

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-090134

DOCKET NO. UG-090135

DOCKET NO. UG-060518

(consolidated)

REBUTTAL TESTIMONY OF

JONATHAN POWELL

REPRESENTING AVISTA CORPORATION

1           **Q.     Please state your name, employer and business address.**

2           A.     My name is Jonathan Powell and I am employed as a manager within the demand-  
3 side management (DSM) department of Avista Corporation.

4           **Q.     Have you provided testimony in this matter?**

5           A.     Yes, I have previously sponsored Exhibit No. \_\_\_\_ (JP-1T) and Exhibit No. \_\_\_\_  
6 (JP-2).

7           **Q.     Please provide a summary of your rebuttal testimony.**

8           A.     My testimony will show that, although there are a few elements related to the  
9 Company's DSM program administration that were identified as problematic, the overall  
10 Decoupling Mechanism is still sound, as the parties do not challenge the basic rationale of the  
11 Mechanism. In summary:

- 12           1. I demonstrate that overall DSM acquisition substantially met or exceeded targets  
13           established in the IRP process, and that overall DSM savings, including in the limited  
14           income sector, increased during the pilot period;
- 15           2. The Company agrees that improvements to DSM savings measurements should be  
16           addressed as part of a collaborative process;
- 17           3. The independent verification of DSM savings, as required in Order No. 4 in UG-  
18           060518, did occur and supported the needs of the Decoupling Mechanism pilot;
- 19           4. I show how Public Counsel witness Ms. Kimball was incorrect regarding her  
20           assertions that 2006 and 2008 claimed DSM savings were overstated; and

1           5. Limited Income customers, as a class, not only had increased DSM savings during the  
2 pilot period, but I show that, net of both the decoupling and DSM surcharges, this  
3 customer class were net beneficiaries.

4           **Q. Did the Company meet its DSM target acquisition levels during the**  
5 **decoupling pilot?**

6           A. In 2007 and 2008 the Company exceeded the Integrated Resource Plan acquisition  
7 target by 137% and 128%, respectively. In 2006, the Company achieved 99% of the Integrated  
8 Resource Plan target and consequently did not fully recover the fixed margin tracked under the  
9 pilot decoupling mechanism.

10          **Q. Please explain how the level of DSM acquisition was determined.**

11          A. The Company's claimed DSM acquisition for each of the calendar years of 2006  
12 to 2008, inclusive, was submitted to a consulting firm (Research Into Action and their partner on  
13 this project, Nexant) for independent verification. These independent verifiers developed and  
14 executed a methodology for the review and revision of the claimed DSM acquisition. Avista's  
15 role was limited to supplying the necessary data to support the original claims. The verification  
16 consultants were provided full access to Avista records and personnel, with appropriate  
17 safeguards to protect customer confidentiality.

18          **Q. Did Avista attempt to influence the development of the methodology, the**  
19 **projects selected or any other key aspect of the verification?**

20          A. No.

21          **Q. Per the Settlement Agreement that was approved in Order No. 4, what**  
22 **exactly was required for DSM savings verifications?**

1           A.     At Page 7, Section F of the Settlement Agreement in UG-060518, it states “(t)he  
2 Company will retain an independent third party to audit the results of DSM savings reported for  
3 decoupling purposes. This independent auditor will be chosen through an ‘RFP’ process  
4 reviewed and approved by the parties to this Settlement Agreement. The scope of the audit will  
5 include an appropriate sampling of projects to verify the work completed, the savings recorded,  
6 and a review of the engineering estimates used to estimate the savings.” (emphasis added)

7           **Q.     Several parties have stated that a physical measurement of claimed energy  
8 savings was a necessary part of the independent verification of Avista’s DSM acquisition.  
9 Was this an element of the independent verification, and was it required under the  
10 Settlement Agreement?**

11          A.     The independent verification methodology focus was primarily upon confirming  
12 the engineering estimates and protocols for developing DSM acquisition claims. The analysis  
13 did not include an independent physical measurement of metered savings as this was not required  
14 based on the Settlement Agreement.

15          **Q.     Did the Research Into Action and their partner on this project, Nexant,  
16 provide an independent verification that included a sampling of projects to verify the work  
17 completed, the savings recorded, and otherwise review engineering estimates used by the  
18 Company to estimate the savings, as required in the Settlement Agreement approved by the  
19 Commission in Order No. 04?**

20          A.     Yes.

21          **Q.     Were the independent verification reports filed with the Commission?**

1           A.     Yes. The independent verification report is included with the Company's annual  
2 Decoupling Rate Adjustment filing. All parties have the opportunity to review and comment on  
3 any aspect of the independent verification report.

