

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-150204

DOCKET NO. UG-150205

REBUTTAL TESTIMONY OF

LARRY D. LA BOLLE

REPRESENTING AVISTA CORPORATION

1 **I. INTRODUCTION**

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

3 A. My name is Larry D. La Bolle and I am employed as the Director of Federal  
4 and Regional Affairs for Avista Utilities, at 1411 East Mission Avenue, Spokane,  
5 Washington.

6 **Q. Would you briefly describe your educational background and**  
7 **professional experience?**

8 A. Yes. Prior to joining the Company in 1990, I earned a Bachelor of Science  
9 Degree in Fisheries Science from the University of Idaho. I have also earned a Master's  
10 Degree in Fisheries Science from Oregon State University. Prior to joining the Company, I  
11 was employed by the Idaho Department of Fish and Game as a fishery research biologist,  
12 and later as regional fishery manager. I spent approximately nine years in the Environmental  
13 Affairs Department and managed the Company's federal relicensing of its Clark Fork  
14 Hydroelectric projects. Since 1999, I have managed economic and community development,  
15 led a pilot joint-venture subsidiary operation with Chelan County PUD, and managed natural  
16 gas and electric operations for Idaho and Southeast Washington. I have worked in my  
17 present capacity since 2005. I serve on several boards, including Northwest River Partners,  
18 Pacific Northwest Utilities Conference Committee, Governor Otter's Idaho Strategic Energy  
19 Alliance, and the College of Natural Resources Alumni Board of Trustees for the University  
20 of Idaho.

21 **Q. What is the scope of your rebuttal testimony in this proceeding?**

22 A. My rebuttal testimony will address the Company's Advanced Metering  
23 Infrastructure (AMI) Project, distribution plant investment, and electric reliability reporting

1 in response to the testimony filed by Public Counsel and the Energy Project witness Ms.  
2 Alexander, Staff witness Mr. McGuire, and Staff witness Mr. Cebulko.

3 **Q. Are you sponsoring any exhibits in this proceeding?**

4 A. Yes. I am sponsoring Exhibit No.\_\_(LDL-2) which is the Company's 2013  
5 Asset Management Distribution Program Update.

6

7 **II. ADVANCED METERING INFRASTRUCTURE (AMI)**

8 **Q. Would you please summarize the Company's position on rebuttal?**

9 A. Yes. Witnesses for Public Counsel/The Energy Project ("PC/EP") (Ms.  
10 Alexander, Exhibit No.\_\_(BRA-1T)), and Staff, (Mr. Nightingale Exhibit No. \_\_(DN-1T))  
11 have raised questions and concerns relating to the implementation of advanced metering  
12 infrastructure ("AMI"). My testimony will address these concerns and set forth the  
13 Company's position on the deployment of advanced metering on rebuttal. Avista remains  
14 committed to achieving high customer satisfaction, which includes, among other things,  
15 offering its customers information and choices that help them manage their energy costs.  
16 The Company views the advanced metering infrastructure as an enabling technology and a  
17 "key platform" supporting this mission. Advanced metering has emerged as a powerful  
18 solution among a range of smart grid technologies that enables utilities to improve  
19 responsiveness to customer needs, improve information sharing with customers, and  
20 ultimately improve overall customer service.

21 The deployment of advanced metering is clearly the direction of the utility industry,  
22 as reflected by rates of penetration today that exceed 43%, and forecasted rates in the range  
23 of 50-70% by the year 2020. Indeed, the electromagnetic meter is fast becoming a 'relic' in

1 the industry. State and federal regulatory policies, as well as those of regulatory  
2 associations, such as NARUC, have also played a role in accelerating the deployment of  
3 advanced metering systems. Avista is not an “early-adopter” of advanced metering.

4       Advanced metering systems today are more robust and reliable than previous  
5 iterations, and technologies are coalescing around proven approaches and standards. And, as  
6 the technology continues to mature, the cost of the meters continues to decline. Avista is  
7 proceeding cautiously and deliberately through the early stages of this effort, and it has been  
8 conservative in arriving at its projections of net benefits, which do not include any financial  
9 value associated with the range of intangible benefits associated with this technology. The  
10 Company’s estimate of implementation costs is, by definition, “preliminary,” but Avista  
11 believes the information provided in its testimony, and as supplemented through discovery,  
12 provides a reasonable basis to support the Company’s decision, in principle, to move  
13 forward. As explained by Mr. Norwood, the Company’s proposal on rebuttal is to remove  
14 new plant investment and new operating expenses related to AMI in the determination of the  
15 electric and natural gas revenue requirements for the 2016 rate period.

16       The Company is, however, intending to proceed with the deployment of advanced  
17 metering, and to that end, it will be entering into contracts with vendors to supply the new  
18 meters, communications systems, and back office computer applications and systems, once  
19 the selections are made. As explained by Mr. Norwood, once that contracts for new meters  
20 are executed, accounting rules would require that the cost of the existing electric meters be  
21 written off (approximately \$21 million), unless the Commission allows the Company to  
22 defer these costs for later recovery. Mr. Norwood also notes that without such a deferral, the  
23 deployment of advanced metering in Washington would be delayed or terminated. Avista is

1 not asking the Commission in this proceeding for a determination of prudence on the dollars  
2 the Company will spend on advanced metering. That would be the subject of a subsequent  
3 proceeding in which the Company would demonstrate that the costs were prudently  
4 incurred. It is important, however, for the Commission to provide guidance to the Company  
5 in this docket as to whether or not advanced metering should be implemented on Avista's  
6 system, with the understanding that a demonstration that the costs were prudently incurred,  
7 to come later.

