



Distribution Planning Advisory Group

Review of Study Results/Draft Transmission Plans

DPAG 3 – October 2025

John Gross, P.E. Manager, System Planning

Agenda & Meeting Etiquette

Agenda

- Introductions and Logistics
- Attachment K – Local Planning Process
- Distribution Corrective Action Plans
- Transmission Corrective Action Plans
- Generator/Load Interconnection Status
- Questions & Discussions

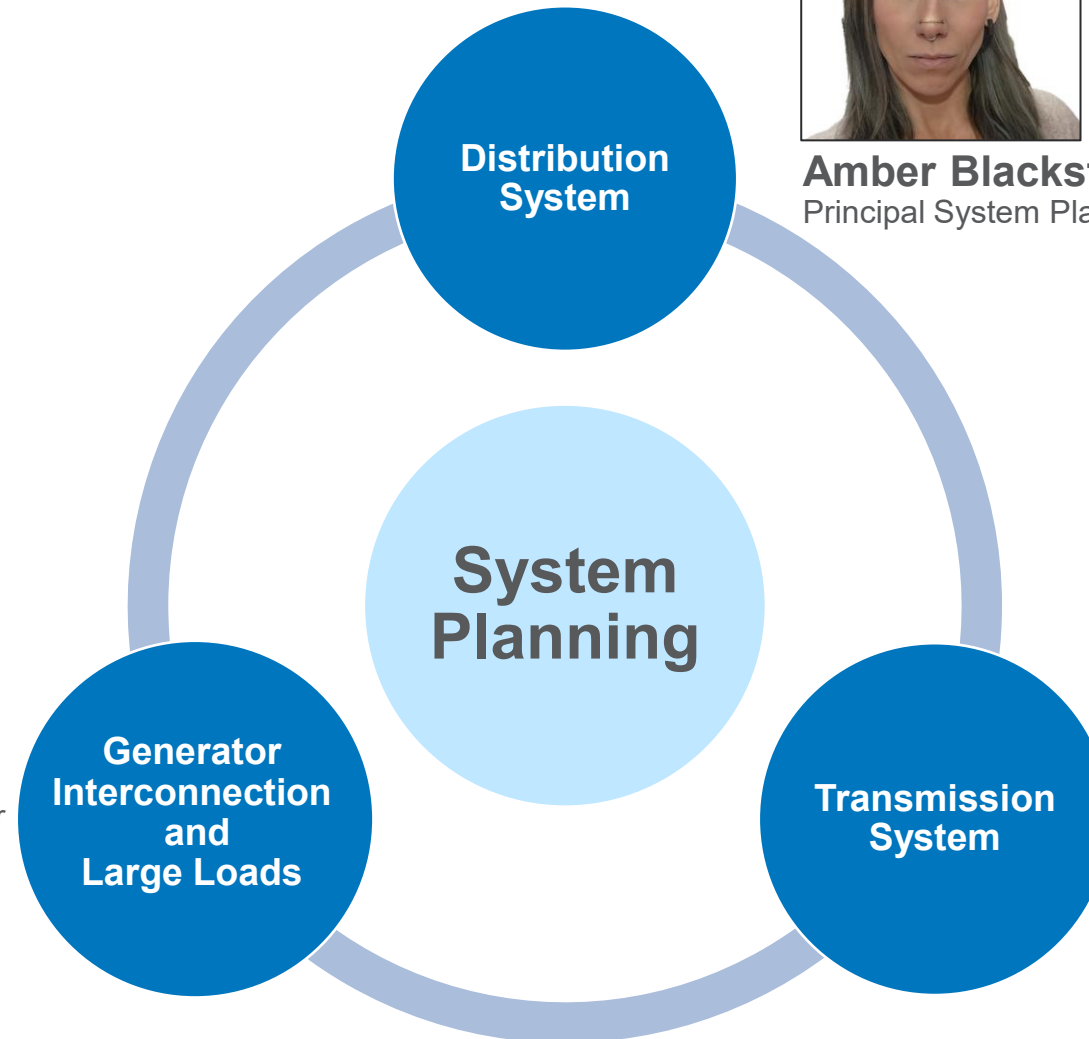
Meeting Etiquette

- Meetings will be recorded & posted
- Mute speakers & cameras optional
- Questions in the chat or use the “raise hand” feature
- Respect diverse opinions

Presenters & Topics



David Thompson
System Planning Engineer



Amber Blackstock
Principal System Planning Engineer



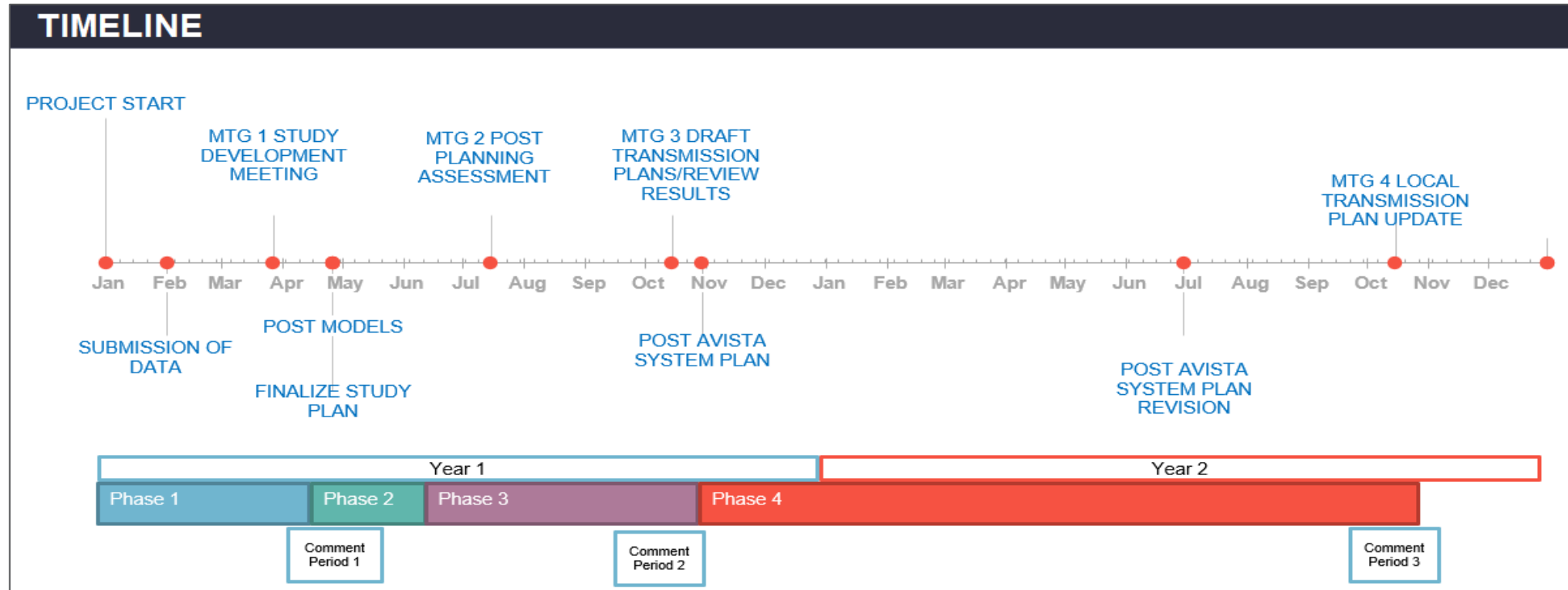
April Spacek
System Planning Engineer

Review of Study Results/Draft Transmission Plans

Avista's Open Access Transmission Tariff – Attachment K

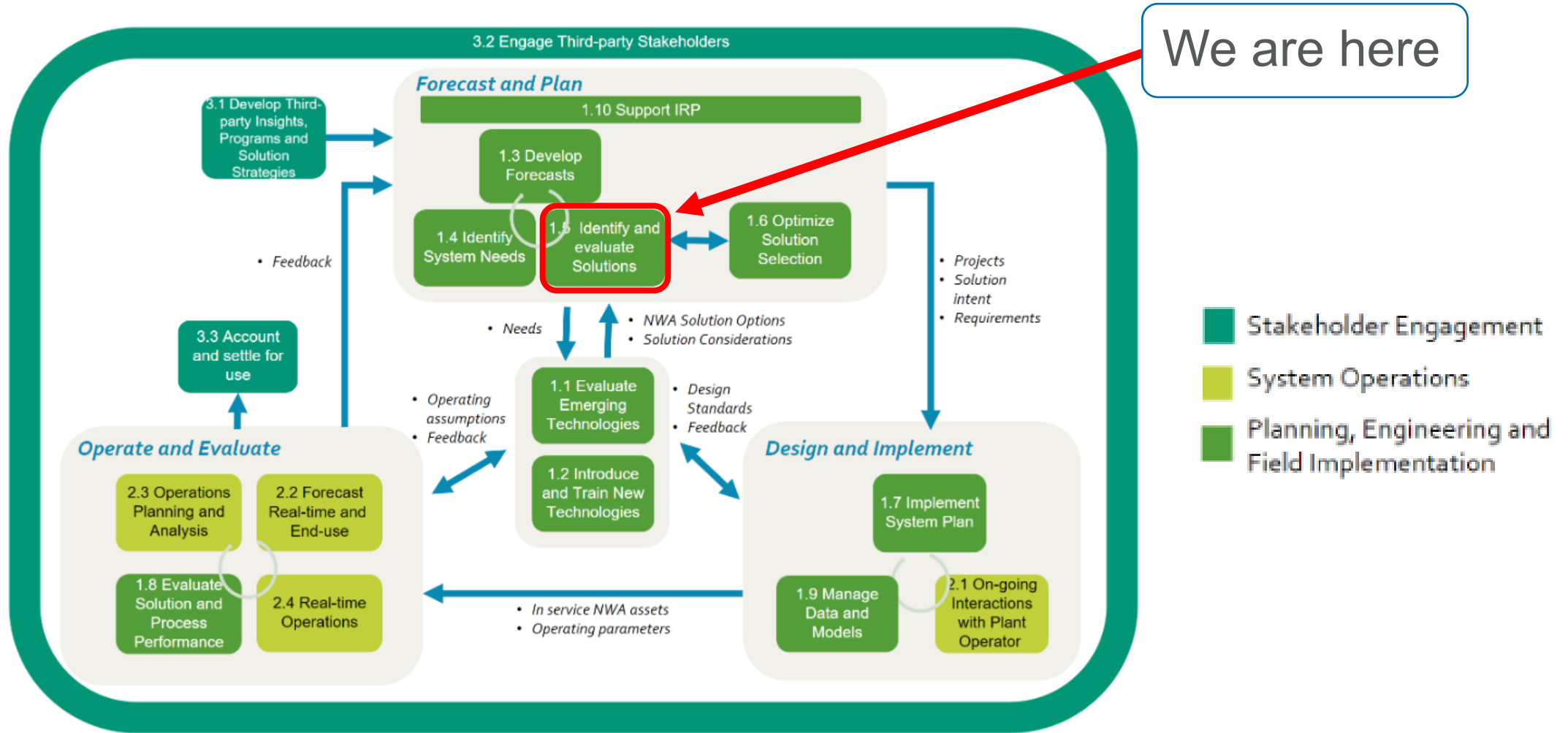
John Gross | Manager System Planning

Local Transmission Plan Cycle



System Planning Assessment Timeline

Avista's Planning Cycle



Local Planning Report (System Assessment)

Purpose

- Comprehensive documentation of technical analysis results demonstrating system performance
- Conceptual solutions aimed at mitigating operational issues to ensure ongoing, reliable performance

Summary

- Transmission reinforcements in the Palouse and Sandpoint areas
- Rebuilding Beacon Station to resolve fault duty and performance challenges
- Transmission voltage mitigation through installation of capacitor banks or battery energy storage systems
- Expanding distribution capacity in Coeur d'Alene, Lewiston, North Spokane, and Post Falls

Status

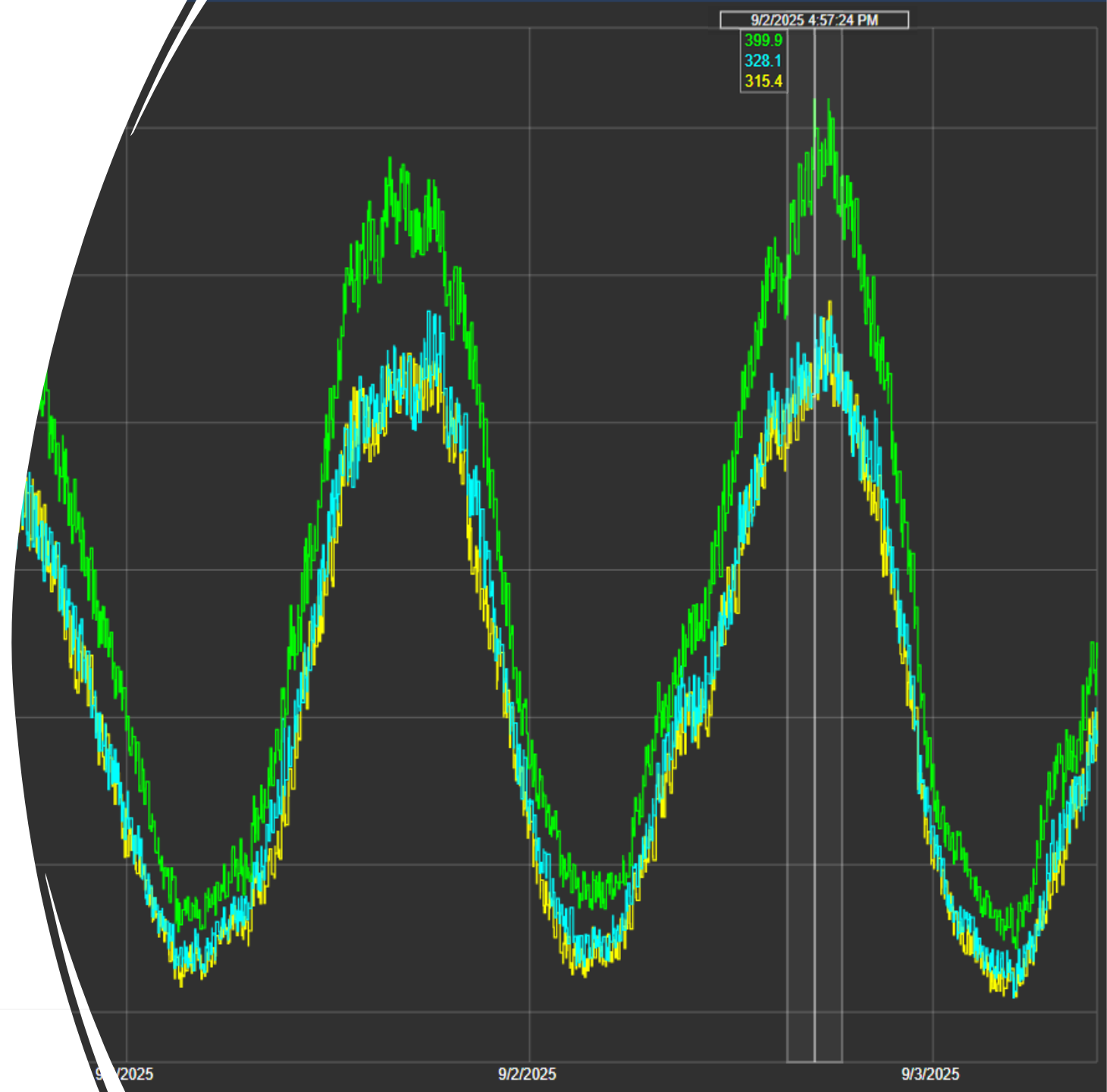
- Draft posted for comments until October 29 (15 day requirement)
- Final to be completed by November 13 (30 days)

