

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND
TRANSPORTATION
COMMISSION,

Complainant,

v.

AVISTA CORPORATION, D/B/A
AVISTA UTILITIES,

Respondent.

DOCKETS UE-160228 and
UG-160229 (*Consolidated*)

**PUBLIC COUNSEL AND THE ENERGY PROJECT
JOINT POST-HEARING BRIEF ON AMI ISSUES**

November 7, 2016

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I. INTRODUCTION

1. For the second general rate case in a row, Avista has proposed to include in rates amounts associated with its proposed investment in Advanced Meter Infrastructure (AMI) as part of a multi-year, \$290.1 million investment. The current estimates of capital expenditure costs included in the Company's direct testimony is \$166.7 million, with expected incremental operations and maintenance (O&M) costs of \$123.4 million, resulting in the total estimated cost of \$290.1 million (expressed as cash value).¹ The Company expects to deploy meters to 253,000 electric customers and 155,000 natural gas customers over six years, beginning in 2017.
2. Avista points to other utilities deploying AMI as a partial justification for its proposal. Nonetheless, Avista does not seek to justify its AMI deployment on specific customer demand response and time-varying rate programs designed to lower generation supply costs, unlike virtually all other utilities that have deployed smart meter technology.² Additionally, Avista is neither benefiting from federal grants under the American Reinvestment and Recovery Act, which resulted in a surge in AMI deployment, nor motivated by a legal mandate for smart meters.³ Avista's investment in AMI is discretionary, and careful examination of the proposal is required before the costs are allowed to be recovered from ratepayers.⁴
3. The Commission should reject Avista's proposed investment in AMI. Avista's request for cost recovery and determination of prudence continues to be premature. Just as Avista's request for cost recovery in its last case was premature, its request in this case is similarly premature.

¹ Direct Testimony of Heather L. Rosentrater, Exhibit No. HLR-1T at 19-20.

² Direct Testimony of Barbara R. Alexander, Exhibit No. BRA-1T at 13:3-5.

³ Alexander, Exhibit No. BRA-1T at 13:5-12.

⁴ Alexander, Exhibit No. BRA-1T at 13:12-14.

4. However, the Commission’s analysis should not end there. Avista’s business case is fundamentally flawed in its cost-benefit analysis. Thus, Public Counsel and The Energy Project request that the Commission rule upon certain claimed benefits and methodologies reflected in the Company’s business case. The record demonstrates that certain benefits discussed in this joint brief are not appropriate to be used to substantiate investment in AMI, and the Commission should provide guidance in its order in this case. If these fundamental flaws go unaddressed, the issues will likely arise in repeated litigation in the future until they are addressed.

II. AVISTA’S AMI PROPOSAL IS PREMATURE, NOT USED AND USEFUL, AND NOT RIPE FOR COMMISSION DETERMINATION.

5. Even though Avista seeks a prudence review of its proposed AMI investment, this case once again presents a proposal that is not ripe for a prudence review. Avista filed this rate case before contracts necessary to deploy AMI were formalized and long before full deployment will occur. Barbara Alexander, testifying for Public Counsel and The Energy Project, aptly noted that, “Avista is once again asking this Commission to make a determination of Avista’s costs and benefits based on predictions and estimates without concrete and factual information based on actual performance.”⁵

6. Commission Staff agrees and recommends that the Commission decline to make a prudence determination pertaining to the Avista’s AMI investment again in this case. Staff witness David Nightingale stated that, “To allow or suggest pre-approval would be counter to the Commission’s prudence practice and would limit the Commission’s ability to hold the Company

⁵ Alexander, Exhibit No. BRA-1T at 10:7-9.

accountable after the fact for appropriate expenditures and levels of expenditures for capital additions and operation.”⁶

7. In total, Avista seeks to include \$4.9 million in after-attrition adjustments, with \$3.8 million for electric and \$1.1 million for natural gas rates.⁷

A. Avista’s proposal violates the Commission’s long-standing prudence standard, which requires that the utility investment be complete and in service before prudence can be evaluated.

