BEFORE THE WASHINGTON STATE UTILITIES AND TRANSPORTATION COMMISSION

	)	
	)	DOCKET NO. UE-
	)	
In the Matter of Avista's 2018-2027 Ten-year	)	2018-2027 TEN-YEAR
Achievable Conservation Potential and	)	ACHIEVABLE CONSERVATION
Biennial Conservation Plan in Compliance	)	POTENTIAL AND 2018-2019
with RCW 19.285 and WAC 480-109-120 (1)	)	BIENNIAL CONSERVATION
	)	TARGET OF AVISTA
_____	)	CORPORATION

In compliance with WAC 480-109-120(1), Avista Corporation (hereinafter Avista or Company), respectfully submits this Ten-Year Achievable Conservation Potential and 2018-2019 Biennial Conservation Target (Biennial Conservation Plan or BCP) in the above-captioned matter. The term "conservation" will be used interchangeably with energy efficiency and Demand-Side Management (DSM) throughout this plan.

I. EXECUTIVE SUMMARY

This 2018-2019 Biennial Conservation Plan is responsive to the energy efficiency requirements of WAC 480-109-120. In this BCP, Avista states its targets and describes how these were developed consistent with RCW 19.285 and WAC 480-109-120. This filing includes the Company's 2018 DSM Annual Conservation Plan (ACP), provided as Appendix B, which is designed to explain how Avista will achieve these targets and how savings will be defined and presented. Reporting standards and stakeholder involvement are also described.

Avista has chosen to use its 2017 Electric Integrated Resource Plan (IRP) centered on its recently completed Conservation Potential Assessment (CPA), as the basis for its 2018-2019 biennial acquisition target.[1] The pro rata share of Avista's 10 year conservation potential is 73,636

[1] For the Company's 2017 Electric IRP and accompanying appendices, refer to the following link. www.avistautilities.com/inside/resources/irp/electric/Pages/default.aspx

MWh and the Company intends to acquire at least that level of qualifying energy efficiency during the 2018-2019 biennium. In addition, Avista will remove the forecasted Northwest Energy Efficiency Alliance (NEEA) savings within the Conservation Potential Assessment and will increase the target as part of a previous settlement[2]. Over a ten-year horizon (2018 through 2027), the Company is anticipating the acquisition of 368,000 MWh of qualifying energy efficiency in Washington.

Table No. 1: Avista's BCP Target Summary

Category	Target (MWh)
Pro Rata Share of 10-year Conservation Potential	73,636
Behavioral Program Savings[3]	15,386
Less: NEEA Pro Rata savings identified within the CPA	(9,986)
End-Use Efficiency Measures Subtotal	79,036
Distribution and Street Light Efficiency	749
Portion of BCP Target Subject to penalty	**79,785**
Plus 5% Decoupling Commitment	3,989
Total Local Biennium Target	83,774
Portion of savings from NEEA	9,986
2018-2019 Biennial Conservation Target	**93,760**

[2] Pursuant to Order 5 of Docket Nos. UE-140188 and UG-140189, Avista must achieve 105 percent of its biennial conservation target. As this is not a requirement identifiable to the Energy Independence Act (EIA), this "decoupling" commitment is not subject to penalties under the EIA. However, staff considers this commitment to be subject to penalties at a level consistent with that of the EIA.

[3] Savings target of 15,386 MWh is from an Opower/Oracle forecast for the 2018-2019 biennium. Although the Company will not be continuing its Home Energy Report program with Opower, the Company has committed the estimated savings to its target.

Table of Contents

Key Supporting Documents by Reference:
Avista 2017 Electric Integrated Resource Plan and Conservation Potential Assessment
Avista EM&V Framework
Avista Technical Reference Manual

II. BACKGROUND

RCW 19.285, Energy Independence Act, also known as Initiative Measure No. 937 or I-937, mandates, among other requirements, that utility companies obtain fifteen percent of their electricity from new renewable resources such as solar, wind, and qualifying biomass by 2020 and to undertake all cost-effective energy conservation. In 2007 the Commission adopted WAC 480-109, Acquisition of Minimum Quantities of Conservation and Renewable Energy to effectuate RCW 19.285. (References to I-937 and WAC 480-109 are used interchangeably in this plan).

This process, and the 2018-2019 BCP are consistent with prior Commission Orders, specifically the Commission's approval with conditions of Avista's previous BCP in Docket Nos. UE-100176, UE-111882, UE-132045 and UE-152076.

For the 2010-2011 Biennium, the Company chose to use the Northwest Power and Conservation Council's (Council) Option #1 of the 6th Power Plan to establish its acquisition target. Avista based its targets for the 2012-2013, 2014-2015 and 2016-2017 periods on its Integrated

Resource Plan (IRP), informed by a CPA performed by a consultant, Global Energy Partners, who then became EnerNOC and is now Applied Energy Group (AEG). Avista retained AEG to conduct a CPA study for its current IRP, filed August 28, 2017.

III. THE END-USE EFFICIENCY PLAN

1. Overview of 2018-2019 Biennial Conservation Plan

This filing describes the efforts of Avista, in consultation with interested external stakeholders, to estimate a ten-year achievable conservation potential, identify a biennial acquisition target, identifying measures qualifying to be counted towards the acquisition target, determining how claimed acquisition will be measured, and establish an understanding in regards to related procedural issues.

Avista has committed to achieving 93,760 MWh in the 2018-2019 Biennium. This amount includes amounts from the Company's conservation potential assessment, a commitment to additional savings derived from behavioral program estimates, distribution and street light efficiencies, and its decoupling commitment. Avista has chosen to use its 2017 Electric IRP centered on its recently completed CPA, as the basis for its 2018-2019 biennial acquisition target[4]. Avista intends to acquire 73,636 MWh of qualifying energy efficiency, which is the sum of the pro rata share of the ten-year conservation potential[5]. Over a ten-year horizon (2018 through 2027), the Company's CPA is anticipating the acquisition of 368,000 MWh. While the pro rata share of the ten year achievable potential is defined as 20%, the result is a savings target of approximately

[4] WAC 480-109-100(2)(b) This projection must be derived from the utility's most recent IRP, including any information learned in its subsequent resource acquisition process, or the utility must document the reasons for any differences. When developing this projection, utilities must use methodologies that are consistent with those used in the Northwest Conservation and Electric Power Plan.

[5] WAC 480-109-100(3)(b) The biennial conservation target must be no lower than a pro rata share of the utility's ten-year conservation potential.

5% greater than the conservation defined as achievable in both the CPA and the Company's IRP (73.6 GWh vs. 69.9 GWh) for the 2018-2019 biennium.

A summary of the estimated conservation acquisition, as well as budgets, are located in Appendix A. In addition, descriptions of eligible measures and evaluation requirements are described within the Company's 2018 Annual Conservation Plan, Appendix B.

The Company's energy efficiency expectations over this time period are founded upon the pursuit of achieving all cost-effective energy efficiency and operating within the prevailing market and economic conditions. Though advancements in energy efficient technologies continue to occur and the ability of utilities to apply innovative approaches to program implementation have accelerated, the influence of lower avoided costs and marketability of efficiency technologies have impacted our projections.

Based on information from The Northwest Power and Conservation Council's 7th Power Plan, approximately 145,000 MWh of conservation could be acquired within Avista's Washington service territory during the 2018-2019 biennium and between 430,000 to 631,000 MWh over the ten year (2018-2027 inclusive) timeframe.[6]

The primary drivers of the difference in the recently completed CPA and the Seventh Power Plan are a higher baseline built into the CPA and the difference in avoided costs between Avista and that of the region.

2. Conservation Potential and Conservation Targets

[6] These acquisition levels have been adjusted and distribution efficiency has been removed in order to compare with Avista's CPA which includes energy efficiency only. Calculation is based on 3.5% of loads which is constant with the NWPCC's 6th Power Plan Utility Calculator. The Company provided a range of possible conservation values in place of a set point of conservation.

As stated above, for the 2018-2019 biennium, Avista has chosen to use its 2017 electric IRP which was based on the Company's recently completed electric CPA prepared by AEG. The CPA is a 20-year potential study for energy efficiency and an estimate of potential by end-use, specific to Avista's circumstances and service territory, used to inform the Company's 2017 IRP in accordance with Washington I-937[7]. Although no acquirable potential relative to thermal efficiency was identified within Avista's IRP, the Company will continue to pursue cost-effective opportunities in this area and will claim any acquisition towards its target. The Company has included the estimated MWh savings and budget for the 2018-2019 Biennium with Appendix A.

Both the CPA and the IRP were prepared consistent with the Council's methodology. The energy efficiency potential resulting from the CPA considers a baseline forecast without the impacts of naturally occurring conservation, impacts of known codes and standards as of 2017, technology developments and innovations, as well as likely changes to the economy and energy prices.

