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IDAHO PUBLIC UTILITIES COMMISSION

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION $\hfill)$ Case no. Avu-e-13-OF AVISTA CORPORATION FOR A) CASE NO. AVU-G-13-FINDING OF PRUDENCE FOR 2010-2012) EXPENDITURES ASSOCIATED WITH) PROVIDING ELECTRIC AND NATURAL GAS) DIRECT TESTIMONY ENERGY EFFICIENCY SERVICE IN THE) OF LORI B. HERMANSON STATE OF IDAHO))

FOR AVISTA CORPORATION

(ELECTRIC AND NATURAL GAS)

I. INTRODUCTION

2 Q. Please state your name, employer and business 3 address.

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A. My name is Lori Hermanson. I am employed by
Avista as a Senior Resource Analyst. My business address
is 1411 East Mission Avenue, Spokane, Washington.

Q. Would you please describe your education and
8 business experience?

9 A. I graduated from Walla Walla University in 1994 10 with Bachelor of Science in Business Administration with a 11 concentration in Accounting. I received a Masters in 12 Business Administration from Eastern Washington University 13 in 1999.

14 joined the Company in 1997 Ι in the Budget, 15 Forecasting and Analysis Department. My duties included 16 work associated with corporate Operations and Maintenance as well as Capital budgets. In 2000, I transferred to the 17 18 Delivery Accounting department Energy where my 19 responsibilities included financial and accounting 20 supervision for Demand-Side Management (DSM) among other 21 operational areas of the company. I oversaw the Company's

1 miscellaneous billing and damage claims uncollectibles, 2 plant amortization and corporate revenue. I joined the DSM team in June 2004 to assist in cost-effectiveness and 3 4 related analyses and reporting. I am now managing 5 external evaluation, measurement and verification (EM&V) 6 activities to include process, impact and market studies limited to, conservation potential 7 including, but not 8 assessment studies. I was employed by the Joint Center for Higher Education beginning in 1995 until joining the 9 10 Company in 1997.

11 Q. What is the scope of your testimony in this 12 proceeding?

13 I will report on program cost-effectiveness for Α. 14 2010-2012 as well as the retention and management of external Evaluation, Measurement and Verification (EM&V) 15 16 activities and resulting reports. The evaluated savings 17 (claimed savings adjusted by the realization rate) are 18 used in the attached exhibit and analyses. The process 19 reports are an annual evaluation of the current operations 20 of DSM programs.

Q. Are you sponsoring any exhibits to be introduced
 in this proceeding?

3 I am sponsoring Exhibit No. 3, Schedule 1 Α. Yes. 4 which summarizes Idaho DSM energy savings and levelized 5 costs. Schedule 2 pages 1 and 2 are a summary of Idaho-6 specific cost-effectiveness by regular and low-income 7 for 2010-2012. Additional EM&V programs reports are 8 included as Exhibit No. 3, Schedules 3, and 4. These are: 9 1) Avista 2012 Idaho Electric Impact Evaluation (August 10 30, 2013 prepared by Cadmus) and 2) Avista 2012 Idaho Gas Portfolio Impact Evaluation (July 30, 2013 prepared by 11 12 The 2010-2012 DSM Annual Reports have previously Cadmus). 13 been filed with the Commission as well as impact and 14 process reports on previous program years. External EM&V 15 reports on the Company's DSM activities completed each 16 calendar year were included in the appendix of each DSM 17 Annual Report.

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II. COST-EFFECTIVENESS

Q. Would you please summarize the Company's Idaho
 energy efficiency expenditures for 2010-2012?

During 2010-2012, the Company incurred 1 Α. Yes. over \$20.0 million in electric expenditures and nearly 2 3 \$5.4 million in natural gas expenditures, for a total of over \$25.3 million supporting energy efficiency. 4 Of this 5 amount, more than \$1.7 million was contributed to the 6 Northwest Energy Efficiency Alliance (NEEA) in support of 7 its market transformation ventures. Approximately, 63% of 8 electric expenditures and 68% of natural gas expenditures 9 were returned to ratepayers in the form of incentives. 10 Over \$1 million, or 4 percent of Idaho energy efficiency 11 spent on evaluation of our energy expenditures, was 12 efficiency programs during these years in an effort to 13 continually improve on the design and implementation of 14 our program offerings.

15 Table No. 1 - Summary of Idaho DSM Expenditures 16 (2010 - 2012)17 EM&V as Total NEEA Local EM&V 18 Expenditures Expenditures Percent of Total 19 \$20,010,255 \$18,238,621 \$730,090 Electric \$1,771,634 3.90% Programs 20 \$5,370,602 \$5,370,602 \$314,514 5.90% Natural Gas n/a 21 Programs 22 \$25,380,857 \$1,771,634 \$23,609,223 \$1,044,604 4.10% Total

Q. Would you please summarize the Company's energy
 efficiency-related savings for 2010-2012?

Yes. As shown in Exhibit No. 3, Schedule 1, 3 Α. Lines 13 and 14, from January 1, 2010 through December 31, 4 5 2012, over 109,100 first-year MWhs and 950,822 first-year 6 therms of energy savings were acquired from Idaho DSM 7 This includes the Company's Idaho portion of projects. NEEA savings for 2010-2012 of 12,614 MWh. 8 All local 9 acquisition amounts included in the exhibits are evaluated 10 (verified) gross savings estimates. Gross savings are the 11 reduction in energy consumption resulting from energy 12 efficiency programs, updates in codes and standards, and 13 naturally-occurring adoption.

On a net basis, electric programs achieved 81,610 MWh and natural gas programs achieved 632,380 therms in firstyear savings for this time period. Net savings are reductions in energy consumption that is attributable to an energy efficiency program, net of customers who would have participated in the energy efficiency upgrades without the presence of the utility's programs.