8 The balance of my rebuttal testimony will speak to the specifics in the testimony of  
9 PC/EP witness Ms. Alexander.

10 **Q. What is your understanding of the position of PC/EP witness Ms.**  
11 **Alexander on the implementation of advanced metering by Avista?**

12 A. I've listed below what I believe to be the key points of her testimony:

- 13 • Ms. Alexander has no inherent disagreement with advanced metering  
14 technology, or smart grid investments;<sup>1</sup>
- 15 • She concludes, however, that Avista's advanced metering project  
16 should not be approved at this time;<sup>2</sup>
- 17 • Ms. Alexander believes that it is likely that the implementation costs  
18 will exceed the benefits;<sup>3</sup>
- 19 • Based on the foregoing, Ms. Alexander recommends that Avista's  
20 proposed inclusion of AMI investment<sup>4</sup> in its revenue requirement in  
21 this case should be rejected.
- 22 • She also encourages the Commission to provide clear guidance to the  
23 parties that its review of information in the current docket should not  
24 be interpreted as providing any sort of pre-approval for future costs.<sup>5</sup>

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<sup>1</sup> As noted in Exhibit No. \_\_ (BRA-1T), page 11.

<sup>2</sup> As noted in Exhibit No. \_\_ (BRA-1T), page 7.

<sup>3</sup> As noted in Exhibit No. \_\_ (BRA-1T), page 9.

<sup>4</sup> As noted in Exhibit No. \_\_ (BRA-1T), page 10.

<sup>5</sup> As noted in Exhibit No. \_\_ (BRA-1T), page 10.

1 **A. EVALUATION OF THE BENEFITS OF THE WASHINGTON ADVANCED**  
2 **METERING PROJECT**

3

4 **Q. Please summarize the benefits identified by Avista in its business case,**  
5 **and which benefits were challenged by Ms. Alexander?**

6 A. Avista’s business case describes a preliminary range of expected customer  
7 benefits (both financial and intangible) that the Company plans to achieve through the  
8 planned deployment of advanced metering in Washington. The Company quantified the  
9 expected financial value associated with 24 areas of benefit, which had a cumulative annual  
10 value of approximately \$15.2 million. Of these quantified benefits, 22 were associated with  
11 operational savings that would either offset the cost of AMI deployment, or benefit the  
12 customer by reducing Avista’s revenue requirement, and two were classified as benefits that  
13 would flow directly to the customer. These benefits are summarized in Table No. 1, below.  
14 The top portion of the table, Section 1, contains the benefits derived from “operational  
15 efficiencies,” the second section includes the benefits assigned as “direct customer benefits,”  
16 and the third section lists those benefits that were not quantified by the Company, which we  
17 refer to as “intangible benefits.”

1 **TABLE No. 1: BENEFITS OF AMI**

	<b>Quantified Annual Benefit</b>
<b>I. Benefits of Operational Efficiencies</b>	
<i>Meter Reading</i>	
Regular Reads	\$ 4,842,671
Special Reads	204,017
<i>Remote Rapid Reconnect</i>	
Account Open, Close, Transfer	1,728,042
After Hours Fees	104,040
Special Cases	25,896
Reduced Customer Call Time	107,242
Reduced Lost Revenue	36,931
<i>Outage Management</i>	
Customer Side of Meter	396,967
Reduced Customer Calls	69,498
<i>Energy Theft and Unbilled Usage</i>	
Unbilled Usage	235,081
Slow/Failing Meters	169,817
Stopped Meters	205,924
<i>Billing Accuracy</i>	
Estimated Bills	266,658
Bill Inquiries	99,756
Billing Analysis	71,338
Rebilling	43,692
<i>Utility Studies</i>	
Retail Load Studies	145,167
Meter Sampling	54,150
<i>Remote Rapid Reconnect/Credit Collections*</i>	
Credit Connections	1,193,060
Credit Collections	453,454
<i>Energy Theft / Theft Diversion</i>	1,053,322
<i>Energy Efficiency / Conservation Voltage Reduction</i>	1,186,709
<b>Total - Operational Efficiencies (82% of total quantified benefits)</b>	<b>\$ 12,693,432</b>
<b>II. Customer Direct Benefits</b>	
<i>Energy Efficiency / Customer Installed Measures</i>	\$ 491,882
<i>Outage Management / Customer Savings</i>	2,218,195
<b>Total - Customer Direct Benefits (18% of total quantified benefits)</b>	<b>\$ 2,710,077</b>
<b>Total Quantified Benefits</b>	<b>\$ 15,403,509</b>
<b>III. Intangible Benefits</b>	
<i>Customer Experience</i>	<i>Future Opportunity for Benefits</i>
Access Interval Usage Data	Rate Options
Customer Home Network Interface	Microgrids and Smart Cities
Energy Alerts	Data Analytics
Customer Privacy	Distributed Generation
	Engineering Studies
*Ms. Alexander did not contest our calculation of this benefit; however, she did express a policy concern associated with this benefit.	

1 While Ms. Alexander expresses areas of concern with respect to many of the benefits  
 2 included by Avista, she specifically critiqued or challenged the methods of calculation used  
 3 by the Company to estimate the financial value of four areas of benefit, as shown in the four  
 4 shaded lines of the table above. In addition to these four, Ms. Alexander does express a  
 5 policy concern related to the use of remote service switching for credit / collections  
 6 disconnects,<sup>6</sup> which I have noted with an asterisk in the table. In the testimony, below, I  
 7 discuss these four areas of benefit (shaded) specifically disputed by Ms. Alexander.

8 **Energy Theft / Diversion of Service (\$1,053,322)**

9 **Q. Turning first to the disputed area of Energy Theft / Diversion of Service,**  
 10 **please describe the issues raised in her testimony associated with this benefit?**<sup>7</sup>

11 A. This benefit derives from the expected reduction in electricity theft associated  
 12 with advanced metering. The determination of this benefit required Avista to make an  
 13 assumption about its likely current revenue losses due to theft. Essentially, this percent of  
 14 revenue represents the magnitude of the potential for improvement. Avista chose a value of  
 15 0.4%, which is substantially below the commonly-reported industry range of 1 – 3%, and is  
 16 consistent with estimates made by utilities who we believe are similarly situated to Avista.

