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IDAHO PUBLIC UTILITIES COMMISSION UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION	
OF AVISTA CORPORATION FOR THE) CASE NO. AVU-E-09-1/
AUTHORITY TO INCREASE ITS RATES) AVU-G-09-1
AND CHARGES FOR ELECTRIC AND	
NATURAL GAS SERVICE TO ELECTRIC)
AND NATURAL GAS CUSTOMERS IN THE	•
STATE OF IDAHO.	
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DIRECT TESTIMONY OF LYNN ANDERSON IDAHO PUBLIC UTILITIES COMMISSION MAY 29, 2009

1 Ο. Please state your name and business address for the 2 record. My name is Lynn Anderson and my business address is 3 Α. 472 West Washington Street, Boise, Idaho. By whom are you employed and in what capacity? 5 Ο. Α. I am employed by the Idaho Public Utilities 6 7 Commission as a Staff economist. 8 Ο. What are your duties with the Commission? 9 Currently, my primary duties are evaluating energy 10 efficiency policy, opportunities, barriers, efforts and cost-11 effectiveness, the results of which are used to make 12 recommendations to the Commission and other entities. 13 Additional duties include investigating utility applications, 14 customer petitions and conducting general research. 15 Q. Would you please outline your academic and 16 professional background? 17 I have a Bachelor of Science degree in government 18 and a Bachelor of Arts degree in sociology, both from Idaho 19 State University where I also studied economics and 20 architecture. I studied engineering at graduate and 21 undergraduate levels at Northwestern University and Brigham 22 Young University, respectively, and graduate-level public 23 administration and quantitative analysis at Boise State 24 University.

I have attended many training seminars and

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conferences regarding utility regulation, operations, forecasting, marketing and program evaluation, including Lawrence Berkeley Laboratory's Advanced Integrated Resource Planning seminar in 1994, the Northwest Public Power Association's Troubleshooting Residential Energy Use course in 2001, and the International Energy Program Evaluation conferences in 2003, 2005 and 2007.

as a utility rate analyst. In 1983 I was appointed to the telecommunications section supervisor position and in 1992 I was appointed to my present position as an economist. In that capacity I have been a Staff representative to the Northwest Energy Efficiency Alliance's Board and Cost-Effectiveness Committee, Avista Utilities' External Energy Efficiency Board, Idaho Power's Energy Efficiency Advisory Group, the Northwest Power and Conservation Council's Demand Response Initiative, the Energy Efficiency and Conservation Task Force of the Idaho Strategic Energy Alliance, and work groups under the National Action Plan for Energy Efficiency, including Evaluation, Measurement and Verification (EM&V).

Since 1999 I have served the Commission as a policy strategist for electricity and telecommunications issues on an as-needed basis.

From 1975 to 1980 I was employed by the Idaho
Transportation Department where I performed benefit/cost

analyses of highway safety improvements and other statistical analyses.

- Q. What is the purpose of your testimony?
- A. The purpose of my testimony is to provide information regarding Avista Utilities' efforts to promote energy efficiency (aka demand-side management or DSM) and to recommend that the Commission defer a prudency finding for Avista Utilities' 2008 DSM expenses until such time that the Company is able to provide more comprehensive evaluations of its DSM programs and efforts.

Prudency of Efficiency/DSM Expenses

- Q. Does Avista's Application or the pre-filed testimony of any witness in this case ask the Commission to determine the prudency of the Company's past energy efficiency or demand-side management (DSM) expenses?
- A. Yes, both the Application and Company witness Bruce Folsom request a prudency finding for Avista's DSM programs from January through November of 2008. However, Mr. Folsom's testimony and exhibit in support of the request provide DSM information that is combined for both its Washington and Idaho service areas. Only through discovery requests was Staff able to obtain Idaho-specific DSM program costs and estimated savings for this 11-month period. For example, Avista's total DSM costs for the first 11 months of 2008 are purportedly shown on page 1 of Mr. Folsom's Exhibit No. 13 as

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Utility Cost Test (UCT) costs of \$12.1 million for electricity programs and \$5.9 million for natural gas programs. Avista's response to Staff Production Request No. 8 indicated that Idaho's share of the above costs were \$3.7 million for electricity programs and \$2.4 million for natural gas programs.