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	Evaluated	Evaluated
	(Gross)	(Net)
Electric Programs	109,100 MWh*	81,610 MWh
Natural Gas	950,822 Therms	632,380 Therms
Programs		

5 * Includes 12,614 MWh from NEEA

Pages 1 and 2 of Exhibit No. 3, Schedule 2 details
the energy savings by regular and low-income portfolios
for both Idaho electric and natural gas DSM programs based
on verified savings.

Q. Were the Company's DSM programs cost-effective?

11 Α. Yes. Idaho electric programs have been cost-12 effective from both Total Resource Cost (TRC) test and 13 Program Administrator Cost (PAC) test perspectives. Page 1 of Exhibit No. 3, Schedule 2, Line 15 shows that the 14 15 2010-2012 TRC benefit-to-cost ratio of 1.91 for the Idaho 16 electric DSM portfolio is cost-effective, with a residual TRC benefit to customers of \$29.9 million (Line 14). 17 The 18 2010-2012 PAC, also known as the Utility Cost Test (UCT), 19 benefit-to-cost ratio of 3.35 (Line 28) is also cost-20 effective, with a residual PAC benefit of nearly \$42.4 21 (Line 27) million. The levelized TRC and PAC costs are 1 \$36.55 and \$19.97 per MWh, respectively, as shown on Page 2 1 of Exhibit 3, Schedule 1, Line 28 and 34. The overall 3 portfolio of measures has a weighted average measure life 4 of approximately 13 years for 2010-2012.

5 Page 2 of Exhibit No. 3, Schedule 2 illustrates Idaho 6 natural gas DSM program portfolio cost-effectiveness under 7 both the TRC and PAC tests. The Company's 2010-2012 TRC benefit-cost ratio was 1.59 (line 16). The 2010-2012 PAC 8 9 benefit cost ratio is 3.33 (line29). Therefore, the Idaho 10 natural gas DSM portfolio passes the TRC and PAC tests for 11 2010-2012. The levelized TRC and PAC costs are \$1.13 and 12 52.8 cents per therm, respectively, as shown on Page 1 of 13 Exhibit No. 3, Schedule 1. The overall portfolio of 14 measures has а weighted average measure life of 15 approximately 21 years for 2010-2012.

16 For cost-effectiveness, the Company includes only 17 those non-energy benefits that documented are and 18 quantifiable and is, therefore, a conservative estimate. 19 There are a number of legitimate non-energy TRC benefits 20 that the Company was unable to quantify with sufficient 21 rigor in order to include within the cost-effectiveness

analysis such as changes in comfort, productivity or
 health.

3 Electric and natural gas cost-effectiveness results
4 are based on evaluated savings acquisition for 2010-2012.

5 Q. Please summarize the Company's conclusions on 6 cost-effectiveness.

7 The Company's expenditure of tariff Α. rider 8 revenue has been reasonable and prudent. The Idaho 9 portfolio of programs covering all customer classes has 10 been offered with a total savings of over 109,100 MWh and 11 950,822 therms during 2010-2012. This was achieved at a 12 levelized TRC cost of \$6.55 per MWh and \$1.13 per therm.

13 The Tariff Rider and energy efficiency programs have 14 been successful. Participating customers have benefited 15 through lower energy bills. Non-participating customers 16 have benefited from the Company having acquired lower cost 17 resources in the form of DSM, as well as maintaining the 18 energy efficiency message and infrastructure for the 19 benefit of our service territory.

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III. EVALUATION, MEASUREMENT & VERIFICATION

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2 Q. What evaluation of the Company's DSM programs 3 have occurred?

4 As noted by Company witness Folsom, Cadmus Α. 5 performed independent (or "third-party") impact and 6 process evaluation on Avista's DSM programs for the 2010-7 2012 time period covered by the Company's request in this 8 case. ¹ Impact evaluation is intended to verify, and 9 adjust as necessary, "claimed" savings. Process 10 evaluation reviews "procedures" for continual improvement.

11 Q. What is the purpose of "Impact and Process" 12 evaluations?

A. Impact evaluation is intended to independently verify "claimed" savings. This results in a realization rate which is applied to the claimed savings resulting in an adjusted estimate of savings or evaluated savings. Process evaluation reviews procedures and implementation of programs for continual improvement.

Q. Please describe the evaluation activities that
Cadmus was hired to conduct.

¹Cadmus was retained, after a competitive Request-for-Proposal process, to perform impact and process evaluations.

1 originally hired Α. Cadmus was to conduct 2 independent process and impact evaluations on the calendar 3 electric 2010 and 2011 and natural vears qas DSM 4 portfolio, to evaluate the deemed savings and underlying 5 assumptions of the Company's TRM, and to provide a high-6 level assessment of the Company's EM&V resources. It was 7 also to provide a gap analysis of potential areas that may 8 need strengthening through increased evaluation in future 9 Since then, Cadmus has been retained for another years. 10 two years to conduct impact and process evaluations, as 11 well as some market analysis for the 2012 and 2013 12 electric and natural gas DSM portfolio. The Company chose 13 to extend this contact as a cost-savings measure to 14 leverage evaluation work already completed while providing 15 a deeper evaluation for the 2012 and 2013 program years. 16 Company plans RFP for independent The to issue an 17 evaluation services for 2014 and 2015 later this year.

18 Cadmus' evaluation efforts included billing analysis 19 as appropriate and actual field measurement as necessary 20 and feasible. In addition, the team provided process 21 evaluation on the portfolio and market evaluation of some key programs, surveying of participants and non participants as well as updates on net-to-gross in areas
 where anomalies existed in past studies.

4 Q. Does that complete your pre-filed direct 5 testimony?

6 A. Yes, it does.