Within the CPA, energy efficiency measures applicable to and within Avista's service territory were identified and analyzed both for lost opportunity and retrofit. Since it includes all energy efficiency regardless of how it is delivered, it inherently includes regional savings that will be acquired through NEEA[8].

[7] While demand response was included in the potential study for use in the Company's IRP, it is outside of the scope of I-937 and will be excluded from targets and acquisition.

[8] NEEA's net market effects include natural adoption (if NEEA and Avista have a program operating in the market) that occurs within Avista's service territory and will be counted towards the Company's target. NEEA will report code changes, savings estimates and attribution linkages which Avista will use to report savings.

During the 2014-2015 biennium, the Washington Utilities and Transportation Commission (UTC) required Avista, in collaboration with PacifiCorp and Puget Sound Energy, to develop a consistent approach to claiming conservation savings associated with NEEA and to provide a joint proposal of a consistent approach to the Commission[9]. The Company's methodology was to remove NEEA's estimated portion from the CPA-identified target[10].

In an effort to maintain consistency with the Council's 7th Power Plan, savings estimates referencing an adjusted market baseline or equivalent were used to develop targets and will be used to claim savings resulting from program operations during this biennium.

Avista will look first to the Regional Technical Forum (RTF) for unit energy savings (UES) for claimed savings and then to the Company's Technical Reference Manual (TRM) or other sources. It should be noted, that while the Council's 7th Power Plan includes UES values at the busbar, the UES list, shown in Appendix C, are at the site.

There is no restriction on measure or equipment eligibility or re-adoption based upon measure life. Programs delivering quantifiable savings based upon energy saving behaviors are eligible[11]. The UES list is provided in Appendix C.

Site specific program acquisition will be based on verified savings estimates resulting from an independent third-party evaluation. In situations where a new measure or equipment is implemented, UES may be obtained from the RTF, the CPA, or from other sources based on the best science available until an impact evaluation can be done to provide better estimates.

---

[9] Joint proposal for a consistent approach to NEEA claimed conservation savings for the 2014-2015 Biennial Conservation Plan Compliance with Order No. 03 in UTC Docket No. UE-100176.

[10] This supports utilities being held responsible for what they can control and eliminates planning risk for the utilities in a consistent methodology between Washington IOUs.

[11] The Company will leverage existing protocols when evaluating and/or implementing a behavioral program and will incorporate such protocols within future targets to provide for symmetry between target setting and acquisition claims.

Energy efficiency measures and equipment analyzed within the CPA were evaluated using the Council's cost-effectiveness methodology, which employs the California Standard Practice Manual with some exceptions, such as the inclusion of non-energy benefits and the use of gross acquisition. The avoided costs used to evaluate measures and equipment includes components for energy, carbon, capacity, risk and transmission and distribution losses.

3. Energy Efficiency Portfolio - Program Summary Table

The Company offers a wide range of electric and natural gas efficiency programs to our customers as well as supporting outreach, infrastructure and educational programs. These programs are comprehensively reviewed on an annual basis as part of the business planning process. The business planning process establishes an operational plan for achieving all cost-effective conservation through available or contemplated tools.

The business planning process establishes measurable metrics for the continuous management of the DSM portfolio to include budgets, labor and physical equipment requirements and general infrastructure needs. Short and long-term threats and opportunities are assessed, and these analyses lead to updated strategic plans, all of which are incorporated into the Annual Conservation Plan.

Avista's 2018 Annual Conservation Plan contains the results of these efforts and are incorporated into this filing by reference and attached in Appendix B. The ACP provides a bottom-up approach of how program implementation intends to drive participation and acquire savings to be counted toward the Company's target through existing programs, ramping of existing programs and the development of new programs. As requested by the Energy Efficiency Advisory Group ("Advisory Group"), Avista is also providing a 2-Year Planning Summary in Appendix A of this BCP.

4. Stakeholder Engagement

Avista has had an ongoing active stakeholder involvement focus since 1992. Extensive stakeholder involvement opportunities have been provided for the development of this BCP and associated issues through multiple processes, including Avista's IRP Technical Advisory Committee and the Advisory Group.

Avista's Advisory Group consists of interested regulatory, consumer and energy industry parties[12]. During 2016 and 2017, Avista has worked alongside the members of the Advisory Group to increase the communication among its members and to provide more updates and opportunities for involvement in its program planning. In preparation of the 2018-2019 Biennial Conservation Plan and pursuant to Docket UE-152076 Order No. 01 issued by the WUTC on January 26, 2016, Avista hosted webinars to inform the Advisory Group of its BCP progress and allow time for advisory group input and feedback. On May 23, 2017, the Company presented to the Advisory Group details on the Gas Line Excess Allowance Program (LEAP), the Natural Gas Multifamily Market Transformation program, the results of the Company's Electric CPA and the preliminary I-937 conservation target for the 2018-2019 Biennium. On June 27, 2017, the Company presented the Annual and Biennial Targets to the Advisory Group along with the draft ten-year conservation potential and two-year target. Then, on August 23, 2017, the Company also presented to the Advisory Group the draft targets and plan elements along with the plan details. During the fall 2017 Advisory Group meeting held September 25th and 26th of 2017, the Company then presented the draft program tariff for the 2018-2019 biennium.

[12] The Advisory Group is Avista's non-binding oversight and advisory group for energy efficiency. The Advisory group is currently composed of fellow IOUs, the UTC staff, the IPUC Staff, OPUC Staff, the Washington Office of Public Counsel, Northwest Energy Coalition, SNAP, The Energy Project, Northwest Energy Efficiency Alliance, Northwest Power and Conservation Council, Northwest Energy Efficiency Council, Idaho Conservation League, Putnam Price and the Opportunity Council.

The status of target achievement and associated updates will be provided to interested parties in several ways over the compliance period. The Advisory Group is given opportunities to provide input into the Company's development of the DSM Annual Conservation Plan along with the Biennial Conservation Plan. This process guides the business operations for the following year and is distributed to the Advisory Group at least thirty days prior to filing, for input regarding programs, outreach, measurement and evaluation, labor, and other necessary administration to achieve the conservation target.

Avista commits to hosting at least four Advisory Group meetings (either in-person or by webinar) in each year of the 2018-2019 biennium. During these meetings, or through other communications, the Advisory Group will be updated on, and have opportunity to review:

(a) Conservation programs and measures.
(b) Updates to the utility's evaluation, measurement, and verification framework.
(c) Modification of existing, or development of new evaluation, measurement, and verification methods.
(d) Independent third-party evaluation of portfolio-level biennial conservation achievement.
(e) Development of conservation potential assessments, as required by RCW 19.285.040 (1)(a) and WAC 480-109-100(2).
(f) The methodology, inputs, and calculations for cost-effectiveness.
(g) The data sources and values used to develop and update supply curves.
(h) The need for tariff modifications or mid-biennium program corrections.
(i) The appropriate level of and planning for:
    (i) Marketing conservation programs;
    (ii) Incentives to customers for measures and services; and
    (iii) Impact, market, and process evaluations.
(j) Programs for low-income residential customers.
(k) Establishment of the biennial conservation target and program achievement results compared to the target.
(l) Conservation program budgets and actual expenditures compared to budgets.
(m) Development and implementation of new and pilot programs.

In addition to meetings, The Company provides periodic newsletters and other documents with planning, programmatic, and statistical updates, tariff rider balances, updates on acquisition and an annual DSM report on final results for the year.

5. Program Descriptions

Avista has offered electric-efficiency programs continuously since 1978. The Company's current portfolio of efficiency programs is broadly applicable across all customer segments. The overall portfolio contains individual market segments for nonresidential, general residential and low-income residential customers. Each portfolio applies a segment/project-specific strategy to deliver opportunities for cost-effective energy efficiency to that customer population. Efficiency programs are offered either through standard offer (also termed "prescriptive") as well as through a site-specific program for non-residential measures not otherwise available in a prescriptive program.

Detailed descriptions of the individual local programs are contained within the 2018 Annual Conservation Plan. These programs are categorized into non-residential prescriptive, non-residential site-specific, residential prescriptive, residential lighting (includes manufacturer buy-downs), partner programs, and low-income. These programs, and the Company's strategy for success within each market segment, are discussed in greater detail within the 2018 Annual Conservation Plan.

The Company proposes to retain the option to develop and revise programs as necessary over the course of the 2018-2019 biennium in order to “adaptively manage” the programs and its elements. This on-going portfolio management may include the launching or termination of program offerings or eligible measures without the adjustment of the biennial acquisition target. In addition to the predominately incentive-based efficiency measures offered through Avista programs, the Company is also a funder and an active participant in the achievement of energy efficiency through regional market transformation. This activity occurs through the Northwest

Energy Efficiency Alliance (NEEA) portfolio of market transformation ventures, achieving resource acquisition from throughout the region. Avista also contributes data and expertise, along with other utility partners in the continuous process of developing sound methodologies for the attribution of the energy savings from these programs to individual utilities and jurisdictions in a manner that is additive to local utility programs.