8. An essential component of evaluating a utility’s expenditure for prudence is assessing what the utility considered at the time of its decision, and how it managed risks as the project progressed. Prudence cannot be determined at the beginning of a project, or before the project has been completed. It is not until the end of a project that prudence can be fully evaluated. To that end, the Commission has established a test to evaluate prudence:

The test the Commission applies to measure prudence is what would a reasonable board of directors and company management have decided given what they knew or reasonably should have known to be true at the time they made a decision. This test applies both to the question of need and the appropriateness of the expenditures. The company must establish that it adequately studied the question of whether to purchase these resources and made a reasonable decision, using the data and methods that a reasonable management would have used at the time the decisions were made.⁸

9. Additionally, the Commission has provided additional guidance regarding evaluating a utility’s decision to acquire additional resources. In particular, the utility must determine (1) whether the new resource is necessary and must determine how to fill the need in a cost-effective manner, (2) the utility must analyze the resource alternatives, (3) the utility should inform its

⁶ Direct Testimony of David Nightingale, Exhibit No. DN-1T at 7-8.

⁷ Rosentrater, TR. 223:14-24.

⁸ *Wash. Utils. & Transp. Comm’n v. Puget Sound Energy*, Docket UE-031725, Order No. 12 ¶ 19 (Apr. 7, 2004).

board of directors about the purchase decision and costs and involve the board of directors in the decision process, and (4) the utility must keep adequate contemporaneous records that will allow the Commission to evaluate the utility's decision process.⁹

10. In this case, Avista is attempting to piecemeal the prudence review for its AMI investment. If Avista moves forward with its proposed AMI investment and deploys smart meters across its Washington service territory, it will incur a substantial cost. It follows that Avista will seek the recovery of its capital and O&M costs associated with AMI from ratepayers, along with a return on its investment. No amount will be included in rates unless the Commission determines that the investment was prudent, the amount is known and measurable, and the new plant is used and useful.¹⁰ Avista's proposal, however, presents several problems under the Commission's standards.

11. First, Avista now appears to be proposing to include portions of its AMI investment year by year in chunks rather than presenting the entire investment to the Commission after it has been fully completed. This presents a number of challenges under the Commission's prudence standard. AMI is a multi-year investment, and the full scope of the investment is not known until it is completed. Because prudence involves evaluation of both the utility's decision-making process and the appropriateness of expenditures, prudence can only be evaluated after AMI is fully deployed.

12. Second, many benefit categories relied upon by the Company are based on 20-year projections. In the short run, the costs will exceed the assumed benefits during the initial

⁹ *Id.* ¶ 20.

¹⁰ RCW 80.04.250; *Wash. Utils. & Transp. Comm'n v. Avista Corp.*, Dockets UE-090134 and UG-090135, Order 10 ¶ 46 (Dec. 22, 2009); *Wash. Utils. & Transp. Comm'n v. Pacific Power & Light Co.*, Docket UE-140762, Order 08 ¶ 167 (Mar. 25, 2015).

five-year deployment period. For example, the revenue requirement for both gas and electric customers will increase two percent or more through year six of the analysis, over 1.5 percent for years two through 10, and increases of less than one percent until year 15. As a result, customers will not see an actual rate decrease to reflect Avista’s predicted operational benefits until year 15 of the 21-year analysis.¹¹ As Ms. Alexander noted, “it is not possible for the Commission to rely on Avista’s estimates of AMI impacts on future revenue requirements and customer bills, as there is no basis for the assumption that the savings will occur as predicted.”¹² As a result, it is critical that the Commission require evidence from Avista that demonstrates a high probability that the benefits will materialize – and at the levels assumed by Avista. In this case, Avista fails to meet this condition.

13. Third, even though some contracts have now been signed, the contracts have not been fulfilled and fully performed. Until the contracts have been fully performed, and until the investment is completed, the cost is not known and measurable. The costs may differ from the amounts contained in the contracts, the timing may differ, or other contingencies may occur. Staff witness Mr. Nightingale testified about some of the uncertainties in his direct testimony and during the evidentiary hearing. Importantly, Avista still has not entered into all contracts necessary to complete its investment in AMI. As noted by Mr. Nightingale, Avista has not yet entered into contracts for meter deployment.¹³

14. Avista’s proposal does not comply with the Commission’s prudence standard. The appropriate time to evaluate a utility’s investment is after the investment has been made and after

¹¹Alexander, Exhibit No. BRA-1T at 15-16.

¹² Alexander, Exhibit No. BRA-1T at 17:8-10.

¹³ David Nightingale, TR. 246:23 – 247:18 and 248:1-5.

the investment is placed into service. In this case, the appropriate time to evaluate prudence for AMI is after Avista has deployed AMI across its service territory, after the new meters are installed, and after the new meters are used and useful. Only then can Avista bring its decision to invest in AMI, evidence of the costs it has incurred, and an evaluation of the benefits to the Commission in an attempt to seek cost recovery through rates.

