

Appendix G:
Impact Evaluation Recommendations

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2016 – 2017 Process and Impact Evaluation Recommendations and Statuses

Based on Nexant's 3rd party evaluation of the 2016-2017 biennial results, both Process and Impact Evaluation Reports were delivered which provided the below outlined conclusions and recommendations. Avista has provided status updates for each recommendation.

6.3.1 Nonresidential Programs

The overall realization rate for the nonresidential portfolio is 103%. The realization rates ranged from 142% for the Commercial Insulation program down to 42% for the Energy Smart Grocer program. The evaluation team found that the processes Avista is utilizing for estimating and reporting energy savings for the nonresidential programs are predominantly sound and reasonable. The following subsections outline specific conclusions and recommendations for several of the nonresidential programs.

6.3.1.1 Site Specific Program

Conclusion: The Site Specific program constitutes more than 45% of the program energy shares (verified gross savings). Over the last 4 years, Avista has increased their level of quality assurance and review on projects that participate through the program. The evaluation team's analysis resulted in a 133% realization rate for the Site Specific program (conservation measures only).

Recommendation: The evaluation team recommends that Avista continue to operate the Site Specific program with the current level of rigor.

Status: Avista will continue to pursue conservation through its site specific programs.

6.3.1.2 Natural Gas Prescriptive Programs

Conclusion: Avista reported participation in four prescriptive natural gas programs in 2016-2017: Food Service Equipment, Commercial Insulation, Natural Gas HVAC, and Energy Smart Grocer. Strong realizations rates for most of these programs indicate that the Avista's deemed savings estimates for these measures are accurate and appropriate.

Recommendation: The evaluation team recommends that Avista continue to operate these programs with the current level of rigor.

Status: Avista will continue to pursue conservation through its site specific programs.

Conclusion: The Energy Smart Grocer program constituted about 6% of the nonresidential natural gas portfolio energy shares. The evaluation team found a realization rate of 42% for this

program, predominately due to a zero realization rate that was found for a few large projects in the sample, based on utility bill analysis.

Recommendation: The Energy Smart Grocer program is implemented by a third party. It is recommended that for large projects, Avista work more closely with the implementer to ensure accurate reporting.

Status: The Company is bringing all of the offerings previously being delivered through the ESG program in-house with the exception of refrigeration engineering specialties which Avista will take care of through a Request for Proposal (RFP) for professional services.

Recommendation: The evaluation team recommends that Avista consider using performance-based incentives for any measures that are estimated to achieve savings of 10% or more of annual natural gas consumption. For projects where eQuest model were employed by the implementer to estimate savings, Avista should verify that the baseline eQuest model was calibrated on a monthly basis for both gas and electric consumption.

Status: This option will be considered in the 2020-2021 Biennium. Avista will verify that the baseline eQuest model was calibrated on a monthly basis.

6.3.1.3 Small Business Program

Conclusion: The Small Business program in WA constituted approximately 11% of the total savings for the nonresidential portfolio. The evaluation team found a 106% realization for the program.

Conclusion: The Small Business program implementer has improved their tracking of decommissioned measures in the 2016-2017 biennium, in comparison to the 2014-2015 biennium, as shown by the evaluation team's calculated persistence rate of 98% for the measures included in the sample in the 2016-2017 biennium.

6.3.2 Residential Programs

The overall realization rate for the residential portfolio's conservation programs was 119% while the conversion programs achieved a 70% realization rate. The conversion programs all performed well with realization rates above 100% with the exception of the Shell and Low Income programs. The conversion programs low realization rates indicates the forecasted increase gas consumption was not realized. The following subsections outline specific conclusions and recommendations for several of the residential programs.

6.3.2.1 HVAC Program

Conclusion: The evaluation team found a realization of 133% at the program level. This is similar to the findings of the 2014-2015 evaluation which found a 125% realization rate for Washington. The findings are based on the analysis of 802 homes resulting in a relative precision of 6.8%.

Recommendation: Given that the realization rate is substantially higher than 100% and is associated with a low error bound, Avista should consider revising its reported savings values for measures within the program.

Status: Avista will use RTF values for this program going forward.

6.3.2.2 Water Heat

Conclusion: For showerheads distributed through the Simple Steps program, Avista allocates 50% of its reported savings to electric savings and 50% to natural gas savings to account for homes that have different water heating fuel types.

Recommendation: The evaluation team recommends Avista update this allocation assumption to be based on representative water heater fuel type saturation. These data are available through the Regional Building Stock Assessment study; however, we recommend Avista base the allocation on data specific to its territory.

Status: Avista will use number of customer meters.

6.3.2.3 Fuel Efficiency

Conclusion: The evaluation team found that the homes analyzed that converted from electric heat to a natural gas furnace showed an average weather normalized gas consumption increase of 328 therms per year resulting in a 70% realization rate. This impact and realization rate is very similar to findings from the prior evaluation (384 therms increased consumption with a 70% realization rate).

Recommendation The evaluation team recommends Avista review its forecasted gas penalty for the Fuel Efficiency program. Based on two cycles of evaluation, the program appears to be over-estimating the actual impact.

Status: Avista has updated its Fuel Efficiency program's savings values based on Nexant's report.

6.3.2.4 Shell Program

Conclusion: The evaluation team found a realization rate of 78% for shell program. These findings reflect reported savings are fairly well aligned for the program. However, there may be room for further refinement of savings assumptions for the reported values.

Recommendation: To refine the reported savings assumptions, we recommend Avista examine planning assumptions about per-home consumption, end-use load shares, and percent reductions in heating loads from shell improvements.

Status: Avista will refine its reported savings assumptions

Conclusion: The verified savings for the gas conservation homes was very low relative to Avista's reported savings with a realization rate of 28%. This is a departure from the previous evaluation which found a realization rate of 101%. Moreover, the evaluation observed unexpected increases in consumption on average after the first year of the biennium. The conversion measures achieved a 75% realization rate indicating the program assumed too high of a gas penalty.

Recommendation: The evaluation team recommends that Avista maintain its current assumptions for conservation measures due to the diverging realization rates between the prior and current evaluations that appear to be driven by varying participant consumption profiles.

Status: Avista will begin using RTF savings values for all shell measures in the residential prescriptive portfolio.