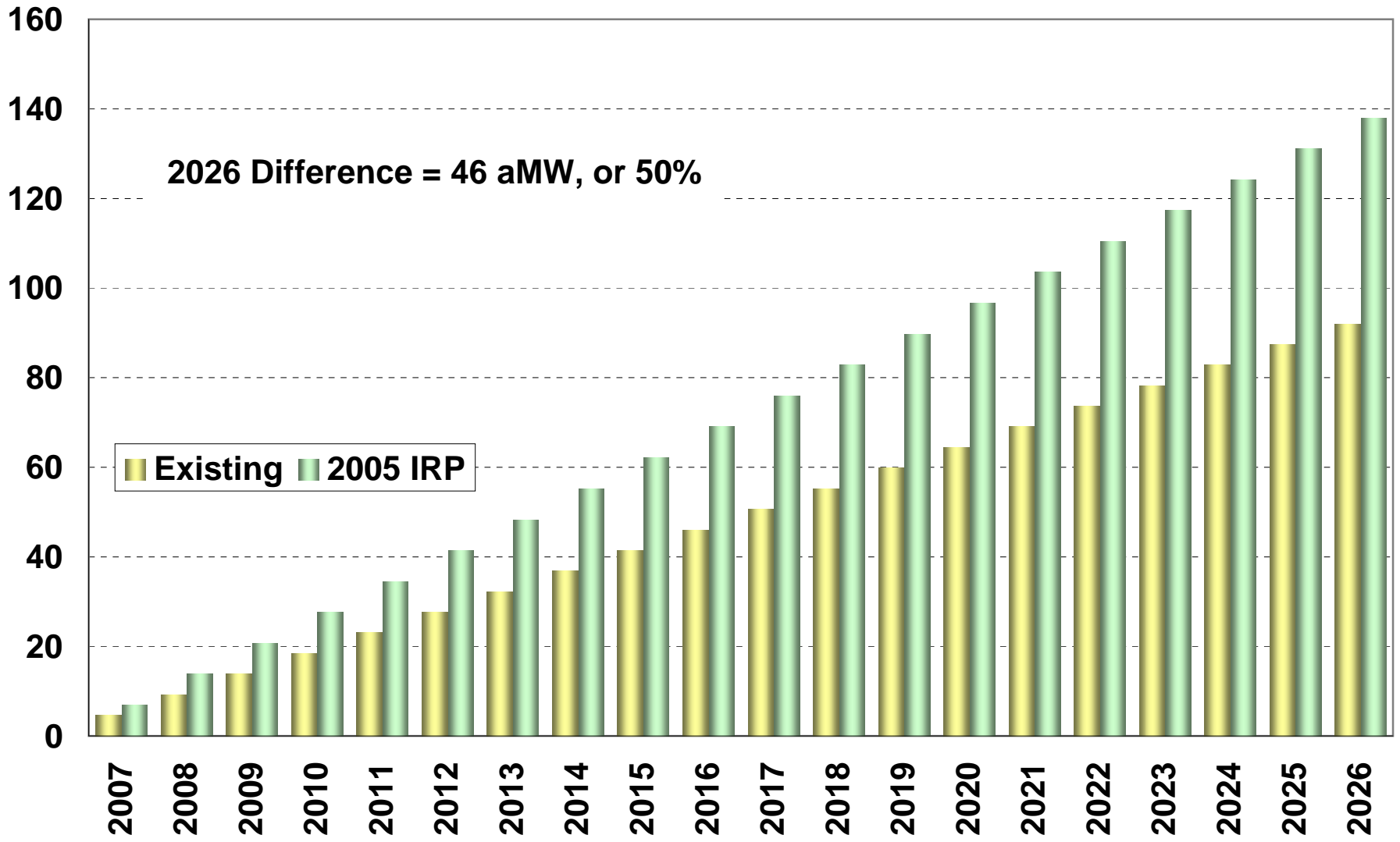
### Rate Increase 07-16



### Renewables aMW 2016



# DSM Acquisition



**Portfolio Options Summary—Volatile Gas**

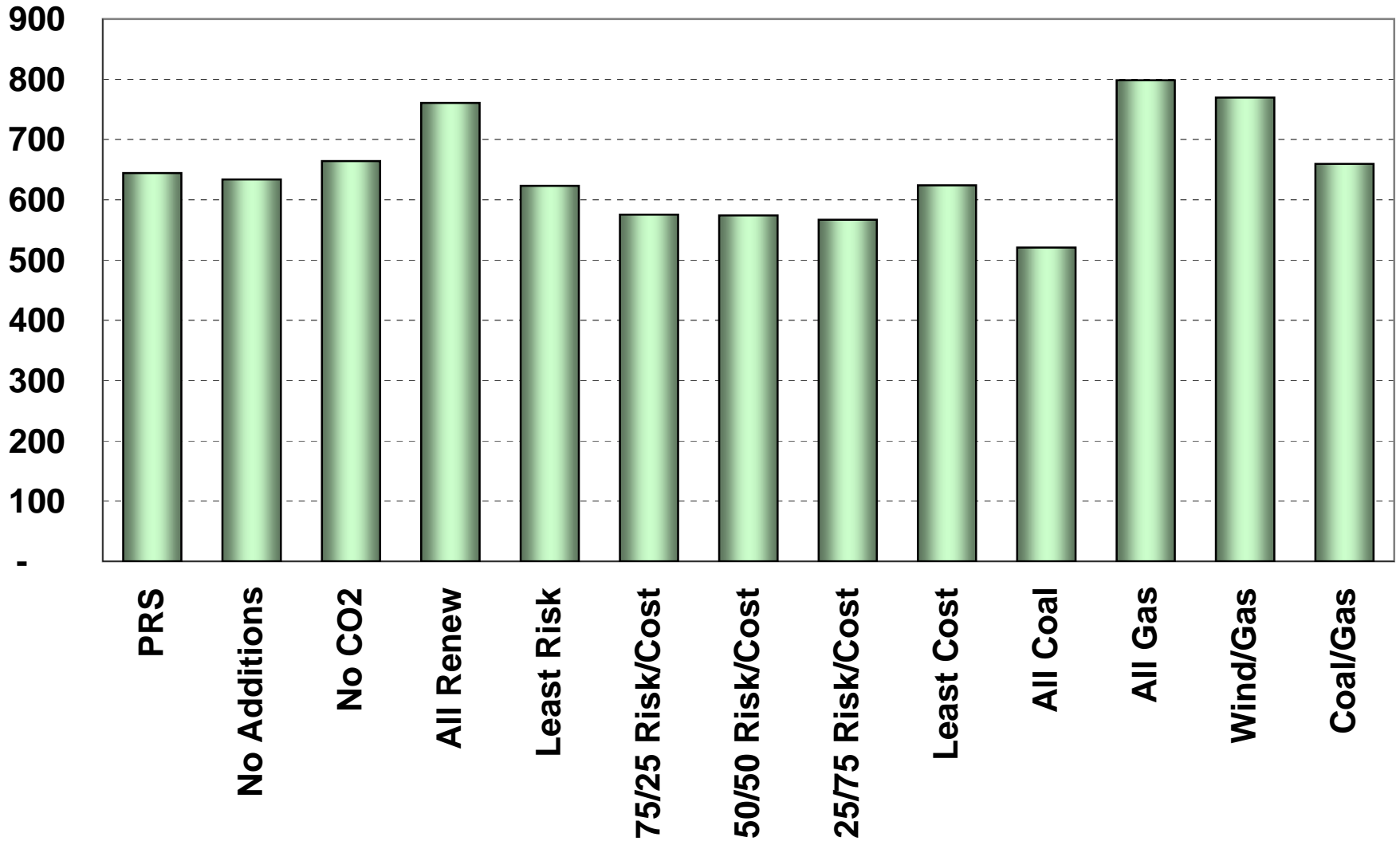
|                                  | 1     | 13               | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|----------------------------------|-------|------------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                  | PRS   | No Additio<br>ns | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| <b>Average Rate Increase</b>     |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 4.4%  | 2.9%             | 5.0%   | 5.8%      | 4.3%       | 4.2%            | 4.1%            | 4.1%            | 3.8%       | 3.7%     | 5.0%    | 5.1%     | 4.4%     |
| 2007-2026                        | 3.5%  | 3.0%             | 3.6%   | 4.2%      | 3.5%       | 3.2%            | 3.2%            | 3.1%            | 3.2%       | 2.8%     | 3.9%    | 3.9%     | 3.4%     |
| <b>Max Rate Increase</b>         |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
|                                  | 11.5% | 6.0%             | 16.1%  | 23.6%     | 16.6%      | 16.6%           | 16.4%           | 12.8%           | 8.1%       | 9.0%     | 13.4%   | 14.1%    | 11.2%    |
| <b>Capital NPV</b>               |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 907   | -                | 1,081  | 1,455     | 939        | 901             | 886             | 724             | 185        | 696      | 506     | 829      | 601      |
| 2007-2026                        | 1,345 | -                | 1,400  | 1,929     | 1,411      | 1,326           | 1,310           | 1,109           | 491        | 961      | 698     | 1,150    | 829      |
| <b>Capital Nominal \$</b>        |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,505 | -                | 1,864  | 2,392     | 1,466      | 1,419           | 1,397           | 1,169           | 319        | 1,146    | 832     | 1,361    | 989      |
| 2007-2026                        | 3,019 | -                | 3,067  | 4,140     | 3,251      | 3,097           | 3,075           | 2,657           | 1,420      | 2,129    | 1,546   | 2,504    | 1,838    |
| <b>Power Supply Expense</b>      |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| in 2016                          | 355   | 277              | 385    | 429       | 347        | 342             | 339             | 336             | 321        | 316      | 387     | 391      | 351      |
| in 2026                          | 586   | 501              | 607    | 700       | 583        | 535             | 533             | 520             | 536        | 476      | 652     | 649      | 564      |
| <b>Power Supply Expense NPV</b>  |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,466 | 1,244            | 1,539  | 1,689     | 1,496      | 1,476           | 1,466           | 1,427           | 1,350      | 1,379    | 1,532   | 1,564    | 1,455    |
| 2007-2026                        | 2,835 | 2,381            | 2,973  | 3,308     | 2,844      | 2,741           | 2,723           | 2,675           | 2,607      | 2,549    | 3,038   | 3,069    | 2,793    |
| <b>Risk (StDev)</b>              |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007 In 2016\$                   | 10    | -                | 10     | 10        | 11         | 11              | 11              | 8               | -          | 14       | (16)    | (6)      | 1        |
| 2016                             | 33    | 61               | 32     | 32        | 31         | 31              | 32              | 35              | 58         | 29       | 58      | 48       | 42       |
| 2026                             | 52    | 116              | 51     | 55        | 41         | 41              | 41              | 44              | 75         | 44       | 111     | 90       | 74       |
| <b>Risk (StDev NPV)</b>          |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 210   | 274              | 223    | 209       | 203        | 206             | 207             | 216             | 270        | 203      | 265     | 243      | 231      |
| 2007-2026                        | 334   | 530              | 350    | 337       | 315        | 319             | 321             | 341             | 473        | 314      | 511     | 443      | 401      |
| <b>Covariance (stdev/mean)</b>   |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 15.2% | 22.0%            | 15.5%  | 13.9%     | 14.5%      | 14.8%           | 14.9%           | 15.8%           | 20.2%      | 15.3%    | 17.9%   | 16.4%    | 16.5%    |
| 2007-2026 Average                | 12.1% | 22.3%            | 12.2%  | 10.9%     | 11.4%      | 11.8%           | 12.0%           | 12.9%           | 18.1%      | 12.4%    | 17.1%   | 14.8%    | 14.6%    |
| <b>95th% Max Var (NPV)</b>       |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 372   | 489              | 390    | 367       | 357        | 362             | 363             | 376             | 484        | 357      | 472     | 430      | 402      |
| 2007-2026                        | 593   | 960              | 618    | 596       | 557        | 566             | 569             | 599             | 850        | 558      | 922     | 785      | 711      |
| <b>95th% Max Var (95th/mean)</b> |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 26.8% | 39.3%            | 26.9%  | 24.3%     | 25.4%      | 25.9%           | 26.1%           | 27.4%           | 36.0%      | 26.8%    | 31.7%   | 28.8%    | 28.7%    |
| 2007-2026 Average                | 21.5% | 40.4%            | 21.4%  | 19.2%     | 20.1%      | 21.0%           | 21.2%           | 22.6%           | 32.5%      | 22.0%    | 30.9%   | 26.2%    | 25.9%    |
| <b>Build Out 2007-16 (MW)</b>    |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 250   | -                | -      | -         | 124        | 227             | 227             | 218             | 49         | 511      | -       | -        | 256      |
| CT MW                            | -     | -                | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -                | -      | -         | 2          | 2               | -               | -               | -          | -        | 511     | 411      | 256      |
| Wind MW                          | 400   | -                | 650    | 980       | 400        | 400             | 400             | 275             | -          | -        | -       | 400      | -        |
| Renews MW                        | 80    | -                | 100    | 228       | 183        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -                | 175    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -                | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -                | -      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -                | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total MW                         | 755   | -                | 949    | 1,208     | 761        | 761             | 761             | 668             | 461        | 511      | 511     | 811      | 511      |
| <b>Build Out 2007-26 (MW)</b>    |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 450   | -                | -      | -         | 296        | 598             | 598             | 620             | 436        | 853      | -       | -        | 427      |
| CT MW                            | -     | -                | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -                | -      | -         | 2          | 2               | -               | -               | -          | -        | 853     | 691      | 427      |
| Wind MW                          | 650   | -                | 650    | 1,330     | 650        | 650             | 650             | 400             | -          | -        | -       | 650      | -        |
| Renews MW                        | 180   | -                | 180    | 483       | 383        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -                | 475    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -                | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -                | 5      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -                | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |

**Portfolio Options Summary—Volatile Gas**

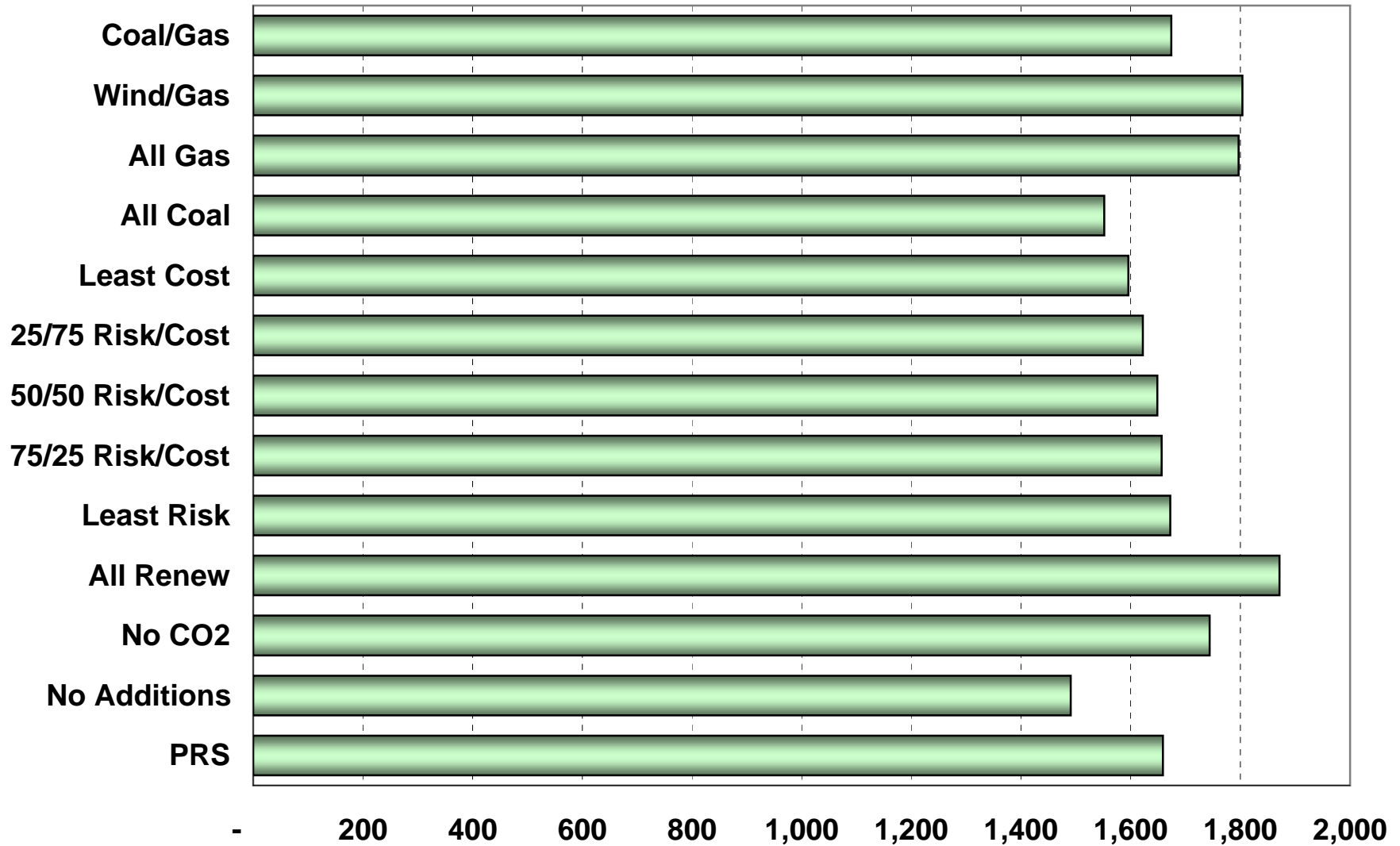
|                                | 1     | 13           | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|--------------------------------|-------|--------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                | PRS   | No Additions | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| Total MW                       | 1,305 | -            | 1,291  | 1,813     | 1,341      | 1,341           | 1,341           | 1,153           | 803        | 853      | 853     | 1,341    | 853      |
| <b>Build Out 2007-16 (aMW)</b> |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal aMW                       | 215   | -            | -      | -         | 107        | 195             | 195             | 187             | 42         | 441      | -       | -        | 220      |
| CT aMW                         | -     | -            | -      | -         | -          | -               | 11              | 46              | 319        | -        | -       | -        | -        |
| CCCT aMW                       | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 461     | 371      | 231      |
| Wind aMW                       | 122   | -            | 188    | 285       | 122        | 122             | 122             | 81              | -          | -        | -       | 122      | -        |
| Renews aMW                     | 65    | -            | 81     | 190       | 158        | 68              | 60              | 60              | -          | -        | -       | -        | -        |
| Nuclear aMW                    | -     | -            | 147    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands aMW                   | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen aMW                      | -     | -            | -      | -         | 9          | 9               | 9               | 9               | -          | -        | -       | -        | -        |
| Market aMW                     | 25    | -            | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total aMW                      | 427   | -            | 440    | 474       | 440        | 439             | 439             | 425             | 406        | 441      | 461     | 493      | 451      |
| <b>Build Out 2007-26 (aMW)</b> |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal aMW                       | 388   | -            | -      | -         | 255        | 515             | 515             | 534             | 376        | 735      | -       | -        | 368      |
| CT aMW                         | -     | -            | -      | -         | -          | -               | 11              | 46              | 319        | -        | -       | -        | -        |
| CCCT aMW                       | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 770     | 623      | 385      |
| Wind aMW                       | 188   | -            | 188    | 386       | 188        | 188             | 188             | 122             | -          | -        | -       | 188      | -        |
| Renews aMW                     | 145   | -            | 145    | 402       | 333        | 68              | 60              | 60              | -          | -        | -       | -        | -        |
| Nuclear aMW                    | -     | -            | 399    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands aMW                   | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen aMW                      | -     | -            | 4      | -         | 9          | 9               | 9               | 9               | -          | -        | -       | -        | -        |
| Market aMW                     | 25    | -            | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Total aMW                      | 746   | -            | 717    | 788       | 786        | 783             | 783             | 771             | 694        | 735      | 770     | 811      | 752      |

# High Gas

PSE 2026

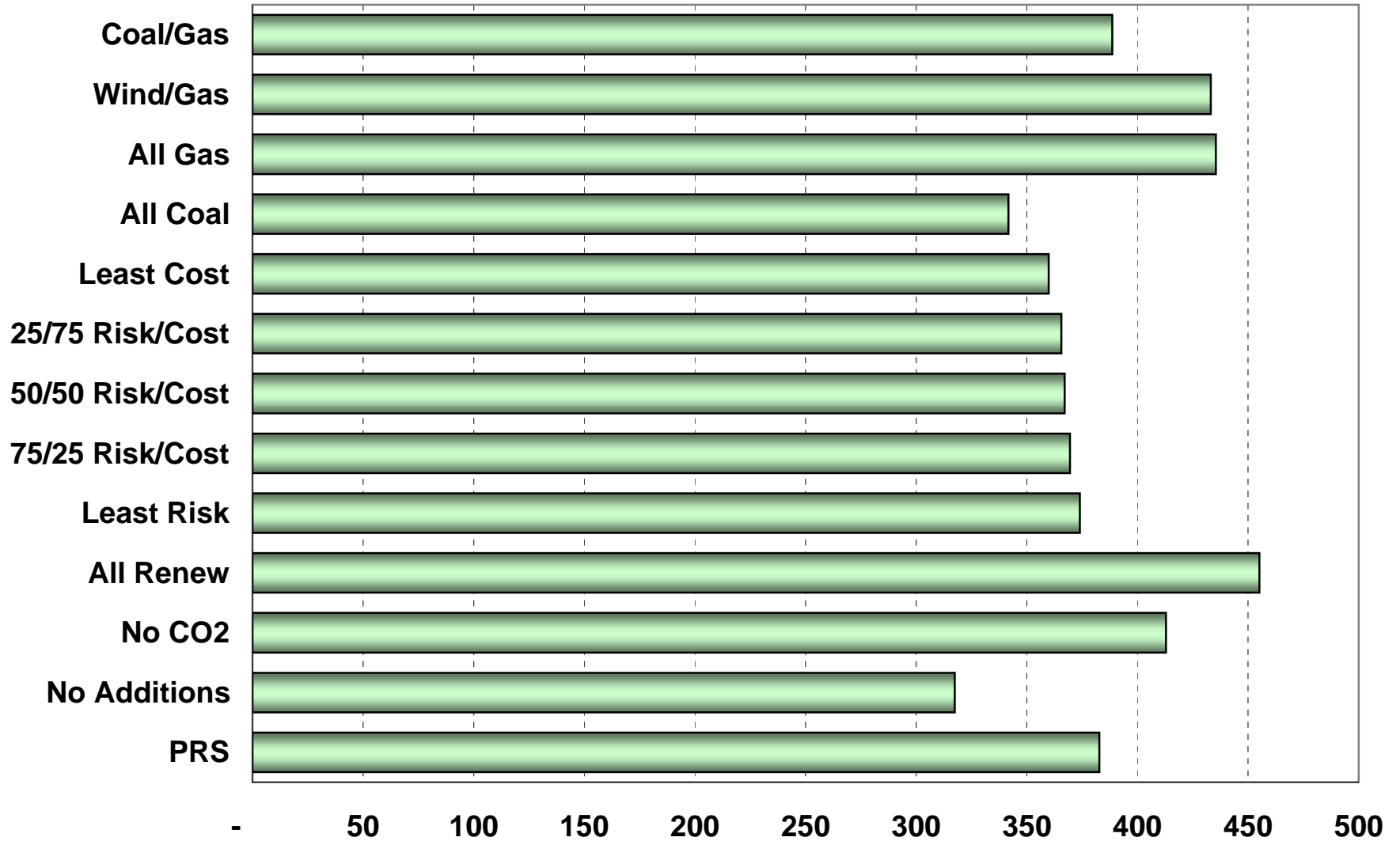


### PSE 07-16 NPV

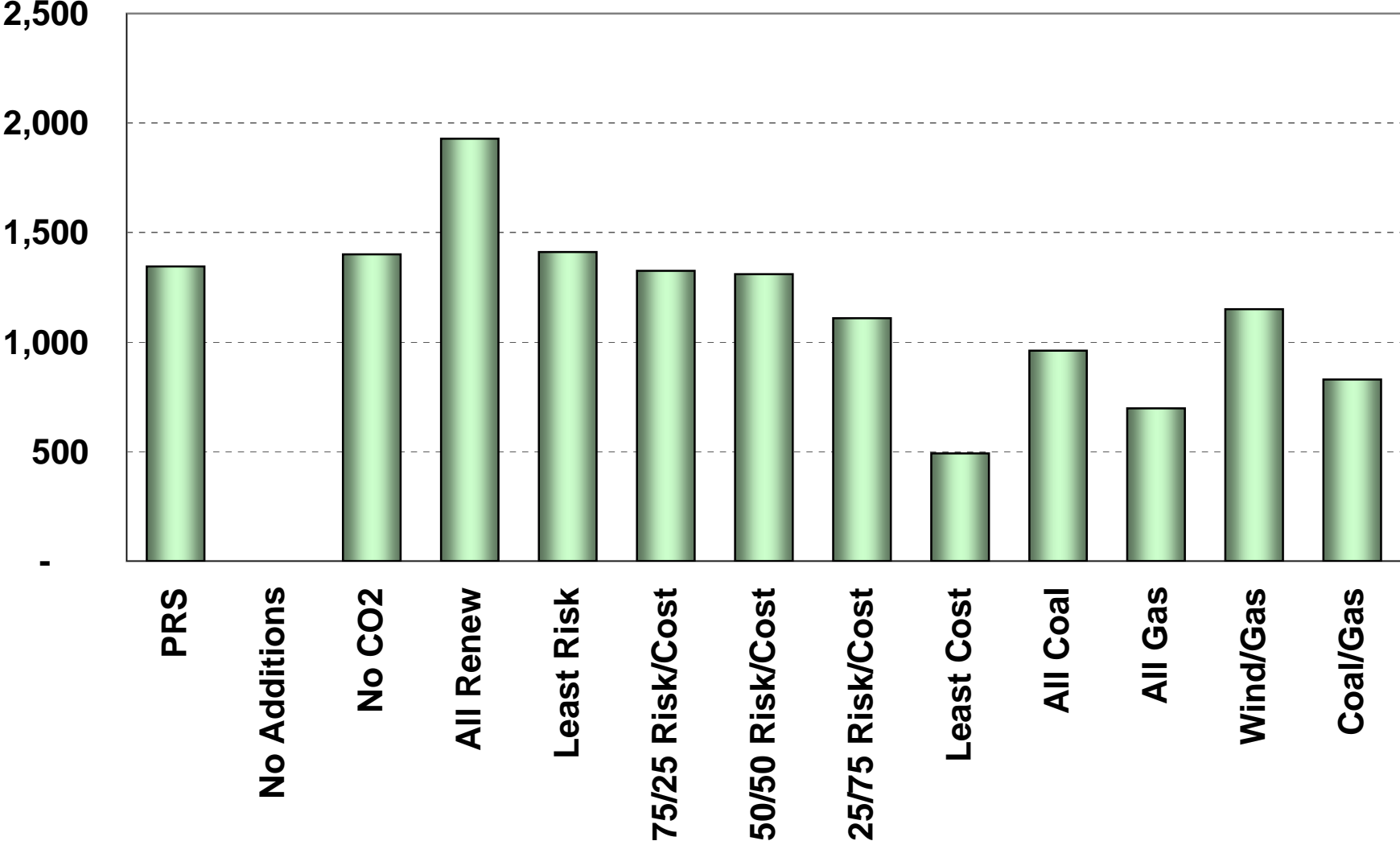




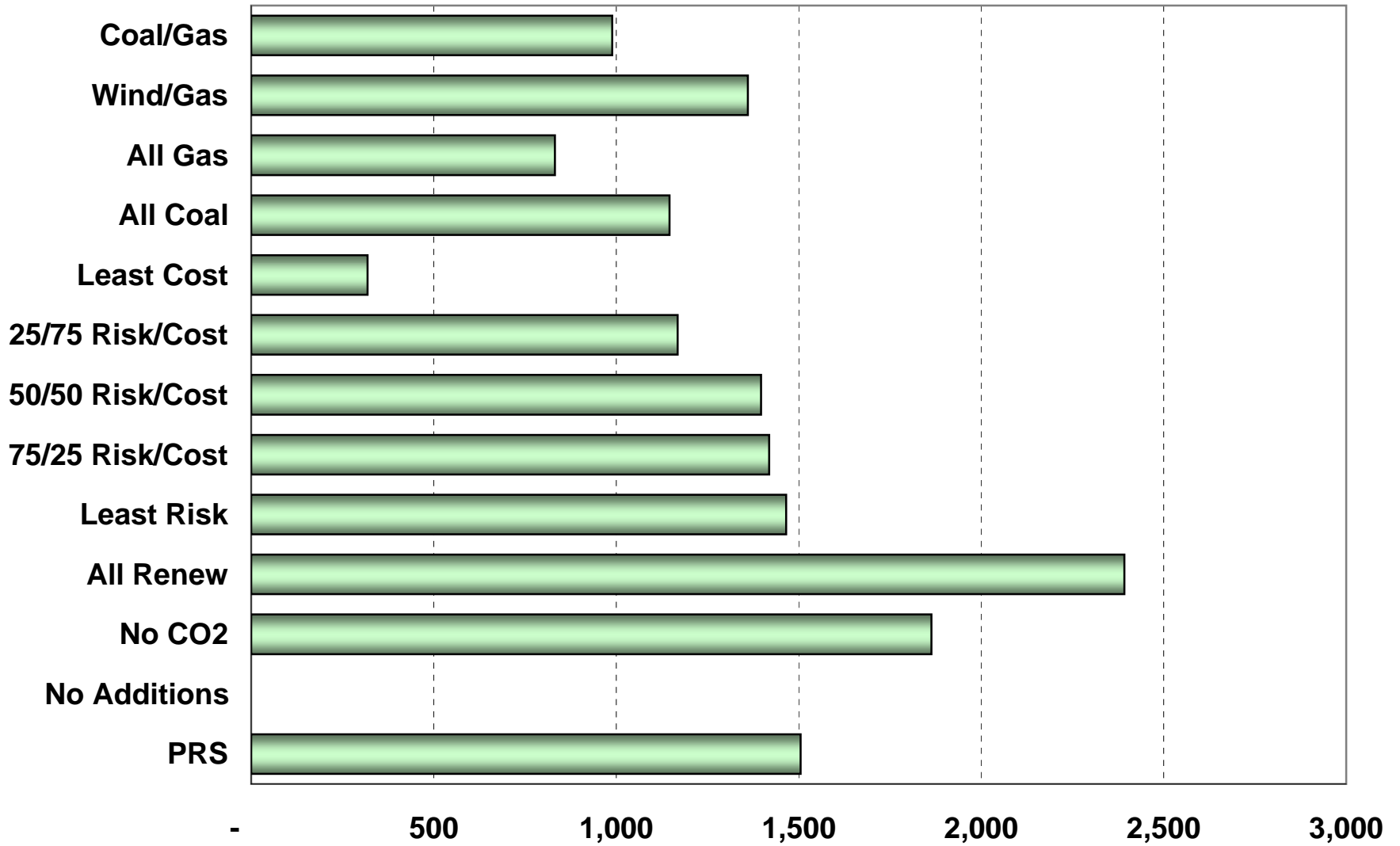
# PSE 2016



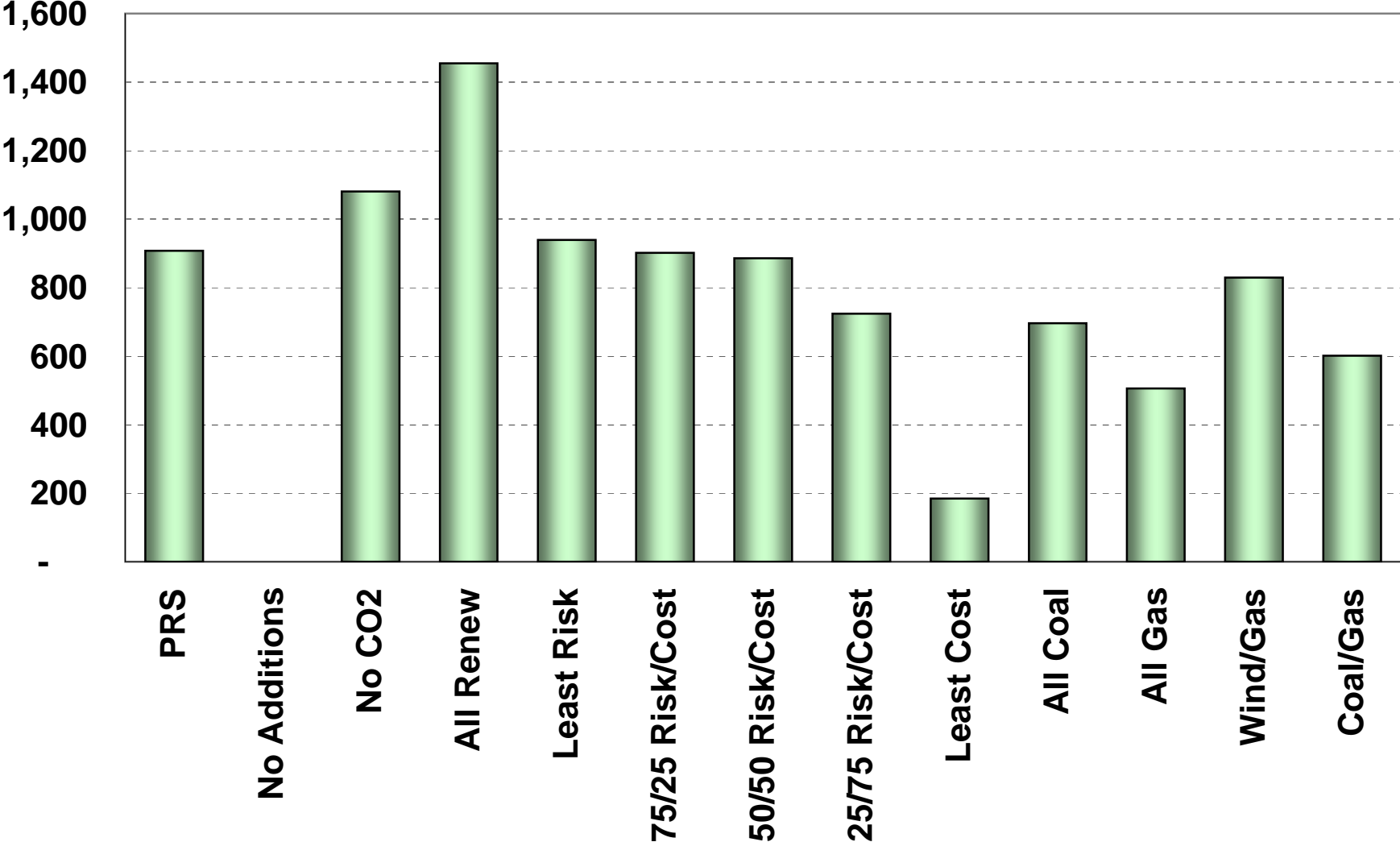
Capital NPV 07-26



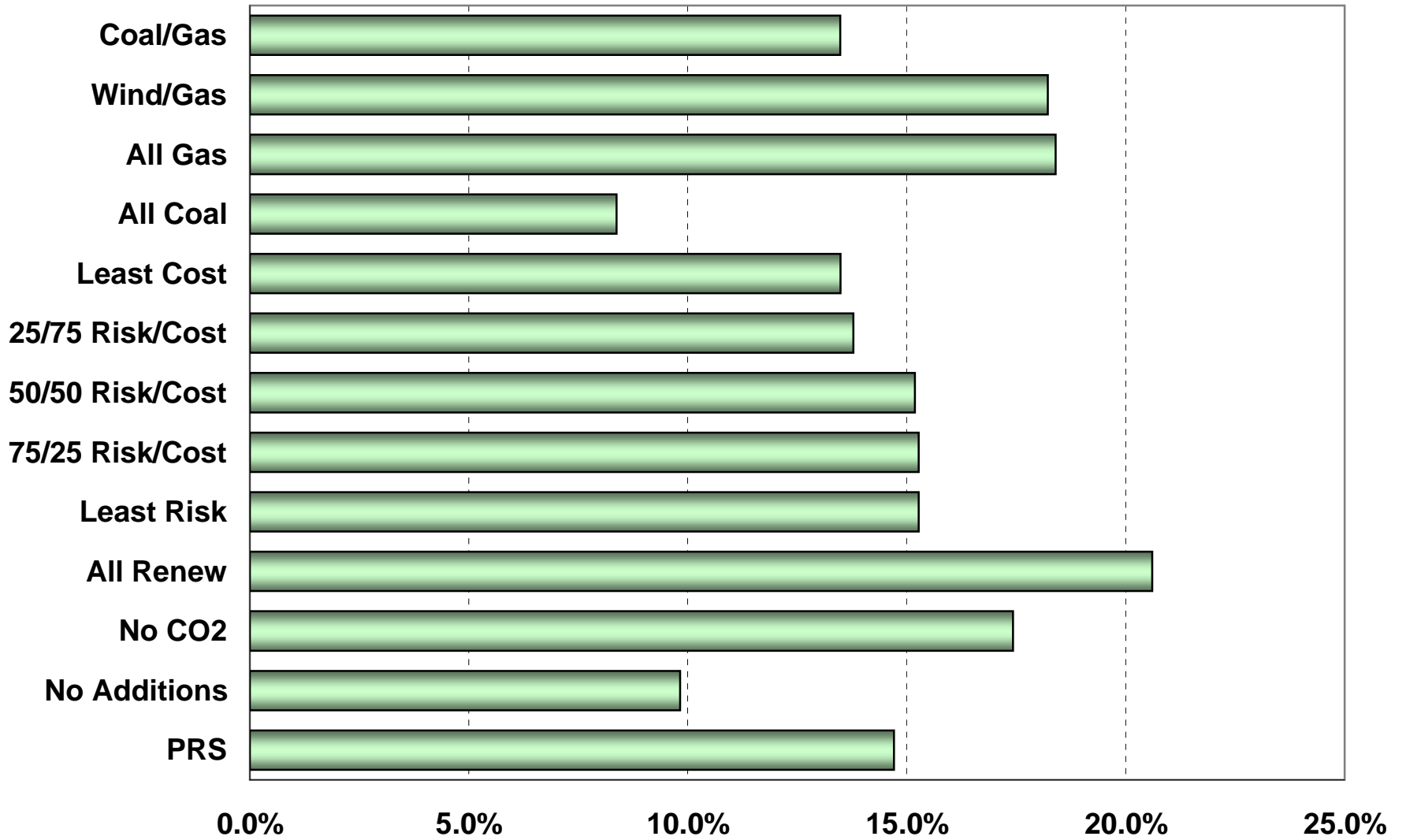
### Capital Nominal 07-16



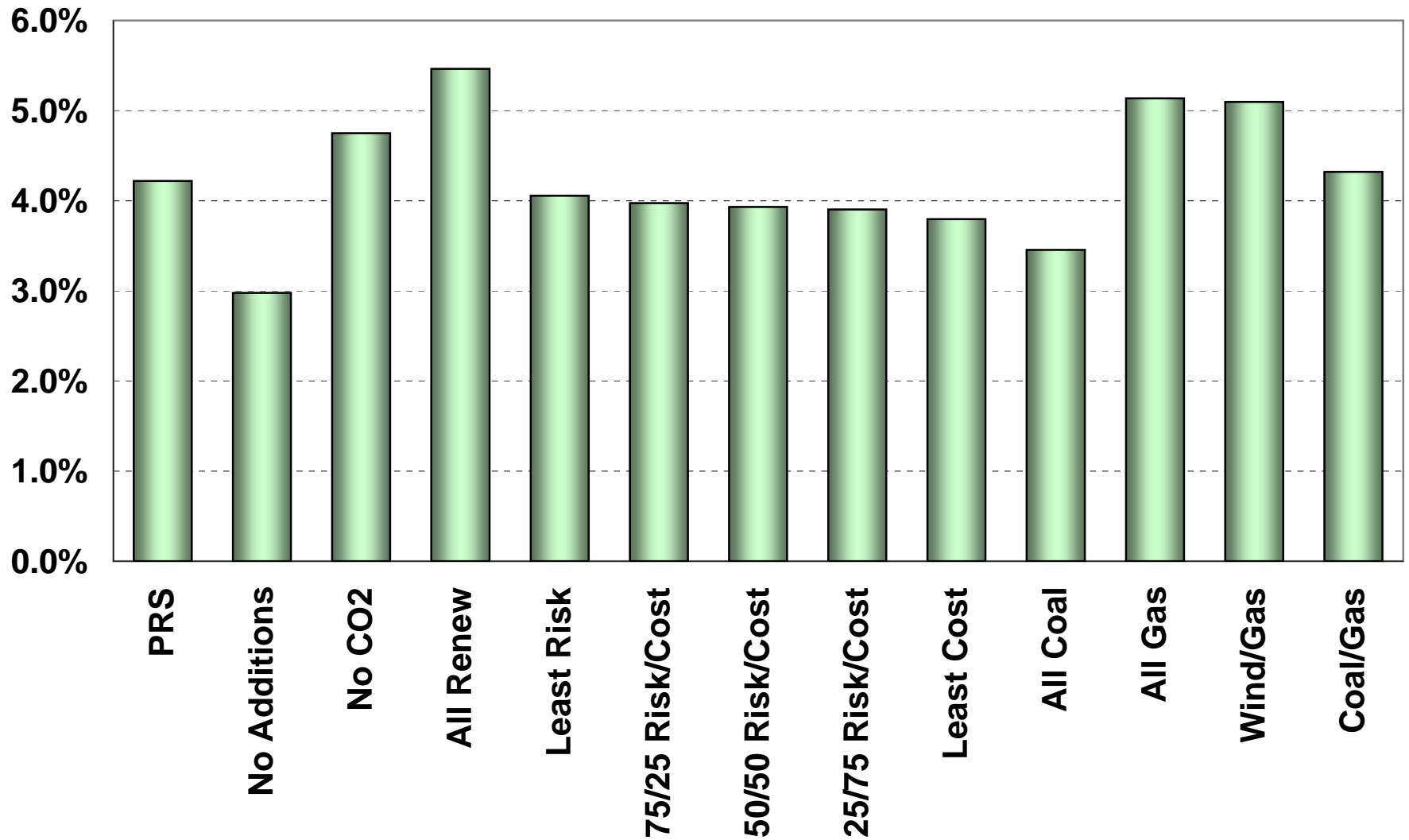
**Capital NPV 07-16**



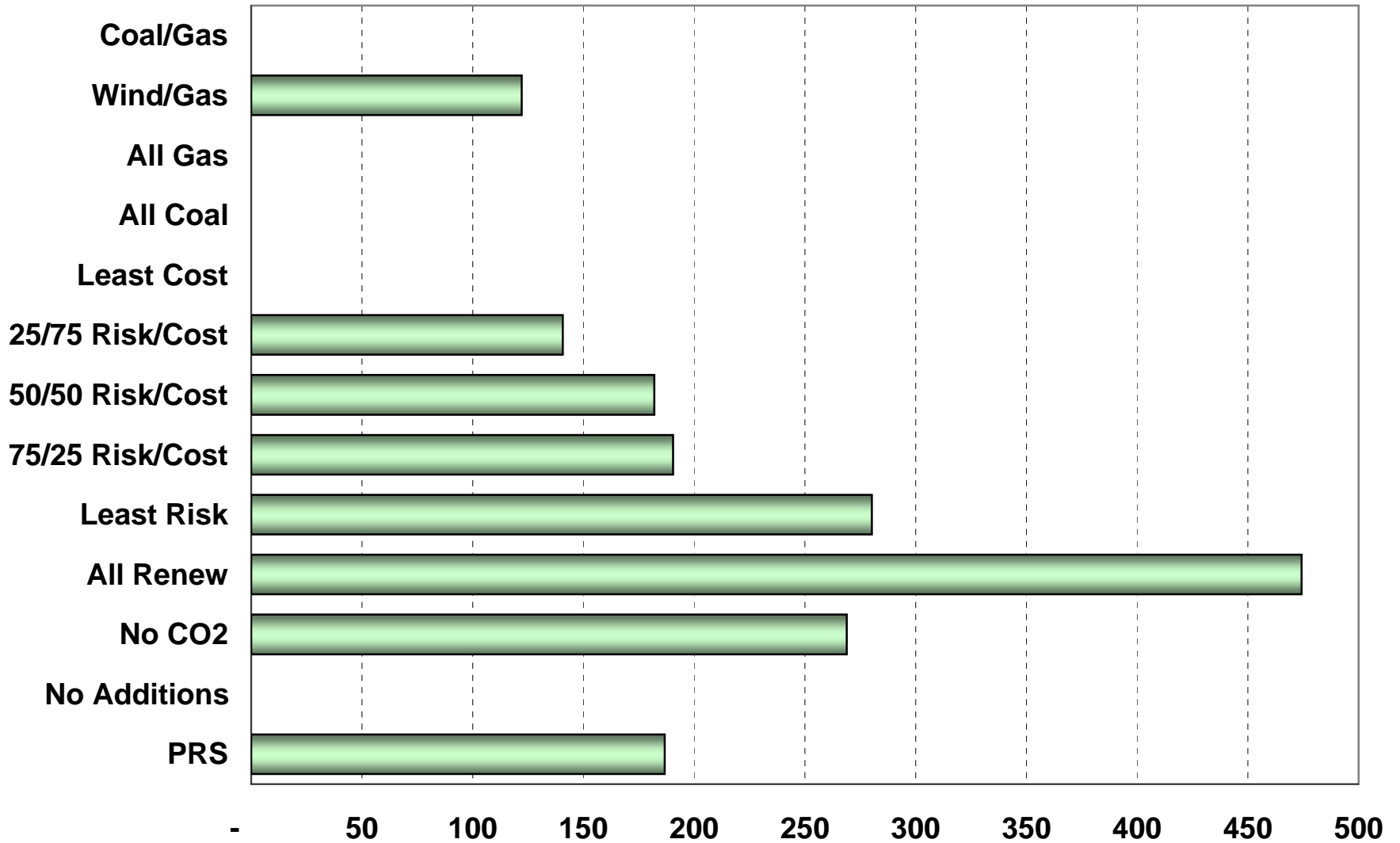
### Max Rate Increase



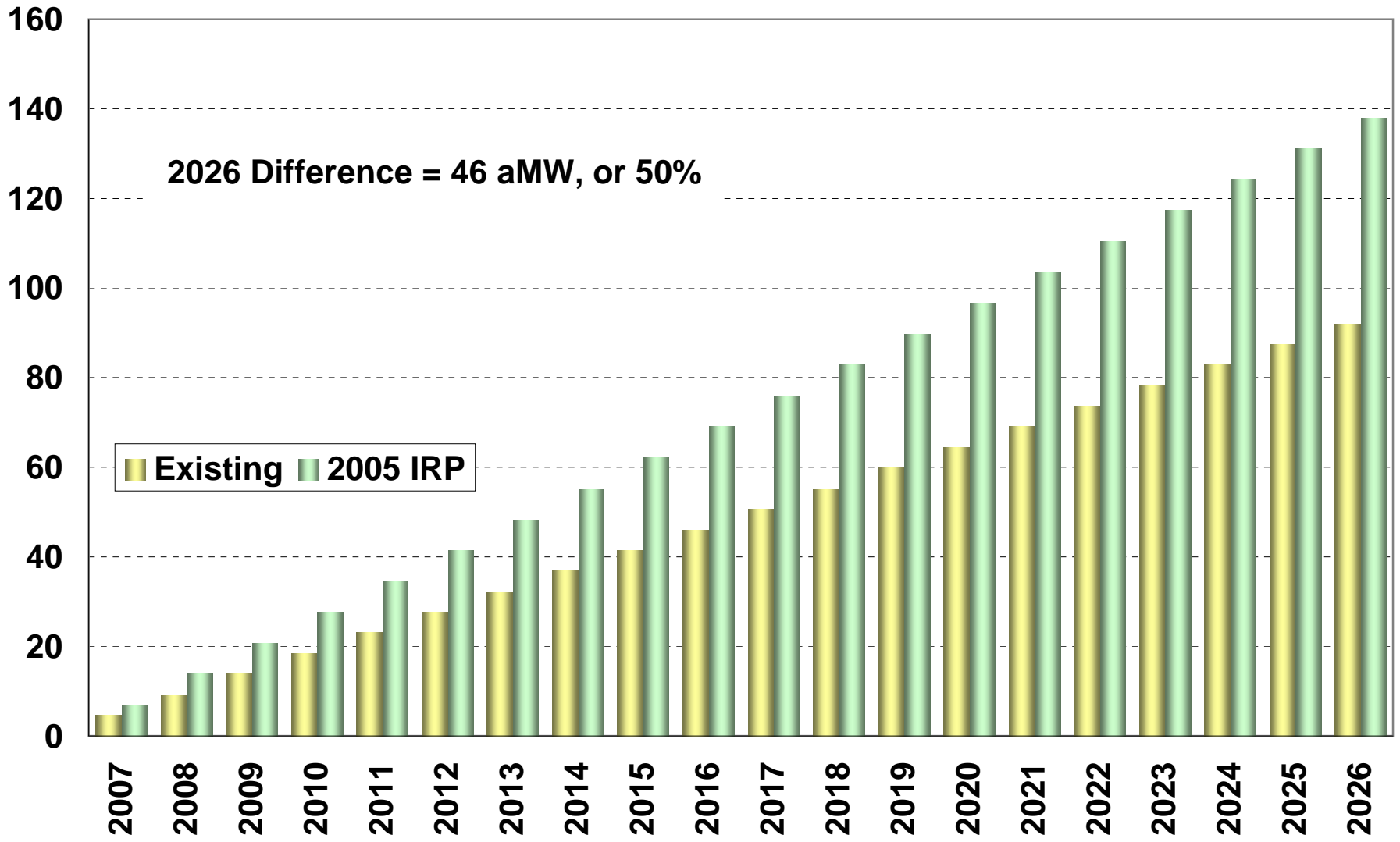
### Rate Increase 07-16



### Renewables aMW 2016



### DSM Acquisition





## Portfolio Options Summary—High Gas

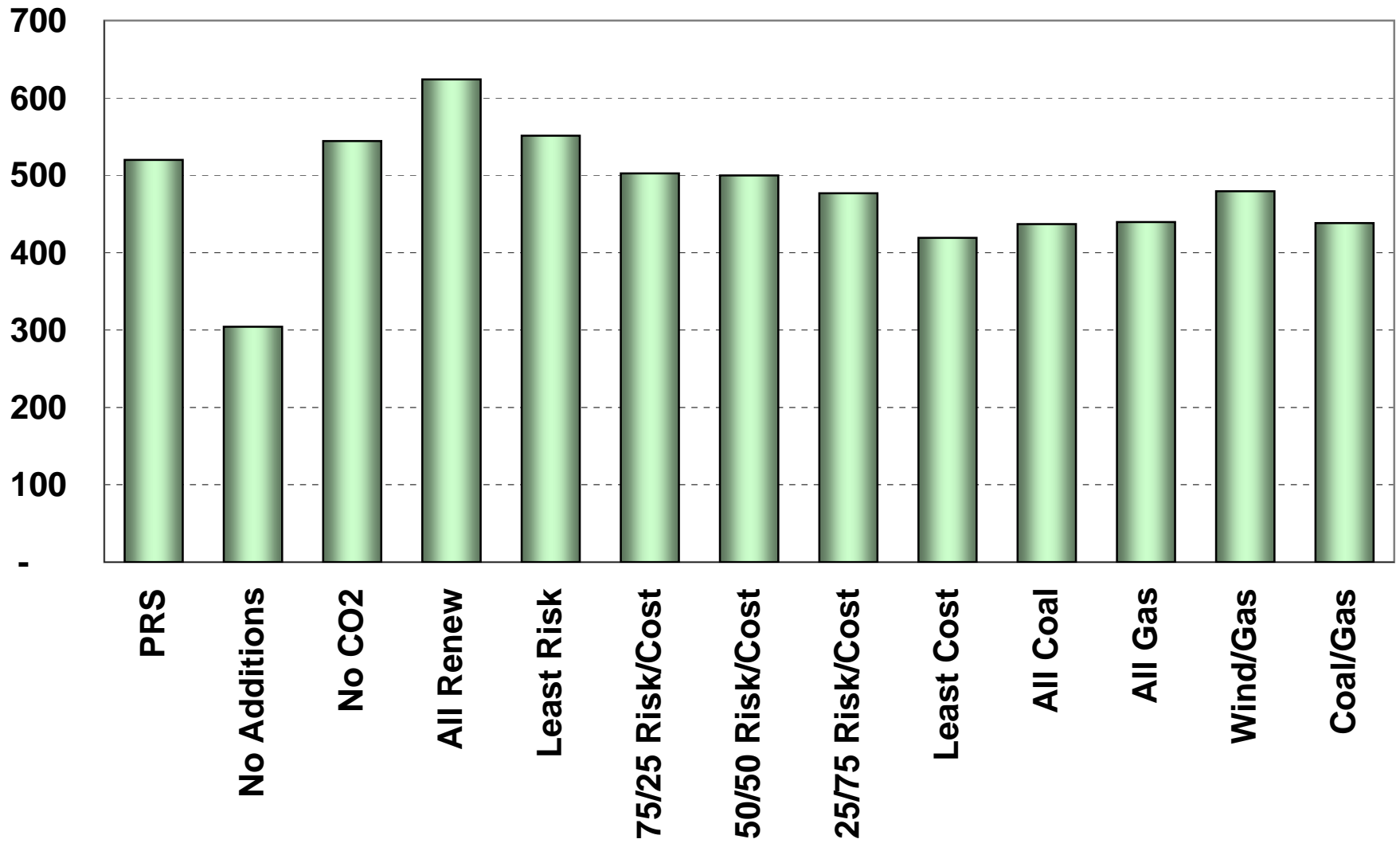
|                                  | 1     | 13               | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|----------------------------------|-------|------------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                  | PRS   | No Additio<br>ns | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| <b>Average Rate Increase</b>     |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 4.2%  | 3.0%             | 4.8%   | 5.5%      | 4.1%       | 4.0%            | 3.9%            | 3.9%            | 3.8%       | 3.5%     | 5.1%    | 5.1%     | 4.3%     |
| 2007-2026                        | 3.5%  | 3.5%             | 3.6%   | 4.1%      | 3.4%       | 3.1%            | 3.1%            | 3.1%            | 3.4%       | 2.8%     | 4.3%    | 4.2%     | 3.6%     |
| <b>Max Rate Increase</b>         |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
|                                  | 14.7% | 9.8%             | 17.4%  | 20.6%     | 15.3%      | 15.3%           | 15.2%           | 13.8%           | 13.5%      | 8.4%     | 18.4%   | 18.2%    | 13.5%    |
| <b>Capital NPV</b>               |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 907   | -                | 1,081  | 1,455     | 939        | 901             | 886             | 724             | 185        | 696      | 506     | 829      | 601      |
| 2007-2026                        | 1,345 | -                | 1,400  | 1,929     | 1,411      | 1,326           | 1,310           | 1,109           | 491        | 961      | 698     | 1,150    | 829      |
| <b>Capital Nominal \$</b>        |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,505 | -                | 1,864  | 2,392     | 1,466      | 1,419           | 1,397           | 1,169           | 319        | 1,146    | 832     | 1,361    | 989      |
| 2007-2026                        | 3,019 | -                | 3,067  | 4,140     | 3,251      | 3,097           | 3,075           | 2,657           | 1,420      | 2,129    | 1,546   | 2,504    | 1,838    |
| <b>Power Supply Expense</b>      |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| in 2016                          | 383   | 317              | 413    | 455       | 374        | 369             | 367             | 366             | 360        | 342      | 435     | 433      | 389      |
| in 2026                          | 644   | 634              | 664    | 761       | 623        | 575             | 574             | 567             | 624        | 521      | 798     | 770      | 660      |
| <b>Power Supply Expense NPV</b>  |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,659 | 1,490            | 1,744  | 1,871     | 1,672      | 1,656           | 1,648           | 1,622           | 1,596      | 1,552    | 1,797   | 1,804    | 1,674    |
| 2007-2026                        | 3,159 | 2,876            | 3,313  | 3,625     | 3,138      | 3,041           | 3,027           | 3,003           | 3,054      | 2,838    | 3,582   | 3,543    | 3,210    |
| <b>Risk (StDev)</b>              |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007 In 2016\$                   | (0)   | -                | 0      | (0)       | (0)        | 0               | (0)             | 0               | -          | 0        | (0)     | 0        | (0)      |
| 2016                             | 0     | -                | -      | 0         | 0          | -               | 0               | -               | 0          | -        | 0       | -        | 0        |
| 2026                             | -     | 0                | 0      | 0         | 0          | 0               | -               | -               | -          | -        | 0       | 0        | 0        |
| <b>Risk (StDev NPV)</b>          |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 0     | 0                | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| 2007-2026                        | 0     | 0                | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| <b>Covariance (stdev/mean)</b>   |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>95th% Max Var (NPV)</b>       |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 0     | 0                | (0)    | 0         | (0)        | 0               | 0               | (0)             | 0          | 0        | 0       | (0)      | 0        |
| 2007-2026                        | 0     | 0                | 0      | 0         | (0)        | 0               | 0               | 0               | (0)        | 0        | 0       | (0)      | 0        |
| <b>95th% Max Var (95th/mean)</b> |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>Build Out 2007-16 (MW)</b>    |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 250   | -                | -      | -         | 124        | 227             | 227             | 218             | 49         | 511      | -       | -        | 256      |
| CT MW                            | -     | -                | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -                | -      | -         | 2          | 2               | -               | -               | -          | -        | 511     | 411      | 256      |
| Wind MW                          | 400   | -                | 650    | 980       | 400        | 400             | 400             | 275             | -          | -        | -       | 400      | -        |
| Renews MW                        | 80    | -                | 100    | 228       | 183        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -                | 175    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -                | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -                | -      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -                | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total MW                         | 755   | -                | 949    | 1,208     | 761        | 761             | 761             | 668             | 461        | 511      | 511     | 811      | 511      |
| <b>Build Out 2007-26 (MW)</b>    |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 450   | -                | -      | -         | 296        | 598             | 598             | 620             | 436        | 853      | -       | -        | 427      |
| CT MW                            | -     | -                | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -                | -      | -         | 2          | 2               | -               | -               | -          | -        | 853     | 691      | 427      |
| Wind MW                          | 650   | -                | 650    | 1,330     | 650        | 650             | 650             | 400             | -          | -        | -       | 650      | -        |
| Renews MW                        | 180   | -                | 180    | 483       | 383        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -                | 475    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -                | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -                | 5      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -                | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |

## Portfolio Options Summary—High Gas

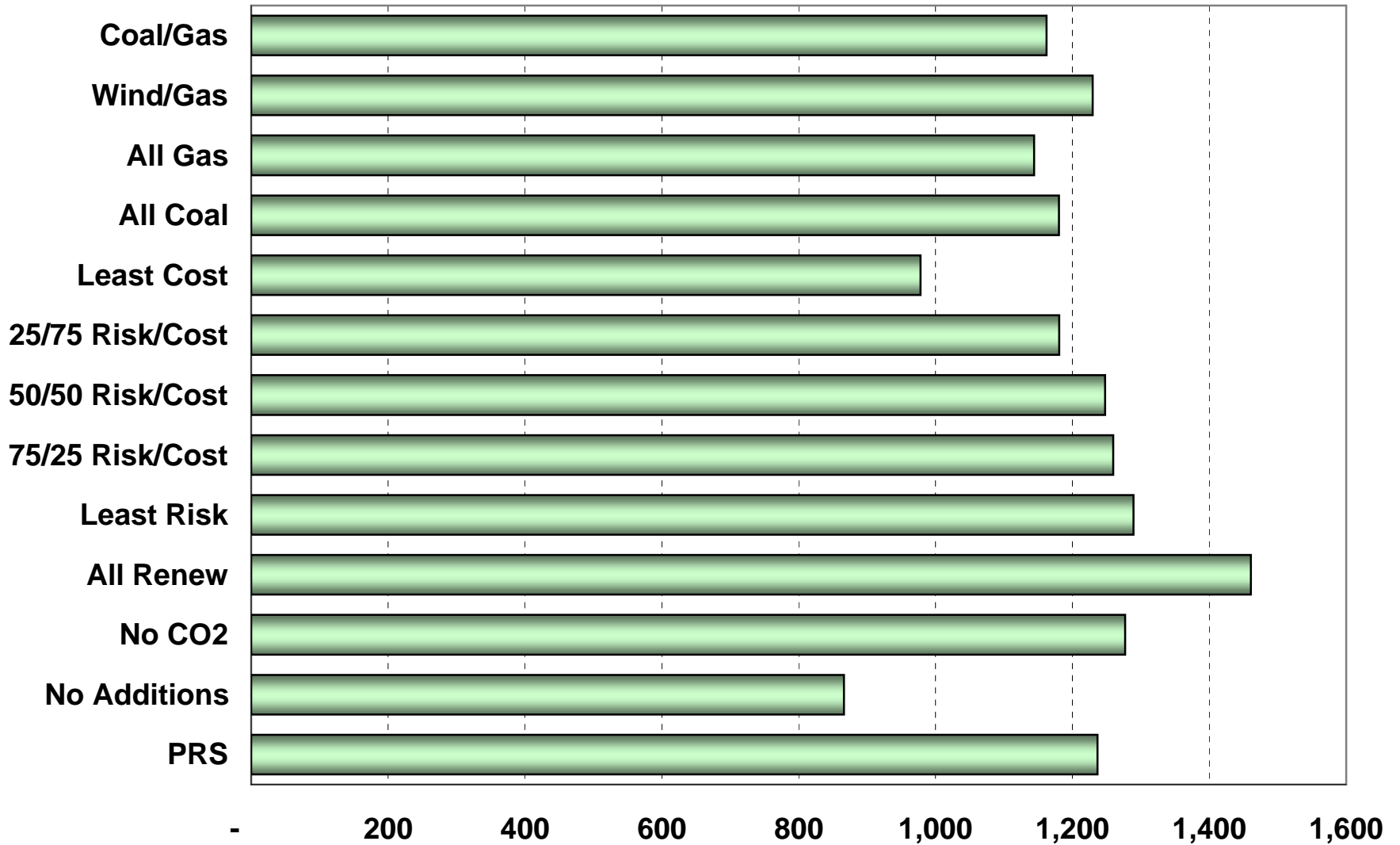
|                                | 1     | 13           | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|--------------------------------|-------|--------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                | PRS   | No Additions | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| Total MW                       | 1,305 | -            | 1,291  | 1,813     | 1,341      | 1,341           | 1,341           | 1,153           | 803        | 853      | 853     | 1,341    | 853      |
| <b>Build Out 2007-16 (aMW)</b> |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal aMW                       | 215   | -            | -      | -         | 107        | 195             | 195             | 187             | 42         | 441      | -       | -        | 220      |
| CT aMW                         | -     | -            | -      | -         | -          | -               | 11              | 46              | 319        | -        | -       | -        | -        |
| CCCT aMW                       | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 461     | 371      | 231      |
| Wind aMW                       | 122   | -            | 188    | 285       | 122        | 122             | 122             | 81              | -          | -        | -       | 122      | -        |
| Renews aMW                     | 65    | -            | 81     | 190       | 158        | 68              | 60              | 60              | -          | -        | -       | -        | -        |
| Nuclear aMW                    | -     | -            | 147    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands aMW                   | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen aMW                      | -     | -            | -      | -         | 9          | 9               | 9               | 9               | -          | -        | -       | -        | -        |
| Market aMW                     | 25    | -            | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total aMW                      | 427   | -            | 440    | 474       | 440        | 439             | 439             | 425             | 406        | 441      | 461     | 493      | 451      |
| <b>Build Out 2007-26 (aMW)</b> |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal aMW                       | 388   | -            | -      | -         | 255        | 515             | 515             | 534             | 376        | 735      | -       | -        | 368      |
| CT aMW                         | -     | -            | -      | -         | -          | -               | 11              | 46              | 319        | -        | -       | -        | -        |
| CCCT aMW                       | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 770     | 623      | 385      |
| Wind aMW                       | 188   | -            | 188    | 386       | 188        | 188             | 188             | 122             | -          | -        | -       | 188      | -        |
| Renews aMW                     | 145   | -            | 145    | 402       | 333        | 68              | 60              | 60              | -          | -        | -       | -        | -        |
| Nuclear aMW                    | -     | -            | 399    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands aMW                   | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen aMW                      | -     | -            | 4      | -         | 9          | 9               | 9               | 9               | -          | -        | -       | -        | -        |
| Market aMW                     | 25    | -            | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Total aMW                      | 746   | -            | 717    | 788       | 786        | 783             | 783             | 771             | 694        | 735      | 770     | 811      | 752      |

## **Low Gas**

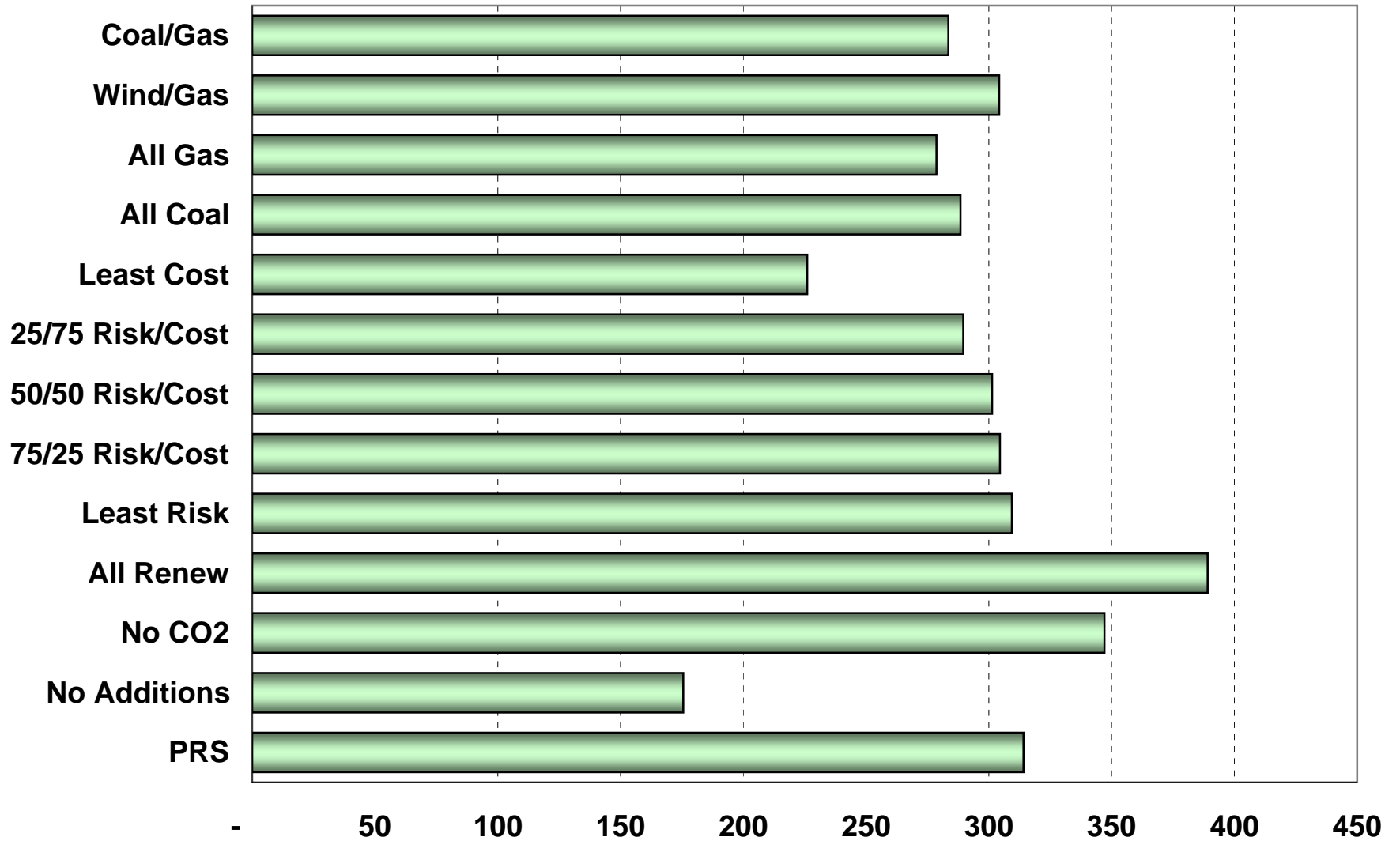
PSE 2026



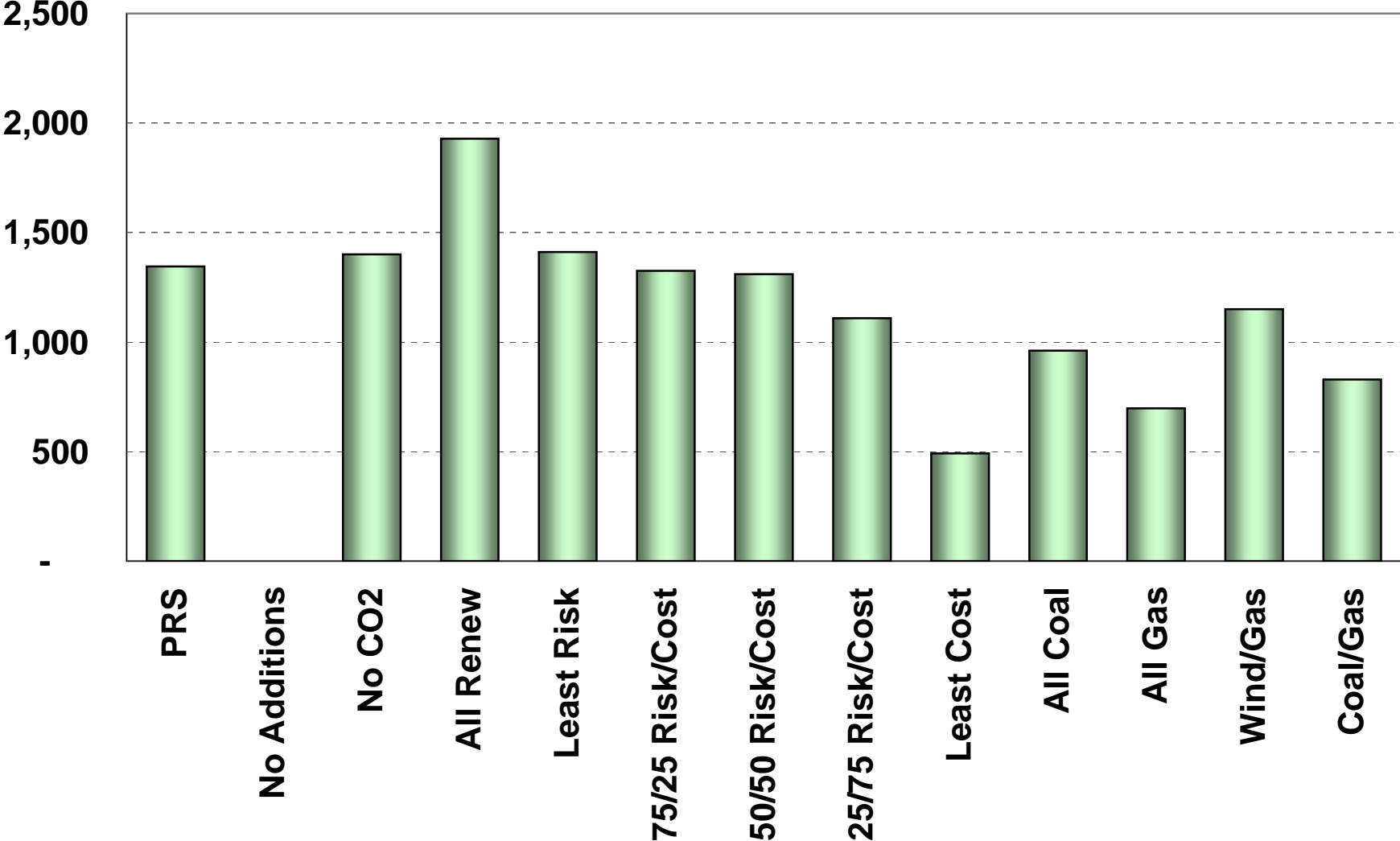
### PSE 07-16 NPV



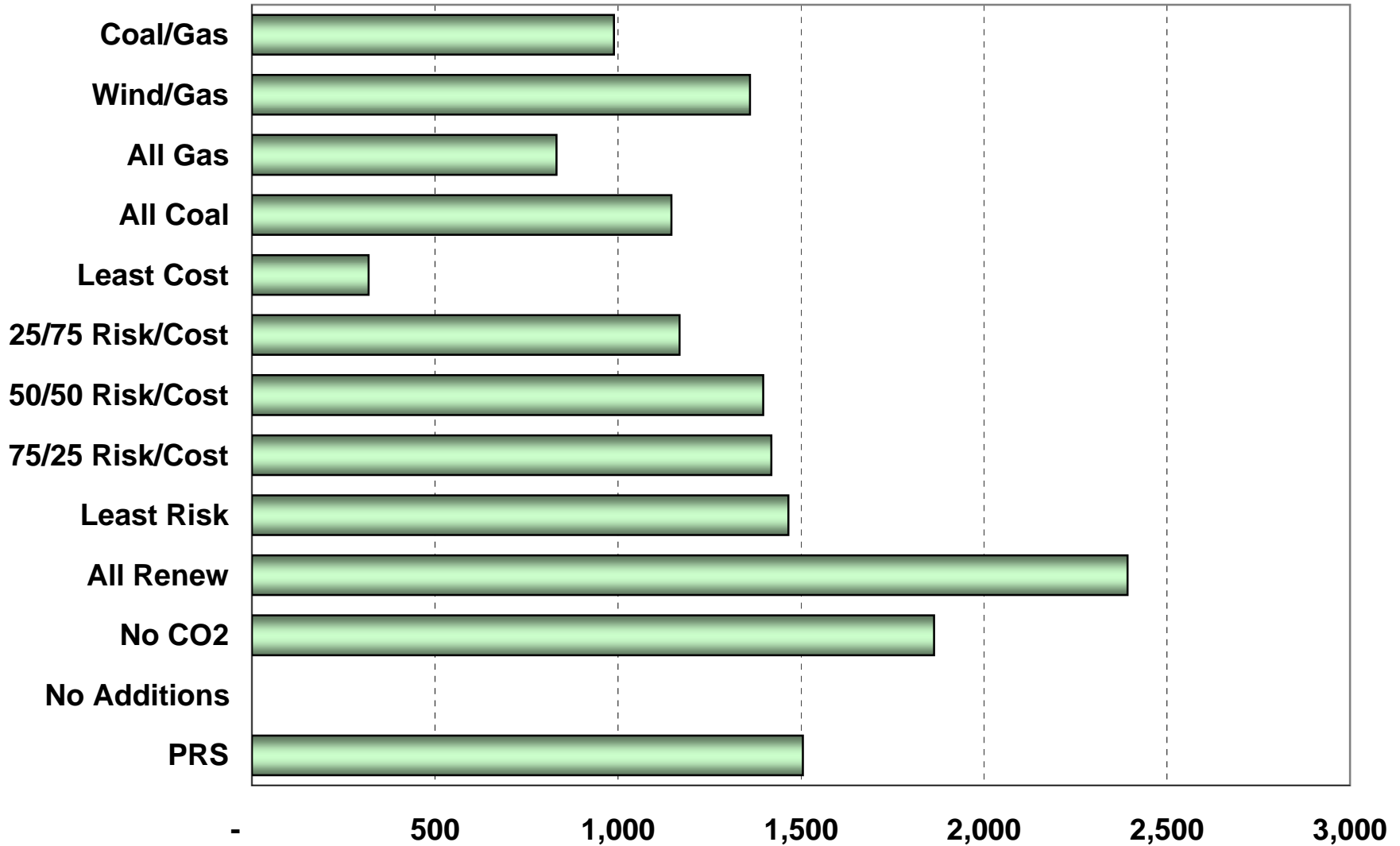
# PSE 2016



Capital NPV 07-26

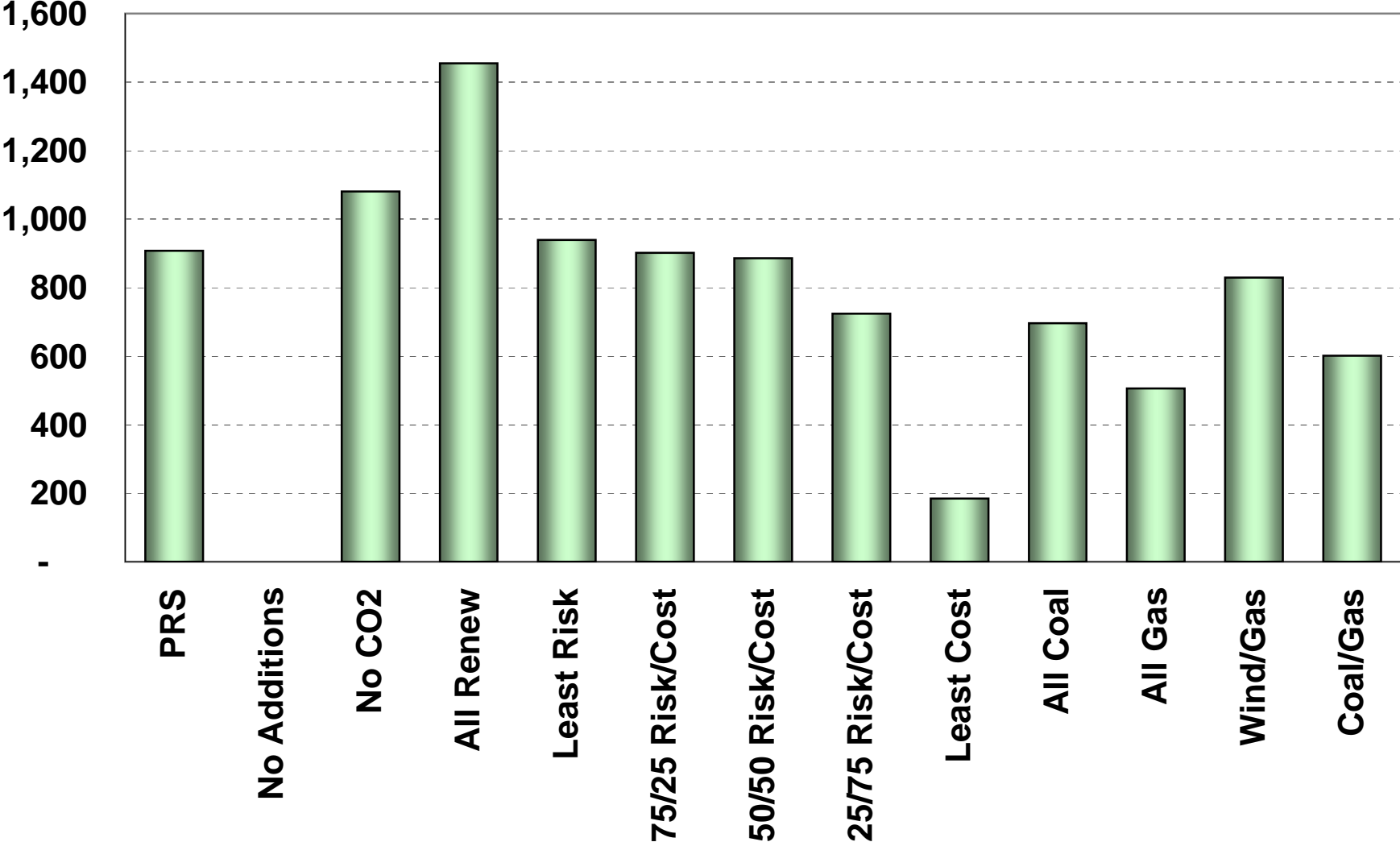


### Capital Nominal 07-16

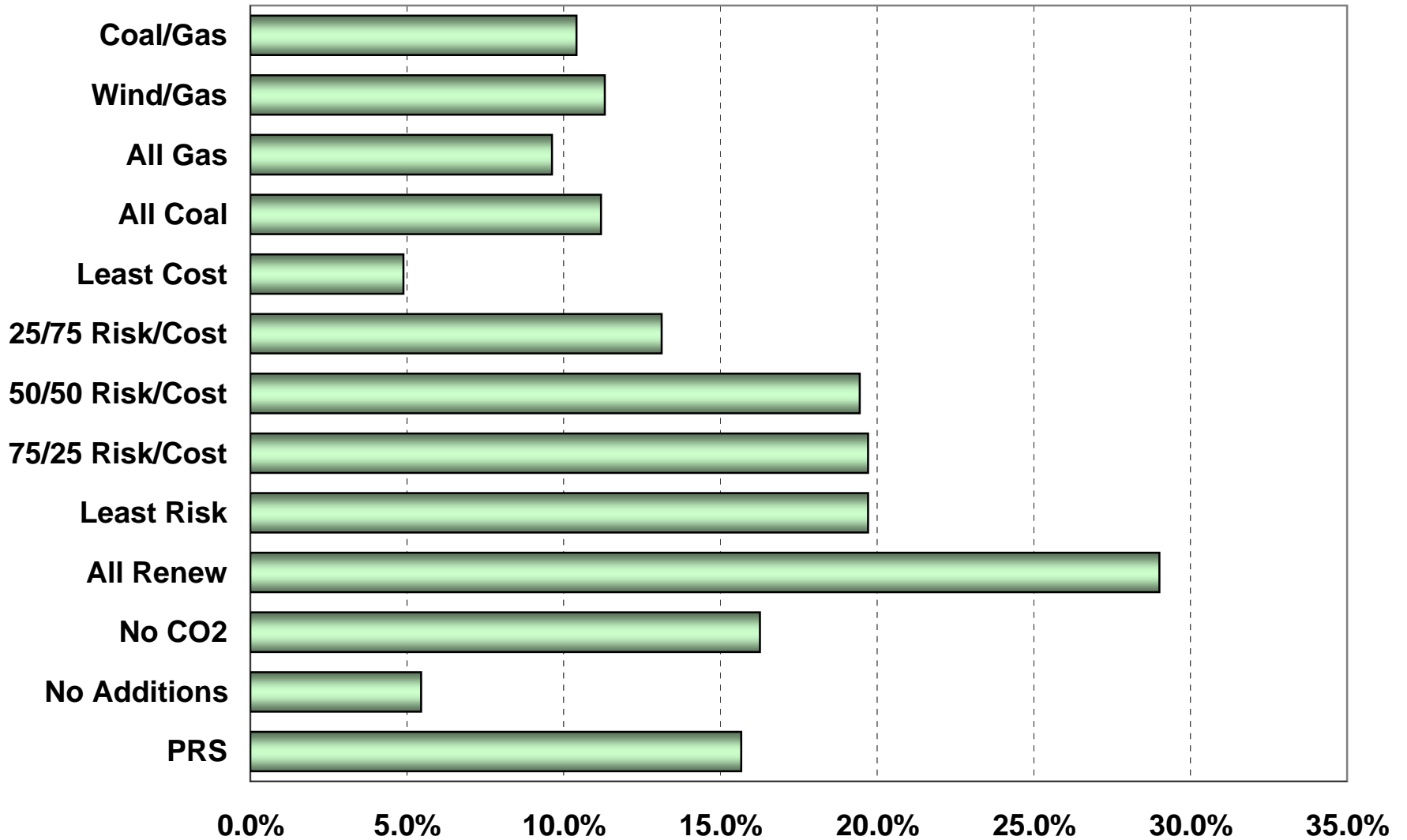




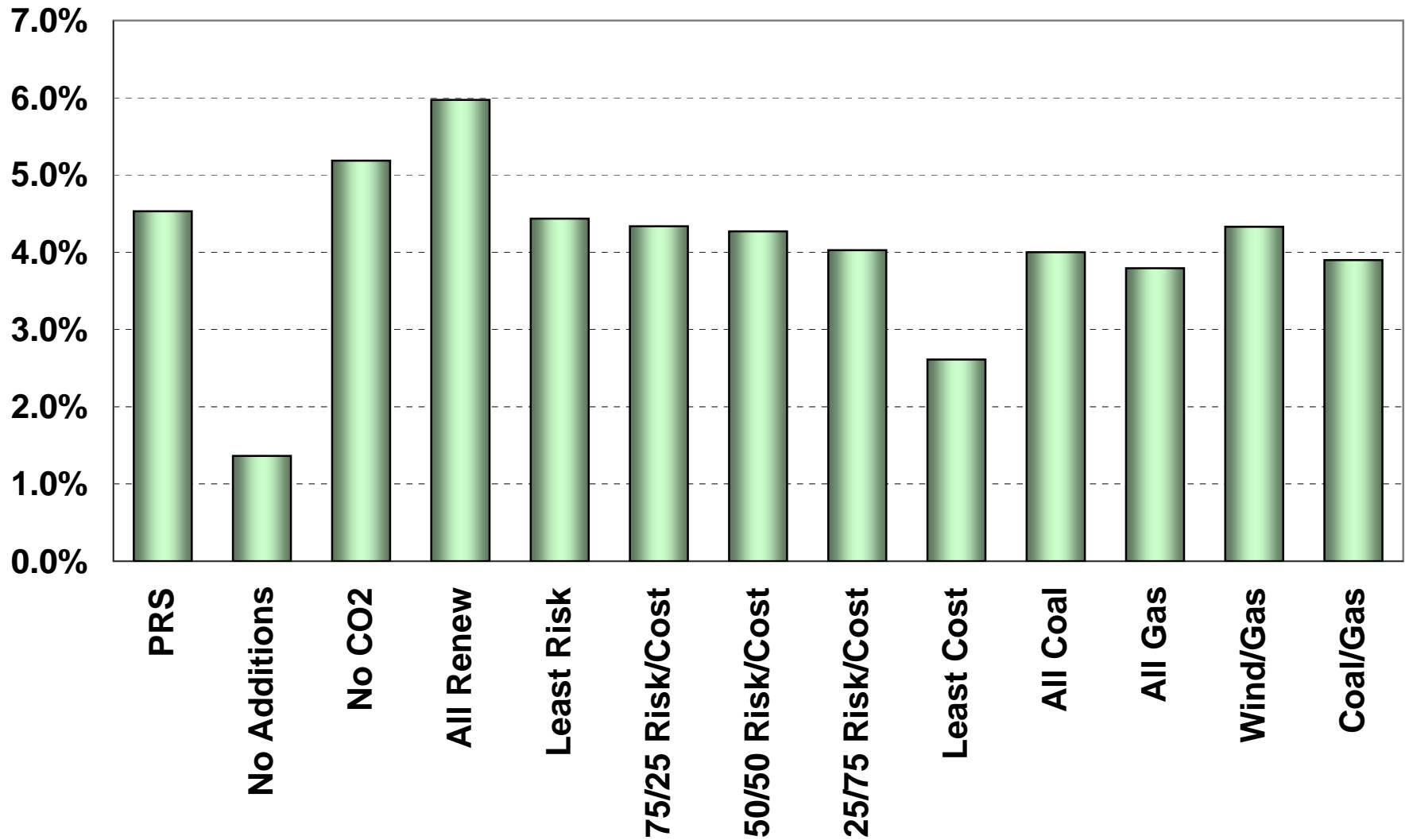
Capital NPV 07-16



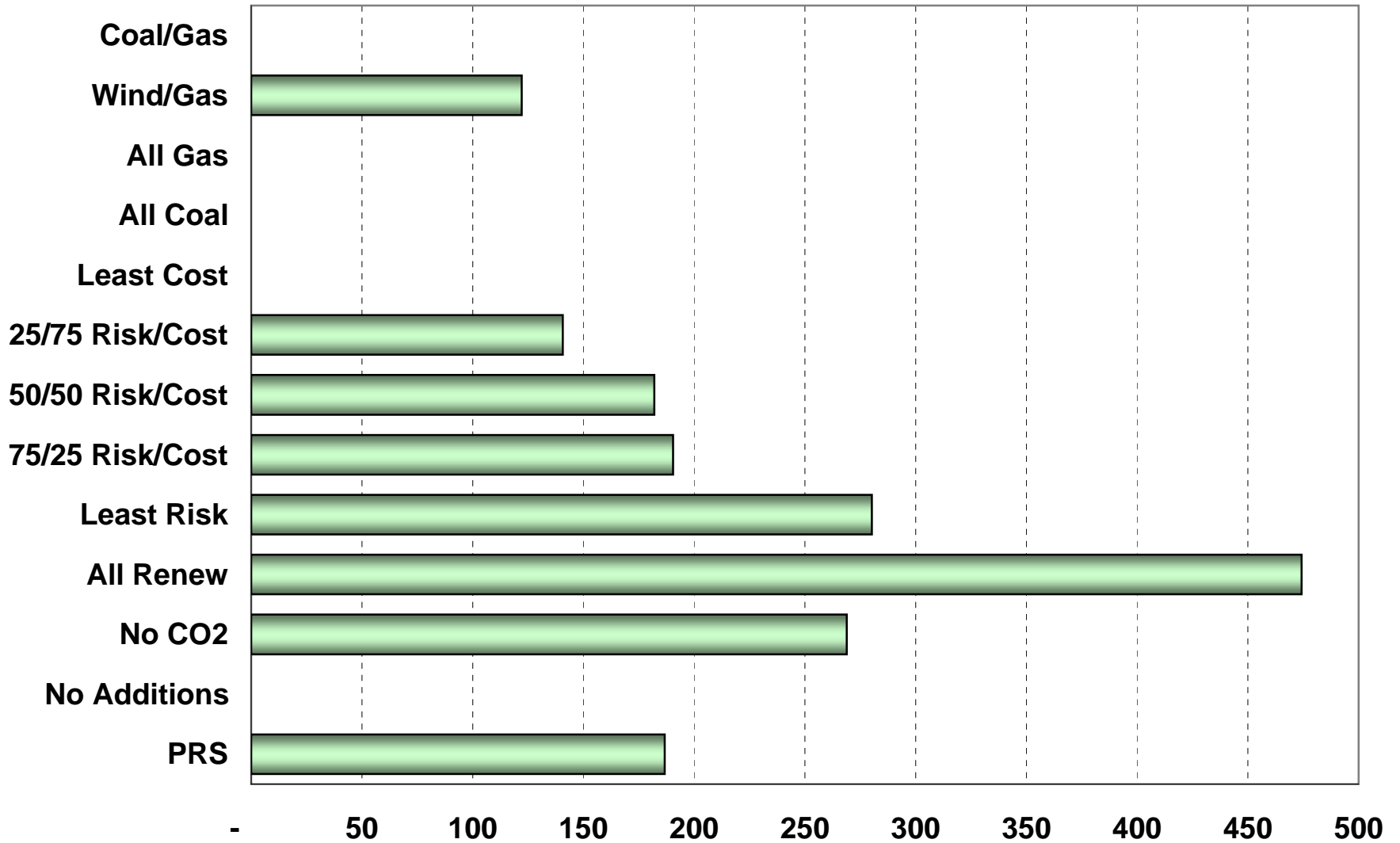
### Max Rate Increase



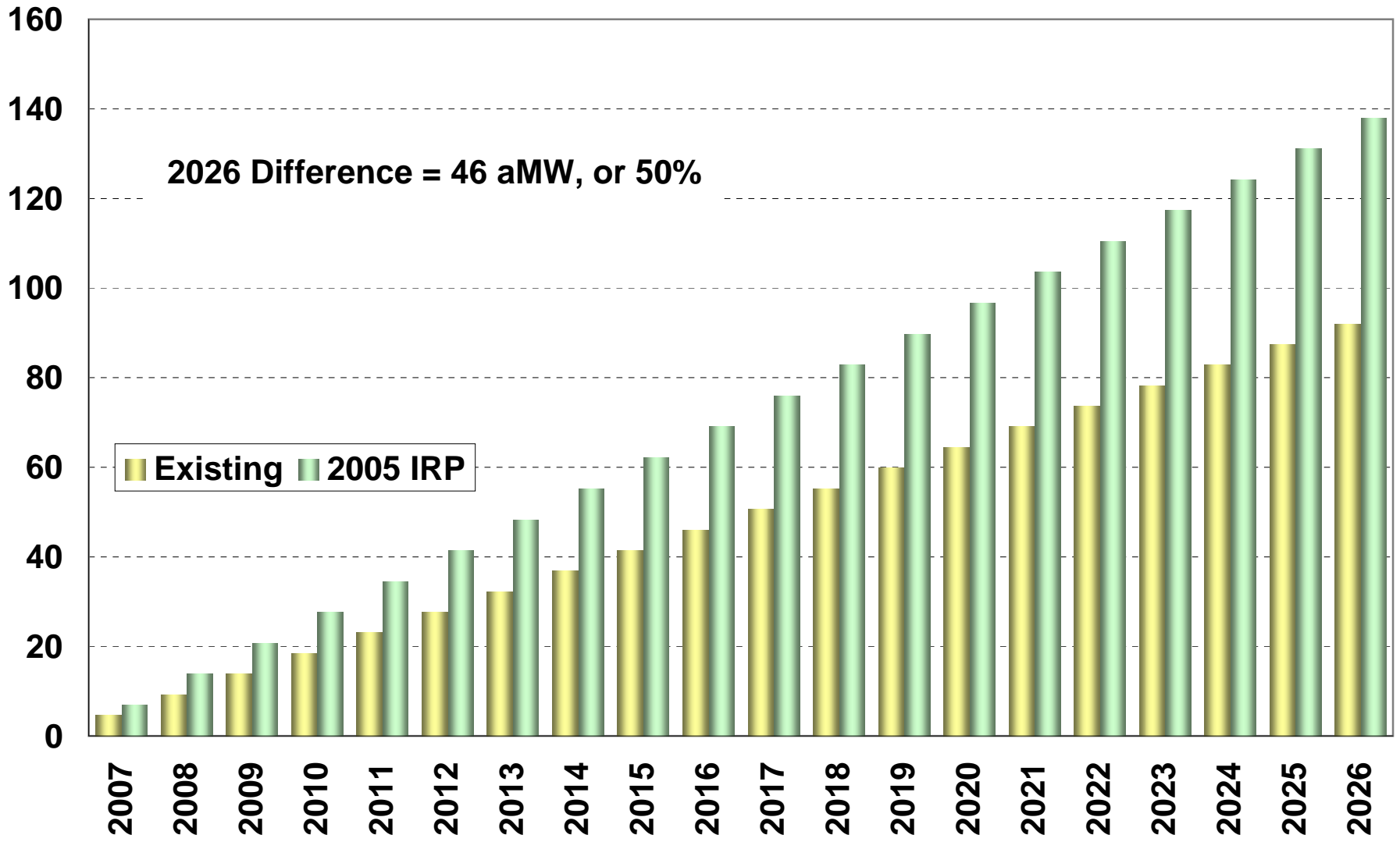
### Rate Increase 07-16



### Renewables aMW 2016



### DSM Acquisition



**Portfolio Options Summary—Low Gas**

|                                  | 1     | 13               | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|----------------------------------|-------|------------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                  | PRS   | No Additio<br>ns | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| <b>Average Rate Increase</b>     |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 4.5%  | 1.4%             | 5.2%   | 6.0%      | 4.4%       | 4.3%            | 4.3%            | 4.0%            | 2.6%       | 4.0%     | 3.8%    | 4.3%     | 3.9%     |
| 2007-2026                        | 3.5%  | 1.9%             | 3.7%   | 4.2%      | 3.7%       | 3.4%            | 3.4%            | 3.2%            | 2.8%       | 3.0%     | 3.0%    | 3.3%     | 3.0%     |
| <b>Max Rate Increase</b>         |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
|                                  | 15.7% | 5.4%             | 16.3%  | 29.0%     | 19.7%      | 19.7%           | 19.4%           | 13.1%           | 4.9%       | 11.2%    | 9.6%    | 11.3%    | 10.4%    |
| <b>Capital NPV</b>               |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 907   | -                | 1,081  | 1,455     | 939        | 901             | 886             | 724             | 185        | 696      | 506     | 829      | 601      |
| 2007-2026                        | 1,345 | -                | 1,400  | 1,929     | 1,411      | 1,326           | 1,310           | 1,109           | 491        | 961      | 698     | 1,150    | 829      |
| <b>Capital Nominal \$</b>        |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,505 | -                | 1,864  | 2,392     | 1,466      | 1,419           | 1,397           | 1,169           | 319        | 1,146    | 832     | 1,361    | 989      |
| 2007-2026                        | 3,019 | -                | 3,067  | 4,140     | 3,251      | 3,097           | 3,075           | 2,657           | 1,420      | 2,129    | 1,546   | 2,504    | 1,838    |
| <b>Power Supply Expense</b>      |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| in 2016                          | 314   | 176              | 347    | 389       | 309        | 305             | 301             | 290             | 226        | 288      | 279     | 304      | 284      |
| in 2026                          | 520   | 304              | 544    | 624       | 551        | 502             | 500             | 477             | 419        | 437      | 439     | 480      | 438      |
| <b>Power Supply Expense NPV</b>  |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,236 | 866              | 1,277  | 1,461     | 1,289      | 1,259           | 1,248           | 1,181           | 978        | 1,180    | 1,144   | 1,230    | 1,162    |
| 2007-2026                        | 2,444 | 1,571            | 2,540  | 2,900     | 2,506      | 2,388           | 2,367           | 2,263           | 1,907      | 2,230    | 2,186   | 2,365    | 2,208    |
| <b>Risk (StDev)</b>              |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007 In 2016\$                   | (0)   | -                | -      | -         | (0)        | (0)             | -               | (0)             | -          | -        | (0)     | (0)      | -        |
| 2016                             | 0     | -                | -      | -         | 0          | 0               | -               | 0               | 0          | -        | 0       | 0        | -        |
| 2026                             | -     | -                | 0      | -         | -          | -               | 0               | 0               | 0          | 0        | 0       | -        | -        |
| <b>Risk (StDev NPV)</b>          |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 0     | 0                | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| 2007-2026                        | 0     | 0                | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| <b>Covariance (stdev/mean)</b>   |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>95th% Max Var (NPV)</b>       |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | (0)   | (0)              | 0      | (0)       | 0          | 0               | (0)             | (0)             | (0)        | (0)      | 0       | (0)      | (0)      |
| 2007-2026                        | (0)   | (0)              | (0)    | (0)       | 0          | 0               | 0               | 0               | (0)        | (0)      | 0       | 0        | (0)      |
| <b>95th% Max Var (95th/mean)</b> |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>Build Out 2007-16 (MW)</b>    |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 250   | -                | -      | -         | 124        | 227             | 227             | 218             | 49         | 511      | -       | -        | 256      |
| CT MW                            | -     | -                | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -                | -      | -         | 2          | 2               | -               | -               | -          | -        | 511     | 411      | 256      |
| Wind MW                          | 400   | -                | 650    | 980       | 400        | 400             | 400             | 275             | -          | -        | -       | 400      | -        |
| Renews MW                        | 80    | -                | 100    | 228       | 183        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -                | 175    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -                | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -                | -      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -                | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total MW                         | 755   | -                | 949    | 1,208     | 761        | 761             | 761             | 668             | 461        | 511      | 511     | 811      | 511      |
| <b>Build Out 2007-26 (MW)</b>    |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 450   | -                | -      | -         | 296        | 598             | 598             | 620             | 436        | 853      | -       | -        | 427      |
| CT MW                            | -     | -                | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -                | -      | -         | 2          | 2               | -               | -               | -          | -        | 853     | 691      | 427      |
| Wind MW                          | 650   | -                | 650    | 1,330     | 650        | 650             | 650             | 400             | -          | -        | -       | 650      | -        |
| Renews MW                        | 180   | -                | 180    | 483       | 383        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -                | 475    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -                | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -                | 5      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -                | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |

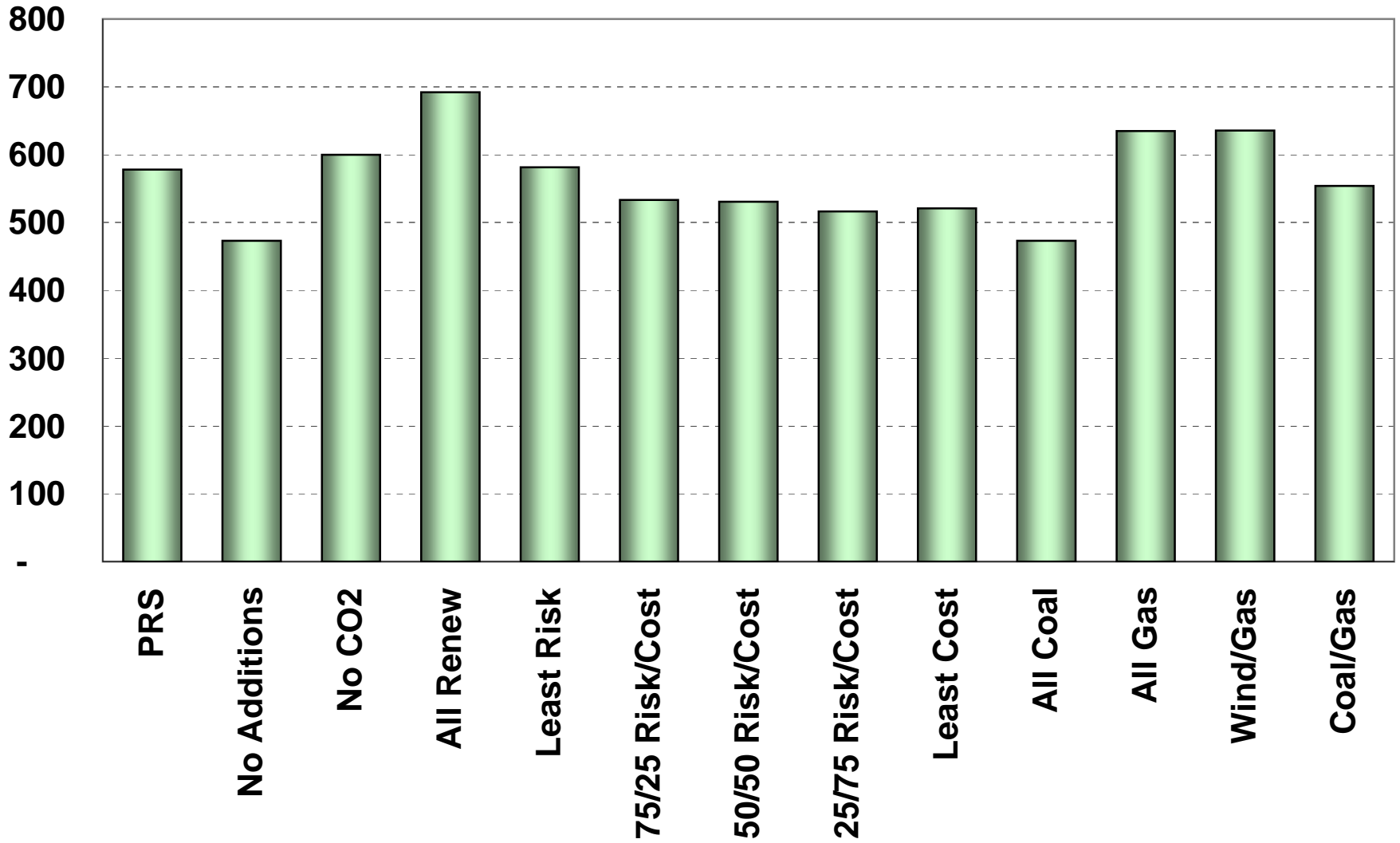
## Portfolio Options Summary—Low Gas

|                                | 1     | 13           | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|--------------------------------|-------|--------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                | PRS   | No Additions | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| Total MW                       | 1,305 | -            | 1,291  | 1,813     | 1,341      | 1,341           | 1,341           | 1,153           | 803        | 853      | 853     | 1,341    | 853      |
| <b>Build Out 2007-16 (aMW)</b> |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal aMW                       | 215   | -            | -      | -         | 107        | 195             | 195             | 187             | 42         | 441      | -       | -        | 220      |
| CT aMW                         | -     | -            | -      | -         | -          | -               | 11              | 46              | 319        | -        | -       | -        | -        |
| CCCT aMW                       | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 461     | 371      | 231      |
| Wind aMW                       | 122   | -            | 188    | 285       | 122        | 122             | 122             | 81              | -          | -        | -       | 122      | -        |
| Renews aMW                     | 65    | -            | 81     | 190       | 158        | 68              | 60              | 60              | -          | -        | -       | -        | -        |
| Nuclear aMW                    | -     | -            | 147    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands aMW                   | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen aMW                      | -     | -            | -      | -         | 9          | 9               | 9               | 9               | -          | -        | -       | -        | -        |
| Market aMW                     | 25    | -            | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total aMW                      | 427   | -            | 440    | 474       | 440        | 439             | 439             | 425             | 406        | 441      | 461     | 493      | 451      |
| <b>Build Out 2007-26 (aMW)</b> |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal aMW                       | 388   | -            | -      | -         | 255        | 515             | 515             | 534             | 376        | 735      | -       | -        | 368      |
| CT aMW                         | -     | -            | -      | -         | -          | -               | 11              | 46              | 319        | -        | -       | -        | -        |
| CCCT aMW                       | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 770     | 623      | 385      |
| Wind aMW                       | 188   | -            | 188    | 386       | 188        | 188             | 188             | 122             | -          | -        | -       | 188      | -        |
| Renews aMW                     | 145   | -            | 145    | 402       | 333        | 68              | 60              | 60              | -          | -        | -       | -        | -        |
| Nuclear aMW                    | -     | -            | 399    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands aMW                   | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen aMW                      | -     | -            | 4      | -         | 9          | 9               | 9               | 9               | -          | -        | -       | -        | -        |
| Market aMW                     | 25    | -            | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Total aMW                      | 746   | -            | 717    | 788       | 786        | 783             | 783             | 771             | 694        | 735      | 770     | 811      | 752      |

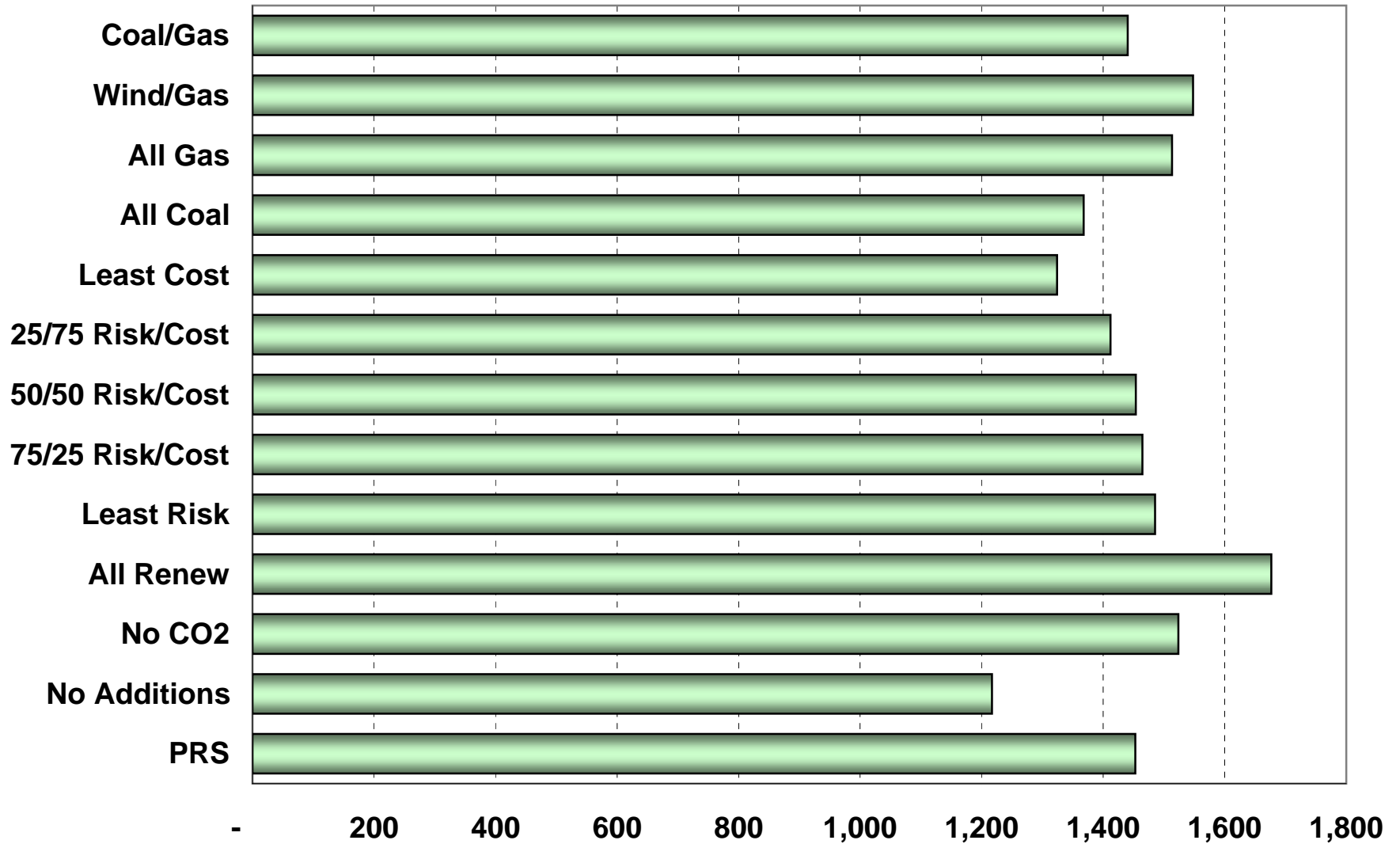
## **2X Coal Escalation**



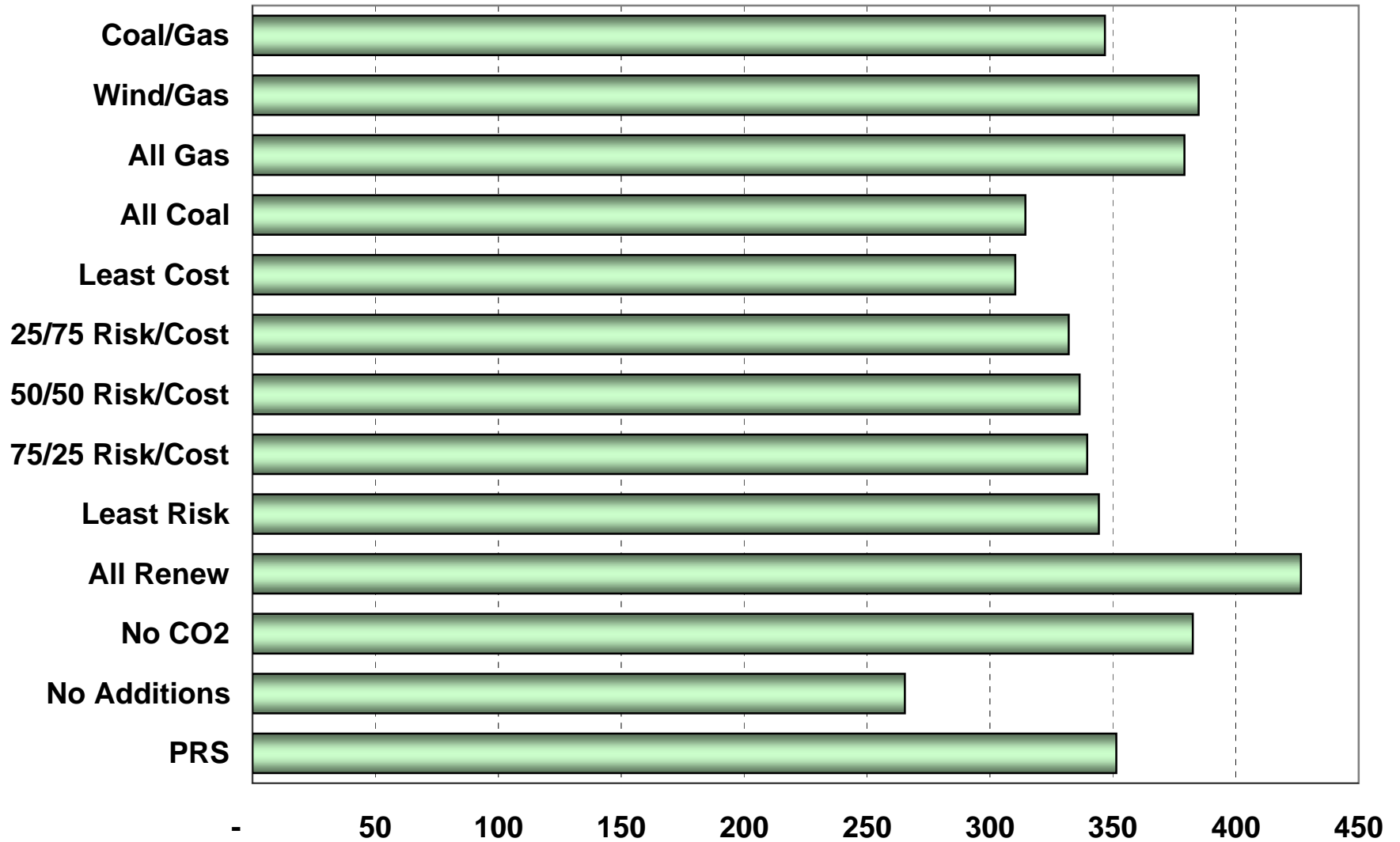
PSE 2026



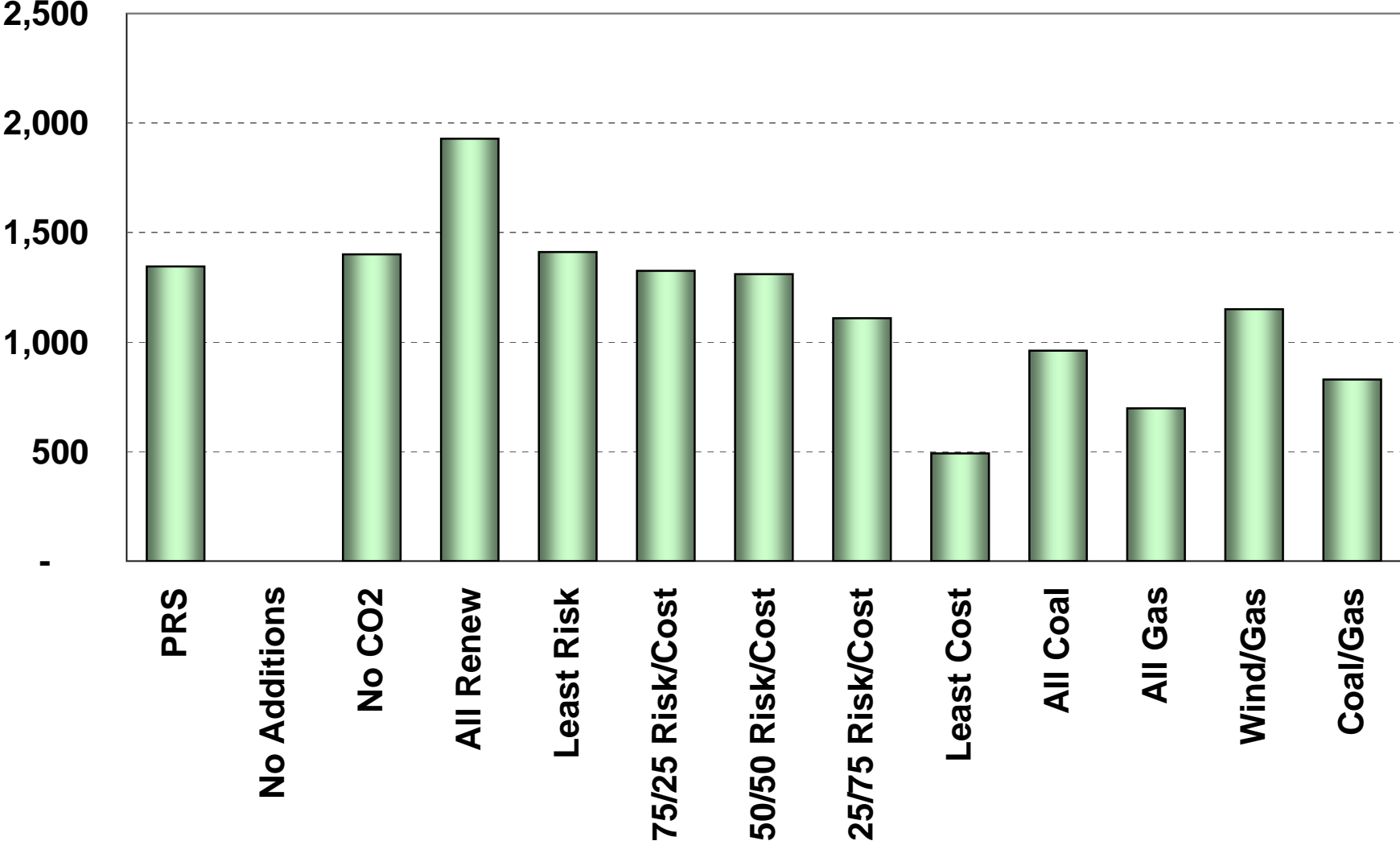
### PSE 07-16 NPV



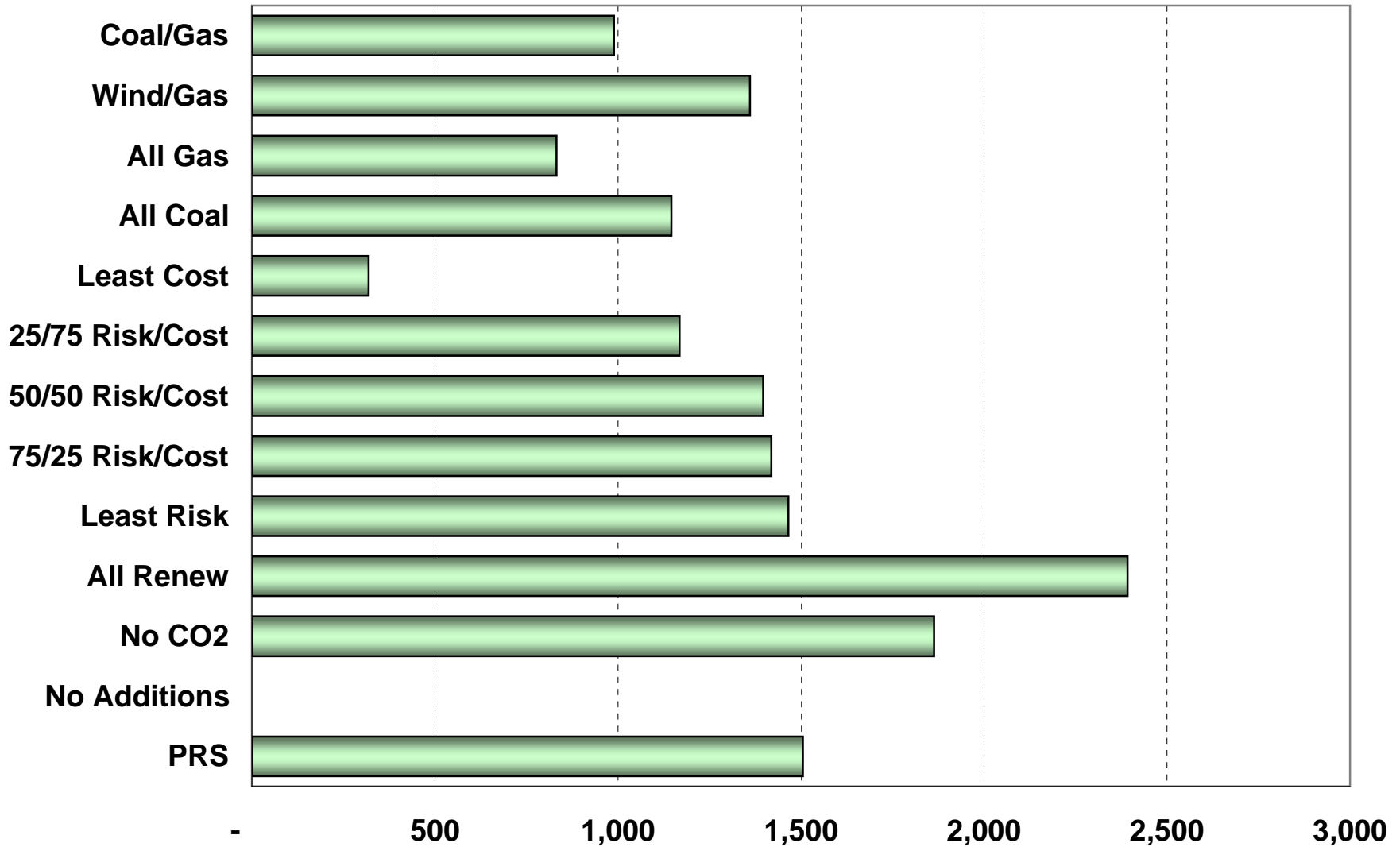
# PSE 2016



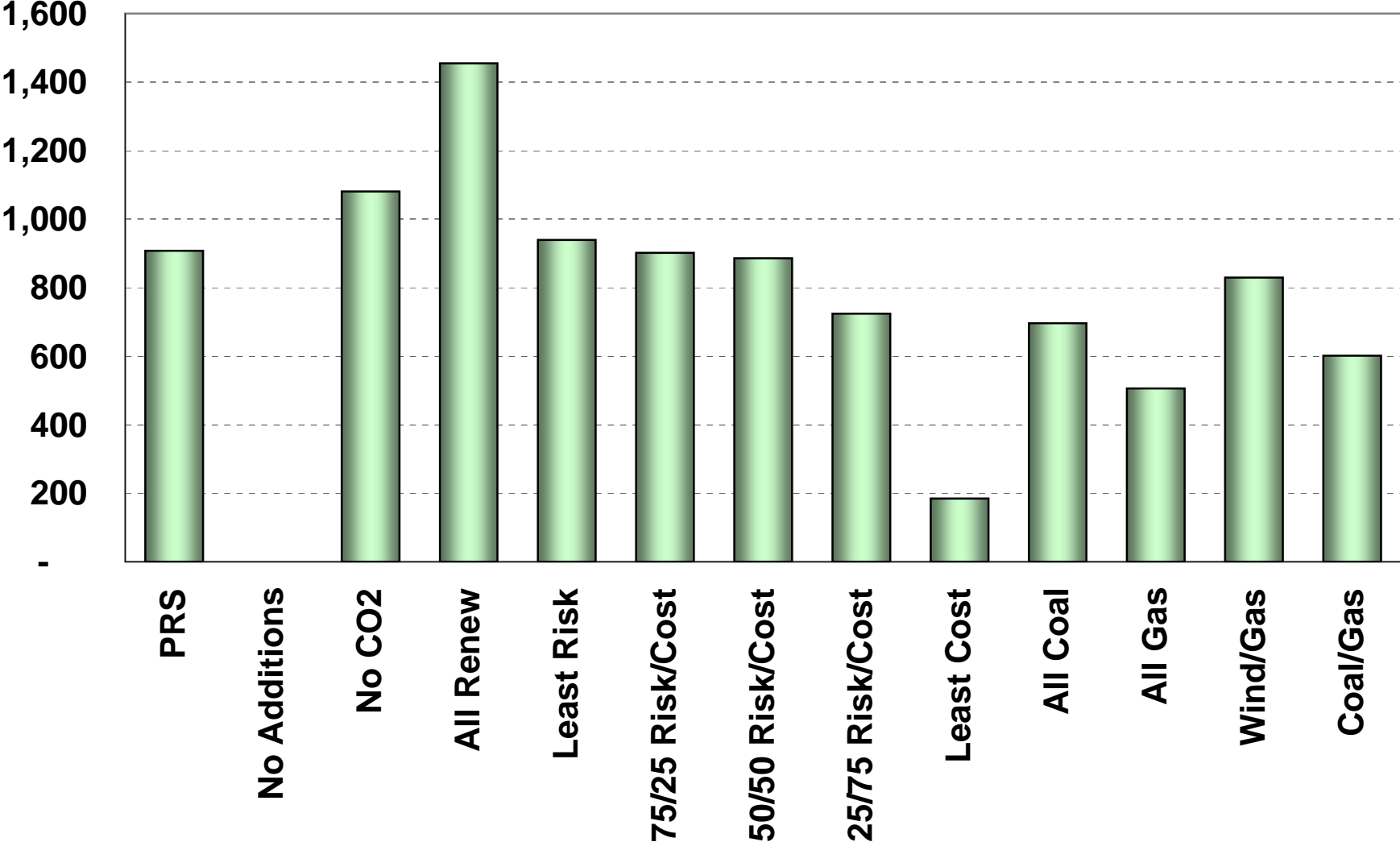
Capital NPV 07-26



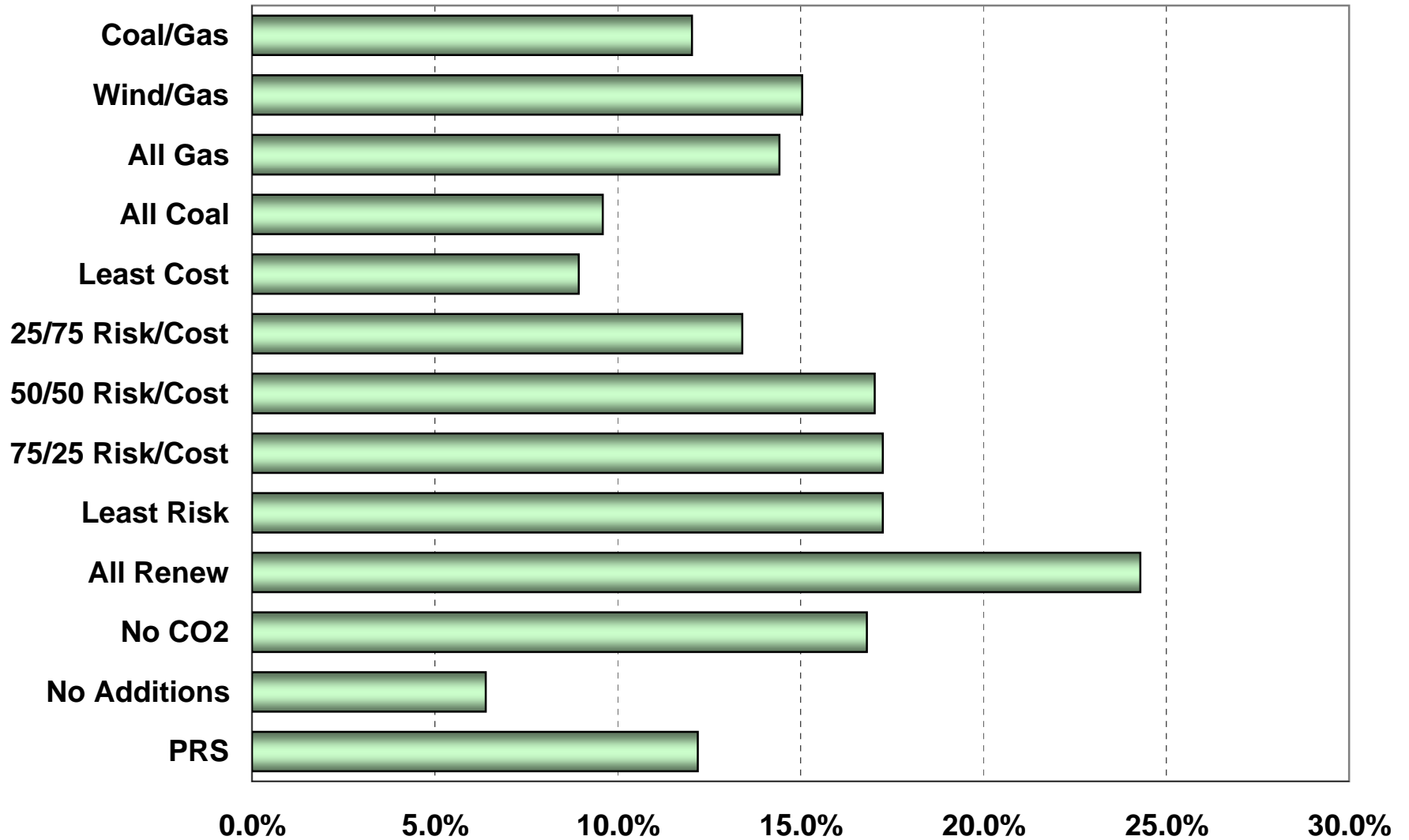
### Capital Nominal 07-16



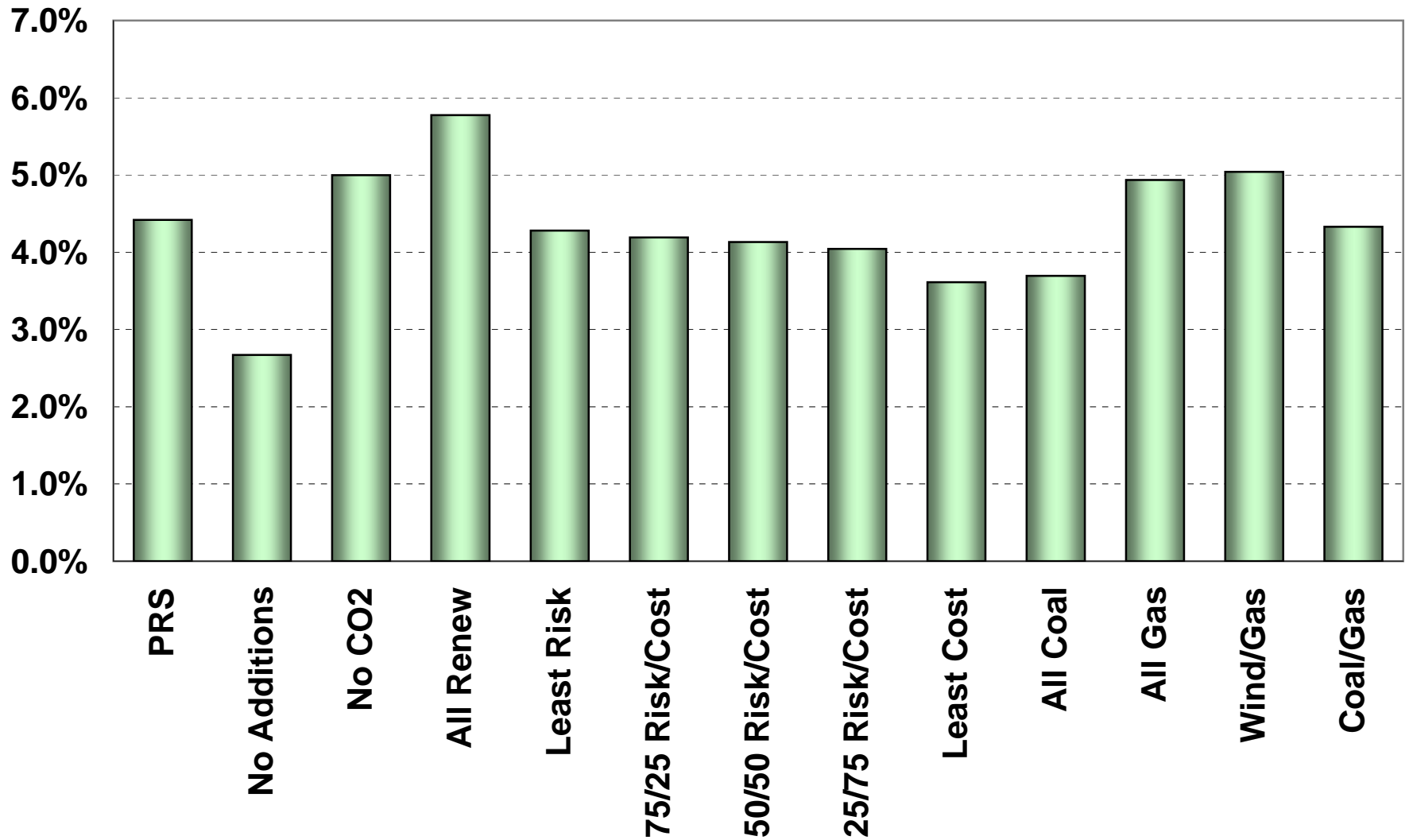
Capital NPV 07-16



### Max Rate Increase

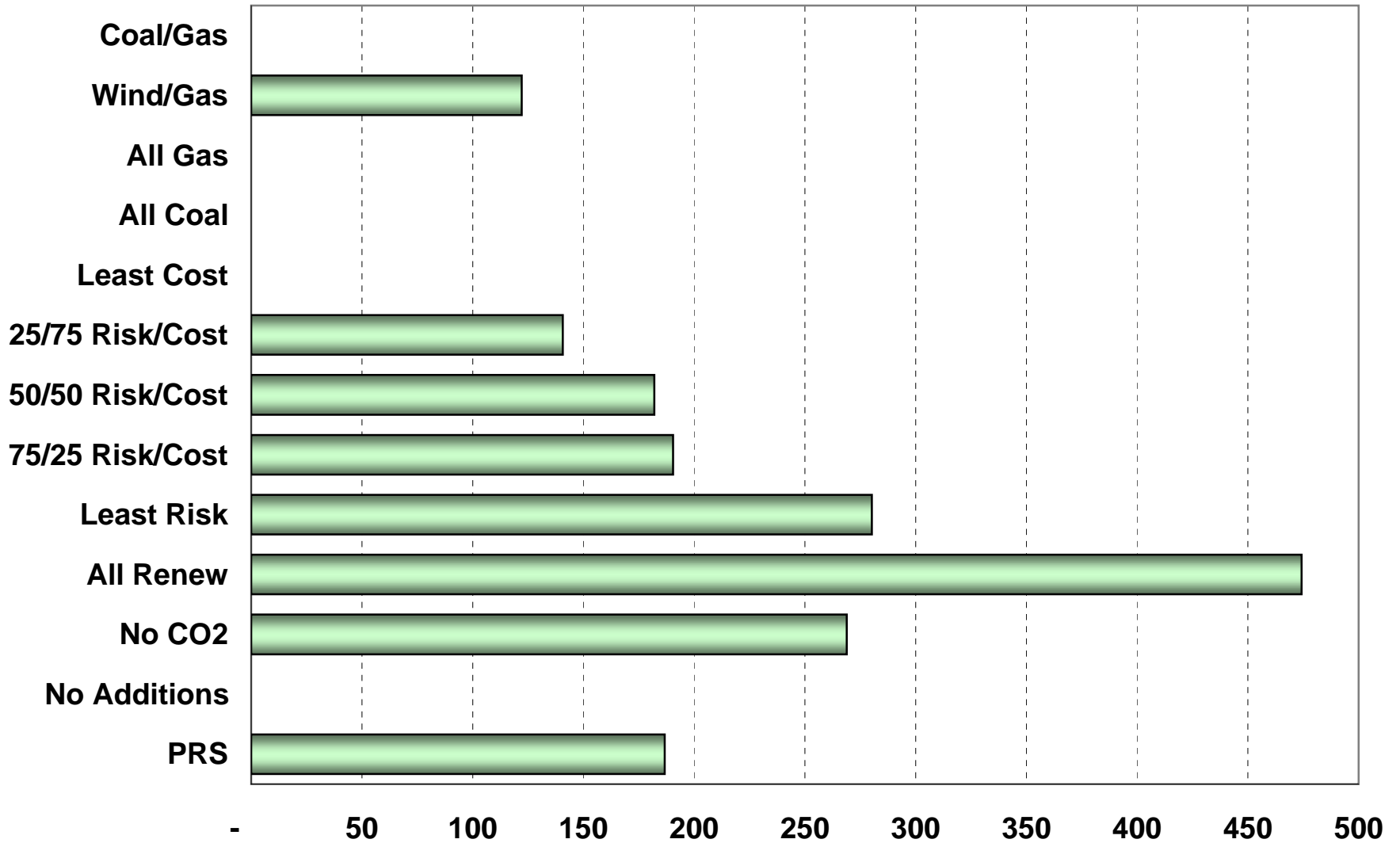


### Rate Increase 07-16

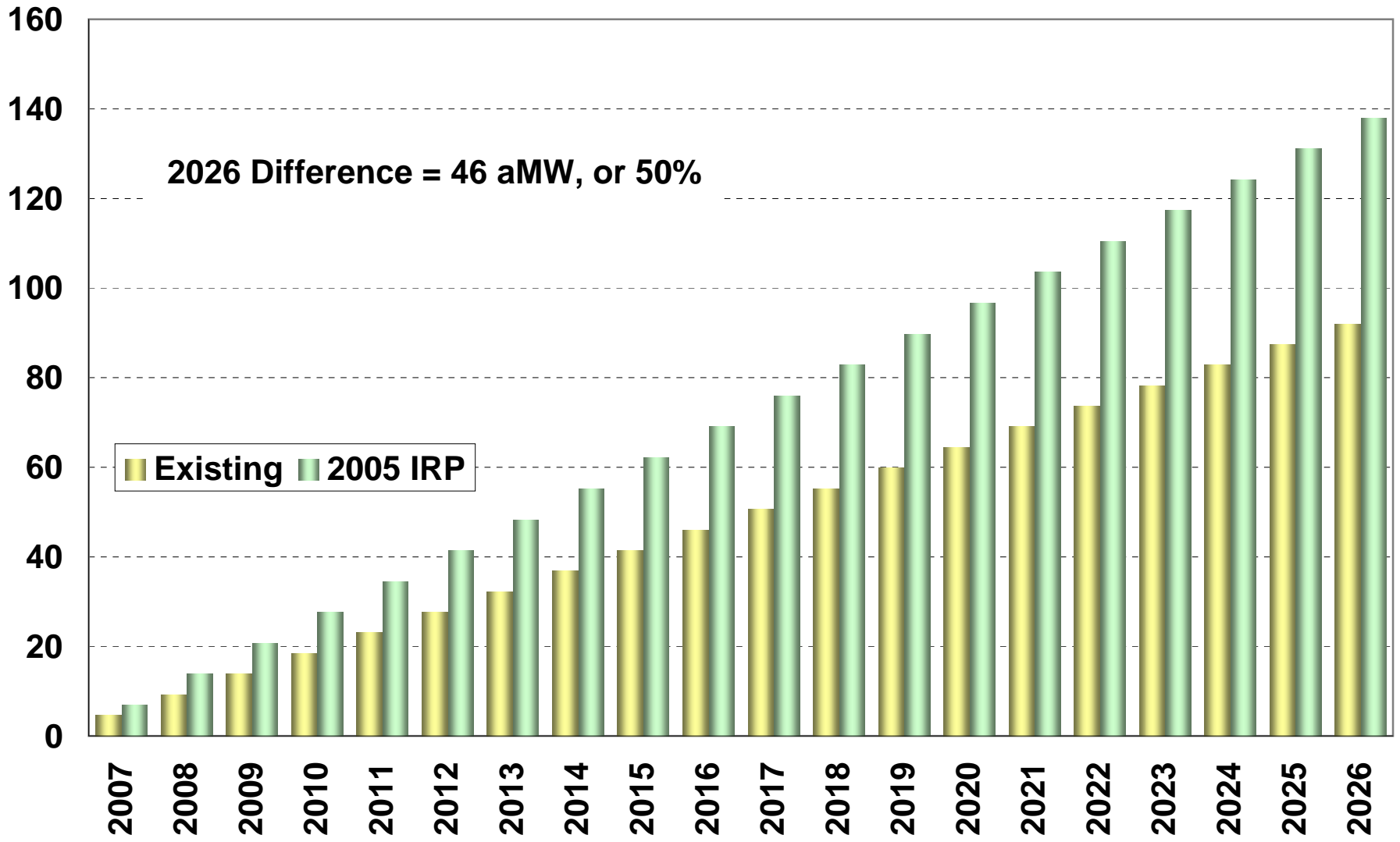




### Renewables aMW 2016



# DSM Acquisition



**Portfolio Options Summary—2X Coal Escalation**

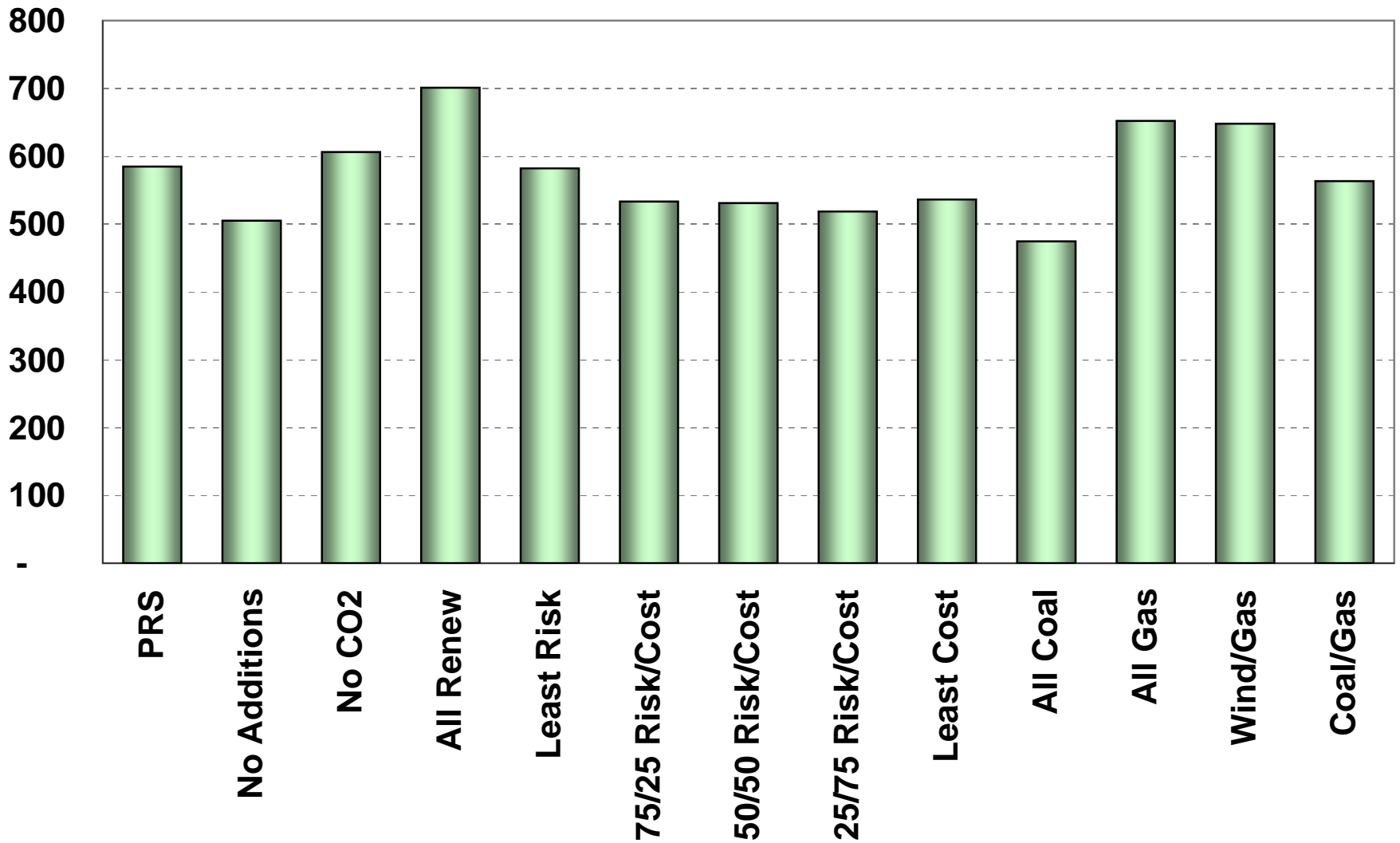
|                                  | 1     | 13           | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|----------------------------------|-------|--------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                  | PRS   | No Additions | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| <b>Average Rate Increase</b>     |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 4.4%  | 2.7%         | 5.0%   | 5.8%      | 4.3%       | 4.2%            | 4.1%            | 4.0%            | 3.6%       | 3.7%     | 4.9%    | 5.0%     | 4.3%     |
| 2007-2026                        | 3.5%  | 2.8%         | 3.6%   | 4.1%      | 3.5%       | 3.2%            | 3.2%            | 3.1%            | 3.1%       | 2.8%     | 3.8%    | 3.8%     | 3.3%     |
| <b>Max Rate Increase</b>         |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 12.2% | 6.4%         | 16.8%  | 24.3%     | 17.3%      | 17.3%           | 17.0%           | 13.4%           | 8.9%       | 9.6%     | 14.4%   | 15.0%    | 12.0%    |
| <b>Capital NPV</b>               |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 907   | -            | 1,081  | 1,455     | 939        | 901             | 886             | 724             | 185        | 696      | 506     | 829      | 601      |
| 2007-2026                        | 1,345 | -            | 1,400  | 1,929     | 1,411      | 1,326           | 1,310           | 1,109           | 491        | 961      | 698     | 1,150    | 829      |
| <b>Capital Nominal \$</b>        |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,505 | -            | 1,864  | 2,392     | 1,466      | 1,419           | 1,397           | 1,169           | 319        | 1,146    | 832     | 1,361    | 989      |
| 2007-2026                        | 3,019 | -            | 3,067  | 4,140     | 3,251      | 3,097           | 3,075           | 2,657           | 1,420      | 2,129    | 1,546   | 2,504    | 1,838    |
| <b>Power Supply Expense</b>      |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| in 2016                          | 351   | 265          | 383    | 426       | 344        | 340             | 337             | 332             | 310        | 314      | 379     | 385      | 347      |
| in 2026                          | 578   | 473          | 600    | 692       | 582        | 533             | 531             | 516             | 521        | 473      | 635     | 636      | 554      |
| <b>Power Supply Expense NPV</b>  |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,453 | 1,217        | 1,524  | 1,677     | 1,486      | 1,465           | 1,454           | 1,412           | 1,324      | 1,368    | 1,513   | 1,548    | 1,440    |
| 2007-2026                        | 2,808 | 2,305        | 2,942  | 3,282     | 2,826      | 2,720           | 2,700           | 2,646           | 2,549      | 2,530    | 2,989   | 3,030    | 2,760    |
| <b>Risk (StDev)</b>              |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007 In 2016\$                   | -     | -            | -      | (0)       | (0)        | -               | (0)             | -               | -          | (0)      | -       | -        | -        |
| 2016                             | -     | 0            | -      | 0         | 0          | -               | 0               | -               | 0          | 0        | -       | -        | -        |
| 2026                             | -     | 0            | 0      | 0         | -          | 0               | 0               | 0               | 0          | 0        | -       | 0        | 0        |
| <b>Risk (StDev NPV)</b>          |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 0     | 0            | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| 2007-2026                        | 0     | 0            | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| <b>Covariance (stdev/mean)</b>   |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>95th% Max Var (NPV)</b>       |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 0     | 0            | 0      | 0         | (0)        | (0)             | 0               | 0               | 0          | (0)      | (0)     | (0)      | (0)      |
| 2007-2026                        | 0     | 0            | 0      | 0         | (0)        | (0)             | 0               | 0               | 0          | 0        | (0)     | (0)      | 0        |
| <b>95th% Max Var (95th/mean)</b> |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>Build Out 2007-16 (MW)</b>    |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 250   | -            | -      | -         | 124        | 227             | 227             | 218             | 49         | 511      | -       | -        | 256      |
| CT MW                            | -     | -            | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 511     | 411      | 256      |
| Wind MW                          | 400   | -            | 650    | 980       | 400        | 400             | 400             | 275             | -          | -        | -       | 400      | -        |
| Renews MW                        | 80    | -            | 100    | 228       | 183        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -            | 175    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -            | -      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -            | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total MW                         | 755   | -            | 949    | 1,208     | 761        | 761             | 761             | 668             | 461        | 511      | 511     | 811      | 511      |
| <b>Build Out 2007-26 (MW)</b>    |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 450   | -            | -      | -         | 296        | 598             | 598             | 620             | 436        | 853      | -       | -        | 427      |
| CT MW                            | -     | -            | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 853     | 691      | 427      |
| Wind MW                          | 650   | -            | 650    | 1,330     | 650        | 650             | 650             | 400             | -          | -        | -       | 650      | -        |
| Renews MW                        | 180   | -            | 180    | 483       | 383        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -            | 475    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -            | 5      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -            | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |

## Portfolio Options Summary—2X Coal Escalation

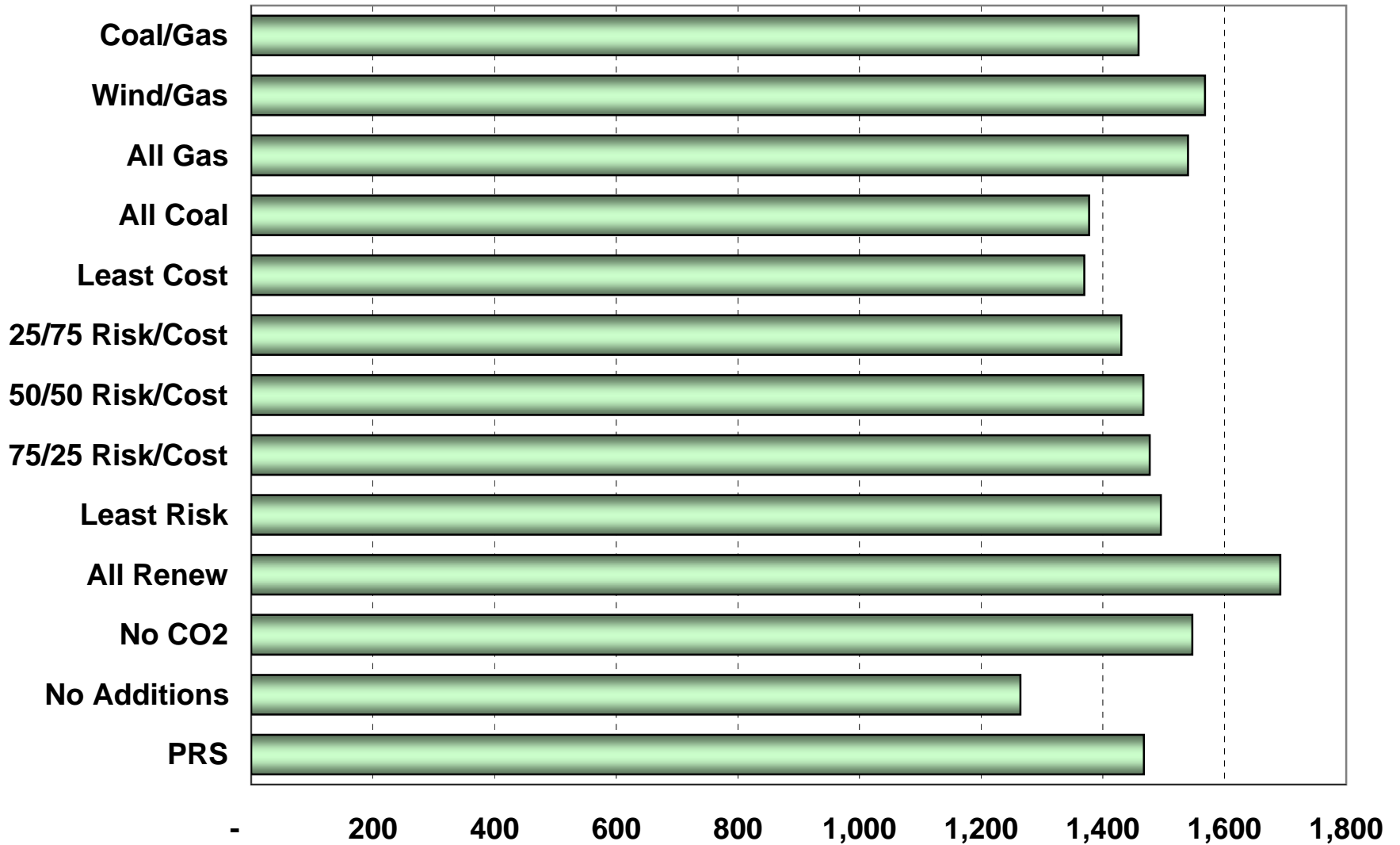
|                                | 1          | 13           | 2          | 3          | 4          | 5               | 6               | 7               | 8          | 9          | 10         | 12         | 11         |
|--------------------------------|------------|--------------|------------|------------|------------|-----------------|-----------------|-----------------|------------|------------|------------|------------|------------|
|                                | PRS        | No Additions | No CO2     | All Renew  | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal   | All Gas    | Wind/Gas   | Coal/Gas   |
| <b>Total MW</b>                | 1,305      | -            | 1,291      | 1,813      | 1,341      | 1,341           | 1,341           | 1,153           | 803        | 853        | 853        | 1,341      | 853        |
| <b>Build Out 2007-16 (aMW)</b> |            |              |            |            |            |                 |                 |                 |            |            |            |            |            |
| Coal aMW                       | 215        | -            | -          | -          | 107        | 195             | 195             | 187             | 42         | 441        | -          | -          | 220        |
| CT aMW                         | -          | -            | -          | -          | -          | -               | 11              | 46              | 319        | -          | -          | -          | -          |
| CCCT aMW                       | -          | -            | -          | -          | 2          | 2               | -               | -               | -          | -          | 461        | 371        | 231        |
| Wind aMW                       | 122        | -            | 188        | 285        | 122        | 122             | 122             | 81              | -          | -          | -          | 122        | -          |
| Renews aMW                     | 65         | -            | 81         | 190        | 158        | 68              | 60              | 60              | -          | -          | -          | -          | -          |
| Nuclear aMW                    | -          | -            | 147        | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| OilSands aMW                   | -          | -            | -          | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| Cogen aMW                      | -          | -            | -          | -          | 9          | 9               | 9               | 9               | -          | -          | -          | -          | -          |
| Market aMW                     | 25         | -            | 24         | -          | 42         | 42              | 42              | 42              | 45         | -          | -          | -          | -          |
| <b>Total aMW</b>               | <b>427</b> | <b>-</b>     | <b>440</b> | <b>474</b> | <b>440</b> | <b>439</b>      | <b>439</b>      | <b>425</b>      | <b>406</b> | <b>441</b> | <b>461</b> | <b>493</b> | <b>451</b> |
| <b>Build Out 2007-26 (aMW)</b> |            |              |            |            |            |                 |                 |                 |            |            |            |            |            |
| Coal aMW                       | 388        | -            | -          | -          | 255        | 515             | 515             | 534             | 376        | 735        | -          | -          | 368        |
| CT aMW                         | -          | -            | -          | -          | -          | -               | 11              | 46              | 319        | -          | -          | -          | -          |
| CCCT aMW                       | -          | -            | -          | -          | 2          | 2               | -               | -               | -          | -          | 770        | 623        | 385        |
| Wind aMW                       | 188        | -            | 188        | 386        | 188        | 188             | 188             | 122             | -          | -          | -          | 188        | -          |
| Renews aMW                     | 145        | -            | 145        | 402        | 333        | 68              | 60              | 60              | -          | -          | -          | -          | -          |
| Nuclear aMW                    | -          | -            | 399        | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| OilSands aMW                   | -          | -            | -          | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| Cogen aMW                      | -          | -            | 4          | -          | 9          | 9               | 9               | 9               | -          | -          | -          | -          | -          |
| Market aMW                     | 25         | -            | (20)       | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| <b>Total aMW</b>               | <b>746</b> | <b>-</b>     | <b>717</b> | <b>788</b> | <b>786</b> | <b>783</b>      | <b>783</b>      | <b>771</b>      | <b>694</b> | <b>735</b> | <b>770</b> | <b>811</b> | <b>752</b> |

## **No Capacity Credits**

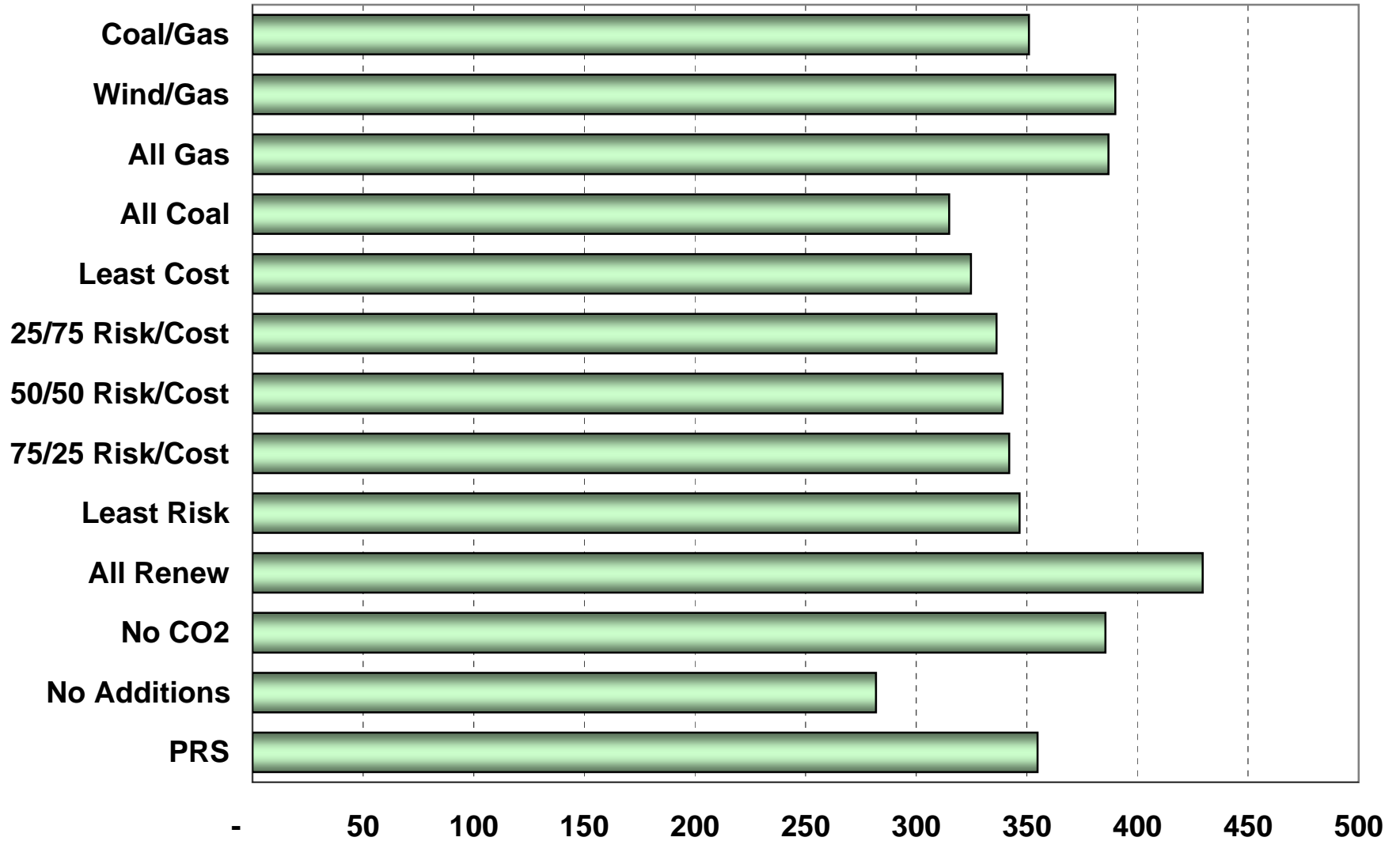
# PSE 2026



### PSE 07-16 NPV

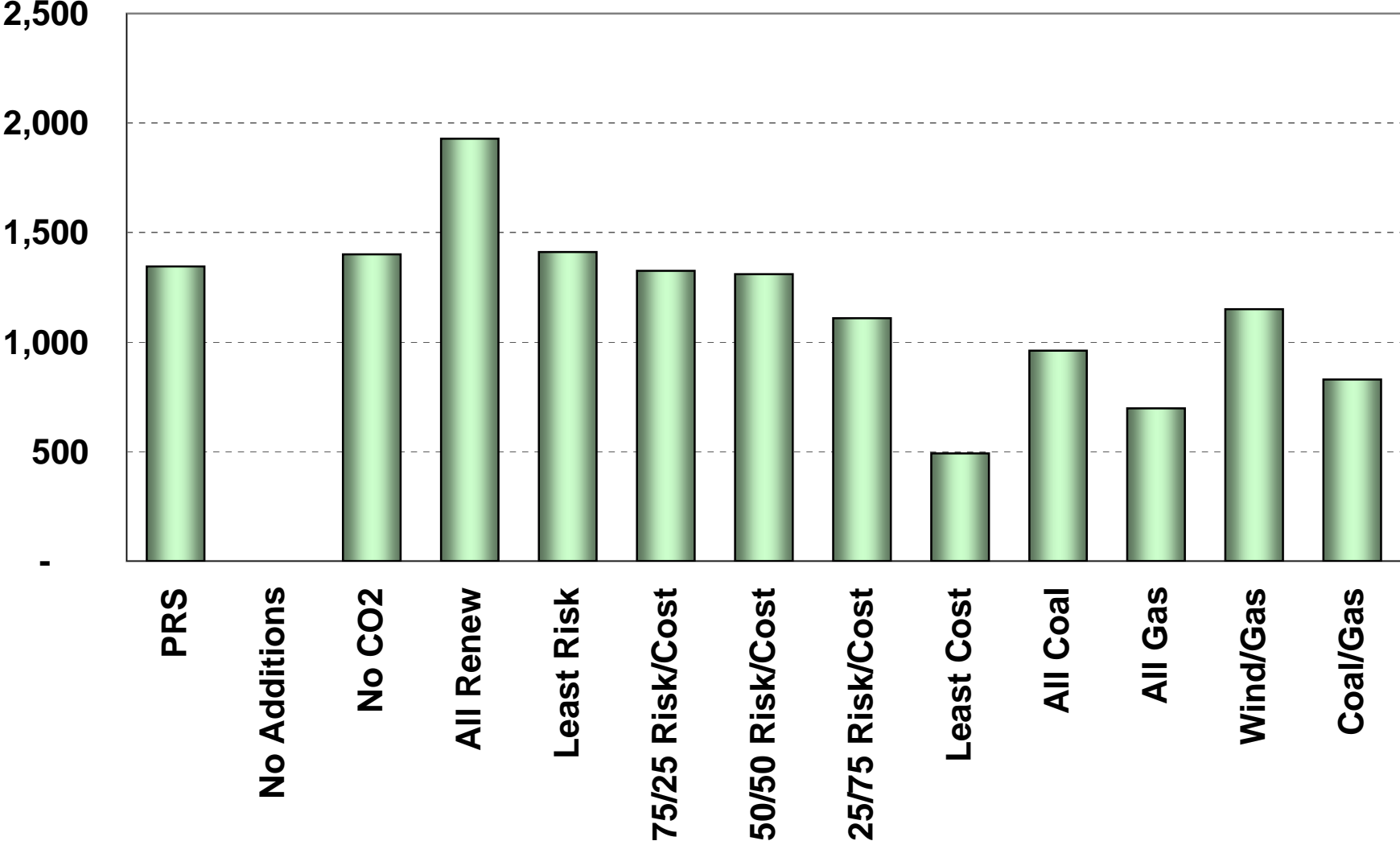


# PSE 2016

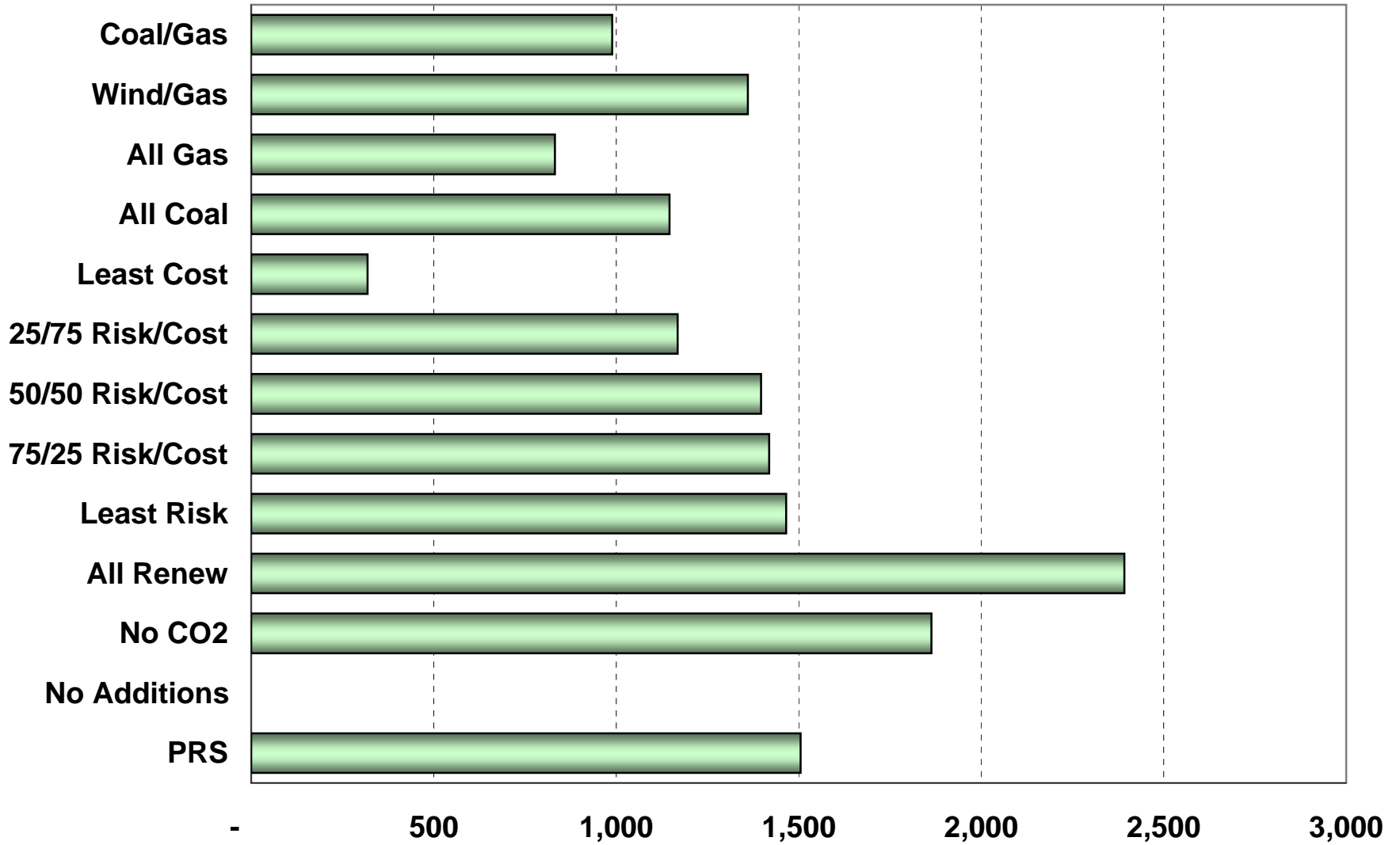




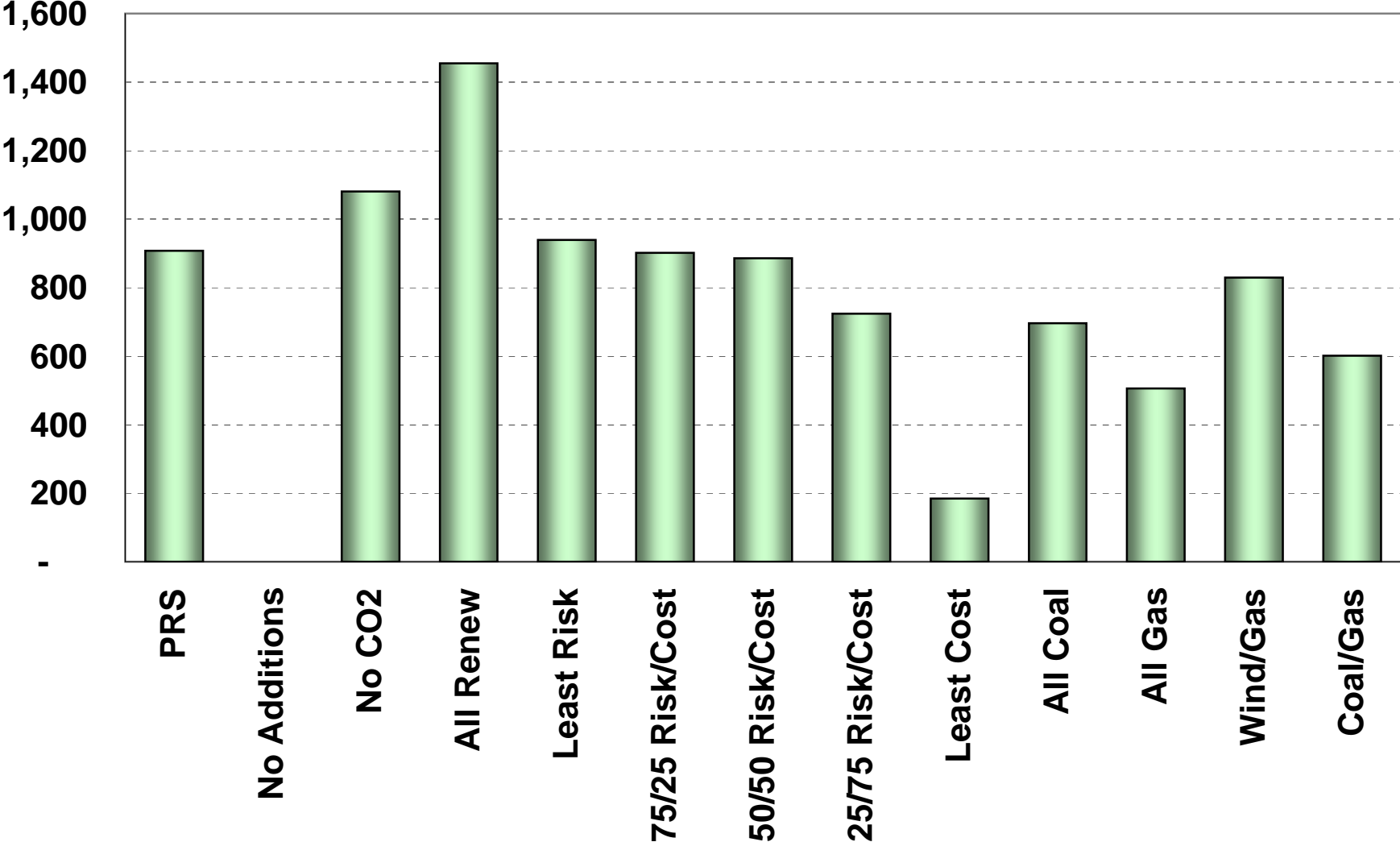
Capital NPV 07-26



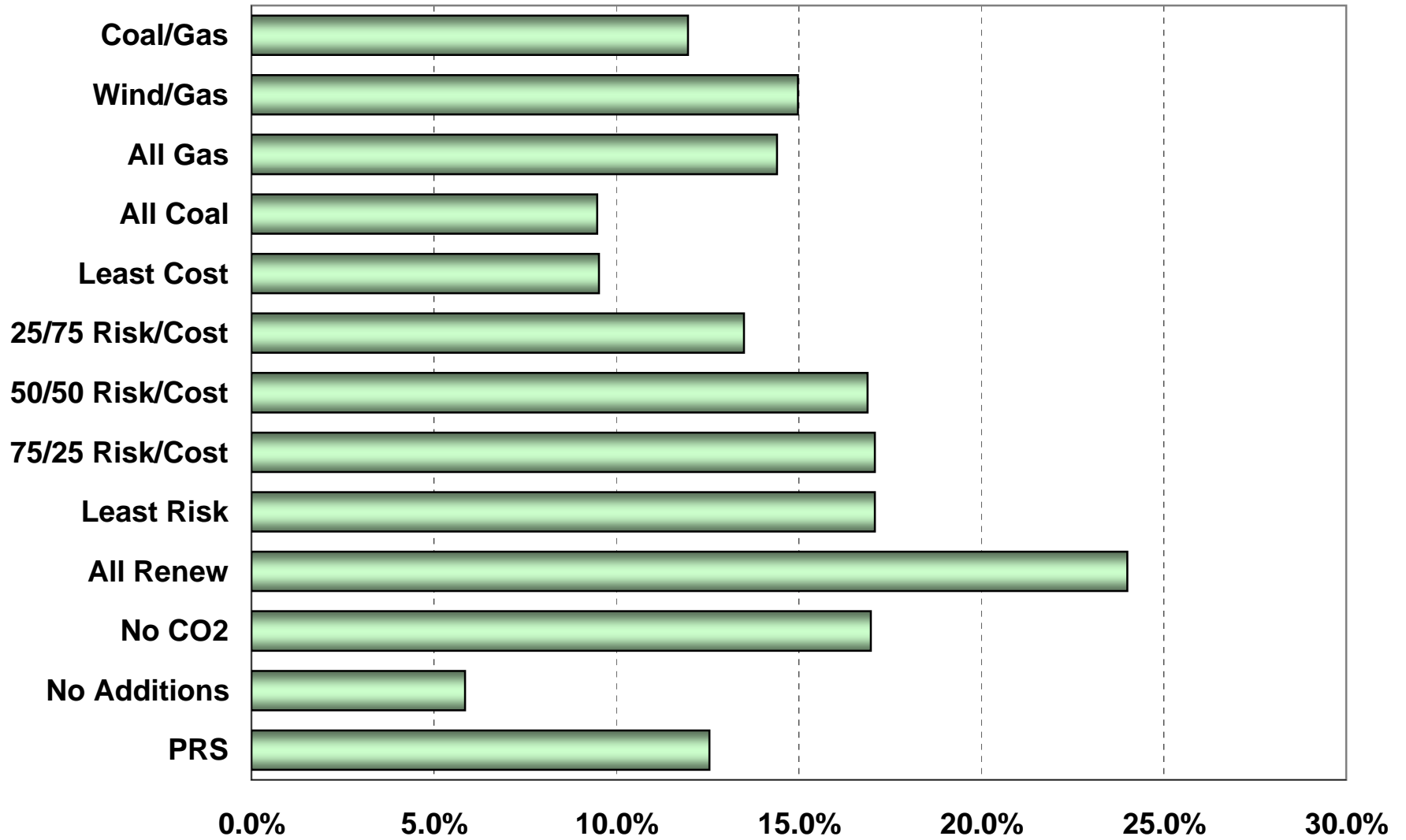
### Capital Nominal 07-16



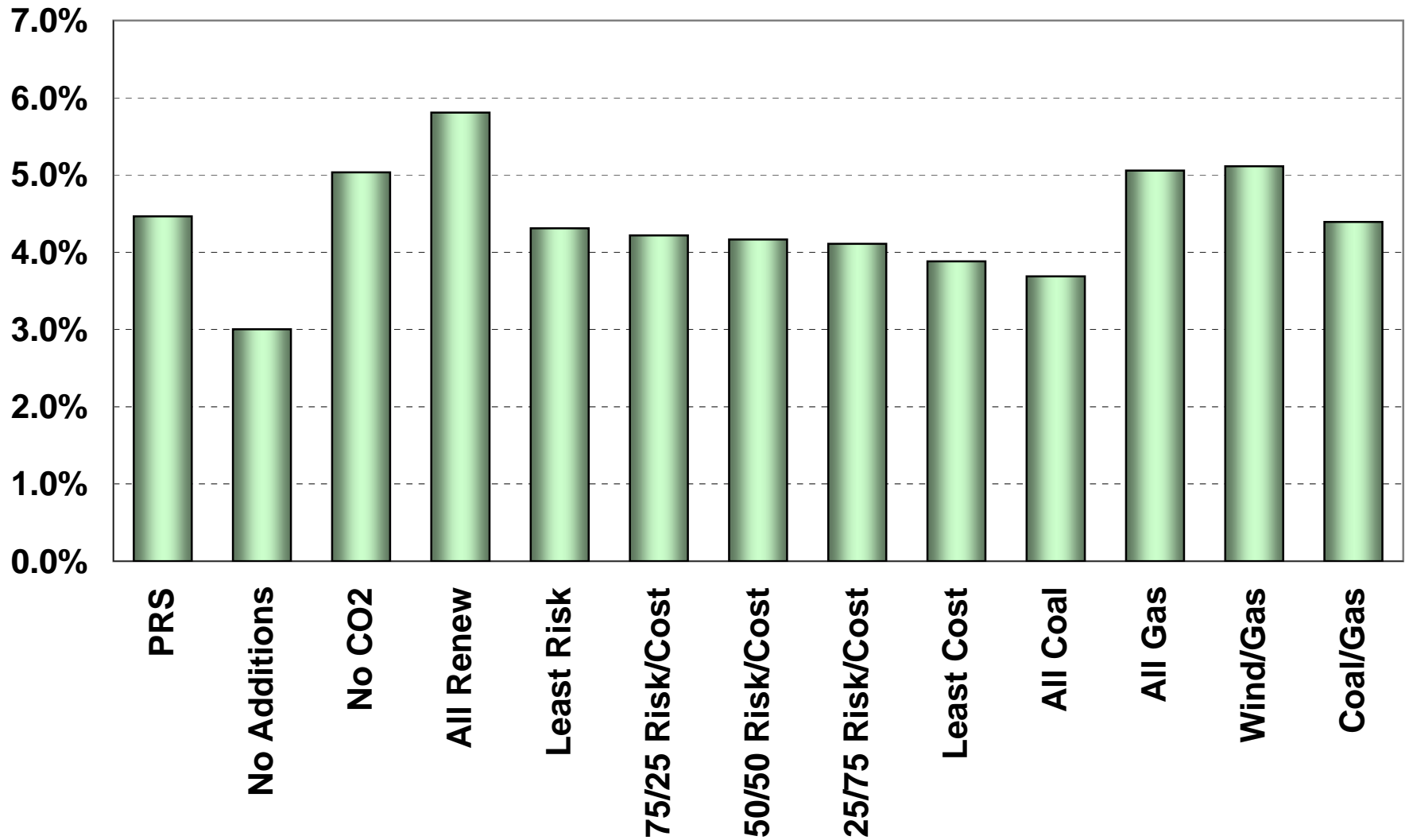
Capital NPV 07-16



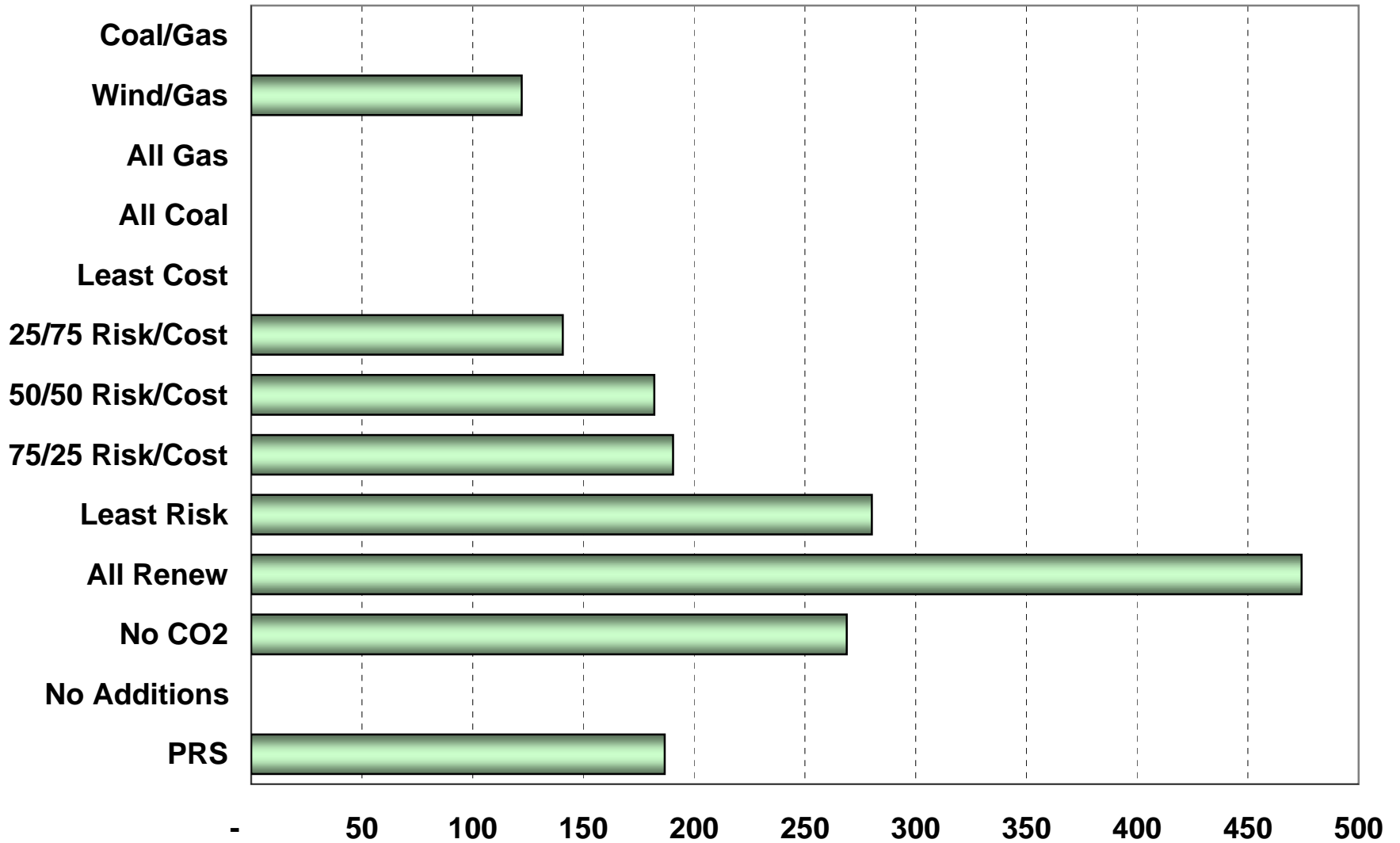
### Max Rate Increase



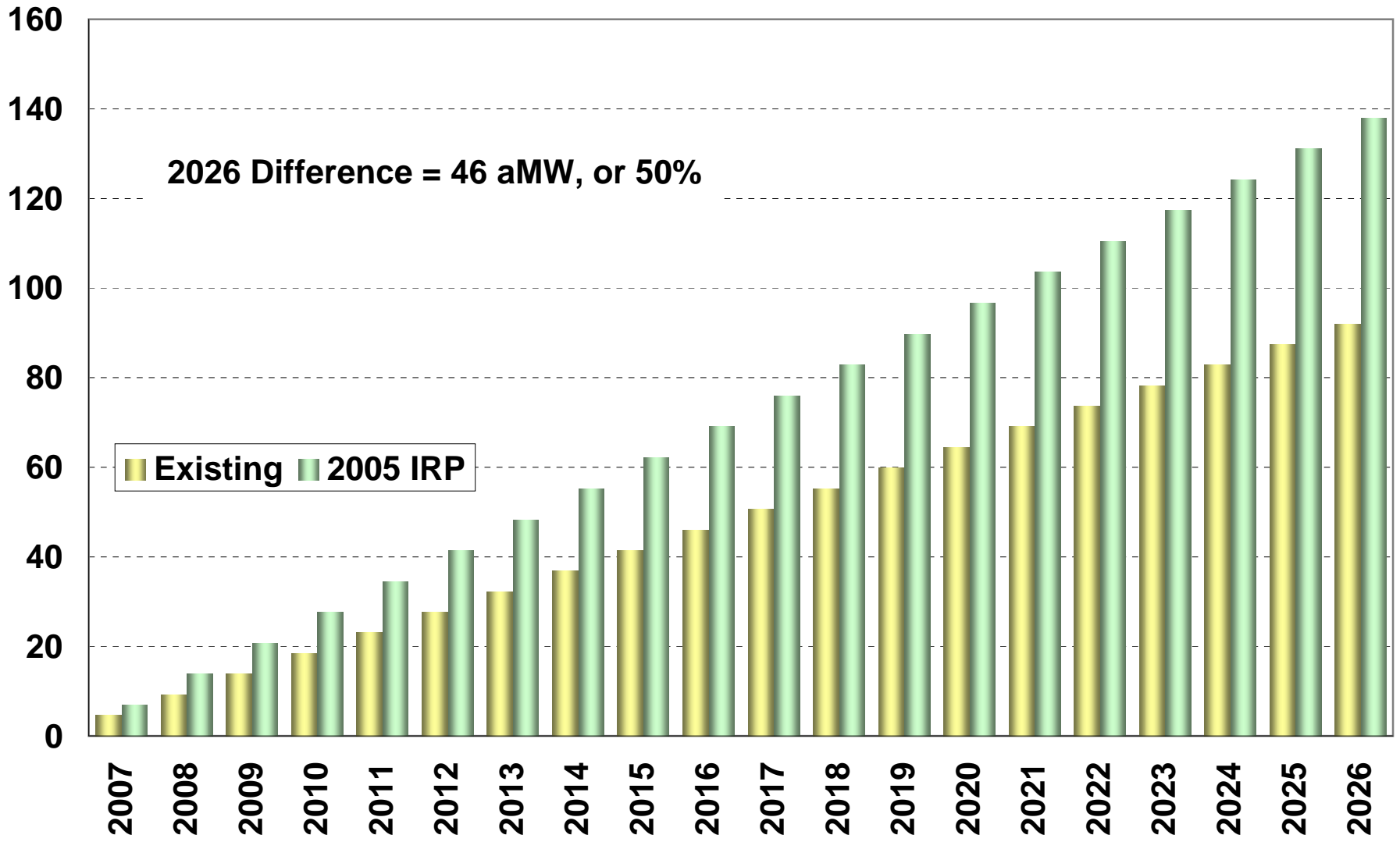
### Rate Increase 07-16



### Renewables aMW 2016



# DSM Acquisition



**Portfolio Options Summary—No Capacity Credits**

|                                  | 1     | 13           | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|----------------------------------|-------|--------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                  | PRS   | No Additions | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| <b>Average Rate Increase</b>     |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 4.5%  | 3.0%         | 5.0%   | 5.8%      | 4.3%       | 4.2%            | 4.2%            | 4.1%            | 3.9%       | 3.7%     | 5.1%    | 5.1%     | 4.4%     |
| 2007-2026                        | 3.5%  | 3.0%         | 3.7%   | 4.2%      | 3.5%       | 3.2%            | 3.2%            | 3.1%            | 3.2%       | 2.8%     | 3.9%    | 3.9%     | 3.4%     |
| <b>Max Rate Increase</b>         |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
|                                  | 12.5% | 5.9%         | 17.0%  | 24.0%     | 17.1%      | 17.1%           | 16.9%           | 13.5%           | 9.5%       | 9.5%     | 14.4%   | 15.0%    | 12.0%    |
| <b>Capital NPV</b>               |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 907   | -            | 1,081  | 1,455     | 939        | 901             | 886             | 724             | 185        | 696      | 506     | 829      | 601      |
| 2007-2026                        | 1,345 | -            | 1,400  | 1,929     | 1,411      | 1,326           | 1,310           | 1,109           | 491        | 961      | 698     | 1,150    | 829      |
| <b>Capital Nominal \$</b>        |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,505 | -            | 1,864  | 2,392     | 1,466      | 1,419           | 1,397           | 1,169           | 319        | 1,146    | 832     | 1,361    | 989      |
| 2007-2026                        | 3,019 | -            | 3,067  | 4,140     | 3,251      | 3,097           | 3,075           | 2,657           | 1,420      | 2,129    | 1,546   | 2,504    | 1,838    |
| <b>Power Supply Expense</b>      |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| in 2016                          | 355   | 282          | 386    | 430       | 347        | 342             | 339             | 336             | 325        | 315      | 387     | 390      | 351      |
| in 2026                          | 585   | 505          | 606    | 701       | 582        | 533             | 531             | 518             | 536        | 474      | 652     | 648      | 563      |
| <b>Power Supply Expense NPV</b>  |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,467 | 1,265        | 1,547  | 1,692     | 1,496      | 1,477           | 1,467           | 1,430           | 1,370      | 1,377    | 1,540   | 1,568    | 1,459    |
| 2007-2026                        | 2,837 | 2,421        | 2,981  | 3,316     | 2,843      | 2,741           | 2,722           | 2,679           | 2,640      | 2,545    | 3,053   | 3,076    | 2,799    |
| <b>Risk (StDev)</b>              |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007 In 2016\$                   | 0     | -            | (0)    | (0)       | (0)        | 0               | (0)             | 0               | -          | 0        | (0)     | 0        | 0        |
| 2016                             | -     | 0            | 0      | 0         | 0          | -               | 0               | -               | 0          | 0        | 0       | -        | -        |
| 2026                             | 0     | 0            | 0      | -         | 0          | -               | -               | -               | -          | 0        | 0       | -        | 0        |
| <b>Risk (StDev NPV)</b>          |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 0     | 0            | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| 2007-2026                        | 0     | 0            | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| <b>Covariance (stdev/mean)</b>   |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>95th% Max Var (NPV)</b>       |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | (0)   | 0            | 0      | 0         | 0          | 0               | 0               | (0)             | 0          | 0        | 0       | 0        | 0        |
| 2007-2026                        | 0     | 0            | 0      | (0)       | 0          | 0               | 0               | (0)             | 0          | 0        | 0       | 0        | (0)      |
| <b>95th% Max Var (95th/mean)</b> |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>Build Out 2007-16 (MW)</b>    |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 250   | -            | -      | -         | 124        | 227             | 227             | 218             | 49         | 511      | -       | -        | 256      |
| CT MW                            | -     | -            | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 511     | 411      | 256      |
| Wind MW                          | 400   | -            | 650    | 980       | 400        | 400             | 400             | 275             | -          | -        | -       | 400      | -        |
| Renews MW                        | 80    | -            | 100    | 228       | 183        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -            | 175    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -            | -      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -            | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total MW                         | 755   | -            | 949    | 1,208     | 761        | 761             | 761             | 668             | 461        | 511      | 511     | 811      | 511      |
| <b>Build Out 2007-26 (MW)</b>    |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 450   | -            | -      | -         | 296        | 598             | 598             | 620             | 436        | 853      | -       | -        | 427      |
| CT MW                            | -     | -            | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 853     | 691      | 427      |
| Wind MW                          | 650   | -            | 650    | 1,330     | 650        | 650             | 650             | 400             | -          | -        | -       | 650      | -        |
| Renews MW                        | 180   | -            | 180    | 483       | 383        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -            | 475    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -            | 5      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -            | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |

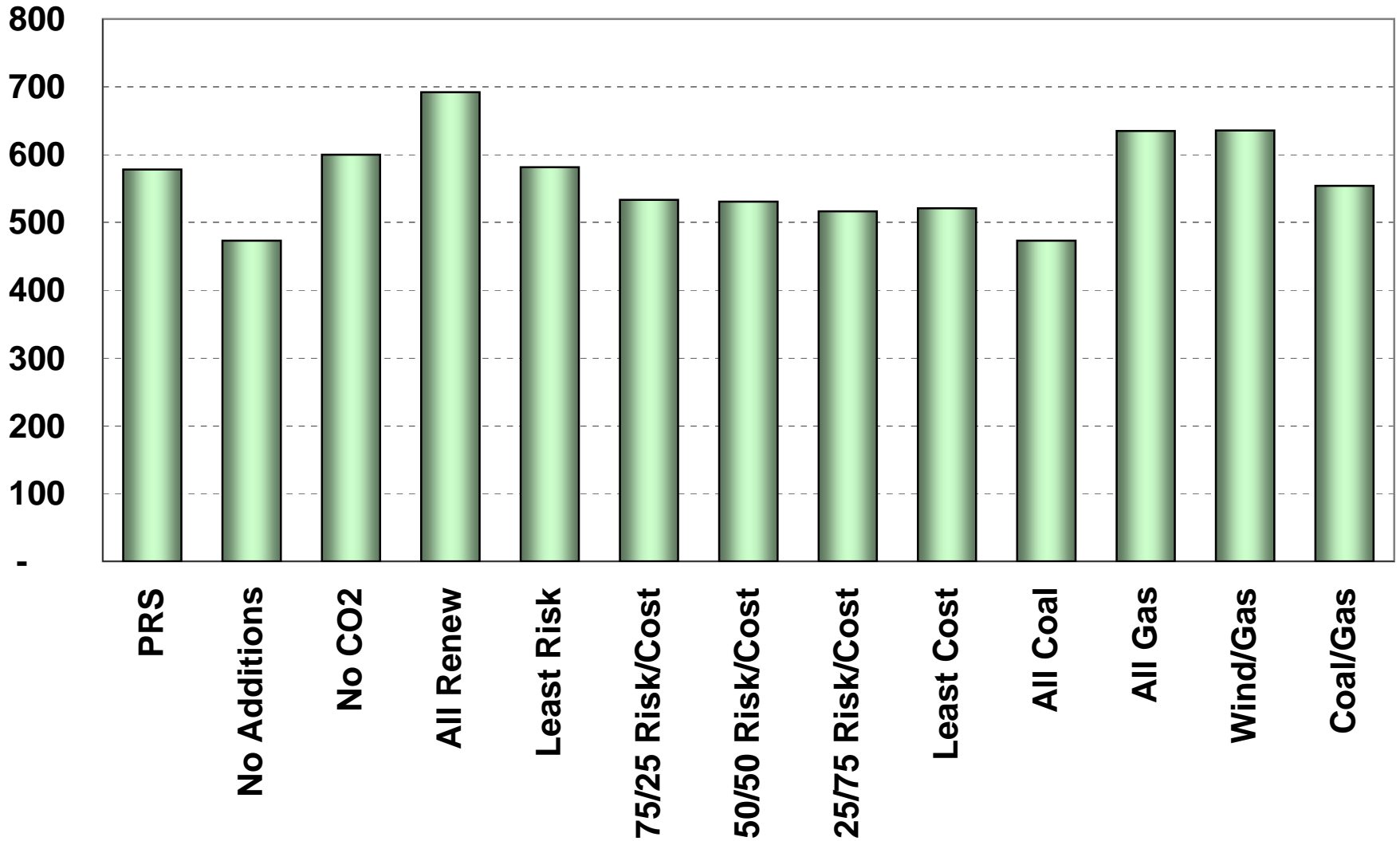


**Portfolio Options Summary—No Capacity Credits**

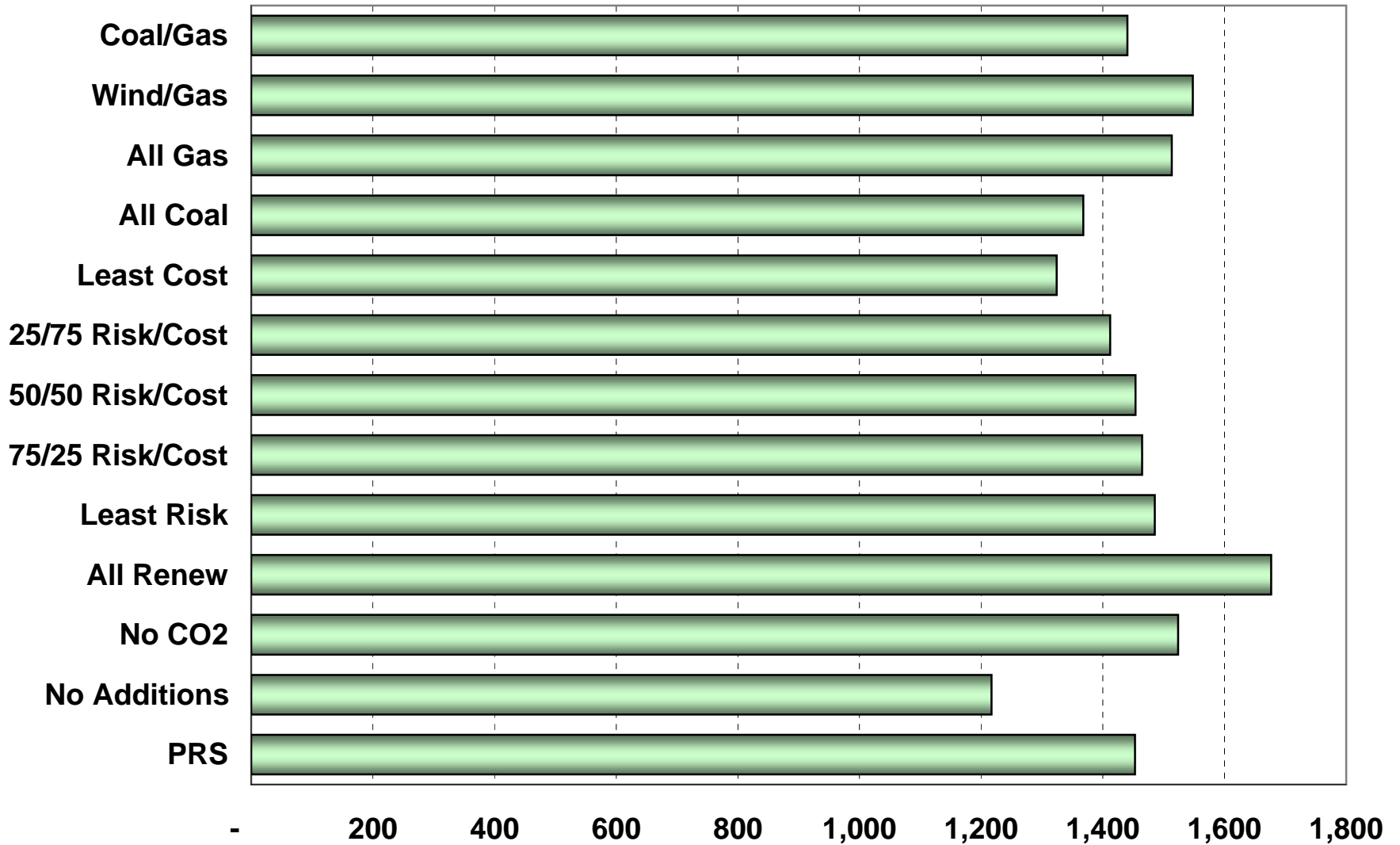
|                                | 1          | 13           | 2          | 3          | 4          | 5               | 6               | 7               | 8          | 9          | 10         | 12         | 11         |
|--------------------------------|------------|--------------|------------|------------|------------|-----------------|-----------------|-----------------|------------|------------|------------|------------|------------|
|                                | PRS        | No Additions | No CO2     | All Renew  | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal   | All Gas    | Wind/Gas   | Coal/Gas   |
| <b>Total MW</b>                | 1,305      | -            | 1,291      | 1,813      | 1,341      | 1,341           | 1,341           | 1,153           | 803        | 853        | 853        | 1,341      | 853        |
| <b>Build Out 2007-16 (aMW)</b> |            |              |            |            |            |                 |                 |                 |            |            |            |            |            |
| Coal aMW                       | 215        | -            | -          | -          | 107        | 195             | 195             | 187             | 42         | 441        | -          | -          | 220        |
| CT aMW                         | -          | -            | -          | -          | -          | -               | 11              | 46              | 319        | -          | -          | -          | -          |
| CCCT aMW                       | -          | -            | -          | -          | 2          | 2               | -               | -               | -          | -          | 461        | 371        | 231        |
| Wind aMW                       | 122        | -            | 188        | 285        | 122        | 122             | 122             | 81              | -          | -          | -          | 122        | -          |
| Renews aMW                     | 65         | -            | 81         | 190        | 158        | 68              | 60              | 60              | -          | -          | -          | -          | -          |
| Nuclear aMW                    | -          | -            | 147        | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| OilSands aMW                   | -          | -            | -          | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| Cogen aMW                      | -          | -            | -          | -          | 9          | 9               | 9               | 9               | -          | -          | -          | -          | -          |
| Market aMW                     | 25         | -            | 24         | -          | 42         | 42              | 42              | 42              | 45         | -          | -          | -          | -          |
| <b>Total aMW</b>               | <b>427</b> | <b>-</b>     | <b>440</b> | <b>474</b> | <b>440</b> | <b>439</b>      | <b>439</b>      | <b>425</b>      | <b>406</b> | <b>441</b> | <b>461</b> | <b>493</b> | <b>451</b> |
| <b>Build Out 2007-26 (aMW)</b> |            |              |            |            |            |                 |                 |                 |            |            |            |            |            |
| Coal aMW                       | 388        | -            | -          | -          | 255        | 515             | 515             | 534             | 376        | 735        | -          | -          | 368        |
| CT aMW                         | -          | -            | -          | -          | -          | -               | 11              | 46              | 319        | -          | -          | -          | -          |
| CCCT aMW                       | -          | -            | -          | -          | 2          | 2               | -               | -               | -          | -          | 770        | 623        | 385        |
| Wind aMW                       | 188        | -            | 188        | 386        | 188        | 188             | 188             | 122             | -          | -          | -          | 188        | -          |
| Renews aMW                     | 145        | -            | 145        | 402        | 333        | 68              | 60              | 60              | -          | -          | -          | -          | -          |
| Nuclear aMW                    | -          | -            | 399        | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| OilSands aMW                   | -          | -            | -          | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| Cogen aMW                      | -          | -            | 4          | -          | 9          | 9               | 9               | 9               | -          | -          | -          | -          | -          |
| Market aMW                     | 25         | -            | (20)       | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| <b>Total aMW</b>               | <b>746</b> | <b>-</b>     | <b>717</b> | <b>788</b> | <b>786</b> | <b>783</b>      | <b>783</b>      | <b>771</b>      | <b>694</b> | <b>735</b> | <b>770</b> | <b>811</b> | <b>752</b> |

**30% Cheaper TX**

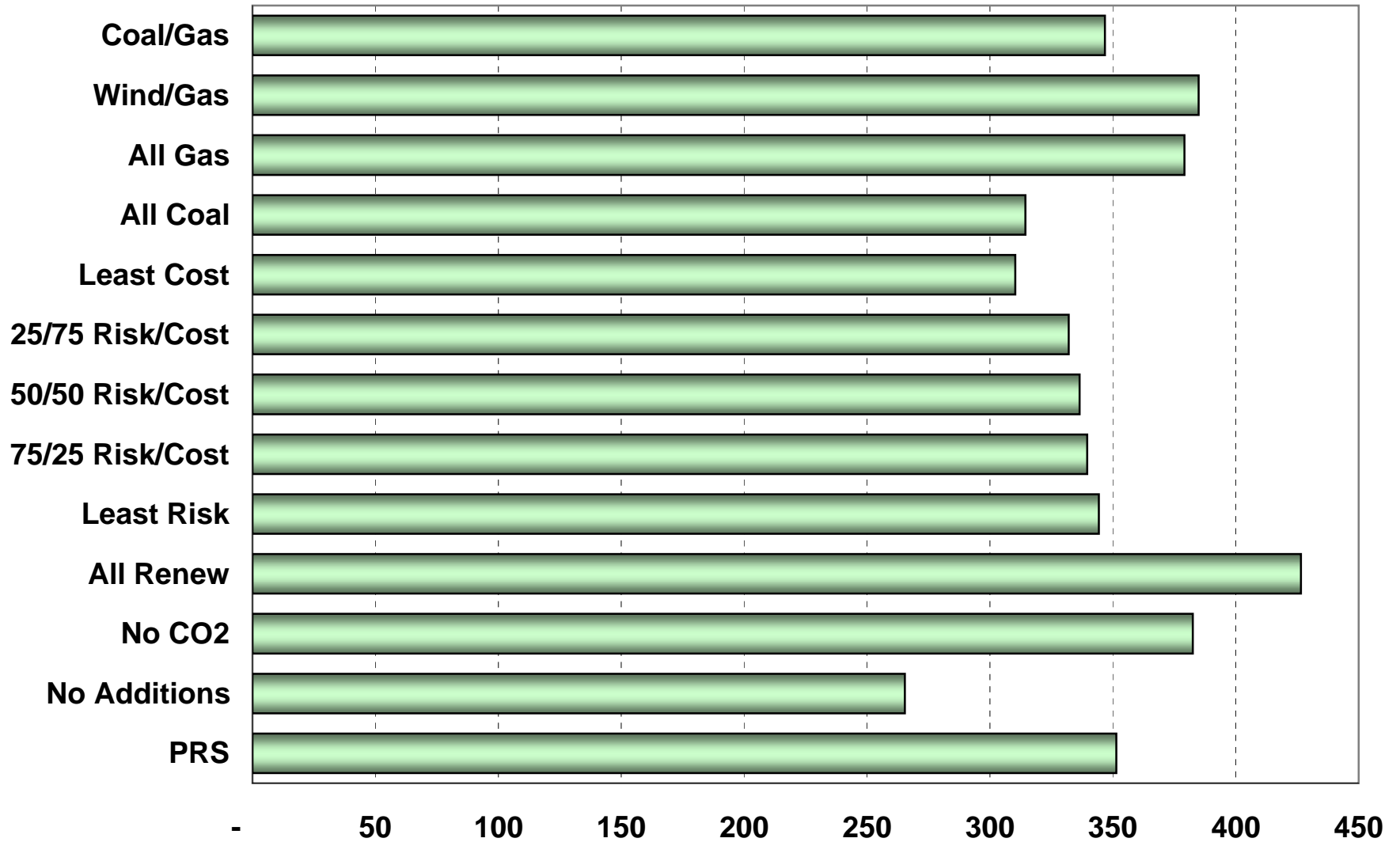
# PSE 2026



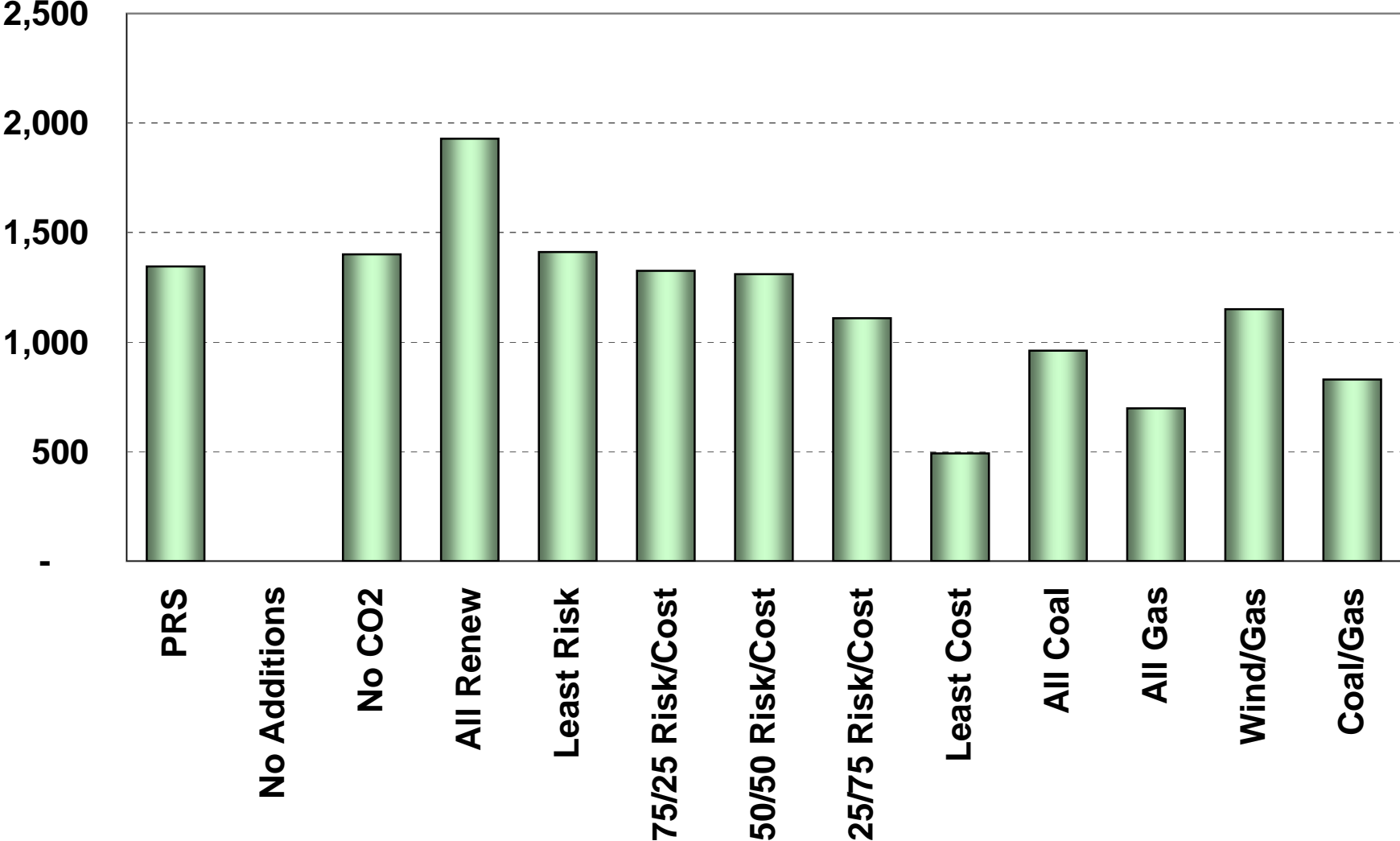
### PSE 07-16 NPV



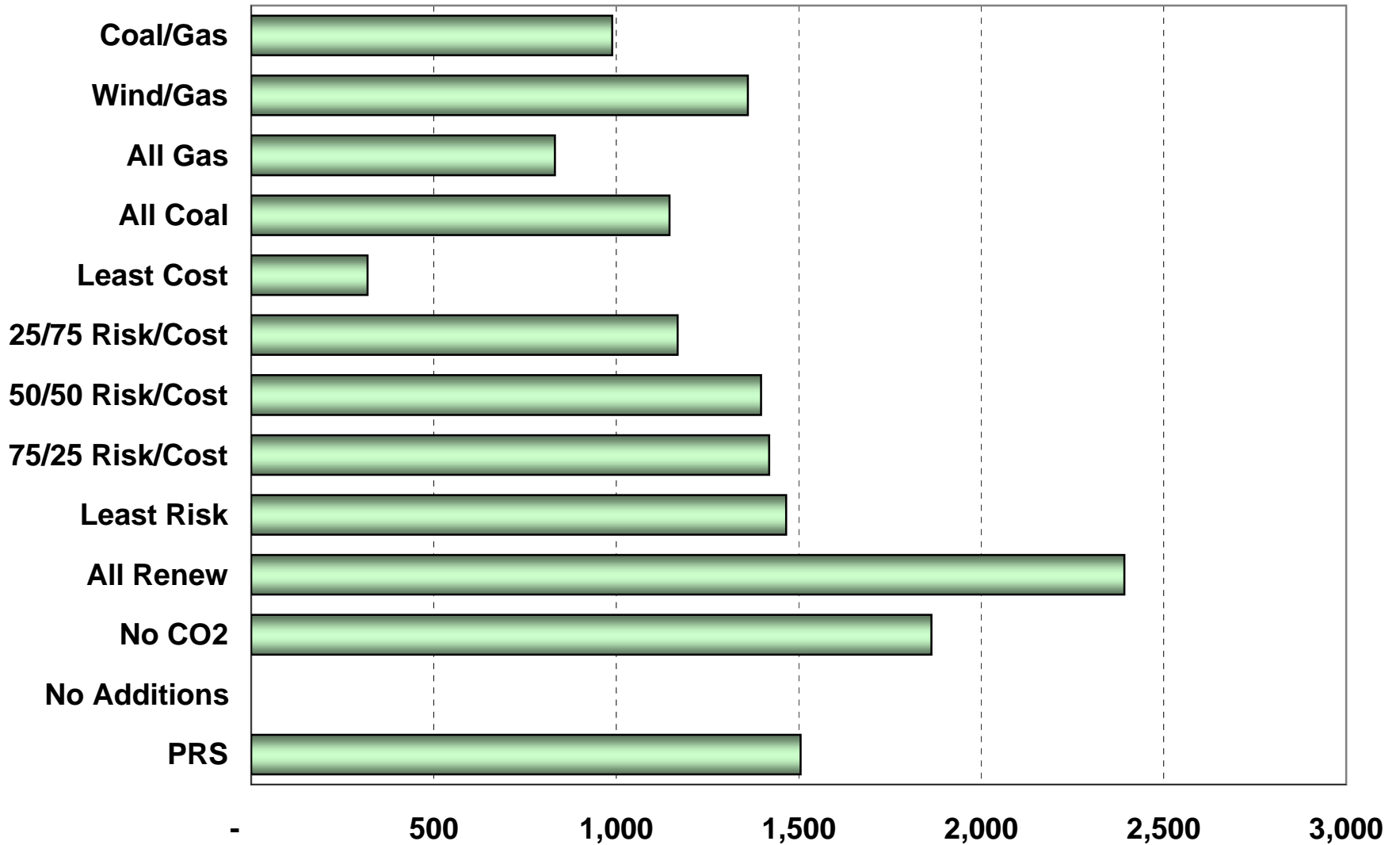
# PSE 2016



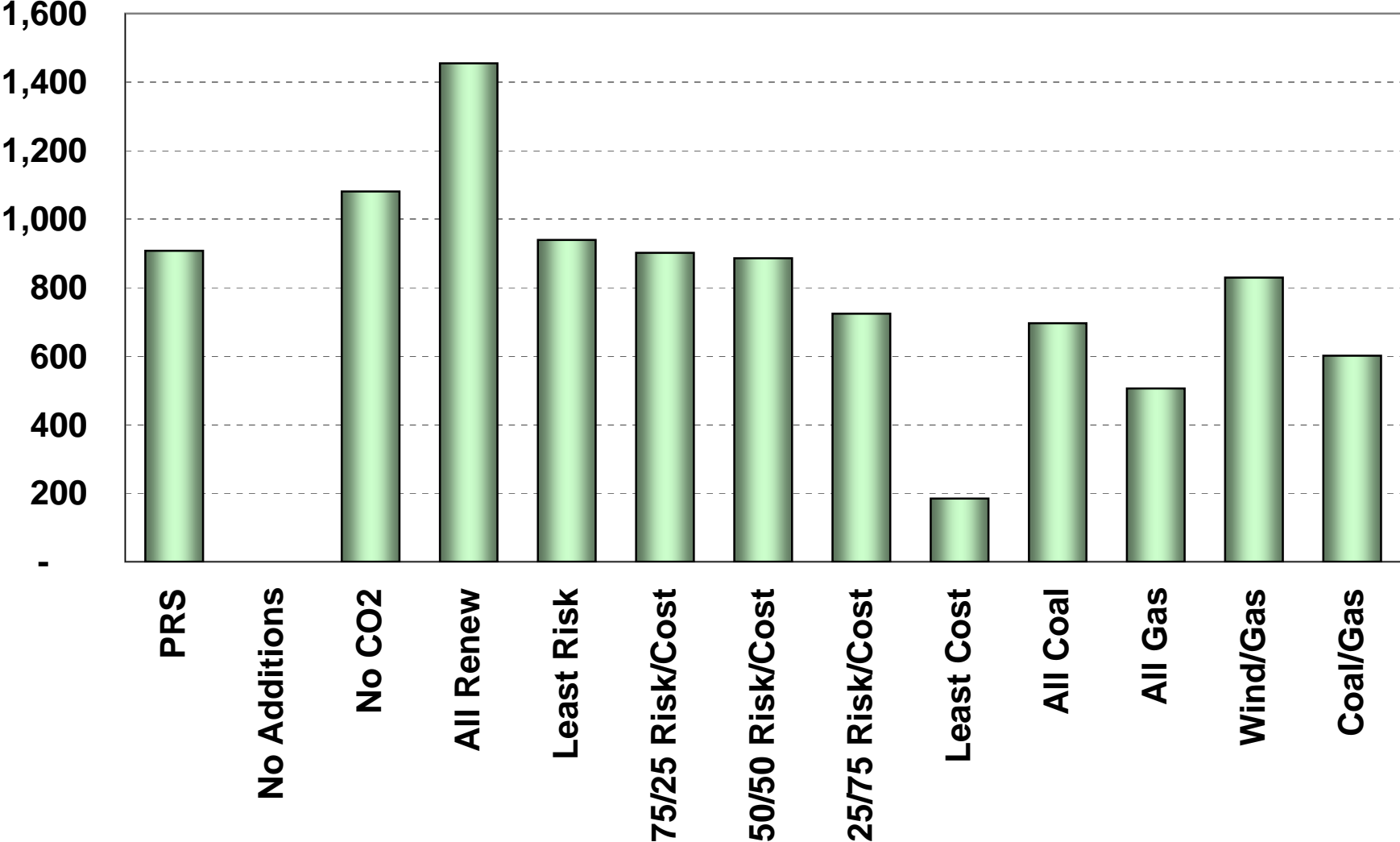
Capital NPV 07-26



### Capital Nominal 07-16

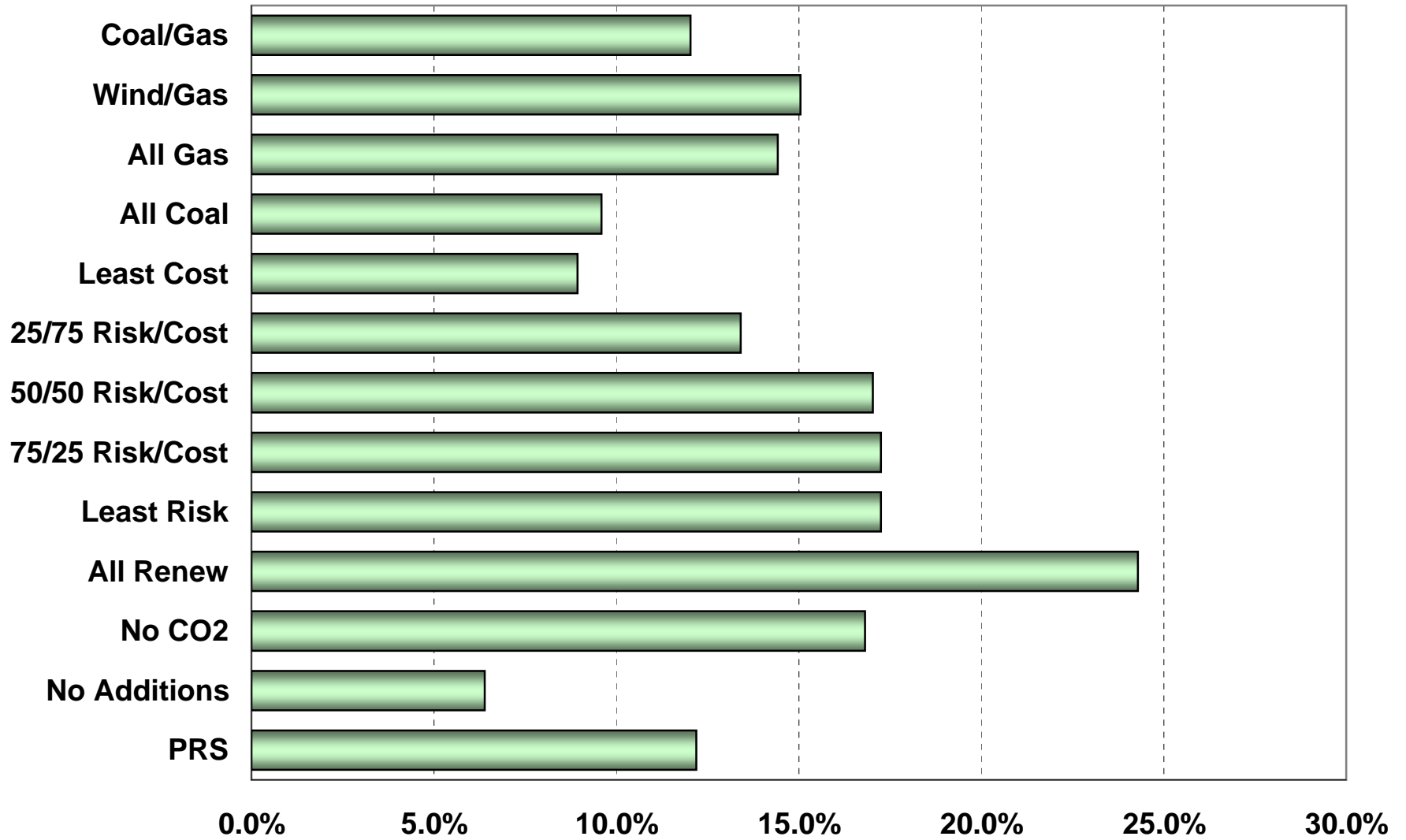


Capital NPV 07-16

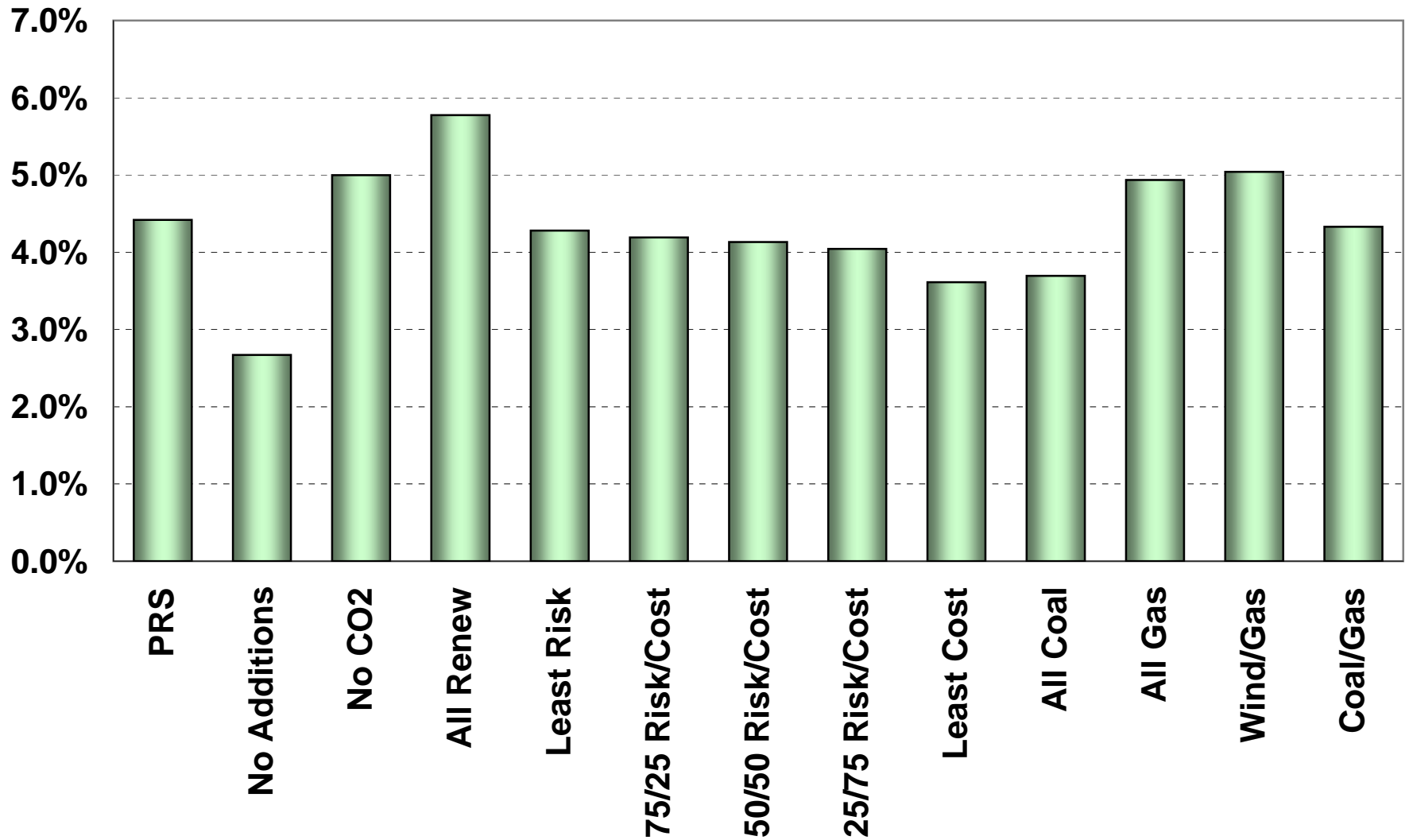




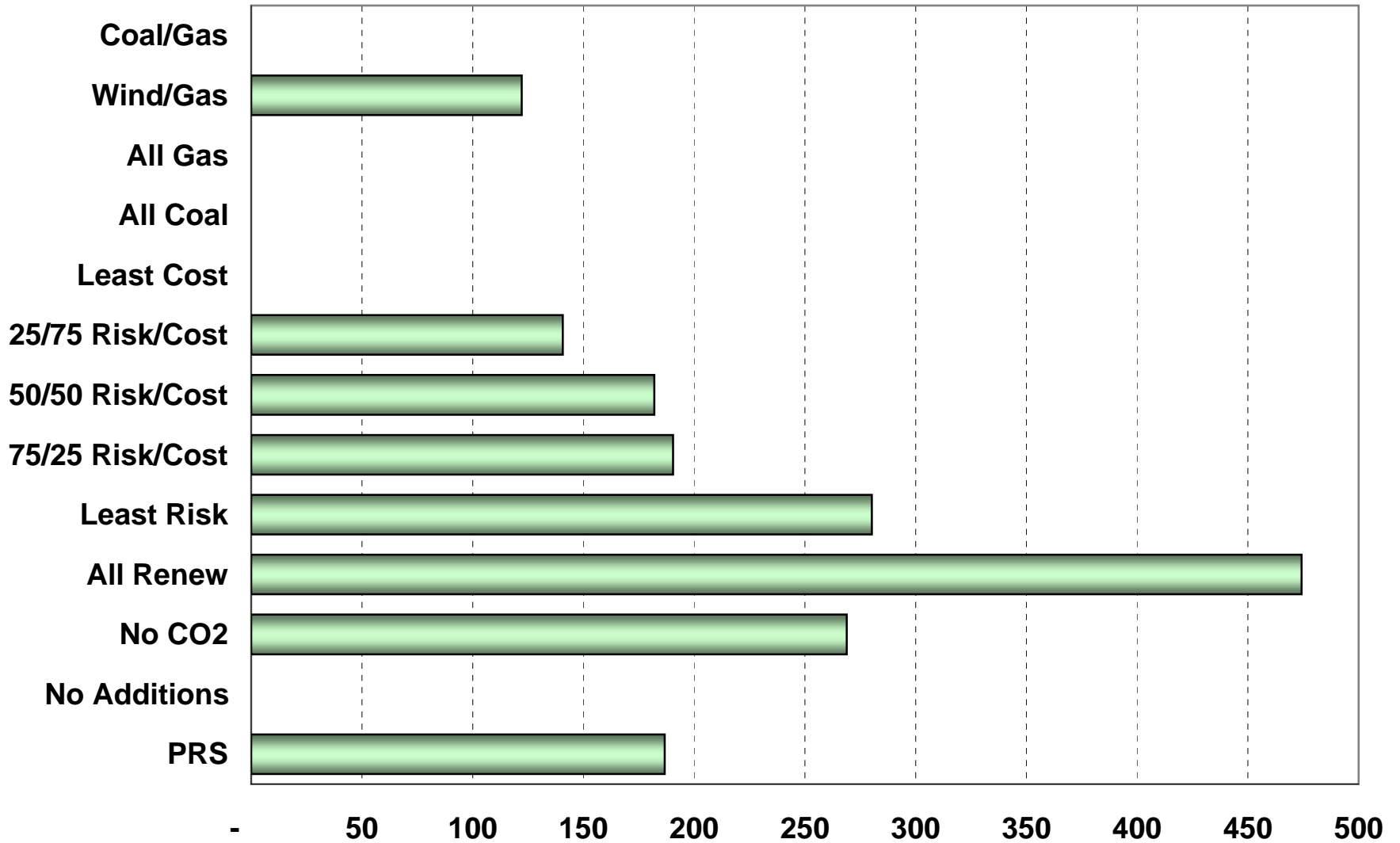
### Max Rate Increase



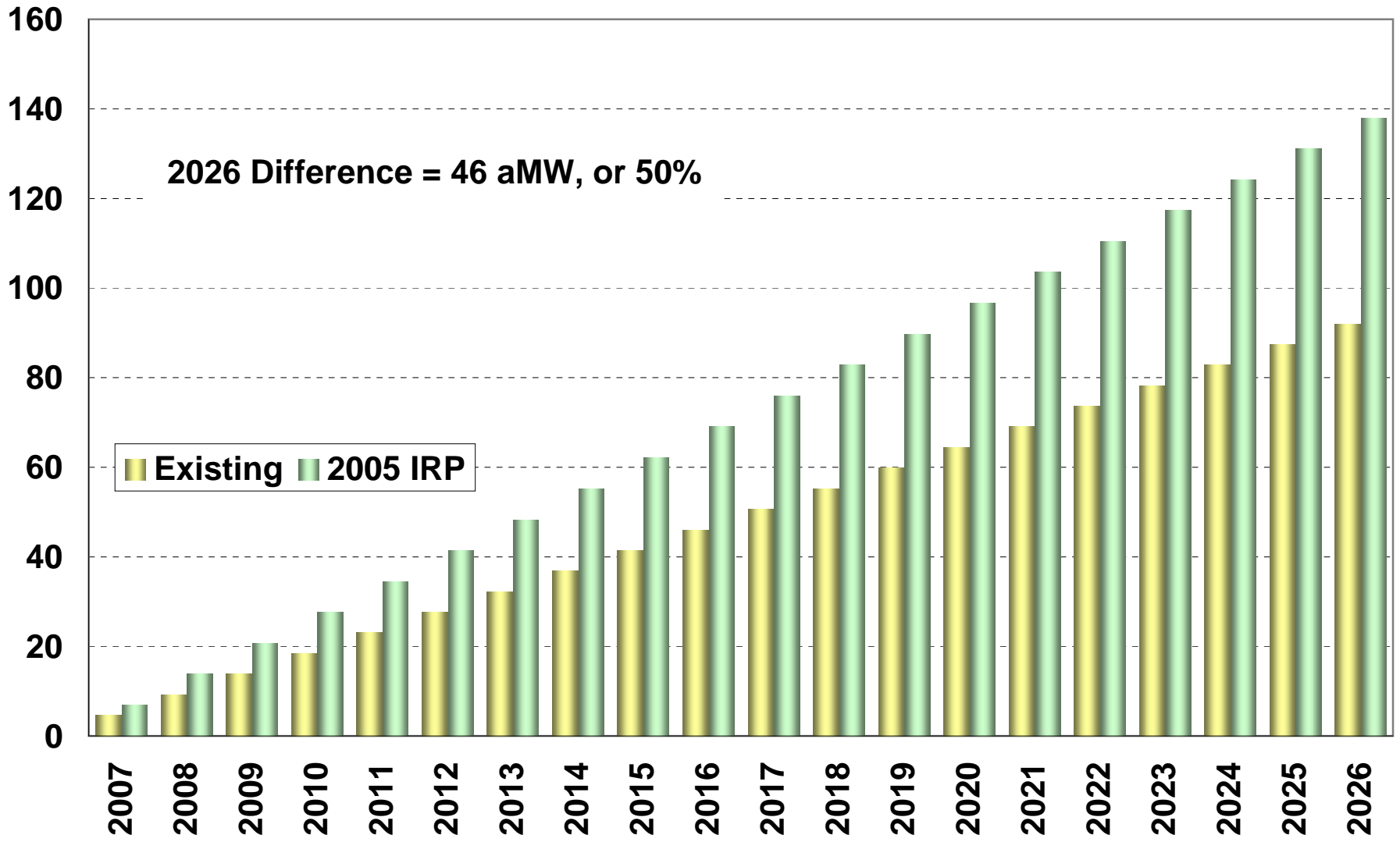
### Rate Increase 07-16



### Renewables aMW 2016



### DSM Acquisition



**Portfolio Options Summary—30% Cheaper TX**

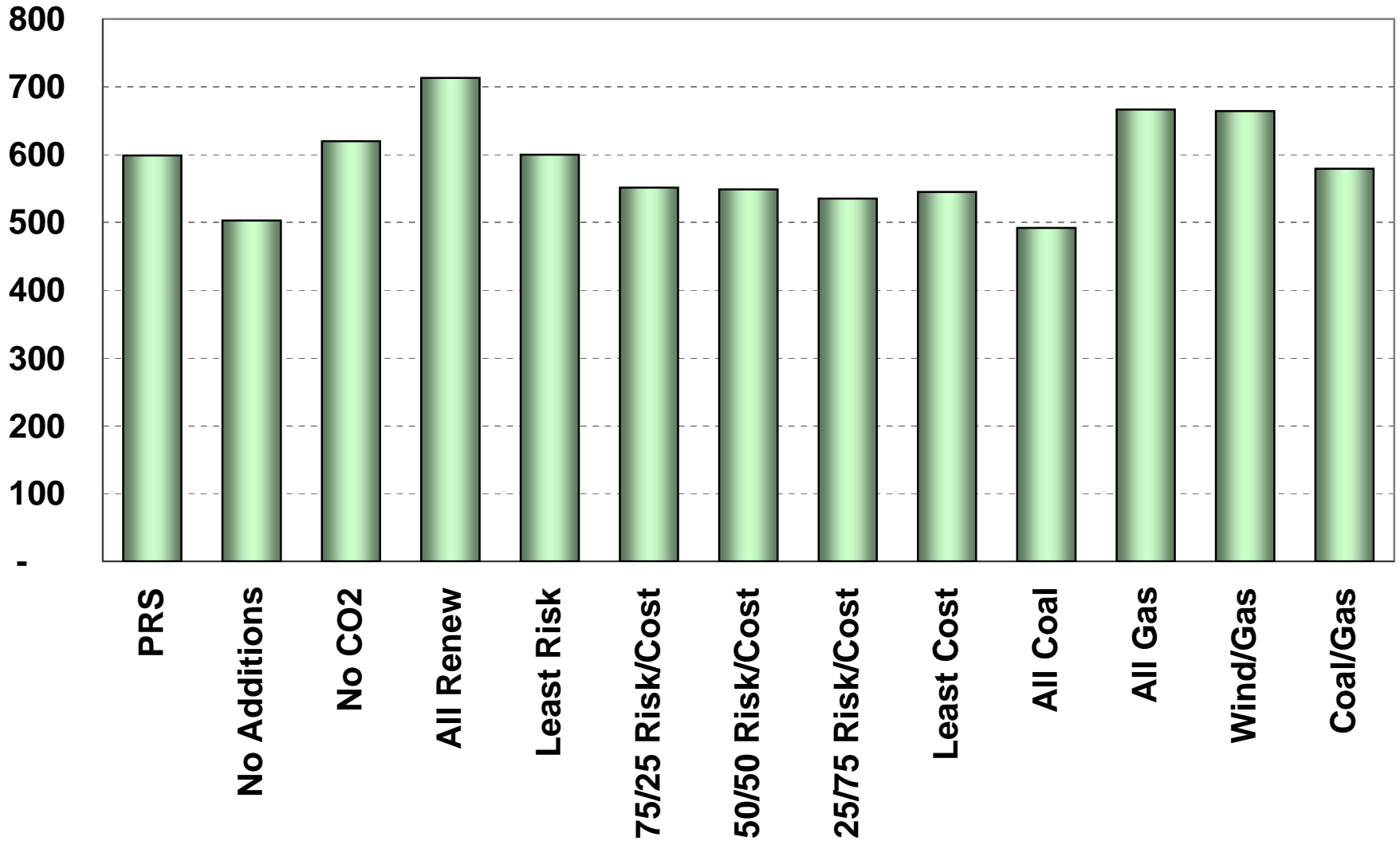
|                                  | 1     | 13           | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|----------------------------------|-------|--------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                  | PRS   | No Additions | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| <b>Average Rate Increase</b>     |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 4.4%  | 2.7%         | 5.0%   | 5.8%      | 4.3%       | 4.2%            | 4.1%            | 4.0%            | 3.6%       | 3.7%     | 4.9%    | 5.0%     | 4.3%     |
| 2007-2026                        | 3.5%  | 2.8%         | 3.6%   | 4.1%      | 3.5%       | 3.2%            | 3.2%            | 3.1%            | 3.1%       | 2.8%     | 3.8%    | 3.8%     | 3.3%     |
| <b>Max Rate Increase</b>         |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 12.2% | 6.4%         | 16.8%  | 24.3%     | 17.3%      | 17.3%           | 17.0%           | 13.4%           | 8.9%       | 9.6%     | 14.4%   | 15.0%    | 12.0%    |
| <b>Capital NPV</b>               |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 907   | -            | 1,081  | 1,455     | 939        | 901             | 886             | 724             | 185        | 696      | 506     | 829      | 601      |
| 2007-2026                        | 1,345 | -            | 1,400  | 1,929     | 1,411      | 1,326           | 1,310           | 1,109           | 491        | 961      | 698     | 1,150    | 829      |
| <b>Capital Nominal \$</b>        |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,505 | -            | 1,864  | 2,392     | 1,466      | 1,419           | 1,397           | 1,169           | 319        | 1,146    | 832     | 1,361    | 989      |
| 2007-2026                        | 3,019 | -            | 3,067  | 4,140     | 3,251      | 3,097           | 3,075           | 2,657           | 1,420      | 2,129    | 1,546   | 2,504    | 1,838    |
| <b>Power Supply Expense</b>      |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| in 2016                          | 351   | 265          | 383    | 426       | 344        | 340             | 337             | 332             | 310        | 314      | 379     | 385      | 347      |
| in 2026                          | 578   | 473          | 600    | 692       | 582        | 533             | 531             | 516             | 521        | 473      | 635     | 636      | 554      |
| <b>Power Supply Expense NPV</b>  |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,453 | 1,217        | 1,524  | 1,677     | 1,486      | 1,465           | 1,454           | 1,412           | 1,324      | 1,368    | 1,513   | 1,548    | 1,440    |
| 2007-2026                        | 2,808 | 2,305        | 2,942  | 3,282     | 2,826      | 2,720           | 2,700           | 2,646           | 2,549      | 2,530    | 2,989   | 3,030    | 2,760    |
| <b>Risk (StDev)</b>              |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007 In 2016\$                   | -     | -            | -      | (0)       | (0)        | -               | (0)             | -               | -          | (0)      | -       | -        | -        |
| 2016                             | -     | 0            | -      | 0         | 0          | -               | 0               | -               | 0          | 0        | -       | -        | -        |
| 2026                             | -     | 0            | 0      | 0         | -          | 0               | 0               | 0               | 0          | 0        | -       | 0        | 0        |
| <b>Risk (StDev NPV)</b>          |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 0     | 0            | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| 2007-2026                        | 0     | 0            | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| <b>Covariance (stdev/mean)</b>   |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>95th% Max Var (NPV)</b>       |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 0     | 0            | 0      | 0         | (0)        | (0)             | 0               | 0               | 0          | (0)      | (0)     | (0)      | (0)      |
| 2007-2026                        | 0     | 0            | 0      | 0         | (0)        | (0)             | 0               | 0               | 0          | 0        | (0)     | (0)      | 0        |
| <b>95th% Max Var (95th/mean)</b> |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>Build Out 2007-16 (MW)</b>    |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 250   | -            | -      | -         | 124        | 227             | 227             | 218             | 49         | 511      | -       | -        | 256      |
| CT MW                            | -     | -            | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 511     | 411      | 256      |
| Wind MW                          | 400   | -            | 650    | 980       | 400        | 400             | 400             | 275             | -          | -        | -       | 400      | -        |
| Renews MW                        | 80    | -            | 100    | 228       | 183        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -            | 175    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -            | -      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -            | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total MW                         | 755   | -            | 949    | 1,208     | 761        | 761             | 761             | 668             | 461        | 511      | 511     | 811      | 511      |
| <b>Build Out 2007-26 (MW)</b>    |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 450   | -            | -      | -         | 296        | 598             | 598             | 620             | 436        | 853      | -       | -        | 427      |
| CT MW                            | -     | -            | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 853     | 691      | 427      |
| Wind MW                          | 650   | -            | 650    | 1,330     | 650        | 650             | 650             | 400             | -          | -        | -       | 650      | -        |
| Renews MW                        | 180   | -            | 180    | 483       | 383        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -            | 475    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -            | 5      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -            | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |

**Portfolio Options Summary—30% Cheaper TX**

|                                | 1          | 13           | 2          | 3          | 4          | 5               | 6               | 7               | 8          | 9          | 10         | 12         | 11         |
|--------------------------------|------------|--------------|------------|------------|------------|-----------------|-----------------|-----------------|------------|------------|------------|------------|------------|
|                                | PRS        | No Additions | No CO2     | All Renew  | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal   | All Gas    | Wind/Gas   | Coal/Gas   |
| <b>Total MW</b>                | 1,305      | -            | 1,291      | 1,813      | 1,341      | 1,341           | 1,341           | 1,153           | 803        | 853        | 853        | 1,341      | 853        |
| <b>Build Out 2007-16 (aMW)</b> |            |              |            |            |            |                 |                 |                 |            |            |            |            |            |
| Coal aMW                       | 215        | -            | -          | -          | 107        | 195             | 195             | 187             | 42         | 441        | -          | -          | 220        |
| CT aMW                         | -          | -            | -          | -          | -          | -               | 11              | 46              | 319        | -          | -          | -          | -          |
| CCCT aMW                       | -          | -            | -          | -          | 2          | 2               | -               | -               | -          | -          | 461        | 371        | 231        |
| Wind aMW                       | 122        | -            | 188        | 285        | 122        | 122             | 122             | 81              | -          | -          | -          | 122        | -          |
| Renews aMW                     | 65         | -            | 81         | 190        | 158        | 68              | 60              | 60              | -          | -          | -          | -          | -          |
| Nuclear aMW                    | -          | -            | 147        | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| OilSands aMW                   | -          | -            | -          | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| Cogen aMW                      | -          | -            | -          | -          | 9          | 9               | 9               | 9               | -          | -          | -          | -          | -          |
| Market aMW                     | 25         | -            | 24         | -          | 42         | 42              | 42              | 42              | 45         | -          | -          | -          | -          |
| <b>Total aMW</b>               | <b>427</b> | <b>-</b>     | <b>440</b> | <b>474</b> | <b>440</b> | <b>439</b>      | <b>439</b>      | <b>425</b>      | <b>406</b> | <b>441</b> | <b>461</b> | <b>493</b> | <b>451</b> |
| <b>Build Out 2007-26 (aMW)</b> |            |              |            |            |            |                 |                 |                 |            |            |            |            |            |
| Coal aMW                       | 388        | -            | -          | -          | 255        | 515             | 515             | 534             | 376        | 735        | -          | -          | 368        |
| CT aMW                         | -          | -            | -          | -          | -          | -               | 11              | 46              | 319        | -          | -          | -          | -          |
| CCCT aMW                       | -          | -            | -          | -          | 2          | 2               | -               | -               | -          | -          | 770        | 623        | 385        |
| Wind aMW                       | 188        | -            | 188        | 386        | 188        | 188             | 188             | 122             | -          | -          | -          | 188        | -          |
| Renews aMW                     | 145        | -            | 145        | 402        | 333        | 68              | 60              | 60              | -          | -          | -          | -          | -          |
| Nuclear aMW                    | -          | -            | 399        | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| OilSands aMW                   | -          | -            | -          | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| Cogen aMW                      | -          | -            | 4          | -          | 9          | 9               | 9               | 9               | -          | -          | -          | -          | -          |
| Market aMW                     | 25         | -            | (20)       | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| <b>Total aMW</b>               | <b>746</b> | <b>-</b>     | <b>717</b> | <b>788</b> | <b>786</b> | <b>783</b>      | <b>783</b>      | <b>771</b>      | <b>694</b> | <b>735</b> | <b>770</b> | <b>811</b> | <b>752</b> |

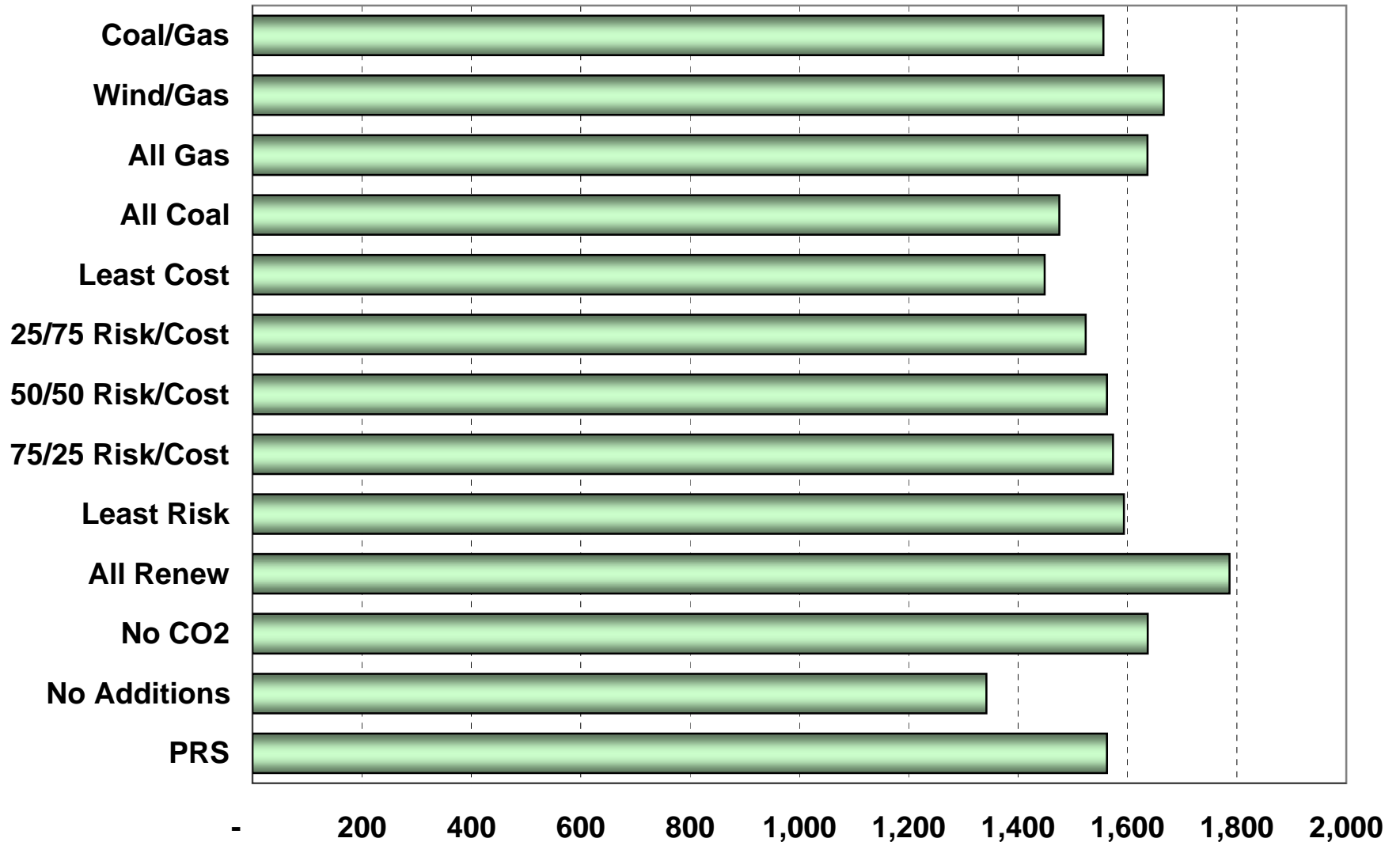
# Hydro Shift

# PSE 2026

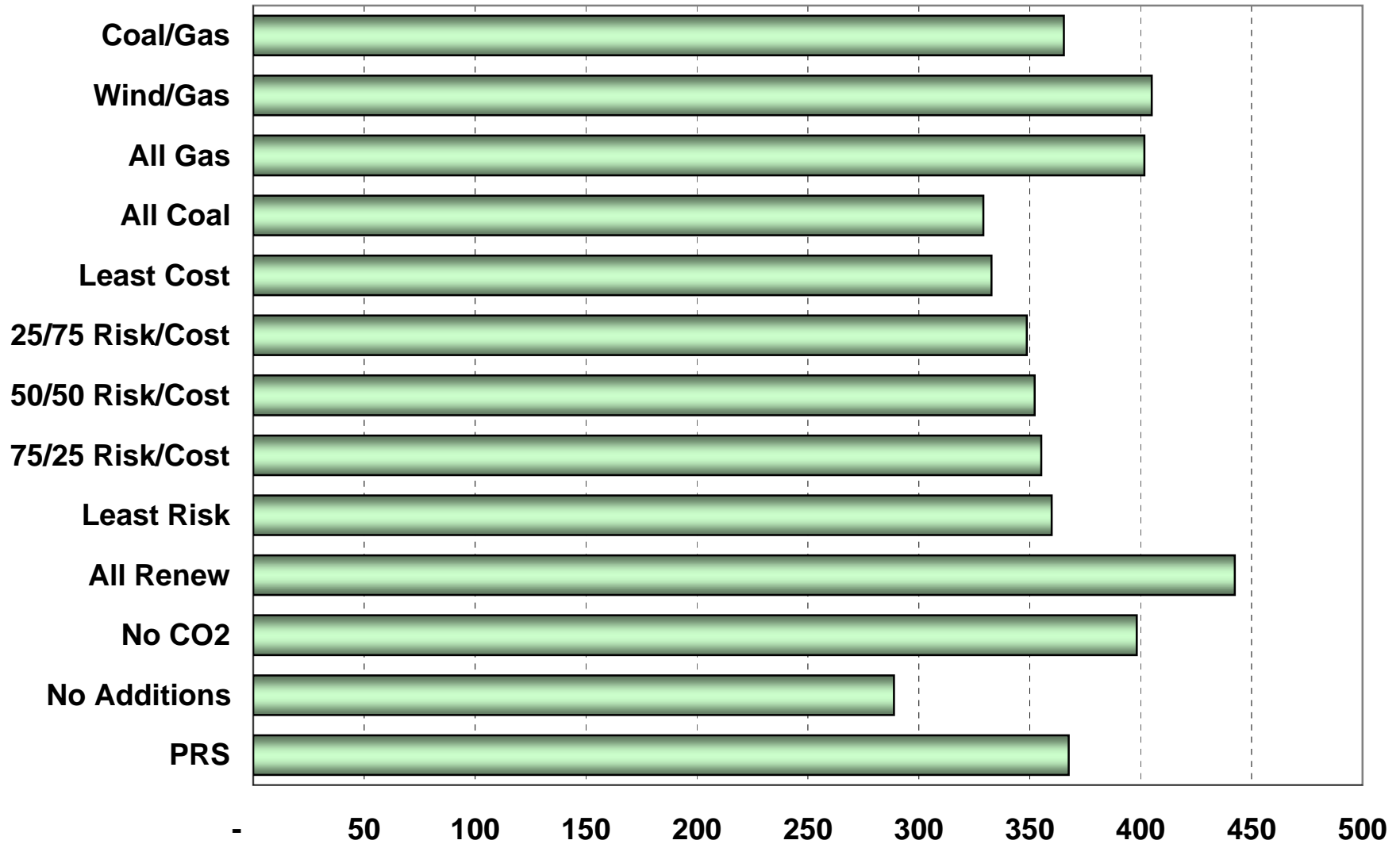




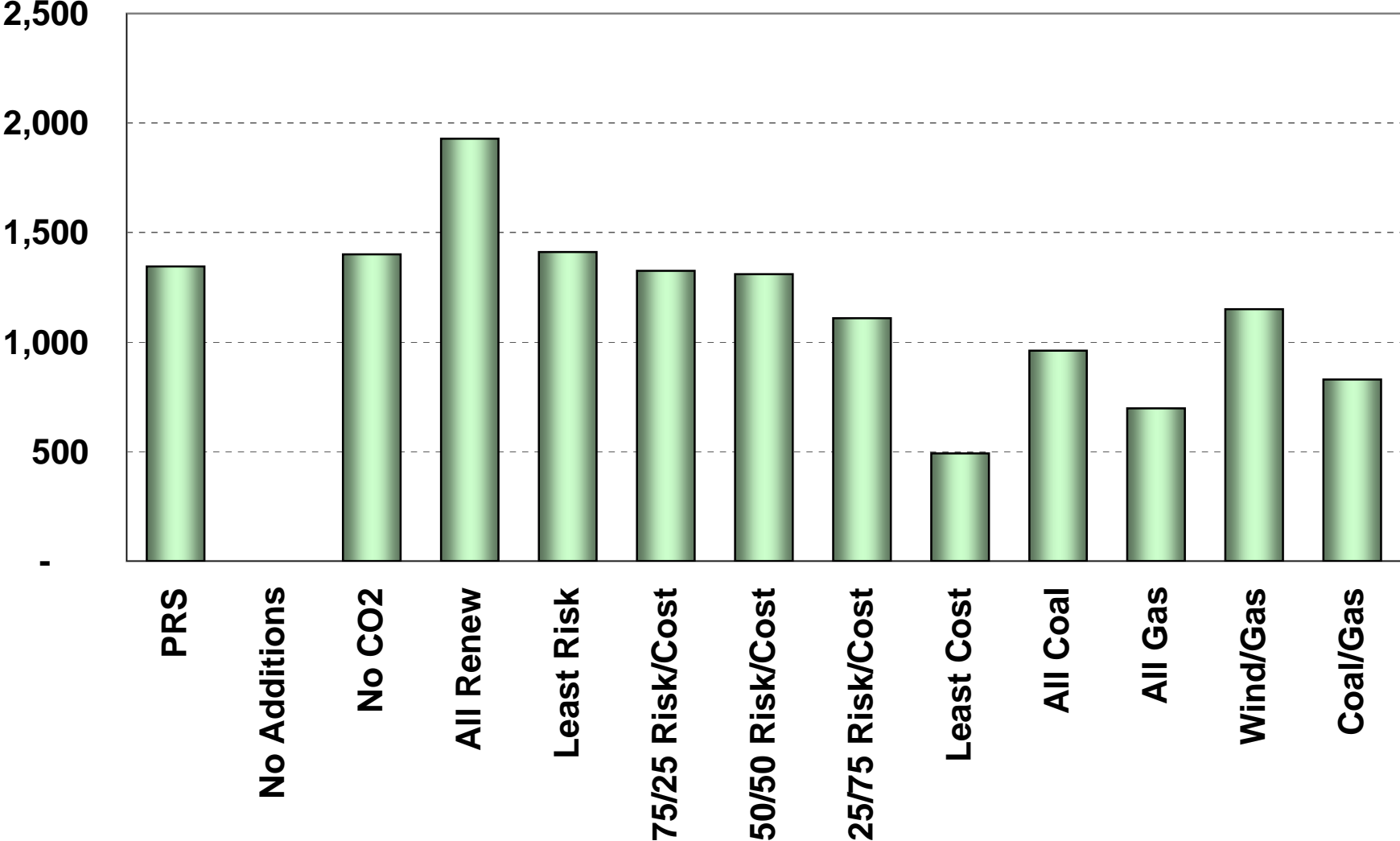
### PSE 07-16 NPV



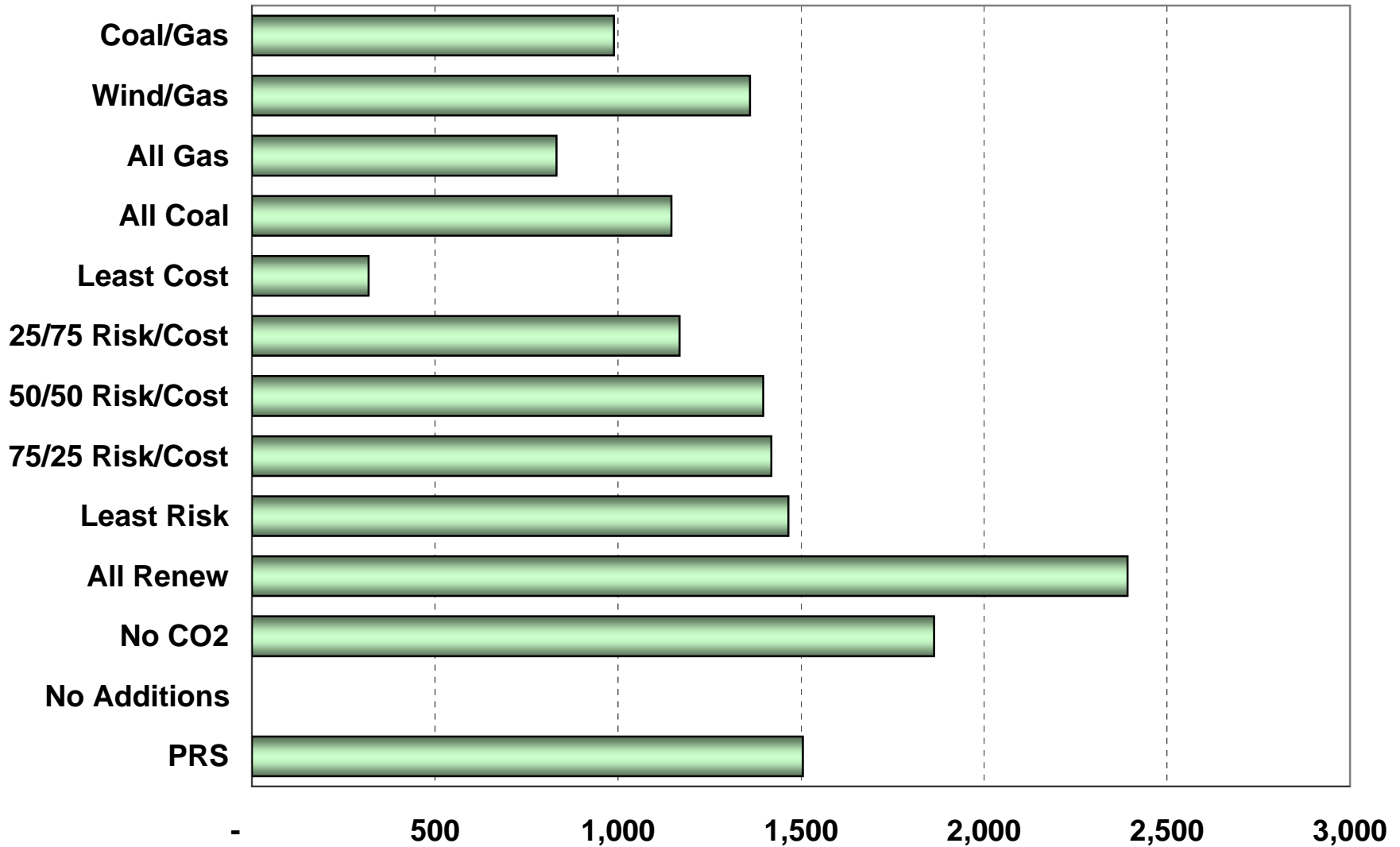
# PSE 2016



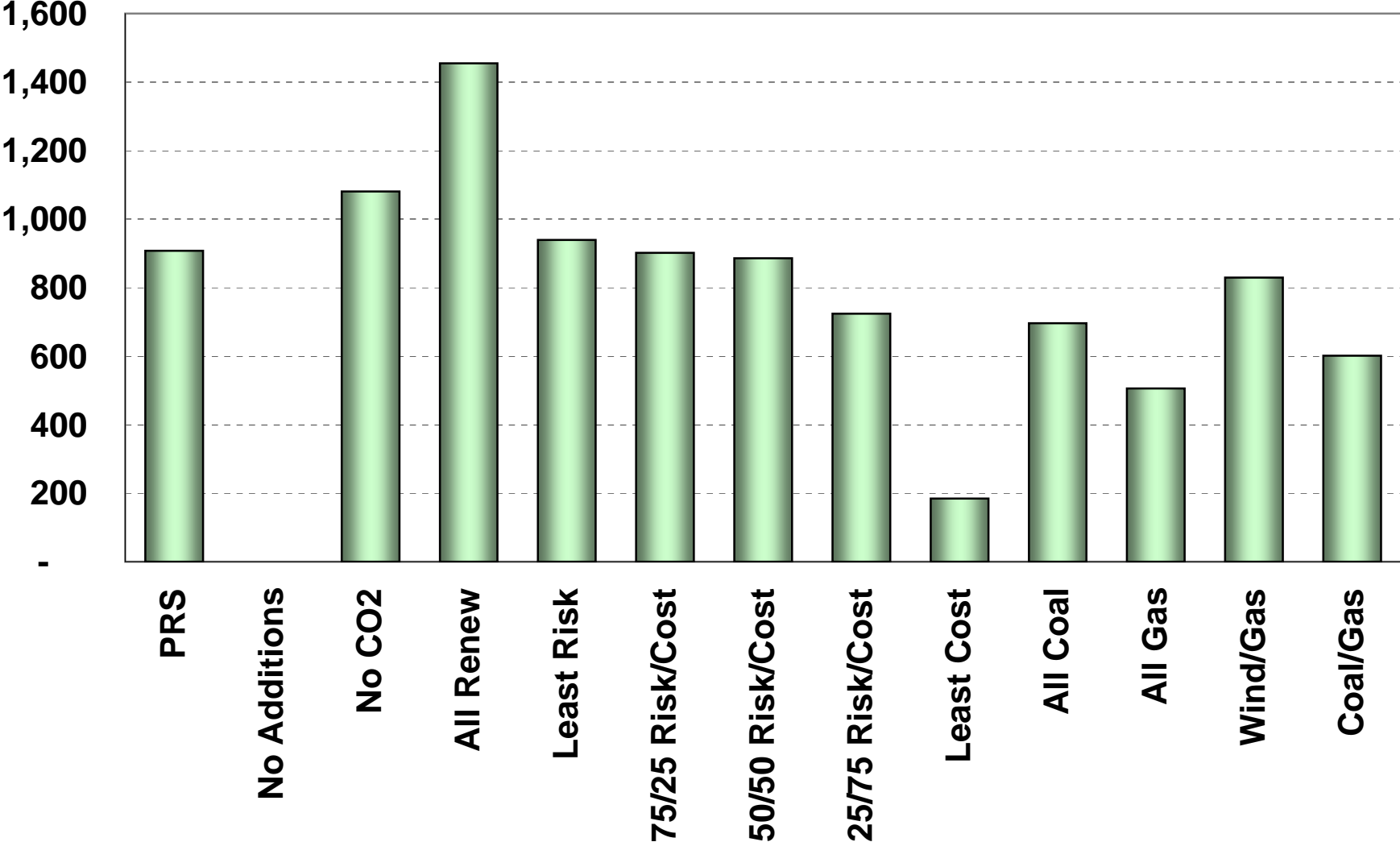
Capital NPV 07-26



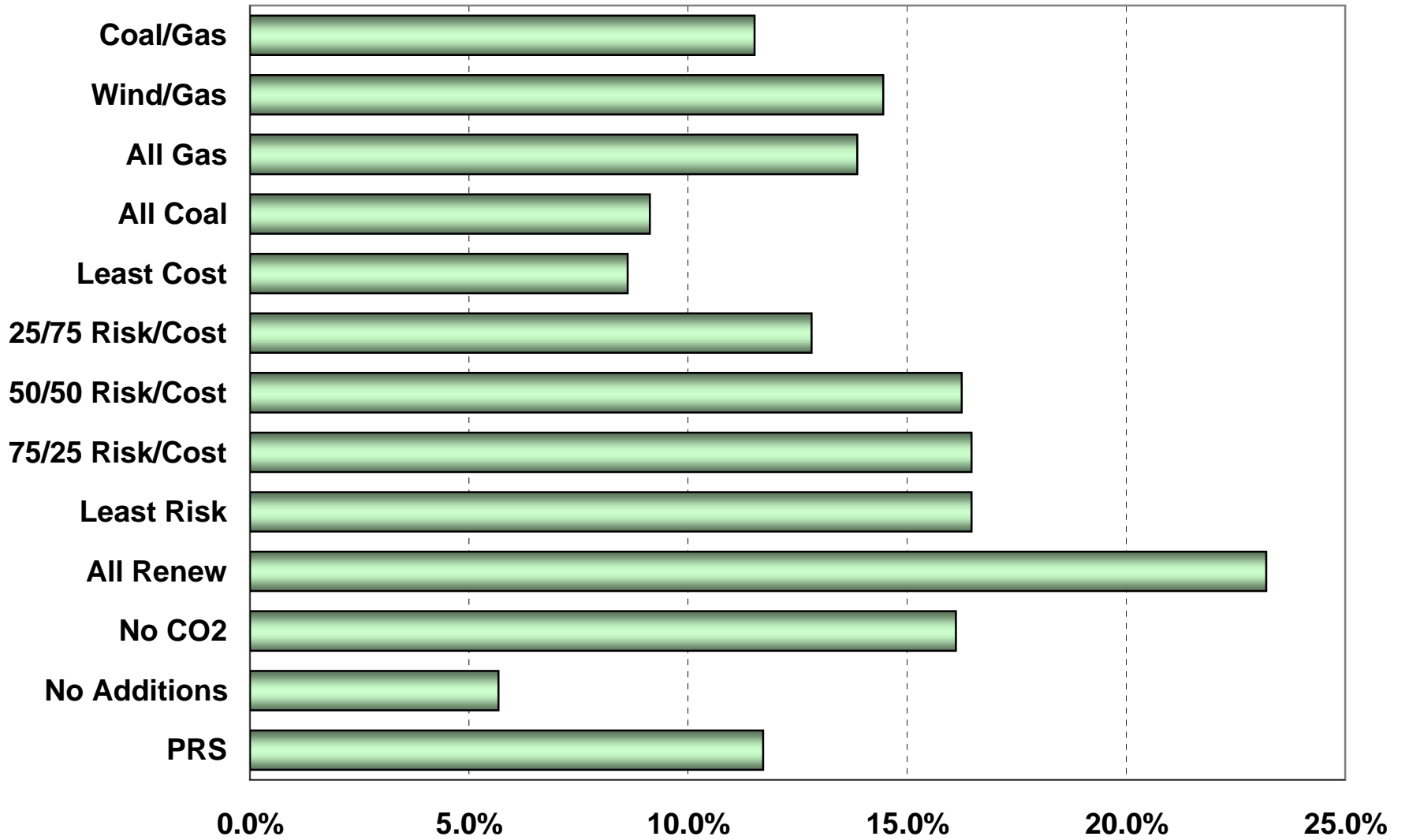
### Capital Nominal 07-16



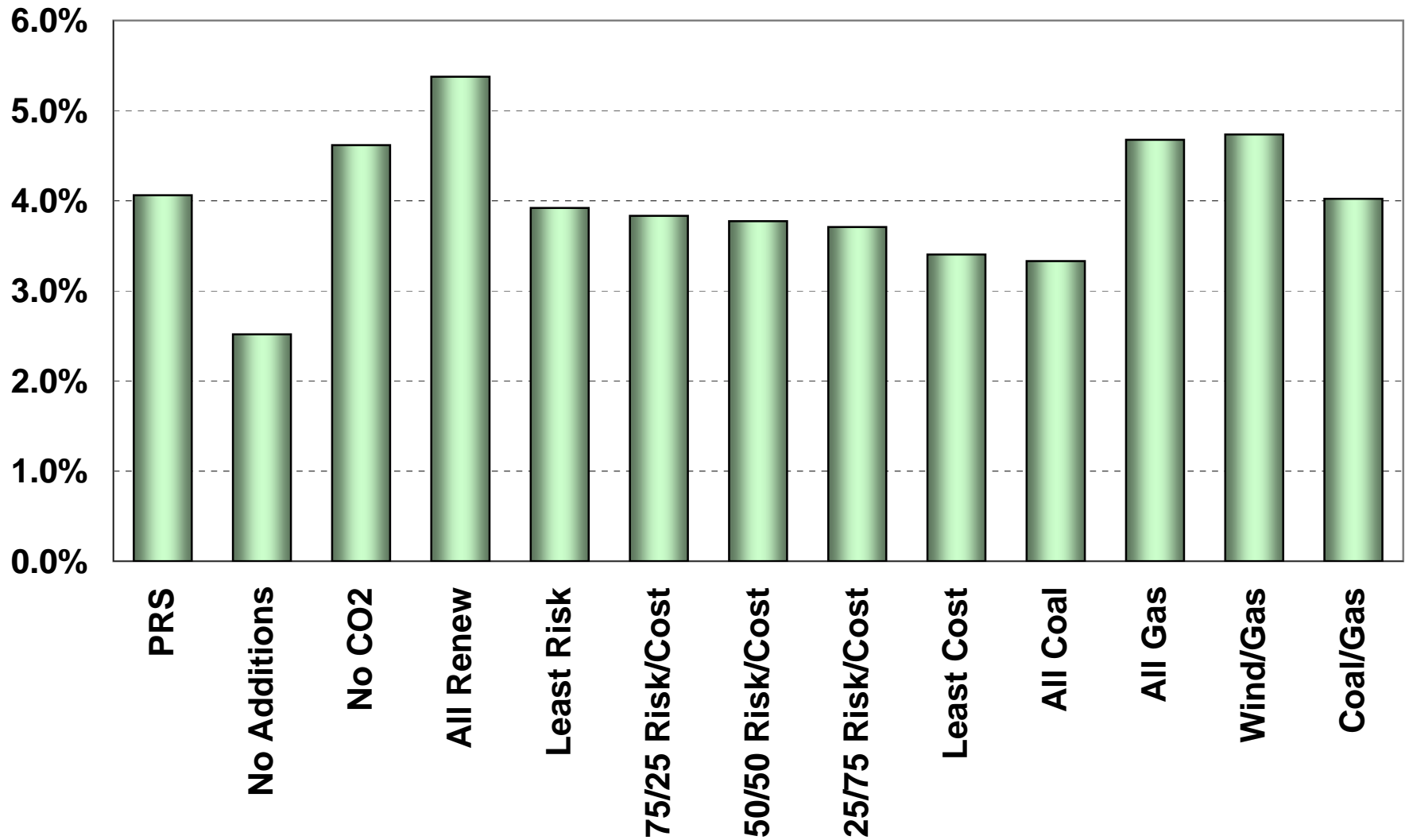
Capital NPV 07-16



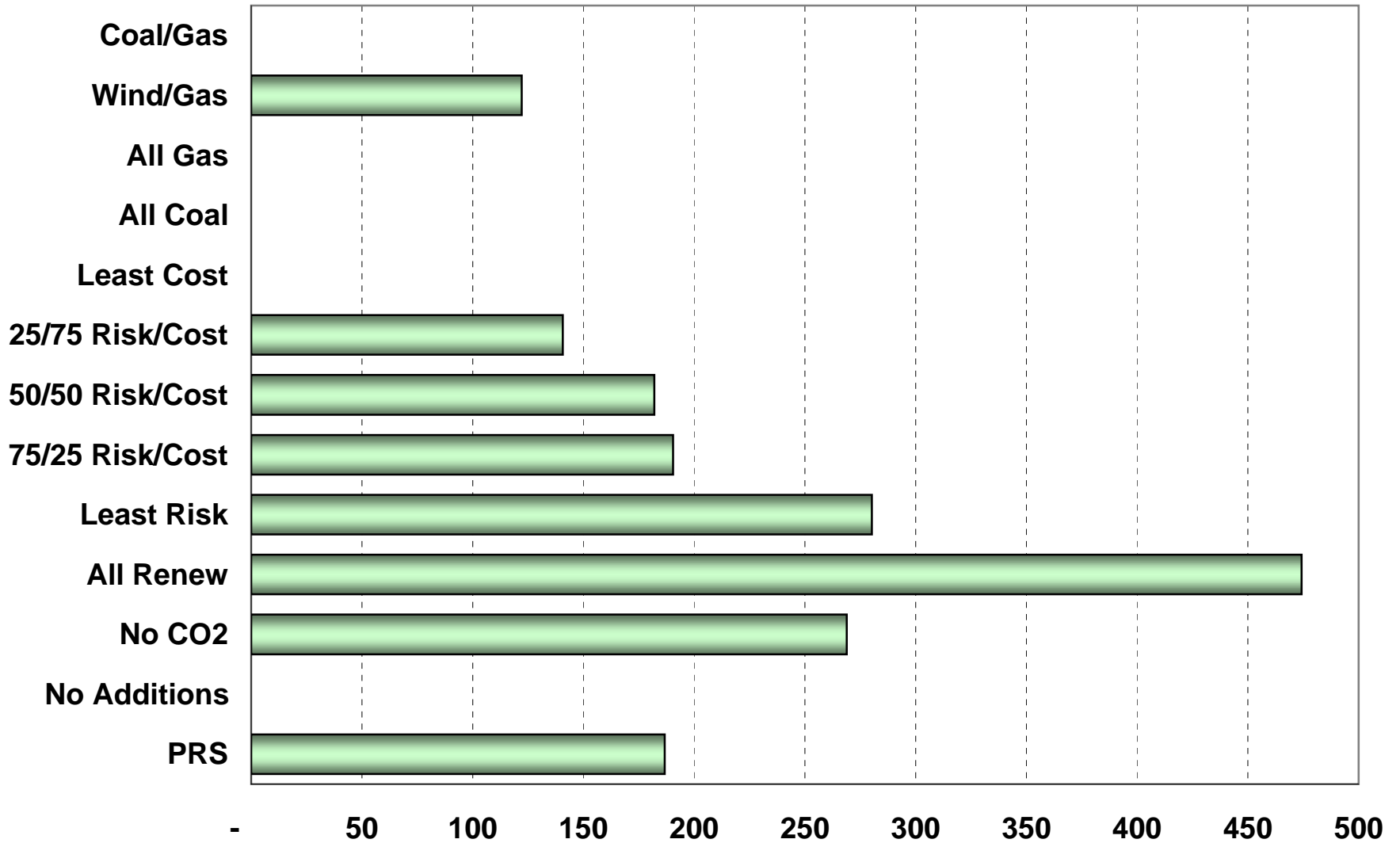
### Max Rate Increase



### Rate Increase 07-16

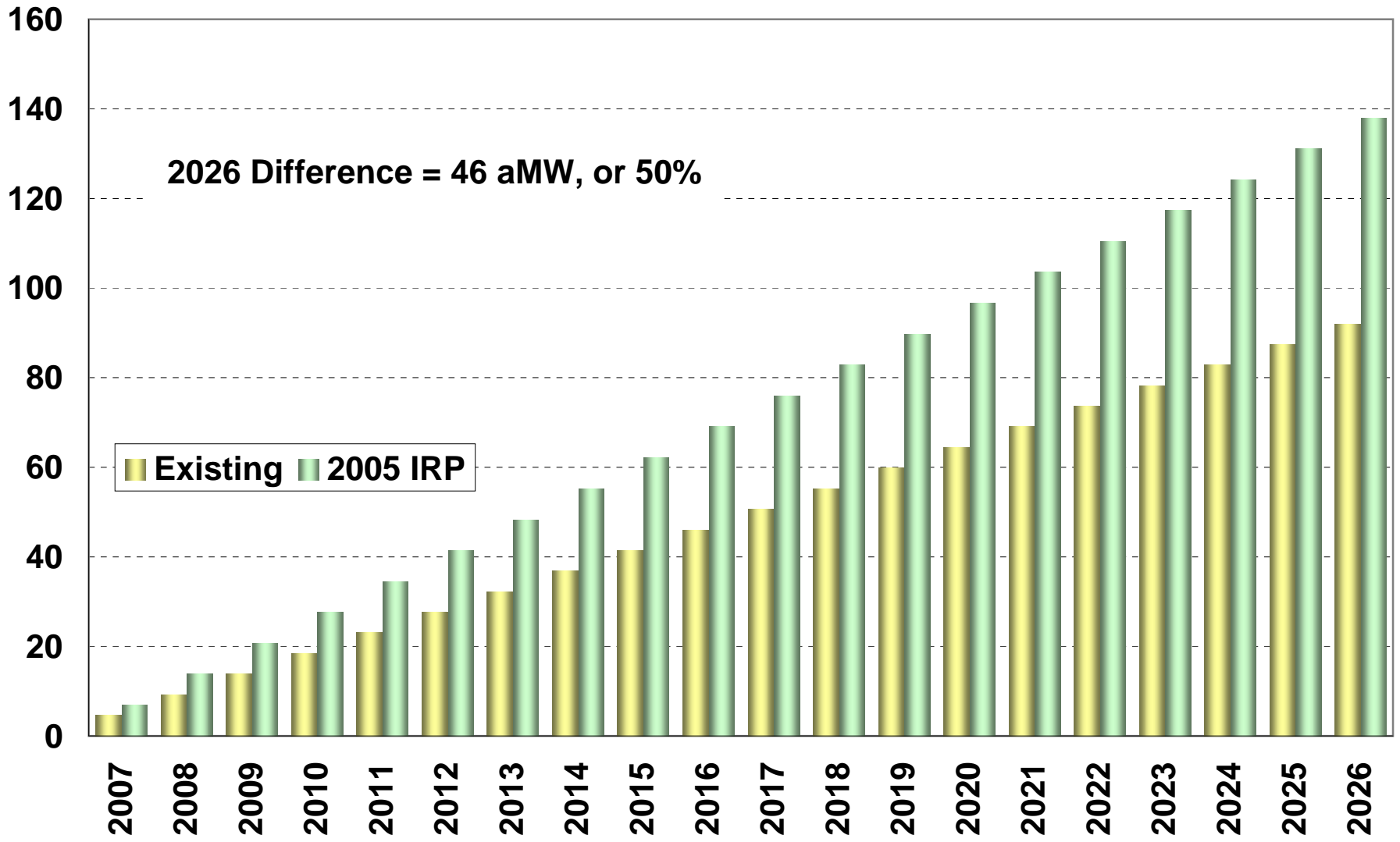


### Renewables aMW 2016





### DSM Acquisition



**Portfolio Options Summary—Hydro Shift**

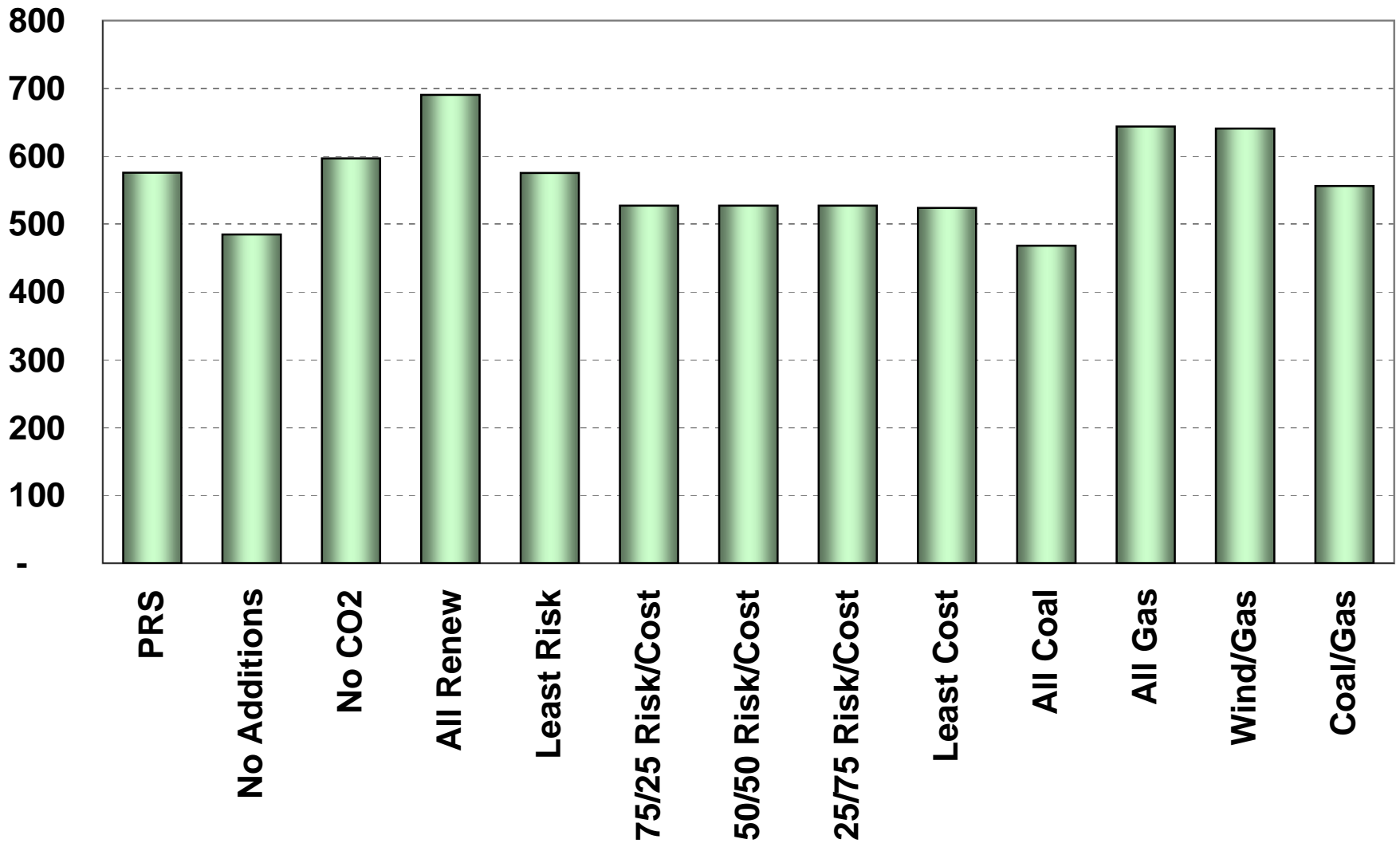
|                                  | 1     | 13           | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|----------------------------------|-------|--------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                  | PRS   | No Additions | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| <b>Average Rate Increase</b>     |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 4.1%  | 2.5%         | 4.6%   | 5.4%      | 3.9%       | 3.8%            | 3.8%            | 3.7%            | 3.4%       | 3.3%     | 4.7%    | 4.7%     | 4.0%     |
| 2007-2026                        | 3.3%  | 2.7%         | 3.4%   | 3.9%      | 3.3%       | 3.0%            | 3.0%            | 2.9%            | 3.0%       | 2.6%     | 3.7%    | 3.7%     | 3.2%     |
| <b>Max Rate Increase</b>         |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 11.7% | 5.7%         | 16.1%  | 23.2%     | 16.5%      | 16.5%           | 16.2%           | 12.8%           | 8.6%       | 9.1%     | 13.9%   | 14.5%    | 11.5%    |
| <b>Capital NPV</b>               |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 907   | -            | 1,081  | 1,455     | 939        | 901             | 886             | 724             | 185        | 696      | 506     | 829      | 601      |
| 2007-2026                        | 1,345 | -            | 1,400  | 1,929     | 1,411      | 1,326           | 1,310           | 1,109           | 491        | 961      | 698     | 1,150    | 829      |
| <b>Capital Nominal \$</b>        |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,505 | -            | 1,864  | 2,392     | 1,466      | 1,419           | 1,397           | 1,169           | 319        | 1,146    | 832     | 1,361    | 989      |
| 2007-2026                        | 3,019 | -            | 3,067  | 4,140     | 3,251      | 3,097           | 3,075           | 2,657           | 1,420      | 2,129    | 1,546   | 2,504    | 1,838    |
| <b>Power Supply Expense</b>      |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| in 2016                          | 368   | 289          | 398    | 442       | 360        | 355             | 352             | 349             | 333        | 329      | 402     | 405      | 365      |
| in 2026                          | 599   | 503          | 620    | 713       | 600        | 551             | 549             | 535             | 545        | 492      | 667     | 664      | 579      |
| <b>Power Supply Expense NPV</b>  |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,562 | 1,342        | 1,637  | 1,787     | 1,593      | 1,574           | 1,563           | 1,523           | 1,448      | 1,475    | 1,636   | 1,666    | 1,556    |
| 2007-2026                        | 2,972 | 2,508        | 3,109  | 3,448     | 2,985      | 2,881           | 2,862           | 2,812           | 2,741      | 2,689    | 3,190   | 3,217    | 2,939    |
| <b>Risk (StDev)</b>              |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007 In 2016\$                   | (0)   | -            | (0)    | -         | (0)        | (0)             | -               | -               | -          | (0)      | -       | -        | -        |
| 2016                             | 0     | 0            | 0      | -         | 0          | 0               | -               | -               | 0          | 0        | -       | -        | -        |
| 2026                             | -     | 0            | -      | -         | 0          | 0               | -               | -               | -          | -        | 0       | -        | -        |
| <b>Risk (StDev NPV)</b>          |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 0     | 0            | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| 2007-2026                        | 0     | 0            | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| <b>Covariance (stdev/mean)</b>   |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>95th% Max Var (NPV)</b>       |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | (0)   | (0)          | (0)    | 0         | 0          | 0               | (0)             | (0)             | (0)        | (0)      | 0       | (0)      | (0)      |
| 2007-2026                        | (0)   | (0)          | (0)    | (0)       | 0          | (0)             | (0)             | (0)             | (0)        | (0)      | 0       | (0)      | (0)      |
| <b>95th% Max Var (95th/mean)</b> |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>Build Out 2007-16 (MW)</b>    |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 250   | -            | -      | -         | 124        | 227             | 227             | 218             | 49         | 511      | -       | -        | 256      |
| CT MW                            | -     | -            | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 511     | 411      | 256      |
| Wind MW                          | 400   | -            | 650    | 980       | 400        | 400             | 400             | 275             | -          | -        | -       | 400      | -        |
| Renews MW                        | 80    | -            | 100    | 228       | 183        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -            | 175    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -            | -      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -            | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total MW                         | 755   | -            | 949    | 1,208     | 761        | 761             | 761             | 668             | 461        | 511      | 511     | 811      | 511      |
| <b>Build Out 2007-26 (MW)</b>    |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 450   | -            | -      | -         | 296        | 598             | 598             | 620             | 436        | 853      | -       | -        | 427      |
| CT MW                            | -     | -            | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 853     | 691      | 427      |
| Wind MW                          | 650   | -            | 650    | 1,330     | 650        | 650             | 650             | 400             | -          | -        | -       | 650      | -        |
| Renews MW                        | 180   | -            | 180    | 483       | 383        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -            | 475    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -            | 5      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -            | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |

**Portfolio Options Summary—Hydro Shift**

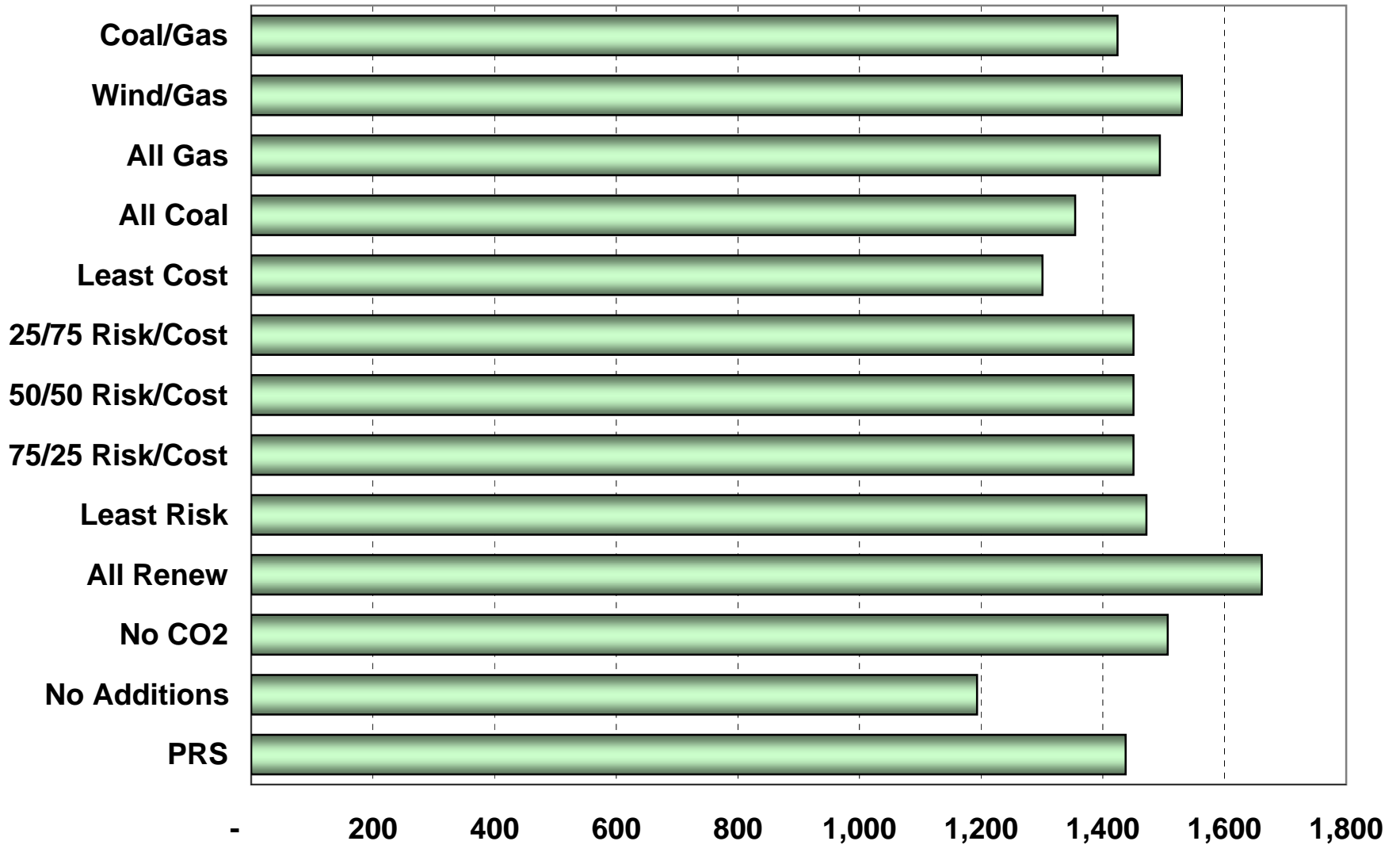
|                                | 1     | 13           | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|--------------------------------|-------|--------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                | PRS   | No Additions | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| Total MW                       | 1,305 | -            | 1,291  | 1,813     | 1,341      | 1,341           | 1,341           | 1,153           | 803        | 853      | 853     | 1,341    | 853      |
| <b>Build Out 2007-16 (aMW)</b> |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal aMW                       | 215   | -            | -      | -         | 107        | 195             | 195             | 187             | 42         | 441      | -       | -        | 220      |
| CT aMW                         | -     | -            | -      | -         | -          | -               | 11              | 46              | 319        | -        | -       | -        | -        |
| CCCT aMW                       | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 461     | 371      | 231      |
| Wind aMW                       | 122   | -            | 188    | 285       | 122        | 122             | 122             | 81              | -          | -        | -       | 122      | -        |
| Renews aMW                     | 65    | -            | 81     | 190       | 158        | 68              | 60              | 60              | -          | -        | -       | -        | -        |
| Nuclear aMW                    | -     | -            | 147    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands aMW                   | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen aMW                      | -     | -            | -      | -         | 9          | 9               | 9               | 9               | -          | -        | -       | -        | -        |
| Market aMW                     | 25    | -            | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total aMW                      | 427   | -            | 440    | 474       | 440        | 439             | 439             | 425             | 406        | 441      | 461     | 493      | 451      |
| <b>Build Out 2007-26 (aMW)</b> |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal aMW                       | 388   | -            | -      | -         | 255        | 515             | 515             | 534             | 376        | 735      | -       | -        | 368      |
| CT aMW                         | -     | -            | -      | -         | -          | -               | 11              | 46              | 319        | -        | -       | -        | -        |
| CCCT aMW                       | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 770     | 623      | 385      |
| Wind aMW                       | 188   | -            | 188    | 386       | 188        | 188             | 188             | 122             | -          | -        | -       | 188      | -        |
| Renews aMW                     | 145   | -            | 145    | 402       | 333        | 68              | 60              | 60              | -          | -        | -       | -        | -        |
| Nuclear aMW                    | -     | -            | 399    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands aMW                   | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen aMW                      | -     | -            | 4      | -         | 9          | 9               | 9               | 9               | -          | -        | -       | -        | -        |
| Market aMW                     | 25    | -            | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Total aMW                      | 746   | -            | 717    | 788       | 786        | 783             | 783             | 771             | 694        | 735      | 770     | 811      | 752      |

# 5000 MW Wind

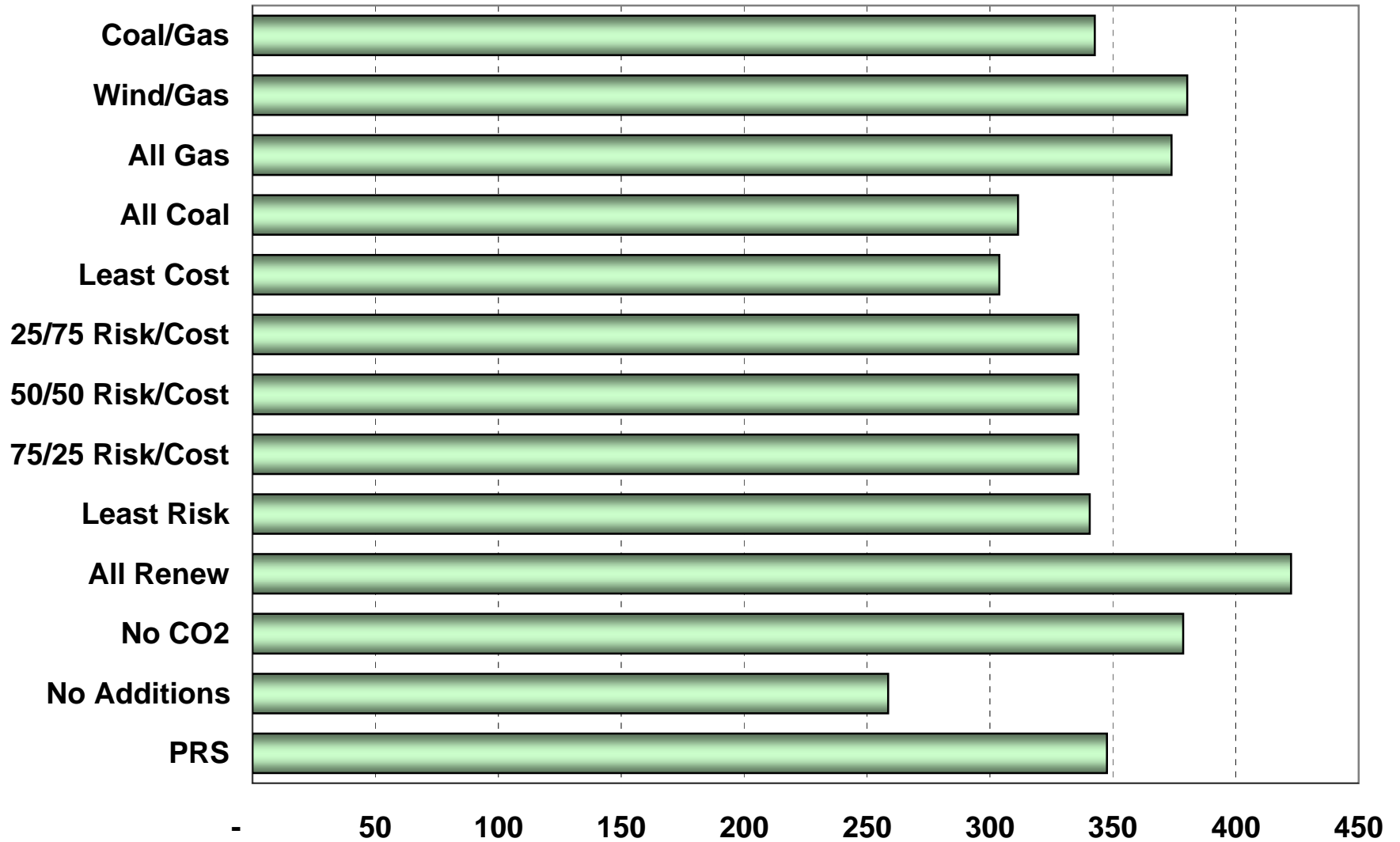
PSE 2026



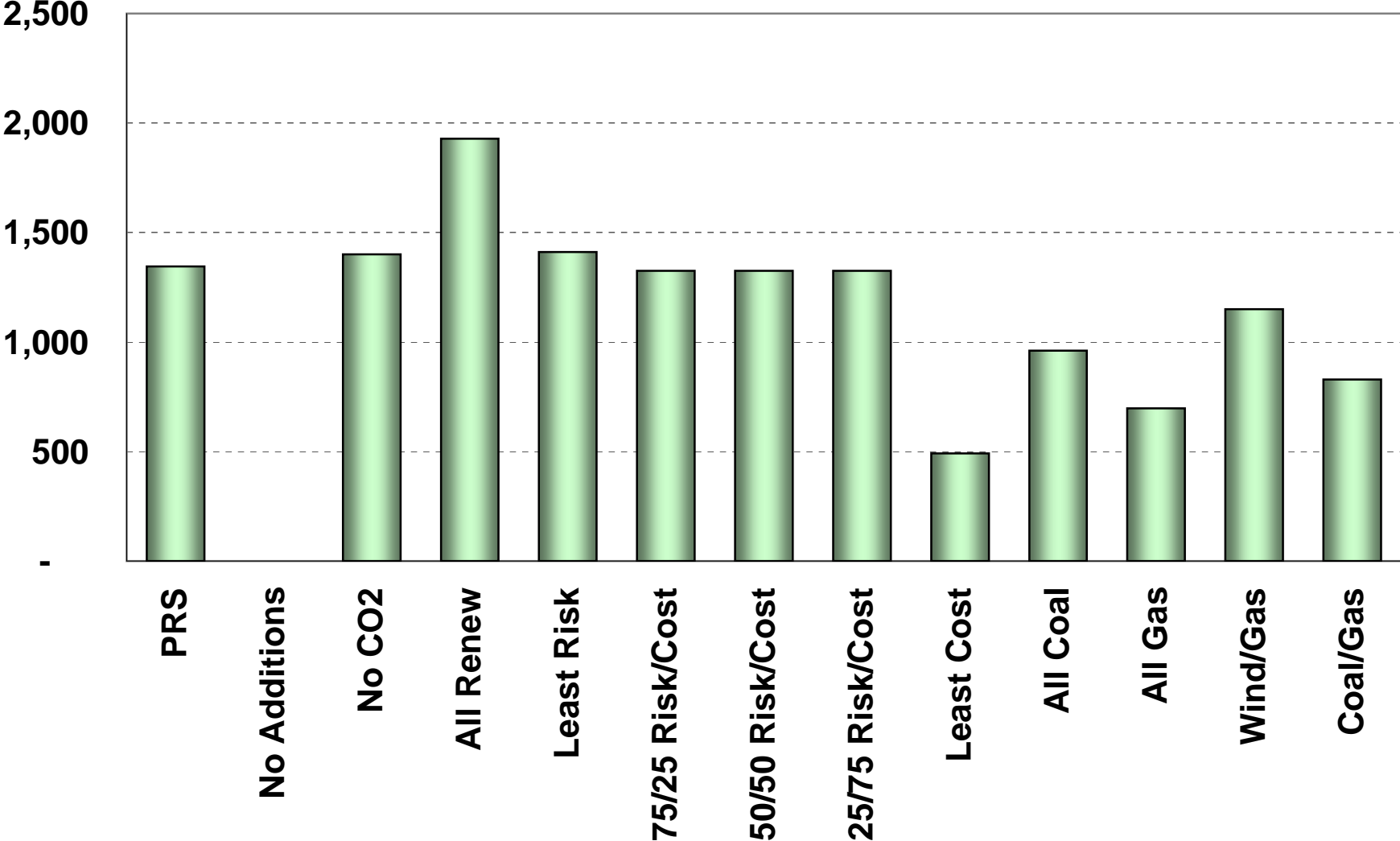
### PSE 07-16 NPV



# PSE 2016

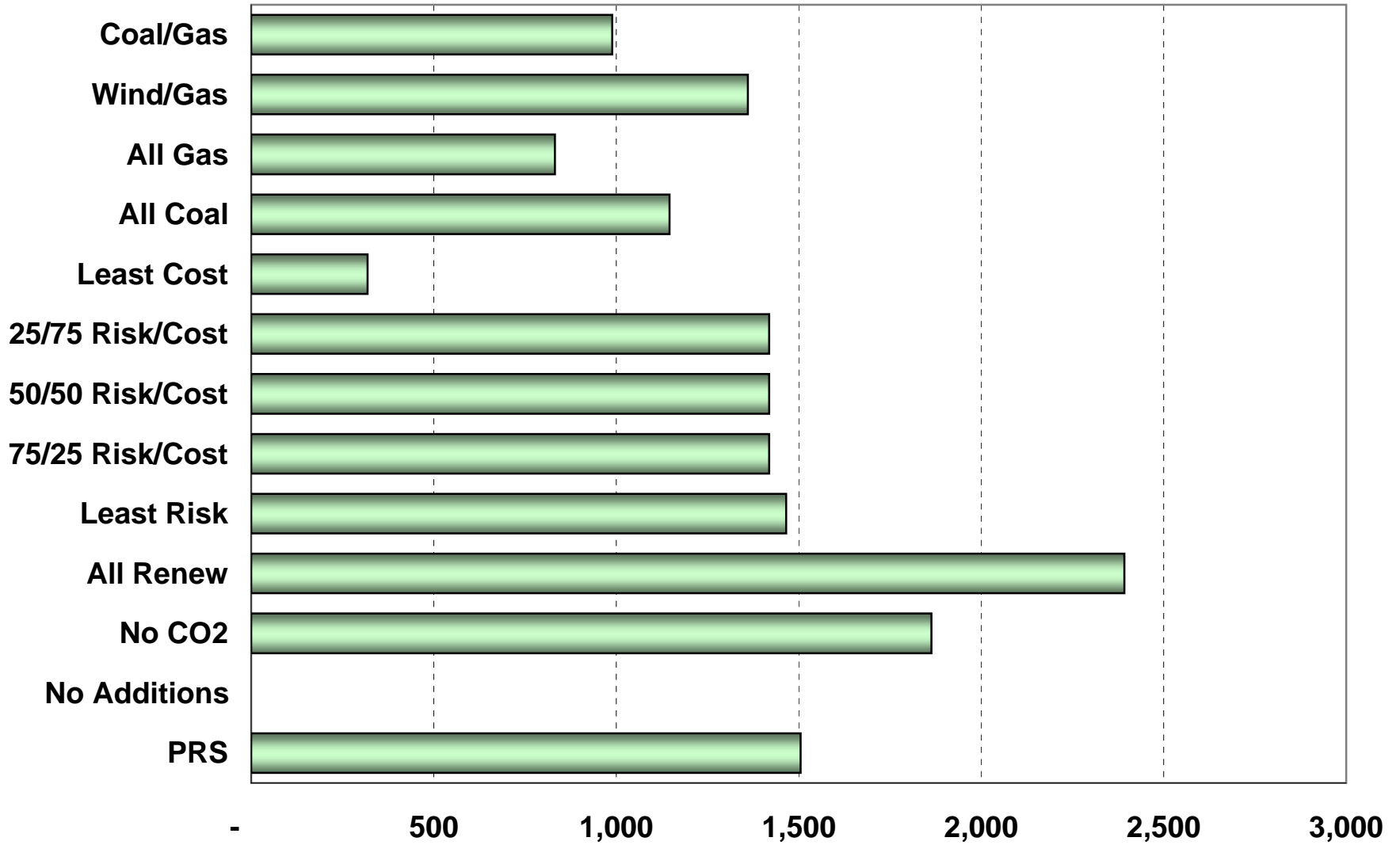


Capital NPV 07-26

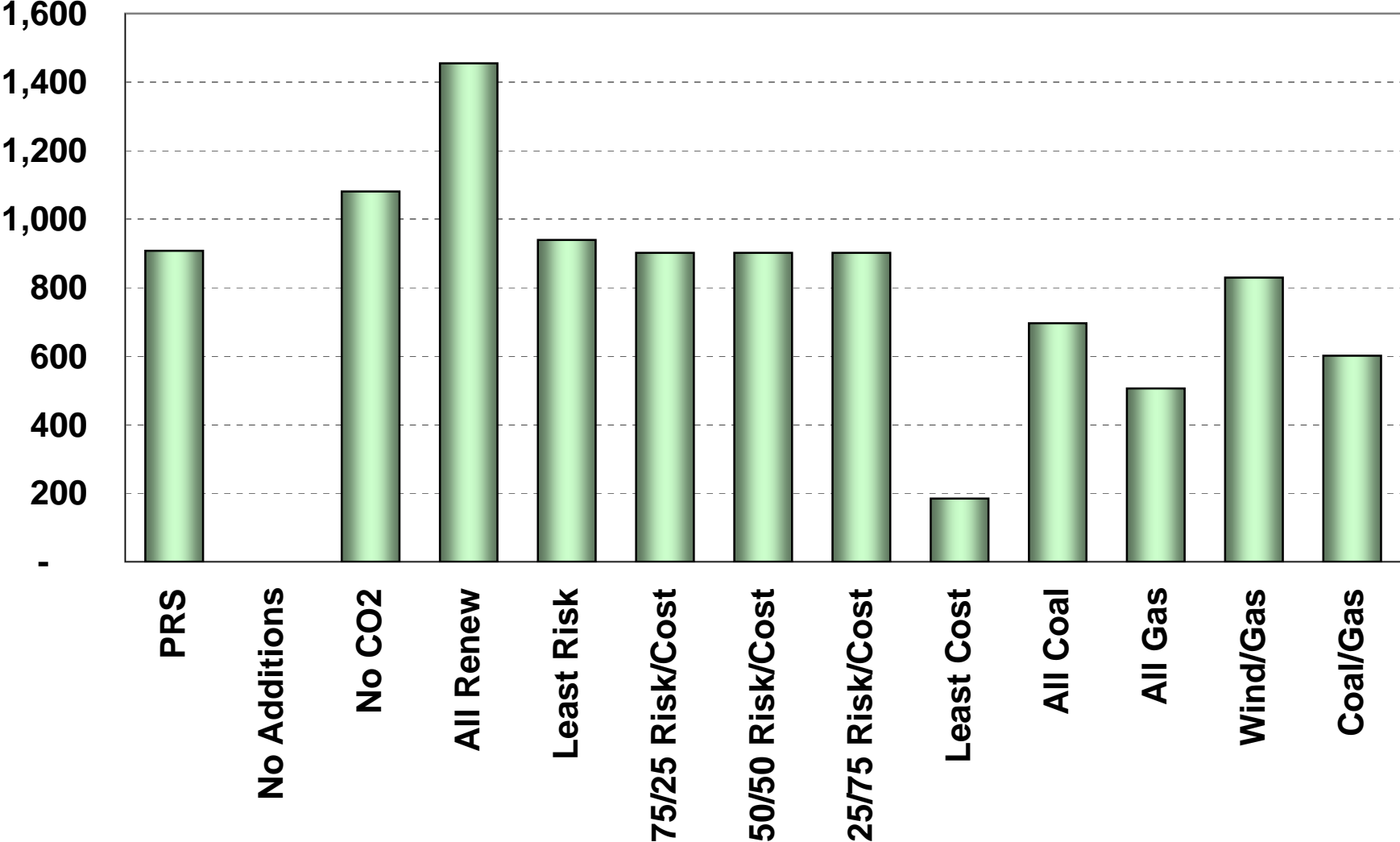




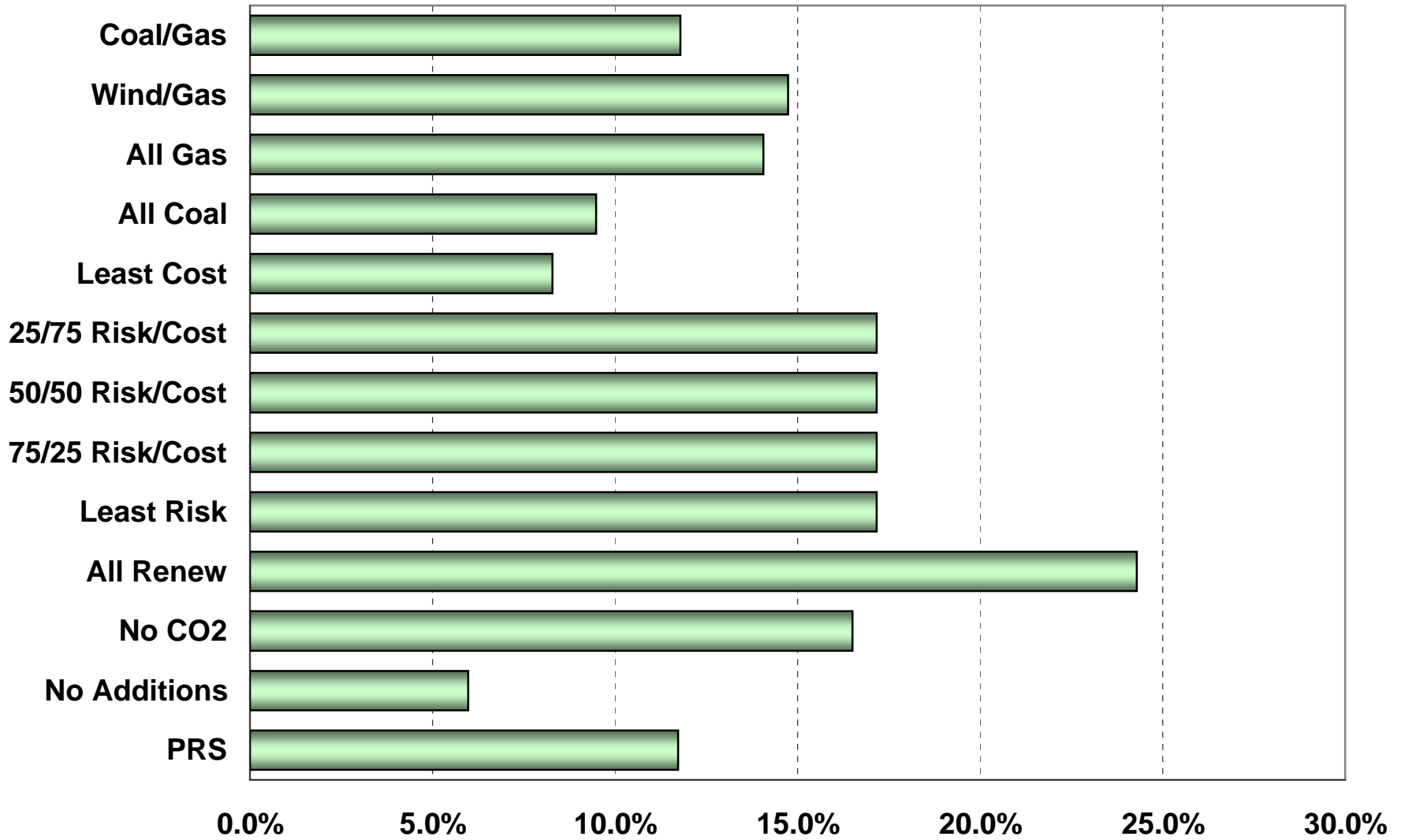
### Capital Nominal 07-16



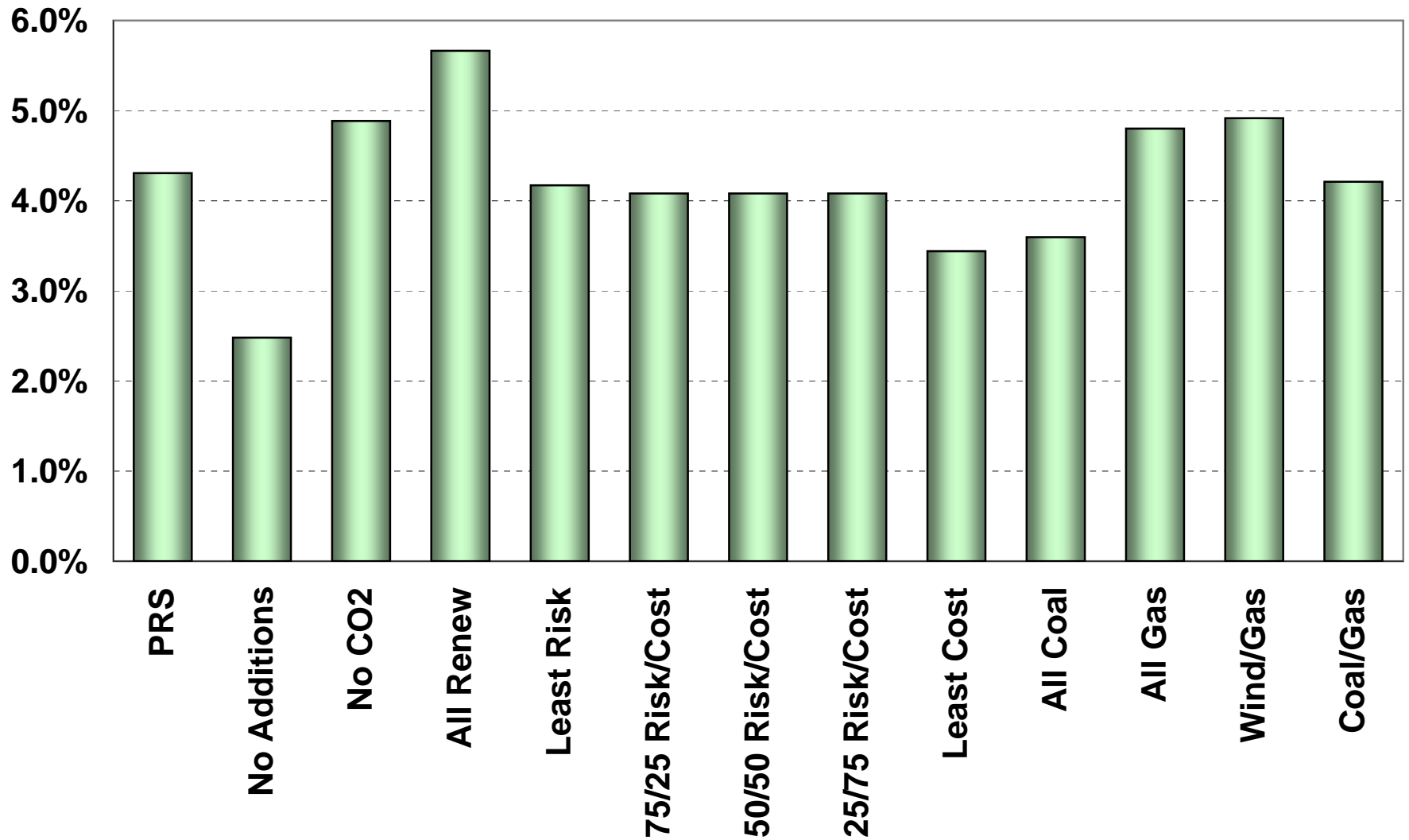
**Capital NPV 07-16**



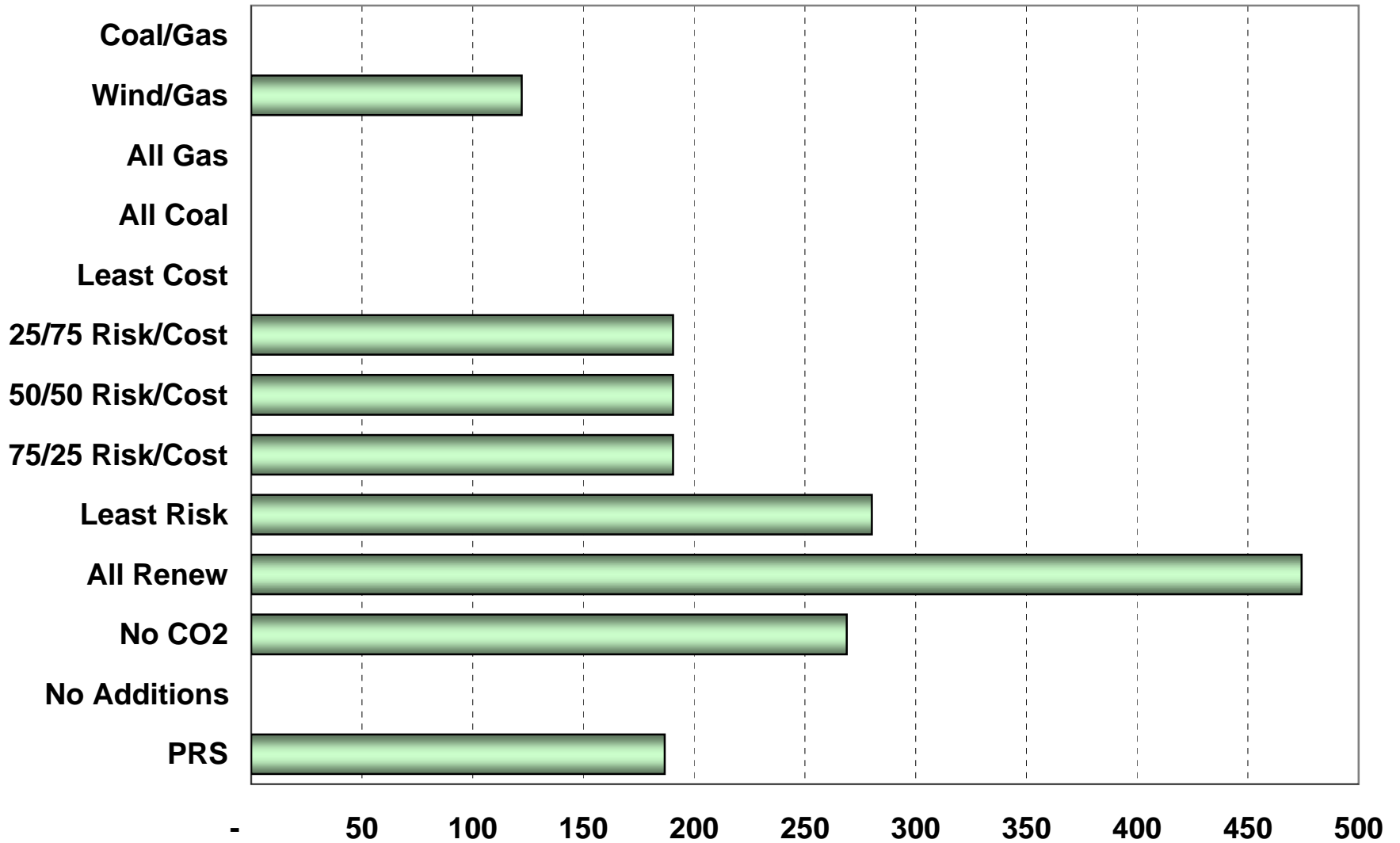
### Max Rate Increase



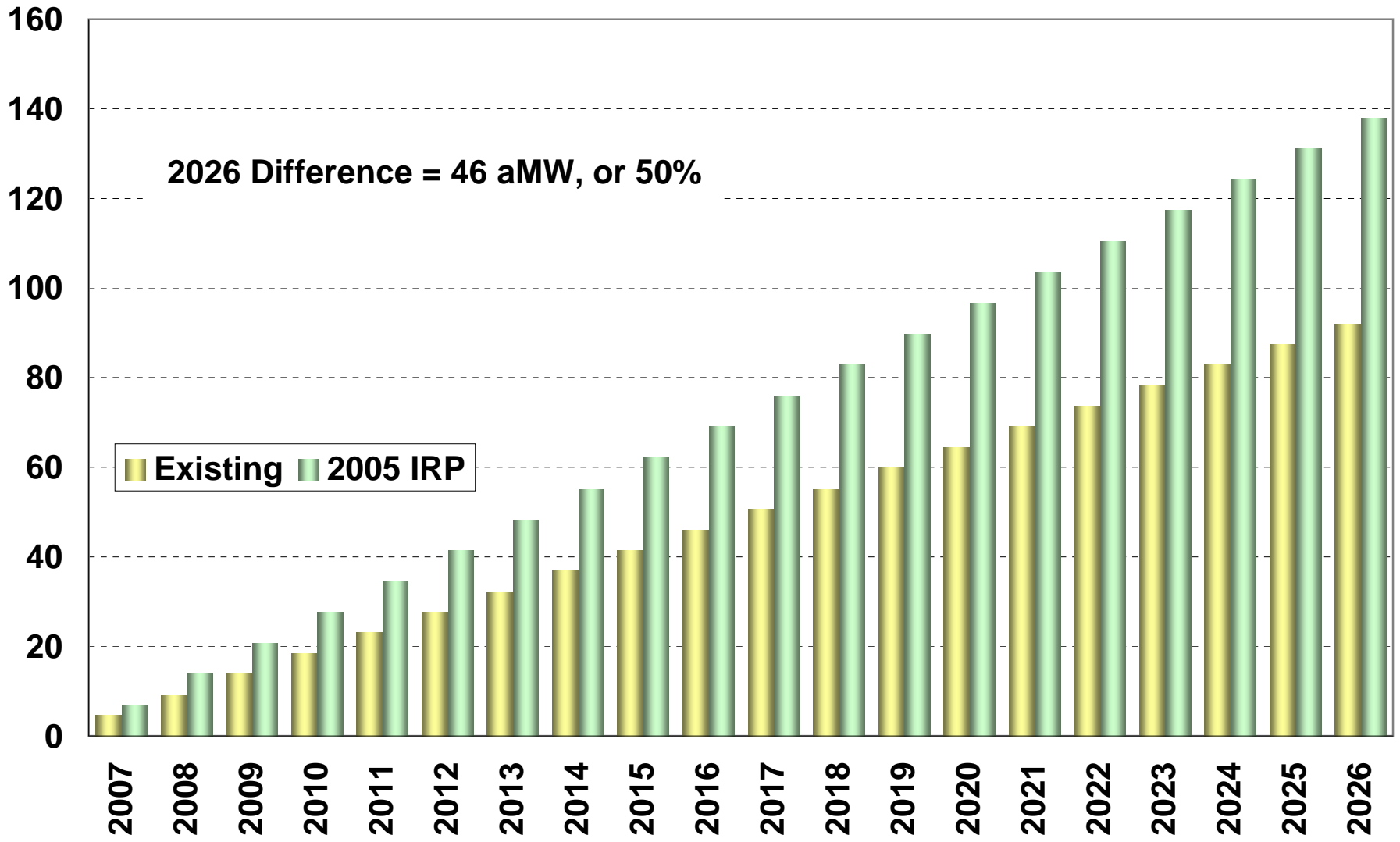
### Rate Increase 07-16



### Renewables aMW 2016



### DSM Acquisition



**Portfolio Options Summary—5000 MW Wind**

|                                  | 1     | 13               | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|----------------------------------|-------|------------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                  | PRS   | No Additio<br>ns | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| <b>Average Rate Increase</b>     |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 4.3%  | 2.5%             | 4.9%   | 5.7%      | 4.2%       | 4.1%            | 4.1%            | 4.1%            | 3.4%       | 3.6%     | 4.8%    | 4.9%     | 4.2%     |
| 2007-2026                        | 3.5%  | 2.9%             | 3.6%   | 4.1%      | 3.5%       | 3.2%            | 3.2%            | 3.2%            | 3.1%       | 2.8%     | 3.9%    | 3.8%     | 3.3%     |
| <b>Max Rate Increase</b>         |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 11.7% | 6.0%             | 16.5%  | 24.3%     | 17.2%      | 17.2%           | 17.2%           | 17.2%           | 8.3%       | 9.5%     | 14.1%   | 14.7%    | 11.8%    |
| <b>Capital NPV</b>               |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 907   | -                | 1,081  | 1,455     | 939        | 901             | 901             | 901             | 185        | 696      | 506     | 829      | 601      |
| 2007-2026                        | 1,345 | -                | 1,400  | 1,929     | 1,411      | 1,326           | 1,326           | 1,326           | 491        | 961      | 698     | 1,150    | 829      |
| <b>Capital Nominal \$</b>        |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,505 | -                | 1,864  | 2,392     | 1,466      | 1,419           | 1,419           | 1,419           | 319        | 1,146    | 832     | 1,361    | 989      |
| 2007-2026                        | 3,019 | -                | 3,067  | 4,140     | 3,251      | 3,097           | 3,097           | 3,097           | 1,420      | 2,129    | 1,546   | 2,504    | 1,838    |
| <b>Power Supply Expense</b>      |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| in 2016                          | 348   | 259              | 379    | 422       | 341        | 336             | 336             | 336             | 304        | 311      | 374     | 380      | 343      |
| in 2026                          | 576   | 485              | 597    | 690       | 575        | 527             | 527             | 527             | 524        | 468      | 644     | 641      | 556      |
| <b>Power Supply Expense NPV</b>  |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,437 | 1,193            | 1,507  | 1,661     | 1,472      | 1,450           | 1,450           | 1,450           | 1,301      | 1,355    | 1,493   | 1,530    | 1,424    |
| 2007-2026                        | 2,781 | 2,281            | 2,913  | 3,256     | 2,798      | 2,693           | 2,693           | 2,693           | 2,519      | 2,504    | 2,968   | 3,007    | 2,736    |
| <b>Risk (StDev)</b>              |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007 In 2016\$                   | -     | -                | -      | -         | -          | -               | -               | -               | -          | -        | -       | (0)      | -        |
| 2016                             | -     | 0                | -      | -         | -          | -               | -               | -               | 0          | -        | -       | 0        | -        |
| 2026                             | 0     | -                | 0      | 0         | -          | -               | -               | -               | 0          | 0        | -       | 0        | -        |
| <b>Risk (StDev NPV)</b>          |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 0     | 0                | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| 2007-2026                        | 0     | 0                | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| <b>Covariance (stdev/mean)</b>   |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>95th% Max Var (NPV)</b>       |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | (0)   | 0                | (0)    | (0)       | (0)        | (0)             | (0)             | (0)             | (0)        | 0        | 0       | 0        | (0)      |
| 2007-2026                        | (0)   | 0                | (0)    | (0)       | (0)        | (0)             | (0)             | (0)             | (0)        | 0        | 0       | 0        | (0)      |
| <b>95th% Max Var (95th/mean)</b> |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>Build Out 2007-16 (MW)</b>    |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 250   | -                | -      | -         | 124        | 227             | 227             | 227             | 49         | 511      | -       | -        | 256      |
| CT MW                            | -     | -                | -      | -         | -          | -               | -               | -               | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -                | -      | -         | 2          | 2               | 2               | 2               | -          | -        | 511     | 411      | 256      |
| Wind MW                          | 400   | -                | 650    | 980       | 400        | 400             | 400             | 400             | -          | -        | -       | 400      | -        |
| Renews MW                        | 80    | -                | 100    | 228       | 183        | 80              | 80              | 80              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -                | 175    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -                | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -                | -      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -                | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total MW                         | 755   | -                | 949    | 1,208     | 761        | 761             | 761             | 761             | 461        | 511      | 511     | 811      | 511      |
| <b>Build Out 2007-26 (MW)</b>    |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 450   | -                | -      | -         | 296        | 598             | 598             | 598             | 436        | 853      | -       | -        | 427      |
| CT MW                            | -     | -                | -      | -         | -          | -               | -               | -               | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -                | -      | -         | 2          | 2               | 2               | 2               | -          | -        | 853     | 691      | 427      |
| Wind MW                          | 650   | -                | 650    | 1,330     | 650        | 650             | 650             | 650             | -          | -        | -       | 650      | -        |
| Renews MW                        | 180   | -                | 180    | 483       | 383        | 80              | 80              | 80              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -                | 475    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -                | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -                | 5      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -                | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |

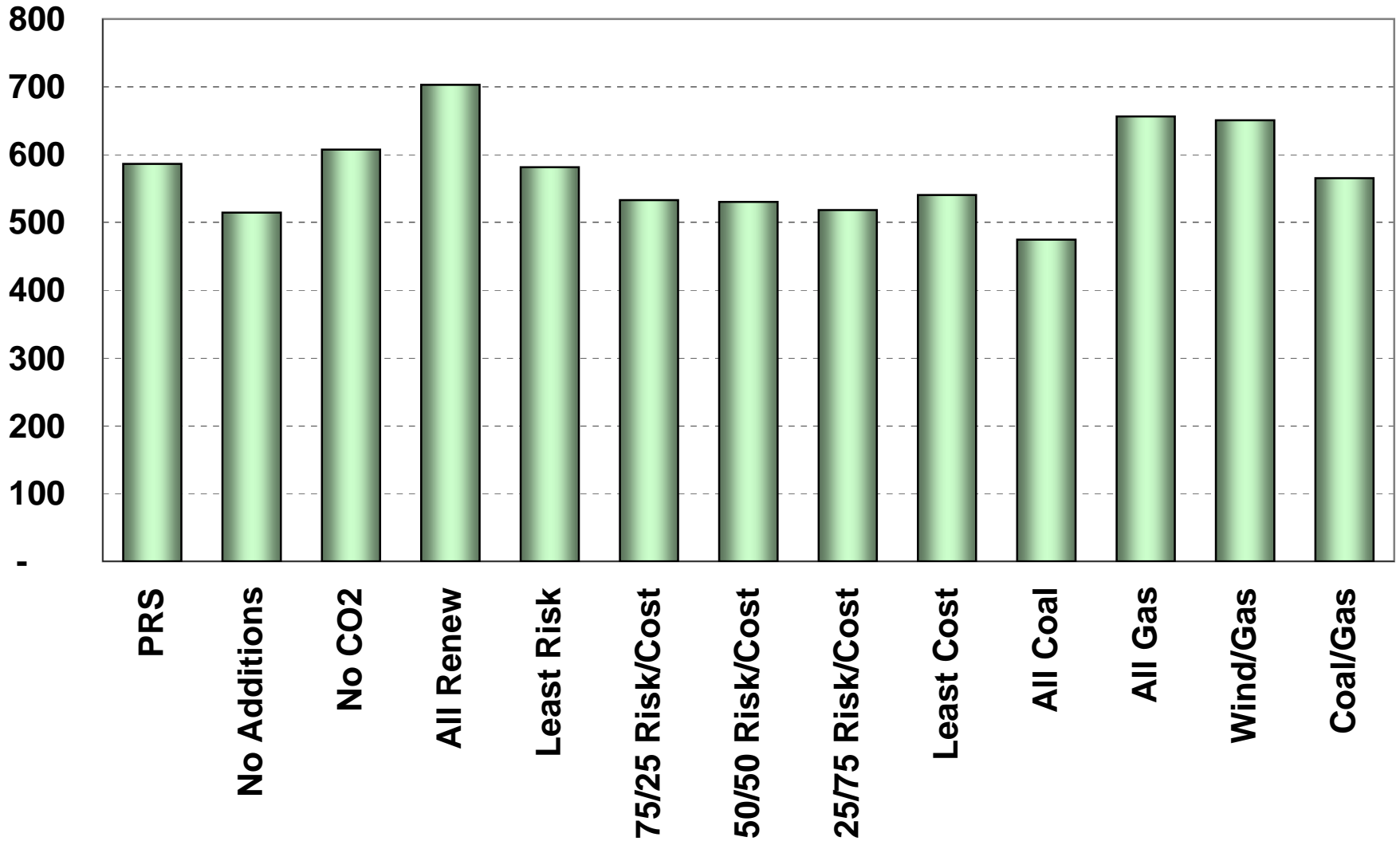
**Portfolio Options Summary—5000 MW Wind**

|                                | 1          | 13           | 2          | 3          | 4          | 5               | 6               | 7               | 8          | 9          | 10         | 12         | 11         |
|--------------------------------|------------|--------------|------------|------------|------------|-----------------|-----------------|-----------------|------------|------------|------------|------------|------------|
|                                | PRS        | No Additions | No CO2     | All Renew  | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal   | All Gas    | Wind/Gas   | Coal/Gas   |
| <b>Total MW</b>                | 1,305      | -            | 1,291      | 1,813      | 1,341      | 1,341           | 1,341           | 1,341           | 803        | 853        | 853        | 1,341      | 853        |
| <b>Build Out 2007-16 (aMW)</b> |            |              |            |            |            |                 |                 |                 |            |            |            |            |            |
| Coal aMW                       | 215        | -            | -          | -          | 107        | 195             | 195             | 195             | 42         | 441        | -          | -          | 220        |
| CT aMW                         | -          | -            | -          | -          | -          | -               | -               | -               | 319        | -          | -          | -          | -          |
| CCCT aMW                       | -          | -            | -          | -          | 2          | 2               | 2               | 2               | -          | -          | 461        | 371        | 231        |
| Wind aMW                       | 122        | -            | 188        | 285        | 122        | 122             | 122             | 122             | -          | -          | -          | 122        | -          |
| Renews aMW                     | 65         | -            | 81         | 190        | 158        | 68              | 68              | 68              | -          | -          | -          | -          | -          |
| Nuclear aMW                    | -          | -            | 147        | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| OilSands aMW                   | -          | -            | -          | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| Cogen aMW                      | -          | -            | -          | -          | 9          | 9               | 9               | 9               | -          | -          | -          | -          | -          |
| Market aMW                     | 25         | -            | 24         | -          | 42         | 42              | 42              | 42              | 45         | -          | -          | -          | -          |
| <b>Total aMW</b>               | <b>427</b> | <b>-</b>     | <b>440</b> | <b>474</b> | <b>440</b> | <b>439</b>      | <b>439</b>      | <b>439</b>      | <b>406</b> | <b>441</b> | <b>461</b> | <b>493</b> | <b>451</b> |
| <b>Build Out 2007-26 (aMW)</b> |            |              |            |            |            |                 |                 |                 |            |            |            |            |            |
| Coal aMW                       | 388        | -            | -          | -          | 255        | 515             | 515             | 515             | 376        | 735        | -          | -          | 368        |
| CT aMW                         | -          | -            | -          | -          | -          | -               | -               | -               | 319        | -          | -          | -          | -          |
| CCCT aMW                       | -          | -            | -          | -          | 2          | 2               | 2               | 2               | -          | -          | 770        | 623        | 385        |
| Wind aMW                       | 188        | -            | 188        | 386        | 188        | 188             | 188             | 188             | -          | -          | -          | 188        | -          |
| Renews aMW                     | 145        | -            | 145        | 402        | 333        | 68              | 68              | 68              | -          | -          | -          | -          | -          |
| Nuclear aMW                    | -          | -            | 399        | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| OilSands aMW                   | -          | -            | -          | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| Cogen aMW                      | -          | -            | 4          | -          | 9          | 9               | 9               | 9               | -          | -          | -          | -          | -          |
| Market aMW                     | 25         | -            | (20)       | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| <b>Total aMW</b>               | <b>746</b> | <b>-</b>     | <b>717</b> | <b>788</b> | <b>786</b> | <b>783</b>      | <b>783</b>      | <b>783</b>      | <b>694</b> | <b>735</b> | <b>770</b> | <b>811</b> | <b>752</b> |

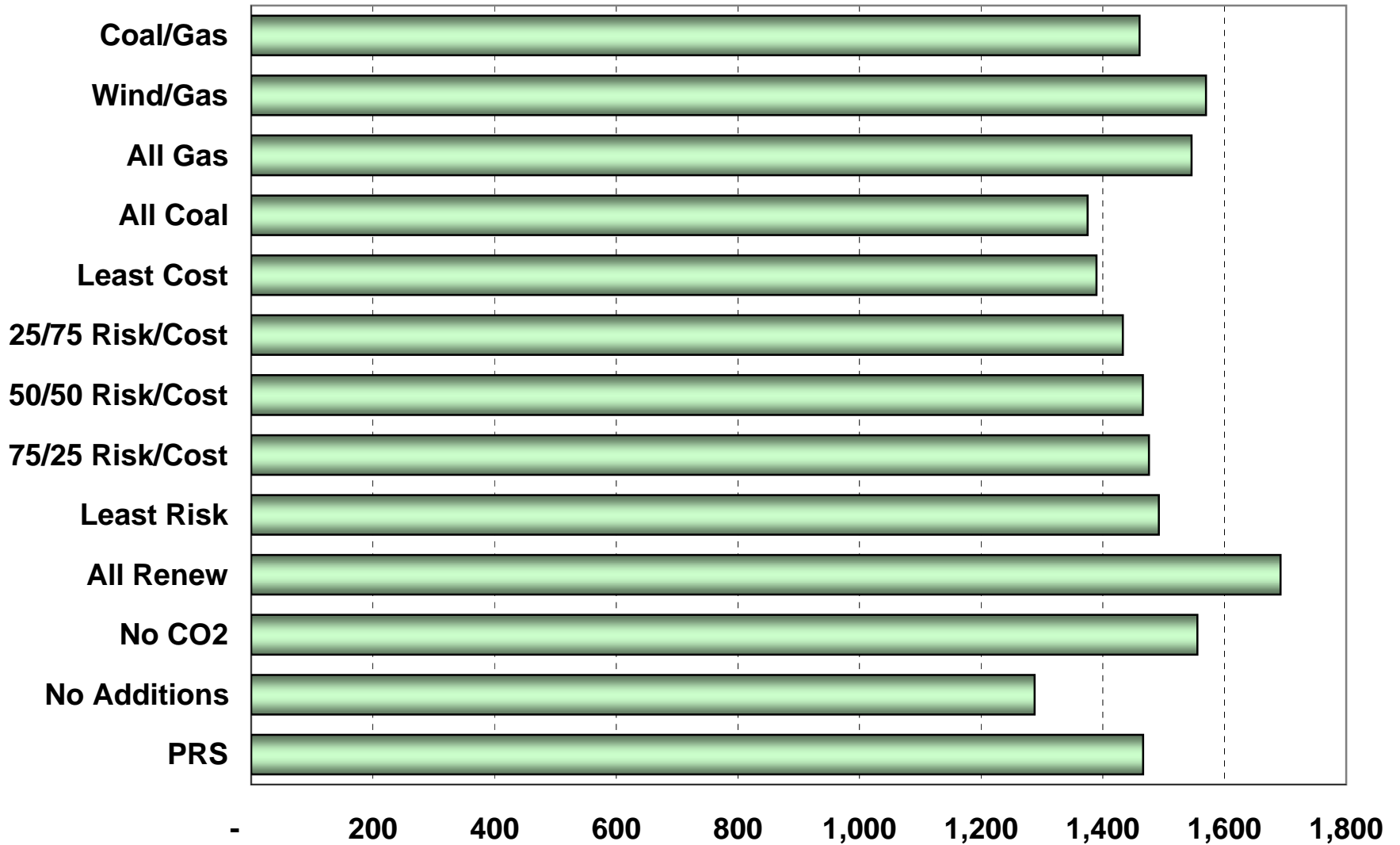


# Boom Bust

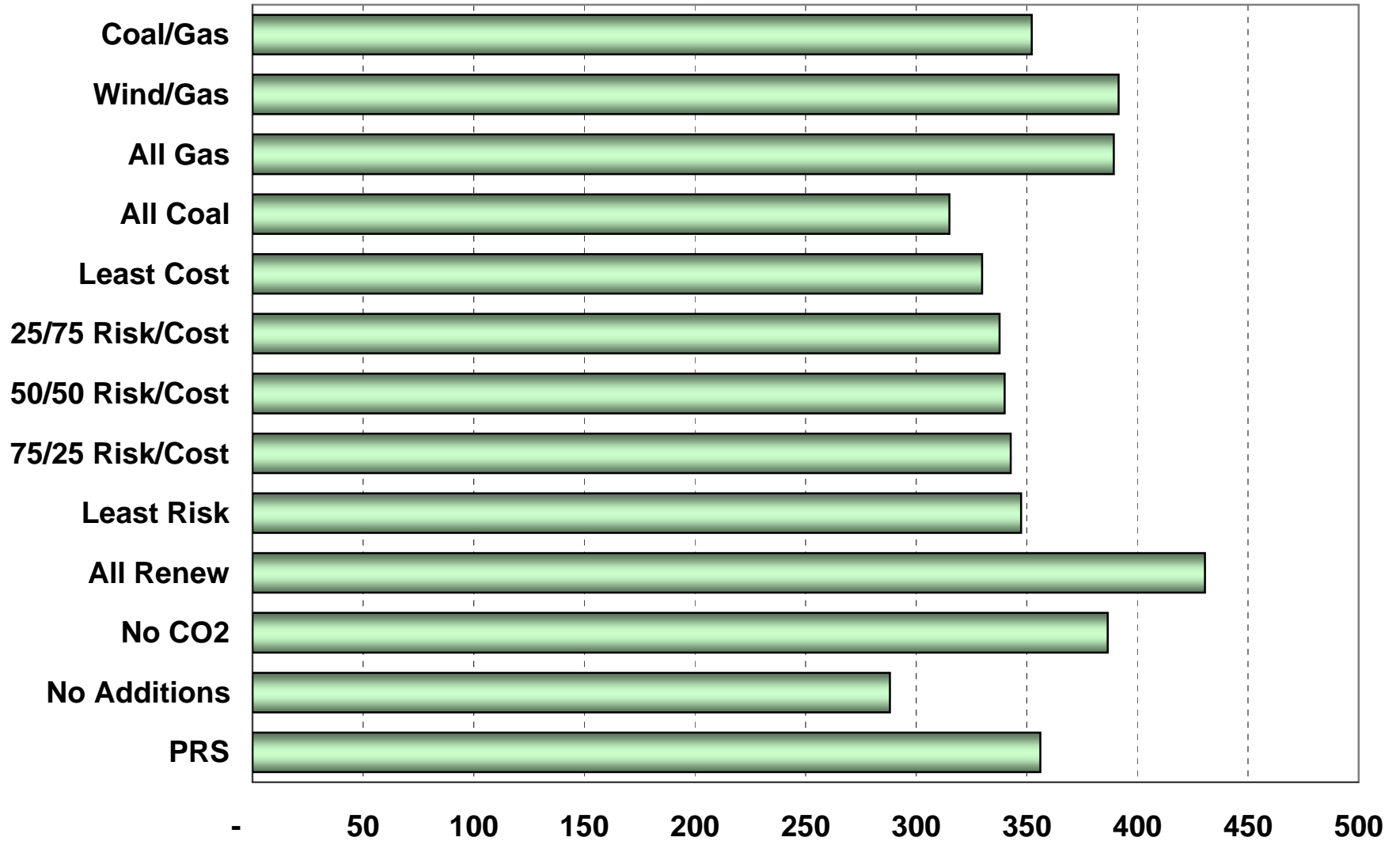
PSE 2026



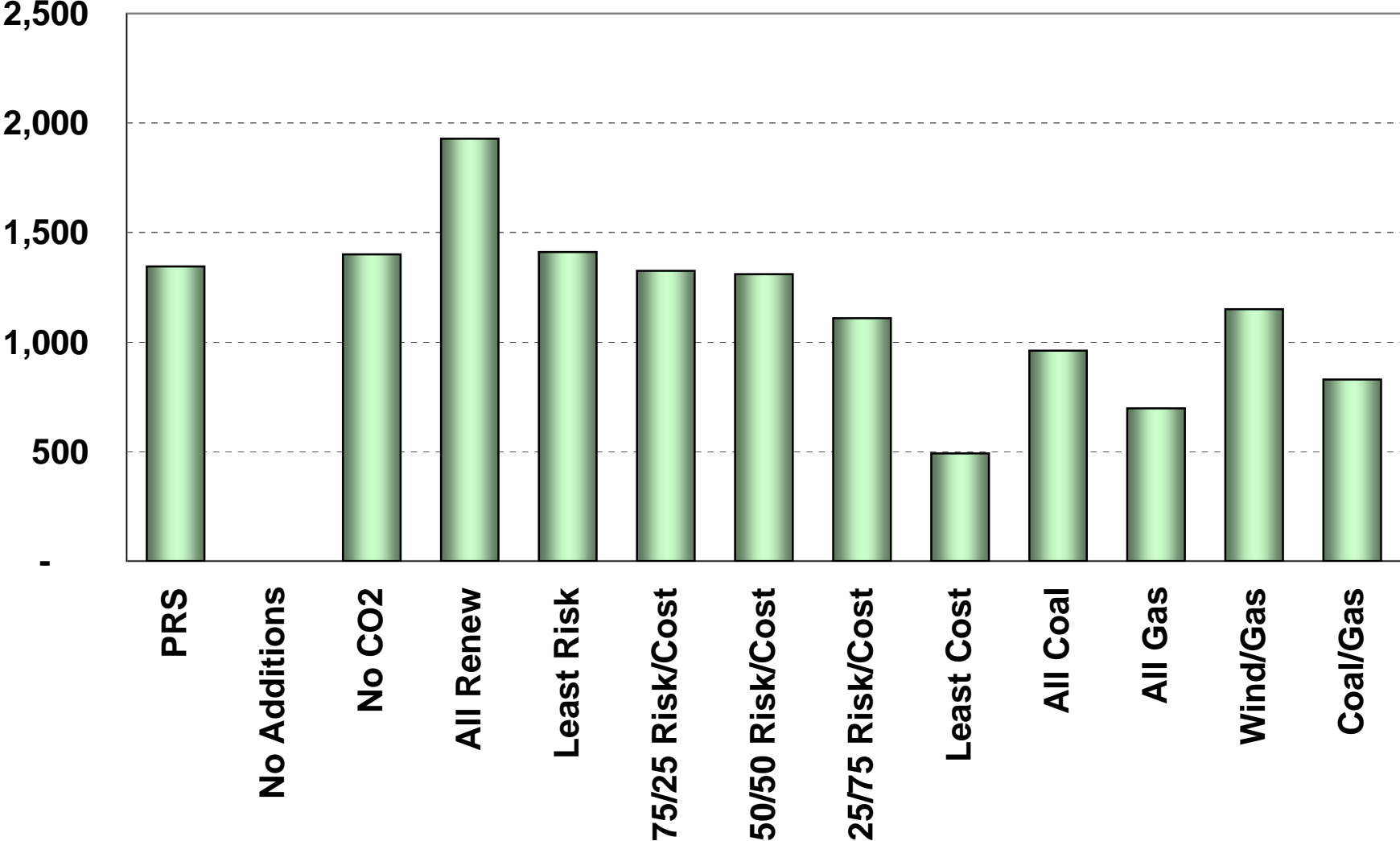
### PSE 07-16 NPV



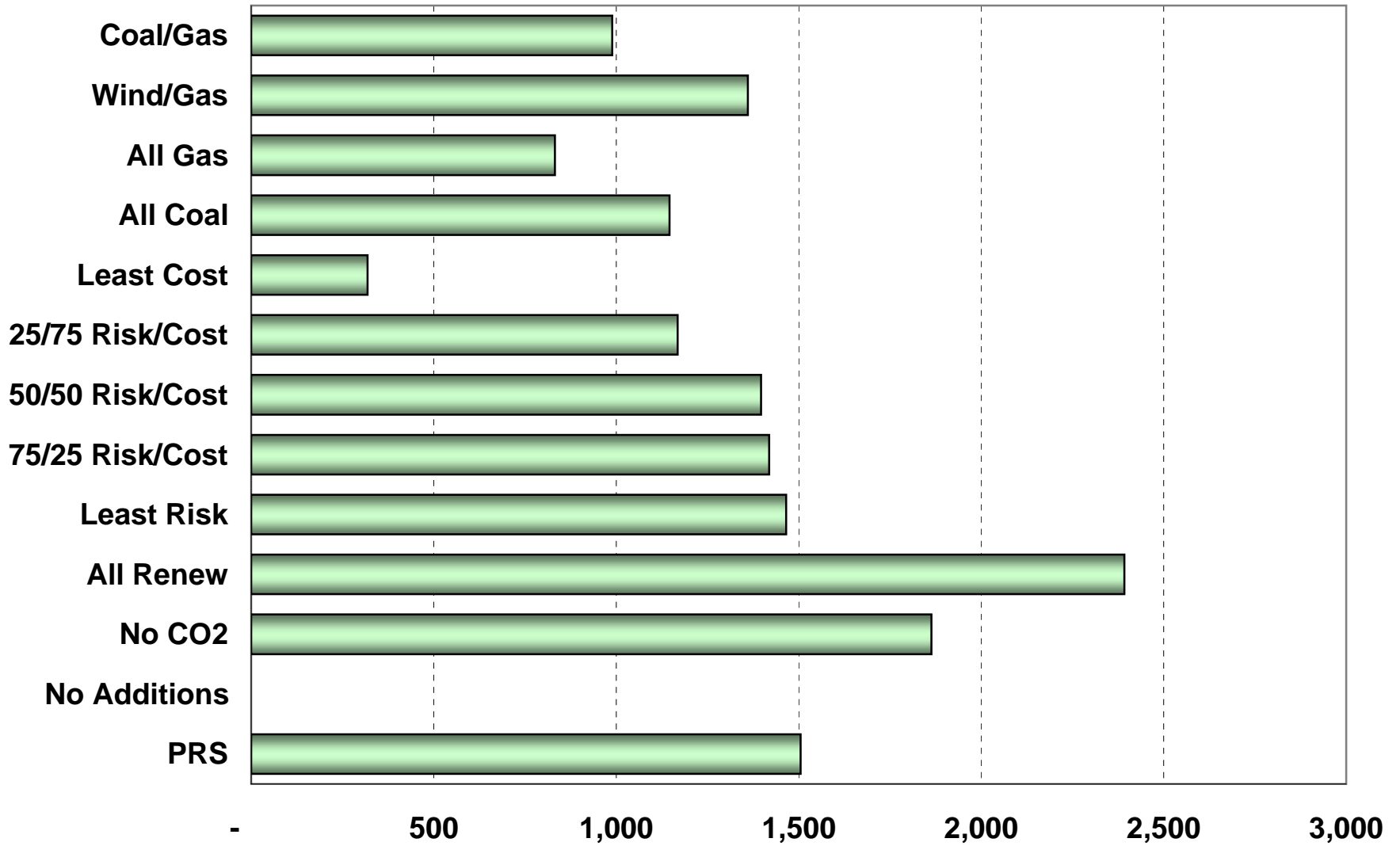
# PSE 2016



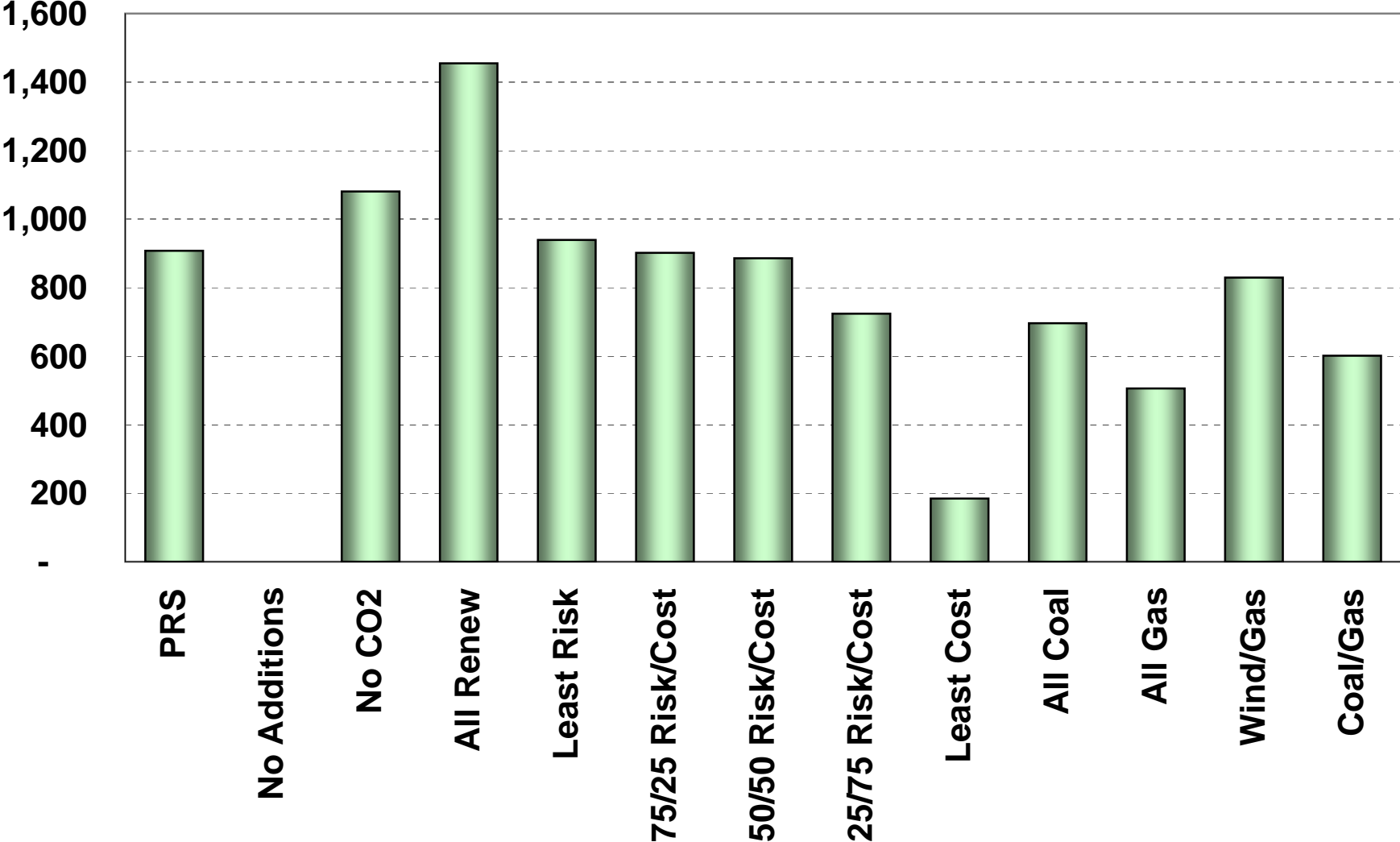
Capital NPV 07-26



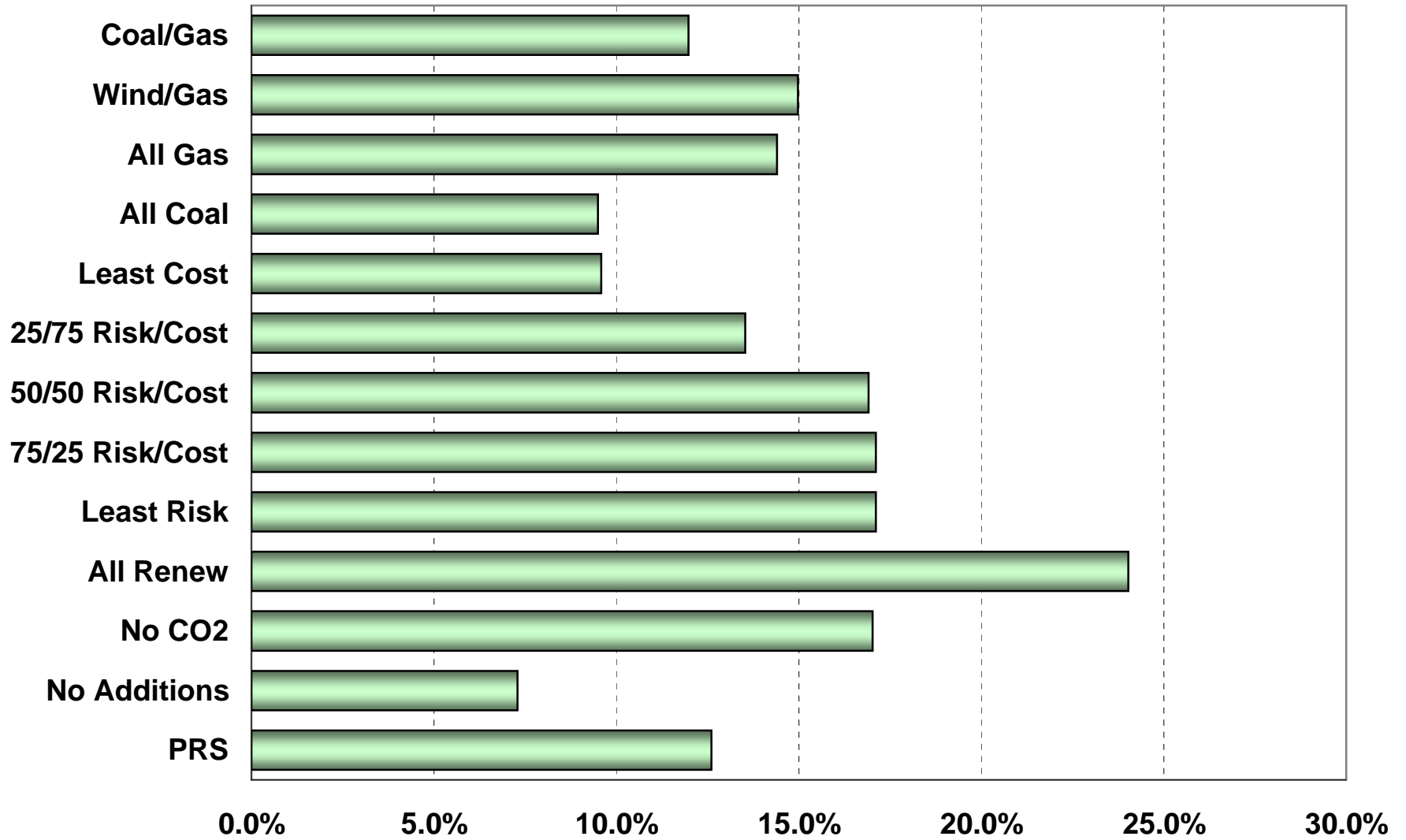
### Capital Nominal 07-16



**Capital NPV 07-16**

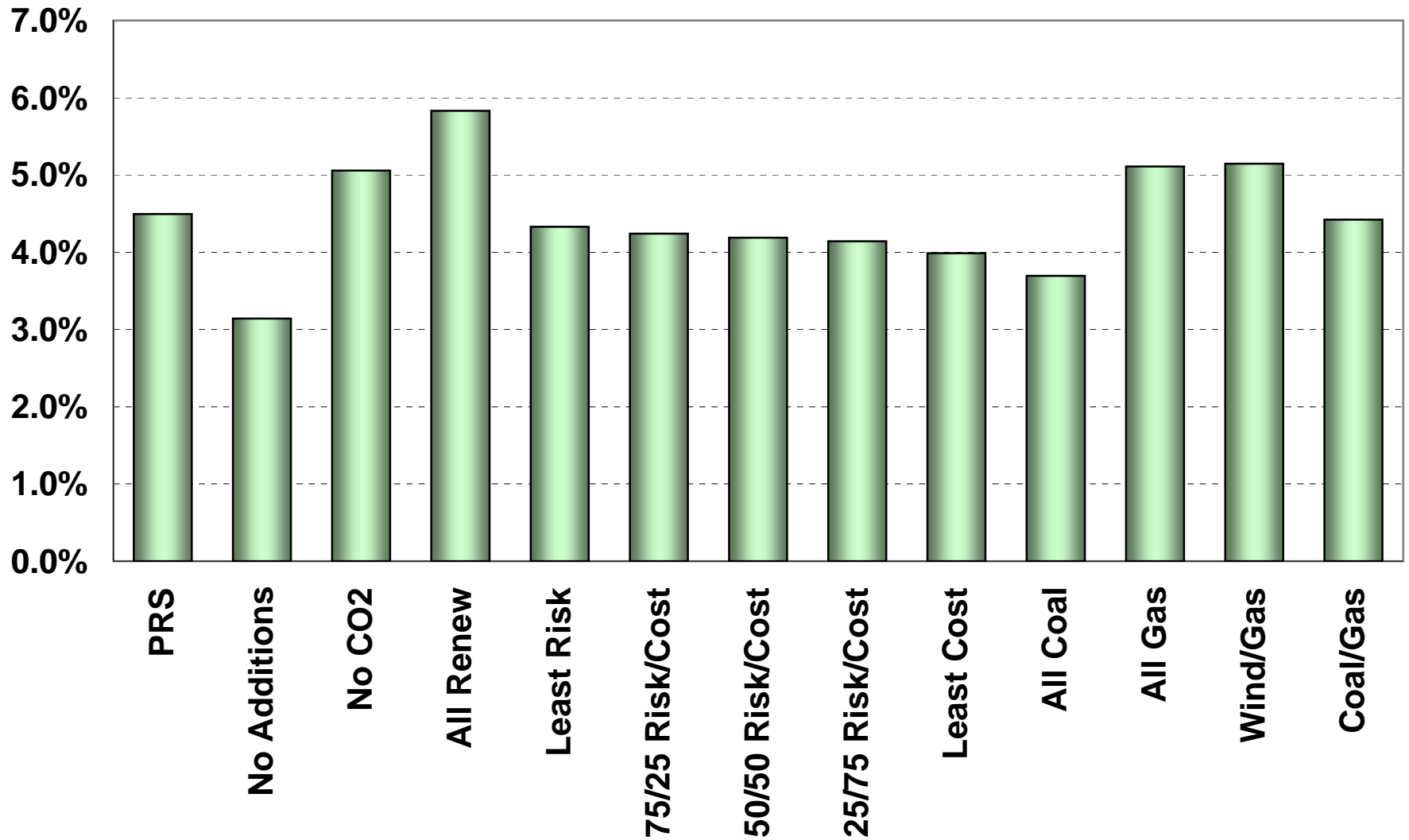


### Max Rate Increase

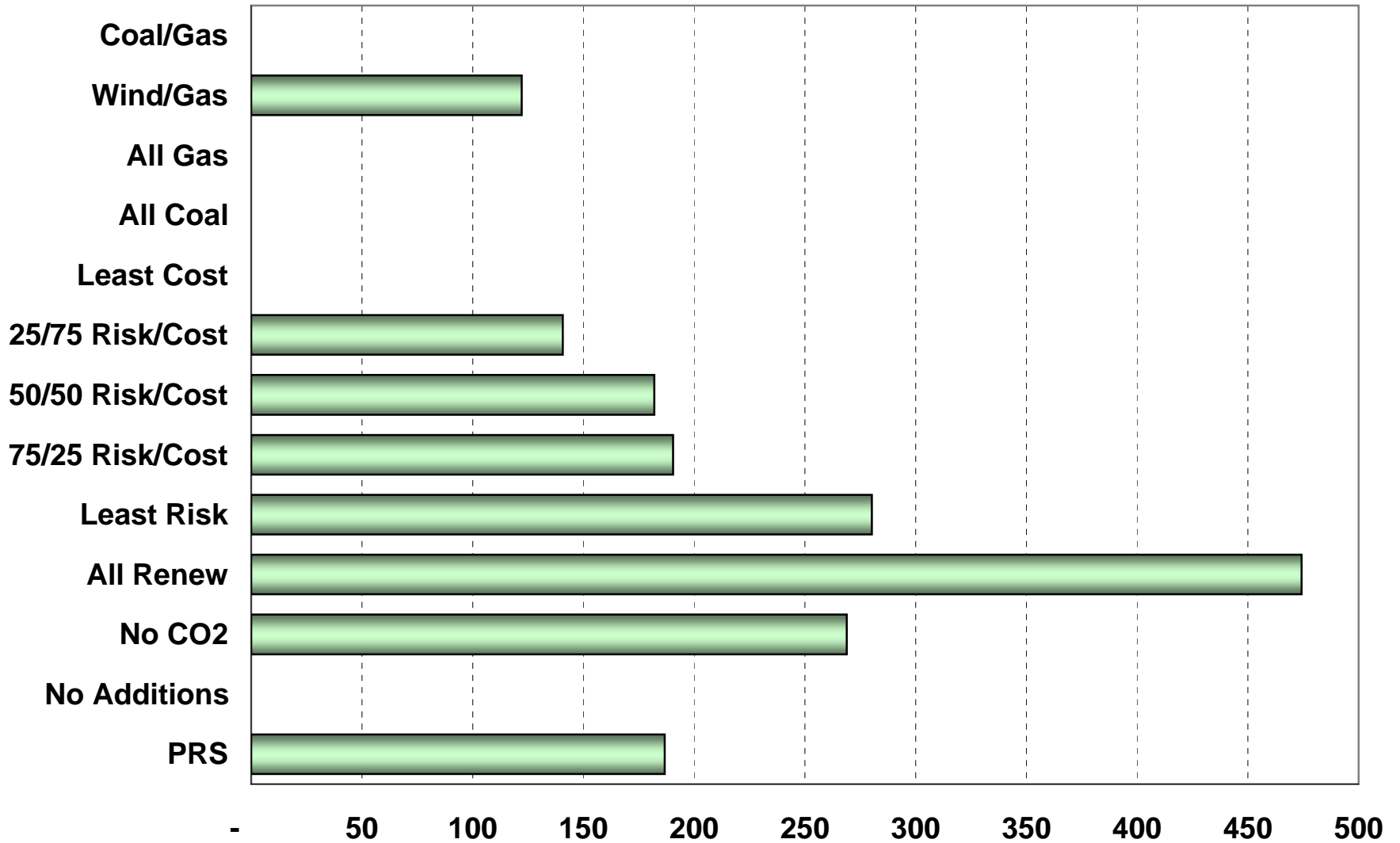




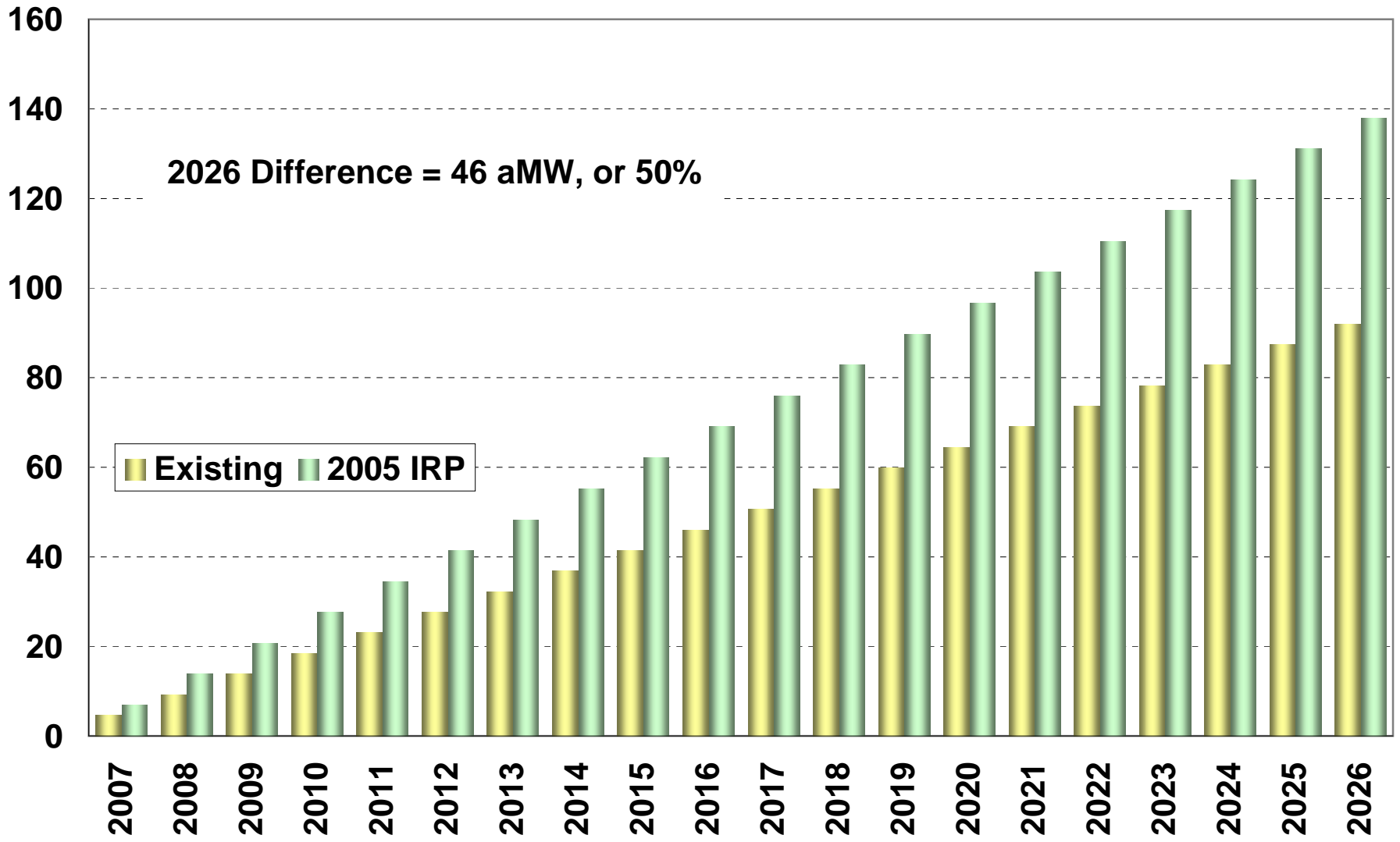
### Rate Increase 07-16



### Renewables aMW 2016



# DSM Acquisition



**Portfolio Options Summary—Boom Bust**

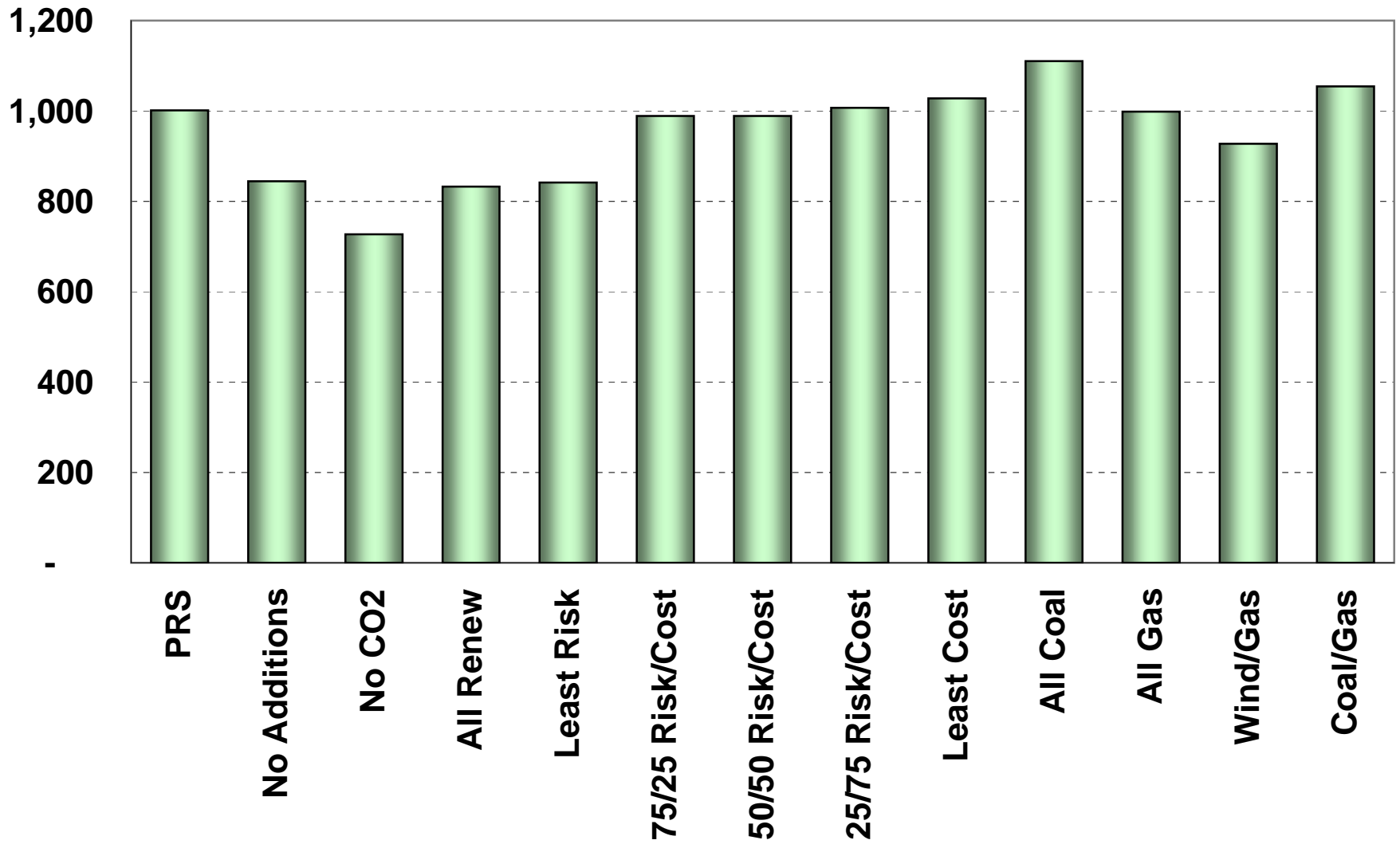
|                                  | 1     | 13               | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|----------------------------------|-------|------------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                  | PRS   | No Additio<br>ns | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| <b>Average Rate Increase</b>     |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 4.5%  | 3.1%             | 5.1%   | 5.8%      | 4.3%       | 4.2%            | 4.2%            | 4.1%            | 4.0%       | 3.7%     | 5.1%    | 5.1%     | 4.4%     |
| 2007-2026                        | 3.5%  | 3.1%             | 3.7%   | 4.2%      | 3.5%       | 3.2%            | 3.2%            | 3.1%            | 3.3%       | 2.8%     | 3.9%    | 3.9%     | 3.4%     |
| <b>Max Rate Increase</b>         |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
|                                  | 12.6% | 7.3%             | 17.0%  | 24.0%     | 17.1%      | 17.1%           | 16.9%           | 13.5%           | 9.6%       | 9.5%     | 14.4%   | 15.0%    | 12.0%    |
| <b>Capital NPV</b>               |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 907   | -                | 1,081  | 1,455     | 939        | 901             | 886             | 724             | 185        | 696      | 506     | 829      | 601      |
| 2007-2026                        | 1,345 | -                | 1,400  | 1,929     | 1,411      | 1,326           | 1,310           | 1,109           | 491        | 961      | 698     | 1,150    | 829      |
| <b>Capital Nominal \$</b>        |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,505 | -                | 1,864  | 2,392     | 1,466      | 1,419           | 1,397           | 1,169           | 319        | 1,146    | 832     | 1,361    | 989      |
| 2007-2026                        | 3,019 | -                | 3,067  | 4,140     | 3,251      | 3,097           | 3,075           | 2,657           | 1,420      | 2,129    | 1,546   | 2,504    | 1,838    |
| <b>Power Supply Expense</b>      |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| in 2016                          | 356   | 288              | 387    | 430       | 347        | 343             | 340             | 338             | 330        | 315      | 389     | 391      | 352      |
| in 2026                          | 586   | 514              | 607    | 703       | 581        | 533             | 530             | 518             | 540        | 474      | 656     | 651      | 565      |
| <b>Power Supply Expense NPV</b>  |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,466 | 1,288            | 1,556  | 1,692     | 1,492      | 1,476           | 1,466           | 1,433           | 1,390      | 1,375    | 1,546   | 1,570    | 1,460    |
| 2007-2026                        | 2,848 | 2,504            | 3,003  | 3,330     | 2,846      | 2,746           | 2,728           | 2,693           | 2,697      | 2,546    | 3,075   | 3,087    | 2,811    |
| <b>Risk (StDev)</b>              |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007 In 2016\$                   | (0)   | -                | -      | (0)       | (0)        | -               | (0)             | (0)             | -          | -        | -       | -        | (0)      |
| 2016                             | 0     | 0                | -      | 0         | 0          | -               | 0               | 0               | -          | -        | -       | -        | 0        |
| 2026                             | 0     | -                | 0      | 0         | 0          | -               | -               | -               | -          | -        | 0       | -        | 0        |
| <b>Risk (StDev NPV)</b>          |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 0     | 0                | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| 2007-2026                        | 0     | 0                | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| <b>Covariance (stdev/mean)</b>   |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>95th% Max Var (NPV)</b>       |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | (0)   | (0)              | (0)    | (0)       | (0)        | (0)             | 0               | (0)             | 0          | 0        | (0)     | 0        | (0)      |
| 2007-2026                        | (0)   | (0)              | 0      | 0         | 0          | (0)             | 0               | (0)             | 0          | 0        | 0       | 0        | 0        |
| <b>95th% Max Var (95th/mean)</b> |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>Build Out 2007-16 (MW)</b>    |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 250   | -                | -      | -         | 124        | 227             | 227             | 218             | 49         | 511      | -       | -        | 256      |
| CT MW                            | -     | -                | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -                | -      | -         | 2          | 2               | -               | -               | -          | -        | 511     | 411      | 256      |
| Wind MW                          | 400   | -                | 650    | 980       | 400        | 400             | 400             | 275             | -          | -        | -       | 400      | -        |
| Renews MW                        | 80    | -                | 100    | 228       | 183        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -                | 175    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -                | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -                | -      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -                | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total MW                         | 755   | -                | 949    | 1,208     | 761        | 761             | 761             | 668             | 461        | 511      | 511     | 811      | 511      |
| <b>Build Out 2007-26 (MW)</b>    |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 450   | -                | -      | -         | 296        | 598             | 598             | 620             | 436        | 853      | -       | -        | 427      |
| CT MW                            | -     | -                | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -                | -      | -         | 2          | 2               | -               | -               | -          | -        | 853     | 691      | 427      |
| Wind MW                          | 650   | -                | 650    | 1,330     | 650        | 650             | 650             | 400             | -          | -        | -       | 650      | -        |
| Renews MW                        | 180   | -                | 180    | 483       | 383        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -                | 475    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -                | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -                | 5      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -                | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |

**Portfolio Options Summary—Boom Bust**

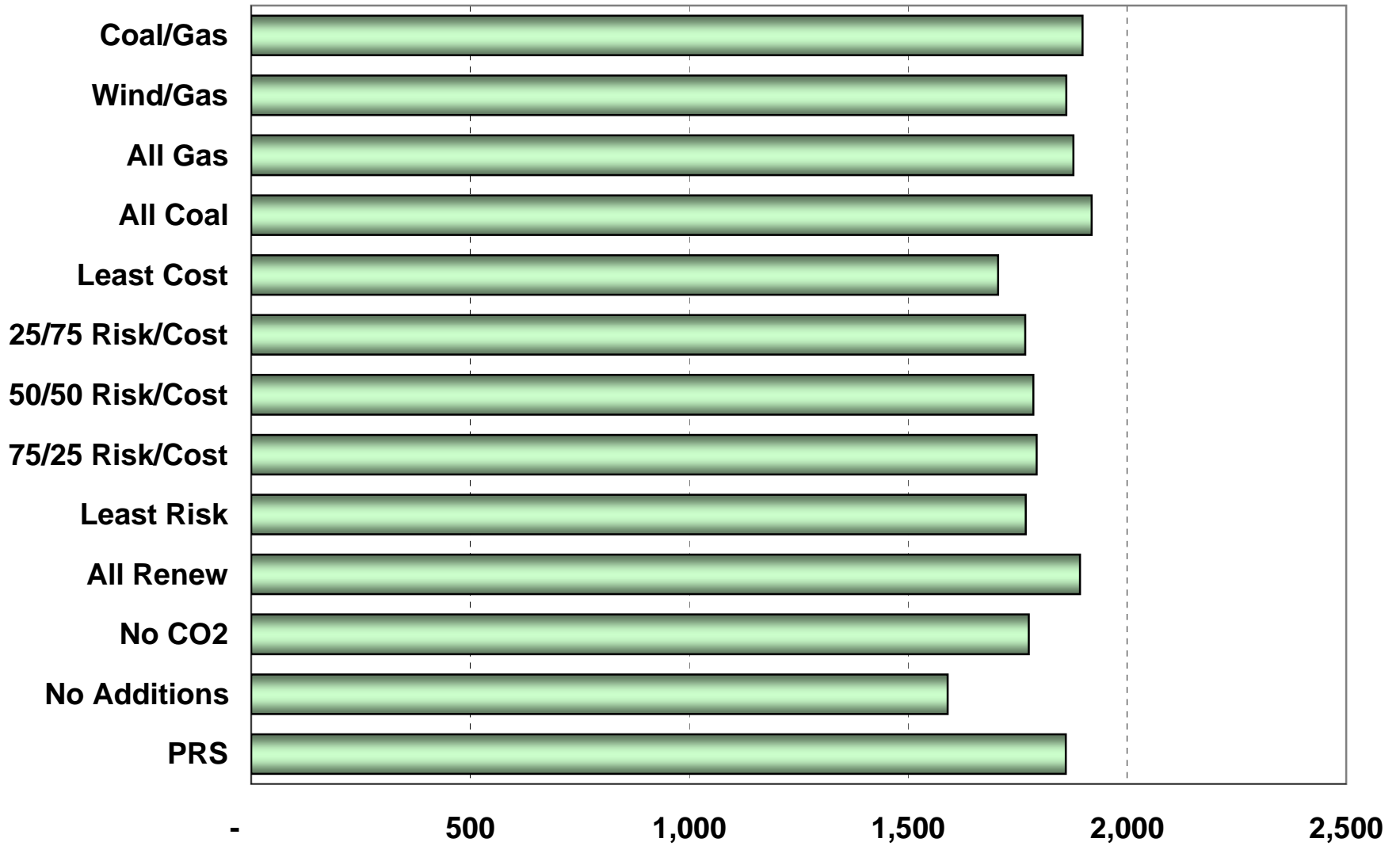
|                                | 1     | 13           | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|--------------------------------|-------|--------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                | PRS   | No Additions | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| Total MW                       | 1,305 | -            | 1,291  | 1,813     | 1,341      | 1,341           | 1,341           | 1,153           | 803        | 853      | 853     | 1,341    | 853      |
| <b>Build Out 2007-16 (aMW)</b> |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal aMW                       | 215   | -            | -      | -         | 107        | 195             | 195             | 187             | 42         | 441      | -       | -        | 220      |
| CT aMW                         | -     | -            | -      | -         | -          | -               | 11              | 46              | 319        | -        | -       | -        | -        |
| CCCT aMW                       | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 461     | 371      | 231      |
| Wind aMW                       | 122   | -            | 188    | 285       | 122        | 122             | 122             | 81              | -          | -        | -       | 122      | -        |
| Renews aMW                     | 65    | -            | 81     | 190       | 158        | 68              | 60              | 60              | -          | -        | -       | -        | -        |
| Nuclear aMW                    | -     | -            | 147    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands aMW                   | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen aMW                      | -     | -            | -      | -         | 9          | 9               | 9               | 9               | -          | -        | -       | -        | -        |
| Market aMW                     | 25    | -            | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total aMW                      | 427   | -            | 440    | 474       | 440        | 439             | 439             | 425             | 406        | 441      | 461     | 493      | 451      |
| <b>Build Out 2007-26 (aMW)</b> |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal aMW                       | 388   | -            | -      | -         | 255        | 515             | 515             | 534             | 376        | 735      | -       | -        | 368      |
| CT aMW                         | -     | -            | -      | -         | -          | -               | 11              | 46              | 319        | -        | -       | -        | -        |
| CCCT aMW                       | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 770     | 623      | 385      |
| Wind aMW                       | 188   | -            | 188    | 386       | 188        | 188             | 188             | 122             | -          | -        | -       | 188      | -        |
| Renews aMW                     | 145   | -            | 145    | 402       | 333        | 68              | 60              | 60              | -          | -        | -       | -        | -        |
| Nuclear aMW                    | -     | -            | 399    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands aMW                   | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen aMW                      | -     | -            | 4      | -         | 9          | 9               | 9               | 9               | -          | -        | -       | -        | -        |
| Market aMW                     | 25    | -            | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Total aMW                      | 746   | -            | 717    | 788       | 786        | 783             | 783             | 771             | 694        | 735      | 770     | 811      | 752      |

# **EIA Emissions**

PSE 2026

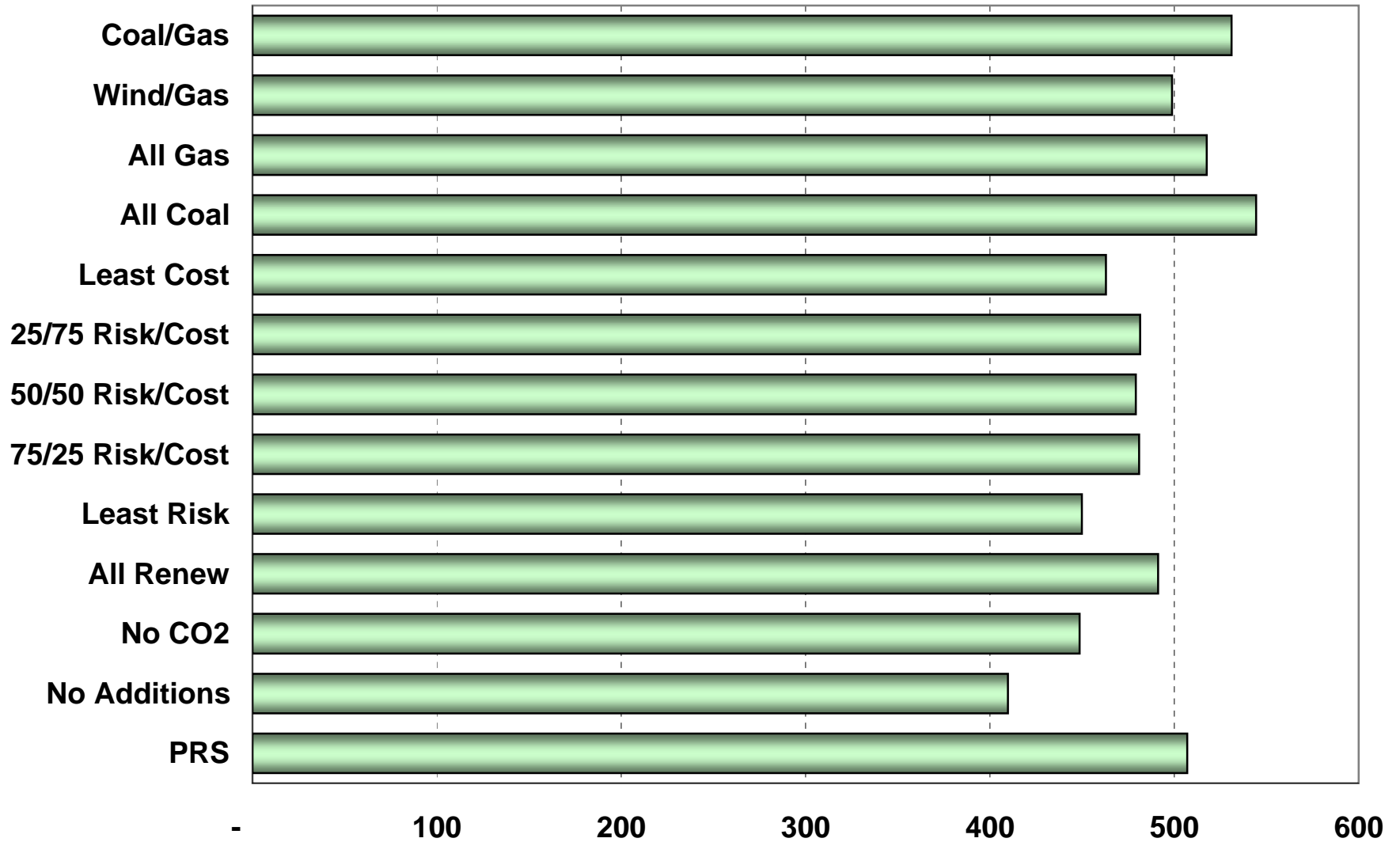


### PSE 07-16 NPV

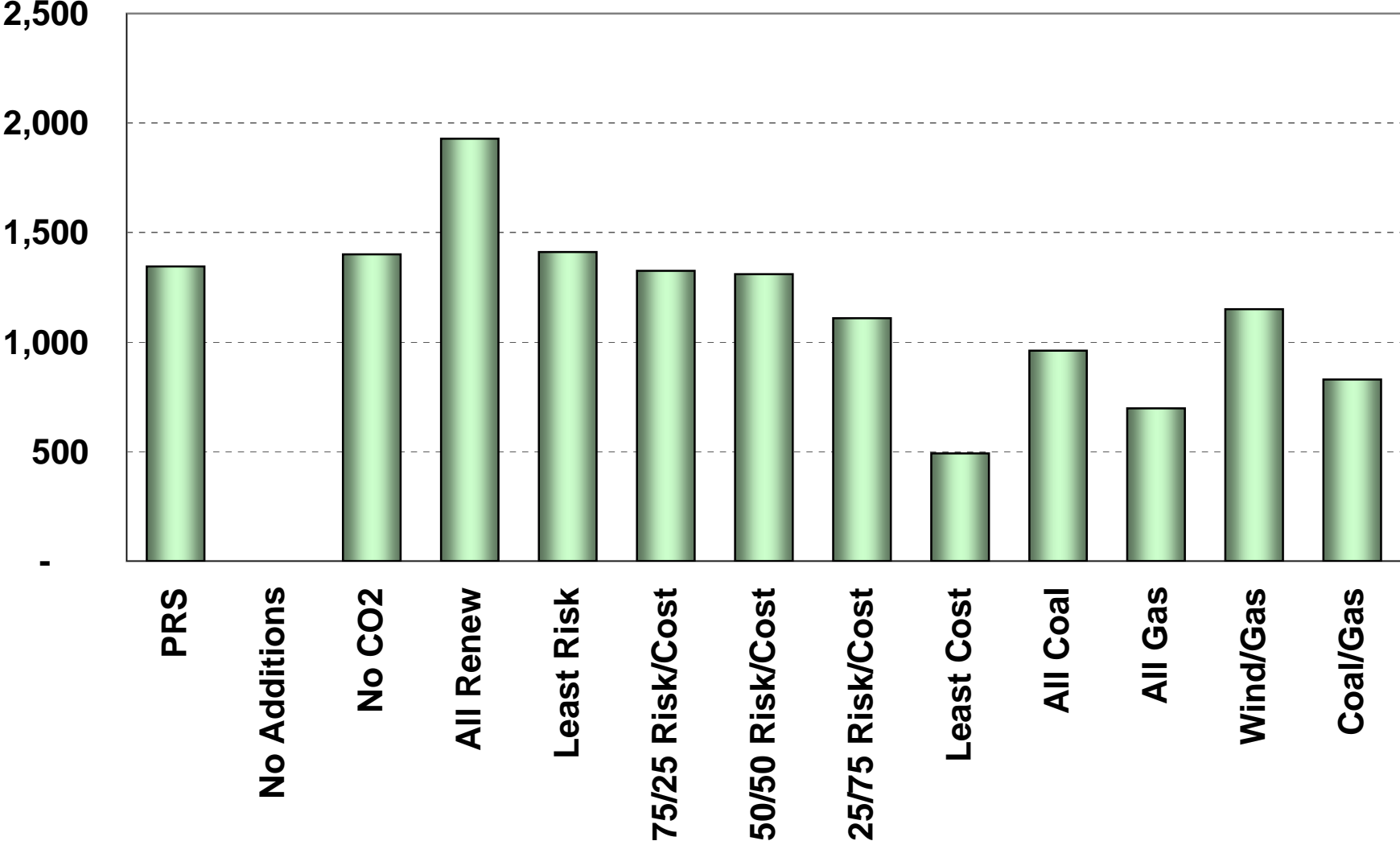




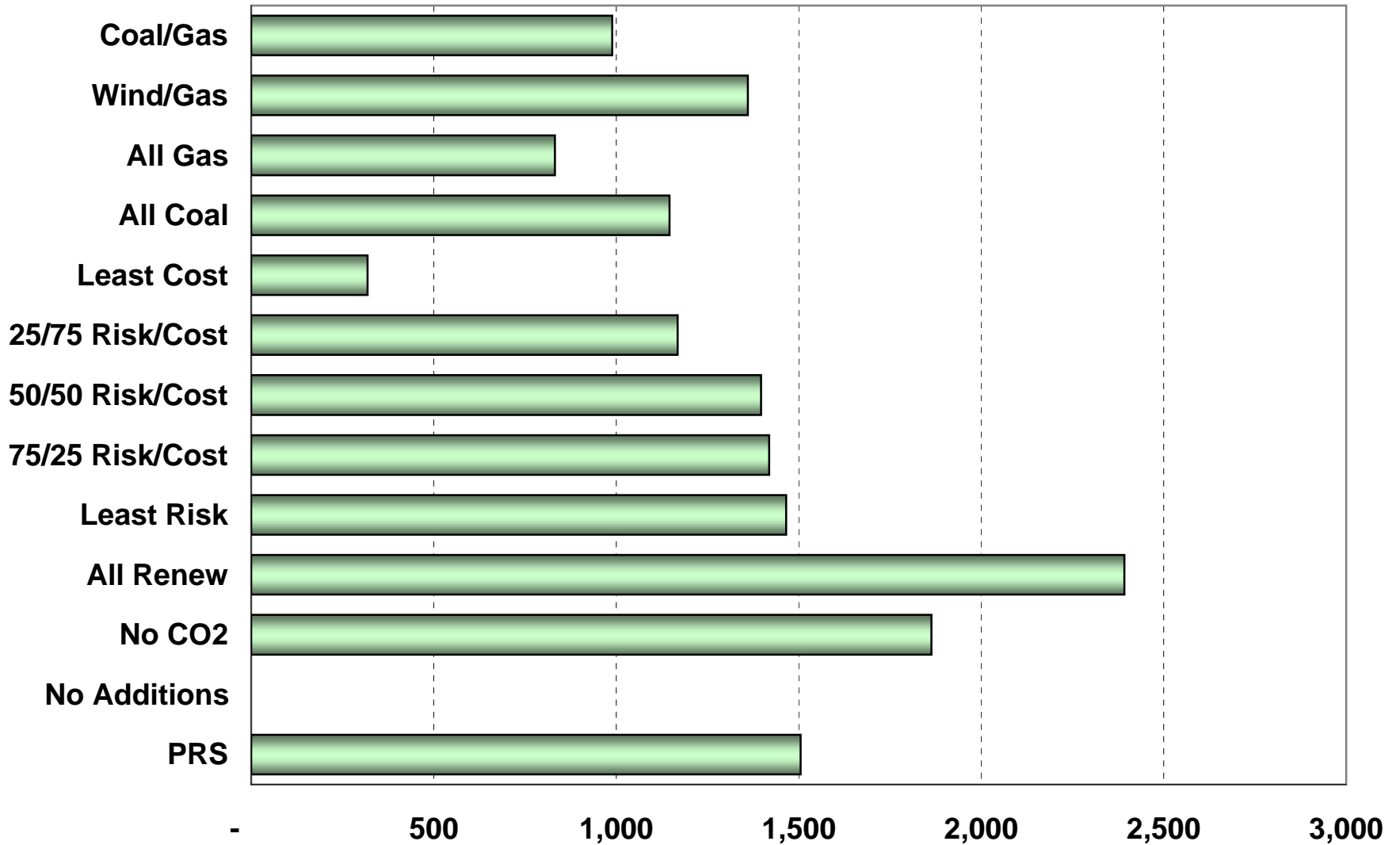
# PSE 2016



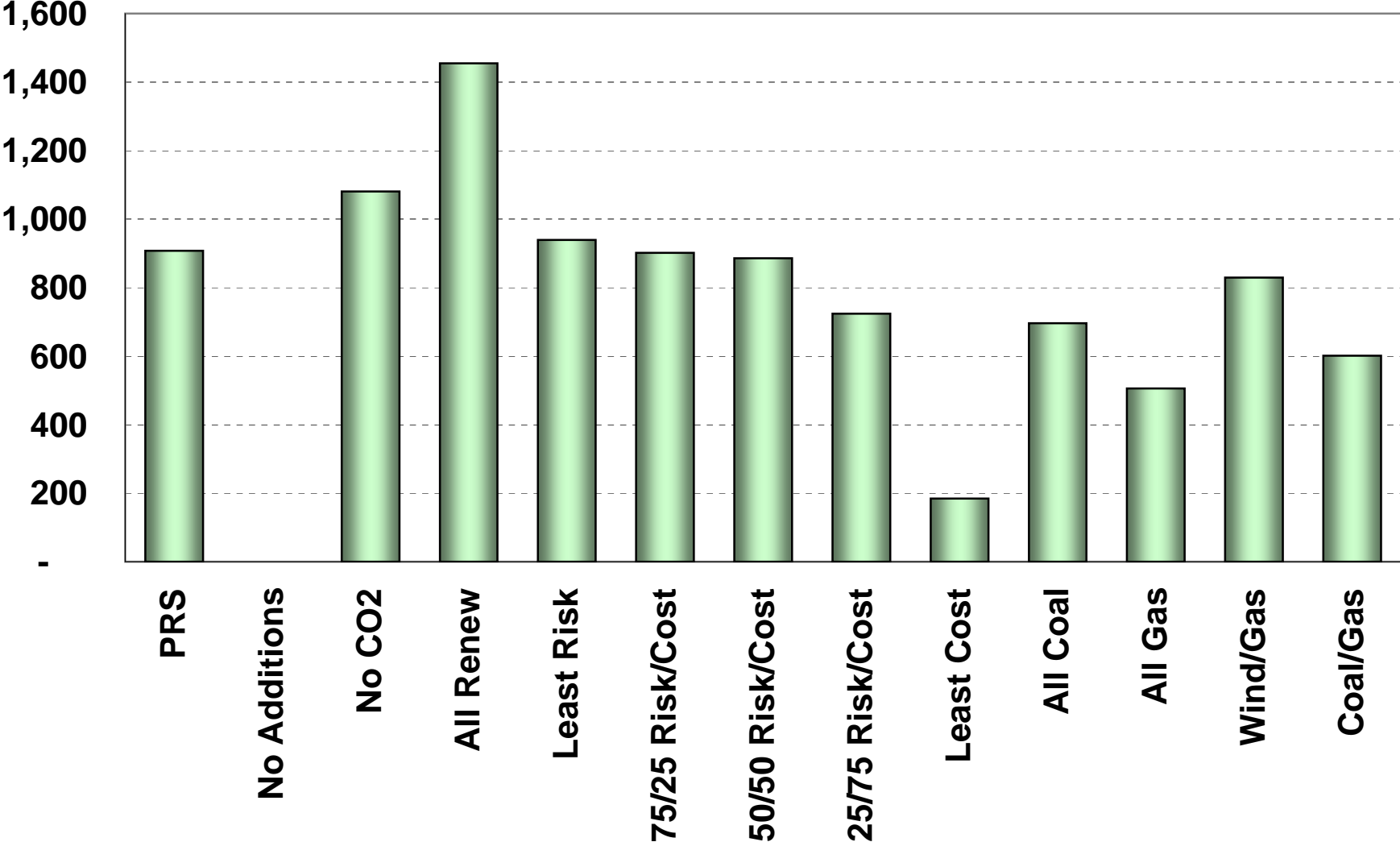
Capital NPV 07-26



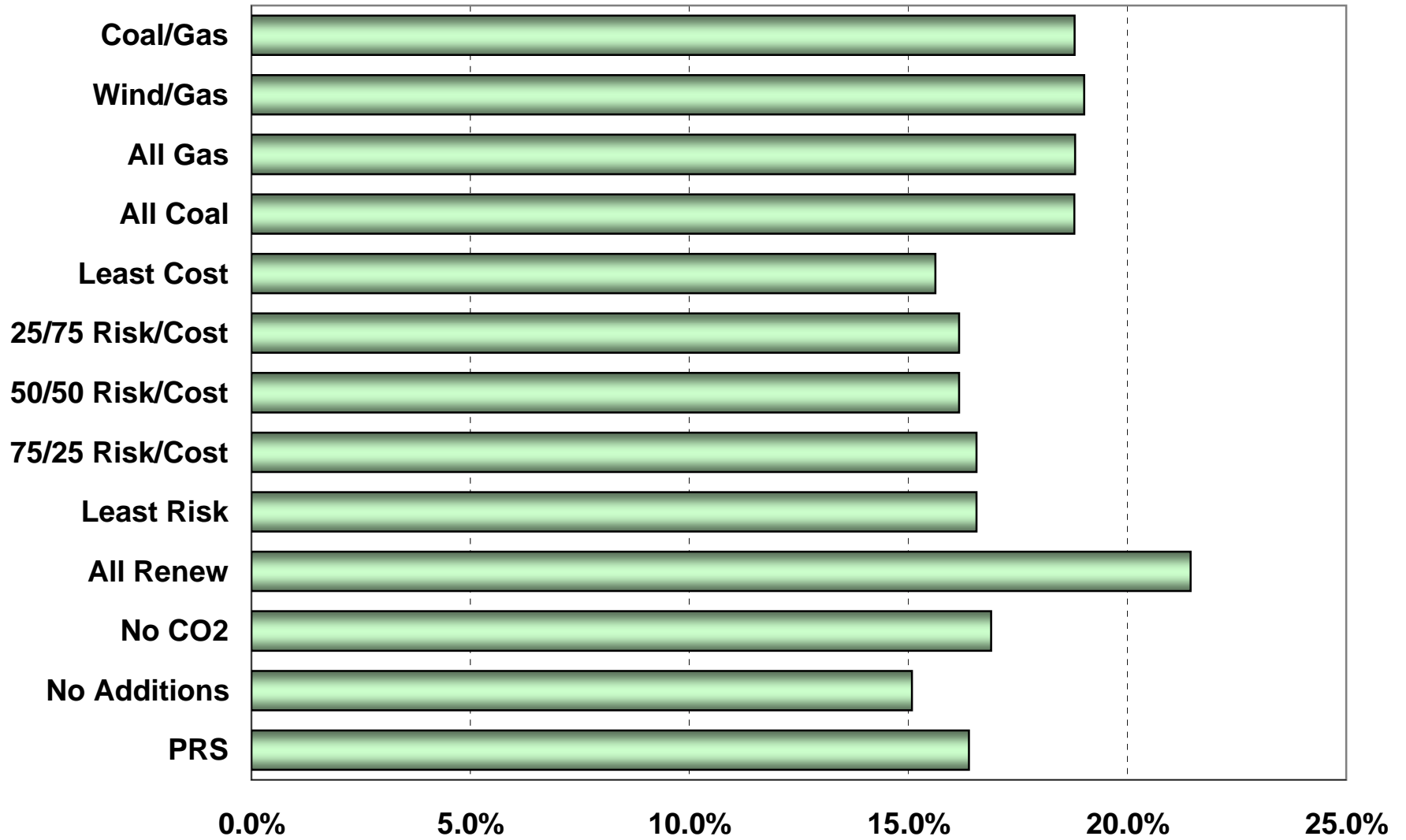
### Capital Nominal 07-16



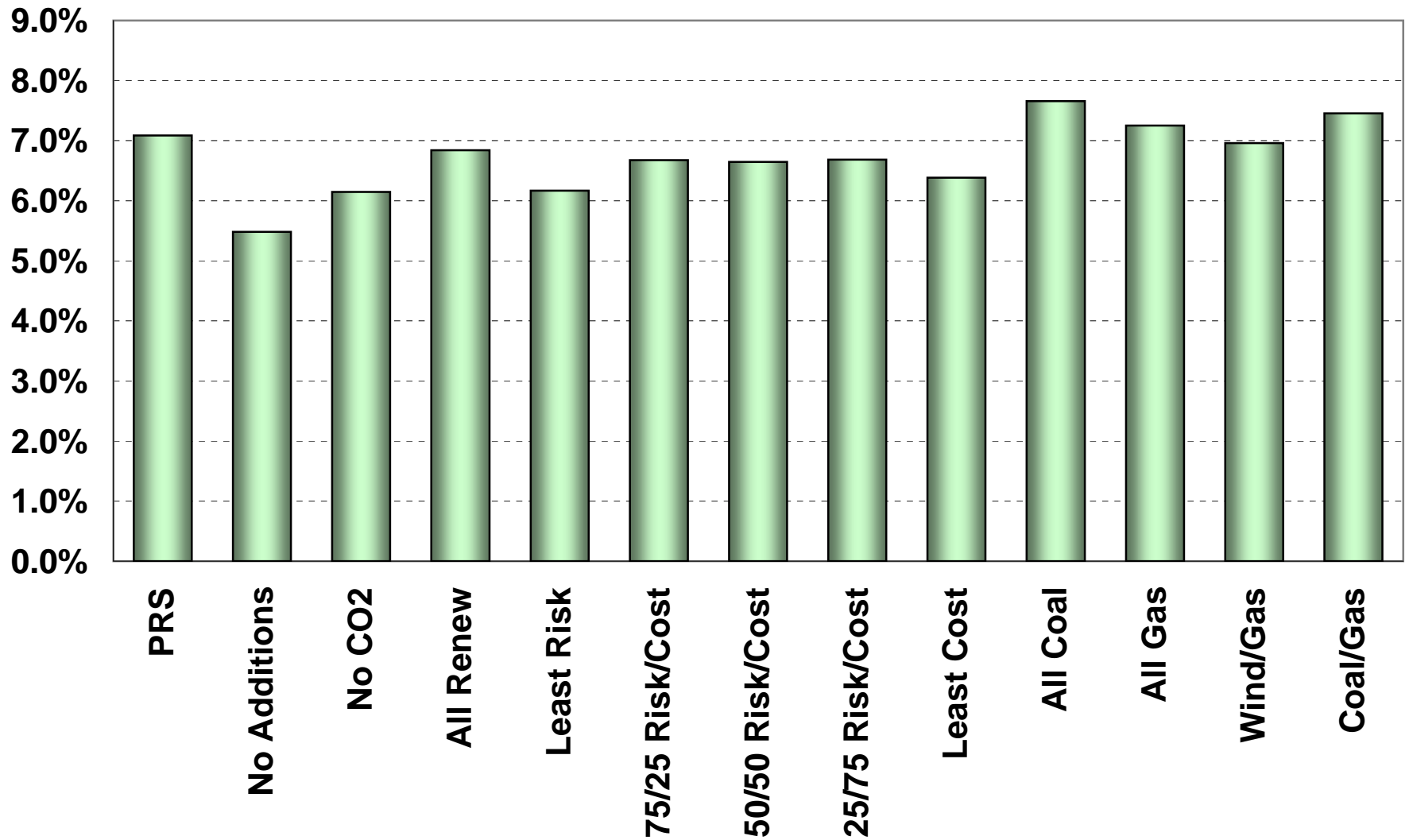
Capital NPV 07-16



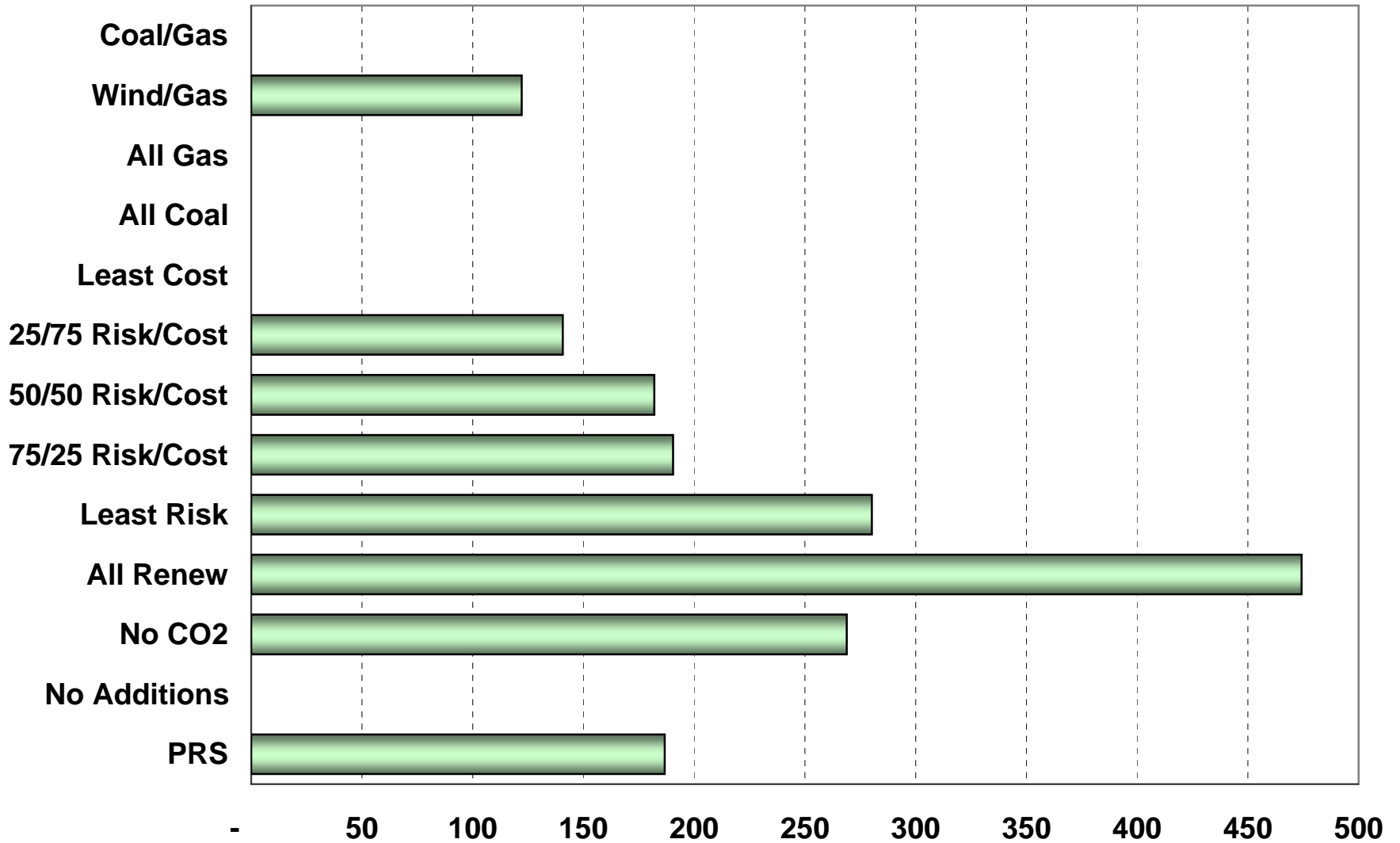
### Max Rate Increase



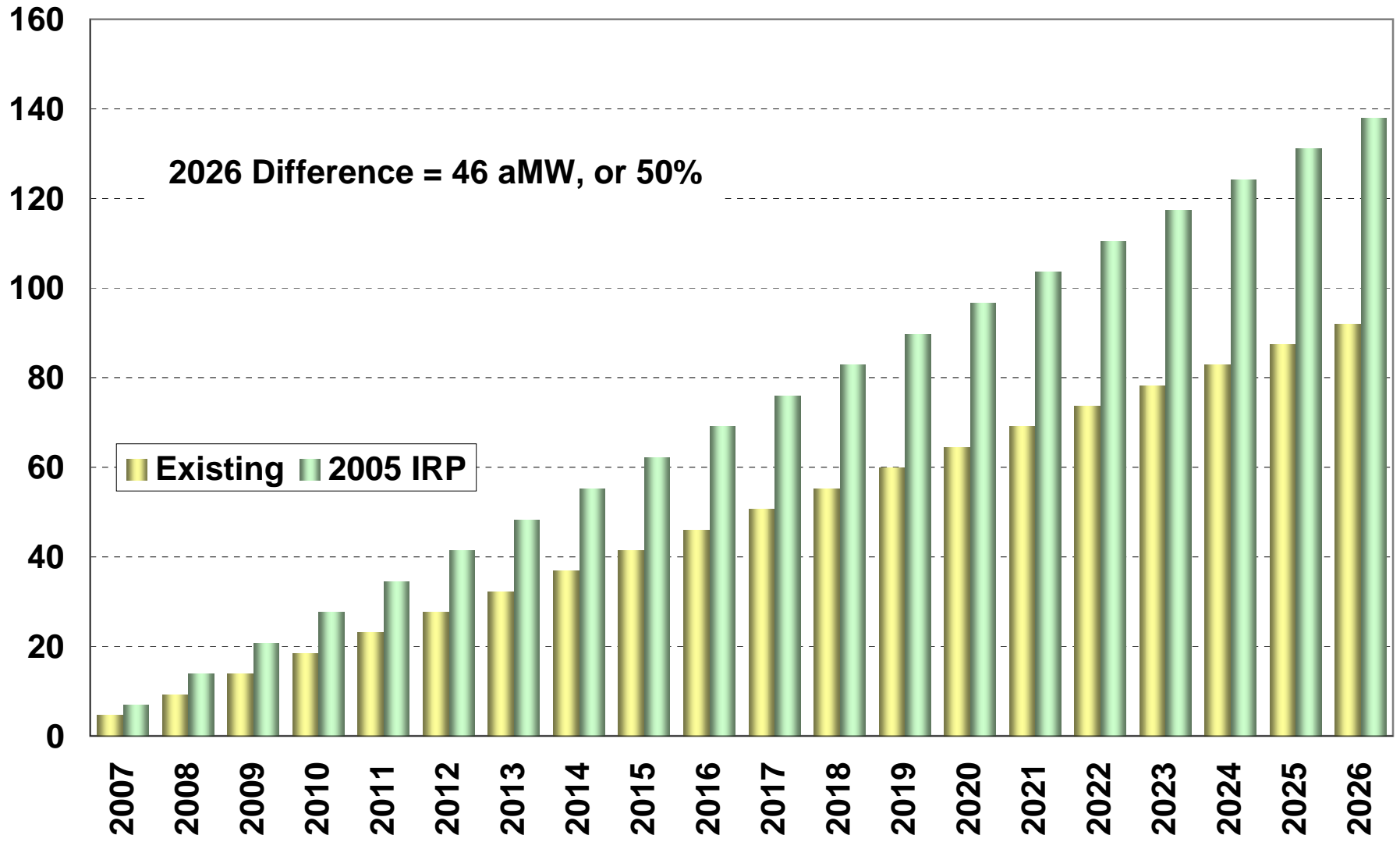
### Rate Increase 07-16



### Renewables aMW 2016



## DSM Acquisition





**Portfolio Options Summary—EIA Emissions**

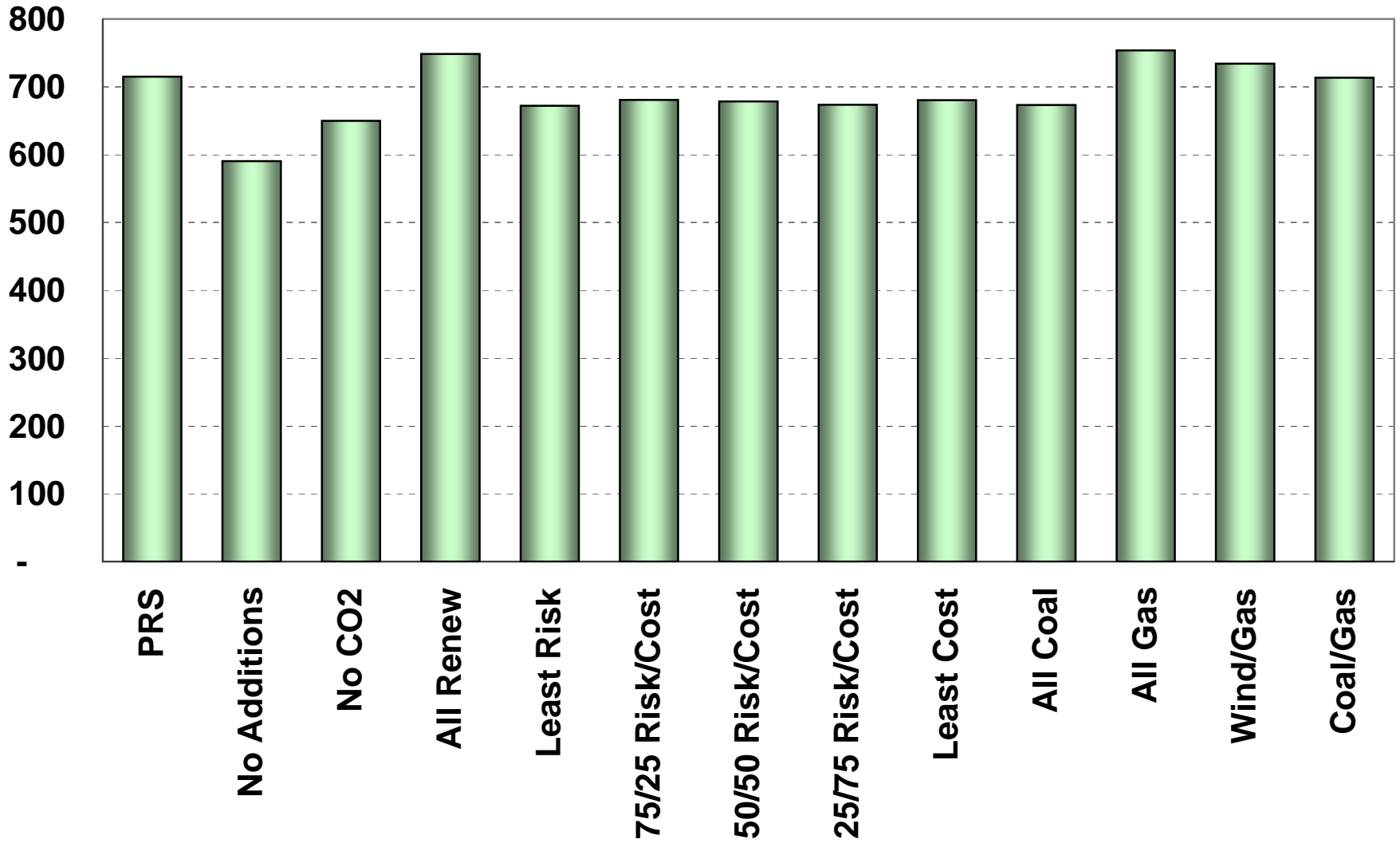
|                                  | 1     | 13               | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|----------------------------------|-------|------------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                  | PRS   | No Additio<br>ns | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| <b>Average Rate Increase</b>     |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 7.1%  | 5.5%             | 6.1%   | 6.8%      | 6.2%       | 6.7%            | 6.6%            | 6.7%            | 6.4%       | 7.7%     | 7.3%    | 7.0%     | 7.5%     |
| 2007-2026                        | 5.6%  | 4.9%             | 4.3%   | 4.9%      | 4.9%       | 5.5%            | 5.5%            | 5.6%            | 5.7%       | 6.0%     | 5.6%    | 5.3%     | 5.8%     |
| <b>Max Rate Increase</b>         |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 16.4% | 15.1%            | 16.9%  | 21.4%     | 16.6%      | 16.6%           | 16.2%           | 16.2%           | 15.6%      | 18.8%    | 18.8%   | 19.0%    | 18.8%    |
| <b>Capital NPV</b>               |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 907   | -                | 1,081  | 1,455     | 939        | 901             | 886             | 724             | 185        | 696      | 506     | 829      | 601      |
| 2007-2026                        | 1,345 | -                | 1,400  | 1,929     | 1,411      | 1,326           | 1,310           | 1,109           | 491        | 961      | 698     | 1,150    | 829      |
| <b>Capital Nominal \$</b>        |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,505 | -                | 1,864  | 2,392     | 1,466      | 1,419           | 1,397           | 1,169           | 319        | 1,146    | 832     | 1,361    | 989      |
| 2007-2026                        | 3,019 | -                | 3,067  | 4,140     | 3,251      | 3,097           | 3,075           | 2,657           | 1,420      | 2,129    | 1,546   | 2,504    | 1,838    |
| <b>Power Supply Expense</b>      |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| in 2016                          | 507   | 410              | 449    | 491       | 450        | 481             | 479             | 481             | 463        | 544      | 518     | 499      | 531      |
| in 2026                          | 1,001 | 844              | 727    | 833       | 841        | 989             | 989             | 1,007           | 1,028      | 1,110    | 998     | 927      | 1,054    |
| <b>Power Supply Expense NPV</b>  |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,860 | 1,590            | 1,775  | 1,892     | 1,768      | 1,793           | 1,786           | 1,767           | 1,705      | 1,919    | 1,877   | 1,861    | 1,898    |
| 2007-2026                        | 4,091 | 3,469            | 3,536  | 3,839     | 3,696      | 3,955           | 3,945           | 3,950           | 3,893      | 4,375    | 4,117   | 3,960    | 4,246    |
| <b>Risk (StDev)</b>              |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007 In 2016\$                   | -     | -                | (0)    | (0)       | (0)        | (0)             | -               | (0)             | -          | (0)      | (0)     | (0)      | (0)      |
| 2016                             | -     | -                | 0      | 0         | 0          | 0               | -               | 0               | 0          | 0        | 0       | 0        | 0        |
| 2026                             | 0     | 0                | -      | 0         | -          | 0               | 0               | -               | 0          | -        | 0       | -        | -        |
| <b>Risk (StDev NPV)</b>          |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 0     | 0                | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| 2007-2026                        | 0     | 0                | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| <b>Covariance (stdev/mean)</b>   |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>95th% Max Var (NPV)</b>       |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | (0)   | 0                | 0      | 0         | 0          | 0               | (0)             | (0)             | 0          | 0        | 0       | 0        | (0)      |
| 2007-2026                        | 0     | 0                | 0      | 0         | 0          | 0               | 0               | (0)             | (0)        | (0)      | 0       | 0        | (0)      |
| <b>95th% Max Var (95th/mean)</b> |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%             | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>Build Out 2007-16 (MW)</b>    |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 250   | -                | -      | -         | 124        | 227             | 227             | 218             | 49         | 511      | -       | -        | 256      |
| CT MW                            | -     | -                | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -                | -      | -         | 2          | 2               | -               | -               | -          | -        | 511     | 411      | 256      |
| Wind MW                          | 400   | -                | 650    | 980       | 400        | 400             | 400             | 275             | -          | -        | -       | 400      | -        |
| Renews MW                        | 80    | -                | 100    | 228       | 183        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -                | 175    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -                | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -                | -      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -                | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total MW                         | 755   | -                | 949    | 1,208     | 761        | 761             | 761             | 668             | 461        | 511      | 511     | 811      | 511      |
| <b>Build Out 2007-26 (MW)</b>    |       |                  |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 450   | -                | -      | -         | 296        | 598             | 598             | 620             | 436        | 853      | -       | -        | 427      |
| CT MW                            | -     | -                | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -                | -      | -         | 2          | 2               | -               | -               | -          | -        | 853     | 691      | 427      |
| Wind MW                          | 650   | -                | 650    | 1,330     | 650        | 650             | 650             | 400             | -          | -        | -       | 650      | -        |
| Renews MW                        | 180   | -                | 180    | 483       | 383        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -                | 475    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -                | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -                | 5      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -                | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |

**Portfolio Options Summary—EIA Emissions**

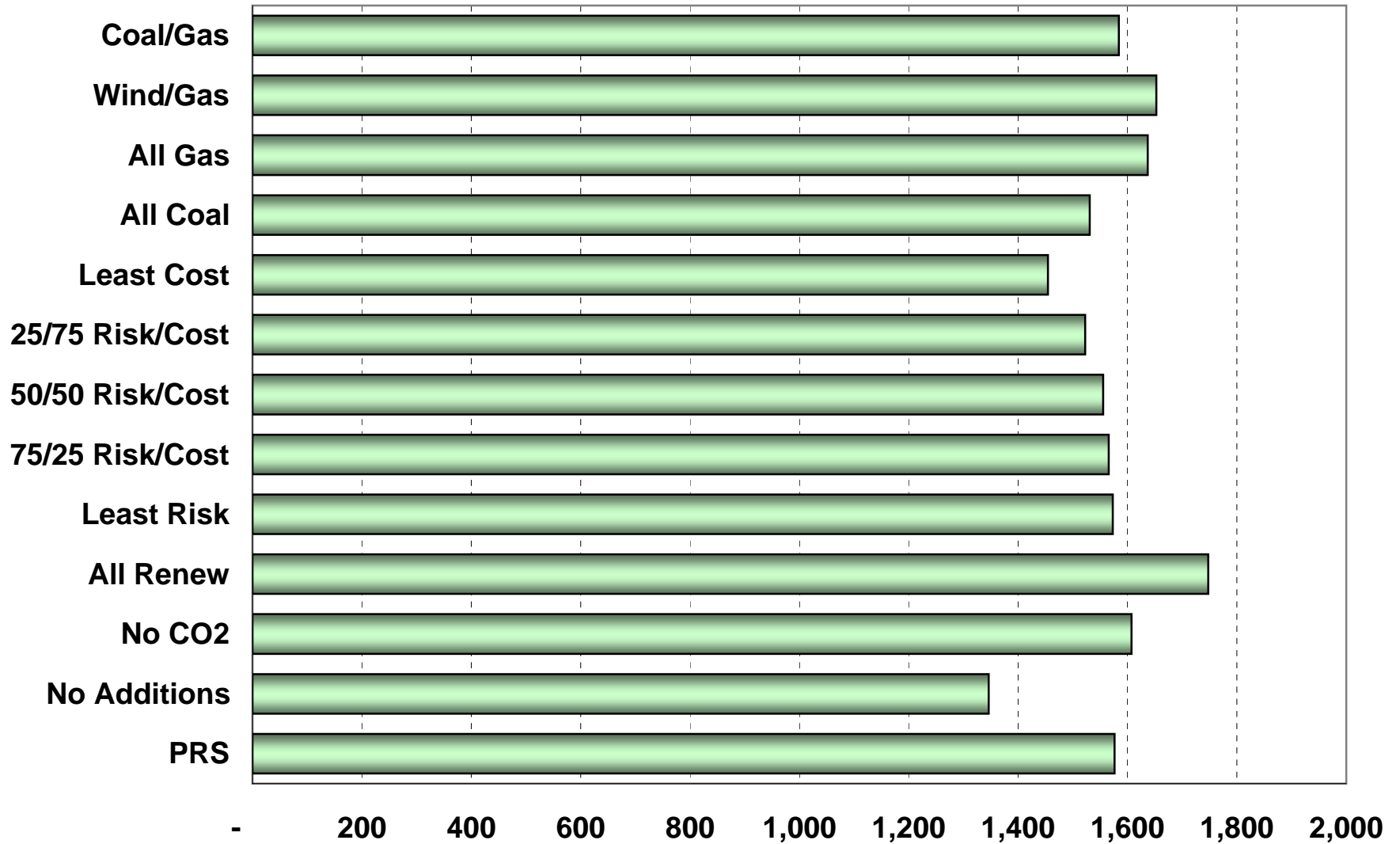
|                                | 1          | 13           | 2          | 3          | 4          | 5               | 6               | 7               | 8          | 9          | 10         | 12         | 11         |
|--------------------------------|------------|--------------|------------|------------|------------|-----------------|-----------------|-----------------|------------|------------|------------|------------|------------|
|                                | PRS        | No Additions | No CO2     | All Renew  | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal   | All Gas    | Wind/Gas   | Coal/Gas   |
| <b>Total MW</b>                | 1,305      | -            | 1,291      | 1,813      | 1,341      | 1,341           | 1,341           | 1,153           | 803        | 853        | 853        | 1,341      | 853        |
| <b>Build Out 2007-16 (aMW)</b> |            |              |            |            |            |                 |                 |                 |            |            |            |            |            |
| Coal aMW                       | 215        | -            | -          | -          | 107        | 195             | 195             | 187             | 42         | 441        | -          | -          | 220        |
| CT aMW                         | -          | -            | -          | -          | -          | -               | 11              | 46              | 319        | -          | -          | -          | -          |
| CCCT aMW                       | -          | -            | -          | -          | 2          | 2               | -               | -               | -          | -          | 461        | 371        | 231        |
| Wind aMW                       | 122        | -            | 188        | 285        | 122        | 122             | 122             | 81              | -          | -          | -          | 122        | -          |
| Renews aMW                     | 65         | -            | 81         | 190        | 158        | 68              | 60              | 60              | -          | -          | -          | -          | -          |
| Nuclear aMW                    | -          | -            | 147        | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| OilSands aMW                   | -          | -            | -          | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| Cogen aMW                      | -          | -            | -          | -          | 9          | 9               | 9               | 9               | -          | -          | -          | -          | -          |
| Market aMW                     | 25         | -            | 24         | -          | 42         | 42              | 42              | 42              | 45         | -          | -          | -          | -          |
| <b>Total aMW</b>               | <b>427</b> | <b>-</b>     | <b>440</b> | <b>474</b> | <b>440</b> | <b>439</b>      | <b>439</b>      | <b>425</b>      | <b>406</b> | <b>441</b> | <b>461</b> | <b>493</b> | <b>451</b> |
| <b>Build Out 2007-26 (aMW)</b> |            |              |            |            |            |                 |                 |                 |            |            |            |            |            |
| Coal aMW                       | 388        | -            | -          | -          | 255        | 515             | 515             | 534             | 376        | 735        | -          | -          | 368        |
| CT aMW                         | -          | -            | -          | -          | -          | -               | 11              | 46              | 319        | -          | -          | -          | -          |
| CCCT aMW                       | -          | -            | -          | -          | 2          | 2               | -               | -               | -          | -          | 770        | 623        | 385        |
| Wind aMW                       | 188        | -            | 188        | 386        | 188        | 188             | 188             | 122             | -          | -          | -          | 188        | -          |
| Renews aMW                     | 145        | -            | 145        | 402        | 333        | 68              | 60              | 60              | -          | -          | -          | -          | -          |
| Nuclear aMW                    | -          | -            | 399        | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| OilSands aMW                   | -          | -            | -          | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| Cogen aMW                      | -          | -            | 4          | -          | 9          | 9               | 9               | 9               | -          | -          | -          | -          | -          |
| Market aMW                     | 25         | -            | (20)       | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| <b>Total aMW</b>               | <b>746</b> | <b>-</b>     | <b>717</b> | <b>788</b> | <b>786</b> | <b>783</b>      | <b>783</b>      | <b>771</b>      | <b>694</b> | <b>735</b> | <b>770</b> | <b>811</b> | <b>752</b> |

# **NCEP Emissions**

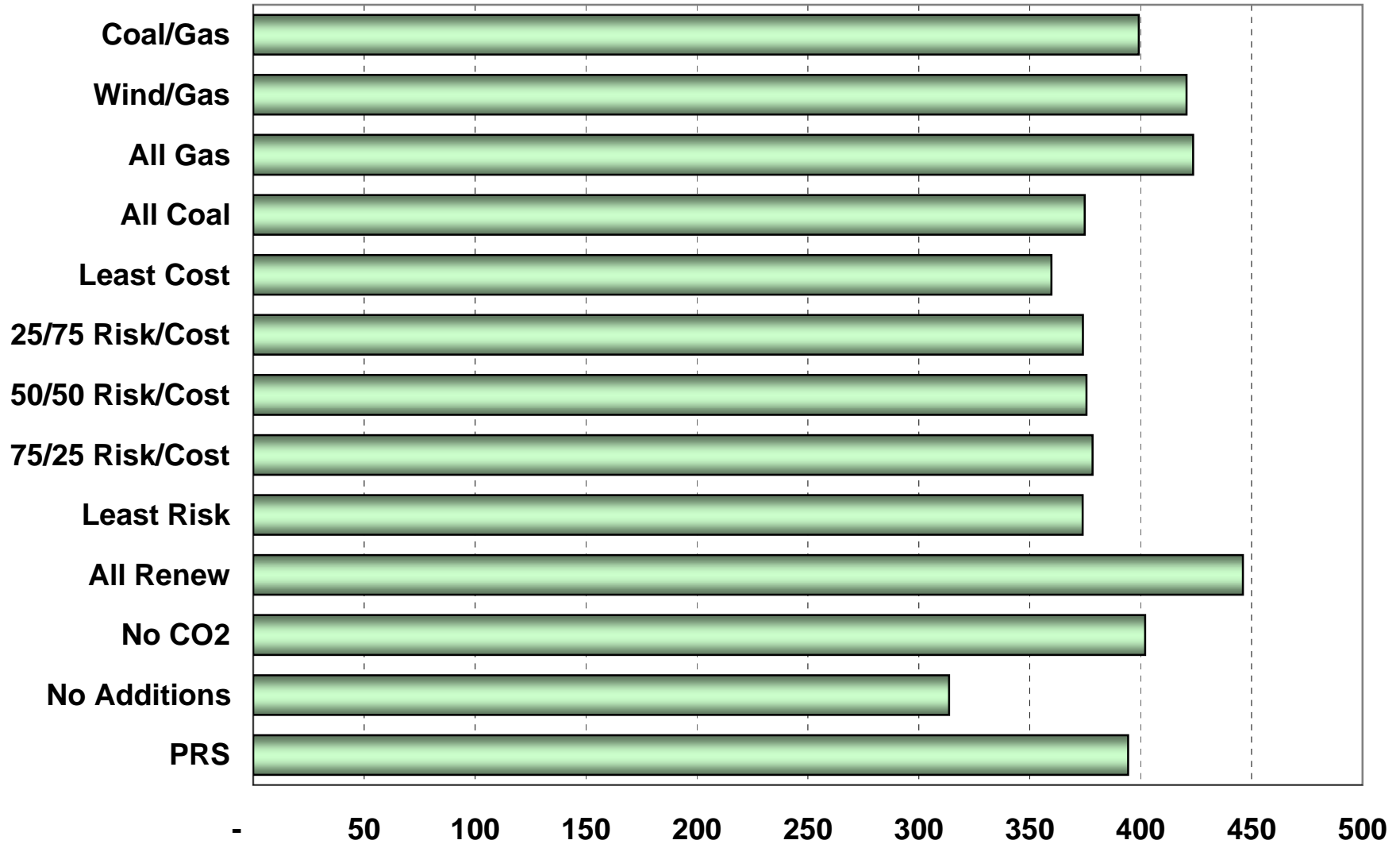
# PSE 2026



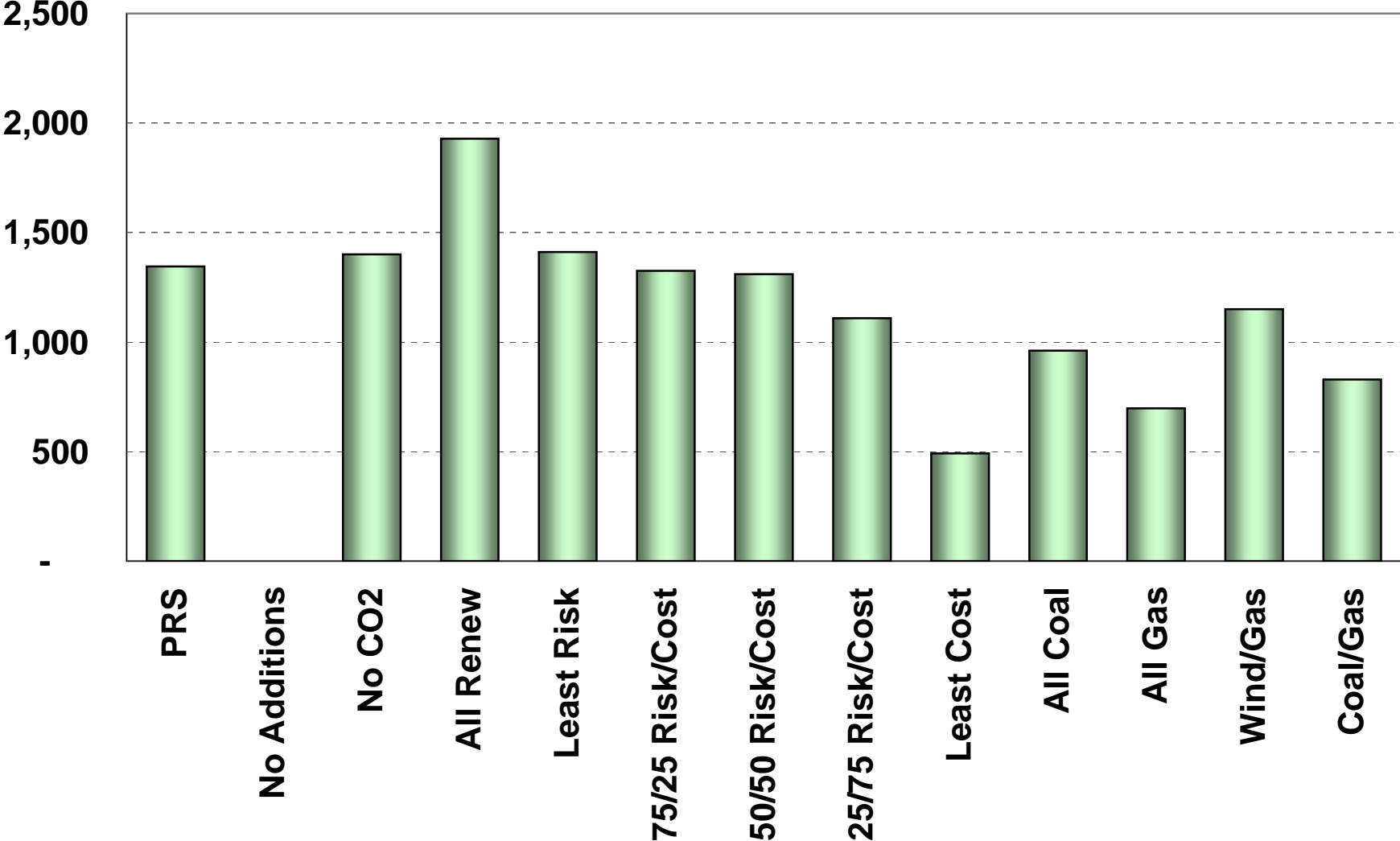
### PSE 07-16 NPV



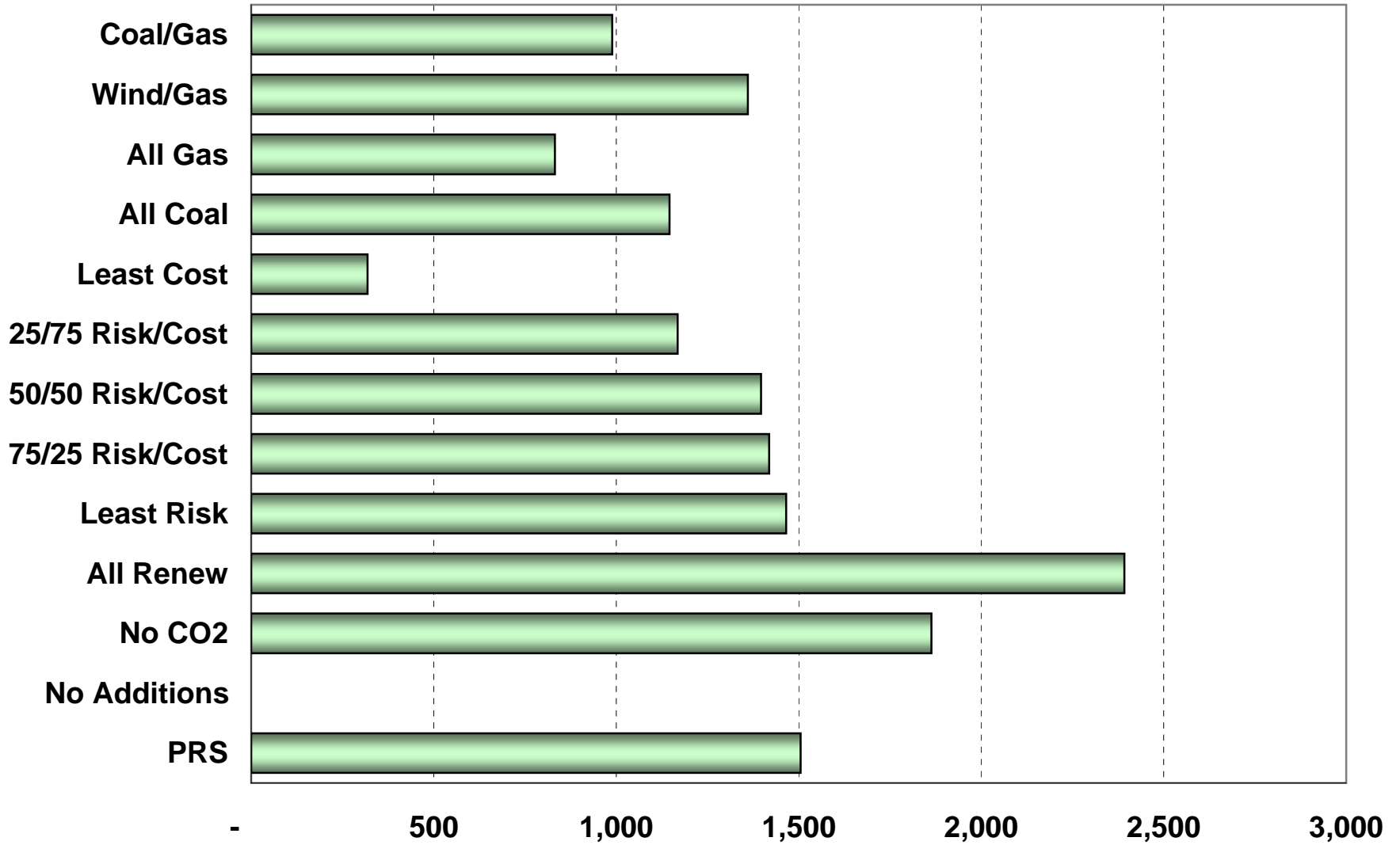
# PSE 2016



Capital NPV 07-26

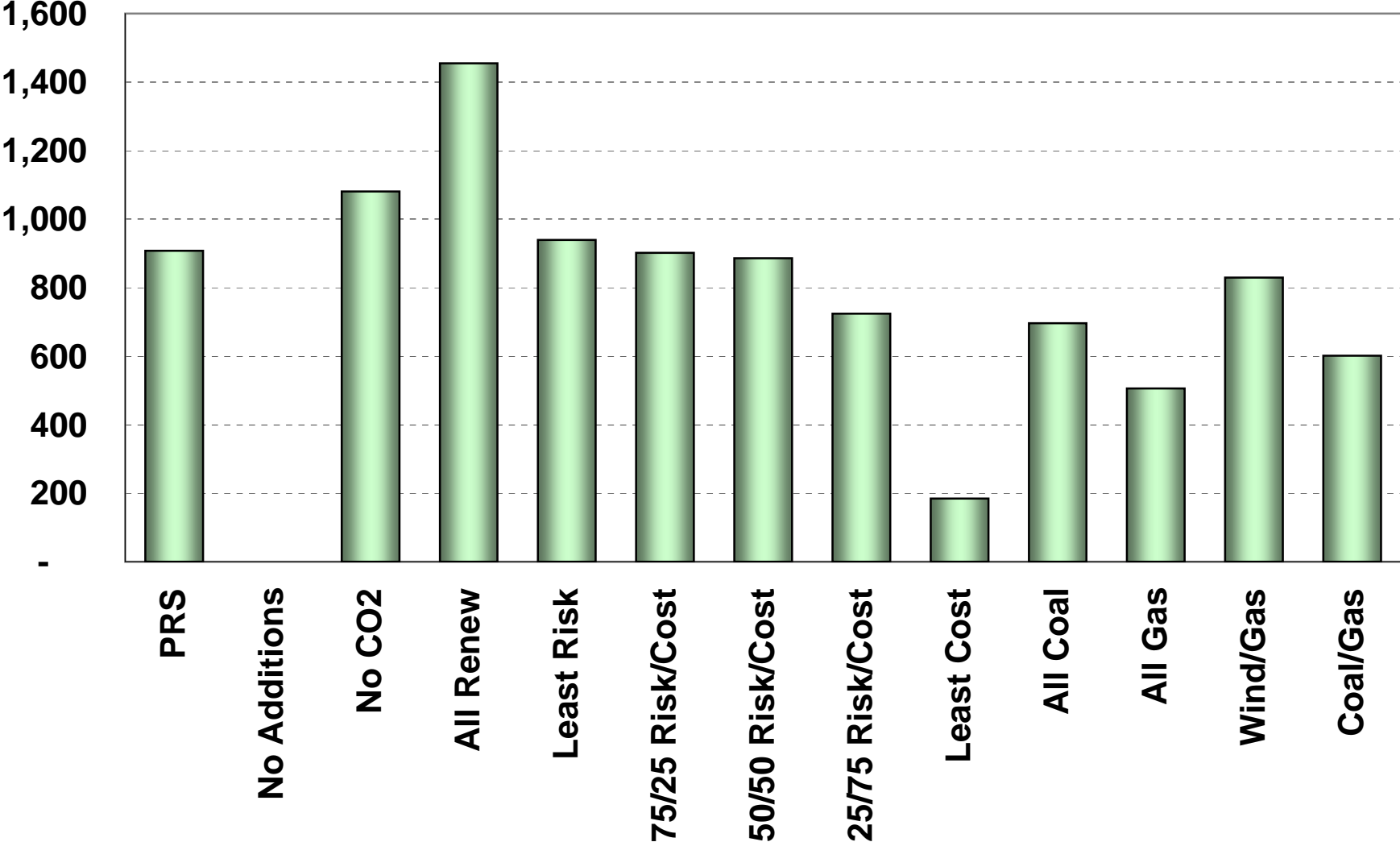


### Capital Nominal 07-16

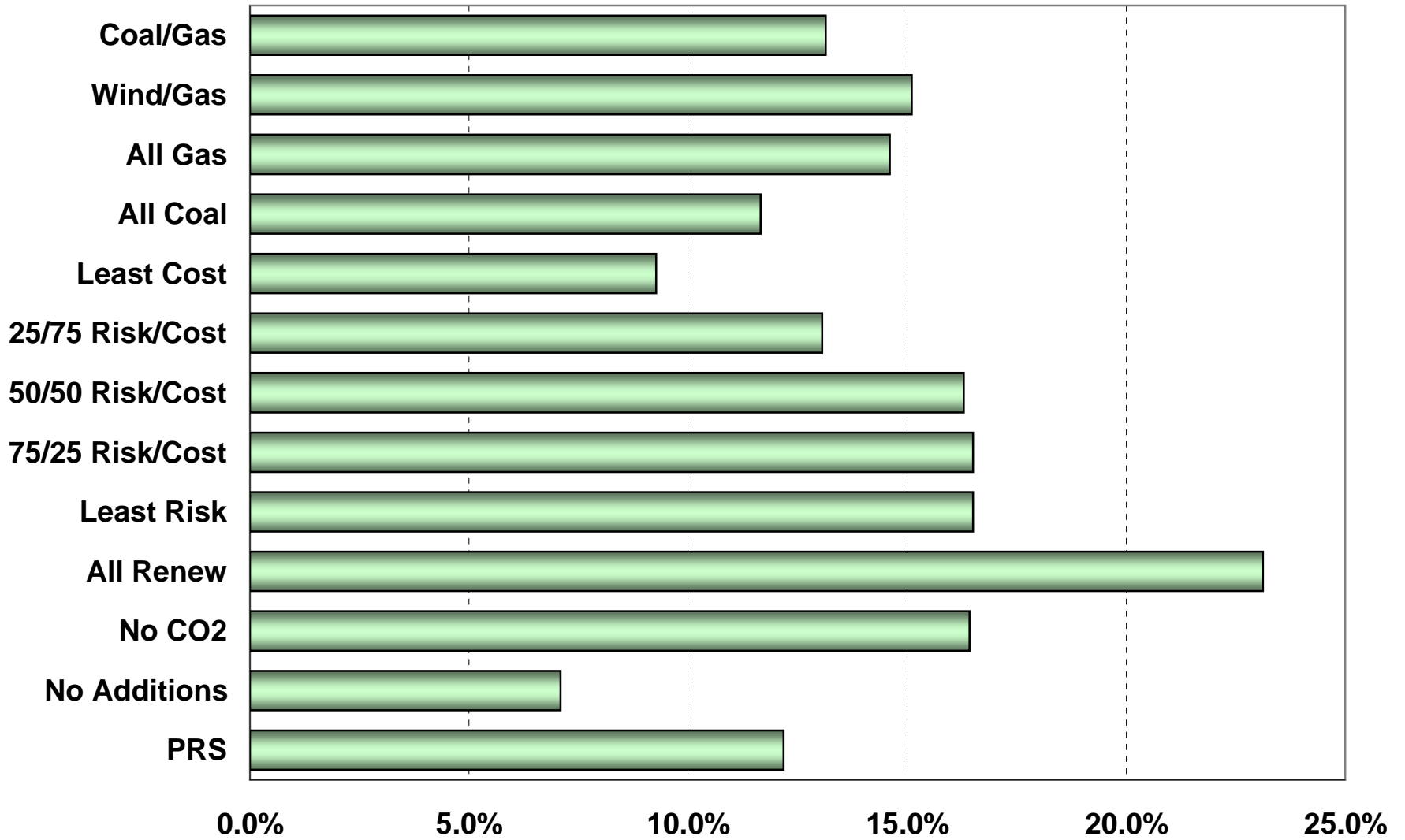




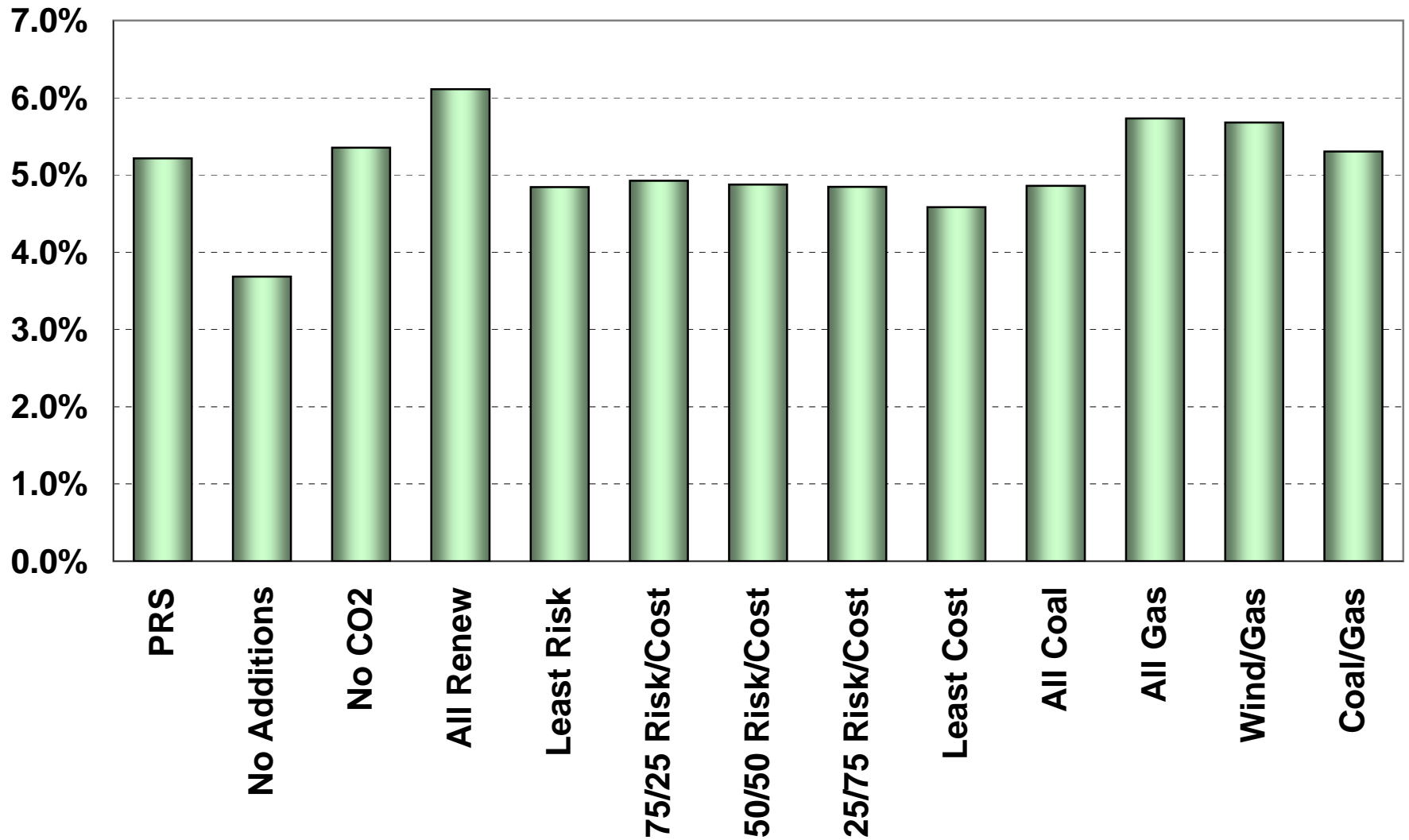
**Capital NPV 07-16**



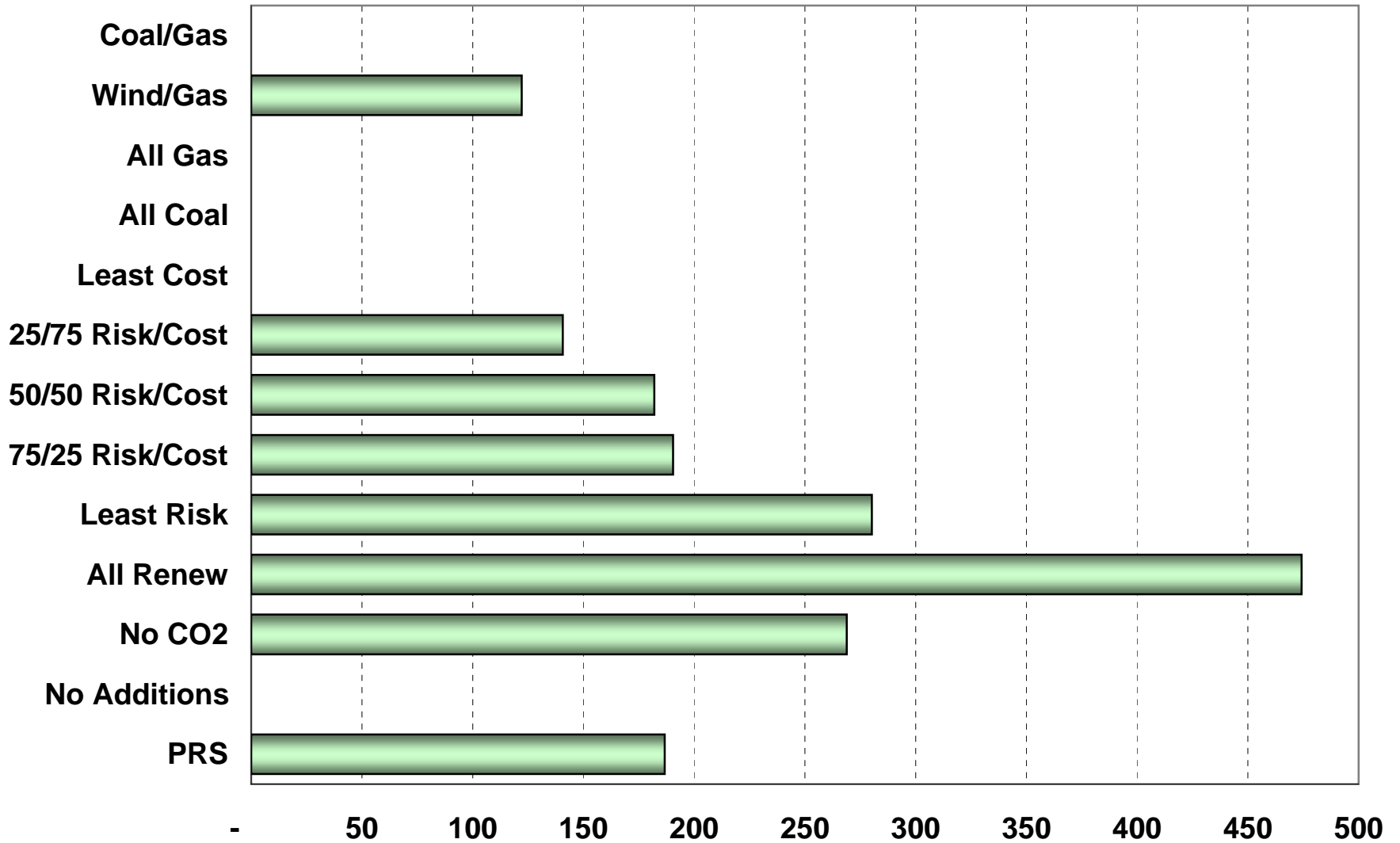
### Max Rate Increase



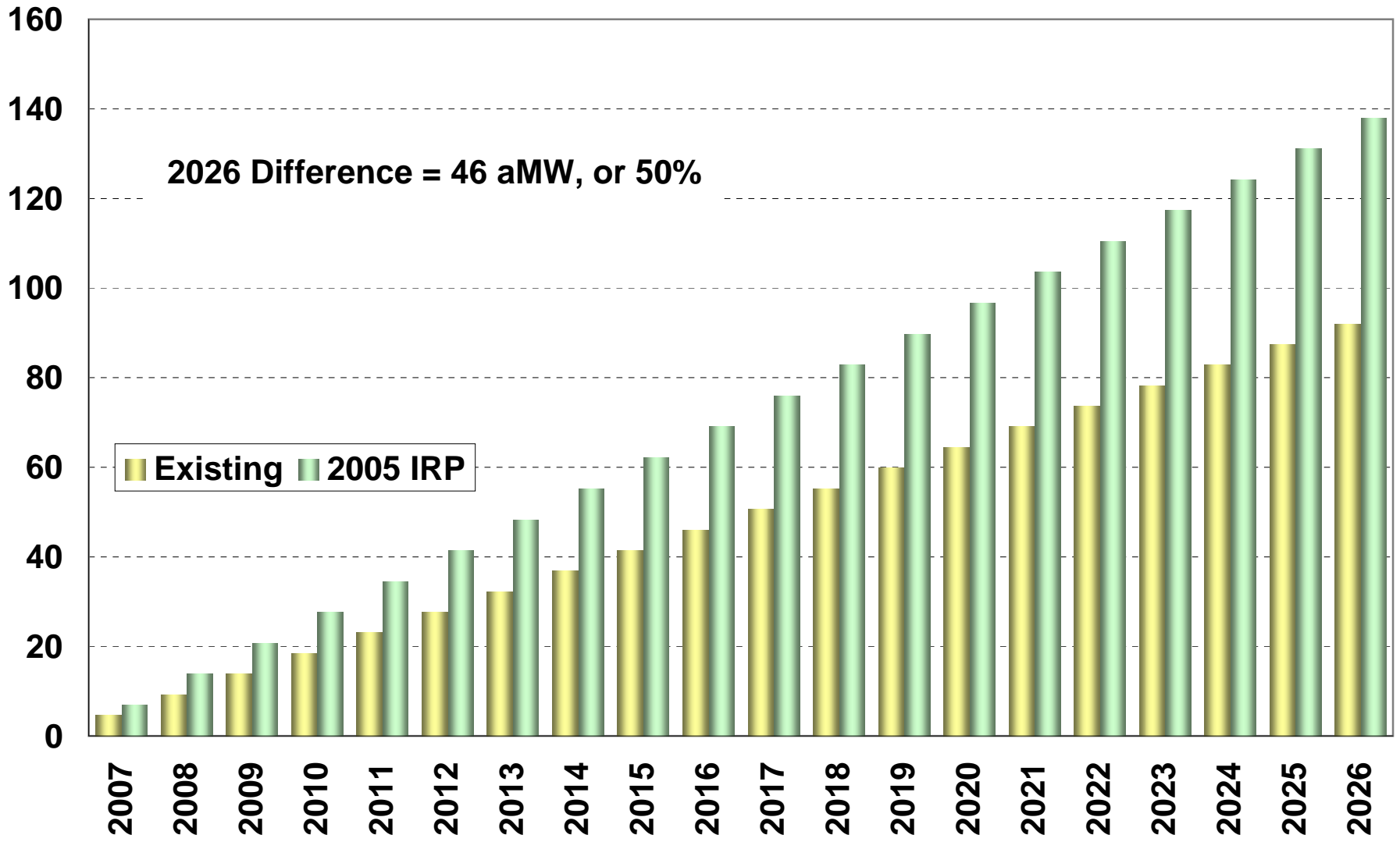
### Rate Increase 07-16



### Renewables aMW 2016



# DSM Acquisition



**Portfolio Options Summary—NCEP Emissions**

|                                  | 1     | 13           | 2      | 3         | 4          | 5               | 6               | 7               | 8          | 9        | 10      | 12       | 11       |
|----------------------------------|-------|--------------|--------|-----------|------------|-----------------|-----------------|-----------------|------------|----------|---------|----------|----------|
|                                  | PRS   | No Additions | No CO2 | All Renew | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal | All Gas | Wind/Gas | Coal/Gas |
| <b>Average Rate Increase</b>     |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 5.2%  | 3.7%         | 5.4%   | 6.1%      | 4.8%       | 4.9%            | 4.9%            | 4.8%            | 4.6%       | 4.9%     | 5.7%    | 5.7%     | 5.3%     |
| 2007-2026                        | 4.3%  | 3.6%         | 3.9%   | 4.4%      | 4.0%       | 4.1%            | 4.1%            | 4.0%            | 4.1%       | 4.0%     | 4.5%    | 4.4%     | 4.3%     |
| <b>Max Rate Increase</b>         |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 12.2% | 7.1%         | 16.4%  | 23.1%     | 16.5%      | 16.5%           | 16.3%           | 13.1%           | 9.3%       | 11.7%    | 14.6%   | 15.1%    | 13.1%    |
| <b>Capital NPV</b>               |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 907   | -            | 1,081  | 1,455     | 939        | 901             | 886             | 724             | 185        | 696      | 506     | 829      | 601      |
| 2007-2026                        | 1,345 | -            | 1,400  | 1,929     | 1,411      | 1,326           | 1,310           | 1,109           | 491        | 961      | 698     | 1,150    | 829      |
| <b>Capital Nominal \$</b>        |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,505 | -            | 1,864  | 2,392     | 1,466      | 1,419           | 1,397           | 1,169           | 319        | 1,146    | 832     | 1,361    | 989      |
| 2007-2026                        | 3,019 | -            | 3,067  | 4,140     | 3,251      | 3,097           | 3,075           | 2,657           | 1,420      | 2,129    | 1,546   | 2,504    | 1,838    |
| <b>Power Supply Expense</b>      |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| in 2016                          | 394   | 314          | 402    | 446       | 374        | 378             | 376             | 374             | 360        | 375      | 424     | 421      | 399      |
| in 2026                          | 715   | 591          | 650    | 749       | 672        | 681             | 679             | 673             | 680        | 673      | 754     | 734      | 713      |
| <b>Power Supply Expense NPV</b>  |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 1,576 | 1,346        | 1,607  | 1,748     | 1,573      | 1,566           | 1,555           | 1,523           | 1,455      | 1,531    | 1,637   | 1,653    | 1,584    |
| 2007-2026                        | 3,182 | 2,674        | 3,138  | 3,470     | 3,088      | 3,080           | 3,062           | 3,027           | 2,962      | 3,049    | 3,346   | 3,326    | 3,198    |
| <b>Risk (StDev)</b>              |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007 In 2016\$                   | -     | -            | -      | -         | (0)        | -               | (0)             | (0)             | -          | (0)      | (0)     | -        | (0)      |
| 2016                             | -     | -            | -      | -         | 0          | -               | 0               | 0               | 0          | 0        | 0       | -        | 0        |
| 2026                             | -     | 0            | 0      | -         | 0          | -               | -               | -               | -          | 0        | 0       | 0        | 0        |
| <b>Risk (StDev NPV)</b>          |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | 0     | 0            | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| 2007-2026                        | 0     | 0            | 0      | 0         | 0          | 0               | 0               | 0               | 0          | 0        | 0       | 0        | 0        |
| <b>Covariance (stdev/mean)</b>   |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>95th% Max Var (NPV)</b>       |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016                        | (0)   | (0)          | (0)    | (0)       | (0)        | (0)             | (0)             | 0               | (0)        | 0        | (0)     | (0)      | 0        |
| 2007-2026                        | (0)   | (0)          | 0      | (0)       | (0)        | (0)             | 0               | 0               | (0)        | 0        | (0)     | (0)      | 0        |
| <b>95th% Max Var (95th/mean)</b> |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| 2007-2016 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| 2007-2026 Average                | 0.0%  | 0.0%         | 0.0%   | 0.0%      | 0.0%       | 0.0%            | 0.0%            | 0.0%            | 0.0%       | 0.0%     | 0.0%    | 0.0%     | 0.0%     |
| <b>Build Out 2007-16 (MW)</b>    |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 250   | -            | -      | -         | 124        | 227             | 227             | 218             | 49         | 511      | -       | -        | 256      |
| CT MW                            | -     | -            | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 511     | 411      | 256      |
| Wind MW                          | 400   | -            | 650    | 980       | 400        | 400             | 400             | 275             | -          | -        | -       | 400      | -        |
| Renews MW                        | 80    | -            | 100    | 228       | 183        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -            | 175    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -            | -      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -            | 24     | -         | 42         | 42              | 42              | 42              | 45         | -        | -       | -        | -        |
| Total MW                         | 755   | -            | 949    | 1,208     | 761        | 761             | 761             | 668             | 461        | 511      | 511     | 811      | 511      |
| <b>Build Out 2007-26 (MW)</b>    |       |              |        |           |            |                 |                 |                 |            |          |         |          |          |
| Coal MW                          | 450   | -            | -      | -         | 296        | 598             | 598             | 620             | 436        | 853      | -       | -        | 427      |
| CT MW                            | -     | -            | -      | -         | -          | -               | 12              | 53              | 367        | -        | -       | -        | -        |
| CCCT MW                          | -     | -            | -      | -         | 2          | 2               | -               | -               | -          | -        | 853     | 691      | 427      |
| Wind MW                          | 650   | -            | 650    | 1,330     | 650        | 650             | 650             | 400             | -          | -        | -       | 650      | -        |
| Renews MW                        | 180   | -            | 180    | 483       | 383        | 80              | 70              | 70              | -          | -        | -       | -        | -        |
| Nuclear MW                       | -     | -            | 475    | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| OilSands MW                      | -     | -            | -      | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |
| Cogen MW                         | -     | -            | 5      | -         | 10         | 10              | 10              | 10              | -          | -        | -       | -        | -        |
| Market MW                        | 25    | -            | (20)   | -         | -          | -               | -               | -               | -          | -        | -       | -        | -        |

**Portfolio Options Summary—NCEP Emissions**

|                                | 1          | 13           | 2          | 3          | 4          | 5               | 6               | 7               | 8          | 9          | 10         | 12         | 11         |
|--------------------------------|------------|--------------|------------|------------|------------|-----------------|-----------------|-----------------|------------|------------|------------|------------|------------|
|                                | PRS        | No Additions | No CO2     | All Renew  | Least Risk | 75/25 Risk/Cost | 50/50 Risk/Cost | 25/75 Risk/Cost | Least Cost | All Coal   | All Gas    | Wind/Gas   | Coal/Gas   |
| <b>Total MW</b>                | 1,305      | -            | 1,291      | 1,813      | 1,341      | 1,341           | 1,341           | 1,153           | 803        | 853        | 853        | 1,341      | 853        |
| <b>Build Out 2007-16 (aMW)</b> |            |              |            |            |            |                 |                 |                 |            |            |            |            |            |
| Coal aMW                       | 215        | -            | -          | -          | 107        | 195             | 195             | 187             | 42         | 441        | -          | -          | 220        |
| CT aMW                         | -          | -            | -          | -          | -          | -               | 11              | 46              | 319        | -          | -          | -          | -          |
| CCCT aMW                       | -          | -            | -          | -          | 2          | 2               | -               | -               | -          | -          | 461        | 371        | 231        |
| Wind aMW                       | 122        | -            | 188        | 285        | 122        | 122             | 122             | 81              | -          | -          | -          | 122        | -          |
| Renews aMW                     | 65         | -            | 81         | 190        | 158        | 68              | 60              | 60              | -          | -          | -          | -          | -          |
| Nuclear aMW                    | -          | -            | 147        | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| OilSands aMW                   | -          | -            | -          | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| Cogen aMW                      | -          | -            | -          | -          | 9          | 9               | 9               | 9               | -          | -          | -          | -          | -          |
| Market aMW                     | 25         | -            | 24         | -          | 42         | 42              | 42              | 42              | 45         | -          | -          | -          | -          |
| <b>Total aMW</b>               | <b>427</b> | <b>-</b>     | <b>440</b> | <b>474</b> | <b>440</b> | <b>439</b>      | <b>439</b>      | <b>425</b>      | <b>406</b> | <b>441</b> | <b>461</b> | <b>493</b> | <b>451</b> |
| <b>Build Out 2007-26 (aMW)</b> |            |              |            |            |            |                 |                 |                 |            |            |            |            |            |
| Coal aMW                       | 388        | -            | -          | -          | 255        | 515             | 515             | 534             | 376        | 735        | -          | -          | 368        |
| CT aMW                         | -          | -            | -          | -          | -          | -               | 11              | 46              | 319        | -          | -          | -          | -          |
| CCCT aMW                       | -          | -            | -          | -          | 2          | 2               | -               | -               | -          | -          | 770        | 623        | 385        |
| Wind aMW                       | 188        | -            | 188        | 386        | 188        | 188             | 188             | 122             | -          | -          | -          | 188        | -          |
| Renews aMW                     | 145        | -            | 145        | 402        | 333        | 68              | 60              | 60              | -          | -          | -          | -          | -          |
| Nuclear aMW                    | -          | -            | 399        | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| OilSands aMW                   | -          | -            | -          | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| Cogen aMW                      | -          | -            | 4          | -          | 9          | 9               | 9               | 9               | -          | -          | -          | -          | -          |
| Market aMW                     | 25         | -            | (20)       | -          | -          | -               | -               | -               | -          | -          | -          | -          | -          |
| <b>Total aMW</b>               | <b>746</b> | <b>-</b>     | <b>717</b> | <b>788</b> | <b>786</b> | <b>783</b>      | <b>783</b>      | <b>771</b>      | <b>694</b> | <b>735</b> | <b>770</b> | <b>811</b> | <b>752</b> |