Distribution Corrective Action Plans

Amber Blackstock | Principal System Planning Engineer

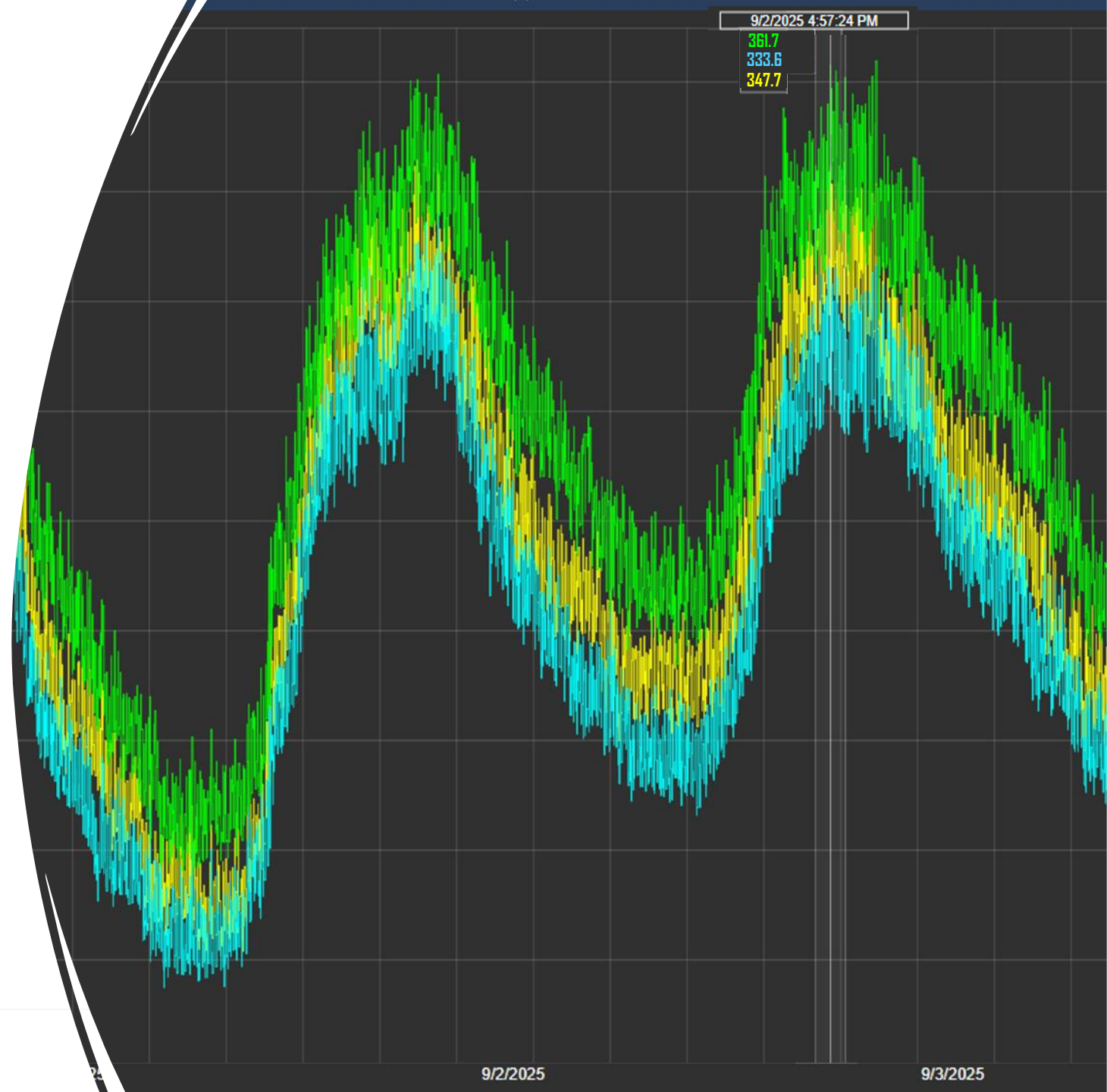
Operational

- Types
 - Phase balance
 - Load transfer
- Needs
 - Capacity in feeder or nearby feeder



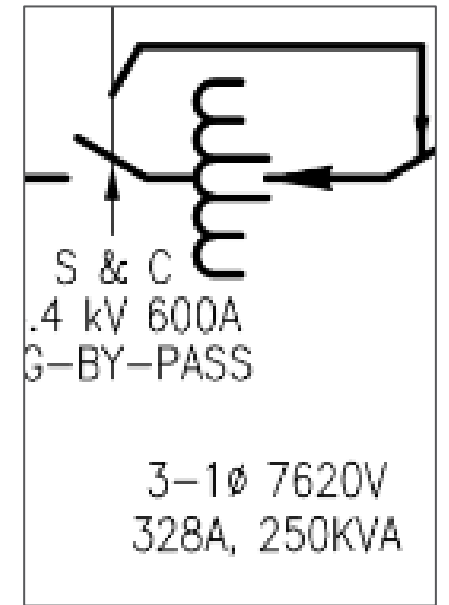
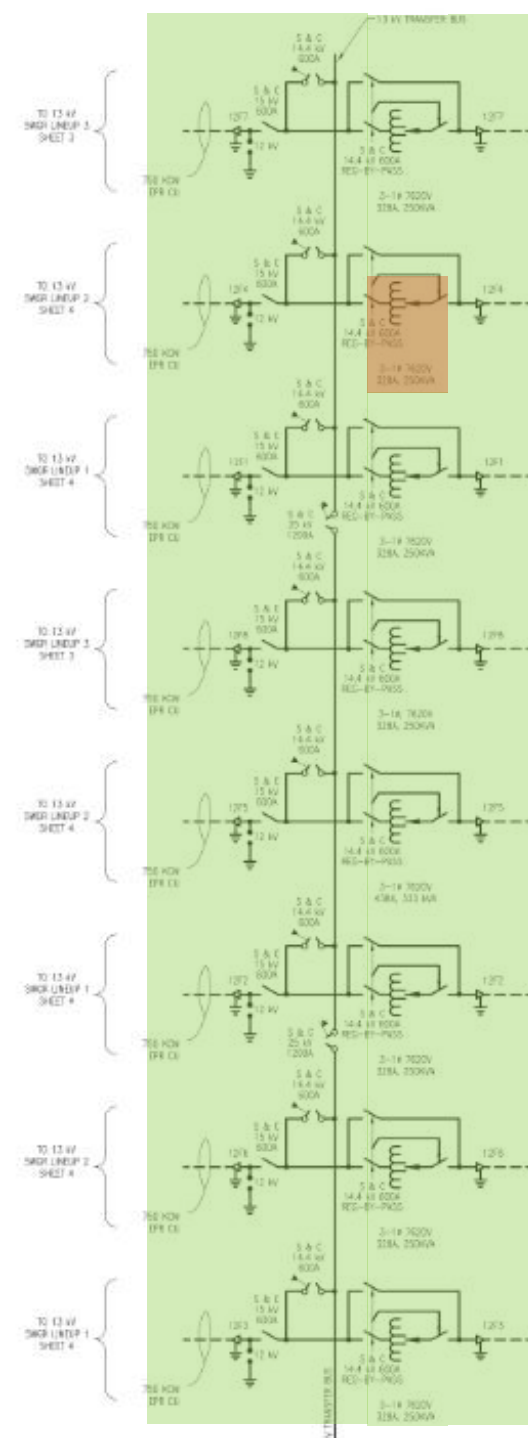
Operational

- Benefit
 - Quick and low-cost solution
- Cons
 - Requires capacity which can be hard to find



Equipment Sizing

- Upsize existing equipment
- Needs
 - Most equipment is not capacity constrained
 - Constrained equipment has a standard size larger
 - Substation is in good health

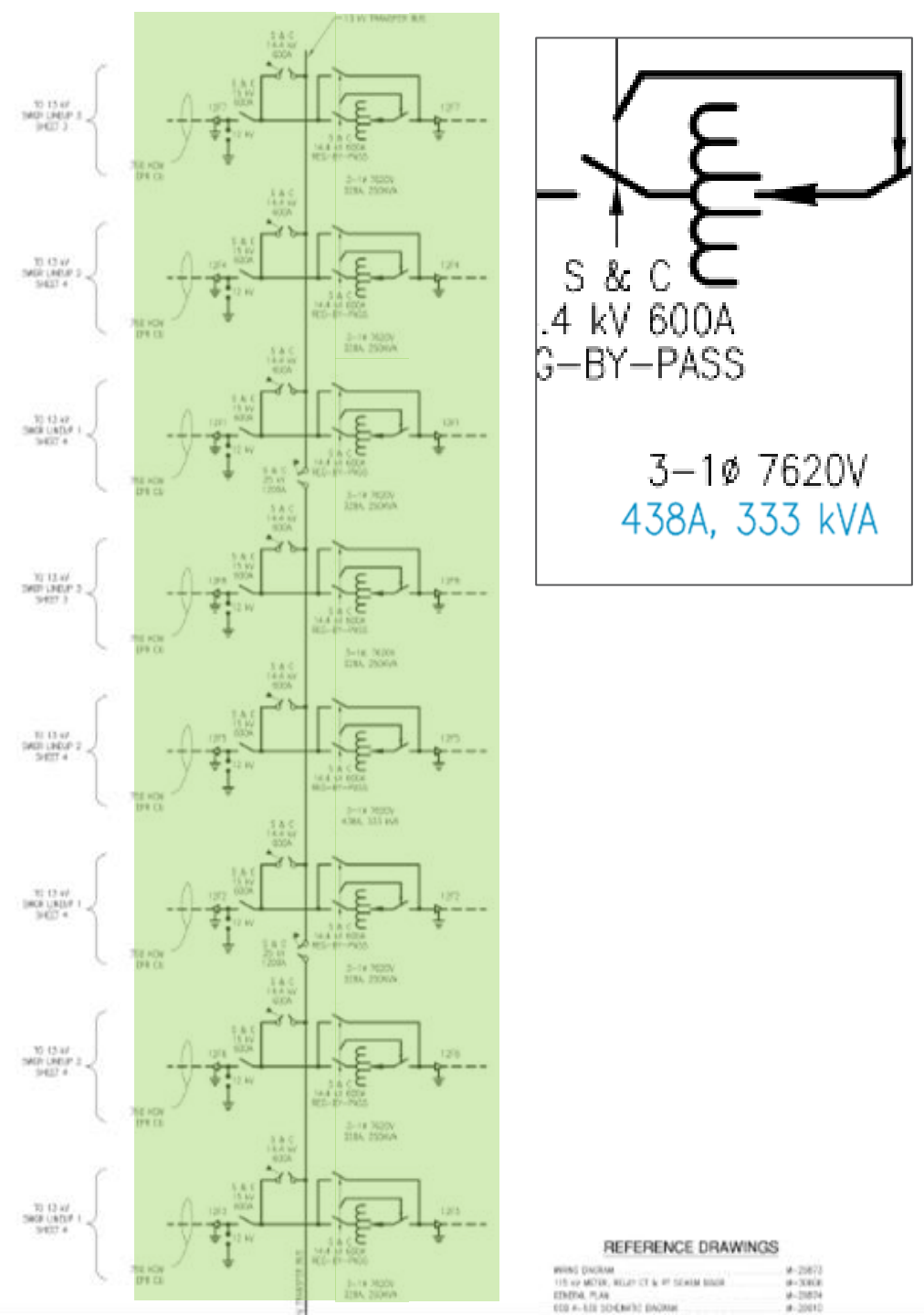


REFERENCE DRAWINGS

WIRING DIAGRAM	M-20873
115 kV METER, RELAY CT & RT SCHEM DIAGRAM	M-20806
GENERAL PLAN	M-20874
800 A-550 SCHEMATIC DIAGRAM	M-20910