17 Ms. Alexander argues, however, that the industry values cited by the Company do  
 18 not represent the experience of Avista and are reported by utilities that are different from  
 19 Avista in many respects.<sup>8</sup> Because of this, she argues that our estimate is overstated. The  
 20 Company agrees that many of the utilities represented in the industry range of 1 – 3% are

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<sup>6</sup> Regarding Remote Rapid Reconnect, her first critique involves the use of remote service switching in credit / collections disconnects. Because Ms. Alexander recognizes that Avista is already permitted to use AMI for credit disconnects in Washington, her concern really focuses on the broader consideration of customer protection issues as related to the capabilities of advanced metering. In this respect, her testimony recognizes the opportunity for savings in remote service switching for non-credit cases, and does not critique or dispute Avista's calculation of the associated expected benefits associated with remote service switching.

<sup>7</sup> Exhibit No.\_\_(BRA-1T), pages 28-30.

<sup>8</sup> Exhibit No.\_\_(BRA-1T), page 29.



1 substantially different from Avista. It is for this reason that the Company chose to use the  
2 much smaller value of 0.4%.

3 **Q. The testimony of Ms. Alexander states incorrectly, that Avista is**  
4 **claiming an annual savings amount equal to \$2.24 million (instead of \$1,053,322).<sup>9</sup> Can**  
5 **you explain this?**

6 A. It is unclear why Ms. Alexander stated a different (and larger) benefit amount  
7 than was reported by the Company in its business case. We can explain, however, how our  
8 benefit amount of \$1,053,322 was derived.<sup>10</sup> To begin, the Company multiplied the 0.4%,  
9 from above, by the Company's electric-only, residential-only, annual revenues (not the total  
10 electric and natural gas revenues, as stated by Ms. Alexander). Avista then subtracts the  
11 value associated with its currently-known rate of theft detection. From this estimated  
12 financial benefit, Avista then subtracts the labor and equipment costs (using known costs)  
13 that would be required to respond to the additional predicted cases of theft detection. As a  
14 final step in determining what we believe to be a more conservative benefit amount, Avista  
15 made the assumption that we would only detect half of the total potential cases of theft.  
16 Consequently, we divided the remaining estimate of value in half, to yield the expected  
17 annual benefit amount, as stated by the Company in its business case report, of \$1.05  
18 million.

19 **Conservation Voltage Reduction (\$1,186,709)**

20 **Q. Please summarize the objection raised by Ms. Alexander to the estimated**  
21 **benefits predicted by the Company for the optimization of Conservation Voltage**  
22 **Reduction?**

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<sup>9</sup> Exhibit No.\_\_(BRA-1T), page 29.

<sup>10</sup> The approach and calculation of this benefit was explained in the Company's response to Staff\_DR\_114.

1           A.     Her testimony argues that this particular benefit was evaluated as part of the  
2 Company’s Pullman Smart Grid Project and that no incremental benefit was reported for this  
3 measure.<sup>11</sup> Therefore, Ms. Alexander believes that our inclusion of this benefit in our  
4 business case is not warranted. In fact, this measure was not evaluated as part of the Pullman  
5 study, and no conclusion should be drawn from that study. Instead, the estimated savings  
6 were based on the additional reduction in voltage expected by using readings from the  
7 advanced meter to calibrate voltage settings on the feeder, instead of using readings from the  
8 “smart” transformer.

9           **Q.     Overall, then, how would you assess the critique of Ms. Alexander, of**  
10 **Avista’s estimated benefits derived from “operational efficiencies, alone?”**

11           A.     As noted above, she provided a critique, or disputed the actual methods and  
12 assumptions used by the Company for calculating the value for two areas of “operational  
13 benefit,” as shown in the two shaded lines of Section 1 in Table 1, above. For these two  
14 areas of benefit that were critiqued in her testimony (Theft Diversion and CVR  
15 Optimization), Avista has described above why we believe her objections are unwarranted.

16           **Q.     Turning now to the discussion of the “direct customer benefits” as shown**  
17 **in Section 2 of Table 1, above, please describe these benefits, and the concerns noted by**  
18 **Ms. Alexander?**

19           A.     Avista’s business case includes an estimate of the bill savings that would  
20 accrue to customers, arising from customer-installed energy efficiency measures that would  
21 be made by the customer in response to accessing their interval usage data. For this area of  
22 benefit, Ms. Alexander argues that the Company should not have used industry-wide

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<sup>11</sup> Exhibit No.\_\_(BRA-1T), page 30.

1 information<sup>12</sup> in developing its estimates of the customer's response to having access to  
 2 interval energy data, but rather, should have instead used results from its own pilot study in  
 3 Pullman.

4 The other direct customer benefit that would accrue to customers arises from an  
 5 assumed reduction in outage duration, resulting from more efficient outage-restoration  
 6 operations, as enabled by the integration of AMI with Avista's outage management  
 7 application. Ms. Alexander acknowledges the likelihood of outage times being reduced by  
 8 the deployment of advanced metering, and does not challenge the basis of Avista's  
 9 assumption as to the amount of reduction that could reasonably be expected,<sup>13</sup> but  
 10 recommends against using the mathematical model employed by the Company to estimate  
 11 the value of the customer benefits.

12 **Customer-Installed Energy Efficiency Measures (\$491,882)**

13 **Q. Please explain why the Company chose to use industry data as the basis**  
 14 **for estimating the value of this benefit, instead of results from its Pullman pilot study?**

15 A. Avista's Pullman Smart Grid Demonstration Project was part of a larger  
 16 study that focused on the potential of demand-response initiatives, among other objectives.  
 17 As such, the study identified both "control" and "treatment" groups of customers in  
 18 Pullman, for the purpose of evaluating the primary objectives of the Project. Though the  
 19 Company made a significant effort to communicate with customers prior to, and during the  
 20 installation of meters, to minimize concern and opt out, it did not implement a major  
 21 communications campaign to familiarize customers with the availability of interval data or  
 22 other features of advanced metering. The reason such a campaign was not implemented, was

<sup>12</sup> Exhibit No.\_\_(BRA-1T), page 33.

