

# 2018-2019 Biennial Conservation Report

The AVISTA logo is displayed in white on a dark blue rectangular background. The logo consists of a stylized 'A' symbol followed by the word 'AVISTA' in a bold, sans-serif font. The background of the entire page features a blue and green geometric pattern of intersecting lines.

June 1, 2020



**Avista 2018-2019 Biennial Conservation Report**

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## I. Introduction

In compliance with RCW 19.285 and WAC 480-109-120 (4), Avista Corporation, dba Avista Utilities (Avista or “the Company), respectfully submits its “2018-2019 Biennial Conservation Report (BCR)” to the Washington Utilities and Transportation Commission (UTC or “Commission”). This report is intended to comply with the requirements outlined below:

WAC 480-109-120 (4) Biennial conservation report.

- (a) On or before June 1st of each even-numbered year, a utility must file with the commission, in the same docket as its current biennial conservation plan, a biennial conservation report regarding its progress in meeting its conservation target during the preceding two years.
- (b) The biennial conservation report must include:
  - (i) The biennial conservation target;
  - (ii) Planned and claimed electricity savings from conservation;
  - (iii) Budgeted and actual expenditures made to acquire conservation;
  - (iv) The portfolio-level cost-effectiveness of the actual electricity savings from conservation;
  - (v) An independent third-party evaluation of portfolio-level biennial conservation savings achievement;
  - (vi) A summary of the steps taken to adaptively manage conservation programs throughout the preceding two years; and
  - (vii) Any other information needed to justify the conservation savings achievement.
- (c) A utility must provide a summary of the biennial conservation report to its customers by bill insert or other suitable method within ninety days of the commission's final action on the report.
- (d) A utility may file the annual conservation report and the biennial conservation report together as one report, provided that the report includes all of the information required in subsections (3) and (4) of this section and states that it serves as both the annual conservation report and the biennial conservation report.

## II. Executive Summary

The Company is pleased to report that it has surpassed its 2018-2019 Biennial Conservation Target. In its Order<sup>1</sup>, the Commission approved Avista’s 2018-2019 Biennial Conservation Target of 79,785 MWh. As a result of the 2018-2019 Biennial period, Avista’s Energy Efficiency Program Achieved 89,115 MWh. The following table provides a summary of the Biennial accomplishments.

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<sup>1</sup> Order No. 01 in Docket No. UE-171091

**Table 1: 2018-2019 Biennial Conservation Target**

<b>2018-2019 Biennial Summary</b>			
	<b>Target</b>	<b>Actual</b>	<b>Percent</b>
<b>Savings Category</b>	<b>(MWh)</b>	<b>(MWh)</b>	
Utility Conservation Goal	89,771	99,893	111%
Less: NEEA Savings	(9,986)	(10,778)	108%
<b>2018-2019 Biennial Conservation Target</b>	<b>79,785</b>	<b>89,115</b>	<b>112%</b>
<b>Excess Savings</b>			
Available Excess Savings		67,829	MWh
2018-2019 Savings in Excess of Target		9,330	MWh
Expired 2014-2015 Savings		(2,755)	MWh
<b>Total Excess Savings</b>		<b>74,404</b>	<b>MWh</b>
<b>Conservation Expenditures</b>			
	<b>Budget</b>	<b>Actual</b>	<b>Percent</b>
EIA (I-937) Program Expenditures	\$22,503,367	\$26,847,368	119%
Fuel Conversion Program Expenditures	\$9,033,572	\$6,861,415	76%
Total Conservation Expenditures	\$31,536,939	\$33,708,783	107%
<b>Cost-Effectiveness</b>			
	<b>Total Resource Cost Test</b>	<b>Utility Cost Test</b>	
Benefit-to-Cost Ratios	1.60	2.11	

Avista exceeded its target by 112%, achieving 89,115 MWh from demand-side energy efficiency. Under the Total Resource Cost (TRC) cost-effectiveness test, the electric efficiency benefits exceeded the costs by a ratio of 1.60. As compared to the 2018-2019 Biennial Conservation Plan goal of 85,061 MWh, the Company's conservation programs produced savings that exceeded its biennial target. The table below shows the verified gross savings and related demand-side management (DSM) expenditures alongside the Company's Biennial Conservation Plan (which is inclusive of the I-937 target of 79,785 MWh).