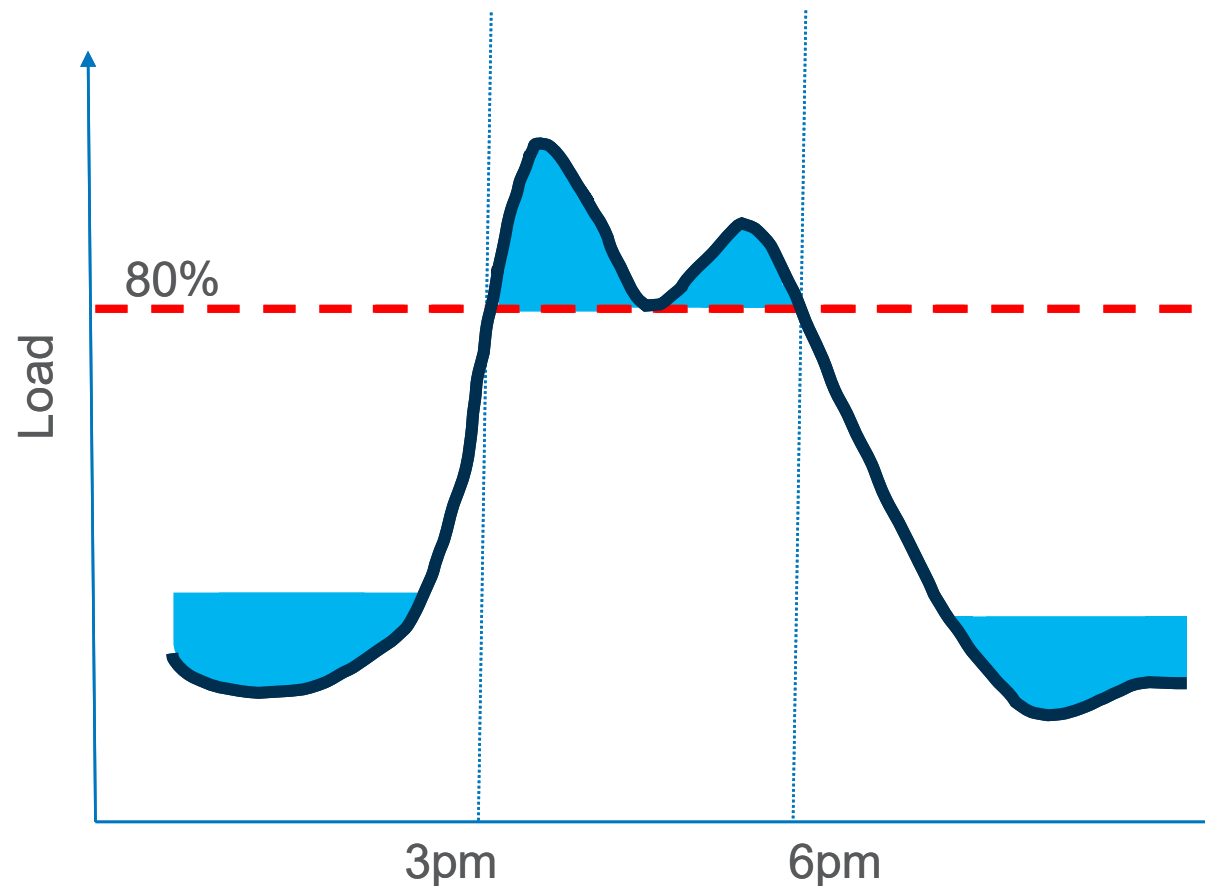
Equipment Sizing

- Benefits
 - Quick and smaller cost
- Cons
 - Requires work in substation



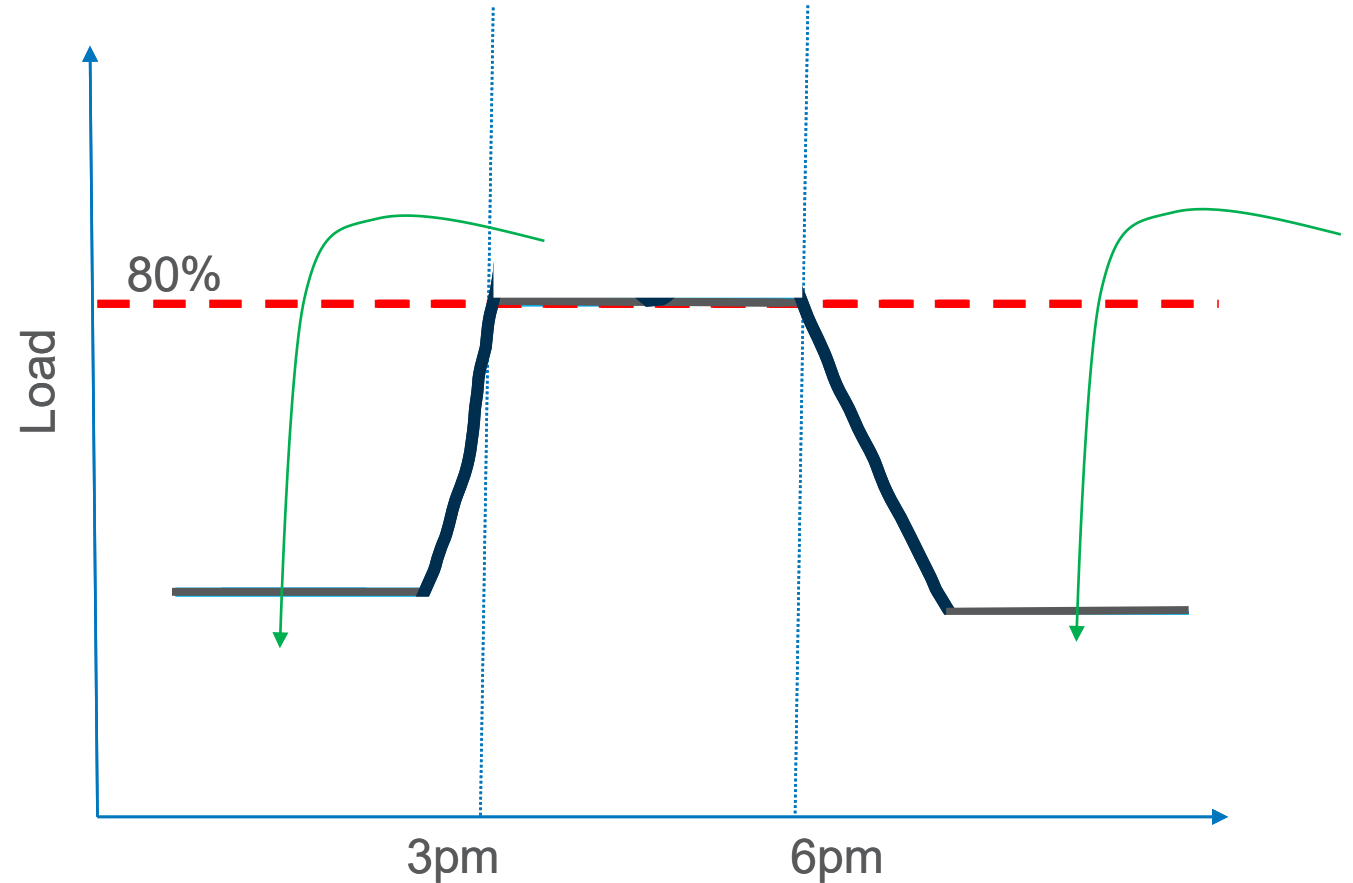
Non-Wire Alternatives

- Distributed Energy Resources (DER)
 - Battery
 - Solar
- Needs
 - Specific to type



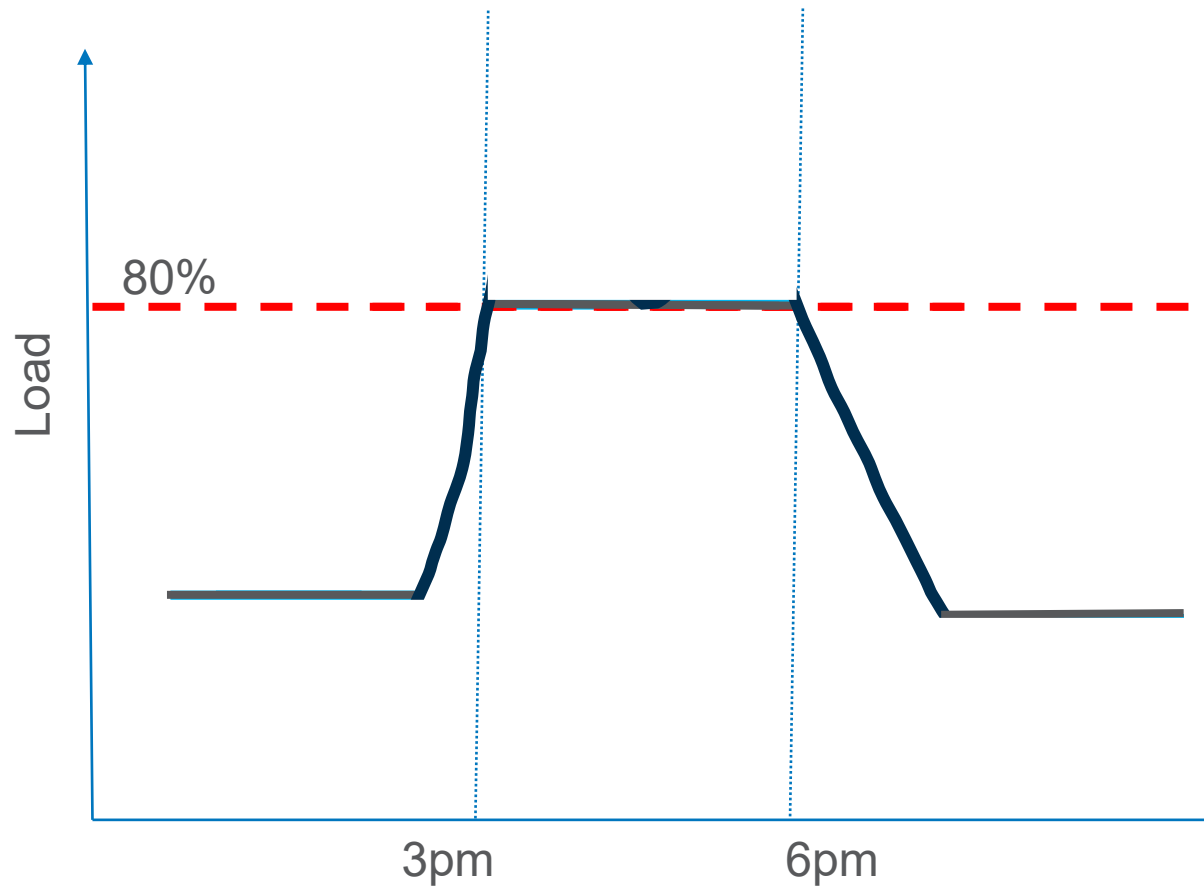
Non-Wire Alternatives

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 - Battery
 - Solar
- Needs
 - Specific to type



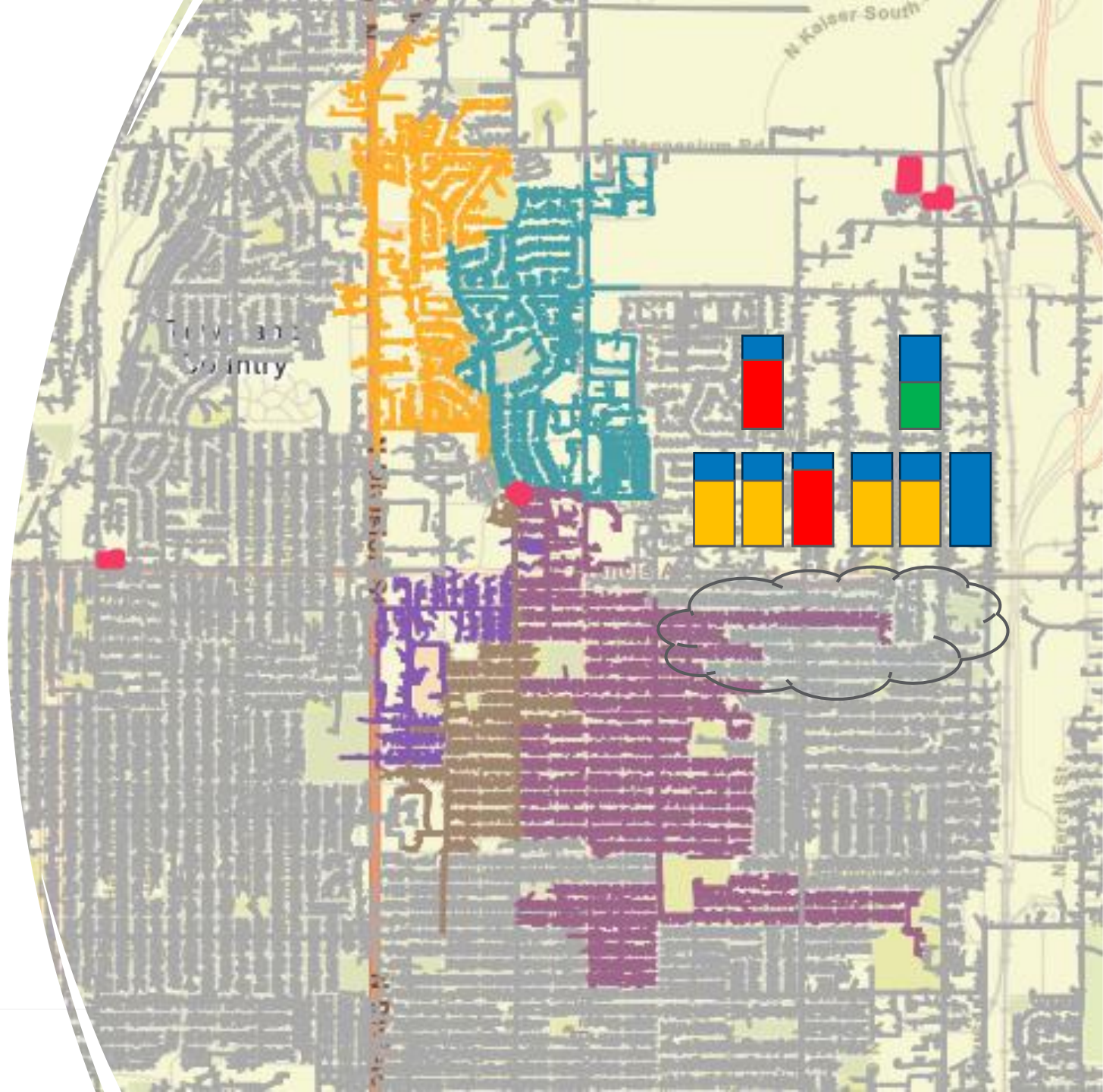
Non-Wire Alternatives

- Benefit
 - Improve reliability
 - Can defer costs
- Cons
 - New technology and new standard
 - Not suitable for high growth



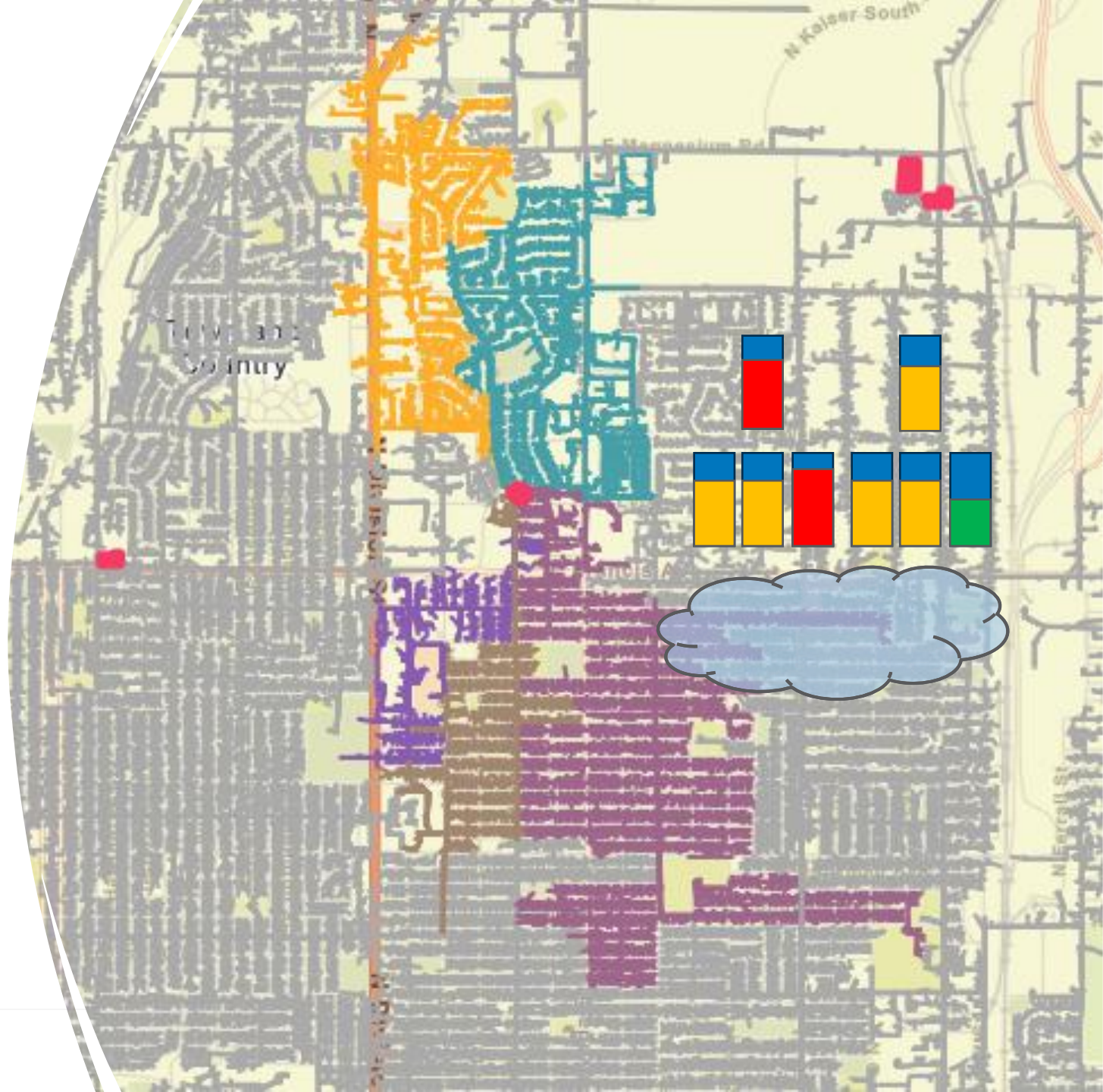
Feeder Addition

- Build-out Feeder
 - Existing future slot
 - Existing space
- Needs
 - Space in the substation
 - Capacity in the transformer