15. Instead of presenting its request for cost recovery at the appropriate time, Avista presents its case prematurely. In doing so, it shows that the assumptions it uses in its business case are unreasonable. As a result, ratepayers are at significant risk of experiencing costs that will exceed benefits. Additionally, Avista relies on benefit categories that are inappropriate and should be either reduced or eliminated, making it highly likely that Avista's proposed investment in AMI is not cost-effective.

III. AVISTA'S JUSTIFICATION FOR AMI BASED ON NATIONAL TRENDS IS NOT RELEVANT.

16. Avista relies heavily on the argument that everyone-else-is-doing-it to justify why it needs to install AMI across its Washington territory, but this is a poor reason to invest in AMI. Any investment in AMI must be cost-effective, as required under the Commission's prudence standard and as encouraged under a 2007 NARUC resolution included as Avista witness Heather Rosentrater's Exhibit No. HLR-4.¹⁴

17. More importantly, Avista's proposal and justification for imposing these costs on customers is unlike other AMI deployments. Avista has not demonstrated that it is familiar with the benefit categories and methodologies for determining the cost-benefit analysis in other

¹⁴ Alexander, Exhibit No. BRA-1T at 14:1-11.

jurisdictions. Conversely, Ms. Alexander is familiar with such analysis, and her testimony documents key ways that Avista's proposal fails to include typical benefits. First, some benefits, such as those relating to reducing the price of electricity or peak demand, are excluded entirely from Avista's analysis as unquantified benefits. Second, several of Avista's benefit categories are without precedent in other U.S. regulatory decisions on AMI, such as savings related to Avista's storm restoration costs and the hypothetical customer avoided costs associated with reduction in outage duration.

18. Additionally, Avista states that AMI would provide a platform on which to offer future programs, but does not analyze the need for those programs, the costs associated with the programs, or the results of the programs. The Commission should reject Avista's proposal to justify its AMI investment in part on these so-called "unquantified benefits" or future programs.

19. Lastly, relying on national trends to substantiate its AMI investment also does not reflect Avista's customer base and the affordability of essential electric and gas service. A large portion of Avista's customer base is low-income and will have a lower likelihood of being able to take advantage of the capabilities that AMI will provide. They will bear the cost burden if the project is included in rates, regardless of whether they realize the benefits. The characteristics of Avista's service territory must be considered in evaluating the Company's proposal.

IV. AVISTA'S AMI BUSINESS CASE IS FUNDAMENTALLY FLAWED, AND IT IS HIGHLY LIKELY THAT COSTS WILL EXCEED BENEFITS UNDER REASONABLE ASSUMPTIONS.

20. Avista's request for prudence review is untimely, but even if the Commission were to consider the prudence of Avista's AMI investment, Avista has failed to establish that its proposed AMI investment is cost-effective. Ms. Alexander calculates that Avista's estimated

lifetime benefits should, at a minimum, be reduced from \$241.7 million to \$195 million. This will result in the present value costs exceeding benefits by \$20.2 million.¹⁵ Thus, under reasonable assumptions, the costs Avista is likely to experience will exceed benefits, and several categories of benefits are illusory and should not be relied upon.

A. Avista's cost estimates fail to include likely future costs.

21. Avista's AMI plan includes costs associated with meter data management, head end systems, collector infrastructure, data analytics, meter deployment, energy efficiency, and regulatory process.¹⁶ However, the costs of developing programs that are typically used with AMI are not included in Avista's proposal.¹⁷ Examples of such programs include time-varying rates, efficiency programs, or demand response programs.¹⁸
22. Additionally, the Company may require additional cyber security expenses especially in light of the Friday, October 21 internet of things attack. Ms. Alexander concluded, based on representations by the Company that Avista intends to fund ongoing cyber security policies and programs through general rates.¹⁹ Avista denies that additional costs may be required to address cyber-security.²⁰ The October 21 attack demonstrated that the internet of things is vulnerable, and Avista's system and the smart appliances connected to it will be no different.

¹⁵ Alexander, Exhibit No. BRA-1T at 59:11-14.

¹⁶ Direct Testimony of Heather L. Rosentrater, Exhibit No. HLR-1T at 22:1-4, Table No. 3.

¹⁷ See Alexander, Exhibit No. BRA-7.

¹⁸ Alexander, Exhibit No. BRA-1T at 20:7-8. Avista does not propose demand response, nor does Avista have a current need to reduce peak load on its system. Rosentrater, TR. 196:17-23 and 197:15-19. TOU also enables the utility to adequately use its system as currently designed.