- Q. Beyond providing aggregated DSM data for multiple states, do you question parts of Mr. Folsom's testimony?
- Yes, I do. On page 9 of Mr. Folsom's pre-filed testimony is a discussion of Avista's cost per kilowatt-hour of savings obtained through its participation in the Northwest Energy Efficiency Alliance (NEEA). Mr. Folsom states "In 2007, the last year for which data is available, NEEA acquired 2.0 aMW applicable to Avista's service area at a cost of 0.07 cents/kWh" and that Avista's "...avoided cost for a comparable time period is 0.4 cents/kWh."1 I believe these costs should have read "0.7 cents/kWh" savings and "4.0 In addition to the misplaced cents/kWh" avoided costs. decimals, it should be noted that NEEA, for the most part, has not tracked savings by utility service area. Instead, NEEA has allocated its total regional savings proportionally to individual utilities based only on utility funding Thus, there is little or no data to support the percentages. declarations of 2.0 aMW of NEEA direct savings in 2007 in

The hypothetically allocated 2.0 aMW in 2007 actually represents cumulative savings from prior years through 2007.

Avista's service area or the cost-effectiveness of whatever actual savings there were in Avista's service area in 2007 or any other year. This does not mean that NEEA has not been a valuable resource for Avista's customers, but only that a verifiable measure of that value is not available. It is noteworthy that NEEA's recently adopted 2010-2014 Business Plan states that NEEA will report future savings at the service territory level.

- Q. Were you able to evaluate prudency of Avista
 Utilities' DSM expenditures based on the Company's filing?
- A. No, there was not sufficient information in the filing to fully assess DSM prudency. Consequently, many production requests and follow-up questions needed to be asked and although the Company provided much information about its DSM program planning and implementation, it did not provide sufficient post-implementation evaluations of its DSM programs to fully justify a prudency determination by the Commission. For example, in Avista's response to Staff Production Request No. 5, which asked for comparisons of pre-implementation estimated evaluation budgets to actual evaluation costs, the Company did not provide such data and, instead, provided an explanation of why Avista has not tracked evaluation costs in the past, e.g. the less-than-formal nature of its in-house evaluations and its reliance upon indirect evaluations performed by outside entities such

as "...the Northwest Power and Conservation Council's
Regional Technical Forum, Energy Star, Consortium for Energy
Efficiency, Electric Power Research Institute, and others."

Importantly, this response also states that "Avista is presently in the process of changing our EEM [energy efficiency measure] verification system to allow for better documentation of EEM's and scheduled revisiting to adjust for changes in savings as well as measure costs."

Additional evidence of Avista's lack of sufficient program evaluation was obtained in its response to Staff Production Request No. 6, in which the Company was asked to list and provide copies of all program evaluations from 2004 through 2009 - the Company provided only four such "studies," all but one of which consisted of just one or two pages of data with little or no verbal analyses. Avista's response further elaborated that while it had other examples of such "studies," "...it would take a great deal of time and effort to go through all of our projects from the last 5 years and pull them out. For this reason, Avista planned the new approach to EEM verification which we have already started to implement."

The Company's response to Staff Production Request No. 6 ended with the following statement: "In order to control costs, the least data necessary and the combined understanding of the analysts, program managers, and

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engineers is gathered to mitigate the risk of inaccurate data and improper reporting of energy savings."

In consideration of the Avista's responses to production requests, it became clear that formal and transparent post-implementation evaluation of DSM programs has not been a high priority of the Company.

- Ο. How important are post-implementation evaluations of DSM programs?
- Such evaluations are essential to both verify costeffectiveness of programs and to further improve them, or to provide evidence that they should be discontinued. It is a common and accepted best-practice that DSM programs require transparent, post-implementation evaluations.

Because Avista's evaluation of its service areaspecific DSM programs has been largely an informal process, most evaluation results apparently exist only in the memories of a few employees and their computers. Thus, Avista's DSM implementers and managers are hampered to the extent the informal evaluation results are not readily available to them; the Commission is hampered in its prudency determination; and Avista's customers are hampered in their understanding of the DSM programs and acceptance of the charges on their bills to support those programs.