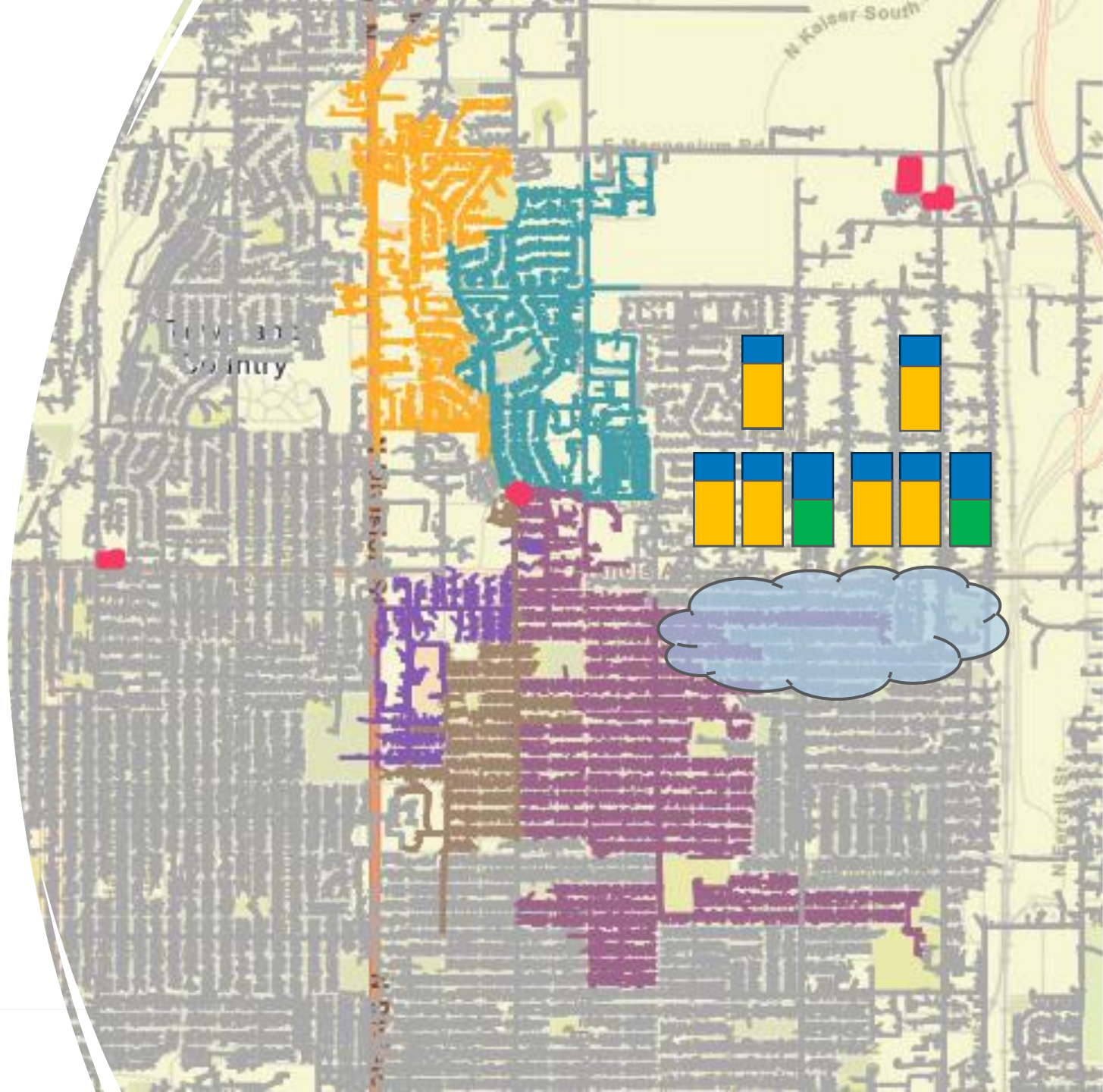
Feeder Addition

- Build-out Feeder
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- Needs
 - Space in the substation
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Feeder Addition

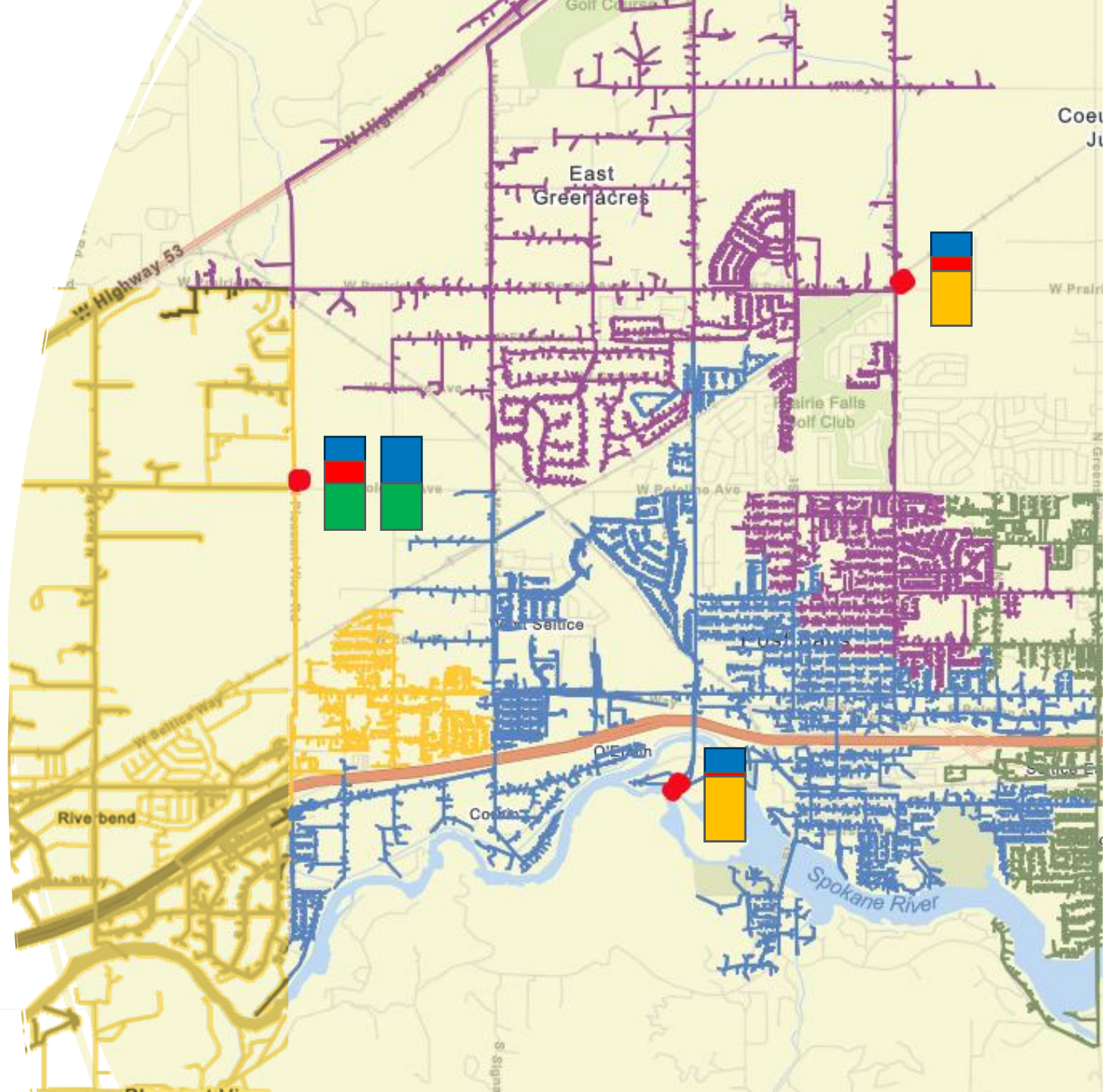
- Benefit
 - Station already exists with some essential base equipment
 - Ability to offload nearby transformers as well
 - Reliability, Resilience and Maintainability
- Cons
 - Needs to be near load center
 - Urban areas can be feeder pole saturated



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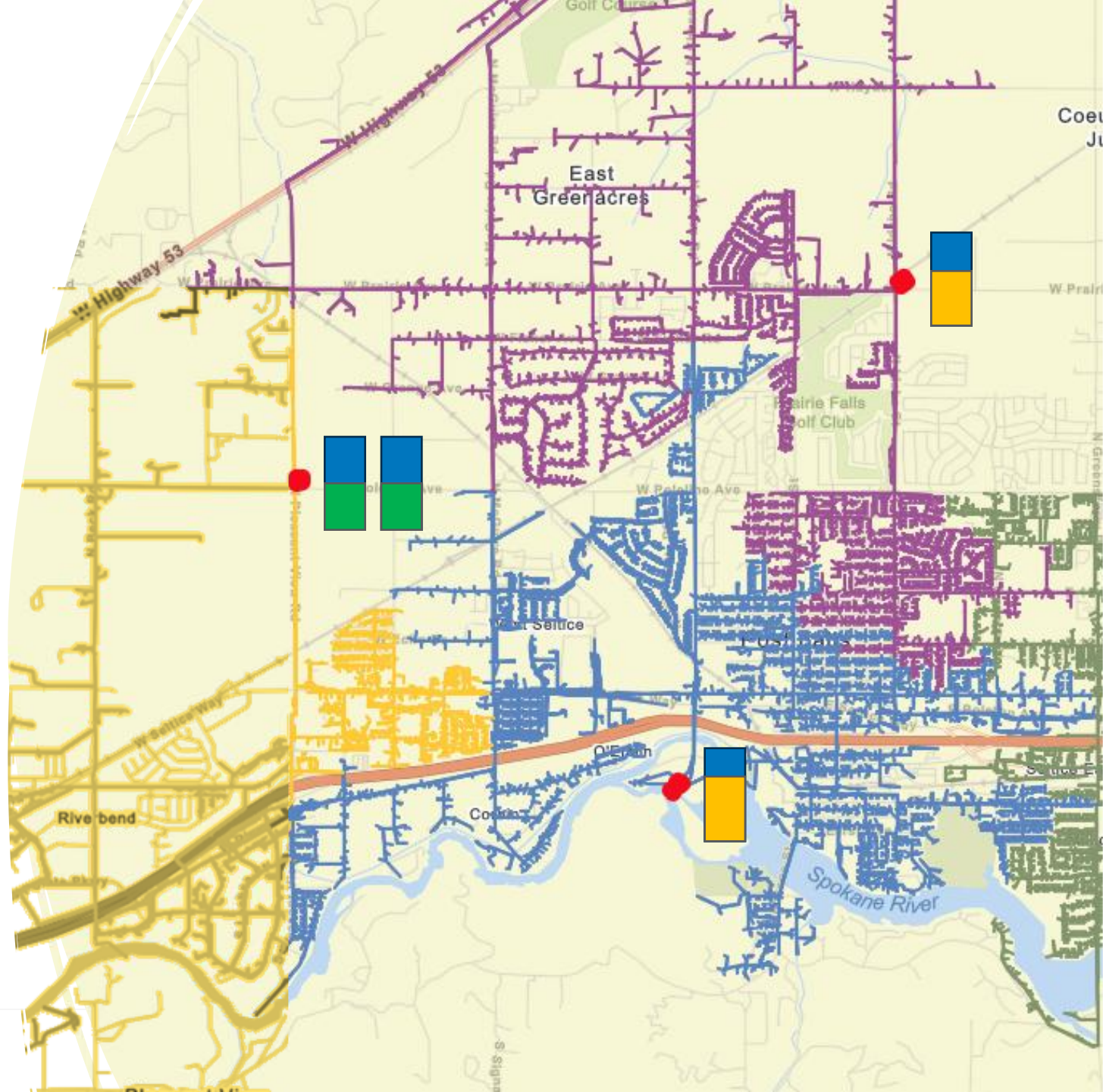
Substation Expansion

- Build-out Transformer
 - Existing future space in substation
 - Existing adjacent real estate
- Needs
 - Space in or adjacent to the station