¹⁹ Alexander, Exhibit No. BRA-1T at 20:10-12, n.17 (\$2.013M per Exhibit No. BRA-8).

²⁰ Alexander, Exhibit No. BRA-1T at 20:10-12.

23. Avista has likewise inadequately addressed customer privacy issues associated with more detailed interval usage data.²¹ Avista’s business case acknowledges that its AMI proposal will enable it to collect “very detailed energy-use data for each customer.”²² The Company only states that it will ensure that the instruction and technology for authorizing and completing the process of sharing the customer’s information with a third party is readily available, safe, and easy to use.²³ This is wholly inadequate, as is Avista’s argument that its AMI proposal increases a customer’s privacy because Avista meter readers no longer enter a customer’s property.²⁴
24. Many privacy concerns arise from collection of data, including how to keep the data from being improperly transferred, how to obtain the necessary consent to transfer data, who owns the data and has access to the data, etc. Thus, actual costs incurred by Avista are likely to be higher than estimated in the business case for Avista to adequately safeguard customer data.²⁵ Furthermore, the costs of developing an opt-out option and community outreach program are likely to be underestimated.
25. Avista witness Ms. Rosentrater testified that the Company’s intent for determining the baseline costs for operational categories and its impact on AMI would involve a collaborative process in the future, and not one that is currently in place.²⁶ This anticipated collaborative process is another example of likely increasing future costs that are not presented in Avista’s business case.

²¹ Alexander, Exhibit No. BRA-1T at 20:10-12.

²² Rosentrater, Exhibit No. HLR-3 at 27.

²³ Alexander, Exhibit No. BRA-1T at 28.

²⁴ Rosentrater, Exhibit No. HLR-1T at 18:18.

²⁵ The fact that we are discussing estimated costs illustrates the issue with the proposal being premature. Prudence is evaluated after costs are known and measurable, and if they are estimated, they are by definition not known and measurable.

²⁶ Rosentrater, TR. 200:12-22.

B. Key categories of benefits should be eliminated while other categories reflect unreasonable assumptions.

26. Avista’s business case assumes many operational benefits will arise from installation of smart meters. As compared with Avista’s 2015 general rate case, Avista presents significant increases in estimated benefits. Avista also adds new categories of benefits.

27. Ms. Alexander summarized and presented the significant differences in Avista’s AMI business case in this proceeding compared to its 2015 AMI business case.²⁷ Avista’s new estimates of (1) outage management, (2) conservation voltage reduction, and (3) energy theft and unbilled usage account for the majority of the increases in estimated benefits, as illustrated in Table 1 below:

TABLE 1: AVISTA’S INCREASED BENEFITS ESTIMATES

Area of Benefit	2016 Case	2015 Case	Percent Change
Meter Reading/Meters	\$75.9 M	\$63.4 M	20%
Outage Management	\$40.3 M	\$33.7 M	20%
Conservation--CVR	\$56.8 M	\$14.9 M	280%
Energy Theft/Unbilled	\$28.8 M	\$20.9 M	38%

28. The following categories include new benefits, which were not presented in the 2015 business case:

TABLE 2: AVISTA’S NEW BENEFITS CATEGORIES

Benefit	Amount	Category
Net Metering	\$4.6 M	(Meters)

²⁷ Alexander, Exhibit No. BRA-IT at 19.

Salvage Value	\$.148 M	(Meters)
Local Economy Jobs	\$1.8 M	(Meters)
Restoration Efficiencies	\$3.2 M	(Outage)
Additional Conservation	\$.4 M	(Conservation)

29. Several of these benefits will not materialize or should be reduced. Other assumed benefits are inappropriate to justify Avista’s investment in AMI. Ms. Alexander’s analysis concluded that, at a minimum, the following benefit estimates should be eliminated or amended in Avista’s business case:²⁸

TABLE 3: RECOMMENDATIONS

Benefit	Avista	Alexander
Energy Theft	\$19,768,167	\$4.9 million (75% reduction)
Restoration Efficiencies	\$3,158,142	0
Remote Disconnection	\$12.2 million	\$4.68 million (61.6% reduction)
Customer Conservation	\$4,270,246	0
Avoided Outage Costs	\$32,817,495	0

30. As a result, Avista’s estimated present value of the AMI costs of \$215.2 million will exceed the more realistic estimates of benefits by \$20.2 million. This calculation does not reflect the concerns identified by Ms. Alexander with the questionable CVR benefit level, which Avista has significantly increased for this AMI business case compared to its 2015 version.