**Table 2: Actual 2018-2019 Results vs. Biennial Conservation Plan**

Program	2018-2019 BCP Savings Goal (MWh)	2018-2019 Budget	2018-2019 Actual Savings (MWh)	2018-2019 Actual Spend
Residential	41,635	\$3,213,932	29,727	\$7,885,376
Low-Income	1,463	\$2,065,844	717	\$1,651,550
Non-Residential	41,963	\$6,943,426	58,058	\$8,616,120
Administration/Other	0	\$7,480,165	613	\$6,144,907
<b>Total Before NEEA</b>	<b>85,061</b>	<b>\$19,703,367</b>	<b>89,115</b>	<b>\$24,297,953</b>
NEEA	9,986	\$2,800,000	10,778	\$2,549,414
<b>Total</b>	<b>95,047</b>	<b>\$22,503,367</b>	<b>99,893</b>	<b>\$26,847,367</b>
Fuel Conversions	not considered EIA savings	\$9,033,572	not considered EIA savings	\$6,861,415
Total	-	\$31,536,939	-	\$33,708,782

As a result of the prior two biennial savings achievements, Avista has 74,404 MWh of excess savings available to apply to a potential 2020-2021 shortfall. Upon calculating the reported and verified electric savings totals and savings adjustments, Avista's 2018-2019 excess savings will be 9,330 MWh. This can be added to the 2016-2017 excess of 65,074 MWh, and applied to 20 percent<sup>2</sup> of potential shortfall of 2020-2021. The 2016-2017 excess will no longer be available for application to a 2022-2023 potential shortfall. Please see Table 3 below to illustrate Avista's Biennial excess savings carryforward.

**Table 3: Excess I-937 Savings (MWh) Available in Future Biennial Periods**

Biennium	Target	Actual	Excess	Available in '16-'17	Available in '18-'19	Available in '20-'21	Available in '22-'23
14-'15	68,204	70,959	2,755	2,755	2,755		
16-'17	76,257	141,331	65,074		65,074	65,074	
18-'19	79,785	89,115	9,330			9,330	9,330
<b>Total Available</b>				<b>2,755</b>	<b>67,829</b>	<b>74,404</b>	<b>9,330</b>

Avista recognizes that a significant excess savings balance is available in 2020-2021, and while the company acknowledges that this amount is available for a potential shortfall, its primary

<sup>2</sup> Pursuant to WAC 480-109-100(c)(i)

commitment is to increase customer access to Energy Efficiency programs through its residential, low-income and non-residential program offerings.

### III. Biennial Portfolio Electric Cost-Effectiveness

Avista’s Electric Energy Efficiency Program measures its cost-effectiveness using the Total Resource Cost Test. The overall portfolio achieved a TRC benefit-to-cost ratio of 1.60, which is inclusive if Avista’s low-income programs. Table 4 identifies the TRC with and without the effect of the low-income program.

**Table 4: 2018-2019 Biennial WA Electric Total Resource Cost (TRC)<sup>3</sup>**

	<b>Regular Income Portfolio</b>	<b>Low Income Portfolio</b>	<b>Overall Portfolio</b>
TRC Benefits	\$87,312,099	\$1,451,897	\$88,763,996
TRC Costs	\$53,410,337	\$1,986,056	\$55,396,393
<b>TRC Ratio</b>	1.63	0.73	1.60

### IV. Summary of Adaptive Management

Throughout the 2018–2019 Biennium, Avista adapted its energy efficiency programs to expand collaboration, invest in the exploration of new approaches to reach customers, and made several enhancements to meet the needs of its customers, as well as to respond to input from stakeholders and regulators. The following updates provide further detail on significant efforts made in the Company’s endeavor for continuous improvement during the 2018-2019 Biennium.

Sense Load Disaggregation Behavioral Pilot – During the 2018-2019 biennium, Avista administered a behavioral program using web-enabled devices to engage with customers by providing real-time, load disaggregation data on their energy consumption. Avista utilized a 3<sup>rd</sup> party vendor to connect with the device manufacturer’s servers in order to pull electric data for participating customers. This data was then analyzed to determine the impact that space heating and cooling loads have against whole house usage. Those results were also shared with participating customers, along with any actionable suggestions the customer could make to

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<sup>3</sup> Expenditures exclude costs associated with Fuel Conversion programs.

improve their home energy profile. While the Sense Pilot provided Avista with a good introduction to the possibilities of load disaggregation, Avista's movement towards Advanced Meter Infrastructure (AMI) brings with it further opportunities for both the Company and its customers to benefit from additional energy consumption information. One such benefit to energy conservation efforts is that customers will be able to receive faster feedback on their energy usage and have the opportunity to adjust their energy use based on the data received. Additionally, customers could have an improved understanding of how they use energy and, subsequently, insight into how that energy use impacts their Avista bill. Avista will continue to explore load disaggregation opportunities to best assist its customers in managing their home energy use.

Multifamily Direct Install Program - Avista began its Multifamily Direct Install (MFDI) pilot program during the 2018 program year and it quickly became an effective tool for reaching the Company's underserved population. The program serves multifamily units with low-cost energy-efficient equipment. During 2018, Avista worked closely with its Energy Efficiency Advisory Group ("Advisory Group") to provide updates on pilot outcomes and receive guidance from Advisory Group members regarding program continuation. Consequently, the pilot was adopted as a full program offering and became part of Avista's overall portfolio of offerings in 2019. Throughout the biennium, the MFDI program achieved 7,546 MWh and represented 25% of all residential program savings and 9% of overall electric savings.

Incentive Revisions - With the collaboration and support of its Advisory Group and other stakeholders, Avista developed modifications to its Energy Efficiency tariffs in order to provide more flexibility to incentivize customers for undergoing Energy Efficiency projects. The modifications removed three restrictions for setting incentive levels from the Schedule 90 and Schedule 190 tariffs. These restrictions include:

1. Incentive limit of \$0.20 per first year kWh savings and \$3 per first year Therm savings;
2. Incentives are limited to 70% of the customer incremental cost of the measure installed; and
3. Measures are restricted to a simple payback of 15 years or less.

The Company identified that, for several measures in its portfolio, the number of customers participating in the program could be increased if the amount of the rebate was higher. However,

a higher throughput could not be achieved because of the stated restrictions on the incentive amount. The Advisory Group found that the proposed changes had merit, and removing the restrictions would allow Avista more flexibility in achieving the most throughput in their program at the lowest possible expense while maintaining a positive cost-effectiveness benefit to cost ratio.

While the removal of the restrictions were seen as an appropriate adjustment, the group acknowledged the importance of having incentive guidelines that would inform the Company's decisions on setting suitable incentive levels. To address these comments, the Advisory Group agreed to include language within its Standard Operating Procedures (SOP), clarifying that these metrics would serve as the starting points from which incentive setting would be based.

Trade Ally Network - The Avista Trade Ally Network is a collaboration between Avista and the contractors, distributors, manufactures and vendors in the Company's service territory. The Avista Trade Ally Network was created first as a communication tool, but ultimately utilized as a way to promote program participation and to provide Trade Allies with real-time information regarding Avista programs and services that may assist them in working with mutual customers. Benefits of the Trade Ally Network include a streamlined path to energy efficiency applications, immediate notification of program changes, training opportunities and access to other program announcements. Since launching the Trade Ally Network, Avista continues to focus on enrollment and value, and has taken the following strides in the 2018-2019 Biennium:

- Over 700 emails and letters were sent out introducing the Trade Ally Network, with step-by-step instructions on how to log in and create an account;
- Two interactive "Lunch and Learn" events were held in August 2018, soliciting feedback and input from vendors and allowing them to view the Trade Ally Network for the first time;
- Webinars were held throughout the biennium discussing how to enter online rebates; and
- In 2019, a Newsletter containing 2019 Program changes, with direct links to rebate programs and access to the respective Program Managers.

Business Partner Program (BPP) - The BPP is an outreach effort designed to target Avista's rural small business customers in Washington, intended to bring awareness of utility programs and services that can assist customers in managing their energy bill. The BPP provides advice and tools that can be used to educate and empower business owners and employees to use less energy. More specifically, this initiative provides a no-cost energy efficiency assessment, as well as an



opportunity for customers to hear about other services such as billing options and energy efficiency rebates.

To further support the BPP, a proposal is currently under review with Washington State University's Community Energy Efficiency Program (CEEP) for financial assistance. If the CEEP proposal is accepted, the funding would be used towards assisting only small, rural business customers in Washington with financing the coordination and installation of identified energy efficiency measures (e.g. lighting retrofit) that may have been identified during the BPP energy assessment. With the customer participating in the energy assessment, understanding their utility bill and seeing the results of an energy efficiency improvement, this program will provide a comprehensive approach to serving this hard-to-reach customer market.

iEnergy DSMC Integration - The Company began implementation of Nexant's "iEnergy Demand Side Management Central" (known as iEnergy or DSMC), an enterprise software intended to manage the Company's program information with customer project details pertinent to energy efficiency upgrades. During the 2018-2019 biennium, Avista integrated several of its non-residential programs into DSMC, and anticipates the remaining work to be completed in 2020.

Statewide Advisory Group (SWAG) – The Commission approved the Company's 2018-2019 Biennial Conservation Plan in Order No. 1 of UE-171091 dated January 12, 2018. In that Order, the Commission mandated the formation of a joint advisory group in order to align various practices in target setting. The Order stated that:

“We accept Avista's calculation of its conservation target, but require the Companies to form a joint advisory group with all stakeholders, including the Department of Commerce, to engage in further discussions about whether NEEA savings should be included in conservation target calculations going forward.”

As a result, it was agreed that the investor-owned utilities, or IOUs (Avista, PacifiCorp, and PSE), would partner with UTC Staff, interested State Agencies, and utility Advisory Group members to try and achieve consensus on state-wide issues affecting efficiency departments. Three key topics were identified for discussion, noted in the proposed charter below:

1. NEEA inclusion/exclusion in the penalty target,
2. Areas of cost-effectiveness improvement (Consistent TRC/ Investigate Resource Value Test),
3. Utility performance incentive.

The SWAG met on multiple occasions throughout 2018 and 2019, and while no direct modifications were made to existing planning as a result of these meetings, the collaboration between the IOUs and Commission Staff highlights the efforts of all parties in exploring new potential elements to conservation programs and remains a useful platform for continued partnership in these endeavors.

Community Energy Efficiency Program (CEEP) – Avista partnered with CEEP in an effort to deliver energy efficiency offerings for hard-to-reach markets in Eastern Washington. CEEP allocated a total of \$830,000 for projects in the Company’s Washington service territory during the 2018-19 biennium, with a Company match of in-kind labor and Energy Efficiency funding. With the assistance of four Community Action Agencies, the Company utilized CEEP dollars for improvements to multifamily housing that included replacement of HVAC systems and controls, building envelope upgrades, weatherization measures, and lighting retrofit in tenant and common area spaces. A secondary initiative identified income-qualified, single family homes utilizing an alternative fuel as a heat source (e.g.: oil and wood) and helped these customers convert the heating system to high efficiency electric space heat, or where available, high efficiency natural gas. These homes also received weatherization improvements. A total of 25 projects, serving 383 customers in four counties, benefitted from CEEP funding.

Participation in Washington Legislation Changes - Avista and its Energy Efficiency team have actively participated in Department of Commerce and UTC-hosted workshops, webinars and conferences addressing the recently enacted Senate Bill 5116 and House Bill 1257. Avista’s Energy Efficiency team has provide feedback on matters including low-income and equity issues within the Clean Energy Transformation Act (CETA), along with engaging in rulemaking around clean buildings. In addition, Avista’s Energy Efficiency team worked with its Advisory Group to collaborate on proposed changes to its overall program based on Senate Bill 1444 appliance standard changes. Those efforts will be reflected in the Company’s 2020-2021 Biennial Conservation Plan.

Residential Home Energy Audit Pilot Program - In its efforts to continue pursuing energy saving programs for our customers, Avista developed a pilot program incorporating an in-home audit with a direct install for residential customers in Spokane County, Washington. This program targeted

High-Bill Concern (HBC) customers, Income Based Payment Plan (IBPP) customers, and homes with a high Energy Use Intensity (EUI). This program was available to Avista customers that either rent or own residential single family properties, up to a four-unit multi-family property. As part of this pilot, the customer would receive a report of the audit containing recommendations on how to save energy and provide more comfort in the home. Eligibility for Avista rebates are also communicated in the report, which is then followed-up by communication from the Avista program administrator to champion the implementation of the recommended energy efficiency measures.

Avista received several points of feedback from customers that participated in the pilot program. A number of customers stated that in their experience, they have had difficulty finding contractors to perform home energy audits. It was also noted that for many customers, they were unaware of areas in the home that contributed to higher energy use. The design of the pilot program focused on providing customers with education on their energy use and making the process of a home energy audit easy for the customer. Avista looks forward to continuing this program in 2020 with the goal of reaching 200 customers between Washington and Idaho.

Fuel Conversions Phase-out - On April 26th 2018, the Commission issued Order No. 07 in Docket Nos. UE-170485 and UG-170486 (*consolidated*), instructing Avista to work with its Advisory Group to transition the funding of its Fuel Efficiency Program (Fuel Conversion) from its electric tariff rider (Schedule 91) to its natural gas tariff rider (Schedule 191) by December 31, 2019, and to submit a plan for a transition by October 26, 2018. The transition plan occurred in two stages. The first stage of the plan involved the transfer of the funding mechanism from the electric tariff rider to the natural gas tariff rider. The Company began funding all current conversion programs through its natural gas tariff rider beginning January 1, 2019 with the last day of funding on December 31, 2019. The second stage of the transition plan was the discontinuation of the Fuel Conversion programs beginning in 2020. At that time, the Company halted its fuel conversion programs.

## V. Conclusion

The Company is pleased that it has surpassed its 2018-2019 Biennial Conservation Target by 112%, achieving 89,115 MWh from demand-side energy efficiency. Avista successfully stayed above its cost-effectiveness threshold of 1.0 using the Total Resource Cost (TRC) cost-effectiveness test achieving an overall TRC ratio of 1.60.