4           **Q.     Has the independent verification process or the decoupling pilot led to**  
5 **changes in the manner that Avista manages their DSM portfolio?**

6           A.     Yes. Avista has developed a measurement, evaluation and verification work plan  
7 that contains an increased emphasis upon the physical measurement of energy savings and other  
8 key inputs into engineering calculations leading to estimates of energy savings. This plan has  
9 been presented to the Idaho Public Utilities Commission staff and is on the agenda for discussion  
10 at the September 2009 meeting of Avista's External Energy Efficiency Board.

11          **Q.     Does Avista have any objection to convening a stakeholder summit to discuss**  
12 **future measurement, evaluation and verification efforts?**

13          A.     No. Avista would welcome the additional input.

14          **Q.     Many of the concerns regarding the energy acquisition claims made by**  
15 **Avista arise from programs such as the residential natural gas furnace, water heat,**  
16 **insulation and windows program. How does Avista calculate the energy savings from these**  
17 **programs?**

18          A.     These programs are all prescriptive programs. Prescriptive programs are generally  
19 applied to measures that are individually too small to warrant a customized analysis and/or are  
20 programs that can be made more marketable by offering a uniform customer rebate. The  
21 estimated energy savings and the customer rebate are based upon the typical or average  
22 application of the efficiency measure. There are variants upon how the energy savings and rebate

1 can be structured, but all prescriptive programs are fundamentally based upon assumptions  
2 regarding the typical installation.

3 **Q. Would all projects achieve the average savings expected under this program?**

4 A. No. Generally speaking, about half of the projects would be expected to obtain  
5 higher than average savings and half of the projects lower than average savings over the life of  
6 the measure.

7 **Q. How was this addressed in the independent verification?**

8 A. Research Into Action and Nexant reviewed the engineering calculations leading to  
9 the calculation of energy savings and key aspects of data collection. This includes, for example,  
10 the average efficiency of installed devices, pre- and post-insulation R-values and so on. They  
11 then proceeded to review a random sample of customers to confirm that these had been correctly  
12 recorded and that the aggregate calculations of the energy savings attributable to these programs  
13 were correct.

14 **Q. Did this review confirm Avista's energy savings claims?**

15 A. In general, yes, but not in every case. Energy savings claims were adjusted both  
16 up and down based upon the findings of the independent verification.

17 **Q. Were these changes incorporated into Avista's claims for purposes of**  
18 **implementing the Decoupling Mechanism?**

19 A. Yes. All adjustments recommended by the independent verifiers resulted in  
20 revisions to the Company's energy acquisition claims for the Decoupling Mechanism.

21 **Q. Was this similar to the review performed by Public Counsel?**

1           A.     No. The independent verifiers reviewed a random sample of projects over the  
2 three year decoupling pilot period. Public Counsel screened a very large number of projects,  
3 20,000 by their count<sup>1</sup>, but only selected 11 projects completed in 2008 and 18 projects  
4 completed in 2007 that appeared to have the greatest overestimate of savings based upon the  
5 information contained within the database.

6           **Q.     Would the approach used by Public Counsel lead to the same conclusions as**  
7 **the approach employed by the independent verifiers?**

8           A.     No. A non-random sampling of projects cannot be extrapolated to the larger  
9 population of projects. This is particularly true when the sampled projects are a small and highly  
10 non-representative portion of the overall program.

11           **Q.     Public Counsel has noted an apparent discrepancy in the independently**  
12 **verified energy savings claimed for the Company's residential space heat efficiency**  
13 **program. They suggest that a correction of that discrepancy would result in substantially**  
14 **lower verified energy savings for 2006. Please explain the apparent discrepancy and how**  
15 **Public Counsel's allegation is not correct.**

16           A.     The Company's report for savings from residential space heat systems includes  
17 not only high-efficiency furnaces installed in residential single-family homes, but also boilers  
18 used for space heating purposes and space heating within multifamily homes. The report that  
19 Public Counsel cited aggregates energy savings for all of these space heating measures made  
20 through the residential DSM portfolio.

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<sup>1</sup> Kimball Testimony (MMK-1T), page 16.

1           During 2006, there were a number of multifamily home space heating efficiency projects  
2 completed in Idaho and incorporated into this calculation. Multifamily projects are larger and do  
3 not necessarily follow the typical jurisdictional split as single-family homes. In this particular  
4 year these multifamily projects resulted in a significant change in the typical jurisdictional split  
5 of Avista's residential space heat efficiency savings.

6           Public Counsel presumed that the disproportionately high Idaho savings was the result of  
7 an error in Avista's claimed energy savings that wasn't captured and corrected through the  
8 independent verification process. Since this was not an error, there is no need for such an  
9 adjustment and no change in the therm savings claimed for that year.