²⁸ Alexander, Exhibit No. BRA-IT at 59.

- 1. Avista's business case incorporates benefits that should be reduced or eliminated.**
 - a. The Commission should eliminate the benefit claimed based on eliminating the premise visit for disconnection for non-payment.**

31. Avista claims operational savings related to avoided operations costs associated with eliminating the premise visit for disconnection for non-payment.²⁹ The savings are based on the assumption that Avista would no longer make a premise visit to a customer's location to implement a disconnection for non-payment.³⁰ Avista would simply remotely disconnect a customer for non-payment after sending the required disconnection notices.³¹ While Avista could achieve savings and benefits by using remote disconnection when a customer requests to be disconnected, Ms. Alexander expressed significant concern about the functionality of remote disconnection for non-payment.³²

32. Under the Commission's current rules, a utility must accept payment from a customer at the time of disconnection to avoid disconnection of service. This regulation was adopted during a time when it was presumed that the utility had to make a premise visit to disconnect the meter.³³ Avista's proposal to use elimination of the premise visit when disconnecting a customer for non-payment to justify its AMI investment raises important customer protection concerns. First, Avista's proposal does not consider that the Commission's regulation assumed that a premise visit would occur.³⁴ Second, even though Avista is not required to announce its presence to the customer under WAC 480-100-128(6)(k), the customer has a real opportunity to

²⁹ Rosentrater, Exhibit No. HLR-3 at 42.

³⁰ Alexander, Exhibit No. BRA-1T at 23:18-19.

³¹ Alexander, Exhibit No. BRA-1T at 23:19-20.

³² Alexander, Exhibit No. BRA-1T at 23:21-24.

³³ WAC 480-100-128(6)(k); Alexander, Exhibit No. BRA-1T at 24:7-12.

³⁴ Alexander, Exhibit No. BRA-1T at 24:13-15.

interact with Avista. During the interaction, the customer could avoid disconnection by offering payment, and the customer could also describe potential adverse health or welfare impacts disconnection would have on the household.³⁵

33. The interactions between customers and utility personnel have a real impact on customers and the health and safety of their household members. Between 2009 and 2012, Avista accepted payment from 5,000 to 6,000 customers to stop disconnection, which consisted of over 60 percent of the number of disconnections for non-payment reported by Avista during these years.³⁶ If the premise visits were to be eliminated, as suggested by Avista's benefit calculation, the option to pay to avoid disconnection would effectively be eliminated. The volume of disconnections would rise, as would potential adverse impact on household health and safety.³⁷ This is not in the public interest, and the Commission should reject Avista's use of this benefit category.³⁸

34. Other states have continued to require premises visits even when utilities have adopted AMI. Disconnection of residential customers may result in dangerous health and safety conditions due to loss of essential electricity service, and the foundation of consumer protections is based on electricity being a critical service.³⁹ Disconnection should be a last resort, not a first resort to respond to non-payment.⁴⁰ Avista's proposal treats disconnection as a first resort

³⁵ Alexander, Exhibit No. BRA-1T at 24:15-20.

³⁶ Alexander, Exhibit No. BRA-1T at 25:1-8; Exhibit No. BRA-12.

³⁷ Alexander, Exhibit No. BRA-1T at 25:8-12.

³⁸ Changes to WAC 480-100-128(6)(k) may be necessary to expressly prohibit remote disconnection for non-payment or to require a premises visit in order to preserve the customer protections raised in this brief section.

³⁹ Alexander, Exhibit No. BRA-1T at 26:7-12.

⁴⁰ Alexander, Exhibit No. BRA-1T at 26:12-14. States that require a site visit even with AMI technology include New York, Ohio, Maryland, California, and Massachusetts. The particular requirements are discussed in Ms. Alexander's testimony. Exhibit No. BRA-1T at 26:15 – 29:10.

response. Public Counsel and The Energy Project urge the Commission to not allow Avista to reduce customer protections in Washington.

35. Reducing the claimed benefit to remove amounts associated with eliminating the premises visit for disconnections for non-payment reduces the lifetime benefit by \$7.52 million.⁴¹

b. Avista overstates savings related to energy theft in its cost benefit analysis.