Avista will report NEEA savings; however will not include the projected savings as part of the Washington I-937 penalizable target. This approach holds Avista accountable for only the local the Company has control over.

The Company has not included efficiency achieved through fuel conversions (electric to natural gas space and water conversions) within the scope of this BCP target since such acquisition is explicitly outside of the scope of the statute. Avista does nevertheless intend to continue to pursue cost-effective fuel conversions, although the expected savings acquisition from these programs is not included in the BCP target, nor will the actual acquisitions from these programs be considered eligible for contributing to the achievement of the BCP target.

6. Reporting and Tracking Systems

Avista currently has two main tracking systems for energy efficiency projects. Oracle's Customer Care and Billing (CC&B) software was selected and was rolled out in early 2015 replacing Avista's legacy customer information system. Most residential prescriptive programs are tracked in CC&B. InforCRM, formerly SalesLogix, is used for tracking nonresidential (commercial, industrial, nonprofit, multi-family developments and government) projects and contains project, rebate, and customer information. The reason for a separate nonresidential tracking system is due to the complexity of the projects and the significant details and project

information that are necessary to track the nonresidential projects from start to finish. In addition, a corporate financial system is used for tracking finances and expenditures across all areas of Avista.

The Company will continue to provide monthly reports to Commission Staff and Avista's Energy Efficiency Advisory Group covering targets, energy savings, budgets, actual expenses, revenue, and tariff rider balances. The Company will continue to make this report available to the Advisory Group throughout the 2018-2019 biennium, however, the Company will continue to evaluate its reporting and seek out improvements.

Various internal reports are produced for Avista's program managers and other staff. The reports differ in content depending on the needs of those requiring the information. The reports cover energy savings acquisition, costs, details of rebates, location, customer, and other information as needed. These reporting and tracking systems are evolving to meet the needs of those involved in managing the programs, measures, and energy efficiency activities as well as those involved in advisory groups and external regulatory groups.

Avista will provide the following reports:

- A Biennial Conservation Plan including revised program details and program tariffs, together with identification of 2018-2027 achievable conservation potential will be filed on or before November 1, 2017, requesting an effective date of January 1, 2018.
- Any revisions to the cost recovery tariff will be filed on or before June 1, 2018, with a requested effective date of August 1, 2018.
- 2019 DSM Annual Conservation Plan, containing program details and an annual budget, will be filed on or before November 1, 2018.
- A 2018 Annual Report on Conservation Acquisition on evaluated results, including an evaluation of cost effectiveness and comparing budgets to actual, will be filed on or before June 1, 2019.
- A 2018-2019 Two-Year Report on Conservation Acquisition Achievement on evaluated results will be filed by June 1, 2020.

During 2017, Avista began partnering with Nexant's software implementation team to develop and integrate their Demand Side Management enterprise software suite, iEnergy. This program is a purpose-built, data management, analytics and customer engagement platform that assists utilities in managing their business processes. The platform includes an end-to-end management module that tracks and reports energy efficiency savings and expenses along with providing timely reporting for internal and external stakeholders. In addition, the software contains separate modules that provide resources and tools for trade allies, customers, and other parties. The Company anticipates that the integration of iEnergy will take place over the course of the 2018-2019 biennium with the first program transitioning to the new software beginning early 2018. Full implementation of this software is planned to occur in 2020.

7. Adaptive Management and Implementation Strategies

Despite the best efforts of all of those involved in planning for the achievement of the Company's acquisition and cost-effectiveness targets, there will be the frequent need for revisions and mid-course corrections during the biennium.

The Company's 2018 DSM Annual Conservation Plan (ACP) outlines a strategy for the upcoming calendar year. The Company regularly consults with its advisory group on matters pertaining to the DSM program to gain advice and guidance on issues as they arise. Additionally, the Company has committed to notifying the Commission of any significant unplanned changes in incentives or program eligibility that occur during the year. The same business planning process will be carried out to plan for 2019 activities, to be filed on or before November 15, 2018.

The Company will continue to evaluate potential efficiency measures throughout the biennium. Measures that have the potential for delivering cost-effective savings will be considered

for incorporation into the DSM portfolio. The quantifiable acquisition from all eligible measures, whether they are included in the current portfolio or not, will count towards the achievement of the portion of the BCP target subject to penalty.

If the Company's tracking and management of efficiency acquisition indicates that it is likely that the portfolio will fail to achieve an acquisition equal to the BCP target stated in this filing, the Company will immediately notify the Commission. This notification will include an estimate of the shortfall, the causes of the deficiency and the steps taken or being contemplated by Avista to address the issue.

It is fully recognized that the Company bears the responsibility for achieving the acquisition targets established within this BCP, and that the Company will need to make revisions, from time to time, to the portfolio within the boundaries of the current or future tariff language to meet these obligations.

IV. UTILITY EVALUATION, MEASUREMENT AND VERFICATION

Evaluation, Measurement and Verification (EM&V) is intended to represent the comprehensive analyses and assessments necessary to supply salient information to stakeholders that adequately determines the energy efficiency acquisition of Avista's DSM programs as well as provide real-time information for program management. EM&V, as described below and taken as a whole, are analogous with other industry standard terms such as Portfolio Evaluation or Program Evaluation.

Avista is committed to using independent third-party EM&V consultants and evaluators for the various analyses required to substantiate the I-937 portfolio over the biennium. The role of EM&V for validation of the conservation acquisition is critical to the reporting phase of the BCP, and the processes and protocols for conservation evaluation will continue to be refined. The

existing EM&V documents, including the EM&V Framework, annual EM&V plans and individual program EM&V guidelines, will be reviewed and updated as necessary to improve their benefit to the DSM programs and Avista's customers. Furthermore, Avista's TRM has been evaluated by an independent, third-party evaluator and savings estimates are updated annually based on on-going impact evaluation findings and other appropriate sources.

The RTF, as an advisory committee to the Northwest Power and Conservation Council, is a valued source of information relating to the measurement of energy savings, but is not the only source of information. The RTF provides UES references suitable for consideration in Avista's acquisition planning relative to each biennium. In cases where Avista uses RTF UES values and delivers programs in a manner consistent with the RTF's defined delivery mechanism, the evaluation efforts are limited to verification of participation which would be applied to the associated UES. RTF assumptions may be updated with Avista specific assumptions (e.g. actual purchases versus forecasted purchases) to come up with an RTF-consistent UES more appropriate for Avista. Furthermore, since the RTF evaluation process incorporates a market adjusted baseline, applications of RTF UES values are not subject to net-to-gross adjustment. Avista may elect to evaluate, refer to, and use RTF or other sources of energy efficiency metrics with equal merit. Information from the RTF, the 7th Power Plan, NEEA, and other data sources are used in Avista's TRM to compile, catalog, and track electrical energy efficiency measures. Key criteria available from the RTF include measure costs, savings, non-energy impacts, estimated useful lifetimes, and measure sunset thresholds. Program-specific savings amounts, whether established by the RTF or other means, are subject to rigorous and frequent impact evaluation that serves to verify or adjust appropriate energy savings levels.

Baselines for cost-effectiveness and the measurement of energy savings will be modified during the biennium to be consistent with code or standard revisions that become effective during the biennium. In the unlikely event that unanticipated revisions to codes and standards occur between the applicable BCP and IRP, Avista will claim energy saving credit relative to the baselines consistent with the effective date anticipated within the establishment of the I-937 targets for any documented projects.

For performance contract projects that extend across annual or biennial periods, acquisition, cost-effectiveness and incentive expenditures will be based on the date of the final incentive payment associated with the project. The payment date will establish the effective date of the acquisition for all purposes of the BCP, including the prudency of the incentive.

The Company will apply, as the primary cost effectiveness test, the TRC test as modified by the Council. The Council-modified calculation of TRC includes quantifiable non-energy benefits, a risk adder, and a 10 percent conservation benefit adder. Council does not include a net-to-gross adjustment. In addition to the Council modified TRC, Avista will provide calculations of the Program Administrator Cost test (also called the Utility Cost Test), Ratepayer Impact Measure test, and Participant Cost Test. Overall conservation cost-effectiveness will be evaluated at the portfolio level, electric and natural gas combined. Costs included in the portfolio level analysis include conservation-related administrative costs. Avista will continue to evaluate measure and program level cost tests. Avista will seek the best information available for accurate and applicable savings for electricity measures and will look first to the Council's Regional Technical Forum (RTF). If Avista utilizes savings amounts for prescriptive programs that have not been established by the RTF, such estimates will be based on a rigorous impact evaluation that has verified savings

levels or be performed by a third-party evaluator, and be presented to the Advisory Group for comment.