<sup>13</sup> Exhibit No.\_\_(BRA-1T), page 33.

1 to avoid the possibility of biasing the study results by potentially influencing the behavior of  
2 customers comprising the control and treatment groups. Accordingly, Avista did not  
3 implement the kind of communications campaign that we believe necessary to make  
4 customers aware of the availability and potential use of the interval data provided by the  
5 advanced metering, were it to be implemented generally. In addition to this limitation,  
6 relevant sample sizes in the Pilot study were relatively small, which limited the statistical  
7 significance of the conclusions that could be drawn from the data. The Company believes  
8 the results measured in the pilot substantially under-represent the actual potential benefit  
9 associated with both customer adoption and their potential savings. Moreover, the results of  
10 the Pullman study demonstrated that the substantial effort required of customers to access  
11 their interval energy data on Avista's customer website, including the presentation of the  
12 data (which would be more fully developed for ease of access and use under full  
13 deployment), further contributed to the under-represented potential identified in the pilot  
14 study.

15 **Q. Do you believe the assumptions used by Avista, based on industry data,**  
16 **rather than the Pullman study, provide a better basis for estimating the potential value**  
17 **of this benefit?**

18 A. Yes, as a body of information, these results are unlikely likely to generally  
19 suffer from the same limitations as the Pullman study.

20 **Direct Benefits Associated with Reduced Outage Duration (\$2,218,195)**

21 **Q. Turning now to the witnesses Alexander's critique of the Company's**  
22 **estimated customer direct savings resulting from a reduction in outage duration, please**  
23 **summarize the critique?**

1           A.     While Ms. Alexander acknowledges the legitimacy of the basis for this  
2 benefit, she objects to the particular model<sup>14</sup> Avista used to determine its financial value to  
3 customers, as well as the type of sampling methodology employed in development of the  
4 model.<sup>15</sup> She was also critical of the Company’s translation of the model results to actual  
5 dollar benefits that would accrue to customers as a result of reduced outages.<sup>16</sup>

6           **Q.     Please describe the survey methodology used in the model that concerns**  
7 **Ms. Alexander?**

8           A.     The survey method, referred to as “contingent valuation,” is commonly used  
9 as a tool to establish financial values, as derived through the administration of detailed  
10 survey questions. Results are based on the dollar value a person indicates they would be  
11 willing to pay to avoid, or in the alternative, the dollar value they would have to be paid to  
12 experience the particular scenario described in the survey question.

13           **Q.     How is this methodology typically used in a utility setting?**

14           A.     This method is commonly used as a tool to establish the economic value that  
15 customers place on their service reliability. Results are used to determine whether a  
16 particular reliability investment is cost justified. In other words, a project has a positive cost-  
17 benefit when the value customers assign to the avoided outages (as determined in the  
18 survey) exceeds the amount of the investment. Use of these approaches is specified in  
19 industry standards, such as ISO 55001, “Asset management – Management systems –  
20 Requirements.” One of the publications referenced in ISO 55001 is the International  
21 Infrastructure Management Manual (IIMM), 2011 edition, which is generally recognized as  
22 the “how to” book for asset management. It identifies the use of focus groups and user

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<sup>14</sup> Exhibit No.\_\_(BRA-1T), page 35.

<sup>15</sup> Exhibit No.\_\_(BRA-1T), pages 35-41.

<sup>16</sup> Exhibit No.\_\_(BRA-1T), page 35.

1 surveys as a common basis for determining customer values. This type of quantitative  
2 research was used in development of the Interruption Cost Estimator (ICE) model.

3 In a 2005 proceeding in California,<sup>17</sup> the Commission evaluated the general  
4 approaches most-commonly employed to establish the value that customers place on system  
5 reliability. They concluded that each approach has certain advantages and disadvantages,  
6 compared with the others, which they summarized in the resolution. The Commission also  
7 required, for a variety of reasons, that this survey method be included in the subject utility's  
8 Value of Service study. And, in another Value of Service<sup>18</sup> study filed with that Commission  
9 in 2012, this survey method was also employed by the consultant, Freeman and Sullivan, as  
10 one of the tools used to determine the value customers place on system reliability.

11 **Q. Ms. Alexander suggests that there is little or no direct economic benefit**  
12 **associated with avoided outages for residential customers,<sup>19</sup> suggesting that customer**  
13 **results derived from the ICE model may overstate this value. Do you agree?**

14 A. Avista generally agrees that the direct financial impact to residential  
15 customers is much more limited than for commercial and industrial customers. We also  
16 believe the ICE model effectively accounts for this difference in the financial value  
17 associated with residential customers, compared with commercial and industrial classes. The  
18 annual value for residential customers was \$58,864, or 2.7% of the total annual value  
19 estimated by the model as presented in the Company's business case.

20 **Q. Did the Company make allowances in the application of the model in an**  
21 **effort to reduce the likelihood of overstating potential benefits?**

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<sup>17</sup> Resolution E-3922. Public Utilities Commission of California, Energy Division. April 21, 2005.

<sup>18</sup> Pacific Gas & Electric Company's 2012 Value of Service Study. Prepared by the FSC Group. May 17, 2012.

<sup>19</sup> Exhibit No.\_\_(BRA-1T), page 35, lines 22-23.