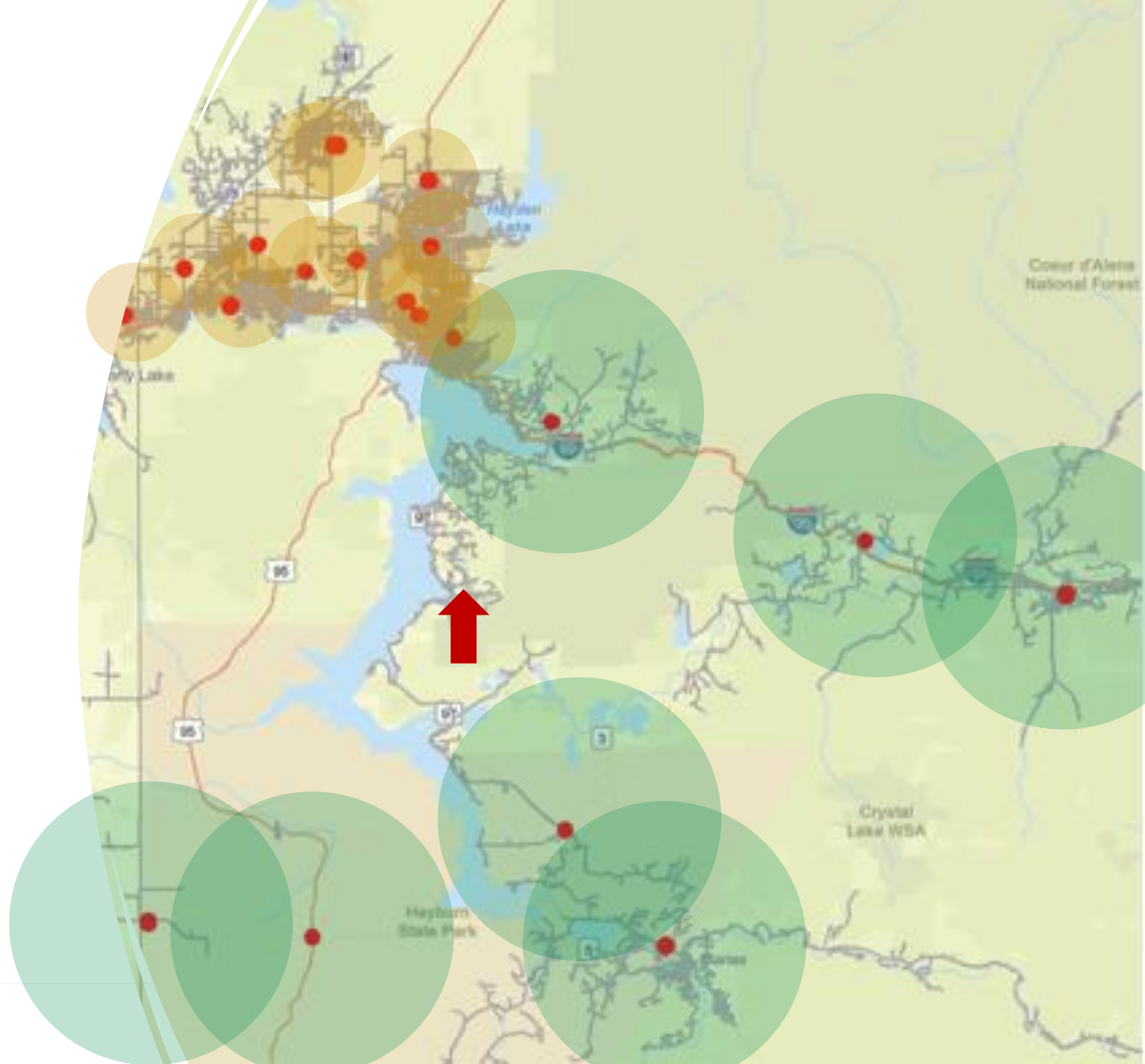
Substation Expansion

- Benefit
 - Station already exists with some essential base equipment
 - Ability to offload nearby transformers as well
 - Reliability, Resilience and Maintainability
- Cons
 - Larger cost and schedule



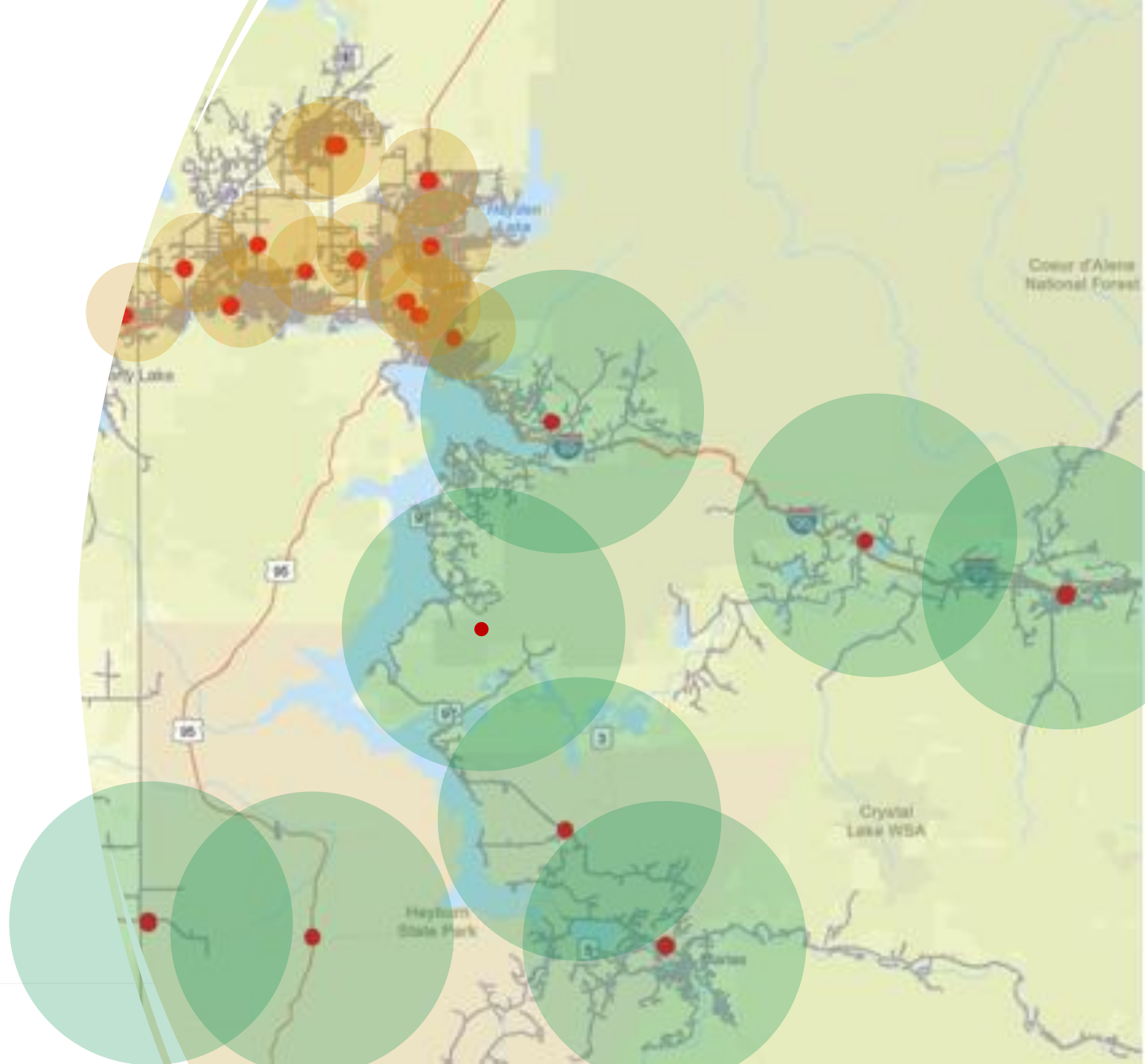
New Substation

- Substation addition
- Needs
 - Land
 - Transmission source



New Substation

- Benefit
 - Reliability, Resilience and Maintainability
 - Often the only solution
- Cons
 - Cost
 - Time
 - Resources

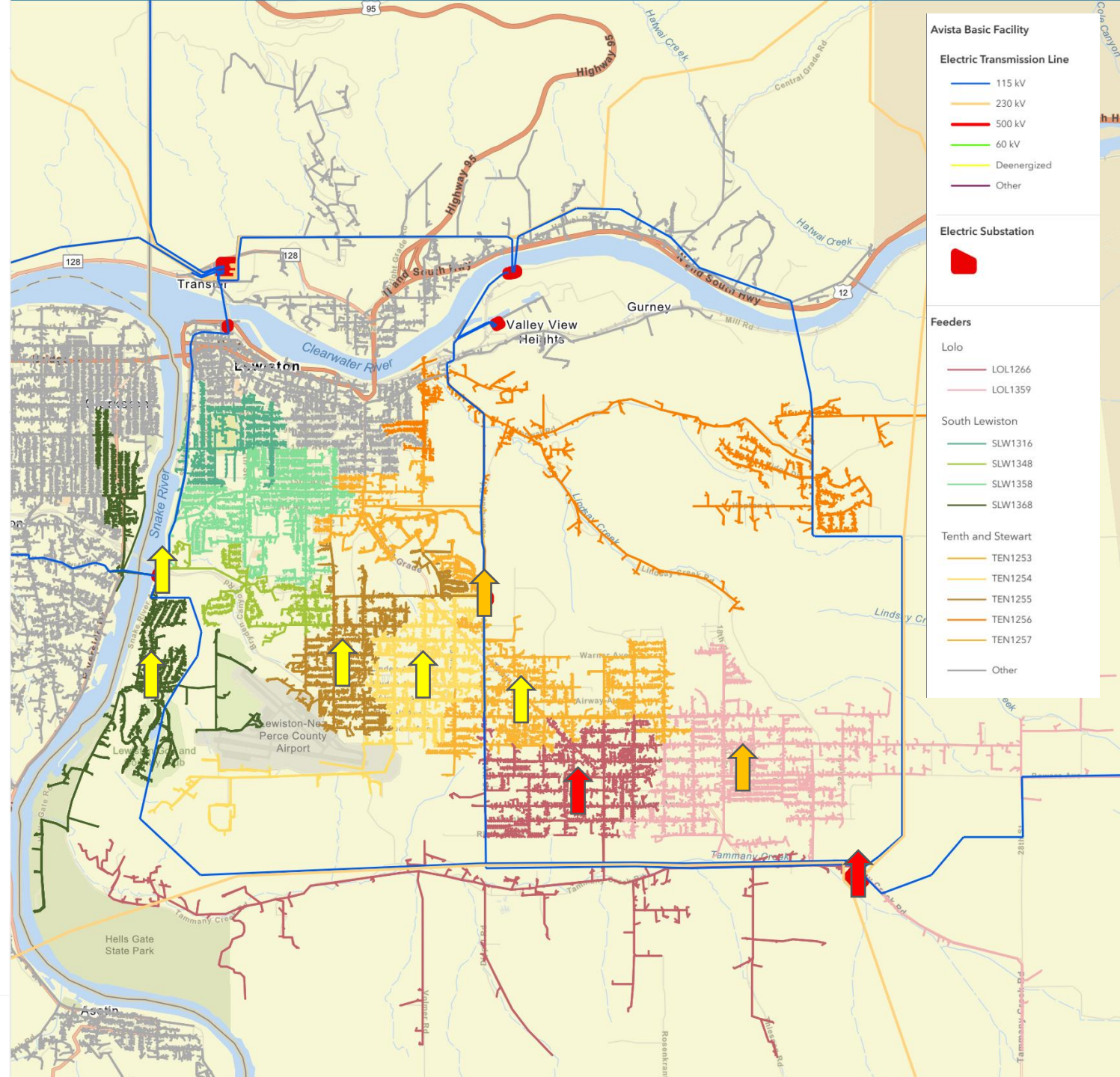


Lewiston Capacity Mitigation

Facility	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
LOL XFMR #3	88	90	93	94	96	97	98	99	100	101
LOL1266	88	92	96	99	102	104	106	107	109	110
LOL1359	92	92	93	94	94	94	95	95	95	95
SLW XFMR #1	81	81	81	81	81	81	81	81	81	81
SLW1348	54	54	54	54	54	54	54	54	54	54
SLW1358	71	71	71	71	71	71	71	71	71	71
SLW XFMR #2	67	68	69	70	70	71	71	72	72	72
SLW1316	68	69	71	72	73	73	74	74	75	75
SLW1368	76	77	77	78	78	79	79	80	80	80
TEN XFMR #1	77	77	78	78	78	78	78	78	78	78
TEN1256	63	63	63	63	63	64	64	64	64	64
TEN1257	85	85	85	85	85	86	86	86	86	86
TEN XFMR #2	89	91	92	93	93	94	94	95	95	95
TEN1253	71	71	72	72	72	73	73	73	73	74
TEN1254	80	81	82	83	83	84	84	85	86	86
TEN1255	76	77	78	79	80	80	81	81	81	82

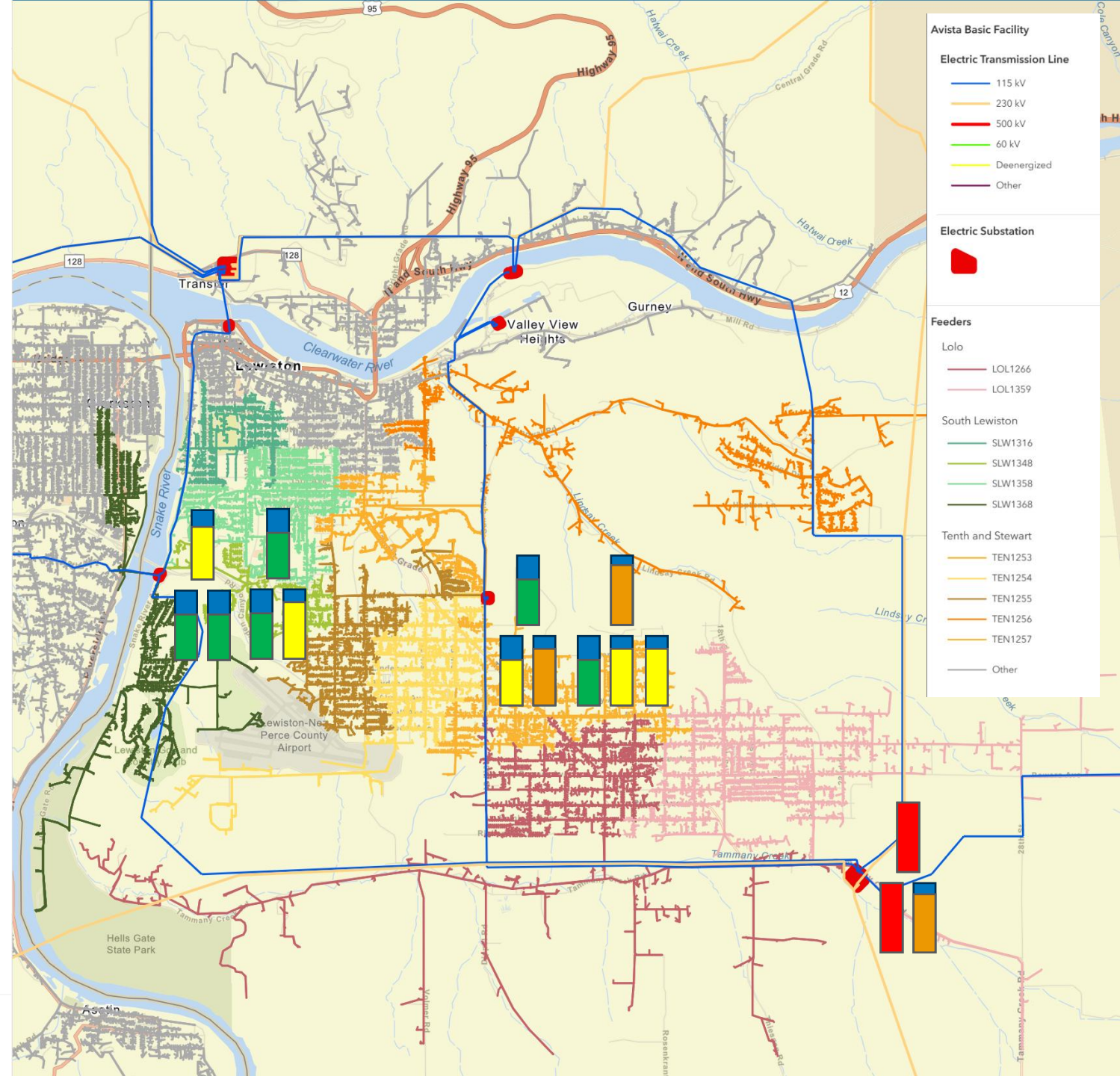
Lewiston Capacity Mitigation

- Phase Balance
- Load Transfer
- Non-Wire Alternative
- Equipment Sizing
- Feeder Addition
- Substation Expansion
- New Substation