Avista will provide opportunities for its Advisory Group to review the evaluation, measurement and verification protocols.

For the 2018-2019 biennium, Avista will spend a sufficient amount of its conservation budget on evaluation, measurement, and verification, including a reasonable proportion on independent, third-party EM&V.

The Company is also currently reviewing and analyzing the benefits of Real Time EM&V 2.0 for its customers. The purpose is to identify any measurable and immediate savings to residential customers using interval data. The Company began this effort in 2016 and hopes to finish this review in late 2017 with possible findings from November 2017 through January 2018.

V. COMPLIANCE AND OTHER KEY ISSUES

In this document, Avista has stated its targets and described how these targets have been developed consistent with RCW 19.285 and WAC 480-109. Avista has described in Appendix B the programs that are designed to achieve these targets and how these savings will be defined and presented. Reporting standards and stakeholder involvement have been shown.

Avista has the full responsibility to manage the DSM portfolio so as to meet the targets included herein. Avista will inform the Commission in a timely manner if there is an expectation that the I-937 target will not be achieved.

As stated above, cost-effectiveness and other prudence-related issues related to cost recovery would be based on the June 1, 2020 Biennial Conservation Report. Avista will file supporting evidence to demonstrate the prudency of its electric DSM expenditures for 2018 and 2019.

The Company maintains an active involvement in the regional energy efficiency community and is committed to acknowledging and addressing new energy efficiency developments as they are presented. WUTC Commission Staff has worked closely with the National Efficiency Screening Project to explore and develop the National Standard Practice Manual (NSPM) which provides a thoughtful review of the challenges associated with traditional conservation cost-effectiveness tests and provides a framework to guide Conservation Program Administrators and Regulators as they seek to address these challenges going forward. A key element of the NSPM's seven-step framework includes the completion of a Resource Value Test (RVT) questionnaire. Avista attended an introductory workshop facilitated by the WUTC on September 12th, 2017 which introduced the NSPM, the universal principles and resource value framework steps, and identified policy goals. A second workshop was scheduled for October 2, 2017 but was cancelled to provide more time for preparation. The intent of the second workshop was a more in-depth exploration and review of the RVT and the NSPM. There has been limited review and regional discussion of the NSPM to date.

At this time, Avista is unable to assess the potential value or ramifications of implementing a new cost-effective methodology and without further exploration into the NSPM and RVT is unable to advocate for this change. However, throughout 2018, the Company will work with Commission Staff, its Advisory Group, utilities and other stakeholders in a collaborative process to discuss RVT, the NSPM, cost-effectiveness calculation policy goals as well as a timeline and plan for potential incorporation. These discussions could also address how to implement potential revisions, should they be deemed warranted.

VI. DISTRIBUTION EFFICIENCY

Grid Modernization technology has been designed to improve the power grid's reliability and performance by optimizing the push and pull from supply and demand. Ultimately, these projects will move the region and nation closer to establishing a more efficient and effective electricity infrastructure that's expected to help contain costs, reduce emissions, incorporate more wind power and other types of renewable energy, increase power grid reliability, and provide greater flexibility for consumers.

Targets for distribution energy efficiency capture first year energy savings consistent with the end-use energy efficiency protocols. Based on first year energy savings, the Company is expecting approximately 714 MWh from the 2018-2019 biennium.

Avista manages street light fixtures for many local and state governments. As an element of its 2013 Street Light Asset Management Plan, Avista's Asset Management group is replacing approximately 21,640 high pressure sodium fixtures of which 15,148 are in Washington with comparable LED fixtures, commencing in 2015 and expected to complete in 2019.

In addition to the expected maintenance and operations savings, this lighting conversion project will result in approximately 35 MWh savings of end-use energy efficiency in Washington. These fixtures are classified under rate schedules that were not included in the scope of the CPA. Energy efficiency obtained from this upgrade effort is incorporated into the target as part of the Company’s distribution efficiency.

The projects related to the 2016-2017 biennium have been mostly completed. Avista will capture the first year energy savings entirely in the year when the assets were placed in service.

The Company's 2017 Electric Integrated Resource Plan, Chapter 5, identifies additional distribution savings to occur in Washington and Idaho in the 2018-2019 period. Table 4 below

shows many distribution efficiency projects have already completed in previous bienniums, however, the Company is expecting one Washington Feeder Upgrade in 2018-2019.

Table No. 4: Planned and Historic Feeder Upgrade

	Feeder	Area	Year Complete	Annual Energy Savings (MWh)
Complete	9CE12F4	Spokane, WA (9th & Central)	2009	601
	BEA12F1	Spokane, WA (Beacon)	2012	972
	F&C12F2	Spokane, WA (Francis & Cedar)	2012	570
	BEA12F5	Spokane, WA (Beacon)	2013	885
	WIL12F2	Wilbur, WA	2013	1,403
	CDA121	Coeur d'Alene, ID	2013	438
	OTH502	Othello, WA	2014	21
	RAT231	Rathdrum, ID	2014	-
	M23621	Moscow, ID	2015	413
	WIL12F2	Wilbur, WA	2015	1,403
	WAK12F2	Spokane, WA (Waikiki)	2016	175
	MIL12F2	Millwood, WA	2017	186
	ORO1280	Orofino, ID	2017	112
	PDL1201	Clarkston, WA	2017	189
Planned	TUR112	Pullman, WA	2018	233
	HOL1205	Lewiston, ID	2018	TBD
	RAT233	Rathdrum, ID	2019	472
	SPI12F1	Northport, WA (Spirit)	2019	115
	SPR761	Sprague, WA	2019	106
	F&C12F1	Spokane, WA (Francis & Cedar)	2019	260
	MIS431	Kellogg, ID	2023	257
	Total			**8,811**

VII. GENERATION EFFICIENCIES

Avista periodically audits its facilities for energy efficiency improvements. This includes its approximately fifteen generating facilities. Unlike its Main Office Building, which is completing a major LEEDS-certified renovation, most generating facilities draw power from its adjacent power plant and are not metered as a typical "Avista customer." This is known as a

"parasitic load." As a non-metered service (not contributing to Schedule 91), Avista intends to capture the costs associated with these projects through its normal rate-making process. For the 2018-2019 biennium, Avista does not anticipate generation projects or retrofits that would lead to generation efficiencies, however will continue to put forth effort to identify and pursue these efficiencies in future BCPs.

VIII. CONCLUSION

The following Table No. 5 summarizes the expected target acquisition from the electric-efficiency portion of the Company's DSM portfolio and distribution efficiency measures.

The Company's proposed energy efficiency acquisition for the 2018-2019 biennium is based upon a CPA completed by a third-party consultant applying a methodology consistent with the Council's 7th Power Plan.

Expectations regarding distribution efficiency are based upon estimates of the annual acquisition from projects anticipated to be completed within the biennium. The potential for the acquisition of electric-efficiency within generating stations is based on measures similar to Avista’s site-specific or custom programs.

Table No. 5: Avista's BCP Target Summary

Category	Target (MWh)
Pro Rata Share of 10-year Conservation Potential	73,636
Behavioral Program Savings[13]	15,386
Less: NEEA Pro Rata savings identified within the CPA	(9,986)
End-Use Efficiency Measures Subtotal	79,036
Distribution and Street Light Efficiency	749
Portion of BCP Target Subject to penalty	**79,785**
Plus 5% Decoupling Commitment	3,989
Total Local Biennium Target	83,774
Portion of savings from NEEA	9,986
2018-2019 Biennial Conservation Target	**93,760**

Avista's energy efficiency programs are funded through Schedules 91 (electric) and 191 (natural gas), or "tariff riders." For the 2018-2019 compliance period, proposed "true-up" changes to Schedule 91 are not proposed at this time but the Company and its Advisory Group will continue to monitor these balances going forward.

[13] Savings target of 15,386 MWh is from an Opower/Oracle forecast for the 2018-2019 biennium. Although the Company will not be continuing its Home Energy Report program with Opower, the Company has committed the estimated savings to its target.

RESPECTFULLY SUBMITTED this 1st day of November 2017.