# Additional Levelized Resource Cost Detail

## Appendix H



**Real Levelized Cost (2005 Dollars per MWh) Built in 2007**

|                        | <b>Busbar Cost &amp; wo/PTC</b> | <b>Busbar Cost &amp; w/PTC</b> | <b>Cost with Tx &amp; PTC</b> |
|------------------------|---------------------------------|--------------------------------|-------------------------------|
| Alberta's Oil Sands    | \$37.60                         | \$37.60                        | \$61.33                       |
| CCCT (2x1)             | \$54.42                         | \$54.42                        | \$58.95                       |
| Coal IGCC MT           | \$38.18                         | \$38.18                        | \$46.82                       |
| Coal IGCC OWI          | \$42.29                         | \$42.29                        | \$48.50                       |
| Coal IGCC SQ MT        | \$45.74                         | \$45.74                        | \$54.38                       |
| Coal Pulv MT           | \$32.38                         | \$32.38                        | \$40.74                       |
| Coal Pulv OWI          | \$37.47                         | \$37.47                        | \$43.48                       |
| Co-Gen                 | \$47.36                         | \$47.36                        | \$52.40                       |
| Geothermal             | \$50.64                         | \$44.13                        | \$53.37                       |
| Landfill Gas           | \$54.51                         | \$51.41                        | \$57.08                       |
| Local Co-Gen           | \$49.10                         | \$49.10                        | \$49.10                       |
| Local Landfill Gas     | \$54.50                         | \$51.40                        | \$51.40                       |
| Local Manure           | \$53.11                         | \$49.99                        | \$49.99                       |
| Local Wind             | \$58.04                         | \$47.82                        | \$58.50                       |
| Local Wood             | \$75.76                         | \$72.64                        | \$72.64                       |
| Manure                 | \$53.11                         | \$50.00                        | \$55.04                       |
| Nuclear                | \$36.80                         | \$36.80                        | \$42.96                       |
| SCCT- Aero             | \$63.63                         | \$63.63                        | \$65.60                       |
| SCCT- Frame            | \$62.62                         | \$62.62                        | \$64.73                       |
| Wind- Browning Depot 1 | \$44.03                         | \$33.04                        | \$52.77                       |
| Wind- Browning Depot 2 | \$53.47                         | \$43.50                        | \$65.86                       |
| Wind- Kennewick Tier 1 | \$44.03                         | \$33.66                        | \$45.47                       |
| Wind- Kennewick Tier 2 | \$58.06                         | \$47.83                        | \$62.62                       |
| Wind- MT Tier 1        | \$42.46                         | \$32.52                        | \$51.45                       |
| Wind- MT Tier 2        | \$46.90                         | \$39.03                        | \$58.04                       |
| Wind- OWI Tier 1       | \$48.87                         | \$37.21                        | \$50.50                       |
| Wind- OWI Tier 2       | \$53.47                         | \$44.21                        | \$57.59                       |
| Wood                   | \$75.76                         | \$72.64                        | \$77.69                       |

**Nominal Dollars per MWh Build in 2007**

|  | <b>Busbar Cost &amp; wo/PTC</b> | <b>Busbar Cost &amp; w/PTC</b> | <b>Cost with Tx &amp; PTC</b> |
|--|---------------------------------|--------------------------------|-------------------------------|
|  | \$46.21                         | \$46.21                        | \$75.37                       |
|  | \$66.88                         | \$66.88                        | \$72.45                       |
|  | \$46.92                         | \$46.92                        | \$57.54                       |
|  | \$51.98                         | \$51.98                        | \$59.61                       |
|  | \$56.21                         | \$56.21                        | \$66.83                       |
|  | \$39.79                         | \$39.79                        | \$50.07                       |
|  | \$46.05                         | \$46.05                        | \$53.44                       |
|  | \$58.20                         | \$58.20                        | \$64.40                       |
|  | \$62.24                         | \$54.24                        | \$65.58                       |
|  | \$66.99                         | \$63.18                        | \$70.15                       |
|  | \$60.34                         | \$60.34                        | \$60.34                       |
|  | \$66.98                         | \$63.17                        | \$63.17                       |
|  | \$65.27                         | \$61.44                        | \$61.44                       |
|  | \$71.33                         | \$58.77                        | \$71.90                       |
|  | \$93.10                         | \$89.27                        | \$89.27                       |
|  | \$65.27                         | \$61.44                        | \$67.64                       |
|  | \$45.22                         | \$45.22                        | \$52.80                       |
|  | \$78.19                         | \$78.19                        | \$80.62                       |
|  | \$76.96                         | \$76.96                        | \$79.55                       |
|  | \$54.11                         | \$40.60                        | \$64.85                       |
|  | \$65.71                         | \$53.46                        | \$80.94                       |
|  | \$54.11                         | \$41.37                        | \$55.88                       |
|  | \$71.35                         | \$58.79                        | \$76.95                       |
|  | \$52.19                         | \$39.96                        | \$63.23                       |
|  | \$57.64                         | \$47.97                        | \$71.32                       |
|  | \$60.06                         | \$45.72                        | \$62.06                       |
|  | \$65.71                         | \$54.34                        | \$70.78                       |
|  | \$93.11                         | \$89.28                        | \$95.47                       |

**Real Levelized Cost (2005 Dollars per MWh) Built in 2016**

**Nominal Dollars per MWh Build in 2016**

|                        | <b>Busbar Cost &amp; wo/PTC</b> | <b>Busbar Cost &amp; w/PTC</b> | <b>Cost with Tx &amp; PTC</b> | <b>Busbar Cost &amp; wo/PTC</b> | <b>Busbar Cost &amp; w/PTC</b> | <b>Cost with Tx &amp; PTC</b> |
|------------------------|---------------------------------|--------------------------------|-------------------------------|---------------------------------|--------------------------------|-------------------------------|
| Wood                   | \$64.89                         | \$61.66                        | \$65.89                       | \$79.75                         | \$75.78                        | \$80.98                       |
| Local Wood             | \$64.88                         | \$61.65                        | \$61.65                       | \$79.74                         | \$75.77                        | \$75.77                       |
| SCCT- Aero             | \$60.30                         | \$60.30                        | \$62.11                       | \$74.10                         | \$74.10                        | \$76.32                       |
| SCCT- Frame            | \$59.54                         | \$59.54                        | \$61.45                       | \$73.17                         | \$73.17                        | \$75.51                       |
| Landfill Gas           | \$52.28                         | \$49.07                        | \$53.83                       | \$64.25                         | \$60.30                        | \$66.15                       |
| Local Wind             | \$47.76                         | \$37.16                        | \$45.60                       | \$58.69                         | \$45.67                        | \$56.04                       |
| CCCT (2x1)             | \$52.24                         | \$52.24                        | \$56.06                       | \$64.20                         | \$64.20                        | \$68.89                       |
| Manure                 | \$51.55                         | \$48.32                        | \$52.55                       | \$63.36                         | \$59.38                        | \$64.58                       |
| Wind- Browning Depot 2 | \$36.90                         | \$28.75                        | \$47.07                       | \$45.35                         | \$35.33                        | \$57.84                       |
| Alberta's Oil Sands    | \$34.73                         | \$34.73                        | \$53.73                       | \$42.68                         | \$42.68                        | \$66.03                       |
| Coal IGCC SQ MT        | \$45.88                         | \$45.88                        | \$52.96                       | \$56.39                         | \$56.39                        | \$65.09                       |
| Wind- Kennewick Tier 2 | \$40.46                         | \$32.10                        | \$44.50                       | \$49.72                         | \$39.45                        | \$54.68                       |
| Local Landfill Gas     | \$52.27                         | \$49.06                        | \$49.06                       | \$64.24                         | \$60.29                        | \$60.29                       |
| Local Manure           | \$51.55                         | \$48.31                        | \$48.31                       | \$63.35                         | \$59.38                        | \$59.38                       |
| Co-Gen                 | \$45.36                         | \$45.36                        | \$49.60                       | \$55.75                         | \$55.75                        | \$60.95                       |
| Wind- MT Tier 2        | \$33.34                         | \$26.91                        | \$42.48                       | \$40.98                         | \$33.07                        | \$52.21                       |
| Wind- OWI Tier 2       | \$37.48                         | \$29.92                        | \$41.14                       | \$46.06                         | \$36.77                        | \$50.56                       |
| Local Co-Gen           | \$48.16                         | \$48.16                        | \$48.16                       | \$59.18                         | \$59.18                        | \$59.18                       |
| Geothermal             | \$40.24                         | \$32.97                        | \$40.73                       | \$49.46                         | \$40.52                        | \$50.05                       |
| Coal IGCC OWI          | \$42.44                         | \$42.44                        | \$47.82                       | \$52.15                         | \$52.15                        | \$58.77                       |
| Coal IGCC MT           | \$38.28                         | \$38.28                        | \$45.36                       | \$47.04                         | \$47.04                        | \$55.75                       |
| Wind- Browning Depot 1 | \$27.83                         | \$18.83                        | \$35.01                       | \$34.20                         | \$23.14                        | \$43.02                       |
| Coal Pulverized OWI    | \$38.17                         | \$38.17                        | \$43.37                       | \$46.90                         | \$46.90                        | \$53.31                       |
| Nuclear                | \$37.73                         | \$37.73                        | \$43.07                       | \$46.36                         | \$46.36                        | \$52.93                       |
| Wind- MT Tier 1        | \$27.22                         | \$19.08                        | \$34.60                       | \$33.45                         | \$23.45                        | \$42.52                       |
| Wind- OWI Tier 1       | \$31.03                         | \$21.50                        | \$32.64                       | \$38.14                         | \$26.42                        | \$40.11                       |
| Coal Pulverized MT     | \$32.99                         | \$32.99                        | \$39.84                       | \$40.54                         | \$40.54                        | \$48.97                       |
| Wind- Kennewick Tier 1 | \$28.34                         | \$19.86                        | \$29.77                       | \$34.83                         | \$24.40                        | \$36.59                       |

# Conservation Details

## Appendix I

# Industrial Measures

8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 15 Measure life

0 therm impact per kWh  
 A Annual / winter therm  
 667,261 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 261,220        | PV of electric avoided cost value | \$ 0.391        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ 64,210         | Non-energy benefits               | \$ 0.096        | per first-year kWh        |
| <u>\$ 325,430</u> | <u>Total TRC benefits</u>         | <u>\$ 0.488</u> | <u>per first-year kWh</u> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 33,363        | Fully allocated utility cost of program | \$ 0.050        | per first-year kWh        |
| \$ 20,418        | Customer cost associated with program   | \$ 0.031        | per first-year kWh        |
| <u>\$ 53,781</u> | <u>TRC costs of program</u>             | <u>\$ 0.081</u> | <u>per first-year kWh</u> |

6.05 TRC benefit / cost ratio      \$ (0.616) Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 277,101        | PV of electric avoided cost value | \$ 0.415        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ 74,076         | Non-energy benefits               | \$ 0.111        | per first-year kWh        |
| <u>\$ 351,177</u> | <u>Total TRC benefits</u>         | <u>\$ 0.526</u> | <u>per first-year kWh</u> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 38,490        | Fully allocated utility cost of program | \$ 0.058        | per first-year kWh        |
| \$ 23,556        | Customer cost associated with program   | \$ 0.035        | per first-year kWh        |
| <u>\$ 62,045</u> | <u>TRC costs of program</u>             | <u>\$ 0.093</u> | <u>per first-year kWh</u> |

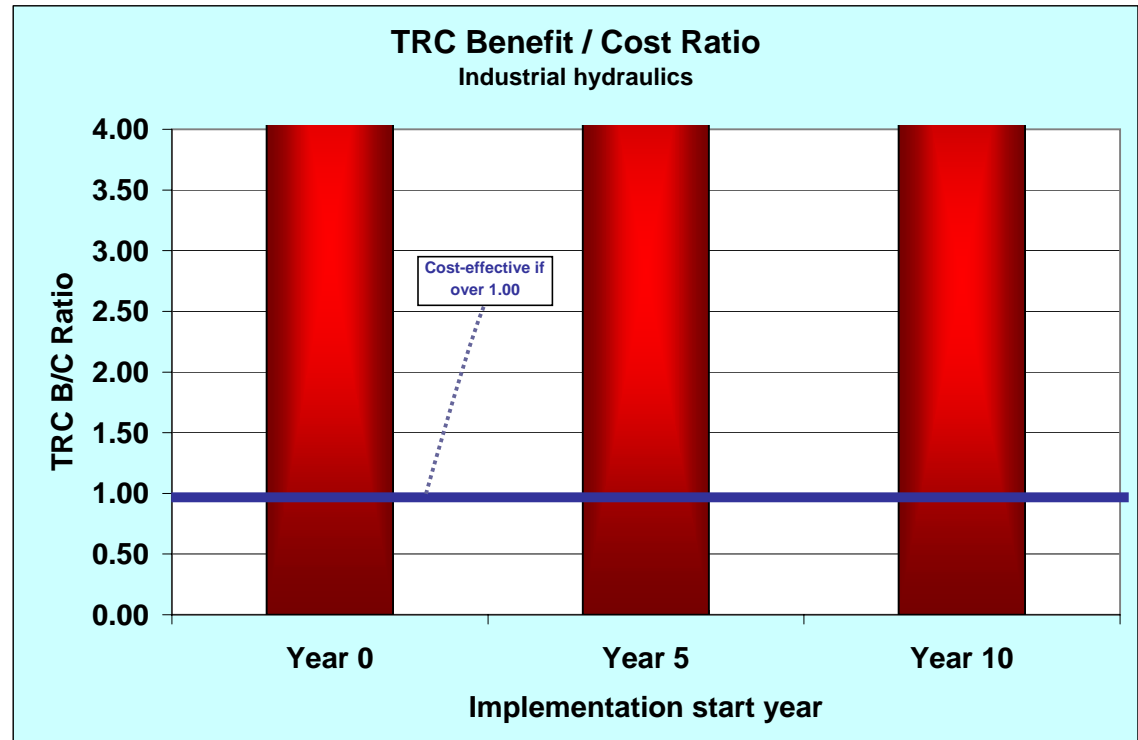
5.66 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 308,413        | PV of electric avoided cost value | \$ 0.462        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ 85,458         | Non-energy benefits               | \$ 0.128        | per first-year kWh        |
| <u>\$ 393,871</u> | <u>Total TRC benefits</u>         | <u>\$ 0.590</u> | <u>per first-year kWh</u> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 44,404        | Fully allocated utility cost of program | \$ 0.067        | per first-year kWh        |
| \$ 27,175        | Customer cost associated with program   | \$ 0.041        | per first-year kWh        |
| <u>\$ 71,579</u> | <u>TRC costs of program</u>             | <u>\$ 0.107</u> | <u>per first-year kWh</u> |

5.50 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 15 Measure life

0 therm impact per kWh  
 A Annual / winter therm  
 2,808,417 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                     |                                   |                 |                           |
|---------------------|-----------------------------------|-----------------|---------------------------|
| \$ 1,101,184        | PV of electric avoided cost value | \$ 0.392        | per first-year kWh        |
| \$ -                | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ 270,250          | Non-energy benefits               | \$ 0.096        | per first-year kWh        |
| <u>\$ 1,371,434</u> | <u>Total TRC benefits</u>         | <u>\$ 0.488</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 140,421        | Fully allocated utility cost of program | \$ 0.050        | per first-year kWh        |
| \$ 85,938         | Customer cost associated with program   | \$ 0.031        | per first-year kWh        |
| <u>\$ 226,358</u> | <u>TRC costs of program</u>             | <u>\$ 0.081</u> | <u>per first-year kWh</u> |

6.06 TRC benefit / cost ratio  
 \$ (0.002) Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                     |                                   |                 |                           |
|---------------------|-----------------------------------|-----------------|---------------------------|
| \$ 1,168,398        | PV of electric avoided cost value | \$ 0.416        | per first-year kWh        |
| \$ -                | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ 311,776          | Non-energy benefits               | \$ 0.111        | per first-year kWh        |
| <u>\$ 1,480,173</u> | <u>Total TRC benefits</u>         | <u>\$ 0.527</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 161,998        | Fully allocated utility cost of program | \$ 0.058        | per first-year kWh        |
| \$ 99,143         | Customer cost associated with program   | \$ 0.035        | per first-year kWh        |
| <u>\$ 261,140</u> | <u>TRC costs of program</u>             | <u>\$ 0.093</u> | <u>per first-year kWh</u> |

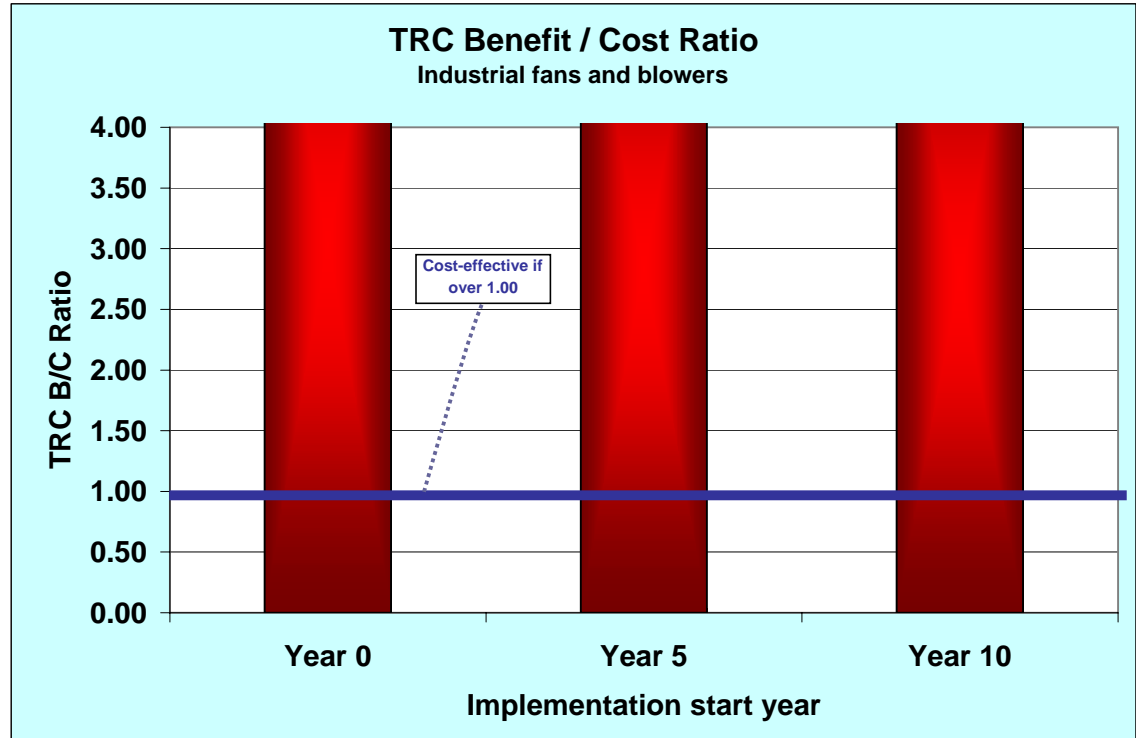
5.67 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                     |                                   |                 |                           |
|---------------------|-----------------------------------|-----------------|---------------------------|
| \$ 1,299,621        | PV of electric avoided cost value | \$ 0.463        | per first-year kWh        |
| \$ -                | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ 359,683          | Non-energy benefits               | \$ 0.128        | per first-year kWh        |
| <u>\$ 1,659,304</u> | <u>Total TRC benefits</u>         | <u>\$ 0.591</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 186,890        | Fully allocated utility cost of program | \$ 0.067        | per first-year kWh        |
| \$ 114,376        | Customer cost associated with program   | \$ 0.041        | per first-year kWh        |
| <u>\$ 301,266</u> | <u>TRC costs of program</u>             | <u>\$ 0.107</u> | <u>per first-year kWh</u> |

5.51 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 15 Measure life

0 therm impact per kWh  
 Annual / winter therm  
 4,774,815 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                     |                                   |                 |                           |
|---------------------|-----------------------------------|-----------------|---------------------------|
| \$ 1,866,721        | PV of electric avoided cost value | \$ 0.391        | per first-year kWh        |
| \$ -                | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ 459,474          | Non-energy benefits               | \$ 0.096        | per first-year kWh        |
| <u>\$ 2,326,194</u> | <b>Total TRC benefits</b>         | <u>\$ 0.487</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 238,741        | Fully allocated utility cost of program | \$ 0.050        | per first-year kWh        |
| \$ 146,109        | Customer cost associated with program   | \$ 0.031        | per first-year kWh        |
| <u>\$ 384,850</u> | <b>TRC costs of program</b>             | <u>\$ 0.081</u> | <b>per first-year kWh</b> |

6.04 TRC benefit / cost ratio  
 \$ (0.002) Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                     |                                   |                 |                           |
|---------------------|-----------------------------------|-----------------|---------------------------|
| \$ 1,979,870        | PV of electric avoided cost value | \$ 0.415        | per first-year kWh        |
| \$ -                | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ 530,075          | Non-energy benefits               | \$ 0.111        | per first-year kWh        |
| <u>\$ 2,509,945</u> | <b>Total TRC benefits</b>         | <u>\$ 0.526</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 275,425        | Fully allocated utility cost of program | \$ 0.058        | per first-year kWh        |
| \$ 168,560        | Customer cost associated with program   | \$ 0.035        | per first-year kWh        |
| <u>\$ 443,985</u> | <b>TRC costs of program</b>             | <u>\$ 0.093</u> | <b>per first-year kWh</b> |

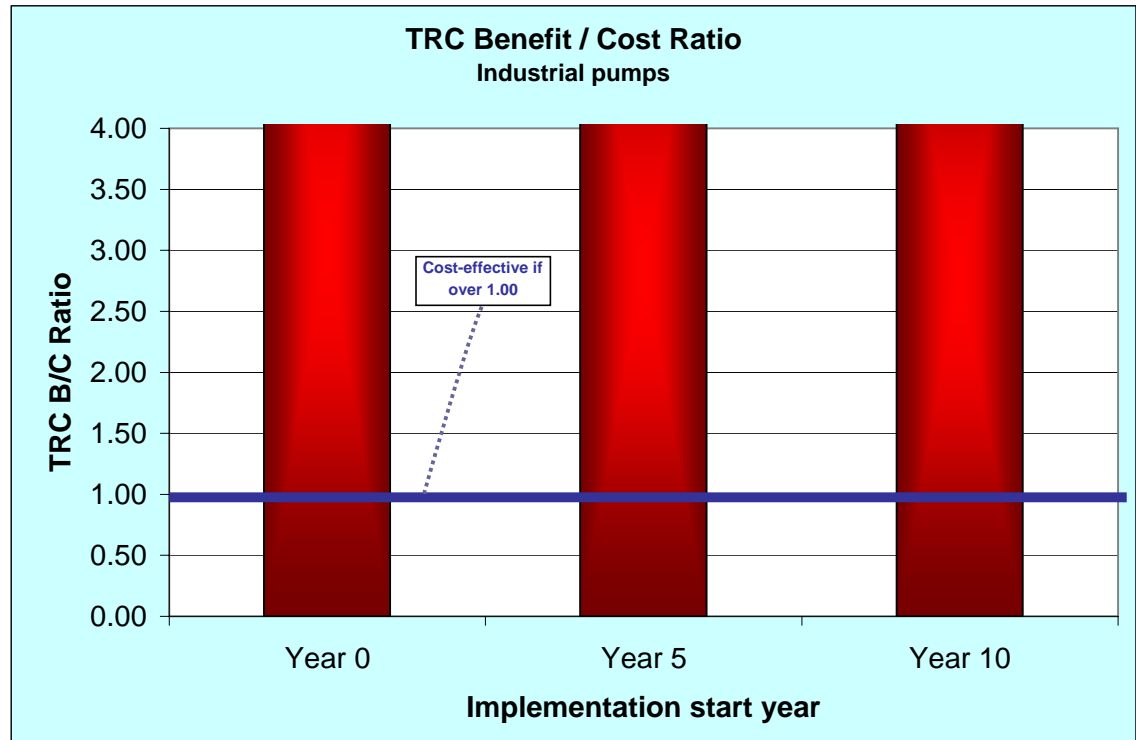
5.65 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                     |                                   |                 |                           |
|---------------------|-----------------------------------|-----------------|---------------------------|
| \$ 2,203,352        | PV of electric avoided cost value | \$ 0.461        | per first-year kWh        |
| \$ -                | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ 611,525          | Non-energy benefits               | \$ 0.128        | per first-year kWh        |
| <u>\$ 2,814,877</u> | <b>Total TRC benefits</b>         | <u>\$ 0.590</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 317,746        | Fully allocated utility cost of program | \$ 0.067        | per first-year kWh        |
| \$ 194,461        | Customer cost associated with program   | \$ 0.041        | per first-year kWh        |
| <u>\$ 512,207</u> | <b>TRC costs of program</b>             | <u>\$ 0.107</u> | <b>per first-year kWh</b> |

5.50 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Program cost, NEB inflation  
 15 Measure life

0 therm impact/kwh  
 A "A" or "W" therm  
 6,061,887 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                     |   |                 |                    |
|---------------------|---|-----------------|--------------------|
| \$ 2,364,150        | PV of el AC value of program            | \$ 0.390        | per first-year kWh |
| \$ -                | PV of gas AC value of program           | \$ -            | per first-year kWh |
| \$ 583,327          | NEB of program                          | \$ 0.096        | per first-year kWh |
| <u>\$ 2,947,476</u> | TRC benefits of program                 | <u>\$ 0.486</u> | per first-year kWh |
| <br>                |   |                 |                    |
| \$ 303,094          | Fully allocated utility cost of program | \$ 0.050        | per first-year kWh |
| \$ 185,494          | Customer cost associated with program   | \$ 0.031        | per first-year kWh |
| <u>\$ 488,588</u>   | TRC costs of program                    | <u>\$ 0.081</u> | per first-year kWh |

6.03 Program TRC B/C ratio      \$ (0.002) Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

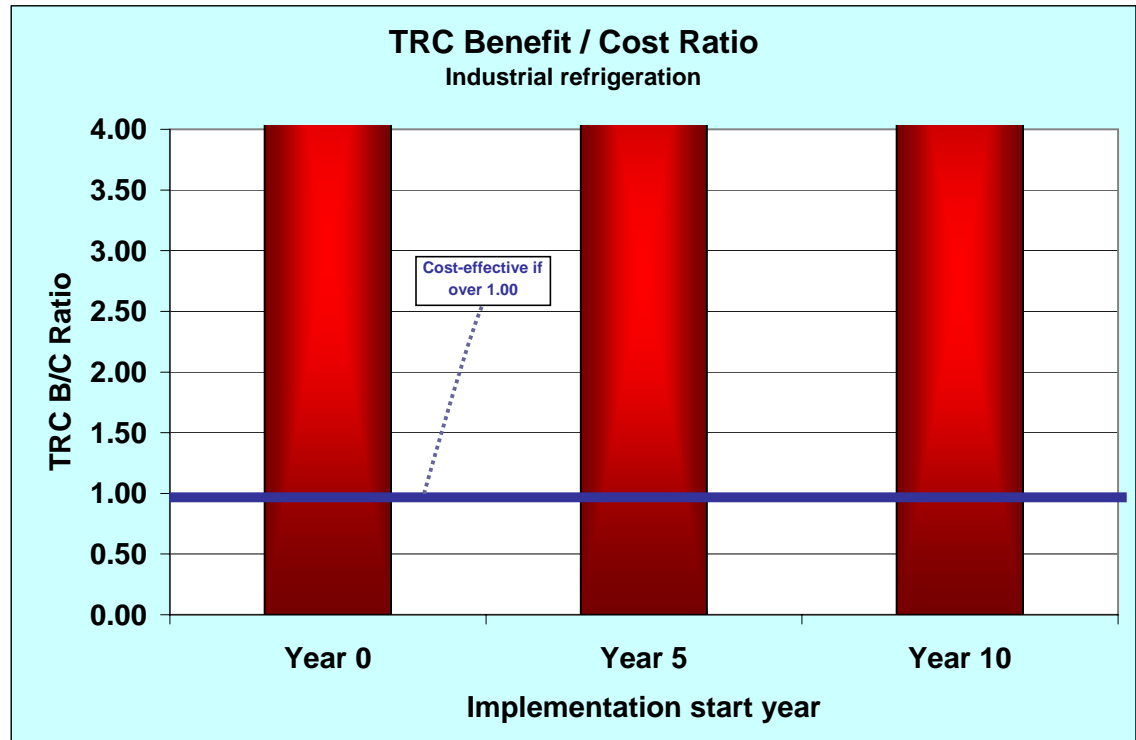
|                     |   |                 |                    |
|---------------------|---|-----------------|--------------------|
| \$ 2,506,601        | PV of el AC value of program            | \$ 0.414        | per first-year kWh |
| \$ -                | PV of gas AC value of program           | \$ -            | per first-year kWh |
| \$ 672,959          | NEB of program                          | \$ 0.111        | per first-year kWh |
| <u>\$ 3,179,561</u> | TRC benefits of program                 | <u>\$ 0.525</u> | per first-year kWh |
| <br>                |   |                 |                    |
| \$ 349,667          | Fully allocated utility cost of program | \$ 0.058        | per first-year kWh |
| \$ 213,996          | Customer cost associated with program   | \$ 0.035        | per first-year kWh |
| <u>\$ 563,663</u>   | TRC costs of program                    | <u>\$ 0.093</u> | per first-year kWh |

5.64 Program TRC B/C ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                     |   |                 |                    |
|---------------------|---|-----------------|--------------------|
| \$ 2,790,747        | PV of el AC value of program            | \$ 0.460        | per first-year kWh |
| \$ -                | PV of gas AC value of program           | \$ -            | per first-year kWh |
| \$ 776,365          | NEB of program                          | \$ 0.128        | per first-year kWh |
| <u>\$ 3,567,111</u> | TRC benefits of program                 | <u>\$ 0.588</u> | per first-year kWh |
| <br>                |   |                 |                    |
| \$ 403,396          | Fully allocated utility cost of program | \$ 0.067        | per first-year kWh |
| \$ 246,878          | Customer cost associated with program   | \$ 0.041        | per first-year kWh |
| <u>\$ 650,274</u>   | TRC costs of program                    | <u>\$ 0.107</u> | per first-year kWh |

5.49 Program TRC B/C ratio





8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 15 Measure life

0 therm impact per kWh  
 Annual / winter therm  
 8,710,650 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                     |                                   |                 |                           |
|---------------------|-----------------------------------|-----------------|---------------------------|
| \$ 3,410,949        | PV of electric avoided cost value | \$ 0.392        | per first-year kWh        |
| \$ -                | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ 284,550          | Non-energy benefits               | \$ 0.033        | per first-year kWh        |
| <u>\$ 3,695,499</u> | <u>Total TRC benefits</u>         | <u>\$ 0.424</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 435,532        | Fully allocated utility cost of program | \$ 0.050        | per first-year kWh        |
| \$ 499,991        | Customer cost associated with program   | \$ 0.057        | per first-year kWh        |
| <u>\$ 935,524</u> | <u>TRC costs of program</u>             | <u>\$ 0.107</u> | <u>per first-year kWh</u> |

3.95 TRC benefit / cost ratio      \$ 0.009 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                     |                                   |                 |                           |
|---------------------|-----------------------------------|-----------------|---------------------------|
| \$ 3,618,478        | PV of electric avoided cost value | \$ 0.415        | per first-year kWh        |
| \$ -                | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ 328,273          | Non-energy benefits               | \$ 0.038        | per first-year kWh        |
| <u>\$ 3,946,751</u> | <u>Total TRC benefits</u>         | <u>\$ 0.453</u> | <u>per first-year kWh</u> |

|                     |   |                 |                           |
|---------------------|---|-----------------|---------------------------|
| \$ 502,455          | Fully allocated utility cost of program | \$ 0.058        | per first-year kWh        |
| \$ 576,819          | Customer cost associated with program   | \$ 0.066        | per first-year kWh        |
| <u>\$ 1,079,274</u> | <u>TRC costs of program</u>             | <u>\$ 0.124</u> | <u>per first-year kWh</u> |

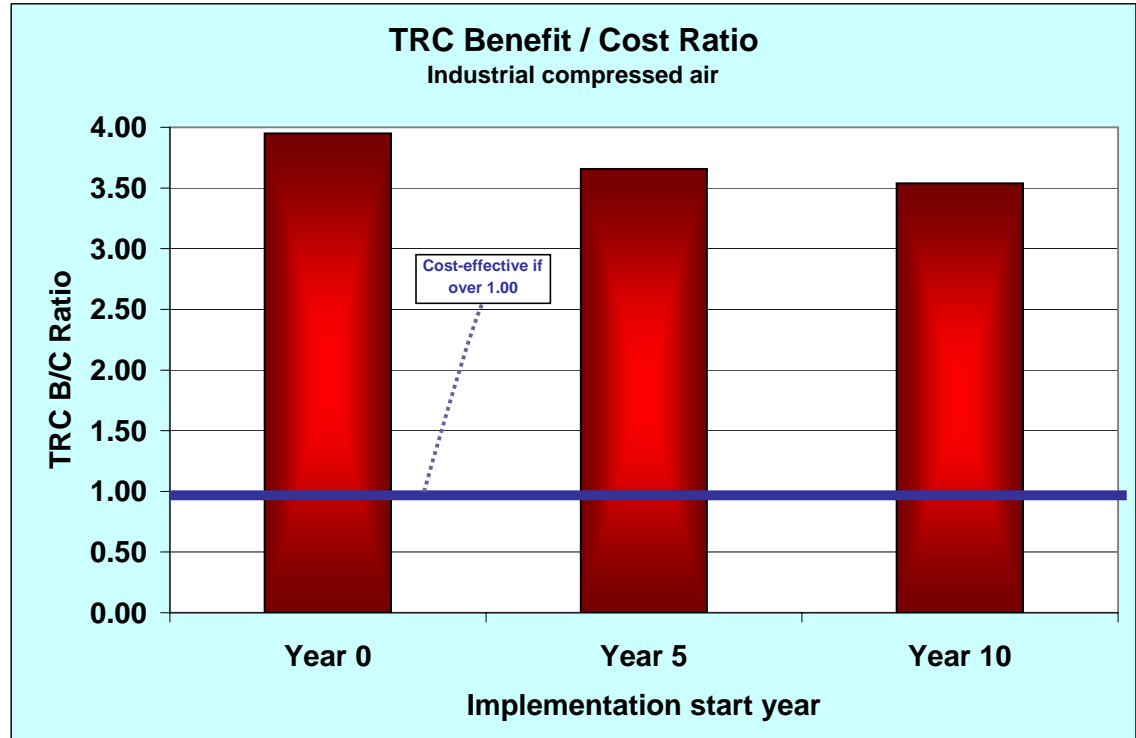
3.66 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                     |                                   |                 |                           |
|---------------------|-----------------------------------|-----------------|---------------------------|
| \$ 4,025,553        | PV of electric avoided cost value | \$ 0.462        | per first-year kWh        |
| \$ -                | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ 378,715          | Non-energy benefits               | \$ 0.043        | per first-year kWh        |
| <u>\$ 4,404,268</u> | <u>Total TRC benefits</u>         | <u>\$ 0.506</u> | <u>per first-year kWh</u> |

|                     |   |                 |                           |
|---------------------|---|-----------------|---------------------------|
| \$ 579,661          | Fully allocated utility cost of program | \$ 0.067        | per first-year kWh        |
| \$ 665,451          | Customer cost associated with program   | \$ 0.076        | per first-year kWh        |
| <u>\$ 1,245,112</u> | <u>TRC costs of program</u>             | <u>\$ 0.143</u> | <u>per first-year kWh</u> |

3.54 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 12 Measure life

-0.0044903 therm impact per kwh  
 A Annual / winter therm  
 500,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                    |
|-------------------|-----------------------------------|-----------------|--------------------|
| \$ 181,837        | PV of electric avoided cost value | \$ 0.364        | per first-year kWh |
| \$ (7,285)        | PV of gas avoided cost value      | \$ (0.015)      | per first-year kWh |
| \$ 75,053         | Non-energy benefits               | \$ 0.150        | per first-year kWh |
| <u>\$ 249,605</u> | Total TRC benefits                | <u>\$ 0.499</u> | per first-year kWh |

|                   |   |                 |                    |
|-------------------|---|-----------------|--------------------|
| \$ 10,000         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh |
| \$ 160,000        | Customer cost associated with program   | \$ 0.320        | per first-year kWh |
| <u>\$ 170,000</u> | TRC costs of program                    | <u>\$ 0.340</u> | per first-year kWh |

1.47 TRC benefit / cost ratio \$ 0.028 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                    |
|-------------------|-----------------------------------|-----------------|--------------------|
| \$ 192,344        | PV of electric avoided cost value | \$ 0.385        | per first-year kWh |
| \$ (8,046)        | PV of gas avoided cost value      | \$ (0.016)      | per first-year kWh |
| \$ 86,585         | Non-energy benefits               | \$ 0.173        | per first-year kWh |
| <u>\$ 270,883</u> | Total TRC benefits                | <u>\$ 0.542</u> | per first-year kWh |

|                   |   |                 |                    |
|-------------------|---|-----------------|--------------------|
| \$ 11,537         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh |
| \$ 184,585        | Customer cost associated with program   | \$ 0.369        | per first-year kWh |
| <u>\$ 196,122</u> | TRC costs of program                    | <u>\$ 0.392</u> | per first-year kWh |

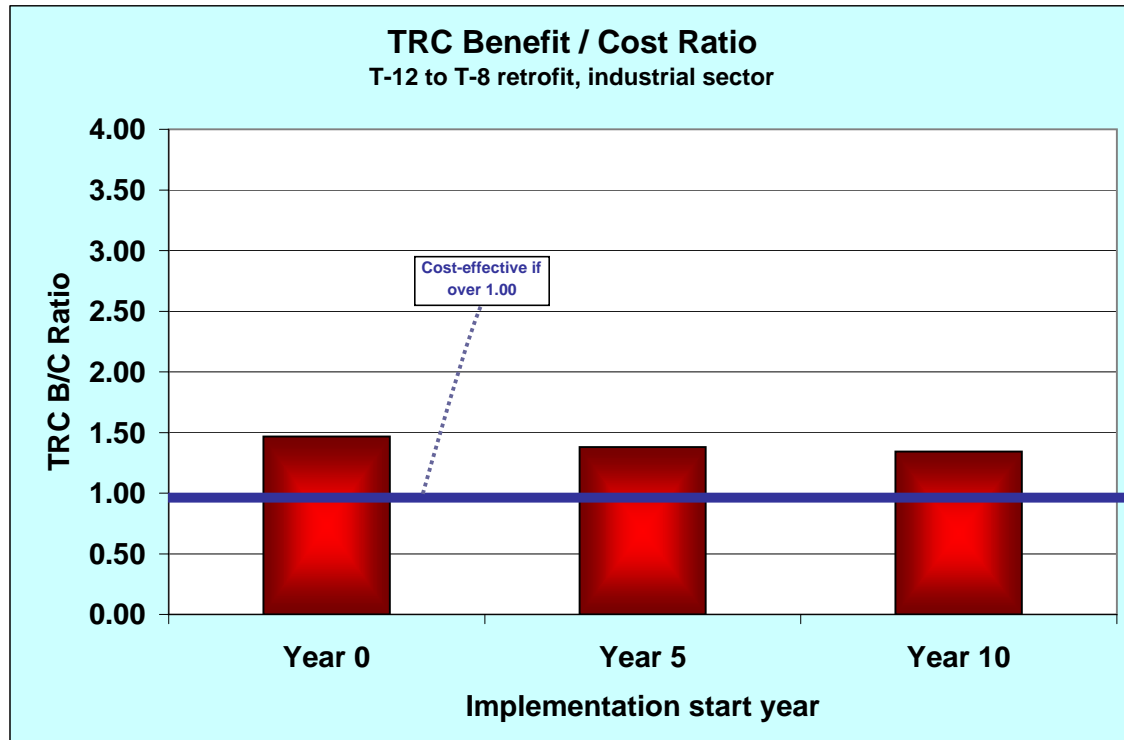
1.38 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                    |
|-------------------|-----------------------------------|-----------------|--------------------|
| \$ 213,028        | PV of electric avoided cost value | \$ 0.426        | per first-year kWh |
| \$ (9,100)        | PV of gas avoided cost value      | \$ (0.018)      | per first-year kWh |
| \$ 99,890         | Non-energy benefits               | \$ 0.200        | per first-year kWh |
| <u>\$ 303,818</u> | Total TRC benefits                | <u>\$ 0.608</u> | per first-year kWh |

|                   |   |                 |                    |
|-------------------|---|-----------------|--------------------|
| \$ 13,309         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh |
| \$ 212,948        | Customer cost associated with program   | \$ 0.426        | per first-year kWh |
| <u>\$ 226,257</u> | TRC costs of program                    | <u>\$ 0.453</u> | per first-year kWh |

1.34 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 15 Measure life

-0.0044903 therm impact per kwh  
 A Annual / winter therm  
 500,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 207,457        | PV of electric avoided cost value | \$ 0.415        | per first-year kWh        |
| \$ (8,446)        | PV of gas avoided cost value      | \$ (0.017)      | per first-year kWh        |
| \$ 75,053         | Non-energy benefits               | \$ 0.150        | per first-year kWh        |
| <u>\$ 274,064</u> | <u>Total TRC benefits</u>         | <u>\$ 0.548</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 10,000         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 185,000        | Customer cost associated with program   | \$ 0.370        | per first-year kWh        |
| <u>\$ 195,000</u> | <u>TRC costs of program</u>             | <u>\$ 0.390</u> | <u>per first-year kWh</u> |

1.41 TRC benefit / cost ratio \$ 0.031 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 220,522        | PV of electric avoided cost value | \$ 0.441        | per first-year kWh        |
| \$ (9,390)        | PV of gas avoided cost value      | \$ (0.019)      | per first-year kWh        |
| \$ 86,585         | Non-energy benefits               | \$ 0.173        | per first-year kWh        |
| <u>\$ 297,718</u> | <u>Total TRC benefits</u>         | <u>\$ 0.595</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 11,537         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 213,427        | Customer cost associated with program   | \$ 0.427        | per first-year kWh        |
| <u>\$ 224,963</u> | <u>TRC costs of program</u>             | <u>\$ 0.450</u> | <u>per first-year kWh</u> |

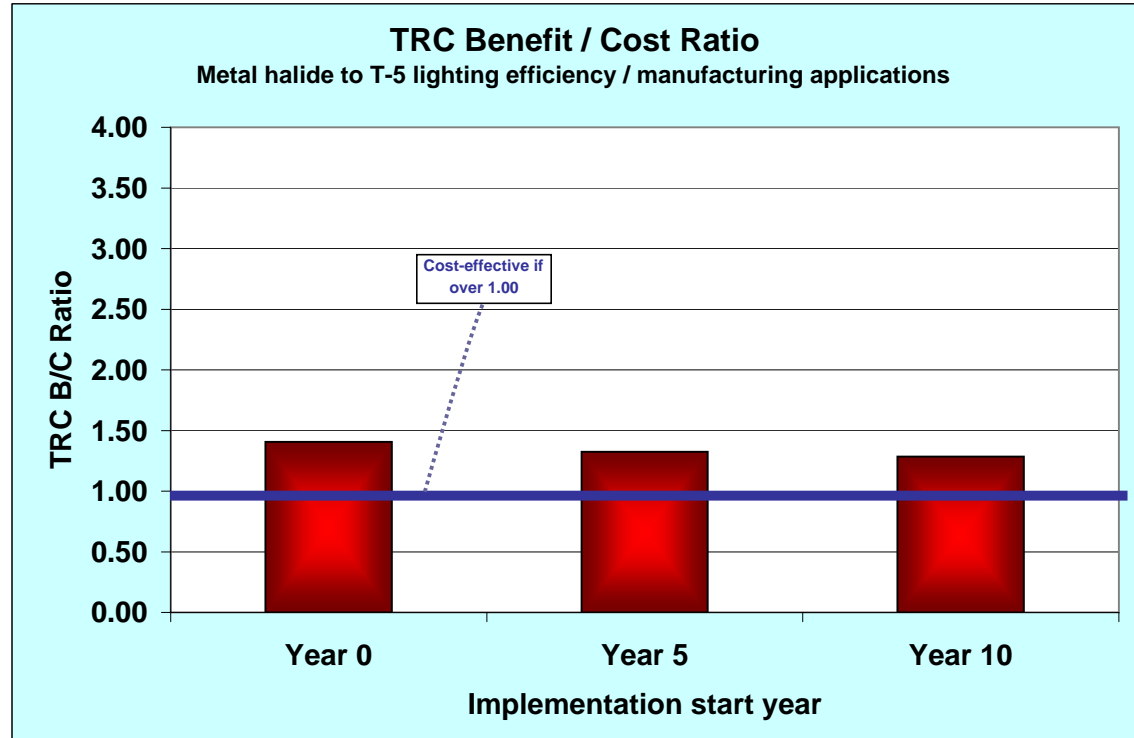
1.32 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 244,262        | PV of electric avoided cost value | \$ 0.489        | per first-year kWh        |
| \$ (10,704)       | PV of gas avoided cost value      | \$ (0.021)      | per first-year kWh        |
| \$ 99,890         | Non-energy benefits               | \$ 0.200        | per first-year kWh        |
| <u>\$ 333,448</u> | <u>Total TRC benefits</u>         | <u>\$ 0.667</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 13,309         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 246,221        | Customer cost associated with program   | \$ 0.492        | per first-year kWh        |
| <u>\$ 259,530</u> | <u>TRC costs of program</u>             | <u>\$ 0.519</u> | <u>per first-year kWh</u> |

1.28 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 15 Measure life

-0.0044903 therm impact per kwh  
 A Annual / winter therm  
 500,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 207,457        | PV of electric avoided cost value | \$ 0.415        | per first-year kWh        |
| \$ (8,446)        | PV of gas avoided cost value      | \$ (0.017)      | per first-year kWh        |
| \$ 75,053         | Non-energy benefits               | \$ 0.150        | per first-year kWh        |
| <u>\$ 274,064</u> | <u>Total TRC benefits</u>         | <u>\$ 0.548</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 10,000         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 200,000        | Customer cost associated with program   | \$ 0.400        | per first-year kWh        |
| <u>\$ 210,000</u> | <u>TRC costs of program</u>             | <u>\$ 0.420</u> | <u>per first-year kWh</u> |

1.31 TRC benefit / cost ratio \$ 0.035 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 220,522        | PV of electric avoided cost value | \$ 0.441        | per first-year kWh        |
| \$ (9,390)        | PV of gas avoided cost value      | \$ (0.019)      | per first-year kWh        |
| \$ 86,585         | Non-energy benefits               | \$ 0.173        | per first-year kWh        |
| <u>\$ 297,718</u> | <u>Total TRC benefits</u>         | <u>\$ 0.595</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 11,537         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 230,731        | Customer cost associated with program   | \$ 0.461        | per first-year kWh        |
| <u>\$ 242,268</u> | <u>TRC costs of program</u>             | <u>\$ 0.485</u> | <u>per first-year kWh</u> |

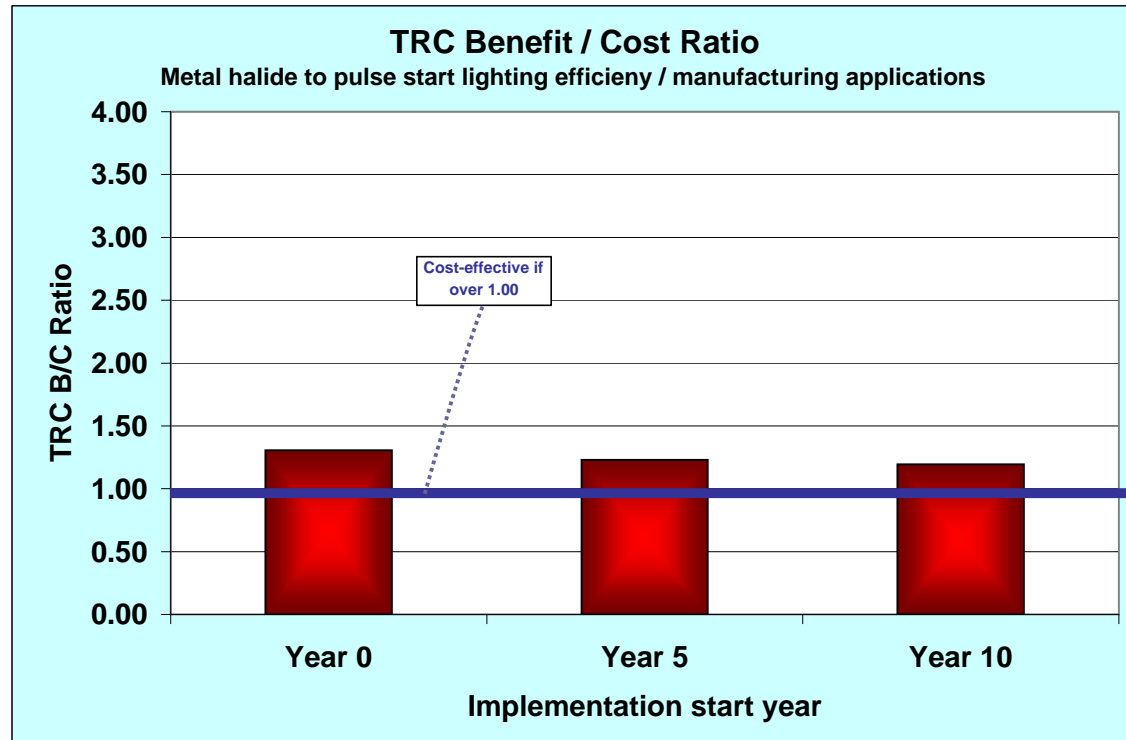
1.23 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 244,262        | PV of electric avoided cost value | \$ 0.489        | per first-year kWh        |
| \$ (10,704)       | PV of gas avoided cost value      | \$ (0.021)      | per first-year kWh        |
| \$ 99,890         | Non-energy benefits               | \$ 0.200        | per first-year kWh        |
| <u>\$ 333,448</u> | <u>Total TRC benefits</u>         | <u>\$ 0.667</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 13,309         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 266,185        | Customer cost associated with program   | \$ 0.532        | per first-year kWh        |
| <u>\$ 279,494</u> | <u>TRC costs of program</u>             | <u>\$ 0.559</u> | <u>per first-year kWh</u> |

1.19 TRC benefit / cost ratio



# Commercial Measures

8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 10 Measure life

-0.0044903 therm impact per kwh  
 A Annual / winter therm  
 200,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 66,484        | PV of electric avoided cost value | \$ 0.332        | per first-year kWh        |
| \$ (2,561)       | PV of gas avoided cost value      | \$ (0.013)      | per first-year kWh        |
| \$ 30,021        | Non-energy benefits               | \$ 0.150        | per first-year kWh        |
| <u>\$ 93,944</u> | <u>Total TRC benefits</u>         | <u>\$ 0.470</u> | <u>per first-year kWh</u> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 4,000         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 8,000         | Customer cost associated with program   | \$ 0.040        | per first-year kWh        |
| <u>\$ 12,000</u> | <u>TRC costs of program</u>             | <u>\$ 0.060</u> | <u>per first-year kWh</u> |

7.83 TRC benefit / cost ratio  
 \$ (0.012) Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 70,404         | PV of electric avoided cost value | \$ 0.352        | per first-year kWh        |
| \$ (2,816)        | PV of gas avoided cost value      | \$ (0.014)      | per first-year kWh        |
| \$ 34,634         | Non-energy benefits               | \$ 0.173        | per first-year kWh        |
| <u>\$ 102,222</u> | <u>Total TRC benefits</u>         | <u>\$ 0.511</u> | <u>per first-year kWh</u> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 4,615         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 9,229         | Customer cost associated with program   | \$ 0.046        | per first-year kWh        |
| <u>\$ 13,844</u> | <u>TRC costs of program</u>             | <u>\$ 0.069</u> | <u>per first-year kWh</u> |

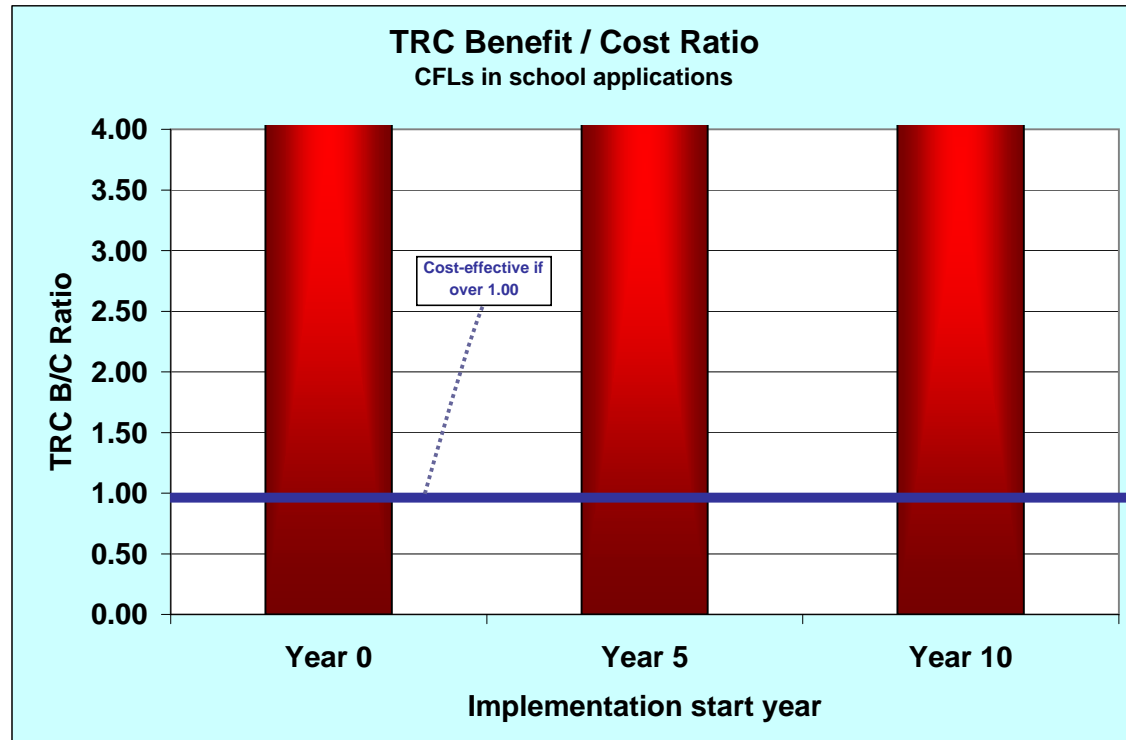
7.38 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 77,936         | PV of electric avoided cost value | \$ 0.390        | per first-year kWh        |
| \$ (3,166)        | PV of gas avoided cost value      | \$ (0.016)      | per first-year kWh        |
| \$ 39,956         | Non-energy benefits               | \$ 0.200        | per first-year kWh        |
| <u>\$ 114,726</u> | <u>Total TRC benefits</u>         | <u>\$ 0.574</u> | <u>per first-year kWh</u> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 5,324         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 10,647        | Customer cost associated with program   | \$ 0.053        | per first-year kWh        |
| <u>\$ 15,971</u> | <u>TRC costs of program</u>             | <u>\$ 0.080</u> | <u>per first-year kWh</u> |

7.18 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 7 Measure life

-0.0044903 therm impact per kWh  
 A Annual / winter therm  
 1,000,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 253,226        | PV of electric avoided cost value | \$ 0.253        | per first-year kWh        |
| \$ (9,734)        | PV of gas avoided cost value      | \$ (0.010)      | per first-year kWh        |
| \$ 150,106        | Non-energy benefits               | \$ 0.150        | per first-year kWh        |
| <u>\$ 393,598</u> | <u>Total TRC benefits</u>         | <u>\$ 0.394</u> | <u>per first-year kWh</u> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 20,000        | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 30,000        | Customer cost associated with program   | \$ 0.030        | per first-year kWh        |
| <u>\$ 50,000</u> | <u>TRC costs of program</u>             | <u>\$ 0.050</u> | <u>per first-year kWh</u> |

7.87 TRC benefit / cost ratio      \$ (0.018) Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 262,401        | PV of electric avoided cost value | \$ 0.262        | per first-year kWh        |
| \$ (10,659)       | PV of gas avoided cost value      | \$ (0.011)      | per first-year kWh        |
| \$ 173,171        | Non-energy benefits               | \$ 0.173        | per first-year kWh        |
| <u>\$ 424,913</u> | <u>Total TRC benefits</u>         | <u>\$ 0.425</u> | <u>per first-year kWh</u> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 23,073        | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 34,610        | Customer cost associated with program   | \$ 0.035        | per first-year kWh        |
| <u>\$ 57,683</u> | <u>TRC costs of program</u>             | <u>\$ 0.058</u> | <u>per first-year kWh</u> |

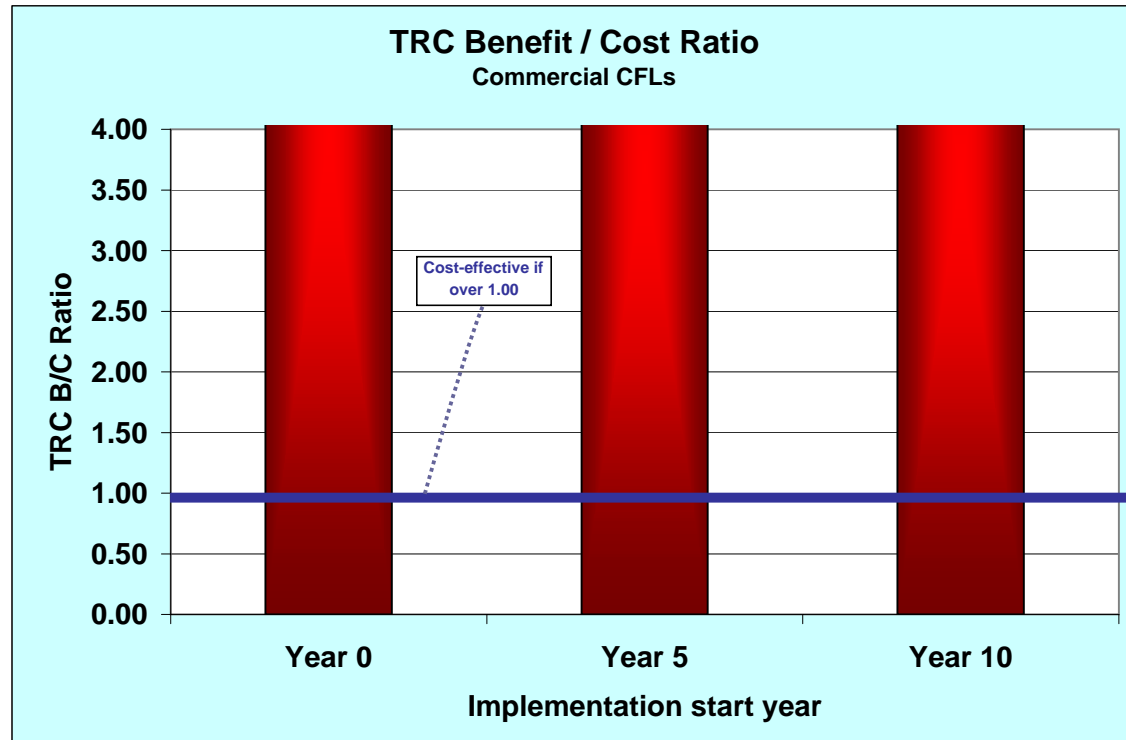
7.37 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 292,731        | PV of electric avoided cost value | \$ 0.293        | per first-year kWh        |
| \$ (11,867)       | PV of gas avoided cost value      | \$ (0.012)      | per first-year kWh        |
| \$ 199,780        | Non-energy benefits               | \$ 0.200        | per first-year kWh        |
| <u>\$ 480,644</u> | <u>Total TRC benefits</u>         | <u>\$ 0.481</u> | <u>per first-year kWh</u> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 26,619        | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 39,928        | Customer cost associated with program   | \$ 0.040        | per first-year kWh        |
| <u>\$ 66,546</u> | <u>TRC costs of program</u>             | <u>\$ 0.067</u> | <u>per first-year kWh</u> |

7.22 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 15 Measure life

0 therm impact per kWh  
 A Annual / winter therm  
 1,455,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 596,866        | PV of electric avoided cost value | \$ 0.410        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ 154,120        | Non-energy benefits               | \$ 0.106        | per first-year kWh        |
| <u>\$ 750,986</u> | <b>Total TRC benefits</b>         | <u>\$ 0.516</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 29,100         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 130,950        | Customer cost associated with program   | \$ 0.090        | per first-year kWh        |
| <u>\$ 160,050</u> | <b>TRC costs of program</b>             | <u>\$ 0.110</u> | <b>per first-year kWh</b> |

4.69 TRC benefit / cost ratio \$ 0.000 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 633,026        | PV of electric avoided cost value | \$ 0.435        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ 177,802        | Non-energy benefits               | \$ 0.122        | per first-year kWh        |
| <u>\$ 810,828</u> | <b>Total TRC benefits</b>         | <u>\$ 0.557</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 33,571         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 151,071        | Customer cost associated with program   | \$ 0.104        | per first-year kWh        |
| <u>\$ 184,643</u> | <b>TRC costs of program</b>             | <u>\$ 0.127</u> | <b>per first-year kWh</b> |

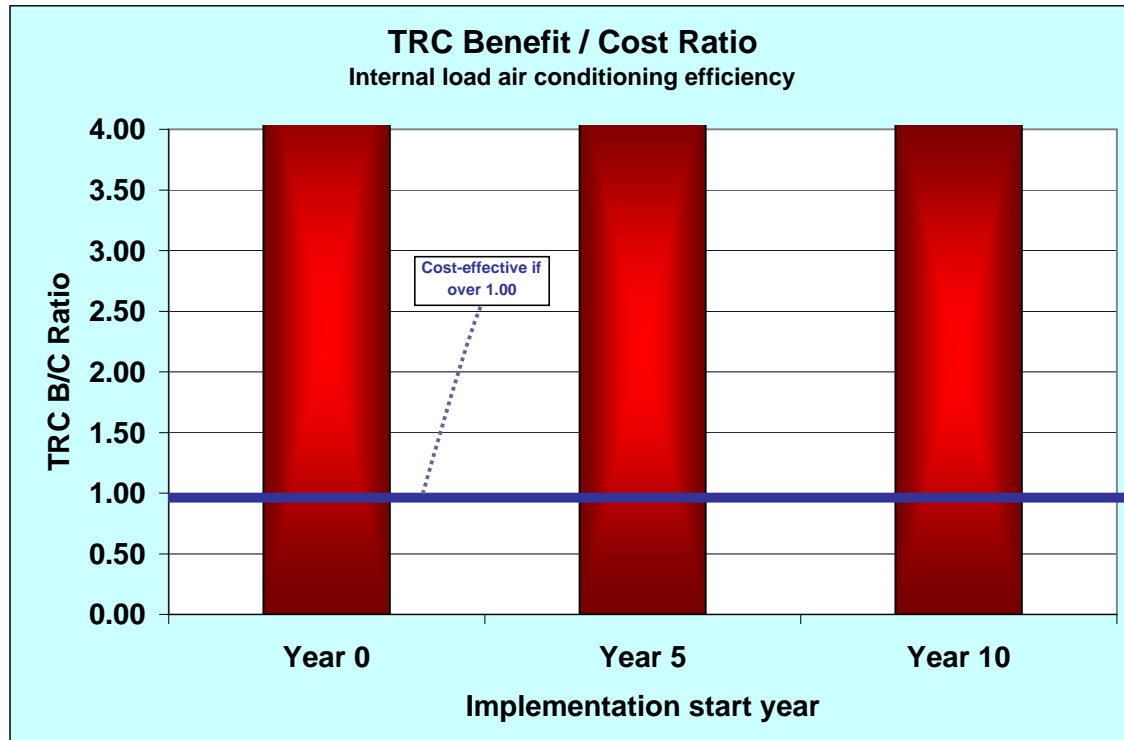
4.39 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 701,699        | PV of electric avoided cost value | \$ 0.482        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ 205,123        | Non-energy benefits               | \$ 0.141        | per first-year kWh        |
| <u>\$ 906,821</u> | <b>Total TRC benefits</b>         | <u>\$ 0.623</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 38,730         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 174,285        | Customer cost associated with program   | \$ 0.120        | per first-year kWh        |
| <u>\$ 213,015</u> | <b>TRC costs of program</b>             | <u>\$ 0.146</u> | <b>per first-year kWh</b> |

4.26 TRC benefit / cost ratio





8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 20 Measure life

0 therm impact per kWh  
 A Annual / winter therm  
 800,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 338,948        | PV of electric avoided cost value | \$ 0.424        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 338,948</u> | <u>Total TRC benefits</u>         | <u>\$ 0.424</u> | <u>per first-year kWh</u> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 16,000        | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 8,000         | Customer cost associated with program   | \$ 0.010        | per first-year kWh        |
| <u>\$ 24,000</u> | <u>TRC costs of program</u>             | <u>\$ 0.030</u> | <u>per first-year kWh</u> |

14.12 TRC benefit / cost ratio \$ 0.003 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 360,701        | PV of electric avoided cost value | \$ 0.451        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 360,701</u> | <u>Total TRC benefits</u>         | <u>\$ 0.451</u> | <u>per first-year kWh</u> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 18,459        | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 9,229         | Customer cost associated with program   | \$ 0.012        | per first-year kWh        |
| <u>\$ 27,688</u> | <u>TRC costs of program</u>             | <u>\$ 0.035</u> | <u>per first-year kWh</u> |

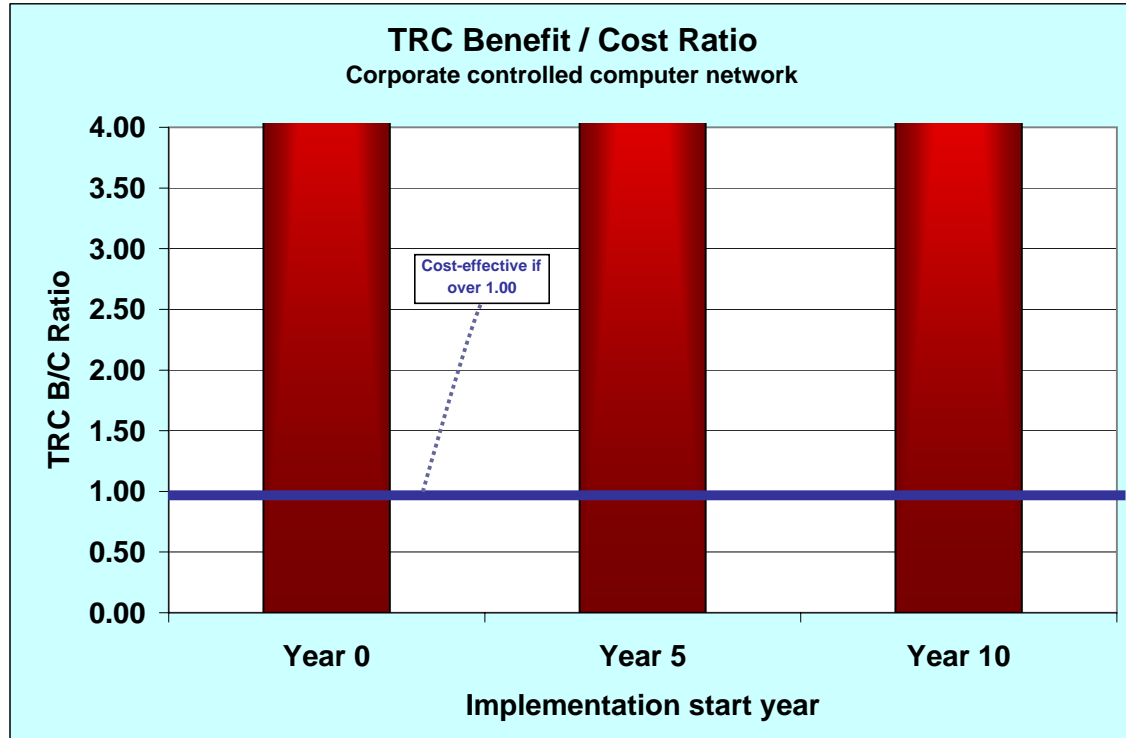
13.03 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 403,159        | PV of electric avoided cost value | \$ 0.504        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 403,159</u> | <u>Total TRC benefits</u>         | <u>\$ 0.504</u> | <u>per first-year kWh</u> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 21,295        | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 10,647        | Customer cost associated with program   | \$ 0.013        | per first-year kWh        |
| <u>\$ 31,942</u> | <u>TRC costs of program</u>             | <u>\$ 0.040</u> | <u>per first-year kWh</u> |

12.62 TRC benefit / cost ratio



8.53% Discount rate -0.0044903 therm impact per kwh  
 2.90% Inflation for pgm cost and NEB's A Annual / winter therm  
 12 Measure life 1,000,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 339,291        | PV of electric avoided cost value | \$ 0.339        | per first-year kWh        |
| \$ (14,571)       | PV of gas avoided cost value      | \$ (0.015)      | per first-year kWh        |
| \$ 150,106        | Non-energy benefits               | \$ 0.150        | per first-year kWh        |
| <u>\$ 474,826</u> | <u>Total TRC benefits</u>         | <u>\$ 0.475</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 20,000         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 170,000        | Customer cost associated with program   | \$ 0.170        | per first-year kWh        |
| <u>\$ 190,000</u> | <u>TRC costs of program</u>             | <u>\$ 0.190</u> | <u>per first-year kWh</u> |

2.50 TRC benefit / cost ratio \$ 0.007 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 357,668        | PV of electric avoided cost value | \$ 0.358        | per first-year kWh        |
| \$ (16,093)       | PV of gas avoided cost value      | \$ (0.016)      | per first-year kWh        |
| \$ 173,171        | Non-energy benefits               | \$ 0.173        | per first-year kWh        |
| <u>\$ 514,746</u> | <u>Total TRC benefits</u>         | <u>\$ 0.515</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 23,073         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 196,122        | Customer cost associated with program   | \$ 0.196        | per first-year kWh        |
| <u>\$ 219,195</u> | <u>TRC costs of program</u>             | <u>\$ 0.219</u> | <u>per first-year kWh</u> |

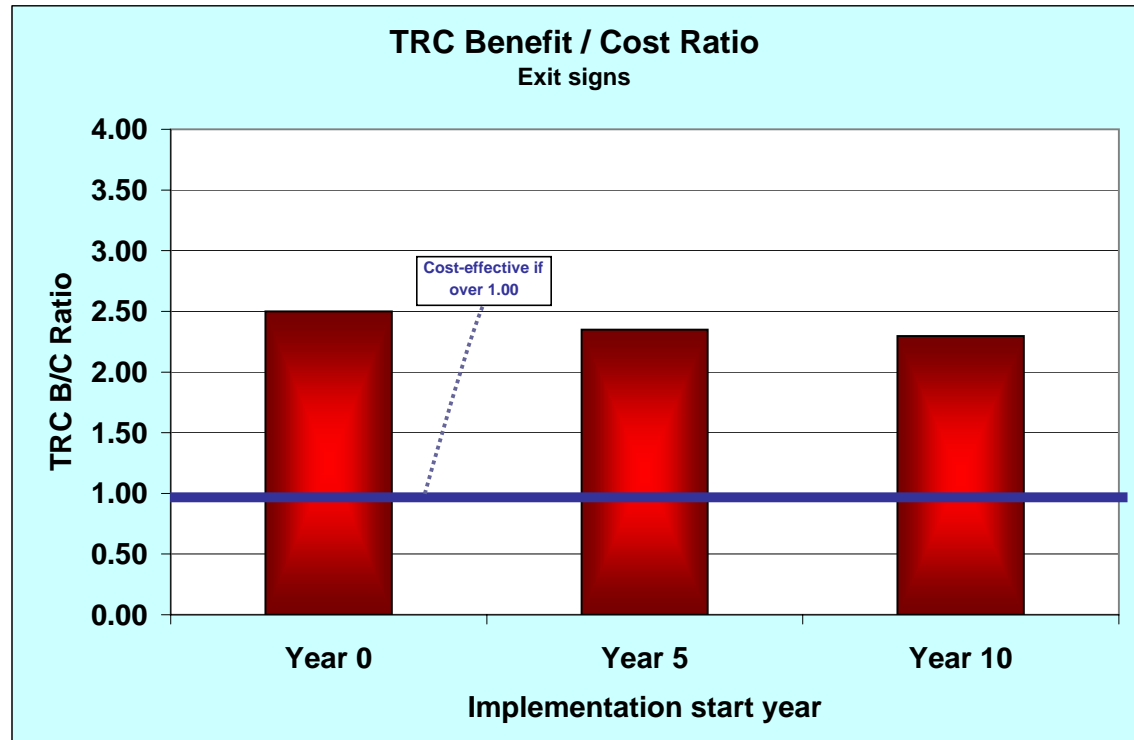
2.35 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 399,217        | PV of electric avoided cost value | \$ 0.399        | per first-year kWh        |
| \$ (18,200)       | PV of gas avoided cost value      | \$ (0.018)      | per first-year kWh        |
| \$ 199,780        | Non-energy benefits               | \$ 0.200        | per first-year kWh        |
| <u>\$ 580,796</u> | <u>Total TRC benefits</u>         | <u>\$ 0.581</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 26,619         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 226,257        | Customer cost associated with program   | \$ 0.226        | per first-year kWh        |
| <u>\$ 252,876</u> | <u>TRC costs of program</u>             | <u>\$ 0.253</u> | <u>per first-year kWh</u> |

2.30 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 12 Measure life

-0.0044903 therm impact per kwh  
 A Annual / winter therm  
 2,000,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 678,582        | PV of electric avoided cost value | \$ 0.339        | per first-year kWh        |
| \$ (29,142)       | PV of gas avoided cost value      | \$ (0.015)      | per first-year kWh        |
| \$ 300,211        | Non-energy benefits               | \$ 0.150        | per first-year kWh        |
| <u>\$ 949,652</u> | <u>Total TRC benefits</u>         | <u>\$ 0.475</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 40,000         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 400,000        | Customer cost associated with program   | \$ 0.200        | per first-year kWh        |
| <u>\$ 440,000</u> | <u>TRC costs of program</u>             | <u>\$ 0.220</u> | <u>per first-year kWh</u> |

2.16 TRC benefit / cost ratio \$ 0.012 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                     |                                   |                 |                           |
|---------------------|-----------------------------------|-----------------|---------------------------|
| \$ 715,335          | PV of electric avoided cost value | \$ 0.358        | per first-year kWh        |
| \$ (32,185)         | PV of gas avoided cost value      | \$ (0.016)      | per first-year kWh        |
| \$ 346,341          | Non-energy benefits               | \$ 0.173        | per first-year kWh        |
| <u>\$ 1,029,491</u> | <u>Total TRC benefits</u>         | <u>\$ 0.515</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 46,146         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 461,463        | Customer cost associated with program   | \$ 0.231        | per first-year kWh        |
| <u>\$ 507,609</u> | <u>TRC costs of program</u>             | <u>\$ 0.254</u> | <u>per first-year kWh</u> |

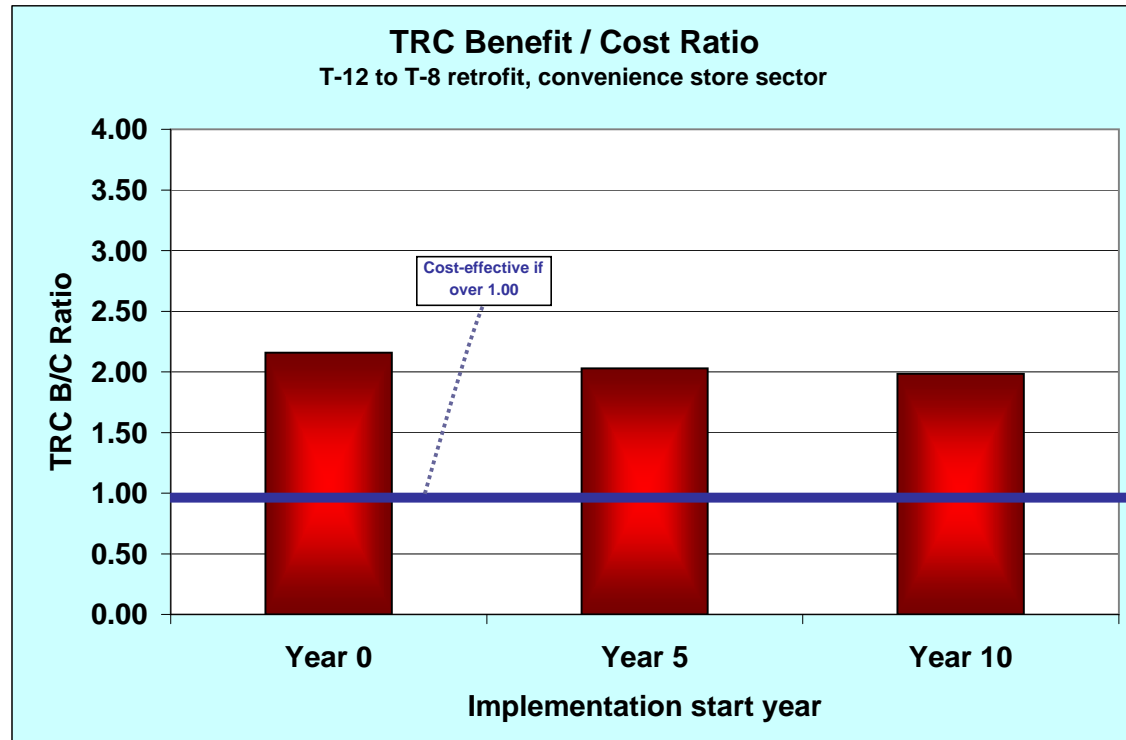
2.03 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                     |                                   |                 |                           |
|---------------------|-----------------------------------|-----------------|---------------------------|
| \$ 798,320          | PV of electric avoided cost value | \$ 0.399        | per first-year kWh        |
| \$ (36,401)         | PV of gas avoided cost value      | \$ (0.018)      | per first-year kWh        |
| \$ 399,559          | Non-energy benefits               | \$ 0.200        | per first-year kWh        |
| <u>\$ 1,161,479</u> | <u>Total TRC benefits</u>         | <u>\$ 0.581</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 53,237         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 532,370        | Customer cost associated with program   | \$ 0.266        | per first-year kWh        |
| <u>\$ 585,607</u> | <u>TRC costs of program</u>             | <u>\$ 0.293</u> | <u>per first-year kWh</u> |

1.98 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 20 Measure life

0 therm impact per kWh  
 A Annual / winter therm  
 1,049,586 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 477,990        | PV of electric avoided cost value | \$ 0.455        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 477,990</u> | <u>Total TRC benefits</u>         | <u>\$ 0.455</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 20,992         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 167,934        | Customer cost associated with program   | \$ 0.160        | per first-year kWh        |
| <u>\$ 188,925</u> | <u>TRC costs of program</u>             | <u>\$ 0.180</u> | <u>per first-year kWh</u> |

2.53 TRC benefit / cost ratio \$ 0.019 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 509,479        | PV of electric avoided cost value | \$ 0.485        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 509,479</u> | <u>Total TRC benefits</u>         | <u>\$ 0.485</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 24,217         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 193,738        | Customer cost associated with program   | \$ 0.185        | per first-year kWh        |
| <u>\$ 217,955</u> | <u>TRC costs of program</u>             | <u>\$ 0.208</u> | <u>per first-year kWh</u> |

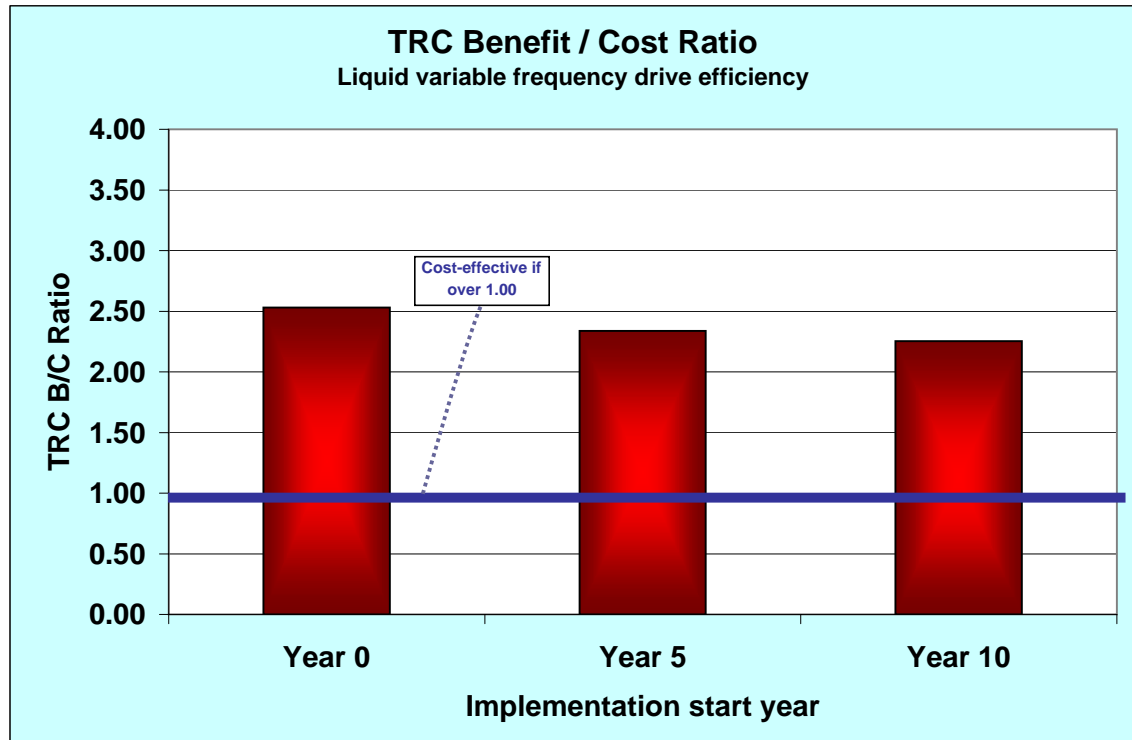
2.34 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 566,504        | PV of electric avoided cost value | \$ 0.540        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 566,504</u> | <u>Total TRC benefits</u>         | <u>\$ 0.540</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 27,938         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 223,507        | Customer cost associated with program   | \$ 0.213        | per first-year kWh        |
| <u>\$ 251,446</u> | <u>TRC costs of program</u>             | <u>\$ 0.240</u> | <u>per first-year kWh</u> |

2.25 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 15 Measure life

-0.0044903 therm impact per kwh  
 A Annual / winter therm  
 500,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 207,711        | PV of electric avoided cost value | \$ 0.415        | per first-year kWh        |
| \$ (8,446)        | PV of gas avoided cost value      | \$ (0.017)      | per first-year kWh        |
| \$ 75,053         | Non-energy benefits               | \$ 0.150        | per first-year kWh        |
| <u>\$ 274,318</u> | <u>Total TRC benefits</u>         | <u>\$ 0.549</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 10,000         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 145,000        | Customer cost associated with program   | \$ 0.290        | per first-year kWh        |
| <u>\$ 155,000</u> | <u>TRC costs of program</u>             | <u>\$ 0.310</u> | <u>per first-year kWh</u> |

1.77 TRC benefit / cost ratio \$ 0.021 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 220,498        | PV of electric avoided cost value | \$ 0.441        | per first-year kWh        |
| \$ (9,390)        | PV of gas avoided cost value      | \$ (0.019)      | per first-year kWh        |
| \$ 86,585         | Non-energy benefits               | \$ 0.173        | per first-year kWh        |
| <u>\$ 297,694</u> | <u>Total TRC benefits</u>         | <u>\$ 0.595</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 11,537         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 167,280        | Customer cost associated with program   | \$ 0.335        | per first-year kWh        |
| <u>\$ 178,817</u> | <u>TRC costs of program</u>             | <u>\$ 0.358</u> | <u>per first-year kWh</u> |

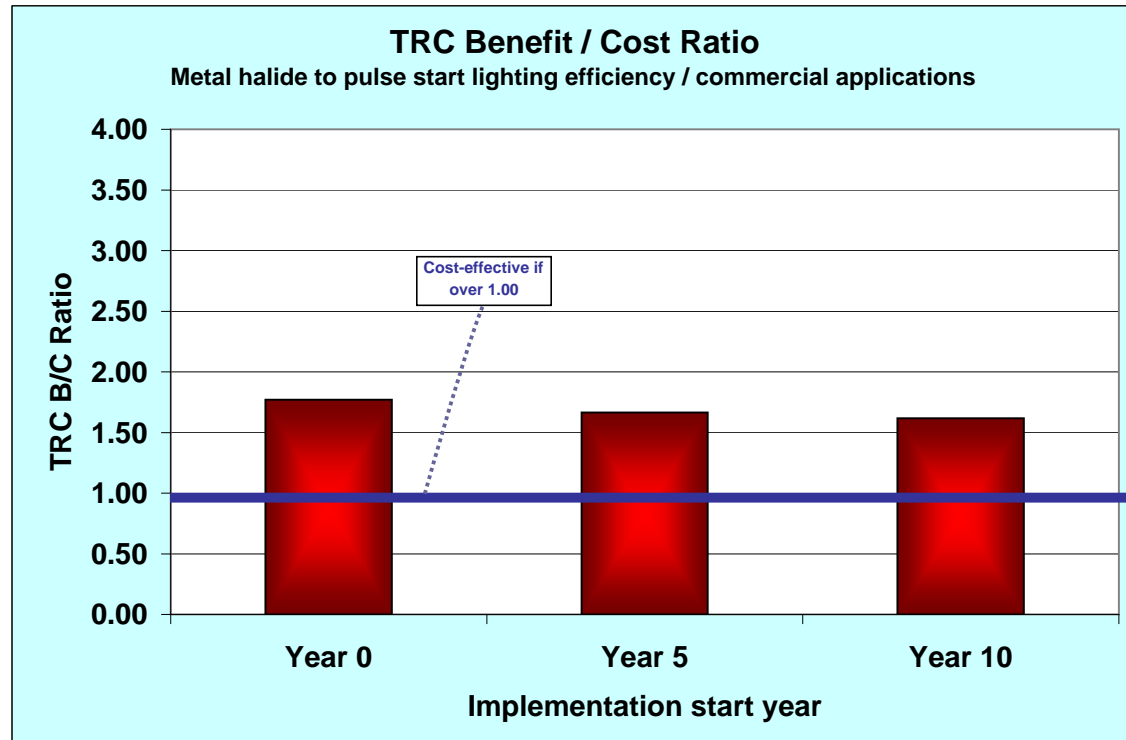
1.66 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 244,568        | PV of electric avoided cost value | \$ 0.489        | per first-year kWh        |
| \$ (10,704)       | PV of gas avoided cost value      | \$ (0.021)      | per first-year kWh        |
| \$ 99,890         | Non-energy benefits               | \$ 0.200        | per first-year kWh        |
| <u>\$ 333,754</u> | <u>Total TRC benefits</u>         | <u>\$ 0.668</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 13,309         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 192,984        | Customer cost associated with program   | \$ 0.386        | per first-year kWh        |
| <u>\$ 206,293</u> | <u>TRC costs of program</u>             | <u>\$ 0.413</u> | <u>per first-year kWh</u> |

1.62 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 15 Measure life

-0.0044903 therm impact per kwh  
 A Annual / winter therm  
 500,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 207,711        | PV of electric avoided cost value | \$ 0.415        | per first-year kWh        |
| \$ (8,446)        | PV of gas avoided cost value      | \$ (0.017)      | per first-year kWh        |
| \$ 75,053         | Non-energy benefits               | \$ 0.150        | per first-year kWh        |
| <u>\$ 274,318</u> | <u>Total TRC benefits</u>         | <u>\$ 0.549</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 10,000         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 145,000        | Customer cost associated with program   | \$ 0.290        | per first-year kWh        |
| <u>\$ 155,000</u> | <u>TRC costs of program</u>             | <u>\$ 0.310</u> | <u>per first-year kWh</u> |

1.77 TRC benefit / cost ratio \$ 0.021 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 220,498        | PV of electric avoided cost value | \$ 0.441        | per first-year kWh        |
| \$ (9,390)        | PV of gas avoided cost value      | \$ (0.019)      | per first-year kWh        |
| \$ 86,585         | Non-energy benefits               | \$ 0.173        | per first-year kWh        |
| <u>\$ 297,694</u> | <u>Total TRC benefits</u>         | <u>\$ 0.595</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 11,537         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 167,280        | Customer cost associated with program   | \$ 0.335        | per first-year kWh        |
| <u>\$ 178,817</u> | <u>TRC costs of program</u>             | <u>\$ 0.358</u> | <u>per first-year kWh</u> |

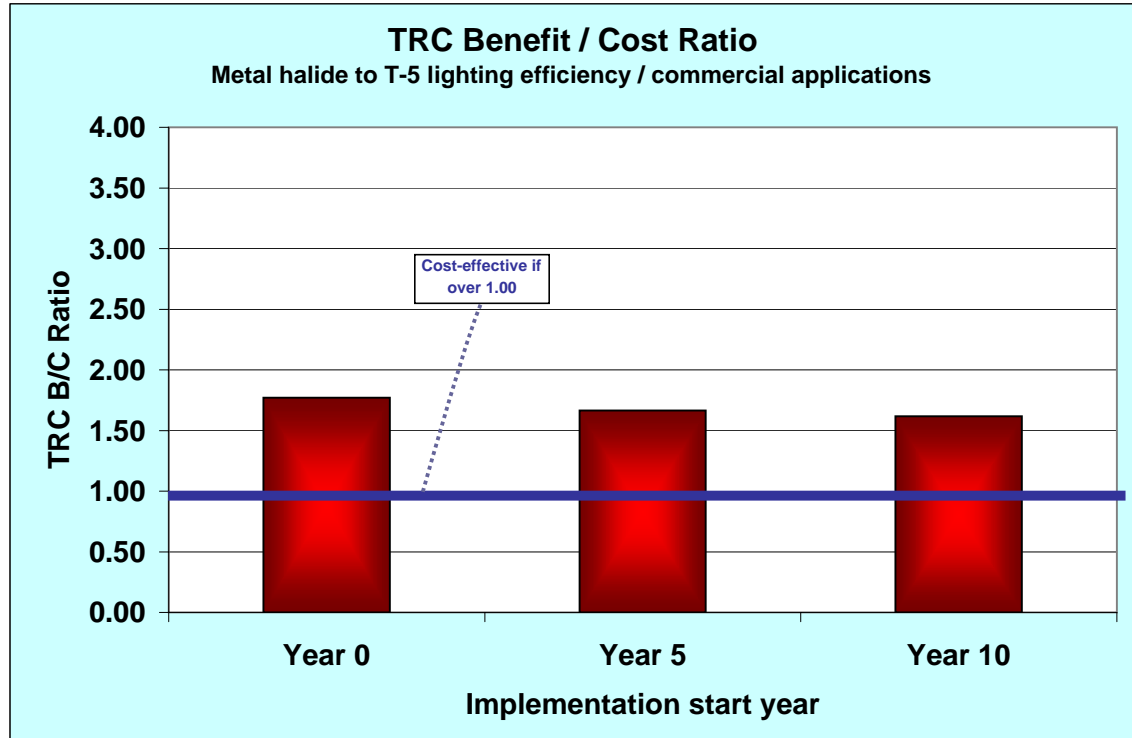
1.66 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 244,568        | PV of electric avoided cost value | \$ 0.489        | per first-year kWh        |
| \$ (10,704)       | PV of gas avoided cost value      | \$ (0.021)      | per first-year kWh        |
| \$ 99,890         | Non-energy benefits               | \$ 0.200        | per first-year kWh        |
| <u>\$ 333,754</u> | <u>Total TRC benefits</u>         | <u>\$ 0.668</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 13,309         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 192,984        | Customer cost associated with program   | \$ 0.386        | per first-year kWh        |
| <u>\$ 206,293</u> | <u>TRC costs of program</u>             | <u>\$ 0.413</u> | <u>per first-year kWh</u> |

1.62 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 15 Measure life

-0.0046 therm impact per kwh  
 W Annual / winter therm  
 150,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 63,140        | PV of electric avoided cost value | \$ 0.421        | per first-year kWh        |
| \$ (2,959)       | PV of gas avoided cost value      | \$ (0.020)      | per first-year kWh        |
| \$ 15,889        | Non-energy benefits               | \$ 0.106        | per first-year kWh        |
| <u>\$ 76,070</u> | <u>Total TRC benefits</u>         | <u>\$ 0.507</u> | <u>per first-year kWh</u> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 3,000         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 43,500        | Customer cost associated with program   | \$ 0.290        | per first-year kWh        |
| <u>\$ 46,500</u> | <u>TRC costs of program</u>             | <u>\$ 0.310</u> | <u>per first-year kWh</u> |

1.64 TRC benefit / cost ratio  
 \$ 0.027 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 67,064        | PV of electric avoided cost value | \$ 0.447        | per first-year kWh        |
| \$ (3,292)       | PV of gas avoided cost value      | \$ (0.022)      | per first-year kWh        |
| \$ 18,330        | Non-energy benefits               | \$ 0.122        | per first-year kWh        |
| <u>\$ 82,102</u> | <u>Total TRC benefits</u>         | <u>\$ 0.547</u> | <u>per first-year kWh</u> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 3,461         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 50,184        | Customer cost associated with program   | \$ 0.335        | per first-year kWh        |
| <u>\$ 53,645</u> | <u>TRC costs of program</u>             | <u>\$ 0.358</u> | <u>per first-year kWh</u> |