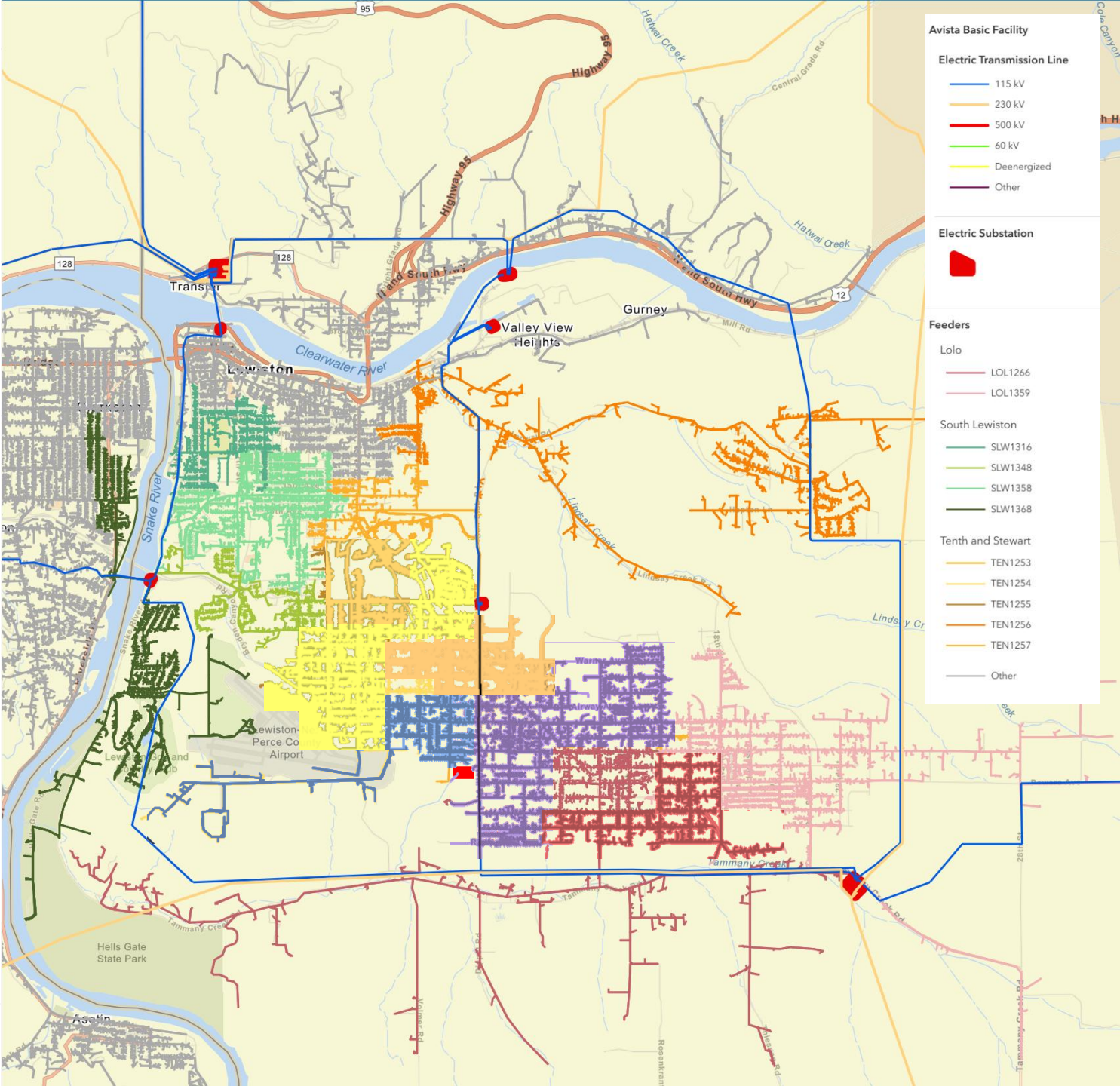


Lewiston Capacity Mitigation

- Feeder Addition
- Substation Expansion
- New Substation

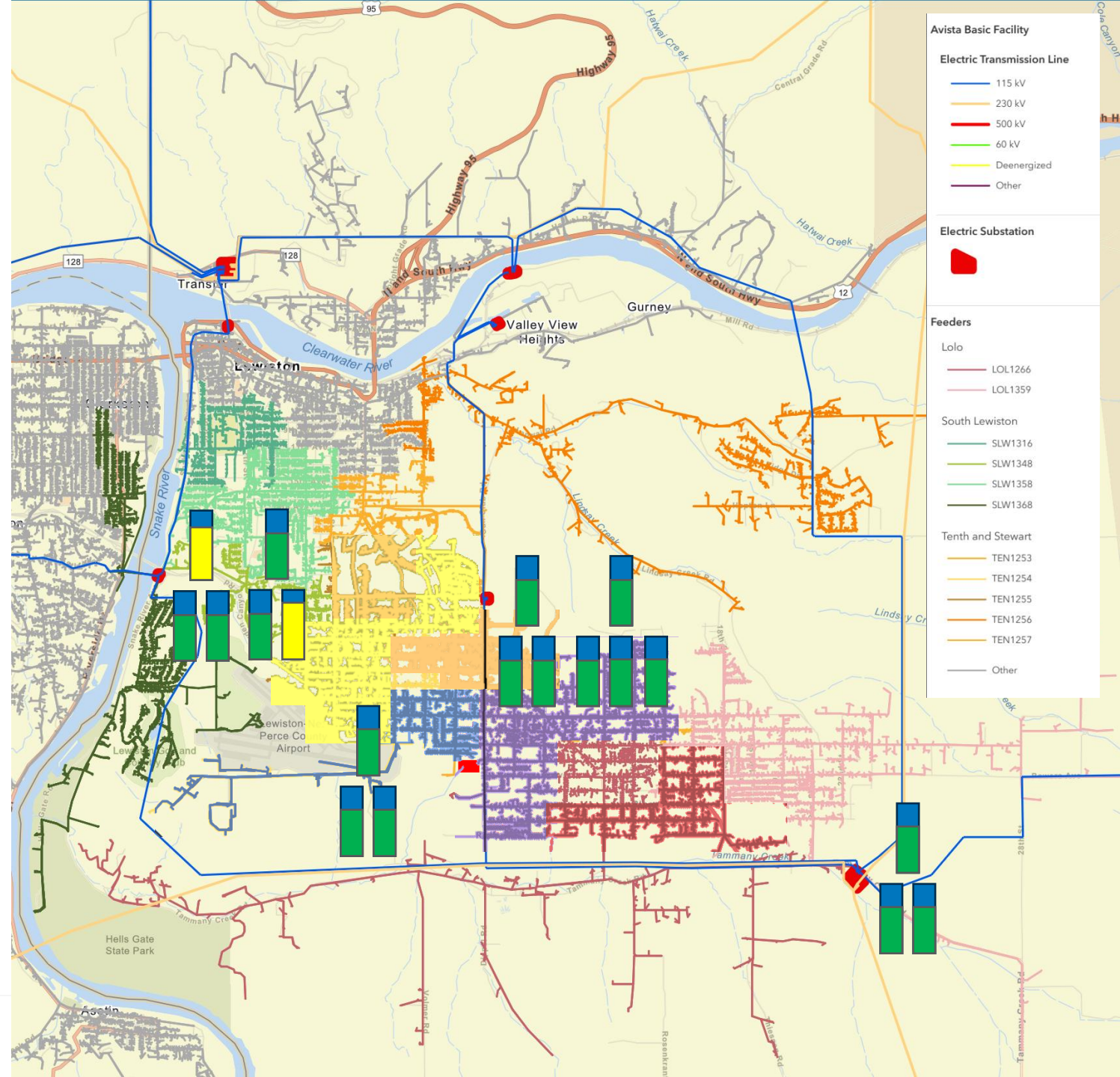


Lewiston Capacity Mitigation Solution



Lewiston Capacity Mitigation Solution

- New Area Capacity



Lewiston Capacity Mitigation Solution

Facility	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
LOL XFMR #3	88	90	93	94	96	97	98	99	100	101
LOL1266	88	92	96	99	102	104	106	107	109	110
LOL1359	92	92	93	94	94	94	95	95	95	95
SLW XFMR #1	81	81	81	81	81	81	81	81	81	81
SLW1348	54	54	54	54	54	54	54	54	54	54
SLW1358	71	71	71	71	71	71	71	71	71	71
SLW XFMR #2	67	68	69	70	70	71	71	72	72	72
SLW1316	68	69	71	72	73	73	74	74	75	75
SLW1368	76	77	77	78	78	79	79	80	80	80
TEN XFMR #1	77	77	78	78	78	78	78	78	78	78
TEN1256	63	63	63	63	63	64	64	64	64	64
TEN1257	85	85	85	85	85	86	86	86	86	86
TEN XFMR #2	89	91	92	93	93	94	94	95	95	95
TEN1253	71	71	72	72	72	73	73	73	73	74
TEN1254	80	81	82	83	83	84	84	85	86	86
TEN1255	76	77	78	79	80	80	81	81	81	82

Lewiston Capacity Mitigation Solution

Facility	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
LOL XFMR #3	88	90	91	93	95	74	75	75	76	76
LOL1266	88	92	80	83	85	66	67	68	69	69
LOL1359	92	92	75	76	76	67	67	67	67	67
SLW XFMR #1	81	81	81	81	81	81	81	81	81	81
SLW1348	54	54	54	54	54	54	54	54	54	54
SLW1358	71	71	71	71	71	71	71	71	71	71
SLW XFMR #2	67	68	69	70	70	71	71	72	72	72
SLW1316	68	69	71	72	73	73	74	74	75	75
SLW1368	76	77	77	78	78	79	79	80	80	80
TEN XFMR #1	77	77	78	78	78	63	63	63	63	63
TEN1256	63	63	63	63	63	60	60	61	61	61
TEN1257	85	85	85	85	85	62	62	62	62	62
TEN XFMR #2	89	91	92	93	93	59	59	59	60	60
TEN1253	71	71	72	72	72	31	31	31	31	31
TEN1254	80	81	82	83	83	70	71	71	71	71
TEN1255	76	77	78	79	80	58	58	59	59	59
New XFMR	-	-	-	-	-	53	53	54	54	54
Feeder 1	-	-	-	-	-	61	61	62	62	62
Feeder 2	-	-	-	-	-	71	71	72	72	73

Corrective Action Plan

Corrective Action Plan				System Impact		
Issue	Project Name	Planning Scope	Desired In-service Timeline	Worst Performance Criteria Issue	Impacted Facilities	Impact Timeline
11	Avondale Capacity Mitigation	Upgrade AVD151 regulator ●	7-8 years	Peak summer capacity	AVD151	Long-term
12	Coeur d'Alene Capacity Mitigation	Scope undetermined	4-5 years	Peak summer capacity	CDA124, CDA125	Near-term
13	Colbert Capacity Mitigation	Scope undetermined	4-5 years	Peak summer capacity	COB XFMR 1, COB12F2	Near-term
14	Deer Park Capacity Mitigation	Scope undetermined	4-5 years	Peak winter capacity	DEP XFMR 2, DEP12F1	Near-term
15	Downriver Capacity Mitigation	Phase balancing ●	4-5 years	Peak summer capacity	DRV XFMR 1, DRV12F3	Near-term
16	Glenrose Capacity Mitigation	Review existing project scope	6-8 years	Peak summer capacity	GLN12F2	Long-term
17	Idaho Road Capacity Mitigation	Post Falls station rebuild	9-10 years	Peak summer capacity	IDR XFMR 1, IDR253	Long-term
18	Indian Trail Capacity Mitigation	Scope undetermined	4-5 years	Peak summer capacity	INT12F1	Near-term
19	Kooskia 34 Capacity Mitigation	New feeder tie to transfer customer ●	1-2 years	Peak winter capacity	K34 XFMR 1	Existing
20	Lewiston Capacity Mitigation	New LOID Substation with two feeders	2-3 years	Peak summer capacity	TEN, LOL, SLW	Existing
21	Milan Capacity Mitigation	Coordinate mitigation with transfer customer	1-2 years	Peak winter capacity	MLN XFMR 2, MLN12	Existing
22	Northeast Capacity Mitigation	Scope undetermined	6-7 years	Peak summer capacity	NE12F1	Long-term
23	Pound Lane Capacity Mitigation	Scope undetermined	1-2 years	Peak summer capacity	PDL XFMR 1, PDL1201, PDL1203	Existing
24	Priest River Capacity Mitigation	Upgrade existing transformer	3-5 years	Peak winter capacity	PRV XFMR 1	Existing
25	South Lewiston Capacity Mitigation	Construct new Bryden Canyon Station ●	4-5 years	Peak summer capacity	SLW XFMR 1, SLW XFMR 2	Near-term
26	South Othello Capacity Mitigation	Add second transformer to SOT ●	4-5 years	Peak summer capacity	SOT XFMR 1	Near-term
27	Spangle Capacity Mitigation	Coordinate mitigation with transfer customer ●	1-2 years	Peak winter capacity	SPA XFMR 1, SPA441	Existing
28	Turner Capacity Mitigation	Scope undetermined	1-2 years	Peak winter capacity	TUR116	Existing