AVISTA CORPORATION

By: _____

David J. Meyer
VP & Chief Counsel Regulatory & Government

For ease of references, the acronyms used in this report are as follows:

aMW (Average Megawatt)

BCP (Biennial Conservation Plan)

CPA (Conservation Potential Assessment)

CC&B (Customer Care and Billing System)

DSM (Demand Side Management)

EM&V (Evaluation Measurement & Verification)

I-937 (Initiative Measure No. 937)

IRP (Integrated Resource Plan)

kW (Kilowatt)

kWh (Kilowatt-Hour)

MW (Megawatt)

MWh (Megawatt-hour)

NEEA (The Northwest Energy Efficiency Alliance)

NWPCC (Northwest Power and Conservation Council or the Council)

O&M (Operations and Maintenance)

RTF (Regional Technical Forum)

TAC (Technical Advisory Committee)

T&D (Transmission and Distribution)

TRC (Total Resource Cost Test)

TRM (Technical Resource Manual)

UCT (Utility Cost Test)

UES (Unit Energy Savings)

UTC (Washington Utilities and Transportation Commission)

VAR (Volt-Ampere Reactive)

Appendix A:

Washington Two-Year Planning Summary

Appendix A: 2018-2019 Washington Savings Goals and Budgets

Programs	MWh Savings	Estimated Electric Budget	Therm Savings	Estimated Gas Budget	Total Tariff Budget
Low Income Programs					
WA LI (With out Conversions)	1,463	$2,065,844	30,646	$1,662,952	$3,728,796
LI Conversions	233	$296,672	(10,077)	$0	$296,672
LI Total	1,696	$2,362,517	20,569	$1,662,952	$4,025,468
Residential Programs					
Behavioral Program	15,386	$0	-	$0	$0
Residential Prescriptive	2,389	$328,392	955,008	$2,135,100	$2,463,492
Res Converersions	25,022	$4,942,900	(1,203,542)	$0	$4,942,900
Simple Steps	23,860	$2,885,540	19,082	$20,073	$2,905,613
Residential Total	66,657	$8,156,832	(229,452)	$2,155,173	$10,312,005
Non-Residential Programs					
Interior Pres Lighting	14,605	$2,334,299	(159,405)	$0	$2,334,299
Exterior Pres Lighting	5,036	$879,710	-	$0	$879,710
Site Specific	18,000	$2,900,000	200,000	$600,000	$3,500,000
Prescriptive Shell	16	$2,170	41,600	$59,418	$61,588
NonRes HVAC	-	$0	64,284	$123,999	$123,999
Green Motors	158	$22,038	-	$0	$22,038
Variable Frequency Drives	904	$86,187	-	$0	$86,187
Fleet Heat	64	$4,164	-	$0	$4,164
Energy Smart Grocer	2,876	$682,120	29,155	$84,104	$766,224
Multifamily Market Transformation	6,367	$3,794,000	(279,672)	$0	$3,794,000
Food Services	219	$12,578	99,127	$188,100	$200,678
AirGuardian	84	$20,160	-	$0	
Non-Residential Total	48,330	$10,737,426	(4,912)	$1,055,621	$11,793,047
Regional Efficiency Programs					
NEEA Electric (WA Portion)	9,986	$2,800,000			$2,800,000
NEEA Gas (WA Portion)				$410,000	$410,000
Regional Total	9,986	$2,800,000	-	$410,000	$3,210,000
Portfolio Support					
Estimated EM&V		$1,271,879		$224,449	$1,496,328
Memberships		$119,000		$21,000	$140,000
Outreach		$952,000		$168,000	$1,120,000
Training/Travel		$89,250		$15,750	$105,000
Regulatory		$59,500		$10,500	$70,000
CPA Development		$210,000		$14,000	$224,000
Software		$357,000		$63,000	$420,000
Labor		$4,421,535		$780,271	$5,201,806
Portfolio Support Total		$7,480,165		$1,296,970	$8,777,135
Totals included in cost effectiveness	116,683	$28,736,939	(213,795)	$6,170,716	$34,907,655
Portfolio Totals	126,670	$31,536,939	(213,795)	$6,580,716	$38,117,655
I-937 MWh Only Savings	85,061		1,279,497	(w/o Conversions)	
Estimated EM&V Percentages		4.03%		3.41%	

Supplemental Budget Items

Natural Gas w/o Fuel Conversions

Appendix B:

2018 DSM ACP, Including the 2018 EM&V Plan

Appendix C:

UES (Unit Energy Savings) Values

Measure Description	Program	1st Year kWh Savings	1st Year Therm Savings	UOM	Source
Washington Air Guardian	Air Guardian	6,000		Unit	AVA Calc Eval
LT Case: T12 to LP LED Inside Lamp	Energy Smart Grocer	112	-	Unit	RTF
MT Case: T12 to LP LED Inside Lamp	Energy Smart Grocer	81	-	Unit	RTF
MT Case: T8 to LED Inside Lamp	Energy Smart Grocer	48	-	Unit	RTF
LT Case: T8 to LP LED Inside Lamp	Energy Smart Grocer	66	-	Unit	RTF
T12 to LP LED Outside Lamp	Energy Smart Grocer	59	-	Unit	RTF
T8 to LP LED Outside Lamp	Energy Smart Grocer	35	-	Unit	RTF
Anti-Sweat Heater Controls - Low Temp	Energy Smart Grocer	305	-	Unit	RTF
Anti-Sweat Heater Controls - Med Temp	Energy Smart Grocer	217	-	Unit	RTF
Gaskets for Low Temp Reach-in Glass Doors	Energy Smart Grocer	243	-	Unit	RTF
Gaskets for Medium Temp Reach-in Glass Doors	Energy Smart Grocer	248	-	Unit	RTF
Gaskets for Walk-in Freezer - Main Door	Energy Smart Grocer	347	-	Unit	RTF
Gaskets for Walk-in Cooler - Main	Energy Smart Grocer	204	-	Unit	RTF
Evap motors: shaded pole to ECM in Walk-in - Greater than 23 watts	Energy Smart Grocer	1,458	-	Unit	RTF
Evap motors: shaded pole to ECM in Walk-in - less than 23 watts	Energy Smart Grocer	592	-	Unit	RTF
Evap motors: shaded pole to ECM in Display Case	Energy Smart Grocer	592	-	Unit	RTF
Floating Head Pressure for Single Compressor Systems, LT Condensing Unit	Energy Smart Grocer	855	-	Unit	RTF
Floating Head Pressure for Single Compressor Systems, LT Remote Condenser	Energy Smart Grocer	685	-	Unit	RTF
Floating Head Pressure for Single Compressor Systems, MT Condensing Unit	Energy Smart Grocer	757	-	Unit	RTF
Floating Head Pressure for Single Compressor Systems, MT Remote Condenser	Energy Smart Grocer	473	-	Unit	RTF
Evaporated Fan - Walk-In ECM Controller - Low Temp - 1/10-1/20 HP	Energy Smart Grocer	207	-	Unit	RTF
Evaporated Fan - Walk-In ECM Controller - Medium Temp - 1/10-1/20 HP	Energy Smart Grocer	264	-	Unit	RTF
Strip Curtains for Convenience Store Walk-in Freezers	Energy Smart Grocer	31	-	Unit	RTF
Strip Curtains for Restaurant Walk-in Freezers	Energy Smart Grocer	129	-	Unit	RTF
Strip Curtains for Supermarket Walk-in Coolers	Energy Smart Grocer	123	-	Unit	RTF
Strip Curtains for Supermarket Walk-in Freezers	Energy Smart Grocer	535	-	Unit	RTF
Add doors to Open Medium Temp Cases	Energy Smart Grocer	533	-	Unit	RTF
Cases - Low Temp Coffin to High Efficiency Reach-in	Energy Smart Grocer	1,074	-	Unit	RTF
Cases - Low Temp Open to Reach-in	Energy Smart Grocer	1,674	-	Unit	RTF
Cases - Low Temp Reach-in to High Efficiency Reach-in	Energy Smart Grocer	963	-	Unit	RTF
Cases - Medium Temp Open Case to New High Efficiency Open Case	Energy Smart Grocer	222	-	Unit	RTF
Cases - Medium Temp Open Case to New Reach In	Energy Smart Grocer	585	-	Unit	RTF