1           A.     Yes. The model distinguishes between small, medium, and large commercial  
2 customers and assigns a unit value to reduced outage duration that is proportional to the size  
3 class. In an effort to be conservative in estimating the financial benefits, Avista applied the  
4 unit outage cost for medium commercial customers, to the large customer commercial class  
5 for calculating the total benefit. By doing so, the total expected benefit was reduced from  
6 \$2,946,418 to the value reported by the Company in its business case of \$2,218,195, a  
7 reduction of \$728,223. Properly estimating the value for large commercial customers would  
8 have actually increased our estimated benefit amount by 32.8%.

9

10 **B. INTANGIBLE BENEFITS**

11           **Q.     Please identify the intangible benefits that were identified in the**  
12 **Company’s business case?**

13           A.     These include the following:

14                   Customer Experience Benefits

- 15                   • Customer privacy
- 16                   • Customer Home Area Network
- 17                   • Energy Alerts
- 18                   • Access to Interval Energy Use Information

19

20                   Future Opportunity for Benefits

- 21                   • Rate Options
- 22                   • Microgrids and Smart Cities
- 23                   • Data Analytics
- 24                   • Distributed Generation

25

26           **Q.     What is your understanding of Ms. Alexander’s objection to Avista’s**  
27 **assertion that these (and other) intangible benefits should be properly considered in**  
28 **evaluating the prudence of investment in advanced metering systems?**

1           A.     Ms. Alexander suggests that most or all of the these intangible benefits would  
2 require Avista or its customers to incur additional costs that are not included in the  
3 Company’s business case.<sup>20</sup> In particular, she speaks to one benefit, “Rate Options,” and  
4 notes that the Company has not considered or included estimates of the all the costs that  
5 would ultimately be required to implement various options. Among these rate options, she  
6 discusses demand response, time-varying rates, and prepay service, noting in addition, her  
7 general policy concerns with prepay programs.

8           **Q.     How would you respond to this critique?**

9           A.     To begin, the benefits listed under “Customer Experience” above will require  
10 little or no additional investments beyond those included in the Company’s business case, or  
11 above the levels of program spending already included in rates. These benefits, such as  
12 having access to interval data (even if the customer does not choose to take immediate  
13 action), in addition to the improved customer satisfaction associated with greater billing  
14 accuracy, and improved customer service, will have some value for our customers, even  
15 though we have not attempted to quantify their financial value at this point.

16           In terms of future opportunities, Avista believes that the metering system enables the  
17 Company and the Commission to consider the implementation of rate and other options, that  
18 would otherwise not be possible. Advanced metering creates the necessary “platform” for  
19 considering such opportunities. These opportunities will play out over time, and the  
20 associated “value” or “benefit” will be assessed (even though not quantified at this time).

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<sup>20</sup> Exhibit No.\_\_(BRA-1T), page 41.



1 **C. EVALUATION OF THE COSTS OF THE WASHINGTON ADVANCED**  
2 **METERING PROGRAM**

3  
4 **Q. Please summarize your understanding of the concerns of Ms. Alexander**  
5 **regarding the Company's estimated costs of implementing its advanced metering**  
6 **program in Washington?**

7 A. Ms. Alexander highlights the preliminary nature of our estimated costs and  
8 recommends that the Commission not include the investment in advanced metering that was  
9 initially proposed by Company in its revenue requirement.<sup>21</sup> She further identifies several  
10 specific areas of concern where she believes Avista may not have properly included costs in  
11 its business case. I will address these in the testimony, below.

12 **Q. Do you believe the Company's business plan, as presented in this case,**  
13 **provides a reasonable basis to move forward?**

14 A. Yes. Although Avista's estimates are preliminary, they are sufficiently robust  
15 to support the decision, in principle, to move forward with advanced metering. The  
16 estimates of project costs are based on vendor information, industry benchmarks, the  
17 Company's experience installing and managing automated meter reading in Idaho and  
18 Oregon, and its recent experience installing a fully-functional advanced metering system in  
19 Pullman, Washington. As stated in the testimony of Mr. Norwood, Avista has agreed to  
20 remove the proposed AMI investment from its revenue requirement, and is only requesting,  
21 in this case, that the Commission support, in principle, the Company's decision to move  
22 ahead with the project. We believe the cost estimates provided in Avista's business case,  
23 along with the offsetting benefits, supports this request.

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<sup>21</sup> Exhibit No.\_\_(BRA-1T), page 10.

1 **Customer Data Privacy**

2 **Q. What concerns did Ms. Alexander have with respect to issues of**  
3 **customer data privacy?**

4 A. Her testimony suggests that Avista may not appreciate the manner in which  
5 its customers might react to the planned deployment of advanced metering, including having  
6 their interval metering data in the hands of the Company, and that the Company will be  
7 approached by third parties seeking access customer data.<sup>22</sup> She contends that the resolution  
8 of these issues “will require significant regulatory proceedings,” and that such costs were  
9 not included in our business case.

10 **Q. Do you agree that the Company should have included such costs in its**  
11 **budget?**

12 A. No. The Company has successfully rolled out an advanced metering program  
13 in its Washington service area in Pullman, and did not experience any undue problems  
14 associated with the installation. In addition to deployment, the Company has since been  
15 successfully collecting, managing, and protecting the privacy of the interval metering data of  
16 our customers, without issue. One of the reasons we attribute to the success of our  
17 deployment, was the effectiveness of our customer communications, information, and  
18 education campaign. We believe the estimated budget for AMI will adequately support this  
19 effort.

20 **Customer “Opt Out”**

21 **Q. What concern does Ms. Alexander express with respect to the issue of**  
22 **customer “opt out,” and do you agree with her assessment?**

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<sup>22</sup> Exhibit No.\_\_(BRA-1T), page 18.