Transmission Corrective Action Plans

Load Service

April Spacek | System Planning Engineer

Newly Identified

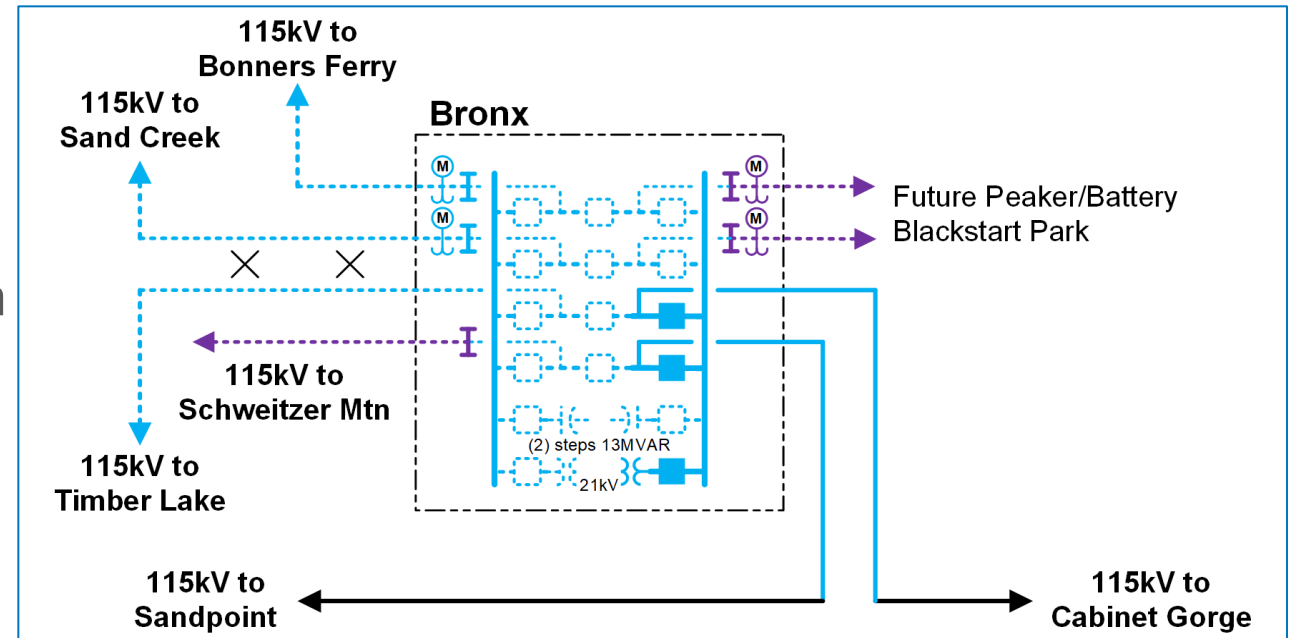
Issue	Corrective Action Plan			System Impact			TPL?
	Project Name	Planning Scope	Desired In-service Timeline	Worst Performance Criteria Issue	Impacted Facilities	Impact Timeline	
6	Coeur d'Alene Station Voltage Support	New capacitor bank or BESS at Coeur d'Alene Station	4-6 years	N-1-1 (P6) of two lines into Coeur d'Alene Station	CDA	Existing	No
7	Grangeville Station Voltage Support	New capacitor bank or BESS at Grangeville Station	4-6 years	N-1-1 (P6) of two lines into the area	GRV, COT, WIK, KAM, ORO, KOO, EGV	Existing	No
8	Mead Station Voltage Support	Scope undetermined	9-10 years	N-1 (P2.1) of Bell end of Addy – Bell 115 line	LOO, CLY, DEP, MLN, TUM, HMN, COL, MEA	Long-Term	No
9	Northwest Transmission Reinforcement	Reconductor 3.5 miles of L&S-ROS 115kV	4-6 years	N-1-1 (P6) of two lines into the area	F&C-ROS 115kV	Existing	Yes
10	West Spokane Transmission Reinforcement	Scope undetermined	4-6 years	N-1-1 (P6) of BLU-GDN and GDN-WES	ROS-3HT	Near-term	Yes

Previously Identified

Issue	Corrective Action Plan			System Impact			TPL?
	Project Name	Planning Scope	Desired In-service Timeline	Worst Performance Criteria Issue	Impacted Facilities	Impact Timeline	
1	Sandpoint Area Transmission Reinforcement	New 115kV transmission into the Sandpoint area or upgrades of existing facilities	5-10 years	N-1-1 (P6) of Cabinet & Libby 230/115kV transformers	ALFL-SDCK overload & vltage collapse	Existing	Yes
2	Beacon Transmission Reinforcement	Rebuild Beacon with higher capacity equipment and redundant bus design	5-10 years	Close-in fault on BEA 115/13kV transformer and Beacon breaker failures	BEA 115kV circuit breakers and Spokane 115kV system	Existing	Yes
3	Palouse Area Transmission Reinforcement	Under development	5-10 years	N-1-1 (P6) of Moscow & Shawnee 230/115kV transformers	M23-M15 115kV & voltage collapse	Existing	Yes, Ops Plan
4	Safely Interrupting Faults	Expand project scope to include: Replace Indian Trail A742 circuit switcher with 40kA or greater rated equipment. Update Third & Hatch A672 circuit switcher Fault Reduction Scheme Reduce project scope to not include: East Colfax, Lakeview, Leon Junction, and Long Lake	2-5 years	Faults on distribution transformers	3HT & INT	Near-term	No
5	West of Lancaster Constraint	New 230kV line from Boulder to Rathdrum	2-5 years	N-2 (P7) of West of Lancaster lines	BLD-RAT, OTI-PF, PF-RAM	Existing	No, Ops Plan

Sandpoint Area Reinforcement

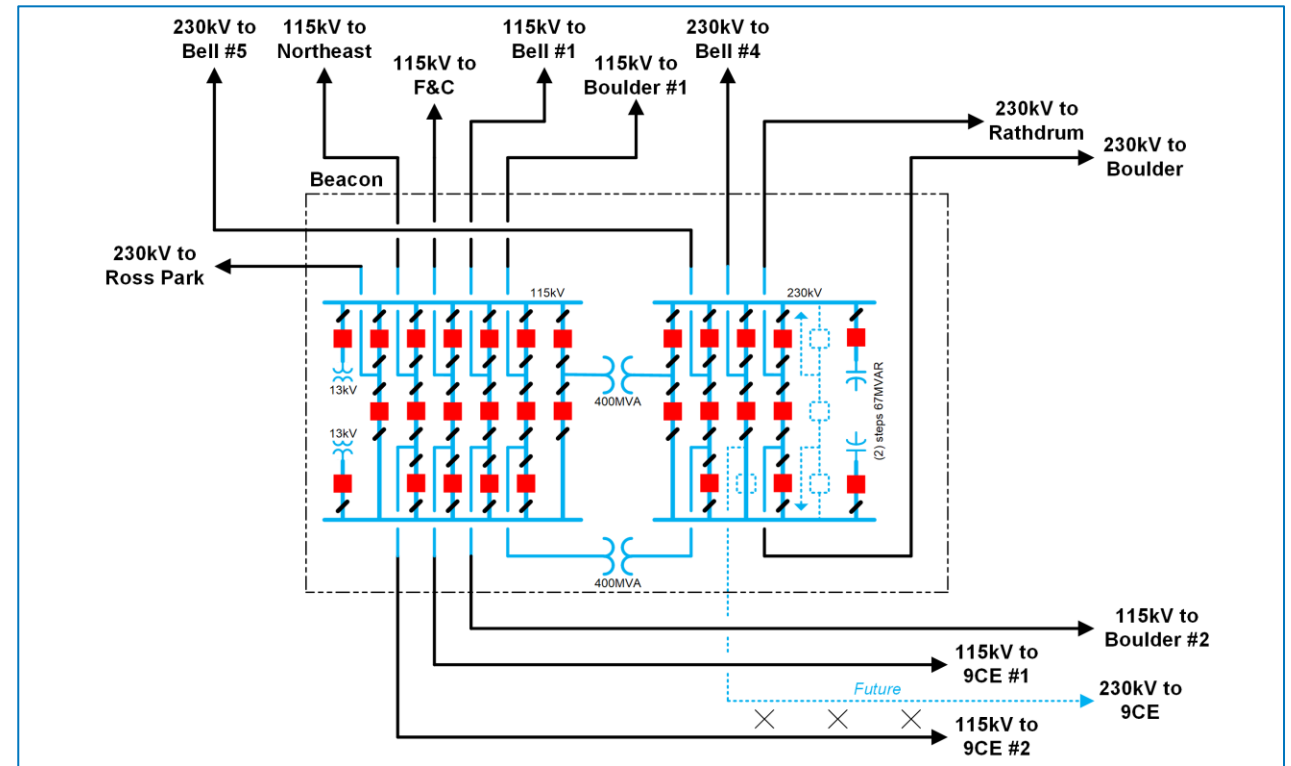
- Rebuild Bronx Station with allocations for future transmission reinforcement
- New 115kV line to the Sandpoint area (from Albeni Falls or Rathdrum Stations) with required upgrades
- Coordinated project with BPA: Upgrades to Albeni Falls – Sand Creek 115kV line
- Add reactive support



Bronx Station Rebuild - New Distribution Capacity and Space for 115kV Expansion

Beacon Transmission Reinforcement

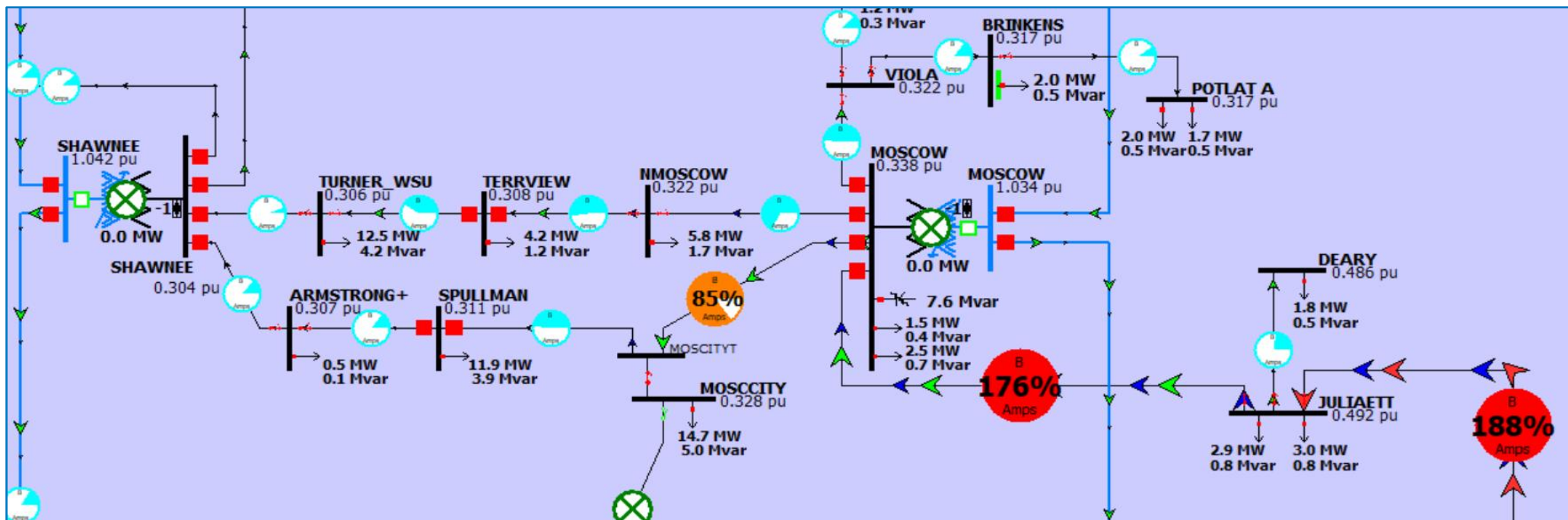
- Rebuild Beacon with redundant bus design, transformer capacity, and higher fault interrupting equipment capability
- Upgrade protection systems for single point of failure



Beacon Station – Preliminary Single Line Diagram

Palouse Transmission Reinforcement

- New 230/115kV transformer added to the area
- Extend Moscow City – Leon Junction – North Lewiston 115kV Transmission Line to Moscow 230kV station



Palouse Area Transmission System

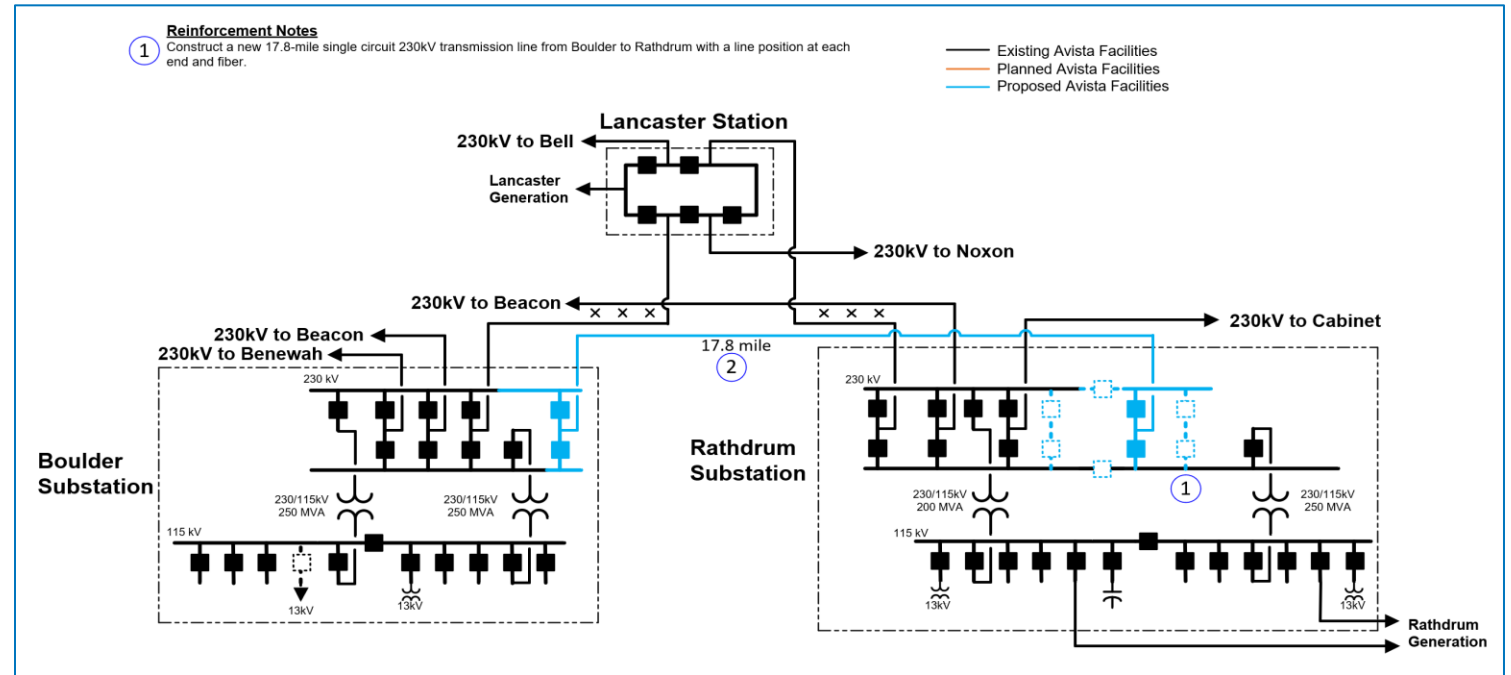
Safely Interrupting Faults

- Replace inadequate circuit switchers at indicated locations
- Replace inadequate high voltage fuses at indicated locations