10           **Q.     Public Counsel, at Page 27 of Ms. Kimball's testimony, also noted that there**  
11 **are inconsistencies in the savings that Avista has claimed for the high-efficiency window**  
12 **program, suggesting that the Company perhaps did not achieve natural gas savings above**  
13 **the 2008 IRP target. Was Public Counsel correct in their assertion?**

14           A.     No, Public Counsel was incorrect due to their misunderstanding of the data.  
15 Public Counsel noted that the significant increase in the energy savings claimed for the  
16 installation of high-efficiency windows between 2006 and 2008 was not accompanied by a  
17 proportionate increase in what they believed to be the number of participants. As noted in a data  
18 request response (DR 485) sent to Public Counsel, the Company revised the definition of  
19 measure codes between these two dates. The original program design categorized east or west  
20 facing windows, north facing windows, and south facing windows as three distinctly separate  
21 measure codes. With experience, it soon became clear that the windows being installed in the  
22 program were in a predictable mix of the three orientations, and that simplification would



1 improve the Company's efforts to promote the program. Consequently, the Company redefined  
2 the windows program as a single measure code and made commensurate changes in the energy  
3 savings claimed for the windows based upon the actual mix of the previously separate measure  
4 codes.

5 Avista's reporting and the independent verification of the energy savings for this program  
6 was based upon the number of project measure codes completed, not the number of participants.  
7 A single customer could complete up to three window measure codes under the original program  
8 design. The modified program defined only a single window measure code. Public Counsel has  
9 mistakenly assumed that the number of measure codes was consistently equal to the number of  
10 participants.

11 **Q. Public Counsel also pointed out inconsistencies in the rate schedule recorded**  
12 **for participants in the Company's DSM programs. Would any errors in the rate schedule**  
13 **information contained in the DSM database change the tracked fixed cost recovery**  
14 **amount?**

15 A. No. Under the terms of the decoupling pilot, only Schedule 101 (small general  
16 use) usage qualified for fixed cost recovery in the Decoupling pilot. The usage of these  
17 customers is tracked in the Company's customer service database, not the DSM database. Only  
18 programmatic DSM project information is housed in the DSM database.

19 **Q. What did the Public Counsel review of the rate schedules of DSM**  
20 **participants reveal?**

1           A.     Public Counsel found several customers that were recorded on Schedule 101 that  
2 had estimated savings that seemed to exceed that which would be consistent with that rate  
3 schedule.

4           **Q.     Does this reveal a data quality issue of ongoing concern?**

5           A.     No. Most of these projects were related to efficiency measures being installed in  
6 new construction or facilities undergoing major remodeling. Under those circumstances, it is  
7 Avista's policy to assign the energy savings to the rate schedule that those savings are most likely  
8 to accrue to upon project completion. In the case of new construction and remodeling, this may  
9 not be the same rate schedule that the customer is currently assigned.

10          **Q.     Relating now to limited income customers, how does Avista deliver DSM**  
11 **programs to the limited income customer base?**

12          A.     Avista awards annual funding contracts to six community action agencies. These  
13 funding contracts are used exclusively for energy-efficiency improvements, including a 15%  
14 reimbursement for the agencies administrative cost. The funds can be used on electric or natural  
15 gas efficiency projects. This relationship leverages the community action agencies existing  
16 income qualification infrastructure and provides a stable funding base to maintain the financial  
17 viability of these agencies. Avista's funding is further leveraged by the agencies to obtain  
18 additional matching funds from the state and other governmental funding sources. These funding  
19 sources, in addition to Avista's funding, enhances the reach and acquisition of the limited income  
20 portfolio.

1           **Q.     Energy Project witness Ms. Alexander at Page 15 suggests that the limited**  
2 **income population estimates in the Evaluation Report prepared by Titus were too low.**  
3 **Why was 125% of the Federal Poverty Guideline used?**

4           A.     First, the Company does not maintain nor collect income information from its  
5 customers. As such we must rely on proxy groups to determine which customers are or are not  
6 limited income. The only proxy that the Company had was the income guidelines for LIHEAP  
7 and LIRAP. In order to be eligible for these programs, customers must have an income not to  
8 exceed 125% of the Federal Poverty Guideline. This guideline parameter comes from the  
9 Washington Department of Commerce, not the Company. As such, the Company could not  
10 provide information at other income levels.

11           **Q.     What assistance do participating limited income customers receive?**

12           A.     Energy efficiency measures installed at the homes of participating limited income  
13 customer homes are fully funded through Avista’s limited income DSM program. Agencies may  
14 also use the funds to support energy efficiency education programs promoting the adoption of  
15 low-cost and no-cost energy savings behaviors.

16           **Q.     Do limited income customers also benefit from other Avista DSM programs?**

17           A.     Yes. All residential customers, regardless of income level, qualify for Avista’s  
18 residential energy-efficiency program. The Company’s “Every Little Bit” educational outreach  
19 program also promotes low-cost and no-cost energy efficiency behaviors such as closing drapes,  
20 cleaning refrigerator coils, changing furnace filters, and so on.