1           A.     She contends that Avista should expect significant regulatory issues  
 2 associated with customer “opt-out,” and that the Company has not included a budget for  
 3 managing the associated regulatory proceedings.<sup>23</sup> Avista is aware of cases where this issue  
 4 has resulted in the sort of proceedings envisioned by Ms. Alexander. In the Company’s own  
 5 experience, however, we have effectively and successfully managed this potential for “opt-  
 6 out” during deployment of the advanced metering system in Pullman, and automated meter  
 7 reading systems in Idaho and Oregon. Further, the Company has recently (and successfully)  
 8 implemented an “opt-out policy” in its Oregon jurisdiction. Finally, we believe the customer  
 9 communications campaign planned for the program, will directly address the issues of  
 10 concern to customers, and is another key reason we do not expect an undue reaction from  
 11 our customers.

12           **Cyber Security**

13           **Q.     What concern does Ms. Alexander express with respect to Avista’s**  
 14 **estimated costs for cyber security?**

15           A.     Her concern is that our budget estimate is likely understated.<sup>24</sup> Cyber  
 16 security, however, is an ongoing issue that Avista is managing now, and will continue to  
 17 manage to the future. The estimated costs for advanced metering reflect a level of increased  
 18 costs addressing cyber security, which, in our judgment and experience, will be sufficient.

19           **Home Area Network**

20           **Q.     Please describe the critique of Ms. Alexander regarding the Home Area**  
 21 **Network (HAN) listed in the Company’s business case?**

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<sup>23</sup> Exhibit No.\_\_(BRA-1T), page 19.

<sup>24</sup> Exhibit No.\_\_(BRA-1T), page 20.

1           A.     She argues that the Company should have included costs that a customer  
2 might someday pay, if and when they elect to take advantage of the Home Area Network  
3 capability provided by advanced metering. The Home Area Network is a feature enabled by  
4 advanced metering that is clearly a benefit to those customers who are interested in having  
5 access to their real-time energy use usage data. For those customers that choose to  
6 participate, they will assess the value of the benefits along with the cost.

7           **Communications System Costs**

8           **Q.     What additional concern did Ms. Alexander express regarding costs for**  
9 **a communications system that Avista may not have included in its initial budget?**

10          A.     She suggests that Avista may not have included all of the costs for the  
11 communication systems that are required to fully implement advanced metering in  
12 Washington.<sup>25</sup> She cites, as the basis for this concern, the information filed by Avista  
13 describing its initial evaluations of a multi-use communications network that, if  
14 implemented, would provide an alternative to the networks contemplated in the business  
15 case. It should be remembered that this multi-use communications network is an alternative  
16 to the complete and functional communications network that is contemplated in its business  
17 case, and for which initial cost estimates are also included.

18

19           **D. NEED FOR ADDITIONAL WORKSHOPS**

20           **Q.     What is Avista's response to the recommendation of Staff witness Mr.**  
21 **Nightingale that the Commission hold workshops in connection with the advanced**  
22 **metering proposal of Avista?**

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<sup>25</sup> Exhibit No.\_\_(BRA-1T), page 7.

1           A.     The Commission held a workshop discussion earlier this year, during which  
2 time Avista was asked to present a detailed plan for its Washington advanced metering  
3 project. All parties were invited to participate in the workshop, and the Company  
4 appreciated the opportunity to have an open and informative exchange prior to filing this  
5 case. At this point, Avista believes the information provided in its testimony, and as  
6 supplemented through discovery, provides a reasonable basis to support the Company's  
7 decision, in principle, to move forward. In the meantime, Avista will continue to make itself  
8 available to discuss its plans for implementing advanced metering in Washington.

9

10

**III. DISTRIBUTION PLANT INVESTMENT**

11

**Q.     Was Avista surprised by Staff witness Mr. McGuire's comment that he  
12 has "no idea" why the Company's distribution plant investment has been growing?<sup>26</sup>**

13

A.     Yes, we were. In recent rate cases, the Company has discussed, in testimony  
14 and through discovery, the need to replace aging infrastructure, its efforts to modernize its  
15 distribution system, and the high costs to replace infrastructure.

16

**Q.     Would you respond to the suggestion of Staff that Avista's rationale for  
17 distribution plant investment is apparently system reliability<sup>27</sup>?**

18

A.     Avista does consider maintaining system reliability as a very important  
19 objective when making investment decisions, but it is certainly not the only factor  
20 considered. In addition to reliability, the Company invests in distribution plant for a variety  
21 of reasons. Some include safety, code requirements, clearance requirements, storm cleanup,  
22 road and street relocations, environmental requirements, and energy efficiency mandates, as

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<sup>26</sup> Exhibit No. \_\_\_\_ (CRM-1T), page 23, line 4

<sup>27</sup> Exhibit No. \_\_\_\_ (CRM-1T), page 20, lines 14-20, page 23, lines 3-11, and page 24, lines 5-11.

1 required by Initiative 937. All of these elements figure prominently as important factors  
2 behind the Company's increasing distribution plant investments.

3 **Q. What information did Avista provide in this case that supports the**  
4 **Company's current and planned level of investment, including the recent increase in**  
5 **the amount of distribution plant investment?**

6 A. In this case, Avista has provided all of its capital project business case  
7 documents<sup>28</sup>, which include all of the major programs governing distribution plant  
8 investment. In addition to these business cases, the testimony of Company witness Mr. Cox<sup>29</sup>  
9 provides a table listing the 24 different asset management programs and individual projects  
10 that comprise the Company's current and planned investment in electric distribution plant in  
11 Washington. Mr. Cox also provides a narrative description of these programs, which  
12 discusses such topics as need, options, costs, challenges, expected savings, and present and  
13 future expenditures. Through discovery in this case, the Company has also provided to Staff  
14 and others the actual asset management planning documents for several of its capital  
15 programs that are associated with distribution plant investments. The asset management  
16 plans address the issues, need, cost effectiveness, and other analyses required to support the  
17 prudence of the Company's distribution plant investments.