Circuit Switchers	High Voltage Fuses
South Othello	Garfield
Barker Road	Leon Junction
Post Street	Long Lake
Francis & Cedar	North Moscow
Lakeview	
East Golfax	
Airway Heights	
Indian Trail	
Third & Hatch	

West of Lancaster

- New Boulder – Rathdrum 230kV Transmission Line



Boulder – Rathdrum 230kV Transmission Line

- Merge project with Kootenai County Transmission Reinforcement

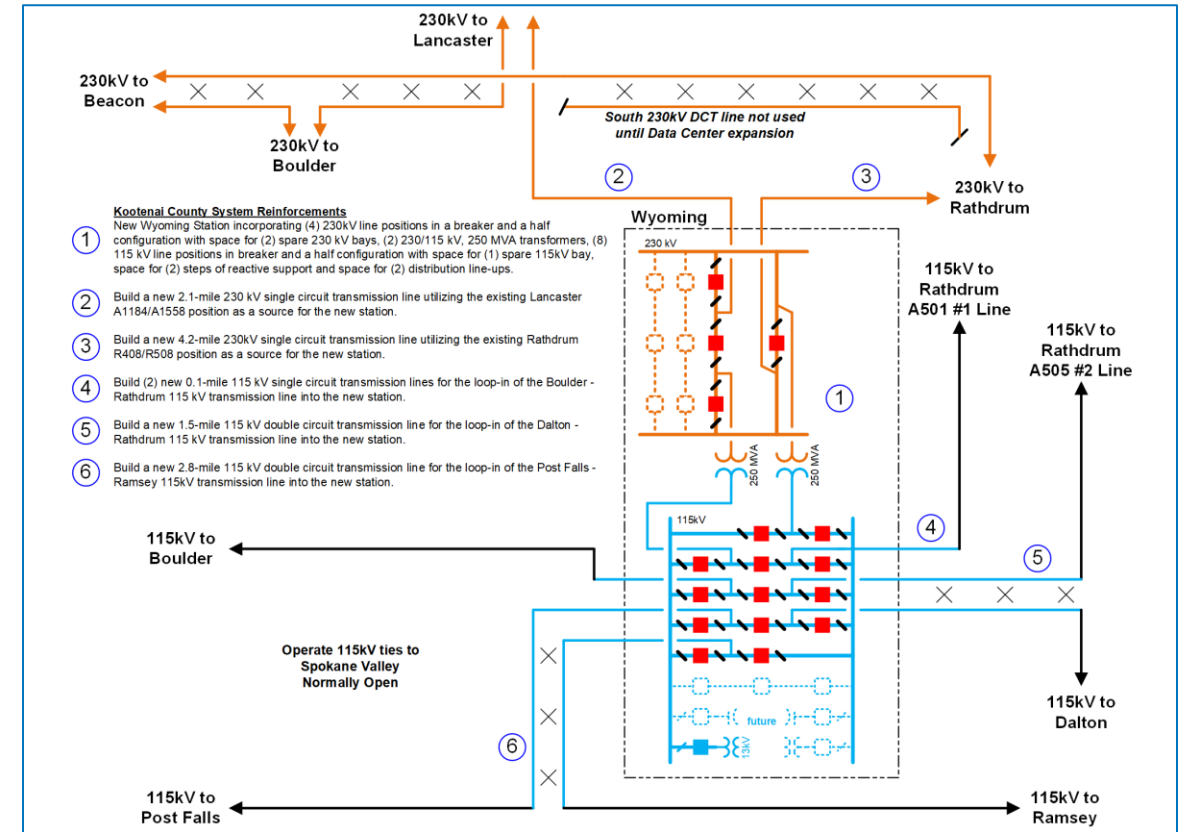
Kootenai County Transmission Reinforcement

New Wyoming Station

- New Lancaster – Wyoming – Rathdrum 230kV Transmission Line
- Two 230/115kV, 250MVA transformers
- Breaker and a half configuration

New 115kV hub for load service

- Loop-in Dalton-Rathdrum 115kV line
- Loop-in Ramsey-Rathdrum 115kV line
- Loop-in Post Falls–Ramsey 115kV line



Kootenai County Transmission Reinforcement Plan

Generator Interconnections

Large Load Studies

David Thompson | System Planning Engineer

Generator Interconnections

Cluster Number	Cluster Area	Request Status	MW Output	Type	County	State	POI	Customer Requested COD
Q59	NA	Suspended	60	Solar/Storage	Adams	WA	Roxboro 115kV Station	Suspended LGIA
Q60	NA	Suspended	150	Solar/Storage	Asotin	WA	Dry Creek 230kV Station	Suspended LGIA
Q97	NA	Suspended	100	Solar/Storage	Nez Perce	ID	Lolo 230kV Station	Suspended LGIA
TCS-03	T7a - Big Bend	Suspended	80	Solar/Storage	Adams	WA	Warden 115kV Station	Suspended LGIA
TCS-14	T6 - Lewis Clark	Construction	375	Wind/Storage	Garfield	WA	Dry Creek 230kV Station	12/1/2025
CS23-06	CA5 - Palouse	LGIA	220.5	Wind	Whitman	WA	Shawnee - Thornton 230kV	12/15/2025
CS23-12	CA7 - Big Bend	LGIA	199	Storage	Franklin	WA	Saddle Mountain - Walla Walla 230kV	1/10/2027
CS23-13	CA1 - West Plains	LGIA	40	Solar	Lincoln	WA	Davenport 115kV Station	6/31/2024
CS23-14	CA1 - West Plains	LGIA	40	Solar	Spokane	WA	Airway Heights - Silver Lake 115kV	6/30/2027
CS24-01	CA8A - S. Othello	SGIA	0.99	Solar	Adams	WA	S. Othello 13kV	10/1/2024
CS24-02	CA8D - Third & Hatch	SGIA	0.50	Storage	Spokane	WA	Third & Hatch 13kV	8/1/2025
CS24-07	CA8B - Othello	SGIA	2	Solar	Adams	WA	Othello 13kV	12/10/2024
CS24-14	CA1 - West Plains	Draft LGIA	40	Solar	Spokane	WA	South Fairchild Tap 115kV	6/30/2028
CS24-15	CA1 - West Plains	Draft LGIA	300	Wind/Storage	Lincoln	WA	Bluebird 230kV Station	12/31/2027
CS25-03	CA1 - Spokane	Phase One Restudy	100	Storage	Spokane	WA	Northeast 115kV Station	1/1/2030
CS25-04	CA3 - Coeur d'Alene	Phase Two Study	101.5	Natural Gas	Kootenai	ID	Rathdrum 115kV Station	5/30/2027
CS25-05	CA3 - Coeur d'Alene	Phase Two Study	101.5	Natural Gas	Kootenai	ID	Rathdrum 115kV Station	5/30/2029
CS25-07	CA5 - Palouse	Phase One Restudy	199	Wind	Whitman	WA	Thornton 230kV Station	12/16/2029
CS25-08	CA1 - Spokane	Phase One Restudy	250	Storage	Spokane	WA	Boulder 230kV Station	5/4/2029
CS25-09	CA7 - Big Bend	Phase One Restudy	375	Solar/Storage	Adams	WA	Saddle Mountain - Wanapum 230kV	5/1/2030
CS25-11	CA6 - Lewis Clark	Phase Two Study	300	Wind	Garfield	WA	Dry Creek - Talbot 230kV	12/1/2029
CS25-12	CA6 - Lewis Clark	Phase Two Study	160	Solar/Storage	Garfield	WA	Dry Creek - Talbot 230kV	12/1/2029
CS25-15	CA5 - Palouse	Phase One Restudy	200	Wind	Spokane	WA	Benewah 230kV Station	12/1/2030
CS25-16	CA7 - Big Bend	Phase One Restudy	150	Wind	Adams	WA	Neilson 230kV Station	12/1/2030
CS25-17	CA1 - Spokane	Phase One Restudy	200	Wind	Spokane	WA	Bluebird 230kV Station	12/1/2030
CS25-18	CA8 - Melville	Facilities Study	5	Solar	Spokane	WA	Melville 13kV	6/30/2026

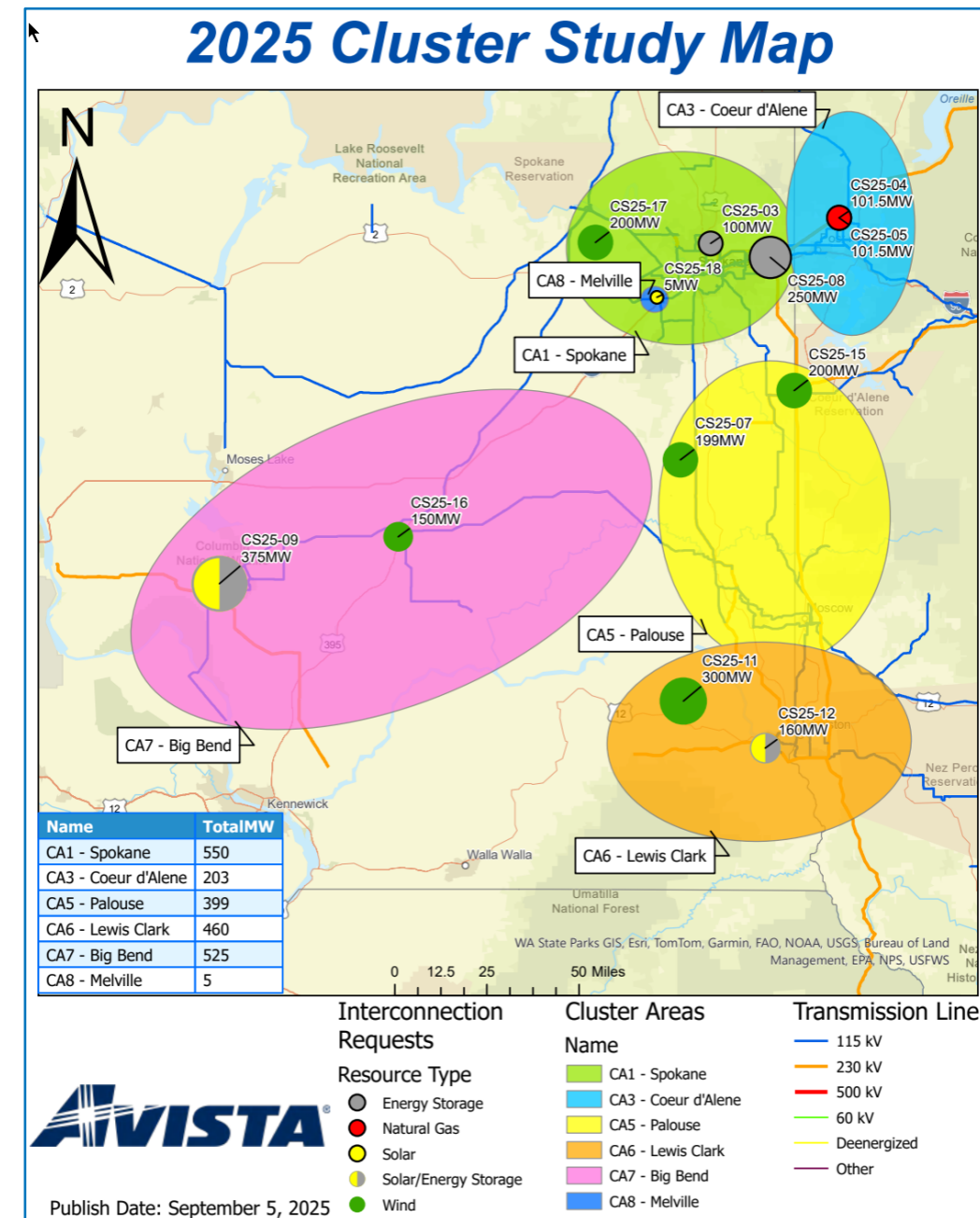
Active studies for 3,750MW of non-Avista owned generation through 2030

2025 Cluster Studies

Cluster Area 7 (Big Bend)

Cost Estimates for Phase One Restudy

	Transmission Provider Interconnection Facilities	Station Equipment Network Upgrades	Shared Network Upgrades	Total
CS25-09	\$775,000	\$11,425,000	\$185,350,000	\$197,550,000
CS25-16	\$975,000	\$9,500,000	\$74,150,000	\$84,625,000
Total	\$1,750,000	\$20,925,000	\$259,500,000	\$282,175,000



Large Load Studies

Large Load Request Process Overview (Any Load Request Size Exceeding 1.5 MVA)

1 Application 30 Days	2 Scoping 30 Days	3 Study 30 – 180 Days	4 Review 30 Days	5 Execute
- Fill out Large Load Request Application, available at myavista.com/about-us/large-load-service-request. - Avista will provide notification within 3 business days of receiving the application.	- Prepare your project overview information and questions for the scoping meeting. - Avista Large Power Solution Team will provide you answers and guide you to the next step.	- You will have 30 days after the scoping meeting to commit to study agreement. - Please refer to the "Required Study Details" table below for information.	- Any material changes to the original study input will require a new study if Avista is able to provide service. - You will have 30 days to decide whether to proceed with service agreement if Avista is able to provide service.	- A tailored large load service agreement will be developed based on the specifics of the project. - Please ensure that the large load service agreement is executed prior to the commencement of construction.

- Seventeen current Large Load requests
- 3,400MW, ranging from 2MW to 1000MW each
- Regional concentrations in the West Plains and Rathdrum areas

www.myavista.com/about-us/large-load-service-request

Large Power Request Size	Required Study	Deposit	Typical Timeline	Deliverables	Needs from Customer
1.6 - 8 MVA	Capacity Study	\$5,000	30 Days	Capacity acknowledgement, project details including cost and schedule, and next steps if Avista is able to provide service.	Properly filled out application.
8.1 - 25 MVA or Insufficient Grid Capacity	Distribution Impact Study	\$20,000	60-90 Days	Facility violations, system modifications, estimates of scope, schedule and cost if Avista is able to provide service.	Facility oneline, class of load, redundancy requirements, preferred resource, seasonal coincident peaks.
Over 25 MVA or Transmission Service Requested	Transmission Impact Study	\$40,000	60-180 Days	Facility violations, contingent facilities, resource requirements and system modifications, customer facility requirements, estimate of scope, schedule and cost if Avista is able to provide service.	Facility oneline, class of load, redundancy requirements, preferred resource, seasonal coincident peaks.

Wrap-Up

Next Steps

Continue System Assessment Technical Studies

- DER Potential Study scenario
- N-1 contingency analysis

Development of Corrective Action Plans

- Finalize System Assessment report
- Detailed project studies in 2026

Public Process

- IRP Technical Advisory Committee will absorb DPAG
- FERC Attachment K process will continue independently



Avista's Tenth & Stewart 115kV / 13kV Substation, Lewiston, ID

Q&A

Solving future energy system challenges today