21           **Q.     Does Avista know or have reason to believe that there is significant**  
22 **participation by limited income customers in these programs?**

1           A.     Avista does not ask customers participating in these residential rebate programs to  
2 provide income information. Avista's residential incentives cover, on average, about one-third of  
3 the total incremental cost of the efficiency measure. Thus there is an undeniable capital barrier  
4 faced by the customer that may well result in a less than proportionate participation by limited  
5 income customers in these programs. We believe that limited income customers do obtain,  
6 however, a proportionate benefit from the low-cost and no-cost energy-educational messages  
7 delivered through Avista's outreach programs.

8           **Q.     The Company has shown significant increases in natural gas DSM**  
9 **acquisition in general, but the acquisition and funding for limited income programs doesn't**  
10 **appear to have experienced the same degree of growth. Please explain.**

11           A.     The emphasis of the Company's ramp-up in natural gas DSM services has been to  
12 achieve progressively higher acquisition targets. A significant part of this has been achieved  
13 through Commission-approved increases in funding available for customer rebates through the  
14 Company's DSM programs. These revisions move the rebates closer to the 50% maximum  
15 funding of the incremental cost of the efficiency measure allowable under the Company's tariff.  
16 Since customers participating in limited income programs have always received full funding of  
17 the incremental cost of the efficiency measure, the percentage increase in the funding for these  
18 programs has not been as great as that experienced by the overall natural gas DSM portfolio.

19           **Q.     Mr. Norwood in his rebuttal testimony stated that the Decoupling**  
20 **Mechanism had a net benefit for limited income customers? Can you provide more**  
21 **details?**

1           A.     Yes, on a net basis there was a benefit to that customer group. Although it would  
 2 vary on an individual customer basis, the average annual DSM savings each limited income  
 3 customer saw during the period was 3.29 therms<sup>2</sup>. This savings though is not a one time savings,  
 4 but rather is an annual savings that occurs over the life of the measure. With an average measure  
 5 life of 22 years for limited income measures, the average 3.29 therms in Year 1 equates to 72<sup>3</sup>  
 6 therms over the life of the measure. The billed surcharges in Year 1 of \$14.79<sup>4</sup>, on average,  
 7 generated 72 therms of natural gas savings over the life of the measure. For Year 2, the limited  
 8 income segment had an additional 3.29 therms per customer, on average, from incremental  
 9 energy efficiency projects. That investment as well, over the life of the measure, will save 72  
 10 therms.

11           Just for Year 1 savings, using a real discount rate of 5.25%, over the 22 year measure life,  
 12 assuming a \$1 per therm retail rate (non-escalating), the average limited income customer will  
 13 save \$42.34 versus their billed surcharges of \$14.79, for a net benefit of \$27.55.

14           These investments in energy efficiency create long term net savings to customers.  
 15 Therefore, as a customer group, the savings from energy efficiency more than offsets the cost of  
 16 the DSM and Decoupling surcharge.

17           **Q.     Has Avista’s DSM efforts and achievements increased during the Decoupling**  
 18 **period?**

19           A.     Yes. As indicated in Table 3 of the Titus Evaluation Report, Avista’s therm  
 20 savings increased from 1.2 million therms in 2005 (prior to the implementation of the decoupling

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<sup>2</sup> “Evaluation of Avista Natural Gas Decoupling Mechanism Pilot” Report, Page 83 (Table K11-C). The \$14.79 includes \$10.05 Average Schedule 191 DSM Cost and \$4.74 Average Schedule 159 Decoupling Cost.

<sup>3</sup> 3.29 therms \* 22 years = 72.4 therms

<sup>4</sup> “Evaluation of Avista Natural Gas Decoupling Mechanism Pilot” Report, Page 83 (Table K11-C).

1 mechanism) to 1.9 million therms in 2008. Natural gas DSM program expenditures over that  
2 same time period increased from \$2.4 million to \$6.3 million.

3 **Q. Did Titus reach any conclusions regarding a causal relationship between this**  
4 **increase in DSM acquisition and the decoupling mechanism?**

5 A. No. The majority of the members of the Decoupling Mechanism Advisory Group  
6 (Advisory Group) specifically requested that Titus refrain from speculating on the existence, or  
7 lack thereof, of a causal relationship.

8 **Q. Does Avista believe that the DSM enhancements during this time period were**  
9 **the result of the Decoupling Mechanism?**

10 A. Yes. There has been a persistent awareness of the impact of successful energy-  
11 efficiency efforts upon customer usage and utility margins. The Mechanism removes a clear  
12 financial disincentive to achieving energy savings from both programmatic participation and  
13 educational programs.

14 **Q. Does this conclude your rebuttal testimony?**

15 A. Yes.