Measure Description	Program	1st Year kWh Savings	1st Year Therm Savings	UOM	Source
Special Doors with Low/No ASH for Low Temperature Reach-in	Energy Smart Grocer	1,700	-	Unit	RTF
Advanced Floating Controls: Floating Head and Suction Pressure with Balanced Port Valves	Energy Smart Grocer	238	-	Unit	RTF
Advanced Floating Controls: Floating Head and Suction Pressure with Electronic Expansion Valves (EEXVs)	Energy Smart Grocer	677	-	Unit	RTF
Advanced Floating Controls: Increase Suction Temperature with Electronic Expansion Valves (EEXVs)	Energy Smart Grocer	204	-	Unit	RTF
Efficient Compressors - Low Temperature	Energy Smart Grocer	798	-	Unit	RTF
Floating Head Pressure Control - Air Cooled	Energy Smart Grocer	332	-	Unit	RTF
Floating Head Pressure Control - Evap Cooled	Energy Smart Grocer	708	-	Unit	RTF
Floating Head Pressure Control w/ VFD- Air Cooled	Energy Smart Grocer	915	-	Unit	RTF
Multiplex - Compressors - Air-cooled Condenser	Energy Smart Grocer	1,968	-	Unit	RTF
Multiplex - Compressors - Evaporative Condenser	Energy Smart Grocer	1,968	-	Unit	RTF
Multiplex - Controls - Floating suction pressure - air cooled condenser	Energy Smart Grocer	227	-	Unit	RTF
Multiplex - Controls - Floating suction pressure - evaporative condenser	Energy Smart Grocer	231	-	Unit	RTF
Multiplex - Efficient/oversized Air-cooled Condenser for Multiplex	Energy Smart Grocer	2,061	-	Unit	RTF
Multiplex - Efficient/oversized Water-cooled Condenser for Multiplex	Energy Smart Grocer	1,550	-	Unit	RTF
VFD - Condenser Fan Motors - Air Cooled	Energy Smart Grocer	930	-	Unit	RTF
VFD - Condenser Fan Motors - Evap Cooled	Energy Smart Grocer	930	-	Unit	RTF
70-89 watt HID Fixture =< 25 watt LED Fixture	Exterior Lighting	322	-	Unit	AVA Calc Eval
90 - 100 W HID to 25-30W LED Fixture	Exterior Lighting	416	-	Unit	AVA Calc Eval
150 W HID to 30-50W LED Fixture	Exterior Lighting	643	-	Unit	AVA Calc Eval
175 W HID to 30-79W LED Fixture	Exterior Lighting	665	-	Unit	AVA Calc Eval
250 W HID to 80-140W LED Fixture	Exterior Lighting	712	-	Unit	AVA Calc Eval
320 W HID to 100-160W LED Fixture	Exterior Lighting	896	-	Unit	AVA Calc Eval
400 W HID to 100-175W LED Fixture	Exterior Lighting	1,282	-	Unit	AVA Calc Eval
250 watt HID New Construction Fixture =< 99 watt LED Fixture	Exterior Lighting	712	-	Unit	AVA Calc Eval
175 watt HID New Construction Fixture to =< 79 watt LED Fixture	Exterior Lighting	665	-	Unit	AVA Calc Eval
320 & 400 watt HID New Construction Fixture =< 175 watt LED Fixture	Exterior Lighting	1,282	-	Unit	AVA Calc Eval
1000W HID to 300W-400W LED	Exterior Lighting	3,058	-	Unit	AVA Calc Eval
Sign Lighting LED	Exterior Lighting	125	-	Unit	AVA Calc Eval
Washington Fleet Heat	Fleet Heat	8,000	-	Unit	RTF
0.61 to 0.80 GPM electric pre-rinse sprayer	Food	891	-	Unit	RTF
3 pan electric steamer	Food	21,470	-	Unit	RTF

Measure Description	Program	1st Year kWh Savings	1st Year Therm Savings	UOM	Source
4 pan electric steamer	Food	28,564	-	Unit	RTF
5 pan electric steamer	Food	35,659	-	Unit	RTF
6 pan electric steamer	Food	42,754	-	Unit	RTF
10 or larger pan electric steamer	Food	71,333	-	Unit	RTF
Efficient combination oven (>= 16 pan and <= 20 pan) electric	Food	17,877	-	Unit	RTF
Efficient combination oven (>= 6 pan and <= 15 pan) electric	Food	12,990	-	Unit	RTF
Efficient convection oven full size	Food	1,661	-	Unit	RTF
Efficient convection oven half size	Food	1,683	-	Unit	RTF
Efficient hot food holding cabinet, 1/2 size	Food	253	-	Unit	RTF
Efficient hot food holding cabinet, full size	Food	820	-	Unit	RTF
Electric fryer	Food	2,449	-	Unit	RTF
Standard Efficiency Appliance to H.E. electric griddle, 70% effic. or better	Food	1,636	-	Unit	RTF
High temp electric hot water dishwasher	Food	4,110	-	Unit	RTF
Low temp electric hot water dishwasher	Food	3,801	-	Unit	RTF
0.61 to 0.80 GPM gas pre-rinse sprayer	Food	-	17	Unit	RTF
H.E. gas griddle, 40% effic. or better	Food	-	88	Unit	RTF
High temp gas hot water dishwasher	Food	-	103	Unit	RTF
Low temp gas hot water dishwasher	Food	-	140	Unit	RTF
H.E. gas convection oven, 40% effic. or better	Food	-	323	Unit	RTF
Efficient combination oven (>= 6 pan and <= 15 pan) gas	Food	-	403	Unit	RTF
Efficient convection oven full size	Food	-	450	Unit	RTF
Efficient combination oven (>= 16 pan and <= 20 pan) gas	Food	-	500	Unit	RTF
Energy Star 50% effic.gas fryer	Food	-	505	Unit	RTF
3 pan gas steamer	Food	-	586	Unit	RTF
4 pan gas steamer	Food	-	780	Unit	RTF
5 pan gas steamer	Food	-	974	Unit	RTF
Gas rack oven	Food	-	1,034	Unit	RTF
6 pan gas steamer	Food	-	1,167	Unit	RTF
10 or larger pan gas steamer	Food	-	3,043	Unit	RTF
15 HP Industrial	Green Motor	601	-	Unit	RTF
20 HP Ind	Green Motor	804	-	Unit	RTF
25 HP Ind	Green Motor	1,052	-	Unit	RTF
30 HP Ind	Green Motor	1,133	-	Unit	RTF
40 HP Ind	Green Motor	1,319	-	Unit	RTF
50 HP Ind	Green Motor	1,418	-	Unit	RTF
60 HP Ind	Green Motor	1,476	-	Unit	RTF
75 HP Ind	Green Motor	1,519	-	Unit	RTF
100 HP Ind	Green Motor	2,005	-	Unit	RTF
125 HP Ind	Green Motor	2,598	-	Unit	RTF
150 HP Ind	Green Motor	3,089	-	Unit	RTF

Measure Description	Program	1st Year kWh Savings	1st Year Therm Savings	UOM	Source
200 HP Ind	Green Motor	4,088	-	Unit	RTF
250 HP Ind	Green Motor	4,972	-	Unit	RTF
300 HP Ind	Green Motor	5,935	-	Unit	RTF
350 HP Ind	Green Motor	6,919	-	Unit	RTF
400 HP Ind	Green Motor	7,848	-	Unit	RTF
450 HP Ind	Green Motor	8,811	-	Unit	RTF
4500 HP Ind	Green Motor	104,783	-	Unit	RTF
500 HP Ind	Green Motor	9,804	-	Unit	RTF
600 HP Ind	Green Motor	14,689	-	Unit	RTF
700 HP Ind	Green Motor	17,065	-	Unit	RTF
800 HP Ind	Green Motor	19,461	-	Unit	RTF
900 HP Ind	Green Motor	21,847	-	Unit	RTF
1000 HP Ind	Green Motor	24,172	-	Unit	RTF
1250 HP Ind	Green Motor	29,973	-	Unit	RTF
1500 HP Ind	Green Motor	35,891	-	Unit	RTF
1750 HP Ind	Green Motor	41,697	-	Unit	RTF
2000 HP Ind	Green Motor	47,454	-	Unit	RTF
2250 HP Ind	Green Motor	53,051	-	Unit	RTF
2500 HP Ind	Green Motor	58,823	-	Unit	RTF
3000 HP Ind	Green Motor	70,147	-	Unit	RTF
3500 HP Ind	Green Motor	81,667	-	Unit	RTF
4000 HP Ind	Green Motor	93,334	-	Unit	RTF
5000 HP Ind	Green Motor	116,183	-	Unit	RTF
Gas Boiler <300kBtu .85-.89 AFUE	HVAC	-	2	Unit	AVA Calc Eval
Gas Boiler <300kBtu .90+ AFUE AFUE	HVAC	-	3	Unit	AVA Calc Eval
Singlestage Furnace <225 kBtu .90-.95 AFUE	HVAC	-	3	Unit	AVA Calc Eval
Multistage Furnace <225 kBtu .90-.95 AFUE	HVAC	-	4	Unit	AVA Calc Eval
Singlestage Furnace <225 kBtu .95+ AFUE	HVAC	-	4	Unit	AVA Calc Eval
Multistage Furnace <225 kBtu .95+ AFUE	HVAC	-	4	Unit	AVA Calc Eval
1000 watt HID =< 400 watt LED	Interior Lighting	2,966	(41)	Unit	AVA Calc Eval
250 watt HID to =< 140 LED	Interior Lighting	773	(11)	Unit	AVA Calc Eval
Over 150 watt Incandescent to 50-60W LED	Interior Lighting	326	(4.5)	Unit	AVA Calc Eval
4-Lamp T12/T8 Fixture to 2-Lamp LED	Interior Lighting	217	(3.0)	Unit	AVA Calc Eval
75-100 watt Incandescent to LED* 12-20 watt Fixture	Interior Lighting	210	(2.7)	Unit	AVA Calc Eval
cupancy sensors built in with relays for room control (not switch sens	Interior Lighting	205	(2.6)	Unit	AVA Calc Eval
50 watt MR16 (GU10 Base) to MR16 LED 6-9 watt	Interior Lighting	140	(1.8)	Unit	AVA Calc Eval
75-100 watt Incandescent to 12-20 watt LED lamp	Interior Lighting	118	(1.5)	Unit	AVA Calc Eval
T5HO - T5 TLED	Interior Lighting	86	(1.5)	Unit	AVA Calc Eval
3-Lamp T12/T8 Fixture to LED Qualified 2x4 Fixture	Interior Lighting	188	(1.4)	Unit	AVA Calc Eval
40 watt Incandescent to 6-10 watt LED lamp	Interior Lighting	84	(1.1)	Unit	AVA Calc Eval
60 watt Incandescent to 9-13 watt LED lamp	Interior Lighting	84	(1.1)	Unit	AVA Calc Eval