18 Through discovery, the Company also provided additional details for many of the  
19 capital projects related to Electric Distribution Asset Management<sup>30</sup>, including the  
20 Company's 2013 Asset Management Distribution Program Update (Program Update),  
21 included as Exhibit No.\_\_(LDL-2) to my testimony. This Program Update details each of  
22 the sub-programs within Electric Distribution Asset Management, which include:

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<sup>28</sup> Exhibit No.\_\_(KKS-5).

<sup>29</sup> Exhibit No.\_\_(BAC-1T), page 26.

<sup>30</sup> ICNU Data Request Nos. 24, 113, and 182. Public Counsel and the Energy Project Data Request No. 1.

1 Distribution Wood Pole Management, Wildlife Guards, Underground Residential District  
2 Cable (URD) Replacement, Grid Modernization, Transformer Change-Out Program,  
3 Vegetation Management, and many other smaller programs. For each of the programs, the  
4 Program Update describes key performance indicators and metrics for determining success  
5 as well as results for the prior year. The Asset Management Distribution Program Update  
6 also documents the impacts of current programs and projects implemented based on Asset  
7 Management work. Accordingly, the Company has furnished a wealth of information in  
8 support of its distribution plant investment.

9 **Q. During this case, did Staff otherwise challenge the particulars of Avista's**  
10 **distribution plant investment, its cost-benefit analysis, or the prudence of any**  
11 **distribution plant investment?**

12 A. No, it did not.

13 **Q. Can you briefly describe the Company's asset management approach to**  
14 **optimizing and managing the lifecycle costs of various assets in its system?**

15 A. Yes. The Company regularly reviews and assesses all elements of its Asset  
16 Management effort through program plans that document the management of its facilities,  
17 along with metrics of results and impacts associated with that investment. Through the  
18 active management of each individual asset type, and overall review of the entire Asset  
19 Management program, the Company is able to better-optimize its system investments. The  
20 Company looks at many factors when determining how it should manage a type of asset and  
21 the associated costs, such as safety, reliability, avoided costs, operational ability, capital  
22 offsets, code requirements, clearances, street relocations, and others. All planning and

1 assessment is done for the benefit of our customers, and with the safety of our employees in  
2 mind.

3 **Q. Has the Company's asset management focus been largely responsible for**  
4 **the growth in the Company's distribution plant investment?**

5 A. Yes. As Avista has moved additional assets into its overall program, and has  
6 used new models and methods of analysis to better optimize lifecycle asset investments, the  
7 results have prompted the Company to increase the level of its distribution plant investment.

8 **Q. Would you refer to this growth as "aggressive,"<sup>31</sup> or as out of balance**  
9 **with other plant investment, as suggested by Staff?**

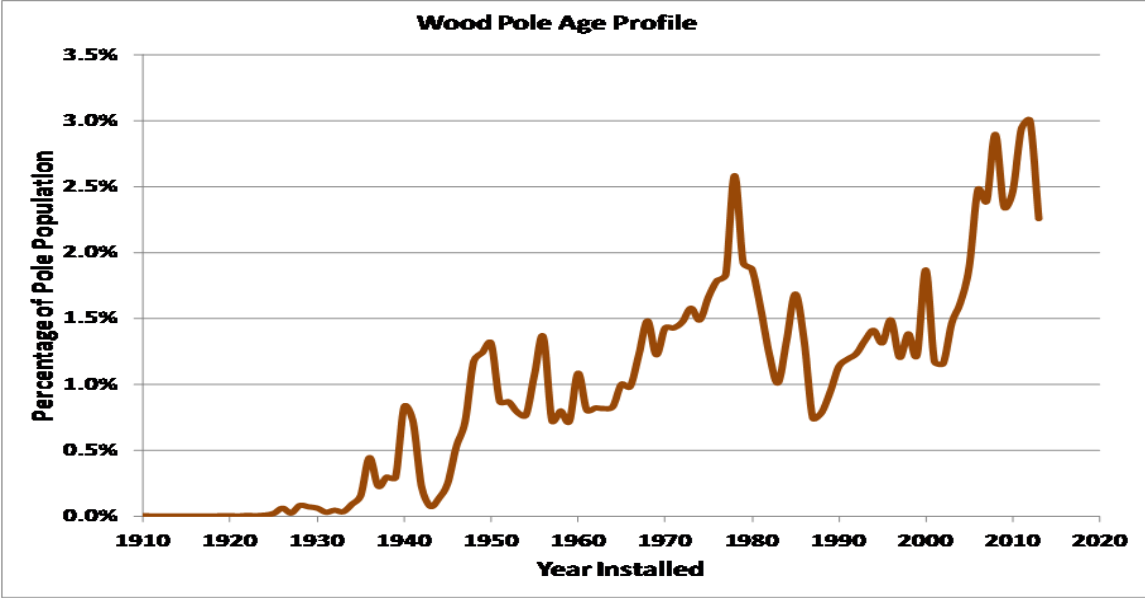
10 A. No. The rise in investment is supported by analysis and prudent decision-  
11 making, and has been increasing consistent with the overall need and level of the  
12 replacement cost associated with the Company's distribution plant-in-service. One example  
13 that helps to illustrate why distribution plant investments are rising is the Company's  
14 Distribution Wood Pole Management program. Based on an optimized replacement age of  
15 74 years, the following chart shows that the number of poles reaching 74 years in age has  
16 risen fairly rapidly in recent years.

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<sup>31</sup> Exhibit No. \_\_\_\_ (CRM-1T) at page 21, lines 1-9.



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As a greater percentage of the poles reach the end of their useful life, it requires a greater annual investment just to maintain the current level of reliability associated with this asset group. This program is just one example, but it is reflective of the many assets on our system that have a very long life cycle. As mentioned above, details on the justification of each Asset Management program were included in the business cases and supporting documents filed in this case.

It is important to note that the Distribution Wood Pole Management program, by itself, only restores a feeder to its original design since everything else remains the same except for the pole itself. If the feeder was built prior to 1965, Avista is required to update the line to meet the 1965 version of National Electric Safety Code (NESC), a comprehensive and expensive activity that is not part of the program for wood poles. This is one of the reasons we created the Grid Modernization Program, to bring feeders up to today's standards, as well as to add smart technology that allows us to better control our system. This work has also increased the investments we are making in the Distribution System.

1 **IV. ELECTRIC RELIABILITY BENCHMARKING**

2 **Q. What is Avista’s response to Staff’s conclusion that it doesn’t know**  
3 **where Avista’s reliability “should be?”<sup>32</sup>**

4 A. In the Company’s view, Staff is focused on finding a solution to a problem  
5 that has neither been identified nor defined. There is no indication that our past or present  
6 reliability performance is of concern. The Company’s recent reliability trends (since 2005)  
7 have been generally stable, and Avista’s expected trend is also relatively stable. In other  
8 words, we haven’t had problems, we’re not having problems today, and we don’t expect  
9 problems going forward, given what we know about our system and our customers at this  
10 point in time. Secondly, as described below, our customers say they are satisfied with their  
11 current level of power quality and reliability. And, finally, as described above, Avista has  
12 provided Staff with more-than-ample evidence that demonstrates that its plant investments,  
13 both on an individual and collective basis, are reasonable, justified and prudent. And, these  
14 investments are expected to generally maintain the current levels of reliability, over the  
15 longer term, which is experienced by our customers today. That is really the objective of our  
16 disciplined approach to Asset Management

17 **Q. You mentioned customer satisfaction as it relates to system reliability.**  
18 **Please describe how the Company uses this information in evaluating and improving**  
19 **customer satisfaction with Avista’s system performance?**

20 A. Avista relies, in part, on results of the J.D. Power utility customer surveys to  
21 provide an additional measure<sup>33</sup> of our customers’ satisfaction, which includes satisfaction  
22 with our power quality and reliability. In its research, J.D. Power has identified, in addition

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<sup>32</sup> Exhibit No. \_\_\_\_ (CRM-1T) at page 24, lines 5-7 and Exhibit No. \_\_\_\_ (BTC-1T) at page 2, lines 13-14 and page 7, lines 1-10.

<sup>33</sup> In addition to Avista’s own “Voice of the Customer” survey.

1 to physical system reliability, several utility practices that contribute to a customer's  
2 satisfaction with its utility's power quality and system reliability. These include whether or  
3 not, and how effectively, the utility provides its customers: 1) a notice that it is aware of  
4 their outage situation; 2) map-based outage information available online; 3) estimated and  
5 accurate restoration time for an outage; and 4) a call back to the customer after restoration is  
6 complete, to ensure the their service has been restored. These measures recognize the  
7 importance customers assign to the number of outages they experience each year, and the  
8 duration of outages. Avista has implemented these practices into its outage management  
9 process, helping it achieve the highest customer satisfaction for power quality and reliability  
10 for investor-owned utilities in Washington in 2014.<sup>34</sup>

11 **Q. Could Avista reasonably justify investing even more capital in an effort**  
12 **to increase the level of long-term reliability?**

13 A. Yes. Electric outage events are not only inconvenient for our customers, but  
14 they can also have financial consequences for especially our commercial and industrial  
15 customers. We believe, however, as described above, that planned investments, expected  
16 levels of performance, and our levels of customer satisfaction represent a reasonable  
17 balance; one that provides cost-effective value for our customers and meets their  
18 expectations. In conclusion, our reliability performance remains strong and meets the  
19 expectations of our customers.

20 **Q. Has Staff suggested the need to build a mathematical model that would**  
21 **provide relevant peer-to-peer comparisons of system reliability, as a means to guide the**  
22 **level of reliability investment made by the Company?**

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<sup>34</sup> J.D. Power and Associates, McGraw Hill Financial, "2014 Utility Residential Customer Satisfaction Study."

1           A.     Yes.  Witnesses Mr. McGuire and Mr. Cebulko expressed their desire to  
2     develop an econometric model for this purpose during the development of the Company’s  
3     Service Quality Measures Program, and in this case.<sup>35</sup>

4           **Q.     What is the Company’s view of the modeling effort proposed by Staff?**

5           A.     Avista does not believe Staff requires additional tools or information to  
6     enable it to fairly and reasonably answer the question it has raised about the appropriateness  
7     of the Company’s level of reliability investment.  In addition to our perspective on the lack  
8     of a need for such a model, we believe the effort would be complex and intensive, and that it  
9     would be challenging to obtain enough consistently-reported information from enough  
10    different utilities to ensure the validity of the results.  And, that said, any results would still  
11    have to be reconciled with Avista’s asset management and analysis-driven investment plans,  
12    its levels of customer satisfaction, and the rate pressure that would be associated with an  
13    increased level of investment.  The time would be better spent developing an understanding  
14    of the comprehensive Asset Management Program already in place.

15          **Q.     Does Avista need to have assigned reliability targets, as proposed by**  
16    **Staff, in order to prudently manage its distribution system investment and system**  
17    **reliability for its customers?**

18          A.     No.  It would not provide a useful basis for understanding what is driving the  
19    Company’s system reliability, the degree of our customers’ satisfaction, and the need for and  
20    the efficacy of the Company’s investments when balanced against the costs to achieve.

21          **Q.     Has the Company proposed an alternative to reliability benchmarks that**  
22    **can be used by the Commission as a means to evaluate the Company’s current and**  
23    **expected reliability performance, and plans for investment?**

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<sup>35</sup> Exhibit No. \_\_\_\_ (CRM-1T).

1           A.     Yes. The approach advocated by Avista is now part of the Company's Service  
2   Quality Measures program, recently approved and implemented by the Commission. The  
3   parties need to develop some experience with this program before embarking on additional  
4   efforts to model or "benchmark" reliability.

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

6           A.     Yes.