36. Avista estimates savings related to elimination of energy theft equal to 0.4 percent of its total revenue, or 0.375 percent for electric revenues and 0.1875 percent for natural gas revenues.⁴² Avista based its calculation on its experience and a range of estimates from the utility industry. The utilities in the sample group used by Avista have vastly different service territories, rates, and demographics than Avista.⁴³ The estimates from the utility industry ran from one to three percent of total utility revenue, while Avista's revenue loss due to service diversion has been approximately 1/4 of this estimate.⁴⁴

37. Additionally, to the extent that AMI produces a benefit related to energy theft, the benefit could be a one-time benefit. The metering system has an alarm feature that will alert the utility if someone tampers with the systems.⁴⁵ Avista has not demonstrated that the benefit it claims is appropriately calculated or likely to continue such that it should be embedded in the business case.⁴⁶

⁴¹ Alexander, Exhibit No. BRA-1T at 24:3-4.

⁴² Alexander, Exhibit No. BRA-1T at 29:15-16.

⁴³ Alexander, Exhibit No. BRA-1T at 30:5-7.

⁴⁴ Alexander, Exhibit No. BRA-1T at 29:17 – 30:2.

⁴⁵ Alexander, Exhibit No. BRA-1T at 30:13-15; Rosentrater, Exhibit No. HLR-3 at 45.

⁴⁶ Alexander, Exhibit No. BRA-1T at 31:2-8.

c. Avista use of “local economy jobs” as a benefit to support its AMI investment should be rejected.

38. Avista’s claim of benefits from “local economy jobs” should be rejected because these benefits are not reflected in utility rates, cannot be measured, and cannot be determined to actually occur. This is a new area of benefit identified by Avista in this rate case, and Avista projected a benefit of \$1.8 million across the utility’s service territory.⁴⁷ The key operational benefit for the Company’s business case is the loss of jobs for meter reading and field work required with the current legacy meters. Avista’s calculation fails to acknowledge the economic impact of this loss of jobs. Rather, Avista focuses on adding 13 new jobs during the deployment phase of the project.⁴⁸

39. Further, Avista’s calculation injects a social value that might occur, but that is not generally reflected in utility cost-benefit analysis. The benefits, if they occur, would not impact customer rates and, as a result, Ms. Alexander reasoned that they were not appropriately included in Avista’s cost-benefit analysis.⁴⁹ Public Counsel and The Energy Project agree and recommend that the Commission eliminate this estimated benefit from Avista’s business case.

2. Avista’s business case incorporates benefits that are inappropriate to justify investment in AMI, and the Commission should not allow utilities to use similar benefits to justify investment in AMI.

a. Avista increased the savings associated with conservation voltage reduction (CVR) in this case over its last general rate case.

⁴⁷ Alexander, Exhibit No. BRA-1T at 33:21 – 34:3.

⁴⁸ Alexander, Exhibit No. BRA-1T at 34:1-16.

⁴⁹ Alexander, Exhibit No. BRA-1T at 34:11-16.

40. Avista claims a dramatic 280 percent increase compared to the case it presented in its 2015 general rate case related to conservation energy savings from voltage reduction due to AMI impacts alone. This dramatic increase is highly questionable.
41. In Avista's last general rate case, Avista estimated the incremental savings associated with AMI to further lower the voltage levels on circuits with installed CVR technologies to be \$14.9 million.⁵⁰ In the current case, Avista estimates the incremental savings to be \$55 million.⁵¹ Avista assumes a voltage reduction of four percent for circuits equipped with both automated CVR and AMI and a voltage reduction of two percent for those 96 circuits that are not equipped with automated CVR technologies, but that will be equipped with AMI.⁵²
42. Avista bases its assumptions on its own modeling of additional savings that could be achieved by relying on voltage readings taken at each customer's service meter as the basis for further lowering the voltage on the feeder.⁵³ Although Avista stated at hearing that several studies informed its analysis,⁵⁴ the only information provided in discovery was derived from its internal tests conducted in December 2015.⁵⁵ Avista's Pullman project evaluated the impact of grid modernization and automated CVR technologies, but did not specifically study the effect of the AMI system alone to achieve voltage reduction.⁵⁶
43. The lack of studies or reports evaluating the effect of AMI specifically to achieve voltage reduction calls into question the validity of Avista's estimated benefit. Most studies that do exist

⁵⁰ Alexander, Exhibit No. BRA-1T at 31:18 – 32:2.

⁵¹ Alexander, Exhibit No. BRA-1T at 32:2-3.

⁵² Alexander, Exhibit No. BRA-1T at 32:5-8.

⁵³ Alexander, Exhibit No. BRA-1T at 32:12-14.

⁵⁴ Rosentrater, TR. 195:2-6.

⁵⁵ Alexander, Exhibit No. BRA-1T at 32:17, n.38; Exhibit No. BRA-17.

⁵⁶ Alexander, Exhibit No. BRA-1T at 32:9-11.

focus on a traditional evaluation of CVR technologies and the effects that those technologies have on voltage reduction.⁵⁷ Avista concedes that identifying the incremental impact associated with AMI alone is an issue.⁵⁸ The Commission should not accept this novel benefits analysis as a justification for investment in AMI, as this information is not the type of information that has been widely reported as being achieved in other jurisdictions.⁵⁹

b. The Commission should reject Avista’s reliance on storm restoration efficiencies as a benefit supporting its AMI business case.

44. Avista claims that it will improve its restoration of service by 10 percent during major storm events and that this operational efficiency will result in a 10 percent reduction in the costs relating to labor, meals, lodging, transportation, and equipment. Since these cost categories represent 59.5 percent of major storm restoration expenses, Avista has included a benefit equal to 5.9 percent (10 percent reduction) of the major storm restoration costs in its business case analysis.⁶⁰ According to Ms. Alexander, no other regulatory decision on an AMI business case has relied on such a questionable estimate. Avista has also not been able to provide any other decision or order that reflects this type of assumption for AMI deployment.

45. In theory, reduction of storm restoration expenses reduces the costs passed through in rates to customers. The underlying information that the benefit relies upon comes from a U.S. Department of Energy (DOE) report referencing two utilities, and the information is unreliable, casual, and informal. While the DOE report contained information from the government’s smart grid grant program evaluations, the report did not provide statistically valid information upon

⁵⁷ Alexander, Exhibit No. BRA-1T at 33:7-20.

⁵⁸ Rosentrater, TR. 203:7-11.

⁵⁹ Alexander, Exhibit No. BRA-1T at 33:19-20.

⁶⁰ Alexander, Exhibit No. BRA-18, Avista Response to Public Counsel/Energy Project Data Request No.

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which to determine whether the result is applicable to other utilities or capable of replication over a 21-year cost benefit analysis.⁶¹

46. Not only is the basis for the calculation suspect, Avista’s ability to track and measure the benefit is uncertain. In its business case, Avista is unable to propose any methodology to determine whether future storm restoration costs will in actuality be lowered by the amount the Company has predicted and notes that it continues to research methods used by other utilities and to develop its own methods to measure and track the benefit.⁶² During the evidentiary hearing Ms. Rosentrater states, “Something that we can agree to recognizing that, again, some are easier to quantify and measure and some, exactly like this one, are much more challenging.”⁶³ She later states that, “We don’t have the benefit yet.”⁶⁴

47. Thus, reduction in storm restoration efficiencies is speculative and unreliable as a benefit category. The Commission should reject it as a justification for cost recovery of Avista’s proposed AMI investment.

c. The Commission should reject Avista’s use of customer avoided costs associated with reduced outages as quantified using the Department of Energy’s ICE calculator.

48. Similar to benefit calculations presented in Avista’s last general rate case, Avista has calculated “avoided costs” associated with reduced outages in this rate case. The avoided costs are described as direct customer benefits and represent an estimated “value” ascribed to benefits resulting from reducing the length of outages.⁶⁵ The avoided cost calculation is derived from

⁶¹ Alexander, Exhibit No. BRA-1T at 35:8-12.

⁶² Rosentrater, Exhibit No. HLR-3, App. B at 17; Alexander, Exhibit No. BRA-1T at 35:15-24.

⁶³ Rosentrater, TR. 204:5-8.

⁶⁴ Rosentrater, TR. 204:22.

⁶⁵ Alexander, Exhibit No. BRA-1T at 42:13-16.

customer dollar values from an Interruption Cost Estimator (ICE) calculator from the Department of Energy. The ICE calculator is used in evaluation of federally-funded smart grid projects.⁶⁶

49. The ICE model relies upon survey results from utilities throughout the U.S. completed over the last 10 to 15 years that seeks to assign value to avoiding outages of a certain length. The survey results do not generate actual customer savings. Rather, they represent a hypothetical avoided cost, and customers do not experience any savings on their bill as a result of including these hypothetical savings or values in an AMI business case.⁶⁷

50. The Commission should reject use of this benefit in a cost-benefit analysis used to seek cost recovery of an AMI investment. The ICE model has never been evaluated in a formal proceeding. The model uses survey results that are not publicly available for review. Furthermore, there is no survey that asks Avista customers if they would be willing to pay increased rates for AMI in return for the potential that there will be an annual reduction in outage duration of five percent.⁶⁸ Moreover, ICE has not been used by state regulators to justify AMI.⁶⁹

51. Another defect associated with the use of this calculator to impute customer benefits includes the fact that there is no comparable survey done to reflect natural gas customers and their willingness to pay for gas outages. Furthermore, the surveys document a significant

⁶⁶ Alexander, Exhibit No. BRA-1T at 43:--3-8.