Ο. Is Avista's concern about controlling evaluation costs a valid reason to skimp on DSM program evaluations?

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- A. While cost-consciousness is important, formal, credible and transparent evaluations remain essential to prudent DSM program management. By "formal" I do not mean to suggest that all evaluations need to be lengthy, costly reports completed by outside consulting firms, although it is sometimes useful and efficient to hire such consultants for their specific expertise and to gain additional perspective.
- Q. Was the Company aware of its responsibility to thoroughly evaluate its DSM programs?
- Clearly, Avista should have been aware of the Staff's and the Commission's concerns about proper program evaluation based upon the Staff's comments and the Commission Order issued in Case No. AVE-E-99-04. In that case, Avista sought much greater flexibility in planning and implementing its DSM programs. The Staff recommended approval of the request and the Commission granted the requested increased flexibility. But the Staff cautioned in its filed comments that "...the importance of program evaluation will significantly increase with the increased flexibility provided under the new tariffs." (p. 4). And the Commission Findings in Order No. 28138 included the following caution: "We share Staff's concerns regarding the sweeping nature of the proposed changes as they might affect the Company's ability to determine energy savings and appropriate funding We are encouraged by the Company's proposal to

responsible for demonstrating that its Schedule 90 DSM

programs are a cost effective use of its Schedule 91 DSM

surcharge revenues." Order No. 28138 at 4 (emphasis added).

- Q. Is there additional evidence of Avista's general awareness of the necessity of transparent program evaluations?
- A. Yes. In response to Staff Production Request No. 5, Avista stated, "The Engineering group uses the IPMVP (International Performance Measurement and Verification Protocol) guidelines for their EEM verification work."

 Beginning on page 6 of the IPMVP is a good, multi-part explanation for why formal, transparent measurement and verification of energy efficiency measures and programs is important, including the need for increasing energy savings, reducing program costs, improving program management, and increasing public understanding and acceptance of the costs.

Based on the Company's responses to production requests, Avista employees do evaluate at least some DSM projects and other employees diligently track the actual program by program costs and <u>assumed</u> savings, but very few evaluations are available for inspection by the Staff, let alone by the public. In fact, the four project "evaluations" provided to Staff were labeled as "confidential".

Q. Has Staff recommended a prudency finding for

Avista's DSM programs since Order No. 28138 was issued in 1999?

A. Yes, in Case Nos. AVU-E-04-01/AVU-G-04-01, I stated a belief that Avista reasonably and prudently managed its DSM resources from 1999 through October 2003. And in its last rate case (AVU-E-08-01/AVU-G-08-01), the Company, Staff and Parties negotiated Stipulation Paragraph No. 11 that said "The Parties agree that Avista's expenditures for electric and natural gas energy efficiency programs from November 1, 2003 through December 31, 2007, have been prudently incurred." In the former case the Commission found that Avista's DSM efforts were prudent and in the latter case it accepted the negotiated Settlement Stipulation.

- Q. In either the 2004 or the 2008 cases cited above, did the Company provide post-implementation DSM program evaluations?
- A. No, the Company did not volunteer such evaluations and the Staff did not specifically request them. However, the fact that Staff did not request copies of evaluations in the past should not have suggested to Avista that it was no longer expected to evaluate its DSM programs, given that good program management requires such evaluations and that Staff and the Commission clearly stated in 1999 that evaluations would become even more important as a result of the Company's increased flexibility to plan and manage its DSM programs.

- A. In general, I believe that Avista's employees try to perform their DSM planning and implementation duties in a conscientious and cost-effective manner, notwithstanding the Company's need for, and already planned, evaluation process improvements. However, there are a few issues that cause at least some concern. These are: 1) a probable over-statement of savings due to lack of net-to-gross energy savings adjustments; 2) probable over-emphasis of portfolio-level cost-effectiveness; and 3) probable over-emphasis of total resource cost test (TRC) cost-effectiveness.
- Q. Please explain net-to-gross adjustments of energy savings.
- A. Various DSM standard practice manuals² state that gross energy savings observed subsequent to implementation of a DSM program should be adjusted to reflect both estimated savings that would have occurred absent the program and savings that occur due to the program but that fall outside the program's measurement metrics. To the extent that the former outweighs the latter, as it does for many programs, analysts who ignore net-to-gross adjustments overstate the cost-effectiveness of DSM programs.

