BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UG 325

In the Matter of	)
	)
AVISTA CORPORATION, dba AVISTA UTILITIES,	)
	)
Request for a General Rate Revision	)
	)

OPENING TESTIMONY

OF THE

OREGON CITIZENS' UTILITY BOARD

March 1, 2017

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I. INTRODUCTION

The Oregon Citizens' Utility Board ("CUB") files its Opening Testimony in response to Avista's (the "Company") request for a rate increase in the above captioned docket, filed on November 30, 2016. The current request comes less than a year after the rate effective date, March 1st 2016, in Avista's last general rate case, UG 288, in which the Company received approval a of $4.5 million addition to its revenue requirement.[1] In this case, CUB recommends that the Public Utility Commission of Oregon ("OPUC" or "the Commission") deny the Company's request in its entirety because the Company has failed to demonstrate that its current rates are not sufficient. CUB provides evidence that the Company's approach to capital expenditures is unsustainable and that the Company is failing to provide sufficient evidence to support its capital spending. In addition, the Company is using debt as the primary tool to finance its capital spending, which reduces the equity component of its capital structure. Further, the Company's proposed rate

[1] *In re Avista Utilities Request for a General Rate Revision,* OPUC Docket No. UG 288, Order No 16-109 at 1. Rate effective date: March 1, 2016.

spread fails to recognize that new investment is being driven by increased loads by large industrial customers. Finally, CUB provides analysis of the Company's capital projects, supporting our recommendation that a disallowance is required based on the evidence that Avista has supplied.

CUB's testimony is organized as follows:

I. Introduction
II. Threshold Issue: The Company failed to demonstrate the need for a rate increase
III. Avista's capital spending trend is not consistent with PUC Order
    A. Avista's capital spending is on an unsustainable trend
    B. Washington rejected Avista's most recent proposed rate hike
    C. Parties challenged capital spending last year
    D. No cost-benefit or timing analysis
IV. Capital Structure
V. Rate spread and rate design concerns
VI. Analysis of Individual Capital Investments
VII. Conclusion

II. THRESHOLD ISSUE: THE COMPANY FAILED TO DEMONSTRATE THE NEED FOR A RATE INCREASE

The Commission should deny Avista's request in its entirety because the Company has failed to demonstrate that its current rates are insufficient. Importantly, the basis of the entire request is in error. The Company states the need for rate relief, citing an actual ROR (as of filing date) of 5.63%, "well below the previously approved authorized ROR of 7.40%.[2] This statement, however, is incorrect.

CUB Exhibit 102 demonstrates that the Company's ROR at the end of June was actually 6.22% and has climbed since then to 6.89% and was most recently at 6.7%[3]. The Company corrected its assertion in data responses, stating that Mr. Morris' testimony was inadvertent and the actual ROR is well above 5.6%:

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[2] UG 325/Avista/100/Morris/5.
[3] following the preparation of this testimony, the Company updated actual ROR for additional months.

> Company witness Mr. Morris' testimony on page 5 inadvertently stated Avista's June 30, 2016 actual ROR for its Oregon gas operations was 5.63%. The 5.63% ROR represents the pro formed ROR for the twelve months ended September 30, 2018.[4]

According to the Company, the actual ROR is displayed below:[5]

	Oregon Actual Rate of Return (ROR)
Twelve Months Ended June 30, 2016	**6.22%**
Twelve Months Ended July 31, 2016	**6.58%**
Twelve Months Ended August 31, 2016	**6.53%**
Twelve Months Ended September 30, 2016	**6.69%**
Twelve Months Ended October 31, 2016	**6.86%**
Twelve Months Ended November 30, 2016	**6.67%**

This means that as of September (six months after the rate effective date of the last rate case), the Company was earning at 60 basis points below its authorized ROR on a 12 month basis[6]. CUB Exhibit 103 demonstrates what happens if we adjust the authorized ROR based on actual capital structure.[7] Altered to reflect capital structure of 47.1%, equal to that which the Company reported to its investors, the approved ROR in UG 288 becomes 7.34%, less than 50 basis points above the Company's earnings as of September. CUB Exhibit 103 also shows that the September earnings are less than 30 basis points below the reasonable range proposed by Staff and CUB/NWIGU when adjusted for actual capital structure.

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[4] CUB Exhibit 102
[5] CUB Exhibit 102
[6] Which included experience prior to UG 288 effective rates
[7] CUB Exhibit 103, shows actual equity of 47.1%

Company ROE 12-months ending Sept 2016	**6.86%**
Authorized Earnings adjusted for actual cap struc.	**7.34%**
Low end of Staff's range (adj. for cap. struc.)	**7.14%**
Low end of CUB/NWIGUs (adj for cap. struc.)	**7.11%**

In a series of power cost true ups, this Commission has established 150 basis points of ROE as a deadband that a utility must absorb before it can place costs on customers and has established 100 basis points ROE as the required deviation from earnings (earnings test) necessary to show that a utility is underearning.[8] In a series of deferrals, the Commission has "adopted a deadband for recovery of excess power costs equal to a 250-basis points ROE."[9] After adjusting for actual capital structure, Avista's deviation from authorized ROE is just a fraction of these amounts.

At the time of the filing of this reply testimony, the Company will have exactly one year experience with its new rates. Of course, since the Company had not had full year with the new and improved rates, it is important to follow how the ROR progresses as the year moves on. Moreover, a portion of the reason for the Company's earnings is a $54 million dollar hedging loss,[10] which should not be reoccurring.

Based on their actual annualized earnings as of September 2016, CUB believes that Company has failed the threshold test of demonstrating that a rate increase is necessary to ensure that the Company is able to earn a reasonable return.