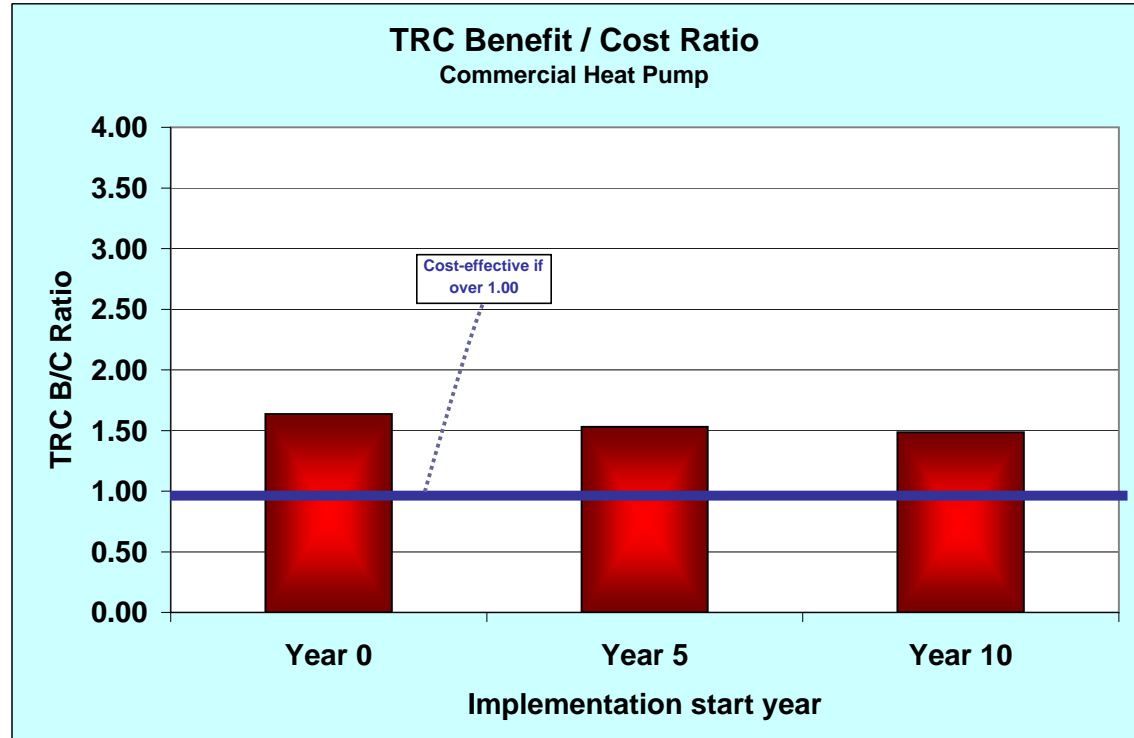
1.53 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 74,500        | PV of electric avoided cost value | \$ 0.497        | per first-year kWh        |
| \$ (3,746)       | PV of gas avoided cost value      | \$ (0.025)      | per first-year kWh        |
| \$ 21,147        | Non-energy benefits               | \$ 0.141        | per first-year kWh        |
| <u>\$ 91,901</u> | <u>Total TRC benefits</u>         | <u>\$ 0.613</u> | <u>per first-year kWh</u> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 3,993         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 57,895        | Customer cost associated with program   | \$ 0.386        | per first-year kWh        |
| <u>\$ 61,888</u> | <u>TRC costs of program</u>             | <u>\$ 0.413</u> | <u>per first-year kWh</u> |

1.48 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 20 Measure life

0 therm impact per kWh  
 A Annual / winter therm  
 1,500,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 683,112        | PV of electric avoided cost value | \$ 0.455        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 683,112</u> | <b>Total TRC benefits</b>         | <u>\$ 0.455</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 30,000         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 360,000        | Customer cost associated with program   | \$ 0.240        | per first-year kWh        |
| <u>\$ 390,000</u> | <b>TRC costs of program</b>             | <u>\$ 0.260</u> | <b>per first-year kWh</b> |

1.75 TRC benefit / cost ratio      \$ 0.028 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 728,114        | PV of electric avoided cost value | \$ 0.485        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 728,114</u> | <b>Total TRC benefits</b>         | <u>\$ 0.485</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 34,610         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 415,317        | Customer cost associated with program   | \$ 0.277        | per first-year kWh        |
| <u>\$ 449,926</u> | <b>TRC costs of program</b>             | <u>\$ 0.300</u> | <b>per first-year kWh</b> |

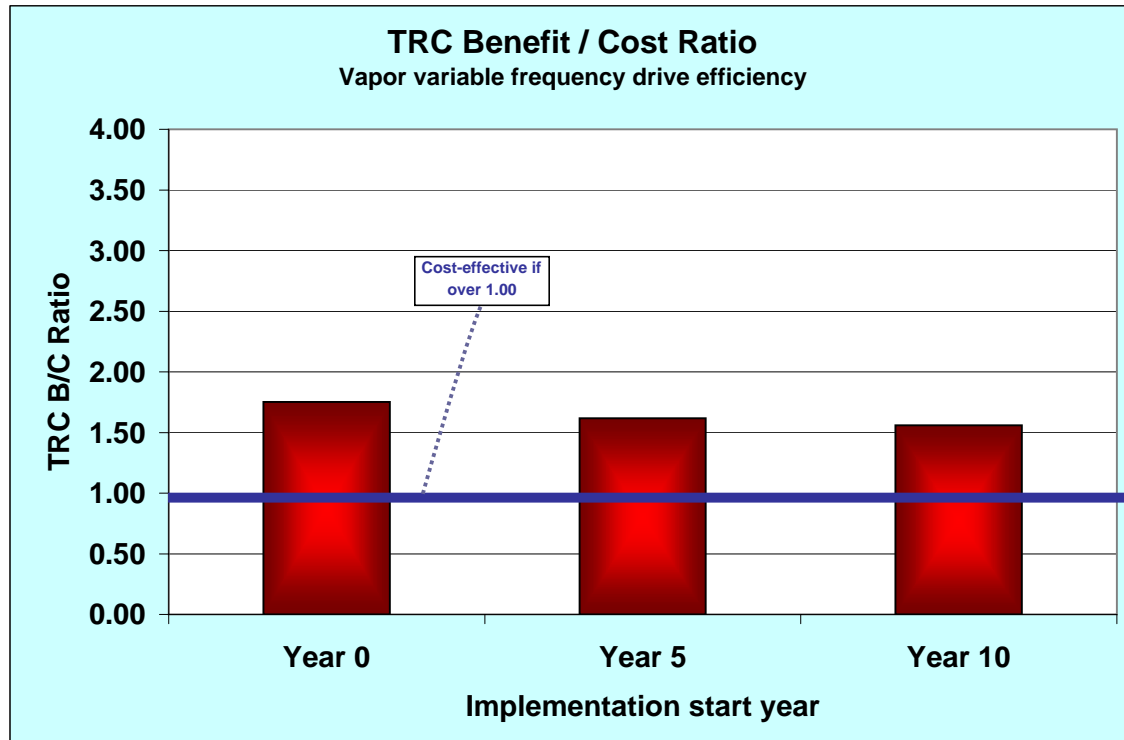
1.62 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 809,538        | PV of electric avoided cost value | \$ 0.540        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 809,538</u> | <b>Total TRC benefits</b>         | <u>\$ 0.540</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 39,928         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 479,133        | Customer cost associated with program   | \$ 0.319        | per first-year kWh        |
| <u>\$ 519,061</u> | <b>TRC costs of program</b>             | <u>\$ 0.346</u> | <b>per first-year kWh</b> |

1.56 TRC benefit / cost ratio





8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 12 Measure life

-0.0044903 therm impact per kwh  
 A Annual / winter therm  
 2,041,189 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                     |                                   |                 |                           |
|---------------------|-----------------------------------|-----------------|---------------------------|
| \$ 755,586          | PV of electric avoided cost value | \$ 0.370        | per first-year kWh        |
| \$ (29,742)         | PV of gas avoided cost value      | \$ (0.015)      | per first-year kWh        |
| \$ 306,394          | Non-energy benefits               | \$ 0.150        | per first-year kWh        |
| <u>\$ 1,032,238</u> | <u>Total TRC benefits</u>         | <u>\$ 0.506</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 40,824         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 714,416        | Customer cost associated with program   | \$ 0.350        | per first-year kWh        |
| <u>\$ 755,240</u> | <u>TRC costs of program</u>             | <u>\$ 0.370</u> | <u>per first-year kWh</u> |

1.37 TRC benefit / cost ratio \$ 0.032 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                     |                                   |                 |                           |
|---------------------|-----------------------------------|-----------------|---------------------------|
| \$ 799,043          | PV of electric avoided cost value | \$ 0.391        | per first-year kWh        |
| \$ (32,848)         | PV of gas avoided cost value      | \$ (0.016)      | per first-year kWh        |
| \$ 353,474          | Non-energy benefits               | \$ 0.173        | per first-year kWh        |
| <u>\$ 1,119,668</u> | <u>Total TRC benefits</u>         | <u>\$ 0.549</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 47,097         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 824,192        | Customer cost associated with program   | \$ 0.404        | per first-year kWh        |
| <u>\$ 871,288</u> | <u>TRC costs of program</u>             | <u>\$ 0.427</u> | <u>per first-year kWh</u> |

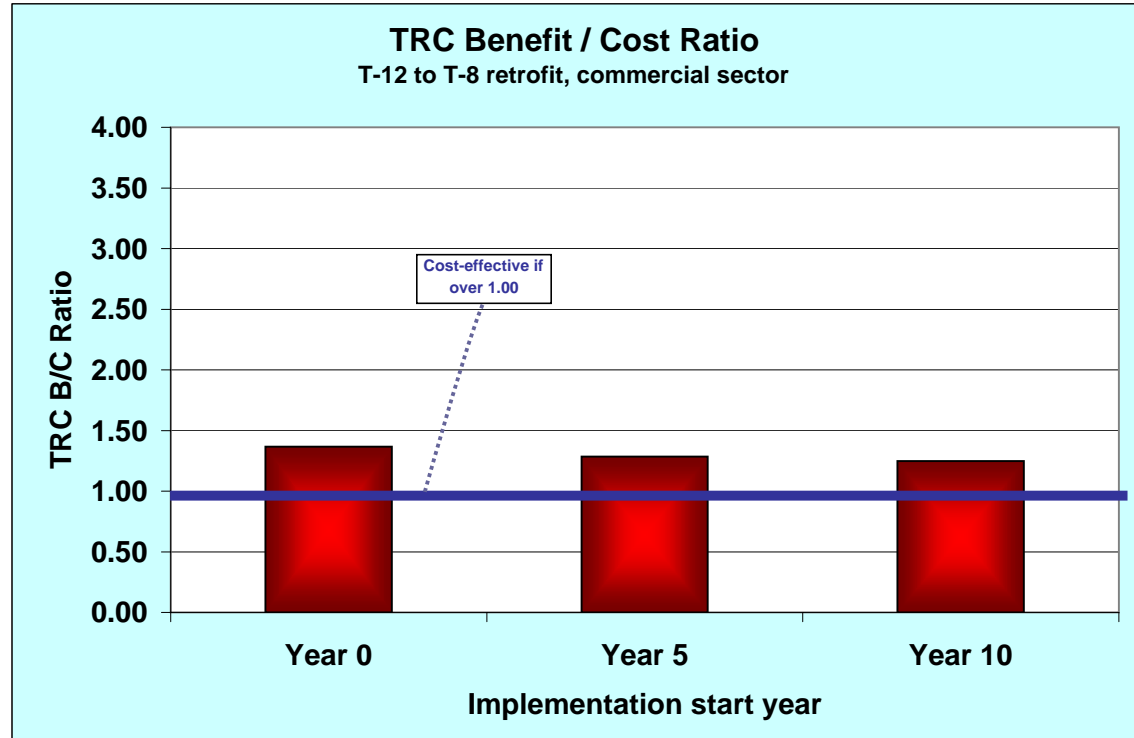
1.29 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                     |                                   |                 |                           |
|---------------------|-----------------------------------|-----------------|---------------------------|
| \$ 884,912          | PV of electric avoided cost value | \$ 0.434        | per first-year kWh        |
| \$ (37,151)         | PV of gas avoided cost value      | \$ (0.018)      | per first-year kWh        |
| \$ 407,788          | Non-energy benefits               | \$ 0.200        | per first-year kWh        |
| <u>\$ 1,255,549</u> | <u>Total TRC benefits</u>         | <u>\$ 0.615</u> | <u>per first-year kWh</u> |

|                     |   |                 |                           |
|---------------------|---|-----------------|---------------------------|
| \$ 54,333           | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 950,835          | Customer cost associated with program   | \$ 0.466        | per first-year kWh        |
| <u>\$ 1,005,168</u> | <u>TRC costs of program</u>             | <u>\$ 0.492</u> | <u>per first-year kWh</u> |

1.25 TRC benefit / cost ratio



8.53% Discount rate -0.0046 therm impact per kWh  
 2.90% Inflation for pgm cost and NEB's A Annual / winter therm  
 15 Measure life 1,045,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 423,636        | PV of electric avoided cost value | \$ 0.405        | per first-year kWh        |
| \$ (18,082)       | PV of gas avoided cost value      | \$ (0.017)      | per first-year kWh        |
| \$ 110,691        | Non-energy benefits               | \$ 0.106        | per first-year kWh        |
| <u>\$ 516,245</u> | <u>Total TRC benefits</u>         | <u>\$ 0.494</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 20,900         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 355,300        | Customer cost associated with program   | \$ 0.340        | per first-year kWh        |
| <u>\$ 376,200</u> | <u>TRC costs of program</u>             | <u>\$ 0.360</u> | <u>per first-year kWh</u> |

1.37 TRC benefit / cost ratio \$ 0.033 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 449,244        | PV of electric avoided cost value | \$ 0.430        | per first-year kWh        |
| \$ (20,104)       | PV of gas avoided cost value      | \$ (0.019)      | per first-year kWh        |
| \$ 127,700        | Non-energy benefits               | \$ 0.122        | per first-year kWh        |
| <u>\$ 556,840</u> | <u>Total TRC benefits</u>         | <u>\$ 0.533</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 24,111         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 409,894        | Customer cost associated with program   | \$ 0.392        | per first-year kWh        |
| <u>\$ 434,006</u> | <u>TRC costs of program</u>             | <u>\$ 0.415</u> | <u>per first-year kWh</u> |

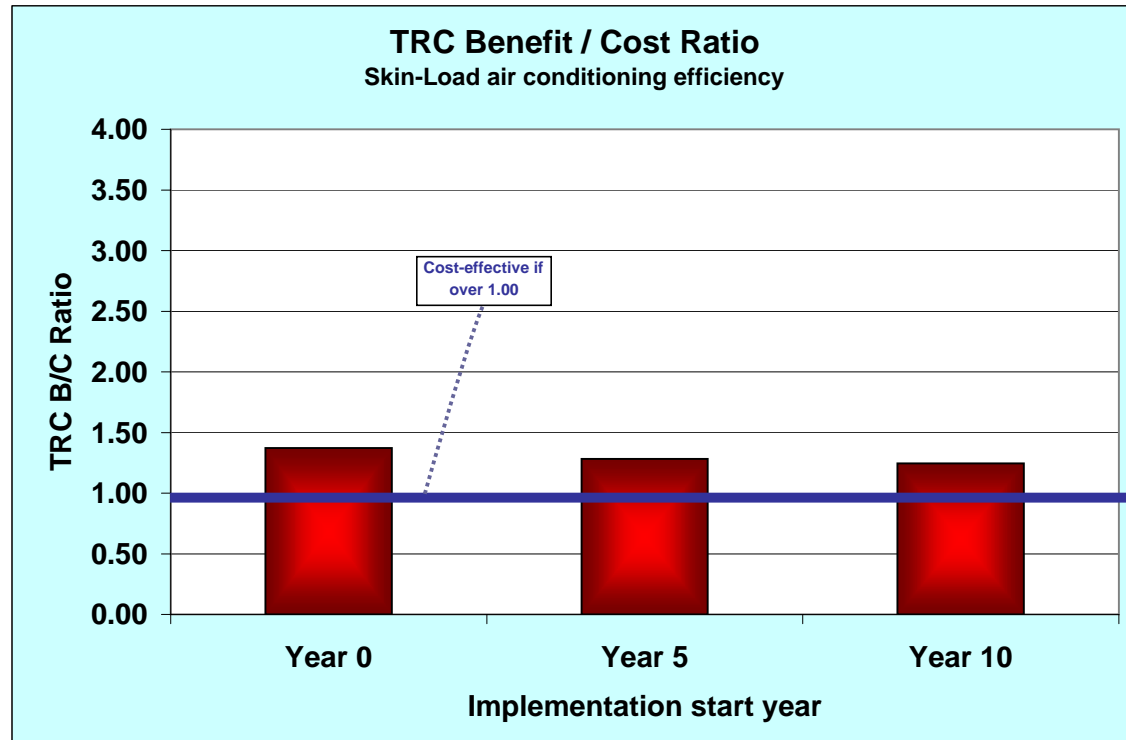
1.28 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 498,851        | PV of electric avoided cost value | \$ 0.477        | per first-year kWh        |
| \$ (22,917)       | PV of gas avoided cost value      | \$ (0.022)      | per first-year kWh        |
| \$ 147,322        | Non-energy benefits               | \$ 0.141        | per first-year kWh        |
| <u>\$ 623,256</u> | <u>Total TRC benefits</u>         | <u>\$ 0.596</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 27,816         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 472,878        | Customer cost associated with program   | \$ 0.453        | per first-year kWh        |
| <u>\$ 500,694</u> | <u>TRC costs of program</u>             | <u>\$ 0.479</u> | <u>per first-year kWh</u> |

1.24 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 15 Measure life

0 therm impact per kWh  
 A Annual / winter therm  
 300,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 106,093        | PV of electric avoided cost value | \$ 0.354        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ 45,032         | Non-energy benefits               | \$ 0.150        | per first-year kWh        |
| <u>\$ 151,125</u> | <u>Total TRC benefits</u>         | <u>\$ 0.504</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 6,000          | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 144,000        | Customer cost associated with program   | \$ 0.480        | per first-year kWh        |
| <u>\$ 150,000</u> | <u>TRC costs of program</u>             | <u>\$ 0.500</u> | <u>per first-year kWh</u> |

1.01 TRC benefit / cost ratio \$ 0.042 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 112,261        | PV of electric avoided cost value | \$ 0.374        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ 51,951         | Non-energy benefits               | \$ 0.173        | per first-year kWh        |
| <u>\$ 164,213</u> | <u>Total TRC benefits</u>         | <u>\$ 0.547</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 6,922          | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 166,127        | Customer cost associated with program   | \$ 0.554        | per first-year kWh        |
| <u>\$ 173,049</u> | <u>TRC costs of program</u>             | <u>\$ 0.577</u> | <u>per first-year kWh</u> |

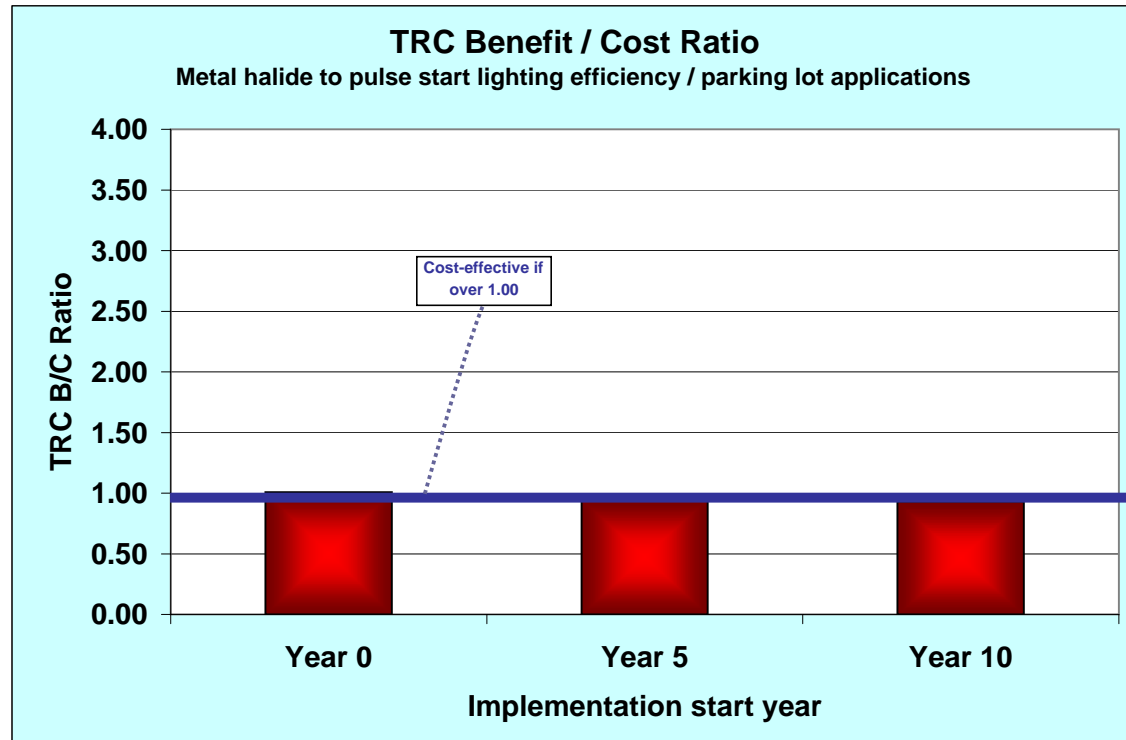
0.95 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 125,945        | PV of electric avoided cost value | \$ 0.420        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ 59,934         | Non-energy benefits               | \$ 0.200        | per first-year kWh        |
| <u>\$ 185,879</u> | <u>Total TRC benefits</u>         | <u>\$ 0.620</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 7,986          | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 191,653        | Customer cost associated with program   | \$ 0.639        | per first-year kWh        |
| <u>\$ 199,639</u> | <u>TRC costs of program</u>             | <u>\$ 0.665</u> | <u>per first-year kWh</u> |

0.93 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 15 Measure life

-0.0044903 therm impact per kWh  
 A Annual / winter therm  
 300,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 126,610        | PV of electric avoided cost value | \$ 0.422        | per first-year kWh        |
| \$ (5,067)        | PV of gas avoided cost value      | \$ (0.017)      | per first-year kWh        |
| \$ 45,032         | Non-energy benefits               | \$ 0.150        | per first-year kWh        |
| <u>\$ 166,574</u> | <u>Total TRC benefits</u>         | <u>\$ 0.555</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 6,000          | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 165,000        | Customer cost associated with program   | \$ 0.550        | per first-year kWh        |
| <u>\$ 171,000</u> | <u>TRC costs of program</u>             | <u>\$ 0.570</u> | <u>per first-year kWh</u> |

0.97 TRC benefit / cost ratio \$ 0.053 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 134,615        | PV of electric avoided cost value | \$ 0.449        | per first-year kWh        |
| \$ (5,634)        | PV of gas avoided cost value      | \$ (0.019)      | per first-year kWh        |
| \$ 51,951         | Non-energy benefits               | \$ 0.173        | per first-year kWh        |
| <u>\$ 180,933</u> | <u>Total TRC benefits</u>         | <u>\$ 0.603</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 6,922          | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 190,353        | Customer cost associated with program   | \$ 0.635        | per first-year kWh        |
| <u>\$ 197,275</u> | <u>TRC costs of program</u>             | <u>\$ 0.658</u> | <u>per first-year kWh</u> |

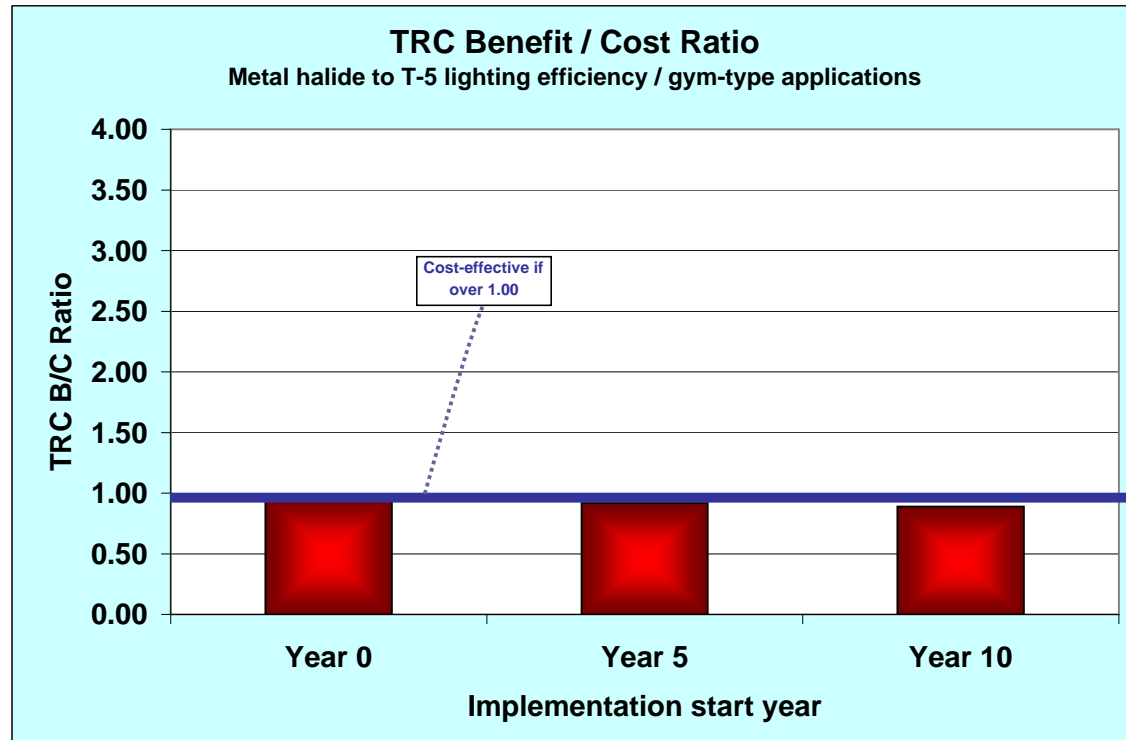
0.92 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 148,973        | PV of electric avoided cost value | \$ 0.497        | per first-year kWh        |
| \$ (6,422)        | PV of gas avoided cost value      | \$ (0.021)      | per first-year kWh        |
| \$ 59,934         | Non-energy benefits               | \$ 0.200        | per first-year kWh        |
| <u>\$ 202,485</u> | <u>Total TRC benefits</u>         | <u>\$ 0.675</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 7,986          | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 219,603        | Customer cost associated with program   | \$ 0.732        | per first-year kWh        |
| <u>\$ 227,588</u> | <u>TRC costs of program</u>             | <u>\$ 0.759</u> | <u>per first-year kWh</u> |

0.89 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 20 Measure life

-0.0105 therm impact per kWh  
 W Annual / winter therm  
 200,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 93,990         | PV of electric avoided cost value | \$ 0.470        | per first-year kWh        |
| \$ (10,701)       | PV of gas avoided cost value      | \$ (0.054)      | per first-year kWh        |
| \$ 40,000         | Non-energy benefits               | \$ 0.200        | per first-year kWh        |
| <u>\$ 123,289</u> | <u>Total TRC benefits</u>         | <u>\$ 0.616</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 4,000          | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 128,000        | Customer cost associated with program   | \$ 0.640        | per first-year kWh        |
| <u>\$ 132,000</u> | <u>TRC costs of program</u>             | <u>\$ 0.660</u> | <u>per first-year kWh</u> |

0.93 TRC benefit / cost ratio  
 \$ 0.054 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 100,102        | PV of electric avoided cost value | \$ 0.501        | per first-year kWh        |
| \$ (12,025)       | PV of gas avoided cost value      | \$ (0.060)      | per first-year kWh        |
| \$ 46,146         | Non-energy benefits               | \$ 0.231        | per first-year kWh        |
| <u>\$ 134,223</u> | <u>Total TRC benefits</u>         | <u>\$ 0.671</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 4,615          | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 147,668        | Customer cost associated with program   | \$ 0.738        | per first-year kWh        |
| <u>\$ 152,283</u> | <u>TRC costs of program</u>             | <u>\$ 0.761</u> | <u>per first-year kWh</u> |

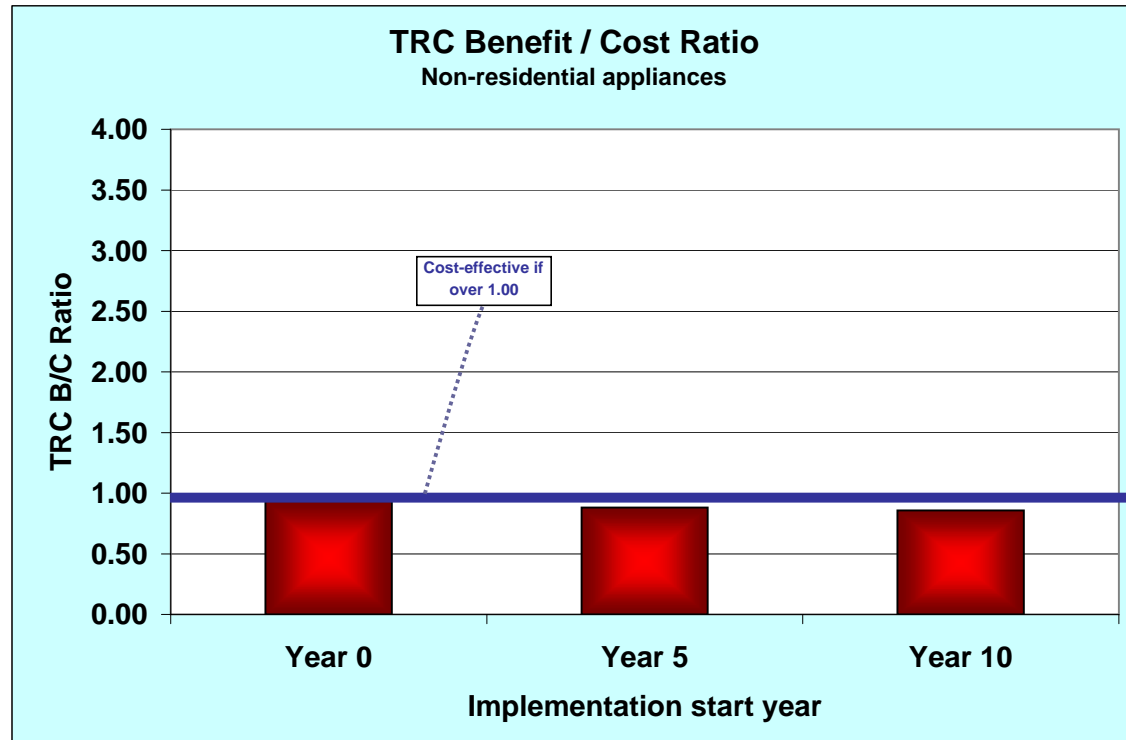
0.88 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 111,025        | PV of electric avoided cost value | \$ 0.555        | per first-year kWh        |
| \$ (13,800)       | PV of gas avoided cost value      | \$ (0.069)      | per first-year kWh        |
| \$ 53,237         | Non-energy benefits               | \$ 0.266        | per first-year kWh        |
| <u>\$ 150,462</u> | <u>Total TRC benefits</u>         | <u>\$ 0.752</u> | <u>per first-year kWh</u> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 5,324          | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 170,358        | Customer cost associated with program   | \$ 0.852        | per first-year kWh        |
| <u>\$ 175,682</u> | <u>TRC costs of program</u>             | <u>\$ 0.878</u> | <u>per first-year kWh</u> |

0.86 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 15 Measure life

-0.0044903 therm impact per kWh  
 A Annual / winter therm  
 300,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 126,610        | PV of electric avoided cost value | \$ 0.422        | per first-year kWh        |
| \$ (5,067)        | PV of gas avoided cost value      | \$ (0.017)      | per first-year kWh        |
| \$ 0              | Non-energy benefits               | \$ 0.000        | per first-year kWh        |
| <u>\$ 121,542</u> | <b>Total TRC benefits</b>         | <u>\$ 0.405</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 6,000          | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 165,000        | Customer cost associated with program   | \$ 0.550        | per first-year kWh        |
| <u>\$ 171,000</u> | <b>TRC costs of program</b>             | <u>\$ 0.570</u> | <b>per first-year kWh</b> |

0.71 TRC benefit / cost ratio      \$ 0.071 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 134,615        | PV of electric avoided cost value | \$ 0.449        | per first-year kWh        |
| \$ (5,634)        | PV of gas avoided cost value      | \$ (0.019)      | per first-year kWh        |
| \$ 0              | Non-energy benefits               | \$ 0.000        | per first-year kWh        |
| <u>\$ 128,982</u> | <b>Total TRC benefits</b>         | <u>\$ 0.430</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 6,922          | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 190,353        | Customer cost associated with program   | \$ 0.635        | per first-year kWh        |
| <u>\$ 197,275</u> | <b>TRC costs of program</b>             | <u>\$ 0.658</u> | <b>per first-year kWh</b> |

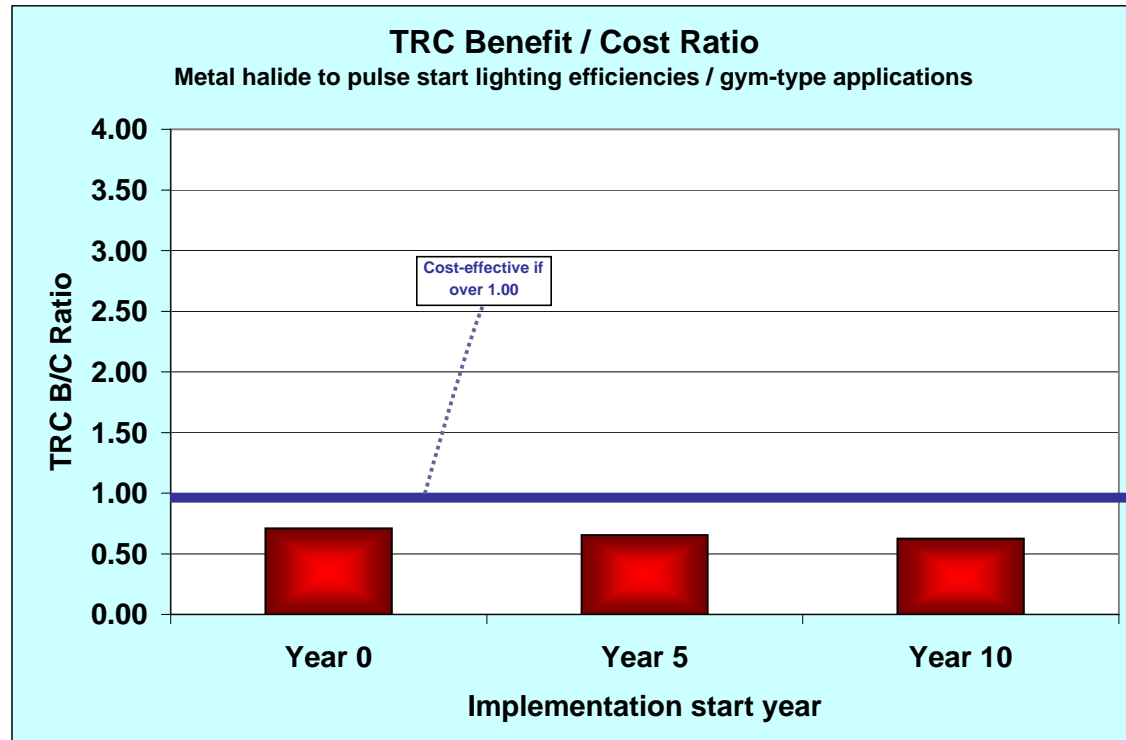
0.65 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 148,973        | PV of electric avoided cost value | \$ 0.497        | per first-year kWh        |
| \$ (6,422)        | PV of gas avoided cost value      | \$ (0.021)      | per first-year kWh        |
| \$ 0              | Non-energy benefits               | \$ 0.000        | per first-year kWh        |
| <u>\$ 142,551</u> | <b>Total TRC benefits</b>         | <u>\$ 0.475</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 7,986          | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 219,603        | Customer cost associated with program   | \$ 0.732        | per first-year kWh        |
| <u>\$ 227,588</u> | <b>TRC costs of program</b>             | <u>\$ 0.759</u> | <b>per first-year kWh</b> |

0.63 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 12 Measure life

-0.0044903 therm impact per kwh  
 A Annual / winter therm  
 500,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 188,479        | PV of electric avoided cost value | \$ 0.377        | per first-year kWh        |
| \$ (7,285)        | PV of gas avoided cost value      | \$ (0.015)      | per first-year kWh        |
| \$ 75,053         | Non-energy benefits               | \$ 0.150        | per first-year kWh        |
| <u>\$ 256,247</u> | <b>Total TRC benefits</b>         | <u>\$ 0.512</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 10,000         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 350,000        | Customer cost associated with program   | \$ 0.700        | per first-year kWh        |
| <u>\$ 360,000</u> | <b>TRC costs of program</b>             | <u>\$ 0.720</u> | <b>per first-year kWh</b> |

0.71 TRC benefit / cost ratio      \$ 0.080 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 199,675        | PV of electric avoided cost value | \$ 0.399        | per first-year kWh        |
| \$ (8,046)        | PV of gas avoided cost value      | \$ (0.016)      | per first-year kWh        |
| \$ 86,585         | Non-energy benefits               | \$ 0.173        | per first-year kWh        |
| <u>\$ 278,214</u> | <b>Total TRC benefits</b>         | <u>\$ 0.556</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 11,537         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 403,780        | Customer cost associated with program   | \$ 0.808        | per first-year kWh        |
| <u>\$ 415,317</u> | <b>TRC costs of program</b>             | <u>\$ 0.831</u> | <b>per first-year kWh</b> |

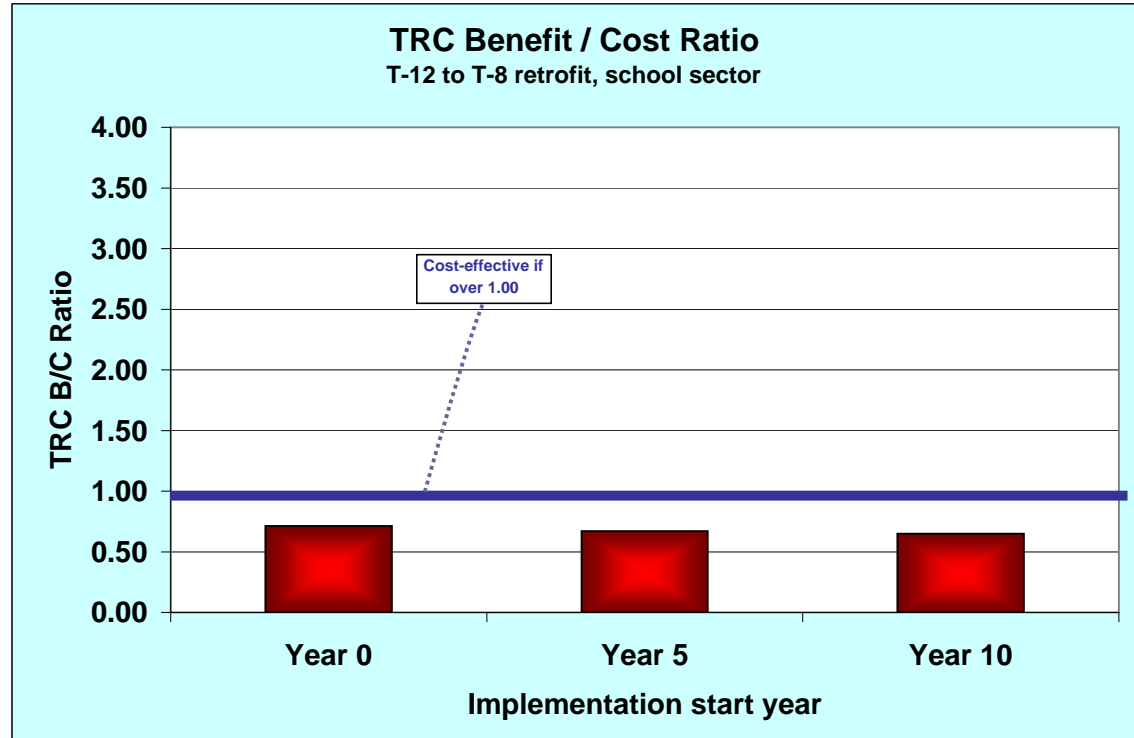
0.67 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 220,348        | PV of electric avoided cost value | \$ 0.441        | per first-year kWh        |
| \$ (9,100)        | PV of gas avoided cost value      | \$ (0.018)      | per first-year kWh        |
| \$ 99,890         | Non-energy benefits               | \$ 0.200        | per first-year kWh        |
| <u>\$ 311,137</u> | <b>Total TRC benefits</b>         | <u>\$ 0.622</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 13,309         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 465,824        | Customer cost associated with program   | \$ 0.932        | per first-year kWh        |
| <u>\$ 479,133</u> | <b>TRC costs of program</b>             | <u>\$ 0.958</u> | <b>per first-year kWh</b> |

0.65 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 25 Measure life

0 therm impact per kWh  
 W Annual / winter therm  
 800,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                    |
|-------------------|-----------------------------------|-----------------|--------------------|
| \$ 402,664        | PV of electric avoided cost value | \$ 0.503        | per first-year kWh |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh |
| \$ 63,958         | Non-energy benefits               | \$ 0.080        | per first-year kWh |
| <u>\$ 466,622</u> | Total TRC benefits                | <u>\$ 0.583</u> | per first-year kWh |

|                     |   |                 |                    |
|---------------------|---|-----------------|--------------------|
| \$ 16,000           | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh |
| \$ 7,856,000        | Customer cost associated with program   | \$ 9.820        | per first-year kWh |
| <u>\$ 7,872,000</u> | TRC costs of program                    | <u>\$ 9.840</u> | per first-year kWh |

0.06 TRC benefit / cost ratio \$ 0.956 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                    |
|-------------------|-----------------------------------|-----------------|--------------------|
| \$ 430,544        | PV of electric avoided cost value | \$ 0.538        | per first-year kWh |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh |
| \$ 73,786         | Non-energy benefits               | \$ 0.092        | per first-year kWh |
| <u>\$ 504,330</u> | Total TRC benefits                | <u>\$ 0.630</u> | per first-year kWh |

|                     |   |                  |                    |
|---------------------|---|------------------|--------------------|
| \$ 18,459           | Fully allocated utility cost of program | \$ 0.023         | per first-year kWh |
| \$ 9,063,133        | Customer cost associated with program   | \$ 11.329        | per first-year kWh |
| <u>\$ 9,081,591</u> | TRC costs of program                    | <u>\$ 11.352</u> | per first-year kWh |

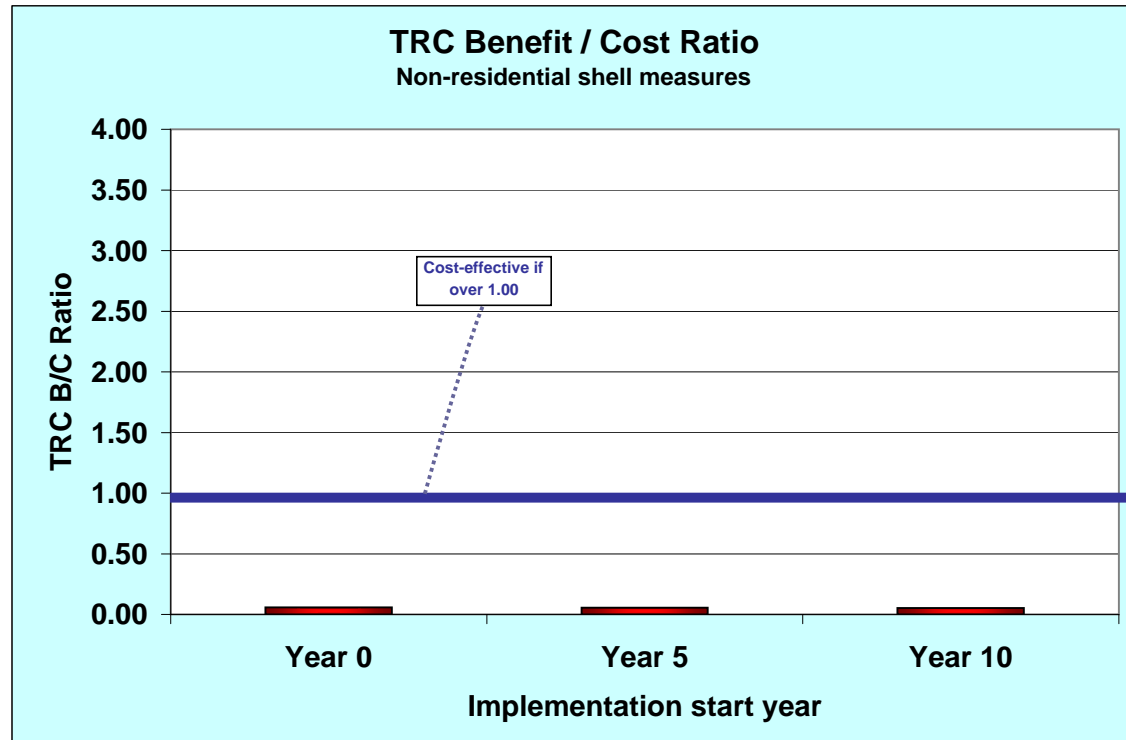
0.06 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                    |
|-------------------|-----------------------------------|-----------------|--------------------|
| \$ 478,791        | PV of electric avoided cost value | \$ 0.598        | per first-year kWh |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh |
| \$ 85,123         | Non-energy benefits               | \$ 0.106        | per first-year kWh |
| <u>\$ 563,914</u> | Total TRC benefits                | <u>\$ 0.705</u> | per first-year kWh |

|                      |   |                  |                    |
|----------------------|---|------------------|--------------------|
| \$ 21,295            | Fully allocated utility cost of program | \$ 0.027         | per first-year kWh |
| <u>\$ 10,455,751</u> | Customer cost associated with program   | <u>\$ 13.070</u> | per first-year kWh |
| <u>\$ 10,477,046</u> | TRC costs of program                    | <u>\$ 13.096</u> | per first-year kWh |

0.05 TRC benefit / cost ratio





# Residential Measures

8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 10 Measure life

-0.0044903 therm impact per kwh  
 A Annual / winter therm  
 3,600,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                     |                                   |                 |                    |
|---------------------|-----------------------------------|-----------------|--------------------|
| \$ 1,214,590        | PV of electric avoided cost value | \$ 0.337        | per first-year kWh |
| \$ (46,090)         | PV of gas avoided cost value      | \$ (0.013)      | per first-year kWh |
| \$ 548,571          | Non-energy benefits               | \$ 0.152        | per first-year kWh |
| <u>\$ 1,717,072</u> | Total TRC benefits                | <u>\$ 0.477</u> | per first-year kWh |

|                   |   |                 |                    |
|-------------------|---|-----------------|--------------------|
| \$ 61,714         | Fully allocated utility cost of program | \$ 0.017        | per first-year kWh |
| \$ 288,000        | Customer cost associated with program   | \$ 0.080        | per first-year kWh |
| <u>\$ 349,714</u> | TRC costs of program                    | <u>\$ 0.097</u> | per first-year kWh |

4.91 TRC benefit / cost ratio  
 \$ (0.006) Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                     |                                   |                 |                    |
|---------------------|-----------------------------------|-----------------|--------------------|
| \$ 1,286,616        | PV of electric avoided cost value | \$ 0.357        | per first-year kWh |
| \$ (50,697)         | PV of gas avoided cost value      | \$ (0.014)      | per first-year kWh |
| \$ 632,864          | Non-energy benefits               | \$ 0.176        | per first-year kWh |
| <u>\$ 1,868,783</u> | Total TRC benefits                | <u>\$ 0.519</u> | per first-year kWh |

|                   |   |                 |                    |
|-------------------|---|-----------------|--------------------|
| \$ 71,197         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh |
| \$ 332,253        | Customer cost associated with program   | \$ 0.092        | per first-year kWh |
| <u>\$ 403,450</u> | TRC costs of program                    | <u>\$ 0.112</u> | per first-year kWh |

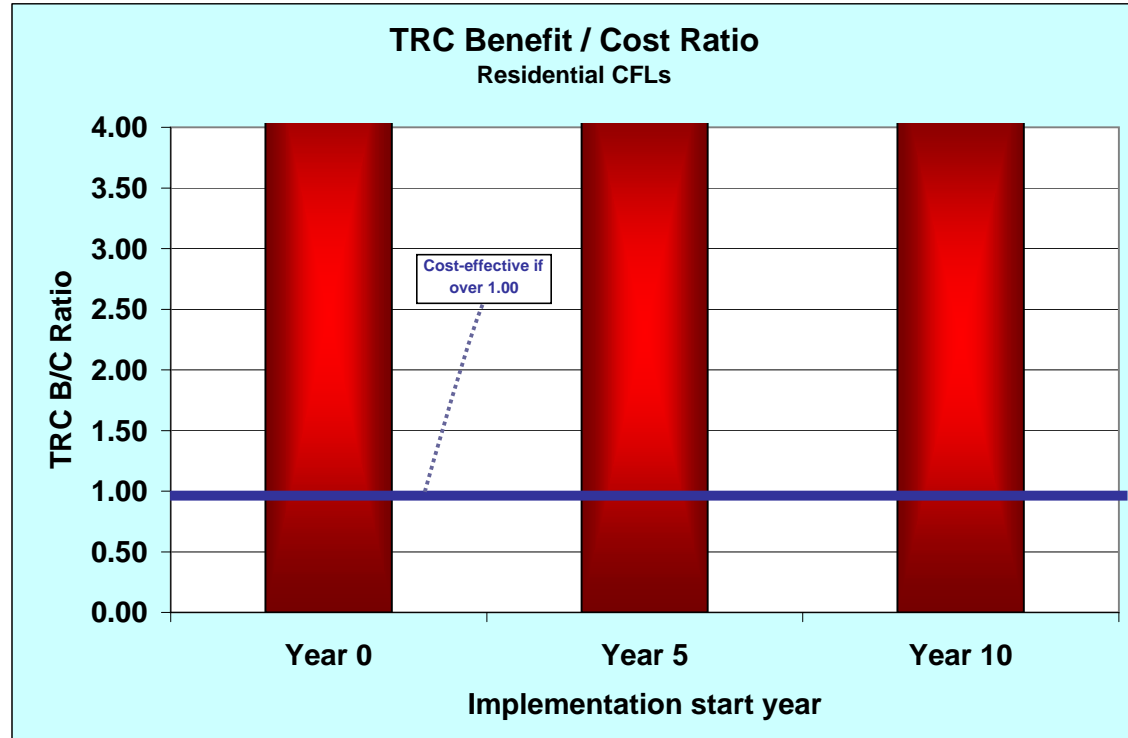
4.63 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                     |                                   |                 |                    |
|---------------------|-----------------------------------|-----------------|--------------------|
| \$ 1,431,746        | PV of electric avoided cost value | \$ 0.398        | per first-year kWh |
| \$ (56,991)         | PV of gas avoided cost value      | \$ (0.016)      | per first-year kWh |
| \$ 730,108          | Non-energy benefits               | \$ 0.203        | per first-year kWh |
| <u>\$ 2,104,863</u> | Total TRC benefits                | <u>\$ 0.585</u> | per first-year kWh |

|                   |   |                 |                    |
|-------------------|---|-----------------|--------------------|
| \$ 82,137         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh |
| \$ 383,307        | Customer cost associated with program   | \$ 0.106        | per first-year kWh |
| <u>\$ 465,444</u> | TRC costs of program                    | <u>\$ 0.129</u> | per first-year kWh |

4.52 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 25 Measure life

0 therm impact per kWh  
 W Annual / winter therm  
 285,476 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 143,689        | PV of electric avoided cost value | \$ 0.503        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 143,689</u> | <b>Total TRC benefits</b>         | <u>\$ 0.503</u> | <b>per first-year kWh</b> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 5,710         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 31,402        | Customer cost associated with program   | \$ 0.110        | per first-year kWh        |
| <u>\$ 37,112</u> | <b>TRC costs of program</b>             | <u>\$ 0.130</u> | <b>per first-year kWh</b> |

3.87 TRC benefit / cost ratio      \$ 0.013 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 153,638        | PV of electric avoided cost value | \$ 0.538        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 153,638</u> | <b>Total TRC benefits</b>         | <u>\$ 0.538</u> | <b>per first-year kWh</b> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 6,587         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 36,228        | Customer cost associated with program   | \$ 0.127        | per first-year kWh        |
| <u>\$ 42,814</u> | <b>TRC costs of program</b>             | <u>\$ 0.150</u> | <b>per first-year kWh</b> |

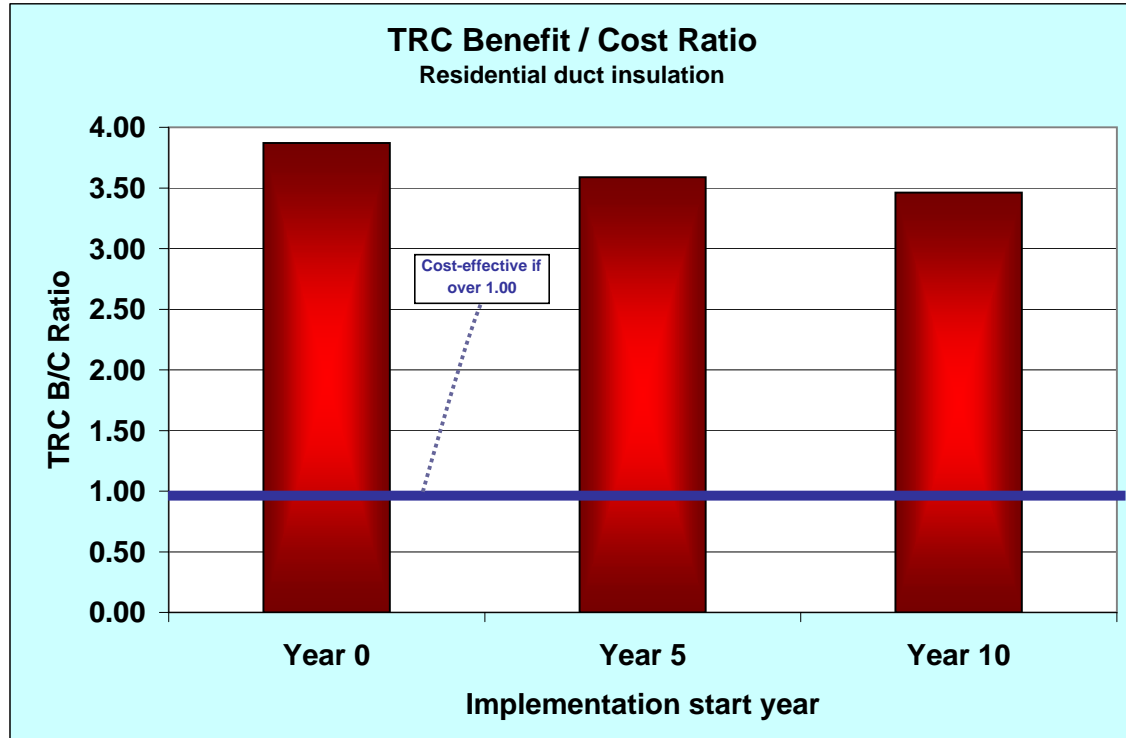
3.59 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 170,979        | PV of electric avoided cost value | \$ 0.599        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 170,979</u> | <b>Total TRC benefits</b>         | <u>\$ 0.599</u> | <b>per first-year kWh</b> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 7,599         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 41,794        | Customer cost associated with program   | \$ 0.146        | per first-year kWh        |
| <u>\$ 49,393</u> | <b>TRC costs of program</b>             | <u>\$ 0.173</u> | <b>per first-year kWh</b> |

3.46 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 25 Measure life

0 therm impact per kWh  
 W Annual / winter therm  
 108,284 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 54,503        | PV of electric avoided cost value | \$ 0.503        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 54,503</u> | <b>Total TRC benefits</b>         | <u>\$ 0.503</u> | <b>per first-year kWh</b> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 2,166         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 18,408        | Customer cost associated with program   | \$ 0.170        | per first-year kWh        |
| <u>\$ 20,574</u> | <b>TRC costs of program</b>             | <u>\$ 0.190</u> | <b>per first-year kWh</b> |

2.65 TRC benefit / cost ratio      \$ 0.019 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 58,276        | PV of electric avoided cost value | \$ 0.538        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 58,276</u> | <b>Total TRC benefits</b>         | <u>\$ 0.538</u> | <b>per first-year kWh</b> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 2,498         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 21,237        | Customer cost associated with program   | \$ 0.196        | per first-year kWh        |
| <u>\$ 23,735</u> | <b>TRC costs of program</b>             | <u>\$ 0.219</u> | <b>per first-year kWh</b> |

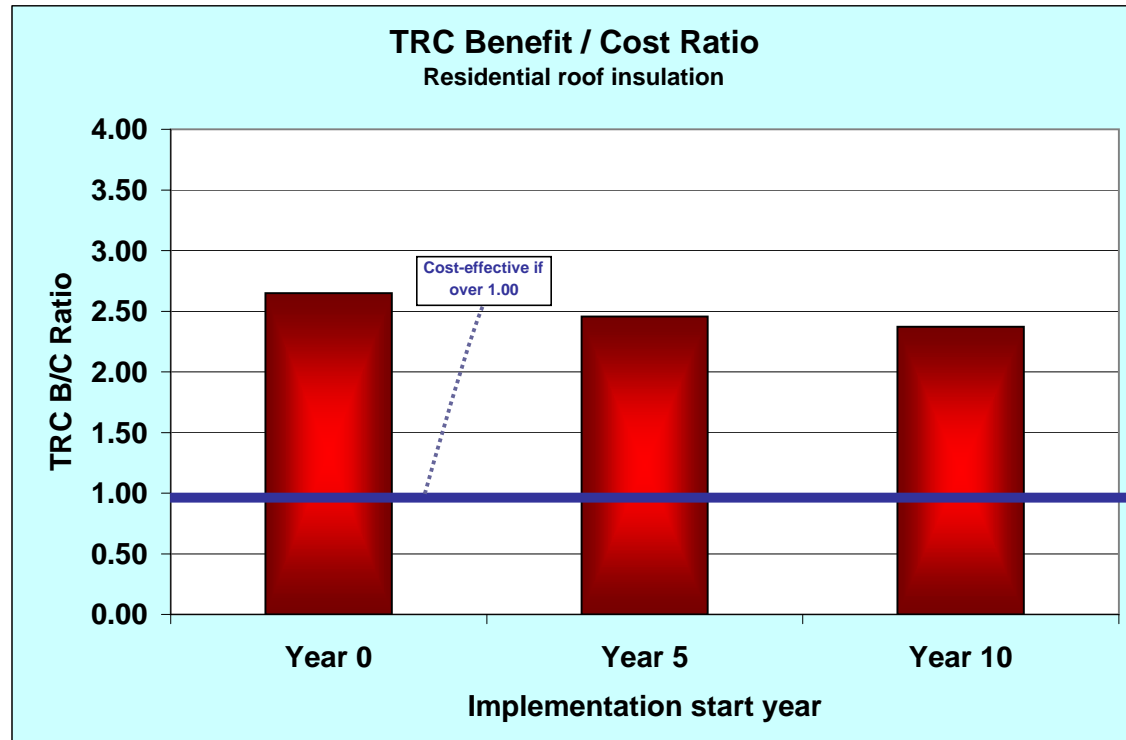
2.46 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 64,975        | PV of electric avoided cost value | \$ 0.600        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 64,975</u> | <b>Total TRC benefits</b>         | <u>\$ 0.600</u> | <b>per first-year kWh</b> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 2,882         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 24,500        | Customer cost associated with program   | \$ 0.226        | per first-year kWh        |
| <u>\$ 27,382</u> | <b>TRC costs of program</b>             | <u>\$ 0.253</u> | <b>per first-year kWh</b> |

2.37 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Program cost, NEB inflation  
 12 Measure life

0 therm impact/kwh  
 A "A" or "W" therm  
 121,165 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                  |                               |                 |                    |
|------------------|-------------------------------|-----------------|--------------------|
| \$ 41,110        | PV of el AC value of program  | \$ 0.339        | per first-year kWh |
| \$ -             | PV of gas AC value of program | \$ -            | per first-year kWh |
| \$ -             | NEB of program                | \$ -            | per first-year kWh |
| <u>\$ 41,110</u> | TRC benefits of program       | <u>\$ 0.339</u> | per first-year kWh |

|                  |   |                 |                    |
|------------------|---|-----------------|--------------------|
| \$ 2,423         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh |
| \$ 16,963        | Customer cost associated with program   | \$ 0.140        | per first-year kWh |
| <u>\$ 19,386</u> | TRC costs of program                    | <u>\$ 0.160</u> | per first-year kWh |

2.12 Program TRC B/C ratio \$ 0.022 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                  |                               |                 |                    |
|------------------|-------------------------------|-----------------|--------------------|
| \$ 43,337        | PV of el AC value of program  | \$ 0.358        | per first-year kWh |
| \$ -             | PV of gas AC value of program | \$ -            | per first-year kWh |
| \$ -             | NEB of program                | \$ -            | per first-year kWh |
| <u>\$ 43,337</u> | TRC benefits of program       | <u>\$ 0.358</u> | per first-year kWh |

|                  |   |                 |                    |
|------------------|---|-----------------|--------------------|
| \$ 2,796         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh |
| \$ 19,570        | Customer cost associated with program   | \$ 0.162        | per first-year kWh |
| <u>\$ 22,365</u> | TRC costs of program                    | <u>\$ 0.185</u> | per first-year kWh |

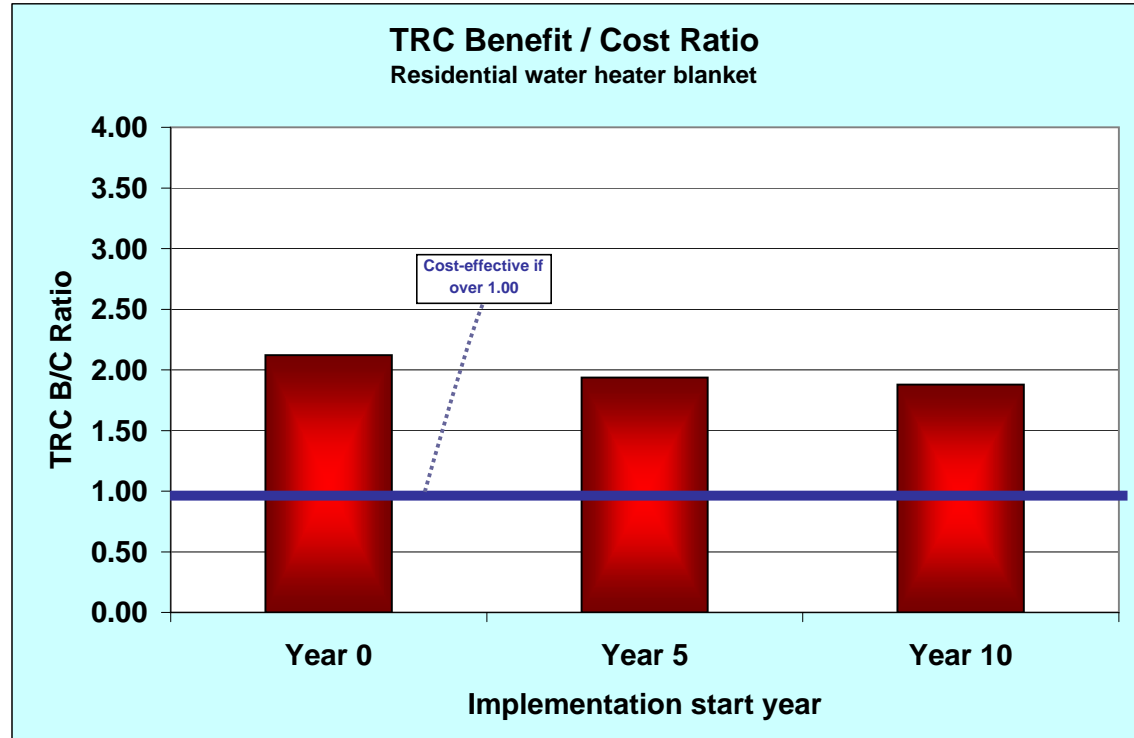
1.94 Program TRC B/C ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                  |                               |                 |                    |
|------------------|-------------------------------|-----------------|--------------------|
| \$ 48,471        | PV of el AC value of program  | \$ 0.400        | per first-year kWh |
| \$ -             | PV of gas AC value of program | \$ -            | per first-year kWh |
| \$ -             | NEB of program                | \$ -            | per first-year kWh |
| <u>\$ 48,471</u> | TRC benefits of program       | <u>\$ 0.400</u> | per first-year kWh |

|                  |   |                 |                    |
|------------------|---|-----------------|--------------------|
| \$ 3,225         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh |
| \$ 22,577        | Customer cost associated with program   | \$ 0.186        | per first-year kWh |
| <u>\$ 25,802</u> | TRC costs of program                    | <u>\$ 0.213</u> | per first-year kWh |

1.88 Program TRC B/C ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 25 Measure life

0 therm impact per kWh  
 W Annual / winter therm  
 157,504 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 79,276        | PV of electric avoided cost value | \$ 0.503        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 79,276</u> | <b>Total TRC benefits</b>         | <u>\$ 0.503</u> | <b>per first-year kWh</b> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 3,150         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 45,676        | Customer cost associated with program   | \$ 0.290        | per first-year kWh        |
| <u>\$ 48,826</u> | <b>TRC costs of program</b>             | <u>\$ 0.310</u> | <b>per first-year kWh</b> |

1.62 TRC benefit / cost ratio  
 \$ 0.030 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 84,766        | PV of electric avoided cost value | \$ 0.538        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 84,766</u> | <b>Total TRC benefits</b>         | <u>\$ 0.538</u> | <b>per first-year kWh</b> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 3,634         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 52,695        | Customer cost associated with program   | \$ 0.335        | per first-year kWh        |
| <u>\$ 56,329</u> | <b>TRC costs of program</b>             | <u>\$ 0.358</u> | <b>per first-year kWh</b> |

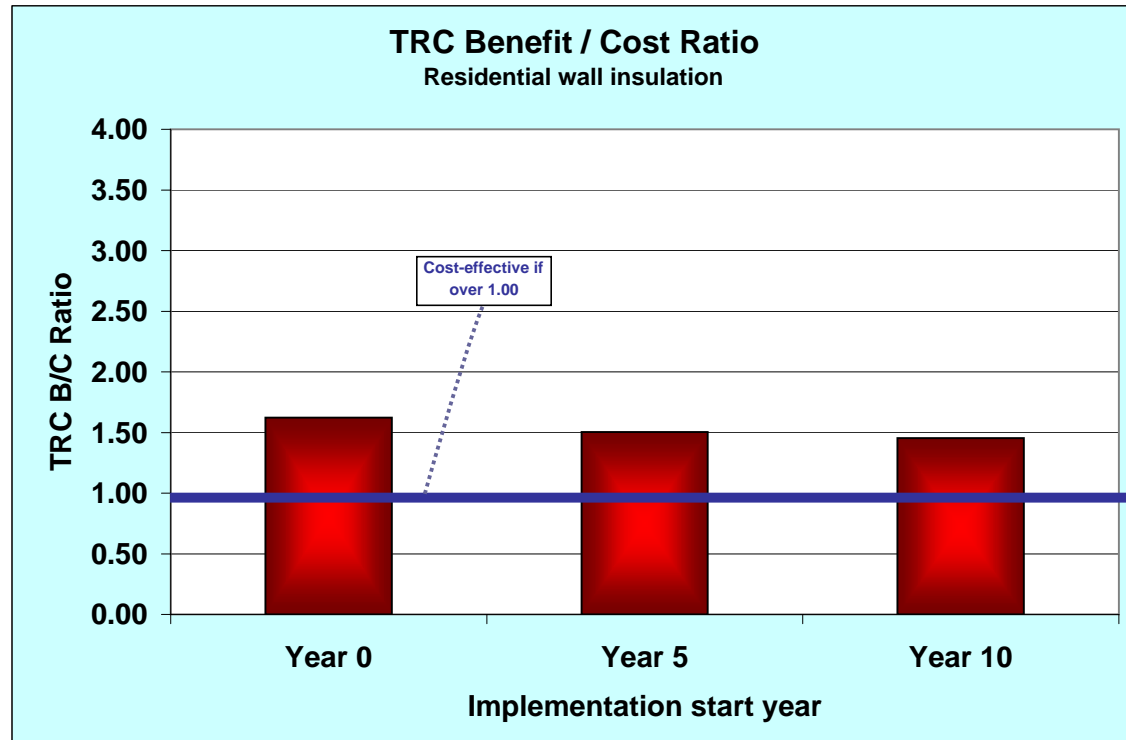
1.50 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 94,420        | PV of electric avoided cost value | \$ 0.599        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 94,420</u> | <b>Total TRC benefits</b>         | <u>\$ 0.599</u> | <b>per first-year kWh</b> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 4,193         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 60,792        | Customer cost associated with program   | \$ 0.386        | per first-year kWh        |
| <u>\$ 64,984</u> | <b>TRC costs of program</b>             | <u>\$ 0.413</u> | <b>per first-year kWh</b> |

1.45 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 12 Measure life

-0.0426625 therm impact per kWh  
 A Annual / winter therm  
 605.824 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 212,432        | PV of electric avoided cost value | \$ 0.351        | per first-year kWh        |
| \$ (83,869)       | PV of gas avoided cost value      | \$ (0.138)      | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 128,564</u> | <b>Total TRC benefits</b>         | <u>\$ 0.212</u> | <b>per first-year kWh</b> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 12,116        | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 72,699        | Customer cost associated with program   | \$ 0.120        | per first-year kWh        |
| <u>\$ 84,815</u> | <b>TRC costs of program</b>             | <u>\$ 0.140</u> | <b>per first-year kWh</b> |

1.52 TRC benefit / cost ratio      \$ 0.038 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 223,908        | PV of electric avoided cost value | \$ 0.370        | per first-year kWh        |
| \$ (92,628)       | PV of gas avoided cost value      | \$ (0.153)      | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 131,280</u> | <b>Total TRC benefits</b>         | <u>\$ 0.217</u> | <b>per first-year kWh</b> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 13,978        | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 83,870        | Customer cost associated with program   | \$ 0.138        | per first-year kWh        |
| <u>\$ 97,848</u> | <b>TRC costs of program</b>             | <u>\$ 0.162</u> | <b>per first-year kWh</b> |

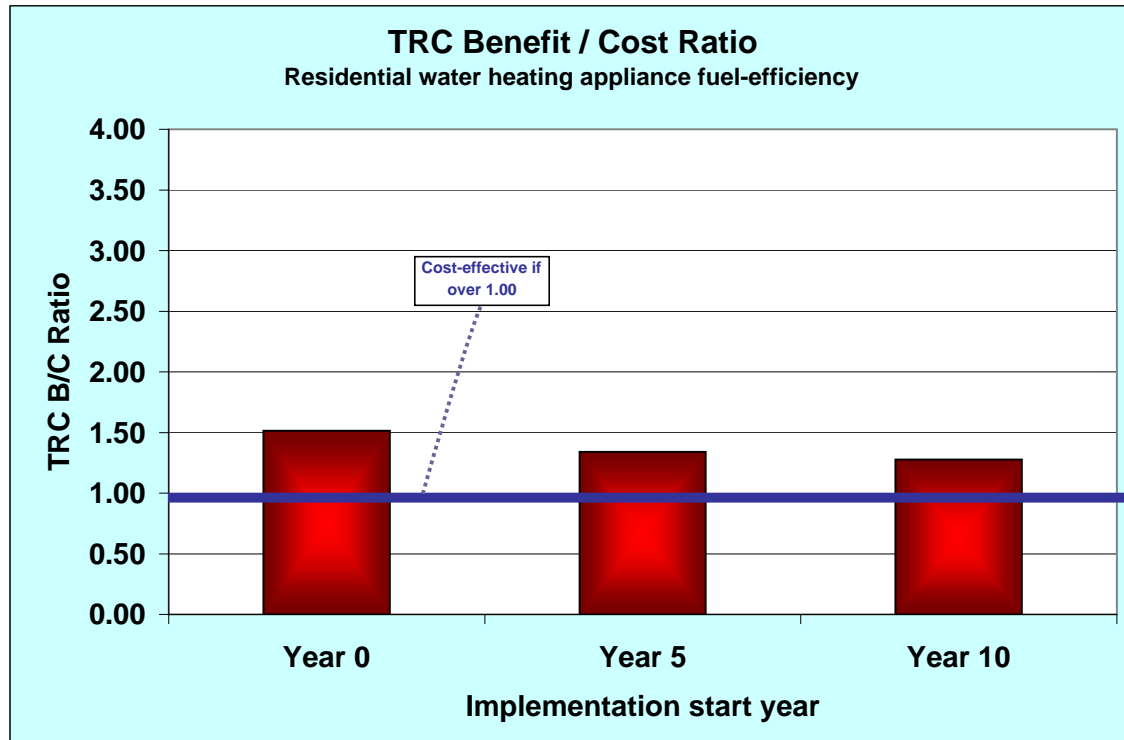
1.34 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 248,876        | PV of electric avoided cost value | \$ 0.411        | per first-year kWh        |
| \$ (104,760)      | PV of gas avoided cost value      | \$ (0.173)      | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 144,116</u> | <b>Total TRC benefits</b>         | <u>\$ 0.238</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 16,126         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 96,757         | Customer cost associated with program   | \$ 0.160        | per first-year kWh        |
| <u>\$ 112,883</u> | <b>TRC costs of program</b>             | <u>\$ 0.186</u> | <b>per first-year kWh</b> |

1.28 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 20 Measure life

0 therm impact per kWh  
 W Annual / winter therm  
 295,000 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 109,285        | PV of electric avoided cost value | \$ 0.370        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 109,285</u> | <b>Total TRC benefits</b>         | <u>\$ 0.370</u> | <b>per first-year kWh</b> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 5,900         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 88,500        | Customer cost associated with program   | \$ 0.300        | per first-year kWh        |
| <u>\$ 94,400</u> | <b>TRC costs of program</b>             | <u>\$ 0.320</u> | <b>per first-year kWh</b> |

1.16 TRC benefit / cost ratio      \$ 0.034 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 116,323        | PV of electric avoided cost value | \$ 0.394        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 116,323</u> | <b>Total TRC benefits</b>         | <u>\$ 0.394</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 6,807          | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 102,099        | Customer cost associated with program   | \$ 0.346        | per first-year kWh        |
| <u>\$ 108,905</u> | <b>TRC costs of program</b>             | <u>\$ 0.369</u> | <b>per first-year kWh</b> |

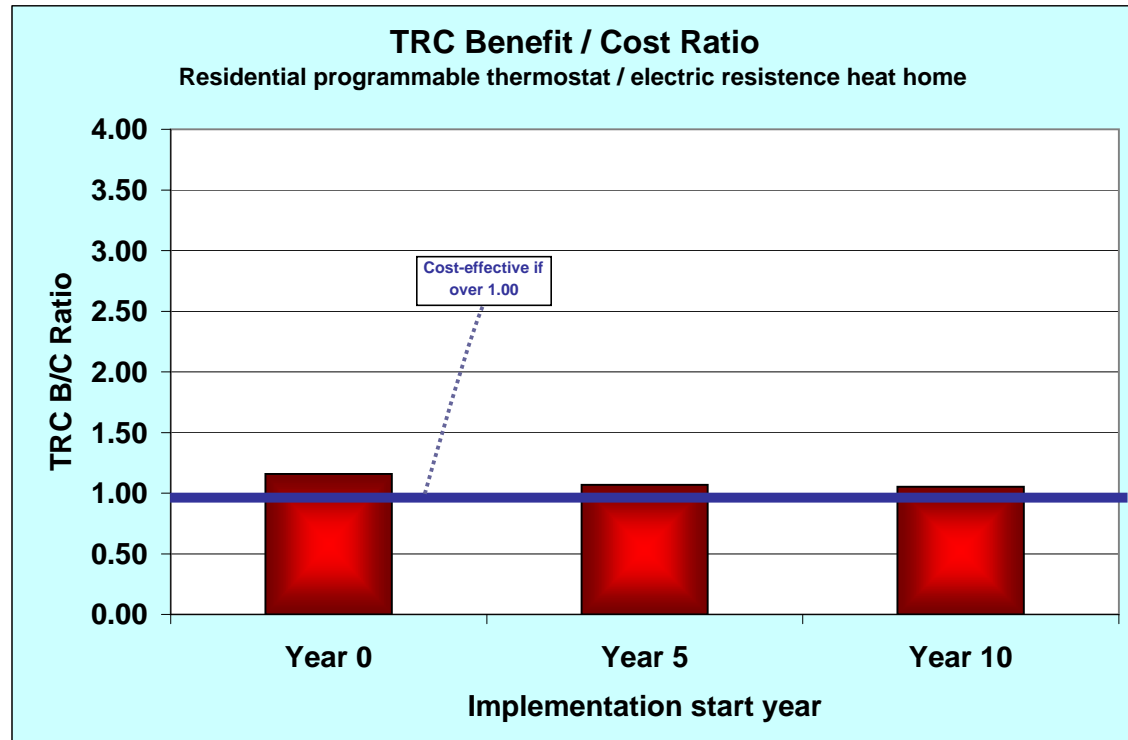
1.07 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 132,225        | PV of electric avoided cost value | \$ 0.448        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 132,225</u> | <b>Total TRC benefits</b>         | <u>\$ 0.448</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 7,852          | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 117,787        | Customer cost associated with program   | \$ 0.399        | per first-year kWh        |
| <u>\$ 125,639</u> | <b>TRC costs of program</b>             | <u>\$ 0.426</u> | <b>per first-year kWh</b> |

1.05 TRC benefit / cost ratio





8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 15 Measure life

0 therm impact per kWh  
 A Annual / winter therm  
 353,200 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 146,916        | PV of electric avoided cost value | \$ 0.416        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 146,916</u> | <b>Total TRC benefits</b>         | <u>\$ 0.416</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 7,064          | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 120,088        | Customer cost associated with program   | \$ 0.340        | per first-year kWh        |
| <u>\$ 127,152</u> | <b>TRC costs of program</b>             | <u>\$ 0.360</u> | <b>per first-year kWh</b> |

1.16 TRC benefit / cost ratio      \$ 0.043 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 155,624        | PV of electric avoided cost value | \$ 0.441        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 155,624</u> | <b>Total TRC benefits</b>         | <u>\$ 0.441</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 8,149          | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 138,540        | Customer cost associated with program   | \$ 0.392        | per first-year kWh        |
| <u>\$ 146,690</u> | <b>TRC costs of program</b>             | <u>\$ 0.415</u> | <b>per first-year kWh</b> |

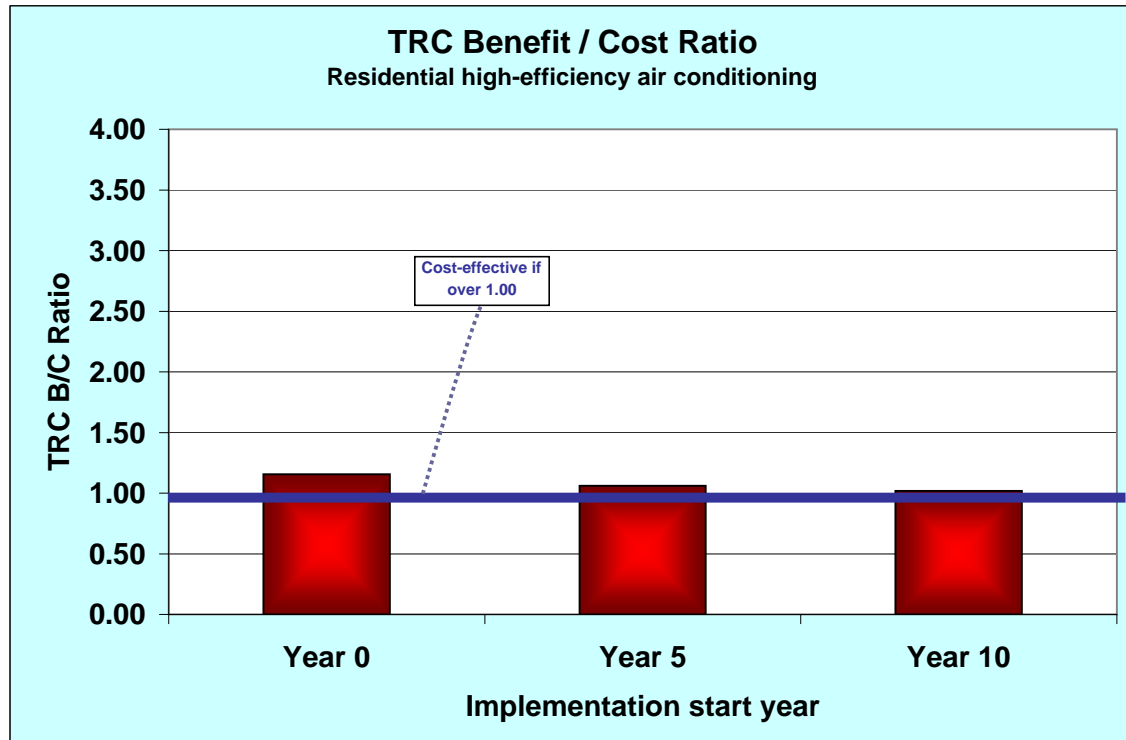
1.06 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 172,358        | PV of electric avoided cost value | \$ 0.488        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 172,358</u> | <b>Total TRC benefits</b>         | <u>\$ 0.488</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 9,402          | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 159,828        | Customer cost associated with program   | \$ 0.453        | per first-year kWh        |
| <u>\$ 169,230</u> | <b>TRC costs of program</b>             | <u>\$ 0.479</u> | <b>per first-year kWh</b> |

1.02 TRC benefit / cost ratio



8.53% Discount rate -0.0426625 therm impact per kWh  
 2.90% Inflation for pgm cost and NEB's W Annual / winter therm  
 20 Measure life 2,606,100 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 1,264,488      | PV of electric avoided cost value | \$ 0.485        | per first-year kWh        |
| \$ (566,551)      | PV of gas avoided cost value      | \$ (0.217)      | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 697,937</u> | <b>Total TRC benefits</b>         | <u>\$ 0.268</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 52,122         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 521,220        | Customer cost associated with program   | \$ 0.200        | per first-year kWh        |
| <u>\$ 573,342</u> | <b>TRC costs of program</b>             | <u>\$ 0.220</u> | <b>per first-year kWh</b> |

1.22 TRC benefit / cost ratio \$ 0.046 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 1,346,058      | PV of electric avoided cost value | \$ 0.517        | per first-year kWh        |
| \$ (636,629)      | PV of gas avoided cost value      | \$ (0.244)      | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 709,429</u> | <b>Total TRC benefits</b>         | <u>\$ 0.272</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 60,131         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 601,309        | Customer cost associated with program   | \$ 0.231        | per first-year kWh        |
| <u>\$ 661,440</u> | <b>TRC costs of program</b>             | <u>\$ 0.254</u> | <b>per first-year kWh</b> |

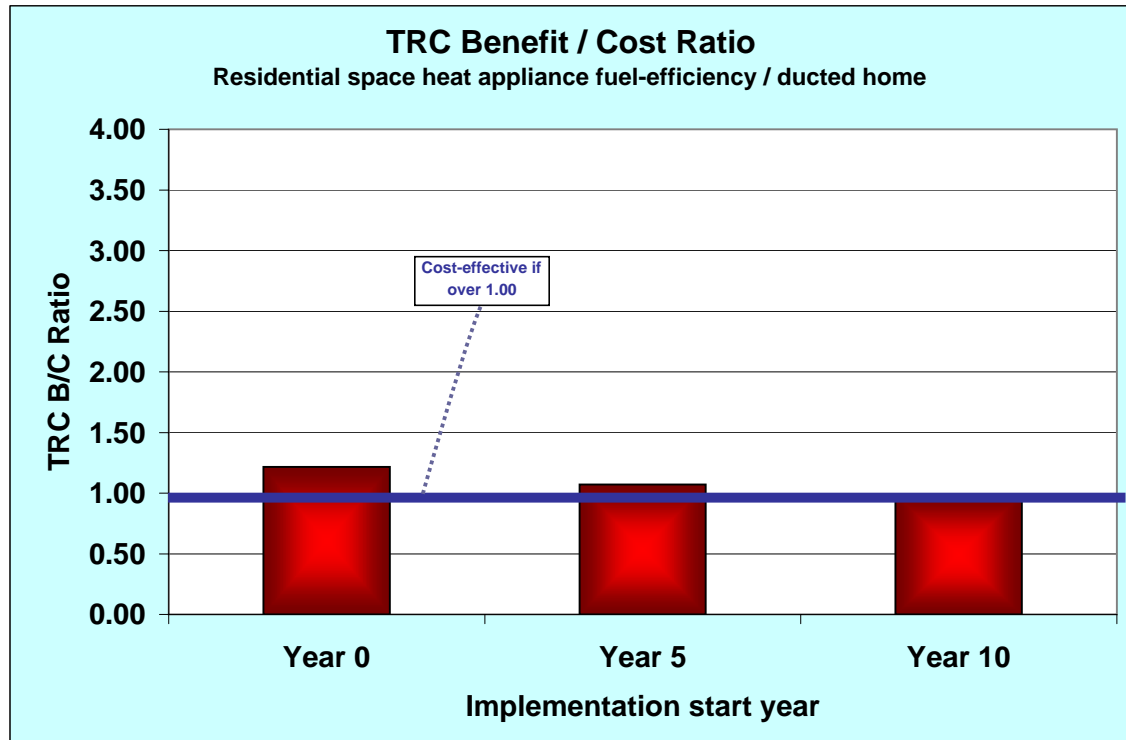
1.07 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 1,486,437      | PV of electric avoided cost value | \$ 0.570        | per first-year kWh        |
| \$ (730,617)      | PV of gas avoided cost value      | \$ (0.280)      | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 755,820</u> | <b>Total TRC benefits</b>         | <u>\$ 0.290</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 69,370         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 693,705        | Customer cost associated with program   | \$ 0.266        | per first-year kWh        |
| <u>\$ 763,075</u> | <b>TRC costs of program</b>             | <u>\$ 0.293</u> | <b>per first-year kWh</b> |

0.99 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 20 Measure life

0 therm impact per kWh  
 W Annual / winter therm  
 197,649 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 73,839        | PV of electric avoided cost value | \$ 0.374        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 73,839</u> | <b>Total TRC benefits</b>         | <u>\$ 0.374</u> | <b>per first-year kWh</b> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 3,953         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 69,177        | Customer cost associated with program   | \$ 0.350        | per first-year kWh        |
| <u>\$ 73,130</u> | <b>TRC costs of program</b>             | <u>\$ 0.370</u> | <b>per first-year kWh</b> |

1.01 TRC benefit / cost ratio  
 \$ 0.039 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 78,512        | PV of electric avoided cost value | \$ 0.397        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 78,512</u> | <b>Total TRC benefits</b>         | <u>\$ 0.397</u> | <b>per first-year kWh</b> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 4,560         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 79,807        | Customer cost associated with program   | \$ 0.404        | per first-year kWh        |
| <u>\$ 84,367</u> | <b>TRC costs of program</b>             | <u>\$ 0.427</u> | <b>per first-year kWh</b> |

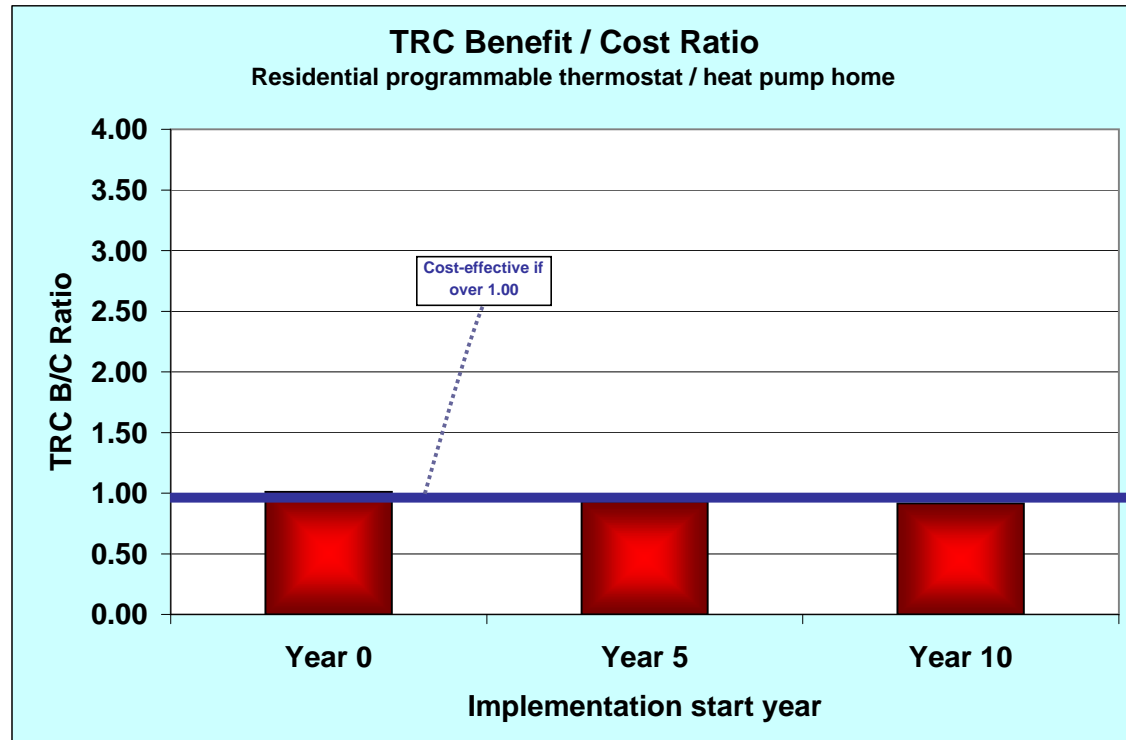
0.93 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 89,037        | PV of electric avoided cost value | \$ 0.450        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 89,037</u> | <b>Total TRC benefits</b>         | <u>\$ 0.450</u> | <b>per first-year kWh</b> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 5,261         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 92,069        | Customer cost associated with program   | \$ 0.466        | per first-year kWh        |
| <u>\$ 97,331</u> | <b>TRC costs of program</b>             | <u>\$ 0.492</u> | <b>per first-year kWh</b> |

0.91 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 15 Measure life

0 therm impact per kWh  
 W Annual / winter therm  
 470,120 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 195,550        | PV of electric avoided cost value | \$ 0.416        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 195,550</u> | <b>Total TRC benefits</b>         | <u>\$ 0.416</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 4,701          | Fully allocated utility cost of program | \$ 0.010        | per first-year kWh        |
| \$ 206,853        | Customer cost associated with program   | \$ 0.440        | per first-year kWh        |
| <u>\$ 211,554</u> | <b>TRC costs of program</b>             | <u>\$ 0.450</u> | <b>per first-year kWh</b> |

0.92 TRC benefit / cost ratio      \$ 0.054 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 207,140        | PV of electric avoided cost value | \$ 0.441        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 207,140</u> | <b>Total TRC benefits</b>         | <u>\$ 0.441</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 5,424          | Fully allocated utility cost of program | \$ 0.012        | per first-year kWh        |
| \$ 238,637        | Customer cost associated with program   | \$ 0.508        | per first-year kWh        |
| <u>\$ 244,061</u> | <b>TRC costs of program</b>             | <u>\$ 0.519</u> | <b>per first-year kWh</b> |

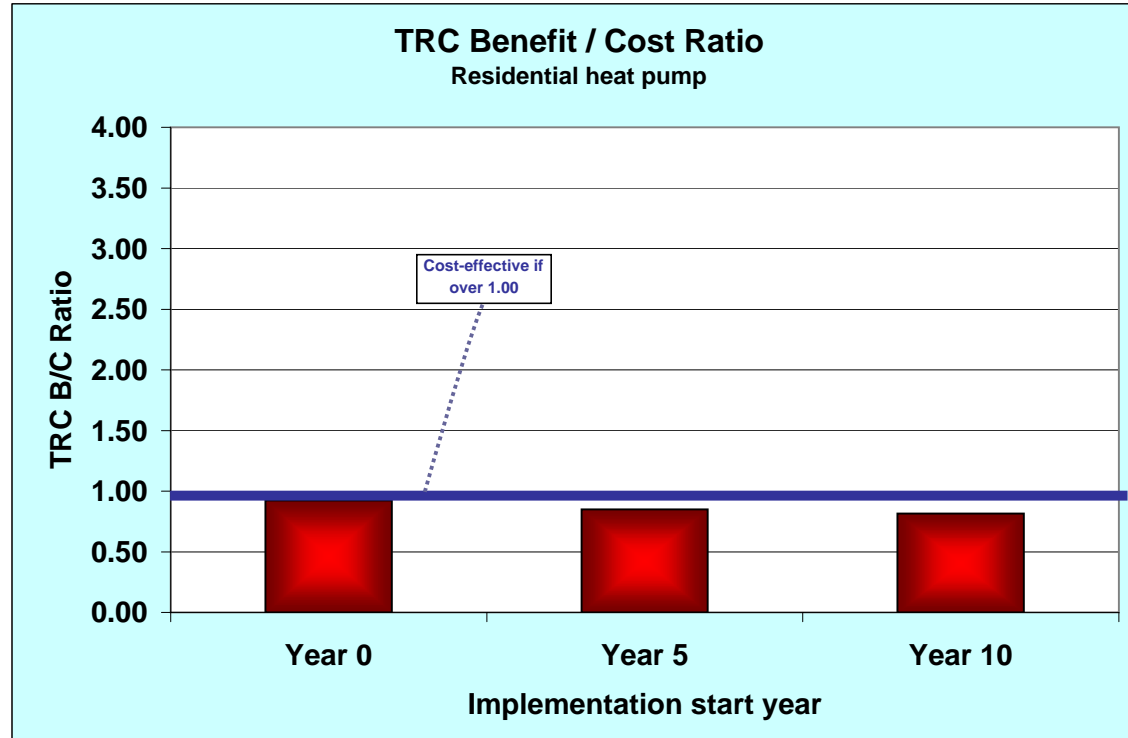
0.85 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 229,368        | PV of electric avoided cost value | \$ 0.488        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 229,368</u> | <b>Total TRC benefits</b>         | <u>\$ 0.488</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 6,257          | Fully allocated utility cost of program | \$ 0.013        | per first-year kWh        |
| \$ 275,306        | Customer cost associated with program   | \$ 0.586        | per first-year kWh        |
| <u>\$ 281,563</u> | <b>TRC costs of program</b>             | <u>\$ 0.599</u> | <b>per first-year kWh</b> |