⁶⁷ Alexander, Exhibit No. BRA-1T at 43:8-17; Rosentrater, TR. 205:1-5.

⁶⁸ As described by Ms. Alexander, Avista's inputs to the ICE assumed a five percent reduction in CAIDI (Customer average Interruption Duration Index), a miniscule amount over an annual period. Exhibit No. BRA-IT at 45: 4-5.

⁶⁹ Alexander, Exhibit No. BRA-1T at 44:3-11.

difference in willingness to pay between residential and commercial customers, which is not reflected in Avista's estimated customer class revenue impacts to collect AMI costs.⁷⁰

3. Avista's benefits predictions are not accompanied by any commitment to link future recovery to actual performance, and its vague promise of reporting does not include any credible methodology to identify and track certain benefits categories.

52. Avista has proposed to implement its AMI deployment and recover its costs without any commitment to ensure that its estimated costs will not be higher than its estimated benefits, or that its estimated benefits will actually occur in the amount identified in its business case. While Avista has identified "key metrics" for each of its benefit categories, the actual definition of how these metrics would be developed and reported is not included. When Ms. Rosentrater was asked whether the Company intends to track and report the benefit categories described in their business case, she responds by stating, "Our expectation would be to find some way to report on all of the benefits."⁷¹

53. More importantly, Avista refuses to link its proposed cost and benefit estimates to its future recovery of costs.⁷² As a result, customers will bear 100 percent of the risk that this project will be cost-effective and customers will receive benefits in the manner and amount predicted.

⁷⁰ Alexander, Exhibit No. BRA-IT at 51-52.

⁷¹ Rosentrater TR. 199:12-13.

⁷² Alexander, Exhibit No. BRA-33, Avista Response to Public Counsel/Energy Project Data Request No. 48 (asked the Company if it was proposing to recover the AMI revenue requirement with the offset equal to the estimated benefits identified in the business case and Avista responded by refusing to provide such an assurance, stating, "All costs and benefits derived from the implementation of AMI will be included in the derivation of future revenue requirements for subsequent rate periods.").

54. Even though an imposition of reporting requirements will not cure this defective proposal, the Commission should take into consideration that Avista is unable to identify how it will track and report some of its predicted benefits. For example:

- Avista does not know how to isolate and track its predicted storm restoration efficiencies;
- Avista cannot identify a methodology to track its estimated conservation or usage reduction benefits associated with its web portal, and future unidentified efficiency programs that make use of interval usage information;
- Avista agrees that identifying the predicted conservation results of its expanded CVR program associated will be “challenging.”

V. IF COST RECOVERY OF AMI IS GRANTED, NOW OR AT SOME POINT LATER, THE COSTS SHOULD BE INCLUDED IN ALL CUSTOMER RATES AND NOT LIMITED TO RESIDENTIAL CUSTOMERS.

55. Once AMI is installed, and if benefits are achieved, the benefits anticipated are system benefits, not simply benefits to residential customers.⁷³ One example of a benefit that goes beyond residential customers is CVR. To the extent that CVR has incremental benefits associated with AMI, those benefits are system and customer benefits that apply to all customers. Additionally, Avista assumes over 96 percent of benefits stream associated with ICE calculation applies to commercial and industrial customers.

VI. CONCLUSION

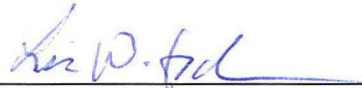
56. Avista’s request for prudence is once again premature with respect to its AMI investment. The Commission should decline to provide any preapproval or prudence ruling for Avista’s AMI project until the project is completed, the cost is known and measurable, and the meters are used

⁷³ Rosentrater, TR. 188:14 – 190:16.

and useful. Additionally, Avista's business case presents a number of fundamentally flawed benefit categories and uses analysis that is inappropriate in a cost-benefit analysis to justify cost recovery of AMI. The Commission should reject Avista's use of such fundamentally flawed benefit categories.

57. DATED this 7th day of November, 2016.

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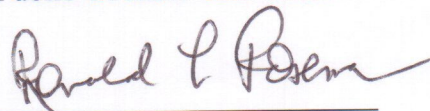
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