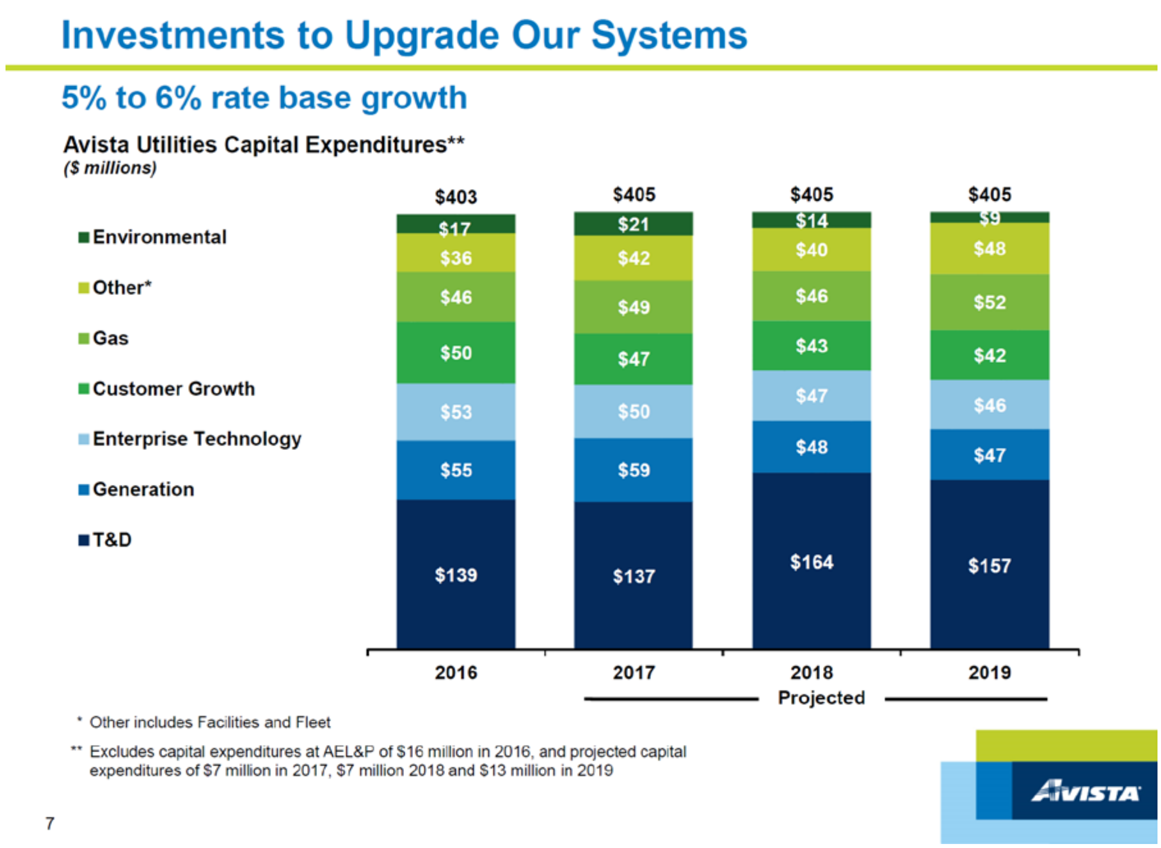
[8] OPUC Order No. 12-493 at13-14, *see also* OPUC Order No. 07-015 at 2.
[9] OPUC Order No. 05-1261 at9, *see also* , Docket Nos. UM 995 (PacifiCorp), UM 1007 (Idaho Power) and UM 1008/1009 (PGE)
[10] UG 325/Avsta/201/Thies/4. *See also* CUB Exhibit 104.

III. AVISTA'S UNSUSTAINABLE CAPITAL SPENDING TREND IS NOT CONSISTENT WITH LAST YEAR'S PUC ORDER

This case, like last year's case, is being driven by capital investment. CUB has serious concerns about the unsustainable level of capital investment and about the fact that the Company has not conducted the analysis required by the Commission order to support many of these projects.

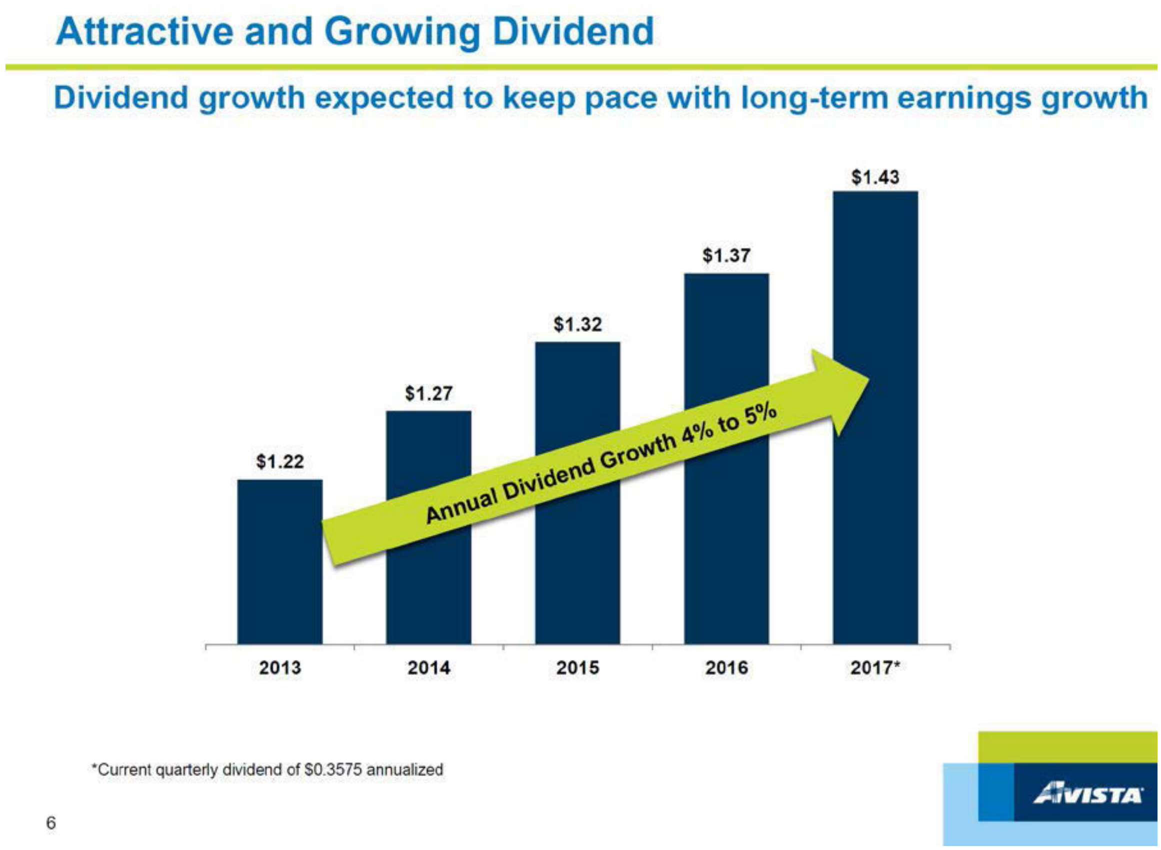
A. *Avista's Capital Spending is on an Unsustainable Trend*

The Company, on behalf of its captive customers and its shareholders, has been on large capital expansion trend for the past several years. The Company predicts that this trend will continue at least for the next several years: [11]



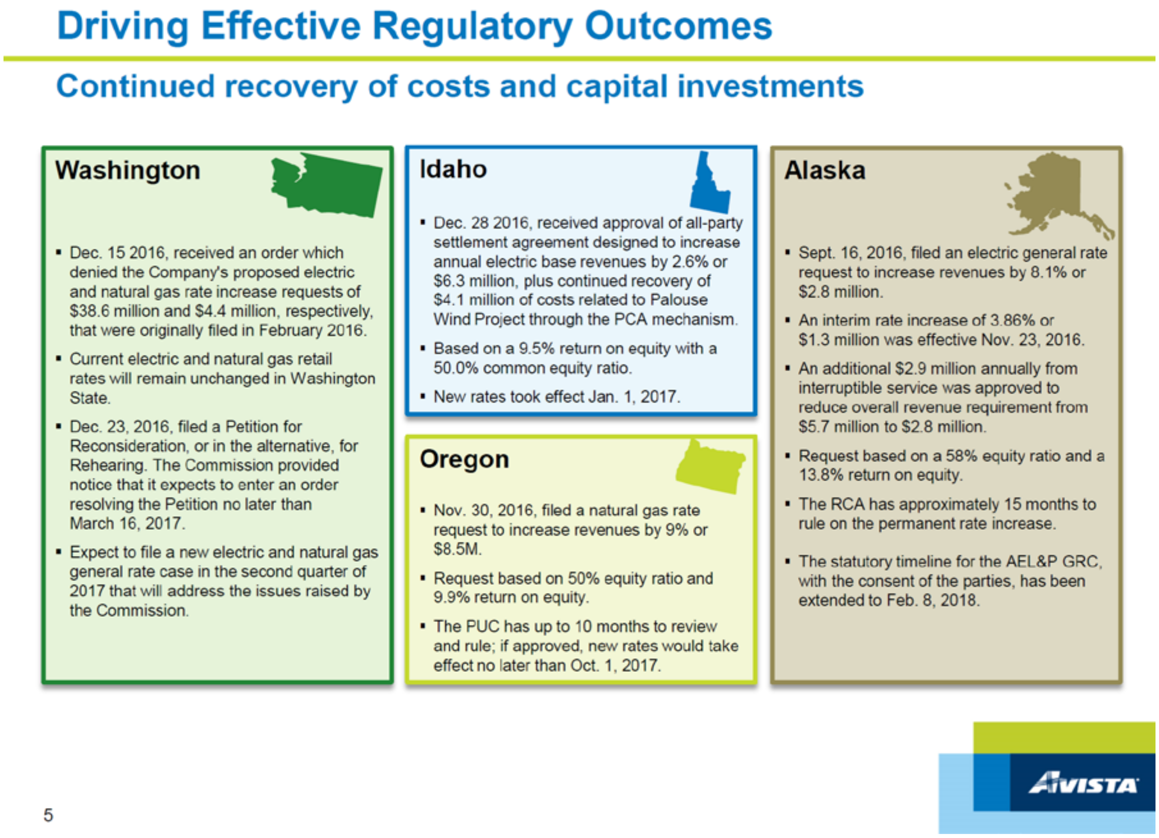
[11] CUB Exhibit 105, pg 7.

The Company sees this as a benefit to its shareholders: [12]



And is attempting to raise rates in all of its service territories: [13]

[12] CUB Exhibit 105, pg 6.
[13] CUB Exhibit 105, pg 5.



The Company also recognizes that its capital spending trend will continue to drive rates upwards:

Absent a structural shift in our Oregon service territories (i.e., a substantial increase in customer growth, an increase in use-per-customer, or a combination of the two), Avista will continue to see the trend of O&M and capital investment growing at a percentage greater than the growth in sales. As shown in Avista/100/Morris/pg 6, Illustration Number 1 (the subject of CUB data request No. 06), the growth in "Retail Therm Sales", on a system basis, has been, or is forecasted to be, generally been flat from 2007 through 2019. As discussed by Dr. Forsyth in his testimony (Exhibit No. 700, p. 11, ln. 20), the annualized increase in customers from the base year to the test year in this case is only 1.4%. However, as shown on line 8 of Exhibit No. 700, the Company is forecasting a reduction in use-per-customer on an annualized basis for the same time period. The result of the combination of slight increases in customer count and the decrease in use-per-customer is an overall increase in therm sales of only

> *approximately 1 percent on annualized basis. That being said, as noted in the Company's response to CUB-009 with regard to capital investment,* ***current information forecasts gross plant additions for Oregon in the 2018 and 2019 time period of approximately $27 million and $29 million, respectively (a lower level of investment as compared to the average annual gross plant additions of approximately $40 million in the 2015-2017 time period.)***[14]

This does not do much to assuage CUB's concerns about unbounded growth and severe customer impact, coming on the heels of the past few years, especially since it is not credible. The above claim by the Company contradicts the its own presentation to its investors which maintains rate base growth at $405 million per year for the forseeable future[15]. It also contradicts the Company's confidential response to a data request[16], which [redacted][17] Given the recent rate hike request denial in Washington and the low increases in Idaho,[18] it is difficult to see where this money will be coming from. What is disturbingly clear from that response is that the Company operates [redacted].[19,20,21]

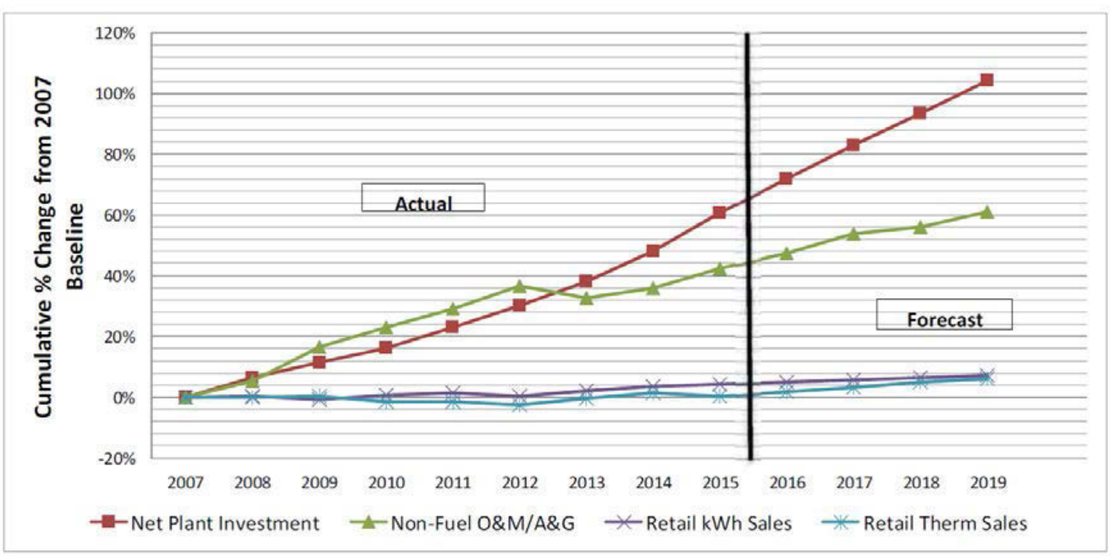
CUB is concerned with this trend, especially given the captive nature of the Company's customer base in Oregon. The Company's Oregon residential customers are gas customers, largely rural, with little to no options aside from propane. Currently, even

[14] CUB Exhibit 106.
[15] CUB Exhibit 105 pg 7.
[16] CUB Exhibit 114.
[17] CUB CONFIDENTIAL Exhibit 107C.
[18] CUB Exhibit 105, pg 5.
[19] CUB CONFIDENTIAL Exhibit 107C.
[20] CUB CONFIDENTIAL Exhibit 108C.
[21] CUB CONFIDENTIAL Exhibit 109C.

with annual rate increases, the pressure on customers may seem low from a regulatory perspective, but given the possibility of increasing commodity costs in locations where winters are harsh, the rapid expansion and burden on customers may be unaffordable. Moreover, placing the bulk of the increases on residential customers is additionally burdensome to the individual consumer. Therefore, when analyzing the issues and concerns in this case, a larger perspective of the prudence of Company investment must be considered, not merely project by project, but pacing and timing of investments along with sustainability of rates, customer affordability, and balance between the needs of the customers and earnings growth of shareholders.

The Company uses the following graph in its testimony to argue that rates must increase because sales growth is not keeping up with the pace of the Company's investments: [22]

Illustration No. 1:



[22] UG 325/Avista/100/Morris/6.

However, it is important to note that the Company's main function is to serve its customers. Because of improvements in technology, and improvements in habits and education, many customers simply do not need to use more gas than the year before. In fact, many customers are using less. This is not a fault on behalf of the customers, but rather, the result of conservation, a central tenet in Oregon's energy landscape. Knowing this, CUB feels it is incumbent on the Company to manage its budget to a sustainable level. CUB believes that neither doubling net plant every ten years, nor annual rate increases between five and ten percent per year is sustainable

B. *Washington Rejected Avista's Most Recent Proposed Rate Hike*

The Company's most recent 2016 Washington rate case was its ninth general rate case filed since 2005.[23] Avista's 2007 general rate case marked the beginning of a period, continuing to today, during which the Company filed a GRC nearly every year, sometimes within months after completion of the previous GRC docket.[24] When analyzing the 2009-2014 GRC time period WUTC Staff questioned whether it was appropriate "to continue to authorize significant increases in distribution system capital investments year after year, for purposes of enhancing system reliability absent a demonstration by the Company of quantifiable benefits to ratepayers."[25] WUTC Staff questioned whether Avista could demonstrate the need for such investments beyond its expected revenues when faced with little or no load growth for the foreseeable future.[26]

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[23] *Washington Utilities and Transportation Comm'n v. Avista Corporation d/b/a/ Avista* Utilities, Dockets UE-160228 and UG-160229 (*Consolidated*), Order 06.
[24] *Id*. at 12.
[25] *Id*. at 25 citing *Washington Utilities & Transportation Comm'n v. Avista Corporation d/b/a Avista Utilities*, Dockets UE-150204 and UG-150205, Order 05 (January 6, 2016).
[26] *Id.* at 29 citing Order 05.

Order 05 from Avista's 2015 general rate case called for an approximate $8.1 million reduction in the Company's overall revenue requirement.[27]

In the Company's 2016 Washington general rate case—which was rejected in its entirety—the WUTC noted that the Company presented no persuasive evidence that the circumstances driving the Company's steadily increasing rate of capital investment were matters beyond the Company's control.[28] The WUTC noted that Avista's expenses have increased at rates exceeding every measure of inflation presented by parties in that case.[29] In rejecting the Company's proposed rate increase, the WUTC found that the Company could avoid further increases in revenue requirements if it moderates the pace of growth in its capital expenditures.[30] In short, the Company's year-in, year-out increases in capital expenditure were not adequately justified by the record in the Company's 2016 Washington general rate case. We are witnessing a similar trend of low load growth and high capital expenditures here in Oregon, and allowing the Company to continue on this upward trajectory is unsustainable.

C. *Parties Challenged Capital Spending Last Year*

In last year's general rate case in Oregon, parties challenged Avista's unchecked capital spending. Staff looked at the overall level and recommended that the Commission hold the Company to a reasonable level of spending. CUB and NWIGU found flaws in specific capital projects that were unsubstantiated in the case.

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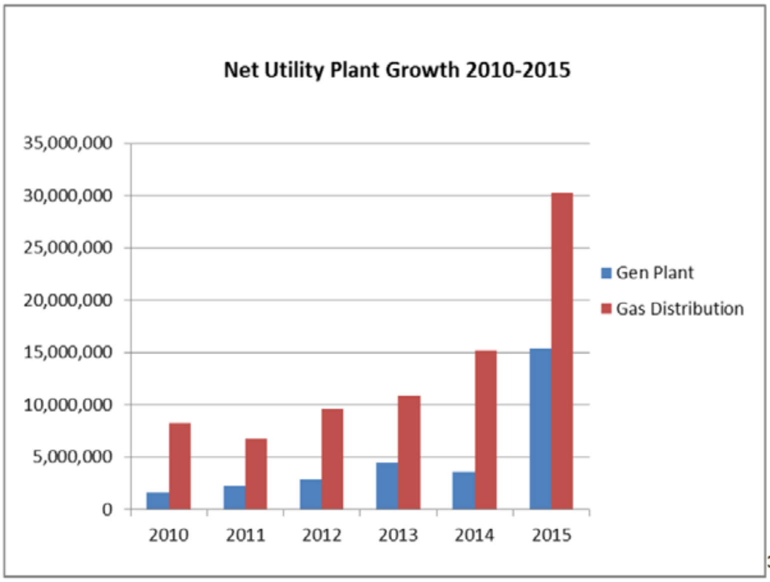
[27] *Id*. at 33.
[28] *Id*. at 41.
[29] *Id*.
[30] *Id*. at 44.

In Staff's testimony in UG 288, it noted that (1) Oregon customers had borne a larger share of rate base growth on average than their share in the system, and (2) recent growth was more than three times what it had been historically.[31]

Figure 1



[32]

The Commission rejected the parties' recommendations, but the Commissioners "share[d] some of Staff's and the intervenor's concerns about Avista's management and analyses of these projects."[33]

In addition, the Commission issued clear guidance to Avista regarding the analysis it must show in order to get its capital investments approved:. In UG 288's Order 16-109, the Commission stated:

> *Finally, as part of the IRP-vetting process and **subsequent rate proceedings**, we expect that Avista conduct and present comprehensive analyses of its system upgrades. Such analyses should provide:*
> *(1) a comprehensive **cost-benefit analysis of whether and when** the investment should be built;*

[31] UG 288/Staff/600/Moore/3-5.
[32] UG 288/Staff/600/Moore/4; UG 288/Staff/602/Moore/1-2.
[33] OPUC Order No. 16-109 at 12.

> *(2) evaluation of a range of alternative build dates and the impact on reliability and customer rates;*
> *(3) credible evidence on the likelihood of disruptions based on historical experience;*
> *(4) evidence on the range of possible reliability incidents;*
> *(5) evidence about projected loads and customers m the area; and*
> *(6) adequate consideration of alternatives, including the use of interruptibility or increased demand-side measures to improve reliability and system resiliency.*[34]

Following the advice of Order 16-109, there are many ways that the Company could comply while simultaneously providing safe and reliable service. CUB does not see evidence that the Company met the burden of proof laid out in Order 16-109 in this case. CUB challenges the request for recovery by the Company on individual projects, but also from a filing requirements and order compliance level. The burden of proof to demonstrate that the Company's overall investment strategy is prudent falls on the Company, and the Commission has been clear about what it expects to this end.

D. *No Cost/Benefit or Timing Analysis*

According to Avista, "[o]ver 84% (or approximately $7.2 million) of the Company's need for additional rate relief relates to the increase in rate base"[35], or in other words, capital expenditure. Some of these projects and programs are ongoing, or multi-year, some are physical infrastructure investment, some are IT related.

[34] OPUC Order 16-109 at 14.
[35] UG 325/Avista/100/Morris/8.

CUB appreciates the improvements in the filing in this case, in particular, the indexing of its capital projects :[36]

Exhibit No. 602 Index

ER #	ER Name	Page #	ER #	ER Name	Page #
1001	Gas Revenue Growth Program	2	2277	SCADA Upgrade	64
1050	Gas Meters Growth Program	2	5005	Information Technology Refresh Program	67
1051	Gas Regulators Growth Program	2	5006	Information Technology Expansion Program	70
1053	Gas ERT Growth Program	2	5010	Enterprise Business Continuity	73
3000	Gas Reinforcement Program	5	5014	Security Systems	76
3001	Replace Deteriorating Gas System	8	5106	Next Generation Radio System	79
3002	Regulator Station Reliability Program	11	5121	Microwave Replacement with Fiber	82
3003	Gas Replace - Street & Highway	14	5143	AU.com & AVANet Redevelopment	85
3004	Cathodic Protection Program	17	5144	Mobility in the Field	93
3005	Gas Distribution Non-Revenue Program	20	5147	Avista Facility Management COTS Migration	96
3006	Overbuilt Pipe Replacement Blanket	23	5151	Customer Facing Technology	99
3007	Isolated Steel Replacement	26	2586	Meter Data Management	102
3008	Aldyl -A Pipe Replacement	29	7000	Transportation Equip	103
3054	Gas ERT Replacement Program	32	7127	CNG Fleet Conversion	106
3055	Gas Meter Replacement Non-Revenue	35	7001	Structures & Improv	107
3057	Gas HP Pipeline Remediation Program	38	7003	Office Furniture	107
3117	Gas Telemetry	41	7005	Stores Equip	110
3203	East Medford Reinforcement	44	7006	Tools Lab & Shop Equipment	110
3209	Pierce Rd La Grande HP Reinforcement	47	7126	Long term Campus Re-Structuring Plan	113
3303	Ladd Canyon Gate Stn Upgrade, La Grande	58	7131	COF Long Term Restructuring Plan Phase 2	116
7201	Jackson Prairie Storage	61	7139	Downtown Campus	119
			7144	Ergonomic Equipment	122
			7200	Craft Training	125

CUB also appreciates the inclusion of the business cases for the projects directly in the exhibits. CUB examined each of these business cases individually, along with historical capital spending, budgets, requests, transfers to plant, and revenue requirement. Section IV of this opening testimony will address these individual projects.

From a very high level, CUB argues that for the size ($) of the capital projects, the business cases presented are insufficient. As a baseline, of the 44 projects/programs proposed in the capital index above, 37 business cases were provided (several were consolidated into a joint business case, and two projects contained a description but no business case). Of those 37 business cases, only 10 provided analysis of alternate project paths other than "unfunded project" or "status quo." On that basis alone, for the majority

[36] UG 325/Avista/602/Machado/1.

of the Company's proposed capital projects and programs, the Company, in its filing, does not meet the bar set by the Commission's Order 16-109. CUB anticipates and understands that the process does not end there, however, and values the opportunity to dig deeper. CUB decided to examine each business case individually. The first business case, that of "New Revenue-Growth" offered some confusion, and it was CUB's[37] to resolve that confusion about mismatched numbers and business risk scores of unstated alternatives, in order to have a basis on which to analyze the remaining business cases. The Company's response to both CUB's and Staff's data requests [38,39] made it clear that it is not consistently possible to use the business cases as a basis for determination of prudence. For example, the Capital Budget Group ("CPG") can approve a budget that is larger than the request in a business case for a particular project, or incremental budget increases occur throughout the year without being documented and adjusted in the business case.

In response to a question regarding why the CPG would approve amounts in excess of what was requested, or approve amounts that were never requested, the Company states:

> As discussed in the Company's response to Staff_DR_183, business case summaries are updated in the event of material changes to the scope, schedule, or budget. In addition, business cases for Programs (bodies of work that are long-lived over an extended period) are periodically refreshed. Additionally, updated requests for capital investment funding during the Capital Planning Group's ("CPG") five-year planning process each year are submitted separately from the business case summary. As a result, certain business cases may have "Capital Cost" balances that are

[37]CUB Exhibit 110.
[38]CUB Exhibit 110.
[39]CUB Exhibit 111.

> less than the amount requested and/or less than the balance ultimately approved by the CPG. [40]

This means that many of the business cases were stale as of the filing of this case. In addition, the Company states, in the same data response, that other elements of the business case were out of date or inadvertently placed.[41] The Company makes a similar statement to Staff[42], claiming that "[p]rogram business cases are updated in the event of a material change, but also are refreshed every 3-5 years." Frustratingly, all the business cases are signed current, as of 11/1/2016 by Laura Vickers, the Director FP&A.[43]

CUB does not claim that that this alone means the project is imprudent, or that all projects and capital programs are imprudent. Merely, the Company has not provided sufficient supporting evidence for parties to determine prudence. Moreover, the materials presented in this case are confusing when they are inaccurate and not current. CUB currently has an outstanding data request as of the date of this filing requesting updated versions of all the supporting business cases, and will continue to investigate when we receive the response.

Below we discuss examples of concerns with individual capital projects, though Section VI of this Testimony reviews individual projects in more detail.

1. *Capital Project: ER 2586 Meter Data Management (MDM)*

From a slightly less-than-30,000 foot level, CUB is concerned about some of the investments that the Company claims are intended for Washington customers, but will benefit all customers. For example, the MDM is a project that will allow analysis of

[40] CUB Exhibit 110.
[41] CUB Exhibit 110.
[42] CUB Exhibit 111.
[43] *See, e.g,* UG 325/Avista/602/Machado/4.

interval consumption data, supporting the Washington AMI deployment.[44] AMI is an achronym for smart meters that typically read electric meters every fifteen minutes or so. An electric utility can use this information for a variety of purposes including time of use rates and demand response programs. The difference between fifteen minute meter reads from AMI, and the typical once a month meter reads by gas utilities is 2,880 times the data.[45] There is little doubt that Avista needs to upgrade its meter data management with the installation of AMI in Washington. But there is little evidence that this investment is needed for Oregon gas service.

As a footnote, the Company points out that "MDM implementation is a component of the Washington AMI business case; however, the meter data management system will support metering activities across all of Avista's services and jurisdictions…"[46] The Company does not present analysis supporting a claim that it is necessary to serve Oregon customers, or do a cost-benefit analysis showing that it is a cost effective investment for Oregon gas customers. In fact, MDM is a capital project without a capital program business case in the Company's filing[47]. Moreover, this project has not been approved for recovery in Washington's most recent case,[48] and therefore, CUB has difficulty understanding what the impact on the Company would be.

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[44] UG 325/Avista/602/Machado/102.
[45] There are 2880 15-minute intervals in a 30 day month.
[46] Avista/602/Machado/Page 102.
[47] Avista/602/Machado/Page 102.
[48] *See* Order 06, *supra* note 19.

AVISTA UTILITIES
2016-2017 CAPITAL PROJECTS

Functional Group: Enterprise Technology
Business Case Name: Meter Data Management (MDM)[1]

ER No: **ER Name:**
2586 Meter Data Management

Approved Business Case Spend Amount 2016-2017 ($000s - System): $28,337[2]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016	$ -							$ -	$ -	$ -	$ -	$ -	$ -
2017	$ 39,390	$ -	$ -	$ -	$ -	$ -	$ -	$ 24,745	$ -	$ 14,645			

[49]

The approved business case spend amount is $28 million, yet the project cost is projected to be $39 million. The Company states that of this $39 million dollar project, $2,470,000 is allocated to Oregon. It is possible that the rejection of the Washington rate case will affect the timing of this investment, bringing into question the used and usefulness of Oregon's MDM portion. If the AMI project does go into service on schedule and Washington customers do not pay for it, overall Company earnings will be affected, which may drive another rate case in Oregon for the Company. In addition, large portions of the project are expected to go-live (July and September) right before and right after rate effective date, but likely after the conclusion of this case, and after the Commission's final order is issued. Therefore, CUB finds it difficult to conclude that this is a cost effective investment for Oregon customers and that it will be used and useful when rates go into effect later this year.

[49] Avista/602/Machado/102.

2. *Capital Project ER 7000: Transportation Equipment*

In the few cases where the Company provides alternative business case analysis, either in terms of timing or in terms of alternate budget levels, it is helpful, for example in the case of fleet transportation.

CUB acknowledges the Company's desire to provide a "consistent and level spend[50]", and may the rationale for spreading system wide fleet investments across all service territories, but believes that the accuracy that is sacrificed to achieve this end is not worth it. For this capital program, the Company provides alternatives:

Avista/602
Machado/Page 104 of 127

Capital Program Business Case

AVISTA

Investment Name:	**Fleet Budget**
Requested Amount	**$ 7,700,000**
Duration/Timeframe	5 Year Program
Dept.., Area:	Fleet Services
Owner:	Greg Loew
Sponsor:	H Rosentrater
Category:	Program
Mandate/Reg. Reference:	n/a

Assessments:	
Financial:	7.00%
Strategic:	Life-cycle asset management
Business Risk:	Business Risk Reduction >0 and <= 5
Program Risk:	High certainty around cost, schedule and resources
Assessment Score:	75

Recommend Program Description:	**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	**Business Risk Score**
Fleet utilizes a VRM (Vehicle Replacement Model) analysis program to determine which vehicles get replaced for the next budget cycle. This program utilizes our internal data regarding equipment utilization, repair costs, purchase costs, disposal costs, and business needs across all classes of equipment. This provides a consistent and level spend to cover all departments effectively. This contributes to the operational readiness for all departments and our company as a whole. The 5 year projection includes analysis of 19 classes in total and the replacement of over 600 assets.	describe any incremental changes that this Program would benefit present operations	$ 7,700,000	$ -	$ -	4

Alternatives:		**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	**Business Risk Score**
Unfunded Program: Replace only on failure	Continue to maintain and repair equipment, but replace only when repairs are no longer an option. Minimal Capital expenditure with a maximum expenditure on O&M.	Unreliable equipment, failed commitments	$ -	$ 2,135,679	$ -	9
Reduced Spend	Cut Spend by 50% to focus only on equipment that is at the end of it's life cycle, is at the upper end of repair costs, and is difficult to replace with a rental if equipment fails mid-year. This will create less spend on Capital, with an increase in O&M spend.	Less reliable equipment. Risk to operation's	$ 3,850,000	$ 1,914,099	$ -	4
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2014	$ 7,595,175	$ -	$ -	$ 5,700,406
2015	$ 7,700,000	$ -	$ -	$ 8,270,000
2016	$ 8,085,000	$ -	$ -	$ 5,659,500
2017	$ 8,489,250	$ -	$ -	$ 8,400,000
2018	$ 8,913,713	$ -	$ -	$ 7,700,000
2019	$ 9,359,398	$ -	$ -	$ 7,700,000
2020	$ -	$ -	$ -	$ 7,700,000
2021				$ 7,700,000
Total	$ 50,142,536	$ -	$ -	$ 58,829,906

Associated Ers (list all applicable):			
7000			

[50] UG 325/Avista/602/Machado/104.

In this case, the reduced spend option seems reasonable, especially since, it seems like this is what the Company may have been doing before it decided to file successive rate cases.

Here it is instructive to look at historical actual spend vs. budgeted amounts

System actuals:[51]

Avista Corp																		
Actual Transfers to Plant: 2011-2016 (Enterprise Technology & General Plant - System & Oregon)																		
Staff DR 247 Attachment A																		
			Year							OR		Oregon Allocated Balances						
Erval	Jurisdiction	Asset Service	2011	2012	2013	2014	2015	2016	Grand Total	Allocation		2011	2012	2013	2014	2015	2016	Grand Total
7000	AA	CD	33,690			37,057	39,603	216	110,566	8.716%		2,936	-	-	3,230	3,452	19	9,637
	OR	GD	480,871	109,246	530,175	0	879,782	752,713	2,752,787	100%		480,871	109,246	530,175	0	879,782	752,713	2,752,787

Using these numbers, system-wide, the average transfer to plant for fleet has been $572,000 for the past 5 years which is comprised of both $9,637 total allocated and $2,572,787 direct assigned. Yet, for the years 2011-2016, the asset service category (CD/GD) amounts don't match up at all to the budget, which takes all of the ER 7000 and allocates it across service territories with one asset service code (8.7% to Oregon).

Budget:[52]

Avista Corp																	
Budgeted Transfers to Plant: 2011-2016 (Enterprise Technology and General Plant Capital Projects)																	
Staff DR 247 Attachment B																	
System Balances																	
			Year							OR		Year					
Erval	Asset Service	Jurisdic	2011	2012	2013	2014	2015	2016	Grand Total	Allocation		2011	2012	2013	2014	2015	2016
7000	CD	AA	9,468,000	7,673,715	5,819,044	5,585,502	7,700,000	5,659,500	41,905,761	8.716%		825,231	668,841	507,188	486,832	671,132	493,282
[A]	The Company's budget amounts listed above may not agree to the budgets that were prepared for preceding general rate cases, due to the timing of when a rate case was prepared and the use of the current allocation factor to derive historical budgeted amounts. The transfers to plant budget amounts are prepared once a year in the Oct./Nov. timeframe, whereas the amounts included in the general rate case are updated for the most current expectation at the time of filing the case.																

Neither does this match up with the Company's forward looking spending expectations for 2017, which seems to have two allocated amounts for each state, mixed in with WA electric and Idaho electric.

DEPRECIATION_CATEG[illegible]	[illegible]CE_CODE	STATE_COD	ER	BI	ER_TITLE	Specific Allocation (Y/N)?		WA - E	WA - G	ID - E	ID - G	OR	
Transportation and Tools 3[illegible] / 3[illegible]	CD	AA	7000	80K51	Transportation Equip	No	Transportation and Tools 392 / 396 CD AA	48.681%	14.319%	22.866%	5.432%	8.702%	7000 Transportation and Tools 392 / 396
Transportation and Tools 3[illegible] / 3[illegible]	CD	AA	7000	80K51	Transportation Equip	No	Transportation and Tools 392 / 396 CD AA	48.681%	14.319%	22.866%	5.432%	8.702%	7000 Transportation and Tools 392 / 396

[51] CUB Exhibit 112.
[52] CUB Exhibit 113.

This is not intuitive, and could be improved upon by using a direct assignment, as it is not difficult to identify which fleet vehicles serve Oregon's distinct service territory.

What it appears, from the information available (without any evidence of transfers to plant for Washington or Idaho fleet), is there were many years that the Company budgeted for fleet transfers to plant, or vehicle maintenance, system-wide drastically in excess of what actual transfer to plant was. Cumulative system budget from 2011 to 2016 for ER 7000 was $41.9 million, but total documented transfer to plant in that time was $2.9 million. In addition, budgeted transfer to plant was planned to be allocated across the Companies service territories, but, in several years, Oregon specifically received 100% allocation factors for large portions of transfers to plant.

Several problems arise here for 2017, at least. Given that the Company treats fleet ER 7000 as an allocation instead of a direct assignment, and Washington its largest service territory has denied rate increases, Oregon customers would be funding $849,000[53], approximately $200,000 more than the Company has spent annually on its entire system wide fleet over the past 5 years. The allocation instead of direct assignment removes all accountability for the Company to be sure that Oregon customers would not be subsidizing fleet in other states. CUB does not support the Company's proposed request for this capital program, and recommends a full adjustment until the Company is able to reconcile the fleet budget and actual transfers to plant across all of its service territories both in historical years, and forecasts for 2017.

In addition, with all the capital improvements for meters, telemetry, reporting and infrastructure the Company is making in this case, it is plausible that the wear and tear on

[53] UG 325/Avista/600/Machado/24.

the Company's fleet will be reduced. Several other of the Company's business cases should have an impact on the fleet vehicles, yet the Company hasn't factored those changes into the vehicle life. Some of the business cases are:

- ER 7131 – new fleet garage,
- ER 3209 – La Grand – Elgin reinforcement, resulting in fewer design day contingency deployments
- ER 3303 – Completion of the Ladd Canyon gate station -resulting in fewer design day contingency deployments
- ER 3203 – Completion of the East Medford High Pressure Reinforcement -resulting in fewer design day contingency deployments
- ER 3117-Gas Telemetry Deployment- reducing the need for mechanical recording and manual reporting through automation
- ER 3054 -Gas ERT Replacement Program –reduction of maintenance calls

3. *Capital Project ER 5144 – Mobility in the Field*

The five year mobility device program is one of the programs that included alternatives in the business case.[54] It is also a program where the Company has transferred to plant an amount similar to what was in budget for the past several years [55]. It is also important to note that in this business case, the Company provides some cost benefit analysis. It states that the Company would save $2,000 per device, and under the Alternative 1 scenario plans to deploy 180 mobile devices.[56] The Company requests $54,000 from Oregon, and, using the standard allocation factor assigned to this program[57], this amounts to approximately $621,000 system wide. CUB currently has an outstanding data request asking the Company to clarify where these savings from the 180 devices can be observed across the system, and how those savings are allocated. We

[54] UG 325/Avista/602/Machado/24.
[55] CUB Exhibit 112 and CUB Exhibit 113
[56] UG 325/Avista/602/Machado/94.
[57] CUB Exhibit 126, line 538.

recommend no recovery in this case. Our recommendation in upcoming testimony will be based on the Company's response.

4. *Capital Summary and Recommendation*

Given the Company's disparate and inconsistent approach to capital, CUB makes practical recommendations on individual capital projects. However, CUB also recommends that the Commission issue a complete disallowance, to the Company for failing to meet the requirements of Order 16-109. Even if the Company places capital projects in service by the rate effective date, the Company has not demonstrated that those projects are needed. PGE has discussed options for shaving peak by getting customers to turn off ancillary power during peak, not necessarily their air conditioners, but maybe a light or two or three. Avista doesn't need to delay funding of critical infrastructure or safety projects to an unsafe level, that of one below compliance. However, at the same time, it does not need to deploy AMI, a new website, build a new parking structure and a customer service center all in one year for its customers to be served safely and reliably. The Company is tasked with balancing the needs of its customers and its shareholders. In this rate case, as in the last, the Company is putting its shareholders first

The Company states that if the Commission were to grant its request that an average residential customer bill[58] would increase by approximately $5 to $61.24. However, it is also important to consider that during the time that these capital investments are in rates for customers, it is also likely that commodity costs return to prior higher levels. The resulting customer bills do not seem so innocuous.

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[58] UG 325/Avista/Ehrbar/900/10.

Hypothetical Natural Gas Costs	Schedule 410 Hypothetical Average Bill at 46 therms
$4.00 per dekatherm	$67.48
$6.00 per dekatherm	$76.68
$8.00 per dekatherm	$85.88
$10.00 per dekatherm	$95.08
$12.00 per dekatherm	$104.28

Much of the difficulty in analyzing the prudency of Avista's capital investments is its lack of rigorous analysis included in the capital review process.[59] In response to CUB's inquiry as to how capital funding decisions are made, the Company stated and reiterated in that it is discussed amongst the CPG members [60]:

Again, the rational for delay or rejection is discussed among the members of the CPG during the annual prioritization process.[61]

But, of course, the Company made no records available regarding the rationale of its decision-making process. This lack of transparency on the most significant portion of this case provides the Commission a very weak basis on which to determine prudence.

Critical questions about the benefit/costs analysis, alternative investments, alternative timing for the investment, simply are not considered or are not documented. A prudency review is based on what the Company knew or should have known when it made a decision.[62] The Commission has been clear that the decision-making process is a critical element:

[59] CUB Exhibit 114.
[60] CUB Exhibit 114.
[61] CUB Exhibit 114.
[62] *See in re Portland General Electric Company*, OPUC Docket No. UE 196, Order No. 10-051 (Feb. 5, 2009).

> Contrary to any implication from the language in docket UM 995, the process used by the utility to make a decision to invest in a plant is highly valuable in determining whether the utility's actions were reasonable and prudent in light of the circumstances which then existed. The prudence standard examines all actions of the utility-including the process that the utility used to make a decision. Although there may be unique circumstances where a utility is able to overcome the inability to explain its internal decision-making processes, a utility's actions are generally a primary consideration in a prudence review.[63].
>
> Although that case involved the reasonableness of power costs and not the proper valuation of rate base, it supports the conclusion that the utility's decision-making process may be highly relevant as to whether a capital investment was prudently incurred. It is often central to the inquiry of whether the utility exercised the standard of care which a reasonable person would be expected to exercise under the same circumstances encountered by utility management at the time the decision had to be made.[64]

In UE 246, the Commission found that PacifiCorp's decision making process relating to coal retrofits was deficient:

> Based on our findings that Pacific Power failed to reasonably examine alternative courses of action and perform adequate analysis to support its investments, we conclude that a partial disallowance is warranted. