

Appendix A:

2016-2017 Biennial Conservation Report



Avista Utilities

2016-2017 Biennial Conservation Report

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Avista 2016-2017 Biennial Conservation Report

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I. Introduction

In compliance with RCW 19.285 and WAC 480-109-120 (4), Avista Corporation, respectfully submits its “2016-2017 Biennial Conservation Report (BCR)” to the Washington Utilities and Transportation Commission (UTC). This report is intended to comply with the requirements outlined below:

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

- (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 2016-2017 Biennial Conservation Target. In its Order, the Commission approved Avista’s 2016-2017 Biennial Conservation Target of 72,626 MWh¹. The following table summarizes the approved conservation target.

¹ Docket No. UE-152076

Table 1: 2016-2017 Biennial Conservation Target

Savings Category	Target 2016-17 Savings (MWh)
End-Use Efficiency Measures (CPA)	76,613
Less NEEA	(6,220)
End-Use Efficiency Measures Subtotal	70,393
Plus Distribution Efficiency	2,082
Plus Generation Efficiency	151
2016-2017 Biennial Conservation Target	72,626

These target figures include local DSM acquisition, upgrades at generation facilities and distribution feeder efficiency improvements but does not include any regional savings associated with NEEA market transformation efforts during the biennium².

Avista exceeded its target by 192%, achieving 139,450 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 2.15. As compared to the 2016-2017 Biennial Conservation Plan of 82,314 MWh, the Company's conservation programs produced savings that exceeded its biennial goal. The table below shows the verified gross savings and related DSM expenditures alongside the Company's Biennial Conservation Plan (which is inclusive of the I-937 target of 72,626).

Table 2: Actual 2016-2017 Results vs. Biennial Conservation Plan

Segment	Savings (MWh)	Expenditures ³
Actual 2016-2017 Results	139,450 (verified gross)	\$24,583,483
2016-2017 Biennial Conservation Plan ⁴	82,314	\$19,866,000 ⁵

Much of the excess conservation savings is attributed to the Company's non-residential programs, however, the residential program had also exceeded its savings target as well. The table below

² The NEEA savings for Avista's 2016-2017 Washington portion of the regional savings are 0.83 aMW or 7,271 MWh.

³ Excludes expenses related to fuel conversion programs and NEEA.

⁴ The 2016-2017 Biennial Conservation Plan identified 82,314 MWh of planned conservation savings which is inclusive of the 76,257 MWh I-937 identified total target (including the 5% decoupling commitment).

⁵ Docket UE-152076 Order No. 01, Page 2.

shows the sector level comparison of the planned and verified gross savings for Avista's conservation programs.

Table 3: 2016-2017 Washington Electric Savings by Sector

Segment	Planned Savings (MWh)	Verified Gross Savings (MWh)
Residential	35,445	59,154
Low Income	1,037	397
Nonresidential	45,831	78,855
Subtotal	82,314	138,406
Generation & Distribution	-	1,044
Total	82,314	139,450

As a result of the 2014-2015 biennial savings achievement, and consistent with Order No. 03 in Docket UE-132045, Avista has 2,489 MWh of excess savings available to apply to a potential 2018-2019 shortfall. Upon calculating the reported and verified electric savings totals and savings adjustments, Avista's 2016-2017 excess savings will be 66,824 MWh. This can be added to the 2014-2015 excess of 2,489 MWh, and applied to a percentage⁶ of potential shortfall of 2018-2019. The 2014-2015 excess will no longer be available for application to a 2020-2021 potential shortfall. Please see the table below to illustrate Avista's Biennial excess savings carryforward.

Table 4: 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
14-'15	68,204	70,693	2,489	2,489	2,489	
16-'17	72,626	139,450	66,824		66,824	66,824
Total Available				2,489	69,313	66,824

⁶ Pursuant to WAC 480-109-100(c)(i)

III. Biennial Portfolio Electric Cost-Effectiveness

Table 5: 2016-2017 Biennial WA Electric Total Resource Cost (TRC)⁷

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	\$88,383,250	\$627,556	\$89,010,806
Natural Gas Avoided Costs	(\$1,428)	\$0	(\$1,428)
Non-Energy Benefits	\$637,443	\$118,905	\$756,348
TRC Benefits	\$89,019,265	\$746,461	\$89,765,726
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Non-Incentive Utility Costs	\$5,148,769	\$93,903	\$5,242,672
Customer Costs	\$35,267,244	\$1,320,767	\$36,588,012
TRC Costs	\$40,416,014	\$1,414,670	\$41,830,684
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TRC Ratio	2.20	0.53	2.15
Residual TRC Benefits	\$48,603,251	(\$668,209)	\$47,935,042

IV. Summary of Adaptive Management

The 2016–2017 Biennium provided Avista with multiple opportunities to adaptively manage its program to meet the needs of its customers, stakeholders, and regulators. During the 2016-2017 biennia, the Company’s DSM department introduced new staff including two new managers and an analyst to its team. In addition, the department placed additional emphasis on how they communicate and report their efforts to external parties.

During the biennium, Avista worked with internal and external stakeholders on several projects:

- The Company hosted multiple workshops with its Advisory Group throughout the biennium with respect to the 2018-2019 Biennial Conservation Plan (BCP) process and allowed multiple opportunities for participation from those individuals involved.
- The Non-Residential Prescriptive Lighting Programs saw tremendous growth in the biennia and continued to deliver results due to successful, proactive and frequent communications with market actors to ensure concerns were addressed and program guidelines were met. The Company monitored and responded to changing market

⁷ Expenditures exclude costs associated with Fuel Conversion programs.

conditions and adaptively managed their incentives in regards to TLED lamps by lowering their non-residential prescriptive incentive for certain measures. The program achieved an overall realization rate of 75% and achieved gross verified savings of 62,721 MWh. Please see section 4.2 of the 2016-2017 WA Electric Impact Evaluation Report for further details around the prescriptive lighting program.

- Avista's continued commitment to striving for process improvement was seen in the company's approach to the Simple Steps, Smart Savings program. Historically Avista has used the allocated approach for the internal reporting of savings and costs associated with the program by state. While the allocation method of splitting program achievements 70/30 between states is useful to approximate each jurisdiction's savings achieved, the company has further refined the process to provide more accurate savings information. While there were some additional administrative hurdles, as a result of 2016 learnings, in 2017 Avista began reporting Simple Steps based on actual sales in each state rather than an allocation of total program results for both internal reporting and annual reporting, energy savings and costs.
- The Company began implementation of iEnergy/DSM Central which is an enterprise DSM software intended to manage data across multiple internal software programs and allow the DSM team to utilize the information in one place. This software will also be a benefit to external stakeholders including regulators, advisors, and trade allies. The Company is on pace to functionalize the software in 2018 with the bulk of its programs managed in the program by 2020.
- As Avista's Small and Medium Sized Business program came to a close at the end of 2017, Avista chose to leverage the industry knowledge and capabilities of its existing conservation vendor, SBW by hiring them to perform the Company's Multifamily Direct Install Pilot Program. This pilot is designed to target a hard-to-reach segment of rental customers living in complexes of 4 or more units. Traditionally, this demographic has been identified as underserved in Avista's region and the efforts of SBW help to serve these customers.

While not comprehensive, this is certainly a summary of the adaptive management Avista employed during the past biennium to deliver cost effective DSM programs.

As part of Avista's standard practice, the DSM group tracks its monthly progression towards meeting its annual and biennial savings targets which aids to inform potential adaptive management changes that are necessary for the program's success. While the Company recognizes that the conservation efforts in the 2016-2017 biennia produced savings nearly double that of the biennial target, the Company does not engage in a practice that restricts or winds down conservation programs. It is our mission to provide Avista's customers with access to energy efficient measures that are cost-effective, feasible and reliable.

V. Conclusion

The Company is pleased that it has surpassed its 2016-2017 Biennial Conservation Target by 192%, achieving 139,450⁸ 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 2.15.

The table below shows the 2016-2017 Conservation Achievements by Sector.

⁸ The savings of 139,450 excludes NEEA and all fuel conversion programs. With NEEA included, total savings are 146,721.

Table 8: Avista’s 2016-2017 Conservation Achievements by Sector⁹

Program	Anticipated Savings (MWh)	Actual Savings (MWh)	Budget	Total Expenditures	TRC ¹⁰
Residential	35,445	59,154	\$2,883,831 ¹¹	\$5,442,066 ¹²	2.17
Low Income	1,037	397	\$1,883,006 ¹³	\$913,316 ¹⁴	0.53
Commercial and Industrial	45,831	78,855	\$9,027,886	\$18,228,101 ¹⁵	2.22
Distribution ¹⁶	2,082	660	-	-	-
Generation Facilities	151	384	-	-	-
Pilots ¹⁷	-	-	-	-	-
NEEA	6,220	7,271	\$2,800,000	\$2,724,191 ¹⁸	-

⁹ Expenditure costs exclude general portfolio expenses, EM&V, and non-NEEA regional costs. Also excluded are fuel conversion incentives and non-incentive utility costs as listed in the 2016 & 2017 Annual Reports (which are held outside EIA target and savings totals).

¹⁰ See also table 5 for overall portfolio cost-effectiveness.

¹¹ Budget including fuel conversions is \$5,433,871.

¹² Expenditures including fuel conversions is \$11,939,171.

¹³ Budget including fuel conversions is \$3,435,218.

¹⁴ Expenditures including fuel conversions is \$1,793,678.

¹⁵ Expenditures including fuel conversions is \$20,486,472.

¹⁶ Funding for distribution and generation efficiency measures is through Avista's general rate cases, per condition (9)(c) in Attachment A of Order 01 in Docket UE-152076.

¹⁷ There were no expenditures tracked for pilots in the 2016-2017 biennium and there are no cost-effectiveness values.

¹⁸ NEEA expenditures as listed in the annual reports.