Measure Description	Program	1st Year kWh Savings	1st Year Therm Savings	UOM	Source
20 watt MR16 (GU10 Base) to MR16 LED 2-4 watt	Interior Lighting	56	(0.7)	Unit	AVA Calc Eval
T12/T8 to 8-20 W TLED	Interior Lighting	32	(0.5)	Unit	AVA Calc Eval
35 watt MR16 (GU10 Base) to MR16 LED 4-6 watt	Interior Lighting	42	(0.5)	Unit	AVA Calc Eval
400 watt HID =< 75 watt LED	Interior Lighting	1,244	-	Unit	AVA Calc Eval
E ENERGY STAR DOORS	Low-Income	333.00	-	SQFT	AVA Calc Eval
E INS - CEIL/ATTIC	Low-Income	0.44	-	SQFT	2016 Nexant DSM Report
E INS - DUCT	Low-Income	6.50	-	SQFT	2016 Nexant DSM Report
E INS - FLOOR	Low-Income	1.68	-	SQFT	2016 Nexant DSM Report
E INS - WALL	Low-Income	1.49	-	SQFT	2016 Nexant DSM Report
E ENERGY STAR WINDOWS	Low-Income	3.09	-	SQFT	AVA Calc Eval
E HE AIR HPUMP	Low-Income	3,645	-	Unit	AVA Calc Eval
Ductless HP (Average RTF of HZ2 & CZ 1-3)	Low-Income	4,622	-	Unit	RTF
Tier1 0-55Gallon HPWH	Low-Income	1,073	-	Unit	RTF
E ENERGY STAR REFRIGERATOR	Low-Income	39	-	Unit	RTF
E AIR INFILTRATION	Low-Income	431	-	Unit	AVA Calc Eval
Duct sealing	Low-Income	1,374	-	Unit	RTF
9 watt A19 bulbs - 60W replacement - (6 units)	Low-Income	17	-	Unit	RTF
Elec Res --> Heat Pump	Low-Income	3,297	-	Unit	AVA Calc Eval
G INS - CEIL/ATTIC	Low-Income	-	0.02	SQFT	AVA Calc Eval
G INS - WALL	Low-Income	-	0.07	SQFT	AVA Calc Eval
G INS - FLOOR	Low-Income	-	0.08	SQFT	AVA Calc Eval
G ENERGY STAR WINDOWS	Low-Income	-	0.28	SQFT	AVA Calc Eval
G INS - DUCT	Low-Income	-	0.41	SQFT	AVA Calc Eval
G HE WH 50G	Low-Income	-	7	Unit	AVA Calc Eval
G PROG TSTAT NO AC	Low-Income	-	11	Unit	AVA Calc Eval
G PROG TSTAT W/AC	Low-Income	-	11	Unit	AVA Calc Eval
G ENERGY STAR DOORS	Low-Income	-	13	Unit	AVA Calc Eval
G AIR INFILTRATION	Low-Income	-	16	Unit	AVA Calc Eval
G duct sealing	Low-Income	-	47	Unit	AVA Calc Eval
G HE FURNACE	Low-Income	-	80	Unit	AVA Calc Eval
Multifamily NG Market Transformation (per unit)	MFMT	5,874	(258)	Unit	AVA Calc Eval
ELEC WINDOWS SP/MDP --> <0.30 U	Residential	12.60	-	SQFT	RTF
EIEC Storm Windows	Residential	8.50	-	SQFT	RTF
Web Tstat Elec DIY	Residential	749	-	Unit	RTF
Web Tstat Elec Cont	Residential	749	-	Unit	RTF
ELEC RESISTANCE TO ASHP	Residential	5,946	-	Unit	RTF
VARIABLE SPEED MOTOR ASHP	Residential	420	-	Unit	RTF
VARIABLE SPEED MOTOR FURNACE	Residential	414	-	Unit	AVA Calc Eval
E ESTAR HOME - MANUF, ELEC/DF	Residential	3,296	-	Unit	RTF
Tier2 0-55Gallon HPWH	Residential	1,520	-	Unit	RTF
Tier3 0-55Gallon HPWH	Residential	1,610	-	Unit	RTF

Measure Description	Program	1st Year kWh Savings	1st Year Therm Savings	UOM	Source
Tier1 0-55Gallon HPWH	Residential	1,131	-	Unit	RTF
Ductless Heat Pump	Residential	4,622	-	Unit	RTF
NG Storm Windows	Residential	-	0.34	SQFT	RTF
G Windows Single Pane <0.30 U-value	Residential	-	2	SQFT	AVA Calc Eval
Web Tstat Gas DIY	Residential	-	26	Unit	AVA Calc Eval
Web Tstat Gas Cont	Residential	-	26	Unit	AVA Calc Eval
TANKLESS WH (0.82+)	Residential	-	69	Unit	AVA Calc Eval
NG FURNACE/BOILER 90% AFUE	Residential	-	102	Unit	AVA Calc Eval
E STAR HOME - GAS ONLY	Residential	-	203	Unit	RTF
E --> NG Space and DHW	Residential Conversions	11,280	(556)	Unit	14/15 Nexant Impact Evaluation
E --> NG DIRECT VENT WALL HEAT	Residential Conversions	10,624	(466)	Unit	14/15 Nexant Impact Evaluation
ELEC RES --> CENTRAL NG	Residential Conversions	7,524	(340)	Unit	14/15 Nexant Impact Evaluation
Less than R11 attic insulation (E/G) to R30-R44 Attic Insulation	Shell	1.02	0.09	SQFT	AVA Calc Eval
Less than R11 roof insulation (E/G) to R30+ Roof Insulation	Shell	1.36	0.12	SQFT	AVA Calc Eval
Less than R11 attic insulation (E/G) to R45+ Attic Insulation	Shell	1.39	0.13	SQFT	AVA Calc Eval
Less than R4 wall insulation (E/G) to R11-R18 Wall Insulation	Shell	2.82	0.24	SQFT	AVA Calc Eval
Less than R4 wall insulation (E/G) to R19+ Wall Insulation	Shell	4.11	0.36	SQFT	AVA Calc Eval
LED - Decorative and Mini-Base - 250- 1049 lumens	Simple Steps	13	-	Unit	RTF
LED - General Purpose and Dimmable - 1490 - 2600 lumens	Simple Steps	11	-	Unit	RTF
LED - General Purpose and Dimmable - 250- 1049 lumens	Simple Steps	10	-	Unit	RTF
LED - General Purpose and Dimmable - 1050 - 1489 lumens	Simple Steps	18	-	Unit	RTF
LED - Globe - 250- 1049 lumens	Simple Steps	12	-	Unit	RTF
LED - Reflectors and Outdoor - 1490- 2600 lumens	Simple Steps	72	-	Unit	RTF
LED - Reflectors and Outdoor - 250 - 1049 lumens	Simple Steps	24	-	Unit	RTF
LED - Reflectors and Outdoor - 1050 - 1489 lumens	Simple Steps	21	-	Unit	RTF
LED - Decorative Ceiling Flush Mount Fixture - 500-1999 lumens	Simple Steps	15	-	Unit	RTF
LED - Decorative Ceiling Flush Mount Fixture 2000-7999 lumens	Simple Steps	52	-	Unit	RTF
LED - Track Light Fixture 0-499 Lumens	Simple Steps	8	-	Unit	RTF
LED - Track Light Fixture 2000-7999 Lumens	Simple Steps	104	-	Unit	RTF
LED - Track Light Fixture 500-1999 lumens	Simple Steps	29	-	Unit	RTF
LED - Linear Flush Mount Fixture 0-499 lumens	Simple Steps	1	-	Unit	RTF
LED - Linear Flush Mount Fixture 500-1999 lumens	Simple Steps	3	-	Unit	RTF
LED - Exterior Porch Light Fixture 0 -499 Lumens	Simple Steps	8	-	Unit	RTF
LED - Exterior Porch Light Fixture 500-1999 Lumens	Simple Steps	29	-	Unit	RTF
LED - Exterior Security Fixture 500 -1999 Lumens	Simple Steps	36	-	Unit	RTF
LED Retro-Fit Fixture 2000 -7999 Lumens	Simple Steps	50	-	Unit	RTF
LED Retro-Fit Fixture 500-1999 Lumens	Simple Steps	14	-	Unit	RTF
LED Bathroom Vanity 2000 -7999 Lumens	Simple Steps	42	-	Unit	RTF
LED Bathroom Vanity 500-1999 Lumens	Simple Steps	12	-	Unit	RTF