0.81 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 25 Measure life

0 therm impact per kWh  
 W Annual / winter therm  
 127.972 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 64,412        | PV of electric avoided cost value | \$ 0.503        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 64,412</u> | <b>Total TRC benefits</b>         | <u>\$ 0.503</u> | <b>per first-year kWh</b> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 2,559         | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 67,825        | Customer cost associated with program   | \$ 0.530        | per first-year kWh        |
| <u>\$ 70,385</u> | <b>TRC costs of program</b>             | <u>\$ 0.550</u> | <b>per first-year kWh</b> |

0.92 TRC benefit / cost ratio      \$ 0.054 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 68,872        | PV of electric avoided cost value | \$ 0.538        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 68,872</u> | <b>Total TRC benefits</b>         | <u>\$ 0.538</u> | <b>per first-year kWh</b> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 2,953         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 78,247        | Customer cost associated with program   | \$ 0.611        | per first-year kWh        |
| <u>\$ 81,200</u> | <b>TRC costs of program</b>             | <u>\$ 0.635</u> | <b>per first-year kWh</b> |

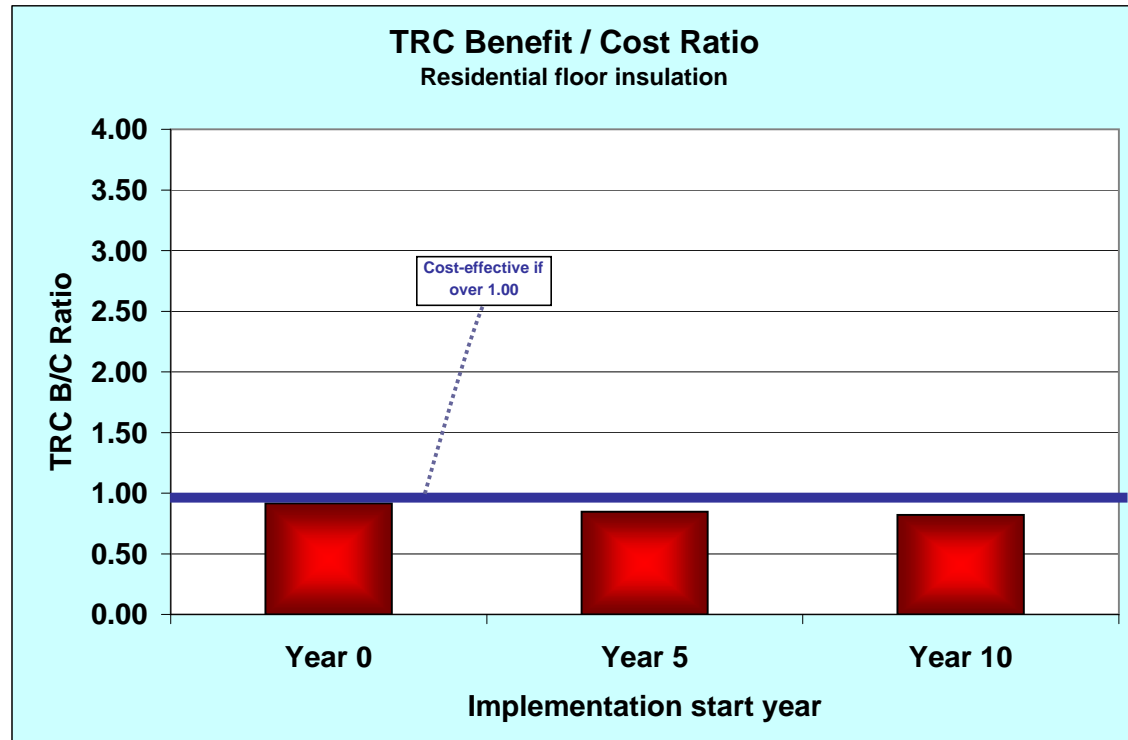
0.85 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 76,753        | PV of electric avoided cost value | \$ 0.600        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 76,753</u> | <b>Total TRC benefits</b>         | <u>\$ 0.600</u> | <b>per first-year kWh</b> |

|                  |   |                 |                           |
|------------------|---|-----------------|---------------------------|
| \$ 3,406         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 90,270        | Customer cost associated with program   | \$ 0.705        | per first-year kWh        |
| <u>\$ 93,677</u> | <b>TRC costs of program</b>             | <u>\$ 0.732</u> | <b>per first-year kWh</b> |

0.82 TRC benefit / cost ratio



8.53% Discount rate -0.0426625 therm impact per kWh  
 2.90% Inflation for pgm cost and NEB's W Annual / winter therm  
 20 Measure life 459,900 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 223,145        | PV of electric avoided cost value | \$ 0.485        | per first-year kWh        |
| \$ (99,980)       | PV of gas avoided cost value      | \$ (0.217)      | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 123,165</u> | <b>Total TRC benefits</b>         | <u>\$ 0.268</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 9,198          | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 170,163        | Customer cost associated with program   | \$ 0.370        | per first-year kWh        |
| <u>\$ 179,361</u> | <b>TRC costs of program</b>             | <u>\$ 0.390</u> | <b>per first-year kWh</b> |

0.69 TRC benefit / cost ratio \$ 0.064 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 237,540        | PV of electric avoided cost value | \$ 0.517        | per first-year kWh        |
| \$ (112,346)      | PV of gas avoided cost value      | \$ (0.244)      | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 125,193</u> | <b>Total TRC benefits</b>         | <u>\$ 0.272</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 10,611         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 196,310        | Customer cost associated with program   | \$ 0.427        | per first-year kWh        |
| <u>\$ 206,921</u> | <b>TRC costs of program</b>             | <u>\$ 0.450</u> | <b>per first-year kWh</b> |

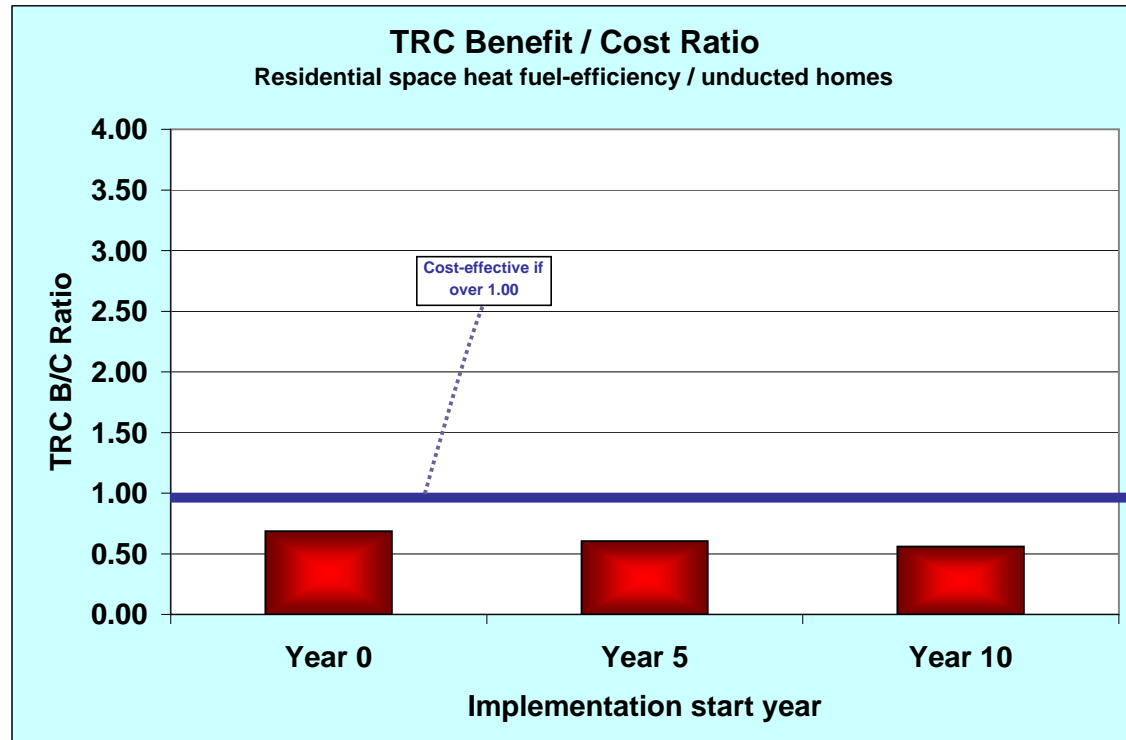
0.61 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 262,452        | PV of electric avoided cost value | \$ 0.571        | per first-year kWh        |
| \$ (128,932)      | PV of gas avoided cost value      | \$ (0.280)      | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 133,519</u> | <b>Total TRC benefits</b>         | <u>\$ 0.290</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 12,242         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 226,474        | Customer cost associated with program   | \$ 0.492        | per first-year kWh        |
| <u>\$ 238,716</u> | <b>TRC costs of program</b>             | <u>\$ 0.519</u> | <b>per first-year kWh</b> |

0.56 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 12 Measure life

0 therm impact per kWh  
 A Annual / winter therm  
 484,659 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 169,946        | PV of electric avoided cost value | \$ 0.351        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 169,946</u> | <b>Total TRC benefits</b>         | <u>\$ 0.351</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 9,693          | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 310,182        | Customer cost associated with program   | \$ 0.640        | per first-year kWh        |
| <u>\$ 319,875</u> | <b>TRC costs of program</b>             | <u>\$ 0.660</u> | <b>per first-year kWh</b> |

0.53 TRC benefit / cost ratio      \$ 0.090 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 179,126        | PV of electric avoided cost value | \$ 0.370        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 179,126</u> | <b>Total TRC benefits</b>         | <u>\$ 0.370</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 11,183         | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 357,843        | Customer cost associated with program   | \$ 0.738        | per first-year kWh        |
| <u>\$ 369,026</u> | <b>TRC costs of program</b>             | <u>\$ 0.761</u> | <b>per first-year kWh</b> |

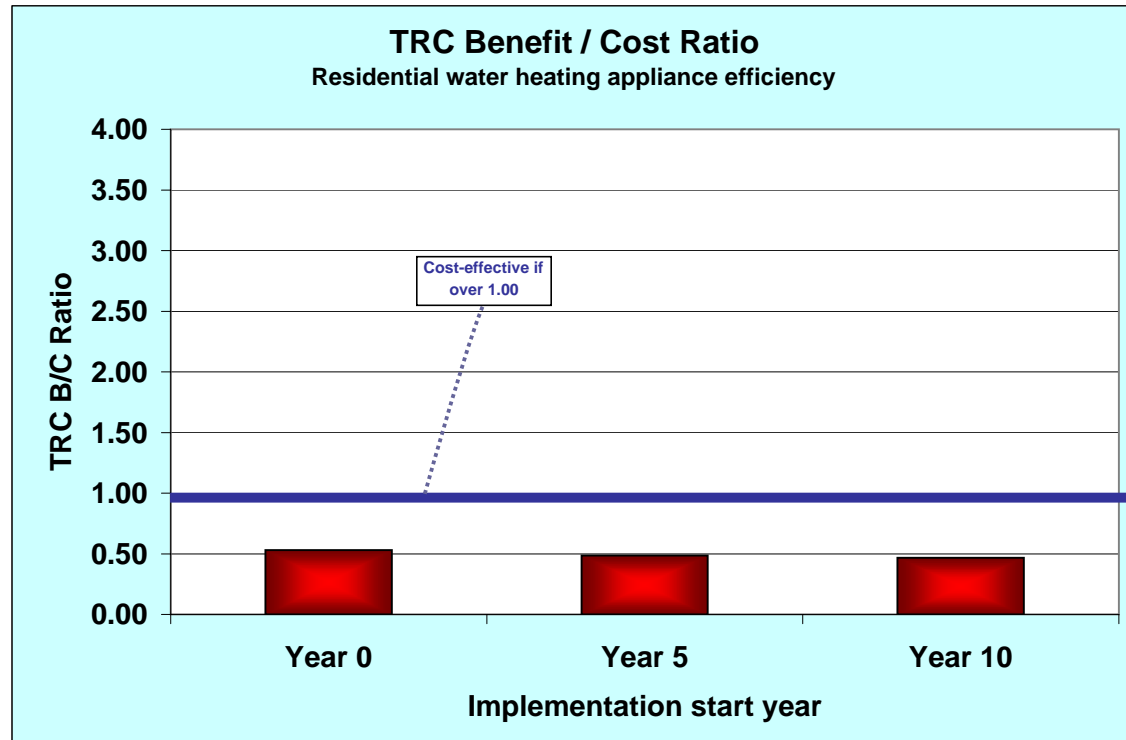
0.49 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 199,124        | PV of electric avoided cost value | \$ 0.411        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 199,124</u> | <b>Total TRC benefits</b>         | <u>\$ 0.411</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 12,901         | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 412,829        | Customer cost associated with program   | \$ 0.852        | per first-year kWh        |
| <u>\$ 425,730</u> | <b>TRC costs of program</b>             | <u>\$ 0.878</u> | <b>per first-year kWh</b> |

0.47 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 20 Measure life

0 therm impact per kWh  
 W Annual / winter therm  
 166,500 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 65,620        | PV of electric avoided cost value | \$ 0.394        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 65,620</u> | <b>Total TRC benefits</b>         | <u>\$ 0.394</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 3,330          | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 134,865        | Customer cost associated with program   | \$ 0.810        | per first-year kWh        |
| <u>\$ 138,195</u> | <b>TRC costs of program</b>             | <u>\$ 0.830</u> | <b>per first-year kWh</b> |

0.47 TRC benefit / cost ratio      \$ 0.088 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 69,115        | PV of electric avoided cost value | \$ 0.415        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 69,115</u> | <b>Total TRC benefits</b>         | <u>\$ 0.415</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 3,842          | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 155,588        | Customer cost associated with program   | \$ 0.934        | per first-year kWh        |
| <u>\$ 159,430</u> | <b>TRC costs of program</b>             | <u>\$ 0.958</u> | <b>per first-year kWh</b> |

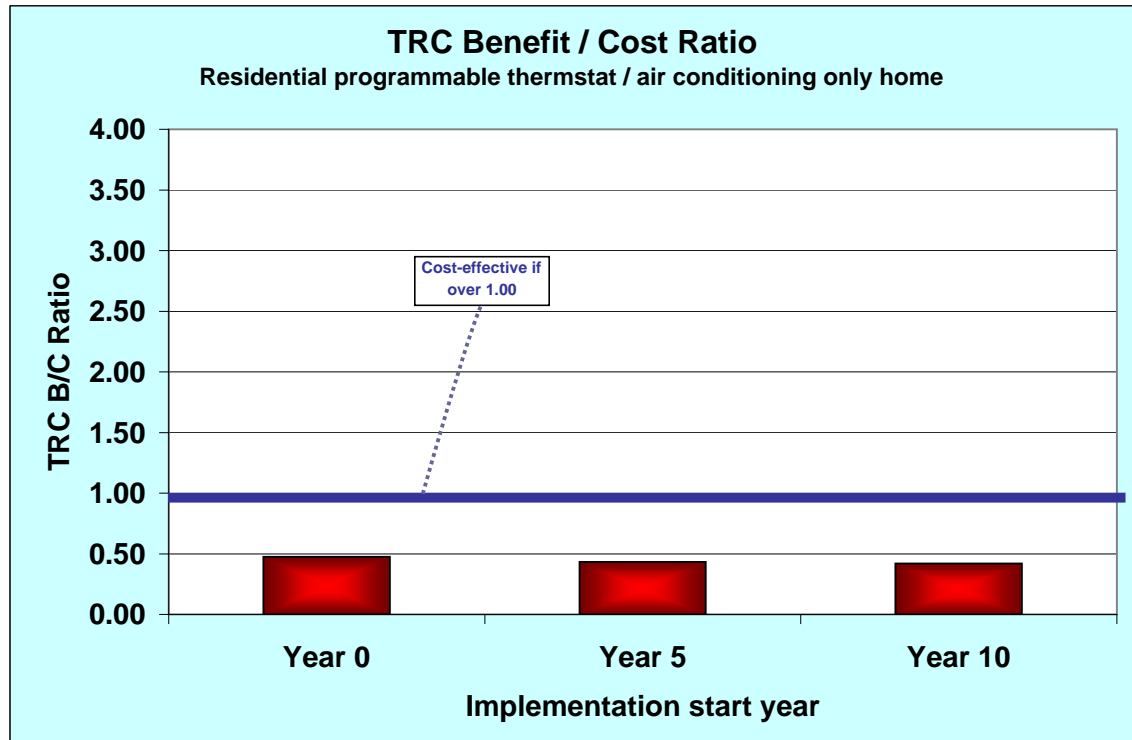
0.43 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 77,047        | PV of electric avoided cost value | \$ 0.463        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 77,047</u> | <b>Total TRC benefits</b>         | <u>\$ 0.463</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 4,432          | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 179,495        | Customer cost associated with program   | \$ 1.078        | per first-year kWh        |
| <u>\$ 183,927</u> | <b>TRC costs of program</b>             | <u>\$ 1.105</u> | <b>per first-year kWh</b> |

0.42 TRC benefit / cost ratio





8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 12 Measure life

0 therm impact per kWh  
 W Annual / winter therm  
 88,596 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 30,060        | PV of electric avoided cost value | \$ 0.339        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 30,060</u> | <b>Total TRC benefits</b>         | <u>\$ 0.339</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 1,772          | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 310,972        | Customer cost associated with program   | \$ 3.510        | per first-year kWh        |
| <u>\$ 312,744</u> | <b>TRC costs of program</b>             | <u>\$ 3.530</u> | <b>per first-year kWh</b> |

0.10 TRC benefit / cost ratio \$ 0.481 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 31,688        | PV of electric avoided cost value | \$ 0.358        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 31,688</u> | <b>Total TRC benefits</b>         | <u>\$ 0.358</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 2,044          | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 358,755        | Customer cost associated with program   | \$ 4.049        | per first-year kWh        |
| <u>\$ 360,799</u> | <b>TRC costs of program</b>             | <u>\$ 4.072</u> | <b>per first-year kWh</b> |

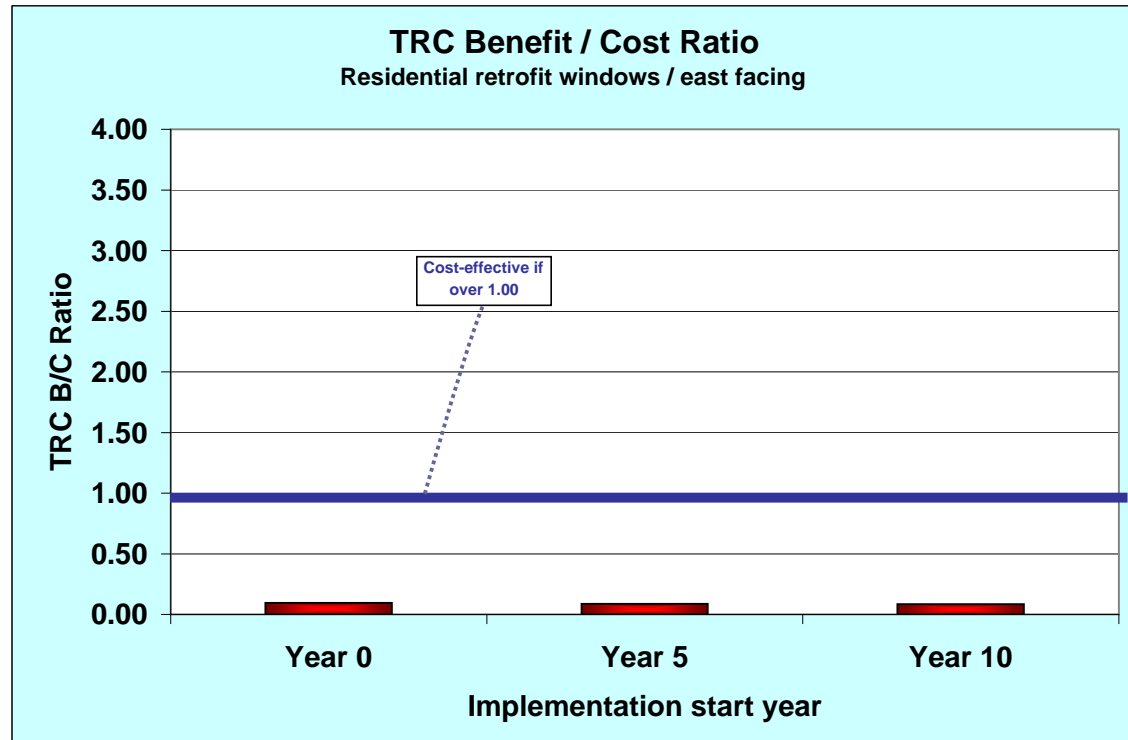
0.09 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 35,473        | PV of electric avoided cost value | \$ 0.400        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 35,473</u> | <b>Total TRC benefits</b>         | <u>\$ 0.400</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 2,358          | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 413,881        | Customer cost associated with program   | \$ 4.672        | per first-year kWh        |
| <u>\$ 416,239</u> | <b>TRC costs of program</b>             | <u>\$ 4.698</u> | <b>per first-year kWh</b> |

0.09 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 12 Measure life

0 therm impact per kWh  
 W Annual / winter therm  
 98,440 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 33,400        | PV of electric avoided cost value | \$ 0.339        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 33,400</u> | <b>Total TRC benefits</b>         | <u>\$ 0.339</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 1,969          | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 345,524        | Customer cost associated with program   | \$ 3.510        | per first-year kWh        |
| <u>\$ 347,493</u> | <b>TRC costs of program</b>             | <u>\$ 3.530</u> | <b>per first-year kWh</b> |

0.10 TRC benefit / cost ratio      \$ 0.481 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 35,209        | PV of electric avoided cost value | \$ 0.358        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 35,209</u> | <b>Total TRC benefits</b>         | <u>\$ 0.358</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 2,271          | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 398,617        | Customer cost associated with program   | \$ 4.049        | per first-year kWh        |
| <u>\$ 400,888</u> | <b>TRC costs of program</b>             | <u>\$ 4.072</u> | <b>per first-year kWh</b> |

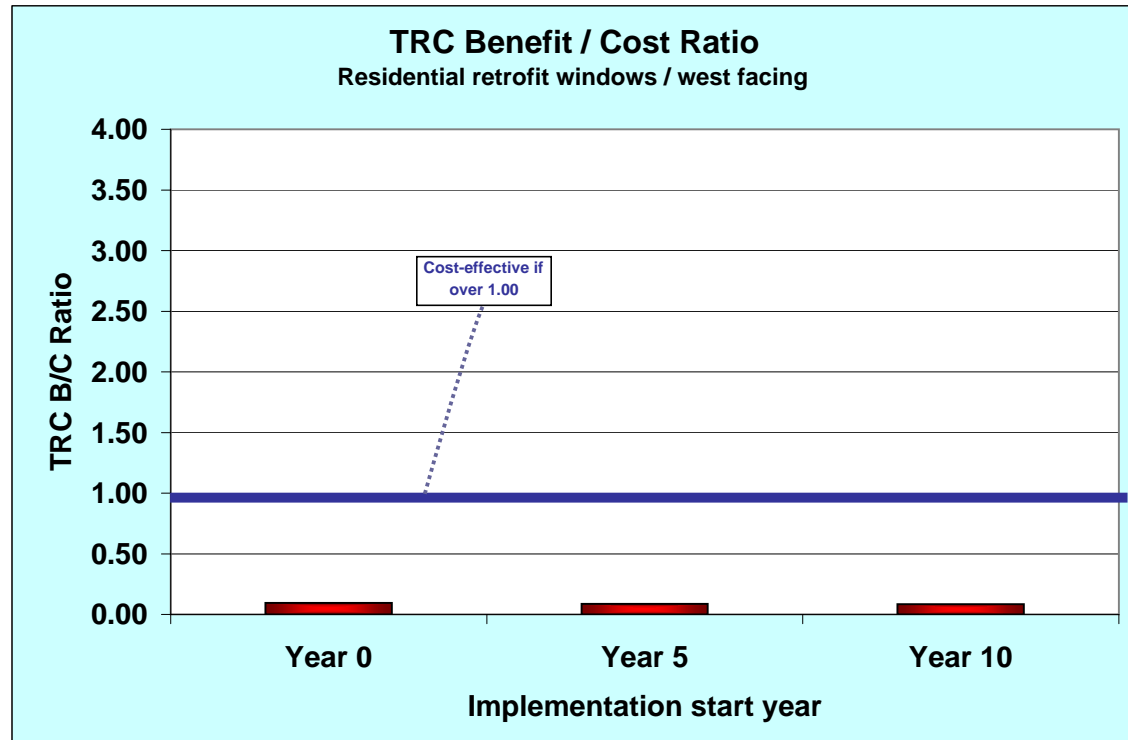
0.09 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 39,402        | PV of electric avoided cost value | \$ 0.400        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 39,402</u> | <b>Total TRC benefits</b>         | <u>\$ 0.400</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 2,620          | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 459,867        | Customer cost associated with program   | \$ 4.672        | per first-year kWh        |
| <u>\$ 462,488</u> | <b>TRC costs of program</b>             | <u>\$ 4.698</u> | <b>per first-year kWh</b> |

0.09 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 12 Measure life

0 therm impact per kWh  
 W Annual / winter therm  
 49,220 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 16,700        | PV of electric avoided cost value | \$ 0.339        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 16,700</u> | <b>Total TRC benefits</b>         | <u>\$ 0.339</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 984            | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 212,138        | Customer cost associated with program   | \$ 4.310        | per first-year kWh        |
| <u>\$ 213,123</u> | <b>TRC costs of program</b>             | <u>\$ 4.330</u> | <b>per first-year kWh</b> |

0.08 TRC benefit / cost ratio      \$ 0.590 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 17,604        | PV of electric avoided cost value | \$ 0.358        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 17,604</u> | <b>Total TRC benefits</b>         | <u>\$ 0.358</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 1,136          | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 244,735        | Customer cost associated with program   | \$ 4.972        | per first-year kWh        |
| <u>\$ 245,870</u> | <b>TRC costs of program</b>             | <u>\$ 4.995</u> | <b>per first-year kWh</b> |

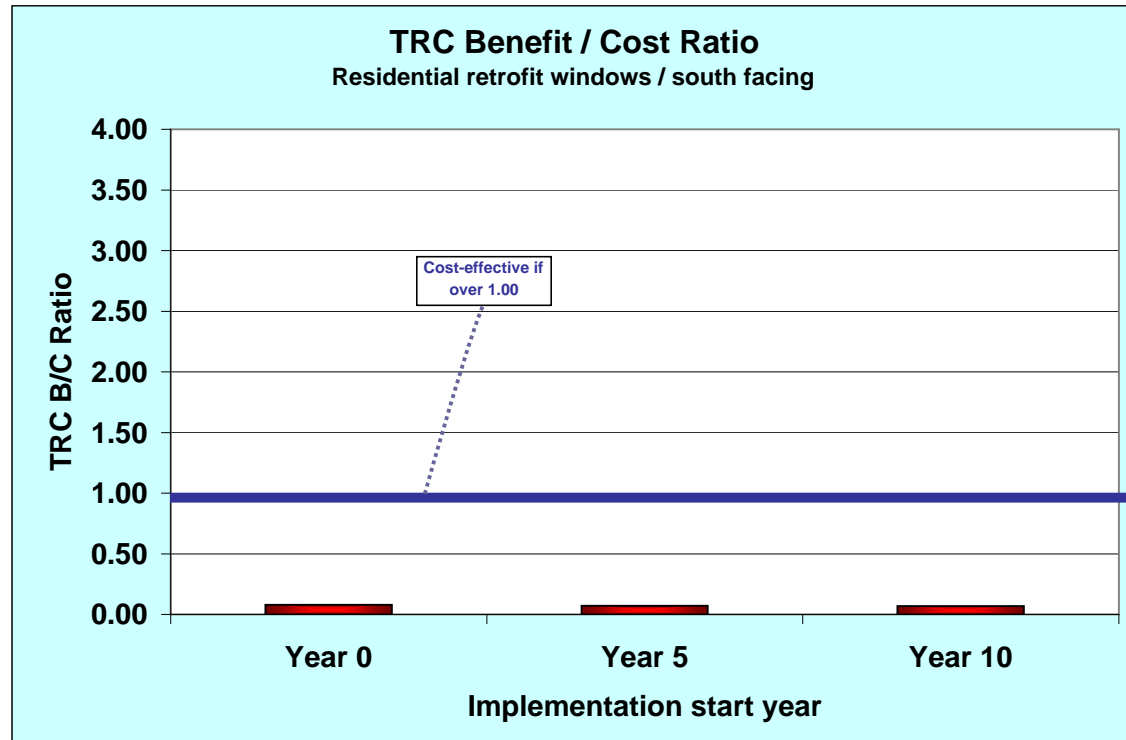
0.07 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 19,758        | PV of electric avoided cost value | \$ 0.401        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 19,758</u> | <b>Total TRC benefits</b>         | <u>\$ 0.401</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 1,310          | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 282,340        | Customer cost associated with program   | \$ 5.736        | per first-year kWh        |
| <u>\$ 283,650</u> | <b>TRC costs of program</b>             | <u>\$ 5.763</u> | <b>per first-year kWh</b> |

0.07 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 12 Measure life

0 therm impact per kWh  
 W Annual / winter therm  
 68,908 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 23,380        | PV of electric avoided cost value | \$ 0.339        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 23,380</u> | <b>Total TRC benefits</b>         | <u>\$ 0.339</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 1,378          | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 676,677        | Customer cost associated with program   | \$ 9.820        | per first-year kWh        |
| <u>\$ 678,055</u> | <b>TRC costs of program</b>             | <u>\$ 9.840</u> | <b>per first-year kWh</b> |

0.03 TRC benefit / cost ratio      \$ 1.342 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 24,646        | PV of electric avoided cost value | \$ 0.358        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 24,646</u> | <b>Total TRC benefits</b>         | <u>\$ 0.358</u> | <b>per first-year kWh</b> |

|                   |   |                  |                           |
|-------------------|---|------------------|---------------------------|
| \$ 1,590          | Fully allocated utility cost of program | \$ 0.023         | per first-year kWh        |
| \$ 780,653        | Customer cost associated with program   | \$ 11.329        | per first-year kWh        |
| <u>\$ 782,243</u> | <b>TRC costs of program</b>             | <u>\$ 11.352</u> | <b>per first-year kWh</b> |

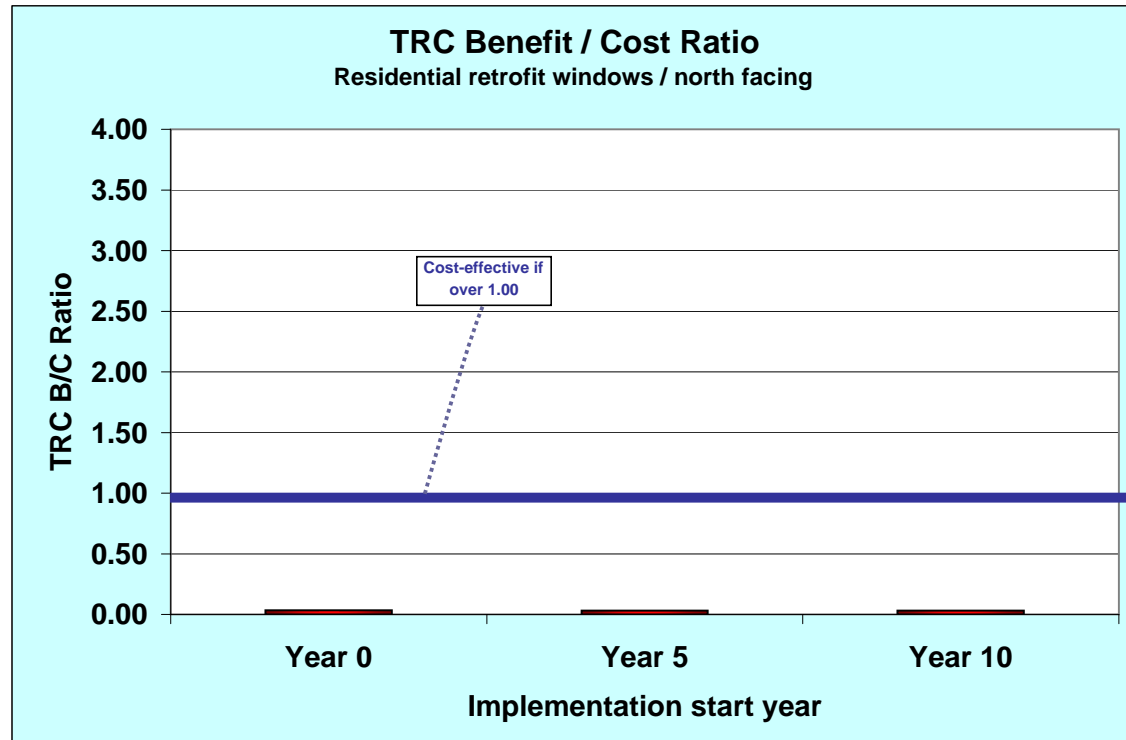
0.03 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 27,615        | PV of electric avoided cost value | \$ 0.401        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 27,615</u> | <b>Total TRC benefits</b>         | <u>\$ 0.401</u> | <b>per first-year kWh</b> |

|                   |   |                  |                           |
|-------------------|---|------------------|---------------------------|
| \$ 1,834          | Fully allocated utility cost of program | \$ 0.027         | per first-year kWh        |
| \$ 900,606        | Customer cost associated with program   | \$ 13.070        | per first-year kWh        |
| <u>\$ 902,440</u> | <b>TRC costs of program</b>             | <u>\$ 13.096</u> | <b>per first-year kWh</b> |

0.03 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 12 Measure life

0 therm impact per kWh  
 W Annual / winter therm  
 7,687 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                 |                                   |                 |                           |
|-----------------|-----------------------------------|-----------------|---------------------------|
| \$ 2,608        | PV of electric avoided cost value | \$ 0.339        | per first-year kWh        |
| \$ -            | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -            | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 2,608</u> | <b>Total TRC benefits</b>         | <u>\$ 0.339</u> | <b>per first-year kWh</b> |

|                 |   |                 |                           |
|-----------------|---|-----------------|---------------------------|
| \$ 154          | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 1,349        | Customer cost associated with program   | \$ 0.176        | per first-year kWh        |
| <u>\$ 1,503</u> | <b>TRC costs of program</b>             | <u>\$ 0.196</u> | <b>per first-year kWh</b> |

1.74 TRC benefit / cost ratio      \$ 0.027 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                 |                                   |                 |                           |
|-----------------|-----------------------------------|-----------------|---------------------------|
| \$ 2,749        | PV of electric avoided cost value | \$ 0.358        | per first-year kWh        |
| \$ -            | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -            | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 2,749</u> | <b>Total TRC benefits</b>         | <u>\$ 0.358</u> | <b>per first-year kWh</b> |

|                 |   |                 |                           |
|-----------------|---|-----------------|---------------------------|
| \$ 177          | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 1,556        | Customer cost associated with program   | \$ 0.202        | per first-year kWh        |
| <u>\$ 1,734</u> | <b>TRC costs of program</b>             | <u>\$ 0.226</u> | <b>per first-year kWh</b> |

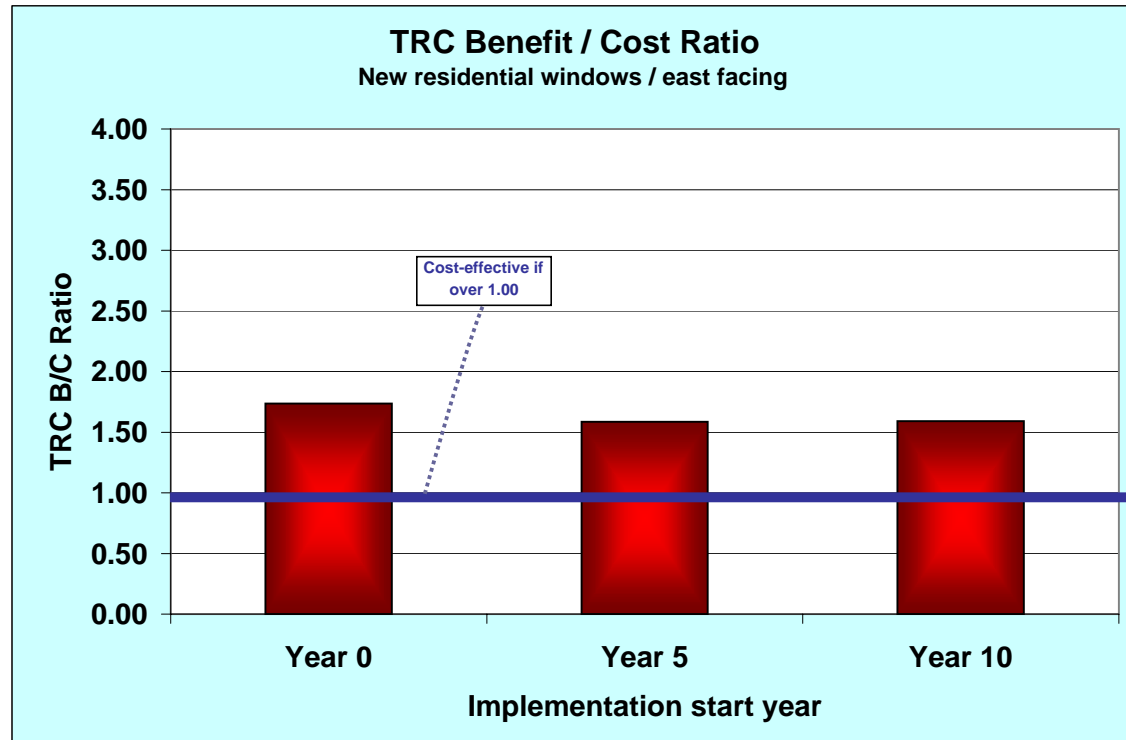
1.59 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                 |                                   |                 |                           |
|-----------------|-----------------------------------|-----------------|---------------------------|
| \$ 3,182        | PV of electric avoided cost value | \$ 0.414        | per first-year kWh        |
| \$ -            | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -            | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 3,182</u> | <b>Total TRC benefits</b>         | <u>\$ 0.414</u> | <b>per first-year kWh</b> |

|                 |   |                 |                           |
|-----------------|---|-----------------|---------------------------|
| \$ 205          | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 1,795        | Customer cost associated with program   | \$ 0.234        | per first-year kWh        |
| <u>\$ 2,000</u> | <b>TRC costs of program</b>             | <u>\$ 0.260</u> | <b>per first-year kWh</b> |

1.59 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 12 Measure life

0 therm impact per kWh  
 W Annual / winter therm  
 7,687 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                 |                                   |                 |                           |
|-----------------|-----------------------------------|-----------------|---------------------------|
| \$ 2,608        | PV of electric avoided cost value | \$ 0.339        | per first-year kWh        |
| \$ -            | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -            | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 2,608</u> | <b>Total TRC benefits</b>         | <u>\$ 0.339</u> | <b>per first-year kWh</b> |

|                 |   |                 |                           |
|-----------------|---|-----------------|---------------------------|
| \$ 154          | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 1,349        | Customer cost associated with program   | \$ 0.176        | per first-year kWh        |
| <u>\$ 1,503</u> | <b>TRC costs of program</b>             | <u>\$ 0.196</u> | <b>per first-year kWh</b> |

1.74 TRC benefit / cost ratio      \$ 0.027 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                 |                                   |                 |                           |
|-----------------|-----------------------------------|-----------------|---------------------------|
| \$ 2,749        | PV of electric avoided cost value | \$ 0.358        | per first-year kWh        |
| \$ -            | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -            | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 2,749</u> | <b>Total TRC benefits</b>         | <u>\$ 0.358</u> | <b>per first-year kWh</b> |

|                 |   |                 |                           |
|-----------------|---|-----------------|---------------------------|
| \$ 177          | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 1,556        | Customer cost associated with program   | \$ 0.202        | per first-year kWh        |
| <u>\$ 1,734</u> | <b>TRC costs of program</b>             | <u>\$ 0.226</u> | <b>per first-year kWh</b> |

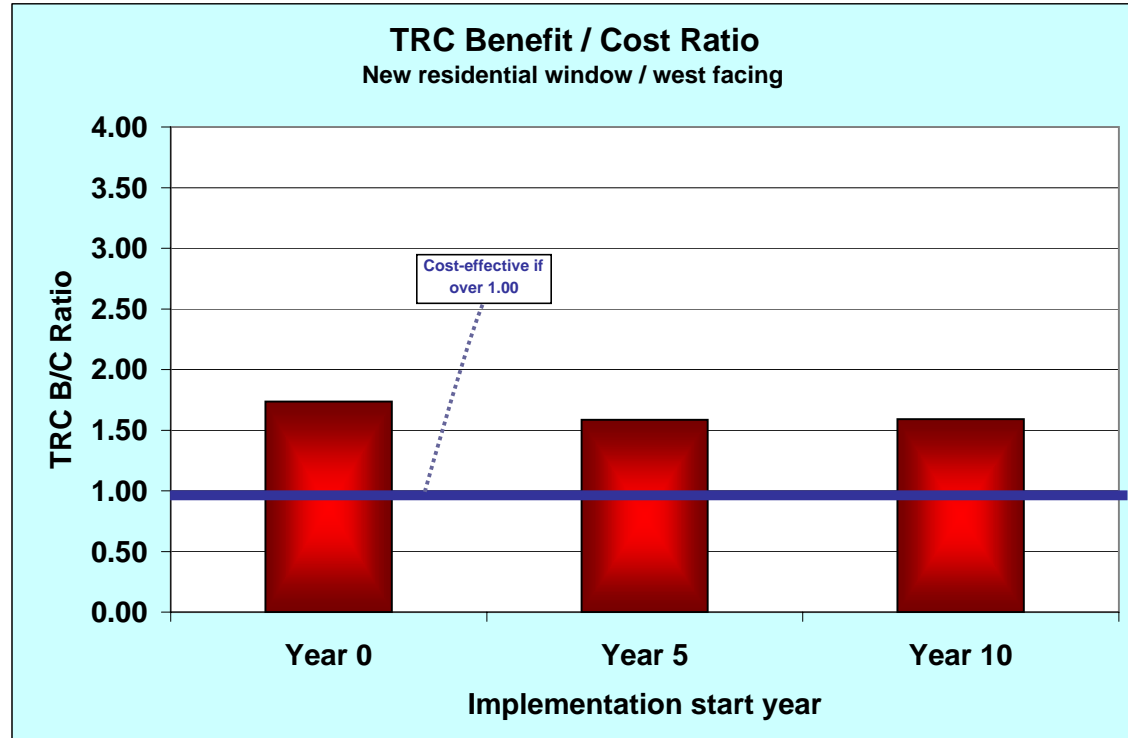
1.59 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                 |                                   |                 |                           |
|-----------------|-----------------------------------|-----------------|---------------------------|
| \$ 3,182        | PV of electric avoided cost value | \$ 0.414        | per first-year kWh        |
| \$ -            | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -            | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 3,182</u> | <b>Total TRC benefits</b>         | <u>\$ 0.414</u> | <b>per first-year kWh</b> |

|                 |   |                 |                           |
|-----------------|---|-----------------|---------------------------|
| \$ 205          | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 1,795        | Customer cost associated with program   | \$ 0.234        | per first-year kWh        |
| <u>\$ 2,000</u> | <b>TRC costs of program</b>             | <u>\$ 0.260</u> | <b>per first-year kWh</b> |

1.59 TRC benefit / cost ratio



8.53% Discount rate  
 2.90% Program cost, NEB inflation  
 12 Measure life

0 therm impact/kwh  
 W "A" or "W" therm  
 6,268 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                 |                               |                 |                    |
|-----------------|-------------------------------|-----------------|--------------------|
| \$ 2,127        | PV of el AC value of program  | \$ 0.339        | per first-year kWh |
| \$ -            | PV of gas AC value of program | \$ -            | per first-year kWh |
| \$ -            | NEB of program                | \$ -            | per first-year kWh |
| <u>\$ 2,127</u> | TRC benefits of program       | <u>\$ 0.339</u> | per first-year kWh |

|                 |   |                 |                    |
|-----------------|---|-----------------|--------------------|
| \$ 125          | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh |
| \$ 1,351        | Customer cost associated with program   | \$ 0.216        | per first-year kWh |
| <u>\$ 1,476</u> | TRC costs of program                    | <u>\$ 0.236</u> | per first-year kWh |

1.44 Program TRC B/C ratio \$ 0.032 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                 |                               |                 |                    |
|-----------------|-------------------------------|-----------------|--------------------|
| \$ 2,242        | PV of el AC value of program  | \$ 0.358        | per first-year kWh |
| \$ -            | PV of gas AC value of program | \$ -            | per first-year kWh |
| \$ -            | NEB of program                | \$ -            | per first-year kWh |
| <u>\$ 2,242</u> | TRC benefits of program       | <u>\$ 0.358</u> | per first-year kWh |

|                 |   |                 |                    |
|-----------------|---|-----------------|--------------------|
| \$ 145          | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh |
| \$ 1,558        | Customer cost associated with program   | \$ 0.249        | per first-year kWh |
| <u>\$ 1,703</u> | TRC costs of program                    | <u>\$ 0.272</u> | per first-year kWh |

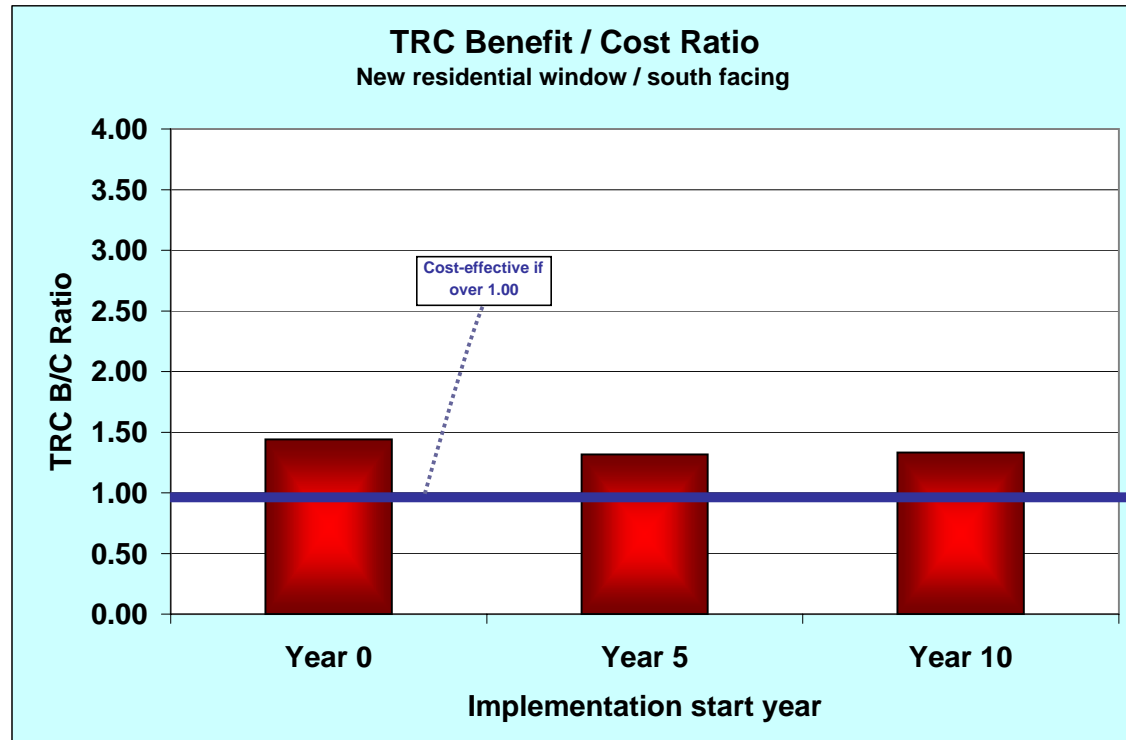
1.32 Program TRC B/C ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                 |                               |                 |                    |
|-----------------|-------------------------------|-----------------|--------------------|
| \$ 2,615        | PV of el AC value of program  | \$ 0.417        | per first-year kWh |
| \$ -            | PV of gas AC value of program | \$ -            | per first-year kWh |
| \$ -            | NEB of program                | \$ -            | per first-year kWh |
| <u>\$ 2,615</u> | TRC benefits of program       | <u>\$ 0.417</u> | per first-year kWh |

|                 |   |                 |                    |
|-----------------|---|-----------------|--------------------|
| \$ 167          | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh |
| \$ 1,798        | Customer cost associated with program   | \$ 0.287        | per first-year kWh |
| <u>\$ 1,965</u> | TRC costs of program                    | <u>\$ 0.313</u> | per first-year kWh |

1.33 Program TRC B/C ratio



8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 12 Measure life

0 therm impact per kWh  
 W Annual / winter therm  
 2,750 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|               |                                   |                 |                           |
|---------------|-----------------------------------|-----------------|---------------------------|
| \$ 933        | PV of electric avoided cost value | \$ 0.339        | per first-year kWh        |
| \$ -          | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -          | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 933</u> | <b>Total TRC benefits</b>         | <u>\$ 0.339</u> | <b>per first-year kWh</b> |

|                 |   |                 |                           |
|-----------------|---|-----------------|---------------------------|
| \$ 55           | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 1,350        | Customer cost associated with program   | \$ 0.491        | per first-year kWh        |
| <u>\$ 1,405</u> | <b>TRC costs of program</b>             | <u>\$ 0.511</u> | <b>per first-year kWh</b> |

0.66 TRC benefit / cost ratio      \$ 0.070 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|               |                                   |                 |                           |
|---------------|-----------------------------------|-----------------|---------------------------|
| \$ 983        | PV of electric avoided cost value | \$ 0.358        | per first-year kWh        |
| \$ -          | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -          | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 983</u> | <b>Total TRC benefits</b>         | <u>\$ 0.358</u> | <b>per first-year kWh</b> |

|                 |   |                 |                           |
|-----------------|---|-----------------|---------------------------|
| \$ 63           | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 1,557        | Customer cost associated with program   | \$ 0.566        | per first-year kWh        |
| <u>\$ 1,621</u> | <b>TRC costs of program</b>             | <u>\$ 0.590</u> | <b>per first-year kWh</b> |

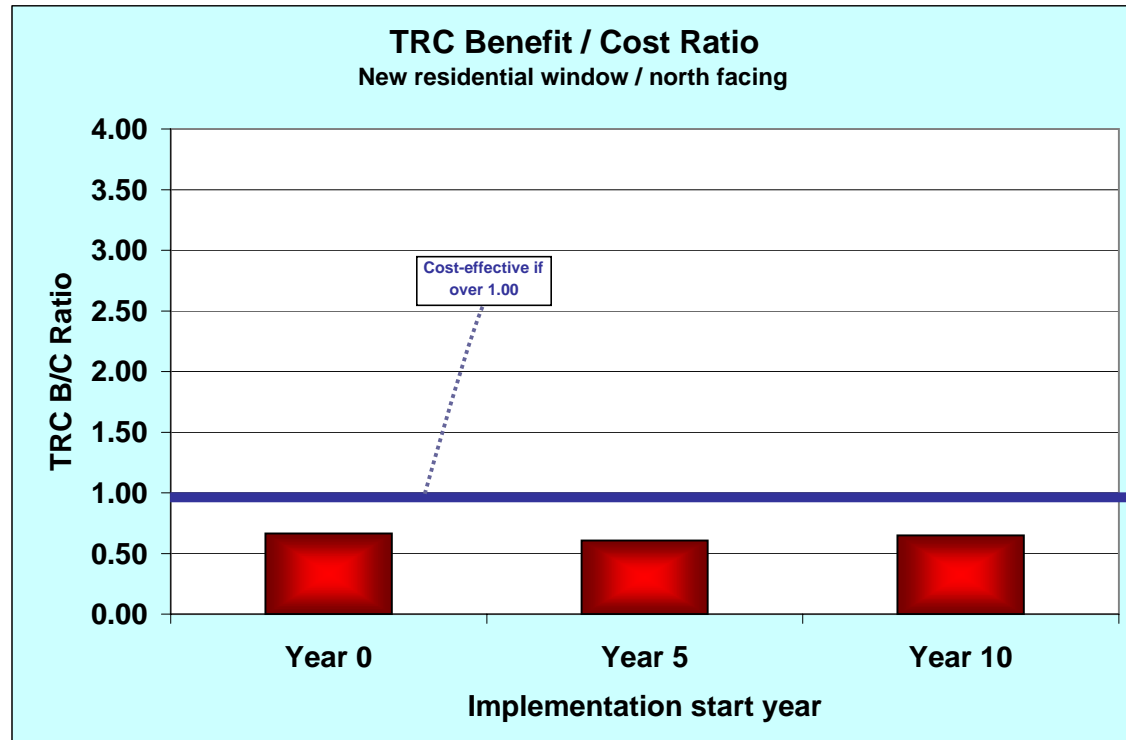
0.61 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                 |                                   |                 |                           |
|-----------------|-----------------------------------|-----------------|---------------------------|
| \$ 1,211        | PV of electric avoided cost value | \$ 0.441        | per first-year kWh        |
| \$ -            | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -            | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 1,211</u> | <b>Total TRC benefits</b>         | <u>\$ 0.441</u> | <b>per first-year kWh</b> |

|                 |   |                 |                           |
|-----------------|---|-----------------|---------------------------|
| \$ 73           | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 1,797        | Customer cost associated with program   | \$ 0.653        | per first-year kWh        |
| <u>\$ 1,870</u> | <b>TRC costs of program</b>             | <u>\$ 0.680</u> | <b>per first-year kWh</b> |

0.65 TRC benefit / cost ratio





8.53% Discount rate  
 2.90% Inflation for pgm cost and NEB's  
 12 Measure life

0 therm impact per kWh  
 A Annual / winter therm  
 262,800 1st yr kWhs

**YEAR 0 IMPLEMENTATION**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 89,166        | PV of electric avoided cost value | \$ 0.339        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 89,166</u> | <b>Total TRC benefits</b>         | <u>\$ 0.339</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 5,256          | Fully allocated utility cost of program | \$ 0.020        | per first-year kWh        |
| \$ 120,888        | Customer cost associated with program   | \$ 0.460        | per first-year kWh        |
| <u>\$ 126,144</u> | <b>TRC costs of program</b>             | <u>\$ 0.480</u> | <b>per first-year kWh</b> |

0.71 TRC benefit / cost ratio      \$ 0.065 Levelized TRC cost

**YEAR 5 IMPLEMENTATION (PV'ed to program start date)**

|                  |                                   |                 |                           |
|------------------|-----------------------------------|-----------------|---------------------------|
| \$ 93,995        | PV of electric avoided cost value | \$ 0.358        | per first-year kWh        |
| \$ -             | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -             | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 93,995</u> | <b>Total TRC benefits</b>         | <u>\$ 0.358</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 6,064          | Fully allocated utility cost of program | \$ 0.023        | per first-year kWh        |
| \$ 139,463        | Customer cost associated with program   | \$ 0.531        | per first-year kWh        |
| <u>\$ 145,527</u> | <b>TRC costs of program</b>             | <u>\$ 0.554</u> | <b>per first-year kWh</b> |

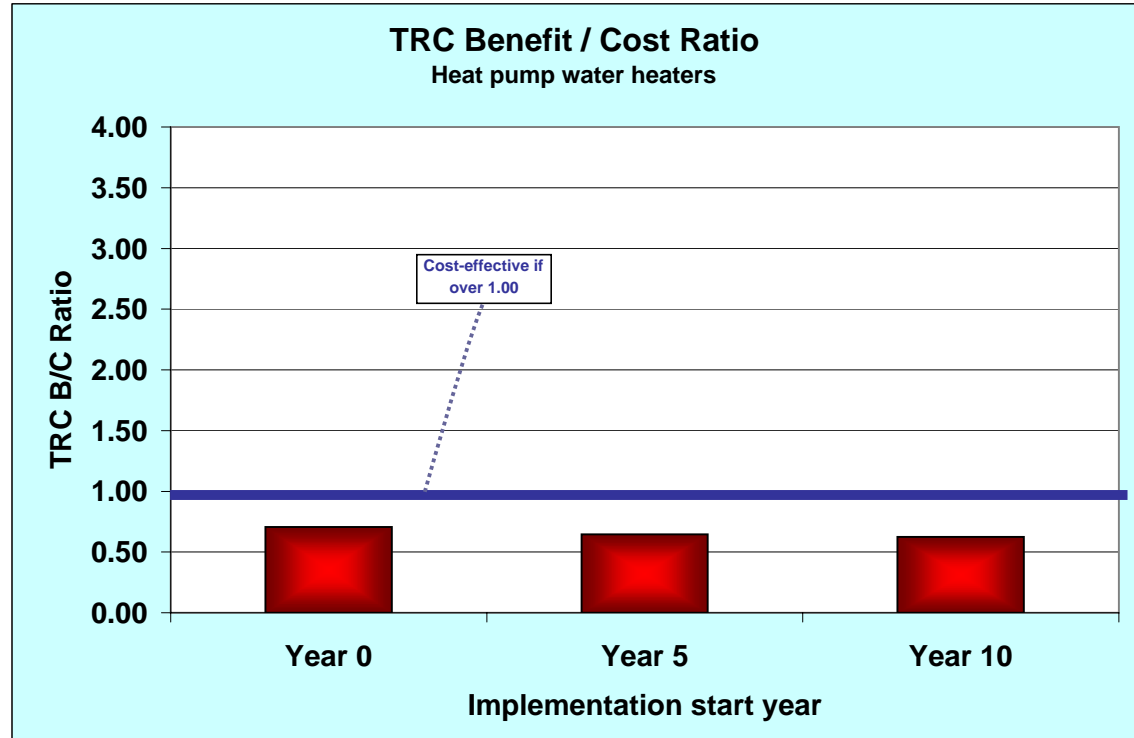
0.65 TRC benefit / cost ratio

**YEAR 10 IMPLEMENTATION (PV'ed to program start date)**

|                   |                                   |                 |                           |
|-------------------|-----------------------------------|-----------------|---------------------------|
| \$ 104,998        | PV of electric avoided cost value | \$ 0.400        | per first-year kWh        |
| \$ -              | PV of gas avoided cost value      | \$ -            | per first-year kWh        |
| \$ -              | Non-energy benefits               | \$ -            | per first-year kWh        |
| <u>\$ 104,998</u> | <b>Total TRC benefits</b>         | <u>\$ 0.400</u> | <b>per first-year kWh</b> |

|                   |   |                 |                           |
|-------------------|---|-----------------|---------------------------|
| \$ 6,995          | Fully allocated utility cost of program | \$ 0.027        | per first-year kWh        |
| \$ 160,893        | Customer cost associated with program   | \$ 0.612        | per first-year kWh        |
| <u>\$ 167,888</u> | <b>TRC costs of program</b>             | <u>\$ 0.639</u> | <b>per first-year kWh</b> |

0.63 TRC benefit / cost ratio



# Loads and Resource Detail

(Includes High & Low Load)

## Appendix J

## BASE CASE--- LONG-TERM LOAD AND RESOURCES TABULATION—ENERGY (aMW)

| Notes                                    | 2006                            | 2007 | 2008           | 2009           | 2010           | 2011           | 2012           | 2013           | 2014           | 2015           | 2016           | 2017           | 2018           | 2019           | 2020           | 2021           | 2022           | 2023           | 2024           | 2025           | 2026           |                |                |
|--|---------------------------------|------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>AVERAGE LOAD &amp; HYDRO PLANNING</b> |                                 |      |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| <b>REQUIREMENTS</b>                      |                                 |      |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 1  | System Load                     | 1    | (1,098)        | (1,120)        | (1,151)        | (1,183)        | (1,213)        | (1,245)        | (1,269)        | (1,295)        | (1,322)        | (1,353)        | (1,378)        | (1,393)        | (1,416)        | (1,445)        | (1,471)        | (1,497)        | (1,516)        | (1,547)        | (1,576)        | (1,604)        | (1,633)        |
| 2  | Contract Obligations            | 2    | (60)           | (60)           | (60)           | (60)           | (59)           | (58)           | (57)           | (57)           | (57)           | (57)           | (9)            | (9)            | (8)            | (8)            | (8)            | (8)            | (8)            | (8)            | (8)            | (8)            | (8)            |
| 3  | <b>Total Requirements</b>       |      | <b>(1,158)</b> | <b>(1,181)</b> | <b>(1,211)</b> | <b>(1,244)</b> | <b>(1,272)</b> | <b>(1,303)</b> | <b>(1,326)</b> | <b>(1,352)</b> | <b>(1,379)</b> | <b>(1,410)</b> | <b>(1,435)</b> | <b>(1,403)</b> | <b>(1,425)</b> | <b>(1,454)</b> | <b>(1,479)</b> | <b>(1,506)</b> | <b>(1,524)</b> | <b>(1,556)</b> | <b>(1,584)</b> | <b>(1,612)</b> | <b>(1,641)</b> |
| <b>RESOURCES</b>                         |                                 |      |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 4  | Contract Rights                 | 4    | 293            | 295            | 294            | 295            | 294            | 189            | 171            | 172            | 164            | 162            | 162            | 114            | 113            | 92             | 65             | 65             | 65             | 65             | 65             | 65             | 65             |
| 5  | Hydro                           | 3    | 510            | 510            | 510            | 506            | 487            | 483            | 466            | 466            | 465            | 465            | 464            | 464            | 460            | 448            | 447            | 447            | 446            | 446            | 445            | 445            | 444            |
| 6  | Base Load Thermals              | 5    | 226            | 229            | 243            | 228            | 232            | 242            | 231            | 230            | 243            | 231            | 230            | 228            | 228            | 243            | 230            | 231            | 242            | 232            | 231            | 242            | 242            |
| 7  | Gas Dispatch Units              | 6    | 272            | 282            | 268            | 282            | 272            | 282            | 268            | 282            | 273            | 282            | 268            | 282            | 272            | 282            | 268            | 282            | 272            | 282            | 268            | 282            | 272            |
| 8  | <b>Total Resources</b>          |      | <b>1,301</b>   | <b>1,316</b>   | <b>1,315</b>   | <b>1,310</b>   | <b>1,285</b>   | <b>1,196</b>   | <b>1,136</b>   | <b>1,150</b>   | <b>1,146</b>   | <b>1,140</b>   | <b>1,124</b>   | <b>1,102</b>   | <b>1,077</b>   | <b>1,049</b>   | <b>1,023</b>   | <b>1,024</b>   | <b>1,015</b>   | <b>1,035</b>   | <b>1,010</b>   | <b>1,023</b>   | <b>1,024</b>   |
| 9  | <b>POSITION</b>                 |      | <b>143</b>     | <b>135</b>     | <b>104</b>     | <b>67</b>      | <b>14</b>      | <b>(107)</b>   | <b>(190)</b>   | <b>(202)</b>   | <b>(234)</b>   | <b>(270)</b>   | <b>(311)</b>   | <b>(301)</b>   | <b>(348)</b>   | <b>(405)</b>   | <b>(456)</b>   | <b>(481)</b>   | <b>(509)</b>   | <b>(521)</b>   | <b>(574)</b>   | <b>(589)</b>   | <b>(618)</b>   |
| <b>CONTINGENCY PLANNING</b>              |                                 |      |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 10                                       | Confidence Interval             | 7    | (160)          | (160)          | (160)          | (159)          | (155)          | (155)          | (151)          | (151)          | (151)          | (151)          | (151)          | (151)          | (150)          | (149)          | (148)          | (148)          | (148)          | (148)          | (148)          | (148)          | (148)          |
| 11                                       | WNP-3 Obligation                | 8    | (33)           | (33)           | (33)           | (33)           | (33)           | (33)           | (33)           | (33)           | (33)           | (33)           | (33)           | (33)           | (33)           | (18)           | -              | -              | -              | -              | -              | -              | -              |
| 12                                       | Peaking Resources               | 9    | 142            | 145            | 145            | 145            | 141            | 145            | 145            | 144            | 146            | 146            | 142            | 146            | 146            | 145            | 142            | 146            | 146            | 144            | 146            | 146            | 132            |
| 13                                       | <b>CONTINGENCY NET POSITION</b> |      | <b>91</b>      | <b>87</b>      | <b>57</b>      | <b>19</b>      | <b>(34)</b>    | <b>(150)</b>   | <b>(229)</b>   | <b>(243)</b>   | <b>(273)</b>   | <b>(308)</b>   | <b>(353)</b>   | <b>(340)</b>   | <b>(386)</b>   | <b>(427)</b>   | <b>(463)</b>   | <b>(484)</b>   | <b>(512)</b>   | <b>(525)</b>   | <b>(576)</b>   | <b>(590)</b>   | <b>(633)</b>   |

**Notes:**

1. Load estimates are from the 2005 load forecast (07-27-2004) including 100% of Potlatch load
2. Includes Nichols Pumping and Canadian Entitlement Return contracts. Does not include WNP-3 Obligation.
3. Average (60-year) hydro generation for system hydro (Clark Fork and Spokane River projects) and contract hydro (Mid-Columbia) based on NWPP 2003-04 Headwater Benefits Study, modified for daily spill. Mid-C numbers reflect the Priest Rapids and Wanapum contract extensions beginning in 2005.
4. Includes small PURPA contracts, Upriver, El Paso 2004-2006 25 MW flat, Duke 2004-2006 50 MW flat, Morgan Stanley 2004-2006 25 MW flat, El Paso 2007-2010 75 MW flat, BP Energy 2007-2010 25 MW flat, Grant Displacement, PPM Wind, and WNP-3 Receipt.
5. Includes Colstrip and Kettle Falls at full capability, adjusted for maintenance and forced outage.
6. Includes Coyote Springs 2, Coyote Springs 2 duct burner, Boulder Park, and Kettle Falls CT at full capability, adjusted for maintenance and forced outage.
7. The confidence interval represents the 12-month average of reserve energy necessary to ensure no more than a 10 percent probability of loads exceeding, and/or hydro underperforming, during a given month.
8. Represents highest level of potential obligation to BPA generally exercised under low hydro conditions.
9. Includes Northeast and Rathdrum at full capability, adjusted for forced outage and maintenance.  
Northeast is limited to 1,700 hours of operation per year, which has been applied to the period of highest typical market prices.

## BASE CASE--- LONG-TERM L&R TABULATION—CAPACITY (MW)

Notes    2005    2006    2007    2008    2009    2010    2011    2012    2013    2014    2015    2016    2017    2018    2019    2020    2021    2022    2023    2024    2025    2026

| PEAK LOAD AND RESOURCE PLANNING |                              |   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
|---------------------------------|------------------------------|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>REQUIREMENTS</b>             |                              |   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 1                               | Native Load                  | 1 | (1,619)        | (1,666)        | (1,699)        | (1,745)        | (1,785)        | (1,841)        | (1,875)        | (1,926)        | (1,965)        | (2,007)        | (2,053)        | (2,091)        | (2,115)        | (2,150)        | (2,170)        | (2,233)        | (2,274)        | (2,302)        | (2,349)        | (2,392)        | (2,436)        | (2,481)        |
| 2                               | Contracts Obligations        | 2 | (173)          | (169)          | (169)          | (169)          | (164)          | (164)          | (162)          | (162)          | (162)          | (162)          | (162)          | (12)           | (12)           | (10)           | (10)           | (10)           | (10)           | (10)           | (10)           | (10)           | (10)           | (10)           |
| 3                               | <b>Total Requirements</b>    |   | <b>(1,792)</b> | <b>(1,835)</b> | <b>(1,868)</b> | <b>(1,914)</b> | <b>(1,949)</b> | <b>(2,005)</b> | <b>(2,037)</b> | <b>(2,087)</b> | <b>(2,127)</b> | <b>(2,169)</b> | <b>(2,215)</b> | <b>(2,253)</b> | <b>(2,127)</b> | <b>(2,162)</b> | <b>(2,180)</b> | <b>(2,243)</b> | <b>(2,284)</b> | <b>(2,312)</b> | <b>(2,359)</b> | <b>(2,402)</b> | <b>(2,446)</b> | <b>(2,491)</b> |
| <b>RESOURCES</b>                |                              |   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 4                               | Contracts Rights             | 3 | 310            | 325            | 328            | 328            | 328            | 209            | 210            | 210            | 210            | 210            | 210            | 210            | 210            | 127            | 128            | 128            | 128            | 128            | 128            | 128            | 128            | 128            |
| 5                               | Hydro Resources              | 4 | 1,156          | 1,108          | 1,100          | 1,100          | 1,066          | 1,059          | 1,028          | 1,006          | 1,019          | 1,018          | 1,017          | 1,016          | 1,015          | 1,014          | 992            | 984            | 983            | 968            | 981            | 980            | 979            | 978            |
| 6                               | Base Load Thermals           | 5 | 272            | 272            | 276            | 280            | 280            | 280            | 280            | 280            | 280            | 280            | 280            | 280            | 280            | 280            | 280            | 280            | 280            | 280            | 280            | 280            | 280            | 280            |
| 7                               | Gas Dispatch Units           | 6 | 179            | 303            | 303            | 308            | 303            | 303            | 307            | 303            | 303            | 308            | 308            | 303            | 303            | 308            | 303            | 303            | 303            | 303            | 303            | 308            | 308            | 308            |
| 8                               | Peaking Units                | 7 | 243            | 243            | 243            | 243            | 243            | 243            | 243            | 243            | 243            | 243            | 243            | 243            | 243            | 243            | 243            | 243            | 243            | 243            | 243            | 243            | 243            | 243            |
| 9                               | <b>Total Resources</b>       |   | <b>2,160</b>   | <b>2,251</b>   | <b>2,250</b>   | <b>2,258</b>   | <b>2,220</b>   | <b>2,212</b>   | <b>2,066</b>   | <b>2,042</b>   | <b>2,055</b>   | <b>2,058</b>   | <b>2,057</b>   | <b>2,052</b>   | <b>2,051</b>   | <b>2,054</b>   | <b>1,944</b>   | <b>1,938</b>   | <b>1,937</b>   | <b>1,922</b>   | <b>1,935</b>   | <b>1,938</b>   | <b>1,937</b>   | <b>1,936</b>   |
| 10                              | <b>PEAK POSITION</b>         |   | <b>368</b>     | <b>417</b>     | <b>382</b>     | <b>344</b>     | <b>271</b>     | <b>207</b>     | <b>30</b>      | <b>(46)</b>    | <b>(72)</b>    | <b>(111)</b>   | <b>(158)</b>   | <b>(201)</b>   | <b>(76)</b>    | <b>(108)</b>   | <b>(236)</b>   | <b>(306)</b>   | <b>(347)</b>   | <b>(390)</b>   | <b>(425)</b>   | <b>(465)</b>   | <b>(509)</b>   | <b>(555)</b>   |
| <b>RESERVE PLANNING</b>         |                              |   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 11                              | Planning Reserve Margin      | 8 | (252)          | (257)          | (260)          | (265)          | (269)          | (274)          | (278)          | (283)          | (287)          | (291)          | (295)          | (299)          | (302)          | (305)          | (307)          | (313)          | (317)          | (320)          | (325)          | (329)          | (334)          | (338)          |
| 12                              | <b>RESERVE PEAK POSITION</b> |   | <b>116</b>     | <b>160</b>     | <b>122</b>     | <b>79</b>      | <b>3</b>       | <b>(67)</b>    | <b>(248)</b>   | <b>(328)</b>   | <b>(359)</b>   | <b>(402)</b>   | <b>(453)</b>   | <b>(500)</b>   | <b>(378)</b>   | <b>(413)</b>   | <b>(543)</b>   | <b>(619)</b>   | <b>(665)</b>   | <b>(711)</b>   | <b>(750)</b>   | <b>(794)</b>   | <b>(843)</b>   | <b>(893)</b>   |

**Notes:**

- 1. Because Avista Utilities' load peaks in the winter, all data is based on monthly peak deficits from period November through February.
- 1. Load estimates are from the 2005 peak load forecast (07-27-2004) including the forecast of Potlatch load.
- 2. Includes Nichols Pumping, Canadian Entitlement Return, and PGE Capacity contracts.
- 3. Includes small PURPA contracts, Upriver, El Paso 2004-2006 25 MW flat, Duke 2004-2006 50 MW flat, Morgan Stanley 2004-2006 25 MW flat, El Paso 2007-2010 75 MW flat, BP Energy 2007-2010 25 MW flat, Grant Displacement, WNP-3 Receipt, and Potlatch generation.
- 4. Peak hydro generation for system hydro (Clark Fork and Spokane River projects, excluding maintenance) and contract hydro (Mid-Columbia, including maintenance). Mid-C numbers reflect the Priest Rapids and Wanapum contract extensions beginning in 2005.
- 5. Includes Colstrip and Kettle Falls, maintenance is assumed to occur outside the November through February timeframe.
- 6. Includes 100% of Coyote Springs 2 and Coyote Springs 2 duct burner, Boulder Park, and Kettle Falls CT; maintenance is assumed to occur outside the November through February timeframe.
- 7. Includes Northeast and Rathdrum, maintenance is assumed to occur outside the November through February timeframe.
- 8. Includes 10% of peak load (to approximate load variability) and 90 MW (to approximate the risk of river freeze-up and partial forced outages).

## HIGH LOAD CASE--- LONG-TERM LOAD AND RESOURCES TABULATION—ENERGY (aMW)

|  | Notes                           | 2006 | 2007           | 2008           | 2009           | 2010           | 2011           | 2012           | 2013           | 2014           | 2015           | 2016           | 2017           | 2018           | 2019           | 2020           | 2021           | 2022           | 2023           | 2024           | 2025           | 2026           |                |
|--|---------------------------------|------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>AVERAGE LOAD &amp; HYDRO PLANNING</b> |                                 |      |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| <b>REQUIREMENTS</b>                      |                                 |      |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 1  | System Load                     | 1    | (1,098)        | (1,130)        | (1,177)        | (1,222)        | (1,266)        | (1,311)        | (1,348)        | (1,387)        | (1,428)        | (1,472)        | (1,517)        | (1,552)        | (1,596)        | (1,649)        | (1,699)        | (1,752)        | (1,796)        | (1,857)        | (1,916)        | (1,976)        | (2,036)        |
| 2  | Contract Obligations            | 2    | (60)           | (60)           | (60)           | (60)           | (59)           | (58)           | (57)           | (57)           | (57)           | (57)           | (9)            | (9)            | (8)            | (8)            | (8)            | (8)            | (8)            | (8)            | (8)            | (8)            | (8)            |
| 3  | <b>Total Requirements</b>       |      | <b>(1,158)</b> | <b>(1,191)</b> | <b>(1,237)</b> | <b>(1,282)</b> | <b>(1,324)</b> | <b>(1,369)</b> | <b>(1,405)</b> | <b>(1,444)</b> | <b>(1,485)</b> | <b>(1,530)</b> | <b>(1,574)</b> | <b>(1,562)</b> | <b>(1,605)</b> | <b>(1,657)</b> | <b>(1,707)</b> | <b>(1,760)</b> | <b>(1,805)</b> | <b>(1,865)</b> | <b>(1,924)</b> | <b>(1,984)</b> | <b>(2,044)</b> |
| <b>RESOURCES</b>                         |                                 |      |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 4  | Contract Rights                 | 4    | 293            | 295            | 294            | 295            | 294            | 189            | 171            | 172            | 164            | 162            | 162            | 114            | 113            | 92             | 65             | 65             | 65             | 65             | 65             | 65             | 65             |
| 5  | Hydro                           | 3    | 510            | 510            | 510            | 506            | 487            | 483            | 466            | 466            | 465            | 465            | 464            | 464            | 460            | 448            | 447            | 447            | 446            | 446            | 445            | 445            | 444            |
| 6  | Base Load Thermals              | 5    | 226            | 229            | 243            | 228            | 232            | 242            | 231            | 230            | 243            | 231            | 230            | 242            | 232            | 228            | 243            | 230            | 231            | 242            | 232            | 231            | 242            |
| 7  | Gas Dispatch Units              | 6    | 272            | 282            | 268            | 282            | 272            | 282            | 268            | 282            | 273            | 282            | 268            | 282            | 272            | 282            | 268            | 282            | 272            | 282            | 268            | 282            | 272            |
| 8  | <b>Total Resources</b>          |      | <b>1,301</b>   | <b>1,316</b>   | <b>1,315</b>   | <b>1,310</b>   | <b>1,285</b>   | <b>1,196</b>   | <b>1,136</b>   | <b>1,150</b>   | <b>1,146</b>   | <b>1,140</b>   | <b>1,124</b>   | <b>1,102</b>   | <b>1,077</b>   | <b>1,049</b>   | <b>1,023</b>   | <b>1,024</b>   | <b>1,015</b>   | <b>1,035</b>   | <b>1,010</b>   | <b>1,023</b>   | <b>1,024</b>   |
| 9  | <b>POSITION</b>                 |      | <b>143</b>     | <b>125</b>     | <b>78</b>      | <b>28</b>      | <b>(39)</b>    | <b>(173)</b>   | <b>(269)</b>   | <b>(294)</b>   | <b>(340)</b>   | <b>(389)</b>   | <b>(450)</b>   | <b>(460)</b>   | <b>(528)</b>   | <b>(608)</b>   | <b>(684)</b>   | <b>(736)</b>   | <b>(790)</b>   | <b>(830)</b>   | <b>(914)</b>   | <b>(961)</b>   | <b>(1,021)</b> |
| <b>CONTINGENCY PLANNING</b>              |                                 |      |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 10                                       | Confidence Interval             | 7    | (160)          | (160)          | (160)          | (159)          | (155)          | (155)          | (151)          | (151)          | (151)          | (151)          | (151)          | (151)          | (150)          | (149)          | (148)          | (148)          | (148)          | (148)          | (148)          | (148)          | (148)          |
| 11                                       | WNP-3 Obligation                | 8    | (33)           | (33)           | (33)           | (33)           | (33)           | (33)           | (33)           | (33)           | (33)           | (33)           | (33)           | (33)           | (33)           | (18)           | -              | -              | -              | -              | -              | -              | -              |
| 12                                       | Peaking Resources               | 9    | 142            | 145            | 145            | 145            | 141            | 145            | 145            | 144            | 146            | 146            | 142            | 146            | 146            | 145            | 142            | 146            | 146            | 144            | 146            | 146            | 132            |
| 13                                       | <b>CONTINGENCY NET POSITION</b> |      | <b>91</b>      | <b>77</b>      | <b>30</b>      | <b>(20)</b>    | <b>(86)</b>    | <b>(216)</b>   | <b>(308)</b>   | <b>(335)</b>   | <b>(379)</b>   | <b>(428)</b>   | <b>(493)</b>   | <b>(499)</b>   | <b>(566)</b>   | <b>(630)</b>   | <b>(691)</b>   | <b>(738)</b>   | <b>(792)</b>   | <b>(834)</b>   | <b>(916)</b>   | <b>(962)</b>   | <b>(1,036)</b> |

**Notes:**

- Load estimates are from the 2005 load forecast (07-27-2004) including 100% of Potlatch load
- Includes Nichols Pumping and Canadian Entitlement Return contracts. Does not include WNP-3 Obligation.
- Average (60-year) hydro generation for system hydro (Clark Fork and Spokane River projects) and contract hydro (Mid-Columbia) based on NWPP 2003-04 Headwater Benefits Study, modified for daily spill. Mid-C numbers reflect the Priest Rapids and Wanapum contract extensions beginning in 2005.
- Includes small PURPA contracts, Upriver, El Paso 2004-2006 25 MW flat, Duke 2004-2006 50 MW flat, Morgan Stanley 2004-2006 25 MW flat, El Paso 2007-2010 75 MW flat, BP Energy 2007-2010 25 MW flat, Grant Displacement, PPM Wind, and WNP-3 Receipt.
- Includes Colstrip and Kettle Falls at full capability, adjusted for maintenance and forced outage.
- Includes Coyote Springs 2, Coyote Springs 2 duct burner, Boulder Park, and Kettle Falls CT at full capability, adjusted for maintenance and forced outage.
- The confidence interval represents the 12-month average of reserve energy necessary to ensure no more than a 10 percent probability of loads exceeding, and/or hydro underperforming, during a given month.
- Represents highest level of potential obligation to BPA generally exercised under low hydro conditions.
- Includes Northeast and Rathdrum at full capability, adjusted for forced outage and maintenance.  
Northeast is limited to 1,700 hours of operation per year, which has been applied to the period of highest typical market prices.

## LOW LOAD CASE--- LONG-TERM LOAD AND RESOURCES TABULATION—ENERGY (aMW)

|  | Notes                           | 2006 | 2007       | 2008       | 2009       | 2010       | 2011      | 2012        | 2013         | 2014         | 2015         | 2016         | 2017         | 2018         | 2019         | 2020         | 2021         | 2022         | 2023         | 2024         | 2025         | 2026         |              |
|--|---------------------------------|------|------------|------------|------------|------------|-----------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>AVERAGE LOAD &amp; HYDRO PLANNING</b> |                                 |      |            |            |            |            |           |             |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| <b>REQUIREMENTS</b>                      |                                 |      |            |            |            |            |           |             |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| 1  | System Load                     | 1    | (1,098)    | (1,111)    | (1,124)    | (1,145)    | (1,160)   | (1,179)     | (1,190)      | (1,202)      | (1,216)      | (1,233)      | (1,239)      | (1,234)      | (1,235)      | (1,242)      | (1,243)      | (1,243)      | (1,235)      | (1,238)      | (1,236)      | (1,232)      | (1,230)      |
| 2  | Contract Obligations            | 2    | (60)       | (60)       | (60)       | (60)       | (59)      | (58)        | (57)         | (57)         | (57)         | (57)         | (9)          | (9)          | (8)          | (8)          | (8)          | (8)          | (8)          | (8)          | (8)          | (8)          | (8)          |
| 3  | Total Requirements              |      | (1,158)    | (1,171)    | (1,185)    | (1,205)    | (1,219)   | (1,237)     | (1,248)      | (1,260)      | (1,273)      | (1,290)      | (1,296)      | (1,243)      | (1,244)      | (1,250)      | (1,252)      | (1,252)      | (1,243)      | (1,246)      | (1,244)      | (1,240)      | (1,238)      |
| <b>RESOURCES</b>                         |                                 |      |            |            |            |            |           |             |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| 4  | Contract Rights                 | 4    | 293        | 295        | 294        | 295        | 294       | 189         | 171          | 172          | 164          | 162          | 162          | 114          | 113          | 92           | 65           | 65           | 65           | 65           | 65           | 65           | 65           |
| 5  | Hydro                           | 3    | 510        | 510        | 510        | 506        | 487       | 483         | 466          | 466          | 465          | 465          | 464          | 464          | 460          | 448          | 447          | 447          | 446          | 446          | 445          | 445          | 444          |
| 6  | Base Load Thermals              | 5    | 226        | 229        | 243        | 228        | 232       | 242         | 231          | 230          | 243          | 231          | 230          | 242          | 232          | 228          | 243          | 230          | 231          | 242          | 232          | 231          | 242          |
| 7  | Gas Dispatch Units              | 6    | 272        | 282        | 268        | 282        | 272       | 282         | 268          | 282          | 273          | 282          | 268          | 282          | 272          | 282          | 268          | 282          | 272          | 282          | 268          | 282          | 272          |
| 8  | Total Resources                 |      | 1,301      | 1,316      | 1,315      | 1,310      | 1,285     | 1,196       | 1,136        | 1,150        | 1,146        | 1,140        | 1,124        | 1,102        | 1,077        | 1,049        | 1,023        | 1,024        | 1,015        | 1,035        | 1,010        | 1,023        | 1,024        |
| 9  | <b>POSITION</b>                 |      | <b>143</b> | <b>145</b> | <b>131</b> | <b>105</b> | <b>66</b> | <b>(41)</b> | <b>(111)</b> | <b>(110)</b> | <b>(128)</b> | <b>(150)</b> | <b>(172)</b> | <b>(142)</b> | <b>(167)</b> | <b>(201)</b> | <b>(228)</b> | <b>(227)</b> | <b>(228)</b> | <b>(211)</b> | <b>(234)</b> | <b>(217)</b> | <b>(215)</b> |
| <b>CONTINGENCY PLANNING</b>              |                                 |      |            |            |            |            |           |             |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| 10                                       | Confidence Interval             | 7    | (160)      | (160)      | (160)      | (159)      | (155)     | (155)       | (151)        | (151)        | (151)        | (151)        | (151)        | (151)        | (150)        | (149)        | (148)        | (148)        | (148)        | (148)        | (148)        | (148)        | (148)        |
| 11                                       | WNP-3 Obligation                | 8    | (33)       | (33)       | (33)       | (33)       | (33)      | (33)        | (33)         | (33)         | (33)         | (33)         | (33)         | (33)         | (33)         | (18)         | -            | -            | -            | -            | -            | -            | -            |
| 12                                       | Peaking Resources               | 9    | 142        | 145        | 145        | 145        | 141       | 145         | 145          | 144          | 146          | 146          | 142          | 146          | 146          | 145          | 142          | 146          | 146          | 144          | 146          | 146          | 132          |
| 13                                       | <b>CONTINGENCY NET POSITION</b> |      | <b>91</b>  | <b>97</b>  | <b>83</b>  | <b>57</b>  | <b>19</b> | <b>(84)</b> | <b>(151)</b> | <b>(151)</b> | <b>(167)</b> | <b>(188)</b> | <b>(214)</b> | <b>(180)</b> | <b>(205)</b> | <b>(223)</b> | <b>(235)</b> | <b>(230)</b> | <b>(231)</b> | <b>(215)</b> | <b>(236)</b> | <b>(218)</b> | <b>(230)</b> |

**Notes:**

- Load estimates are from the 2005 load forecast (07-27-2004) including 100% of Potlatch load
- Includes Nichols Pumping and Canadian Entitlement Return contracts. Does not include WNP-3 Obligation.
- Average (60-year) hydro generation for system hydro (Clark Fork and Spokane River projects) and contract hydro (Mid-Columbia) based on NWPP 2003-04 Headwater Benefits Study, modified for daily spill. Mid-C numbers reflect the Priest Rapids and Wanapum contract extensions beginning in 2005.
- Includes small PURPA contracts, Upriver, El Paso 2004-2006 25 MW flat, Duke 2004-2006 50 MW flat, Morgan Stanley 2004-2006 25 MW flat, El Paso 2007-2010 75 MW flat, BP Energy 2007-2010 25 MW flat, Grant Displacement, PPM Wind, and WNP-3 Receipt.
- Includes Colstrip and Kettle Falls at full capability, adjusted for maintenance and forced outage.
- Includes Coyote Springs 2, Coyote Springs 2 duct burner, Boulder Park, and Kettle Falls CT at full capability, adjusted for maintenance and forced outage.
- The confidence interval represents the 12-month average of reserve energy necessary to ensure no more than a 10 percent probability of loads exceeding, and/or hydro underperforming, during a given month.
- Represents highest level of potential obligation to BPA generally exercised under low hydro conditions.
- Includes Northeast and Rathdrum at full capability, adjusted for forced outage and maintenance.  
Northeast is limited to 1,700 hours of operation per year, which has been applied to the period of highest typical market prices.

# Summary of Draft IRP Comments

## Appendix K

## Introduction

This appendix summarizes comments received from the Technical Advisory Committee (TAC) members on the July 27, 2005 draft of the 2005 Integrated Resource Plan (IRP). These comments are generally focused on questions concerning the handling or interpretation of concepts such as renewables or emissions. We offer our extreme thanks for all comments and suggestions. Members will find that the vast majority of the suggestions were used in the final document. Comments about grammar, sentence structure, and requests to make minor additions to different sections of the IRP are not included in this summarization. Comments are not attributed to specific TAC members, as we did not discuss doing so with the members of the TAC. This summary is intended to acknowledge rather than respond to specific comments. The Company received several comments requesting more information an analysis or stating a difference of opinion or approach. The Company intends to review these comments in more detail and appropriately incorporate them in the 2007 IRP.

Overall, there was significant support for the increased amounts of conservation acquisition and renewable energy in the Preferred Resource Strategy (PRS). TAC members were supportive and appreciative of being included in the process. There was also a desire to see

increased involvement by a wider group of people in the TAC, such as schools, government agencies, and various sized businesses. Efforts towards improving TAC attendance and participation will be made as we prepare for the 2007 IRP. A survey is being sent to all members of the TAC to gain information and ideas about improving TAC attendance and participation.

## Conservation/Efficiency Comments

Conservation comments on the 2005 IRP were positive concerning the differences between the 2003 and 2005 plans. In particular, TAC members were encouraged by the ramp up of conservation measures undertaken now that the tariff balances are near zero and the recognition of efficiency and conservation efforts as a resource instead of a decrement to load. The following list summarized the member's comments:

- Include a more robust analysis in the next IRP of an accelerated conservation acquisition program to determine if changing the timing of the acquisitions would benefit the cost and risk mix.
- Include an analysis of the potential costs and savings of electric to high efficiency natural gas heating in the next IRP.
- Develop an analysis of the costs and risks associated with meeting all load growth



through efficiency and renewable resources for the 2007 IRP.

- The success of conservation programs is directly related to financial incentives that should be increased to maximize conservation acquisition.

### **Renewable Resource Comments**

There were many positive comments concerning the increases in both the amount of renewables included in this IRP as well as the increased level of sophistication with the analytics involved with renewable resources. The essence of the renewable resource comments is as follows:

- The 2005 IRP has stronger analytical depth and focus on renewables.
- The experience with the wind contract at Stateline has resulted in a stronger and more robust renewable energy plan
- The switch from zero to a 25 percent wind generation contribution to system by focusing on geographically diverse wind sites and hourly wind data sets is positive.
- There is strong support for the acquisition of wind and biomass resources earlier in the plan.
- There are differences of opinion in the wind capacity factors used between Tier 1 and Tier 2 wind sites, specifically higher capacity levels at Tier 2 sites in Montana.
- Recent announcements by BPA may increase the amount of wind that can be

integrated without new transmission above the 1,000 MW limit used in the plan.

- Other studies outside of the Northwest Power and Conservation Council (NPCC) have lower wind integration costs, but actual experience will be the best eventual judge of the appropriate numbers to use.
- Lower wind integration costs than the NPCC estimates used in the 2005 IRP have been seen in the work of other utilities and academics.
- Several articles and studies on wind integration were suggested as review material for the next IRP.
- The 2005 draft IRP recognized distributed generation resources but did not include them in the modeling. Inclusion of small scale (25 MW or less) “clean” distributed resources to help with asset diversification.
- Wind was a relatively new technology and should therefore play a smaller role in the PRS and have a higher risk associated with it.

### **Emissions Comments**

There was an overall tone of acceptance and appreciation for the increased amount of work done in regards to emissions. However, there were some differences in opinion concerning the methodology used, recommendations for additional work and exclusion of an emissions

adder in the Base Case. The following summarize the main comments on emissions:

- Agreement with the recognition of some form of future greenhouse gas (GHG) emission regulation will take place, but disagreement with the Company's approach to the problem and a belief that a carbon adder to the Base Case is the best proxy to GHG legislation supported by the other IRPs and the California Public Utilities Commission "greenhouse gas adder" requirements in planning and procurement.
- Include a qualitative analysis of risks associated with externalities beyond greenhouse gases in the next IRP.
- Future GHG emission costs may result in even greater price risk if thermal assets are included in the plan.
- Understand, but disagree with, the Company's rationale for the termination of the federal production tax credit (PTC) because the federal government may still want to still provide an incentive for renewable resources.
- Projected costs of GHG emissions in the SB 342 scenario may be forecast too high for the West. This idea should be examined in the 2007 IRP.
- Modest commitments to additional natural gas fired generation would result in less emissions risk than faced by coal.

## Coal Comments

Concerns with the long-term implications of adding coal resources because of the operational nature of this resource and its potential for long-term environmental risks from GHG and customer risk due to potential carbon tax risk.

- Delay coal acquisition until more research can be done on IGCC with sequestration and not commit to pulverized coal right away.
- Include risk and cost analysis for coal transportation problems, specifically rail service interruptions.
- The plan is designed to mitigate risk of price volatility but future GHG emission costs may result in greater price risk if thermal assets are included in the plan.

## Other Comments

- Resource needs may arrive faster than new resources can be added. Will there be meetings open to the public to discuss new acquisition plans?
- Include a discussion about the rationale for the near term decrease in natural gas and electricity prices and the subsequent forecast of rising prices as resource deficits begin.
- The price of oil used in the IRP is low based on current cost, and there is a stronger

correlation between oil and natural gas prices than considered in the IRP.

- Wind and coal resources outside of the service territory are emphasized in the plan more than local cogeneration projects that should be assigned a lower level of risk in the plan and local economic benefits through jobs and taxes should be included in the IRP.
- Continue studying the reserve margin issue in the 2007 IRP.
- Later portions of this plan are vulnerable to CO<sub>2</sub> emissions risks if federal GHG legislation makes new coal plans uneconomic.