Q. Do you have other concerns about the prudency of Avista's DSM efforts?

National Action Plan for Energy Efficiency's Model Energy Efficiency Program Impact Evaluation Guide, the California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, and the Electric Power Research Institute's End-Use Technical Assessment Guide (TAG).

A. Avista's policy and tariff says that TRC (total resource cost) cost-effectiveness will be determined for its overall portfolio of DSM programs. Company DSM managers have said that it is not necessary for each measure or program to be cost-effective. But, Commission Order No. 22299 issued in 1989 says that utilities' DSM costs should be no higher than necessary and absolutely no higher than the avoided cost. The Order expected that some resources would be priced at full avoided cost, some at "no losers" cost, and some below "no losers" cost." Clearly, the Commission did not intend for utilities to evaluate cost-effectiveness for entire portfolios without consideration of each measure's cost-effectiveness.

Conceivably, there are some non-cost-effective measures for which it may be prudent for utilities to provide incentives if such measures can be shown to help sell cost-effective measures to customers. But the burden of proof is on the utility to show how the utility's overall cost-effectiveness is increased, rather than decreased, by inclusion of non-cost-effective measures in its portfolio. Failure to do so would be an indication of imprudent DSM management.

It is important to note that while the TRC costeffectiveness test is a useful tool to screen possible DSM
measures and programs, it is not a sufficient costeffectiveness evaluation perspective. One of the reasons for
TRC insufficiency is that this cost-effectiveness test does
not count utility incentives as a cost and therefore it
places absolutely no limits on incentives, in other words
higher incentives always produce higher TRC results, even if
the incentive paid exceeds the actual measure cost or even
the avoided supply cost. Clearly, cost-effectiveness from
the utility cost test (UCT) perspective must also be
evaluated.

It should be noted that in spite of Avista's tariff stating its reliance upon TRC cost-effectiveness, the Company also consistently calculates and says it considers cost-effectiveness perspectives from the UCT, participant test, and non-participant test (ratepayer impact). Still, this tariff language seems to not conform to Order No. 22299.

The non-participant test considers whether energy rates are changed as a result of the program.

The TRC perspective compares the value of avoided supply costs to the total of the utilities' DSM program administrative costs and the direct cost of the measure's labor and materials, including any costs incurred by customers. In the TRC, utility incentive payments are viewed as transfer payments and are ignored.

as transfer payments and are ignored.

The UCT perspective compares the value of avoided supply costs to only the utility's DSM costs, including administration and incentive payments to participants. Non-rebated customer costs are ignored. The UCT is a misnomer in that customers, not utilities, are the ultimate

beneficiaries of programs that pass this cost-effectiveness test.

The participant test compares the net costs (i.e. costs after rebates and tax incentives) incurred by program participants to their personal benefits, e.g. lower bills and increased comfort or production.

Q. What are your recommendations regarding Avista's request for the Commission to find that its DSM expenses from January through November 2008 were prudently incurred?

A. I recommend that the Commission defer prudency determination of Avista's January through November 2008 DSM costs until the Company provides appropriate DSM program evaluations. I anticipate that when the Company is able to provide these evaluations it will be able to request a prudency finding for more than the first 11 months of 2008.

Historically, due to agreements reached when the Company's DSM tariff rider was initiated, Avista has only requested DSM prudency findings in conjunction with general rate case filings. I suggest that the Commission state that it will accept future applications for DSM prudency determinations at any time chosen by the Company, thus potentially severing this non-rate case issue from future rate cases.

Finally, I recommend that Avista's tariff Sheets 90 and 190 be modified by removal of the following sentence:

"The acquisition of resources is cost-effective as defined by a Total Resource Cost test (TR) as a portfolio."

- Q. Does this conclude your direct testimony in this proceeding?
 - A. Yes, it does.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY THAT I HAVE THIS 29TH DAY OF MAY 2009, SERVED THE FOREGOING **DIRECT TESTIMONY OF LYNN ANDERSON**, IN CASE NOS. AVU-E-09-1 & AVU-G-09-1, BY ELECTRONIC MAIL TO THE FOLLOWING:

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