Measure Description	Program	1st Year kWh Savings	1st Year Therm Savings	UOM	Source
Showerhead 2.0 GPM	Simple Steps	20	2	Unit	RTF
Showerhead 1.75 GPM	Simple Steps	55	3	Unit	RTF
Showerhead 1.5 GPM	Simple Steps	84	4	Unit	RTF
Clothing Washer	Simple Steps	109	-	Unit	RTF
Prescriptive VFDs - HVAC Cooling Pump	VFD	1,091	-	Unit	AVA Calc Eval
Prescriptive VFDs - HVAC Fan	VFD	1,022	-	Unit	AVA Calc Eval
Prescriptive VFDS - HVAC Heating Pump or combo	VFD	1,756	-	Unit	AVA Calc Eval
E TO G FURNACE CONVERSION	WA Low-Income Conversions	3,496	(133)	Unit	AVA Calc Eval
E TO G H2O CONVERSION	WA Low-Income Conversions	1,586	(85)	Unit	AVA Calc Eval

Appendix D:

NEEA Memo

Memorandum

8/31/2017

TO: Dan Johnson, Director of Energy Efficiency, Avista Utilities;
Ryan Finesilver, DSM Analyst/Planning and Analytics, Avista Utilities

FROM: Christina Steinhoff, Planning Analyst

CC: Stephanie Rider, Senior Manager, NEEA Planning

SUBJECT: 2018-2019 Biennium Targets Final

Avista Washington, Puget Sound Energy, and Pacific Power Washington have developed a joint approach to calculate savings from NEEA initiatives. As part of the utilities' biennial savings updates, NEEA provides a two-year electric energy savings forecast.[1] The utilities subtract the savings from their conservation forecast to develop their Biennial Conservation Target.

This memo provides a forecast of NEEA's 2018-2019 savings to support setting the next Biennial Conservation Target.

Appendix A documents NEEA's methodology. The attached Excel spreadsheet contains details about the baseline and technical assumptions by measure.

Please do not hesitate to contact Christina Steinhoff at 503.688.5427 with any questions about this report.

2018-2019 Draft NEEA Targets

NEEA is forecasting that Avista Washington will receive 0.81 *(0.6-0.9)* aMW of savings from its voluntary programs, 0.33 aMW from its Codes and Standards programs and an additional 1.32 aMW from other regional measures that it is able track. To avoid double counting savings, these values net out a forecast of savings the Bonneville Power Administration, the Energy Trust of Oregon and local utilities will claim through their local programs. The savings are distributed based on funder share (Appendix A).

[1] The utilities agreed that NEEA would develop a Total Regional Savings estimate using baseline and technical assumptions from the most recent Power Plan. NEEA would remove estimated savings counted by the utilities, the Bonneville Power Administration and the Energy Trust of Oregon. NEEA would allocate the remaining savings to the utilities based on their NEEA funder share percentage.

Northwest Energy Efficiency Alliance
421 SW Sixth Avenue, Suite 600, Portland, OR 97204
503.688.5400 | Fax 503.688.5447
neea.org | info@neea.org

Table 1: Savings Forecast

	2018		2019		2018-2019	
	Estimate	Range	Estimate	Range	Estimate	Range
Program Measures	0.39	*(0.3-0.5)*	0.41	*(0.3-0.5)*	0.81	*(0.6-0.9)*
Codes & Standards Measures	0.15	*(0.1-0.2)*	0.17	*(0.2-0.2)*	0.33	*(0.3-0.4)*
Trackable Measures	0.72	*(0.6-0.7)*	0.60	*(0.5-0.6)*	1.32	*(1.1-1.3)*

Notes:

1. *These are site-base, first-year savings.*
2. *NEEA has multiple savings reports. The purpose of this report is to align with the calculation approach the Washington Investor owned Utilities use to develop their Biennial Conservation Target (Appendix A).*
3. *NEEA allocates the regional savings (Idaho, Montana, Oregon, and Washington) using funder shares (Appendix A).*
4. *These savings do not include a forecast of savings the Bonneville Power Administration, the Energy Trust of Oregon and local utilities will claim through their local programs (Appendix A).*

Northwest Energy Efficiency Alliance
421 SW Sixth Avenue, Suite 600, Portland, OR 97204
503.688.5400 | Fax 503.688.5447
neea.org | info@neea.org

Appendix A: Methodology to Estimate Savings

This report provides Avista Washington's funding share of measure-level savings above the 7th Power Plan baseline. The values are net of a forecast of savings the Bonneville Power Administration, the Energy Trust of Oregon and local utilities will claim through their local programs. NEEA does not make any additional baseline adjustments to savings.

The savings are reported in three categories:

- **Program Measures:** These savings come from measures NEEA worked on. For example, NEEA worked on CFLs; therefore, this report counts all the savings above the Council baseline from CFLs less those claimed through local programs.
- **Codes and Standards Measures:** These savings come from codes and standards NEEA worked on. For example, NEEA contractors develop code proposals, implement and facilitate code development meetings, and provide testimony for the Technical Advisory Groups and the State Building Code Board. After code adoption, NEEA quantifies and reports the savings for the region.
- **Trackable Measures:** Through its work, NEEA often collects additional data in other markets. For example, NEEA worked on both the residential lighting standard and on CFLs. In doing so, NEEA is able to collect total market data, which includes other efficient measures like LEDs. This report includes savings from those efficient measures.

Savings Rates

Where available, NEEA uses savings rates directly from the 7th Power Plan. For example, if the Power Plan has an ENERGY STAR measure that aligns with a NEEA program measure, this report uses that savings rate. If the rate is not available, NEEA calculates the savings rate using the same baseline year as the 7th Power Plan. NEEA reviews these calculations annually with the Northwest Power and Conservation Council.

The savings rates are essentially frozen and the units vary.

The savings rates in the attached spreadsheet will change if:

1. They are a function of sales data NEEA collects, and
2. The 7th Power Plan baseline assumptions align with the sales data

For example, the Power Plan does not have an ENERGY STAR Northwest Homes measure for Washington. NEEA does. Moreover, NEEA is able to update this savings rate with tracked data based on climate zones, housing types, and heating systems. As a result, the savings rate will change from the original Biennium forecast. Meanwhile, the Power Plan has clothes washer measures; however, in this case, NEEA cannot update the savings rate with its sales data. Because the Power Plan did not have this data in developing the baseline, its assumptions about tub capacity, configurations, etc. do not match the sales data. In this case, an update without changing the Council's baseline assumptions would provide a nonsensical result rather

than measure savings from an efficiency program. As a result, the clothes washer savings rate will remain the same as in the 7th Power Plan.

Overall, the purpose of this report is to align with assumptions the Washington Investor Owned Utilities would use for their planning purposes.

Each tab in the attached spreadsheet contains additional information regarding the savings rate calculations by measure.

Avoiding Double Counting

NEEA avoids double counting by surveying the Bonneville Power Administration, the Energy Trust of Oregon and local utilities about their local programs. This report has a forecast of local program units that it uses to avoid over-reporting savings. NEEA multiplies the Power Plan's savings rate and baseline saturation assumptions by the units to forecast local program savings. The regional savings minus the program savings are the savings NEEA reports to the Washington Investor Own Utilities.

Allocation

NEEA allocates the savings using funder shares. The shares vary based on the funding cycle. Savings from previous investments receive the previous funder share. Savings from current investments receive the current funder share. Table 2 shows the funder shares.

Table 2: Funder Share for the Washington 2018-2019 Savings Forecast

Funder Share	
Avista Washington	
Current	4.03%
2010-2014	3.89%
Previous (pre 2010 investments)	2.77%

Note: Avista's Washington funding share is 70% of its total NEEA funding share (Idaho plus Washington).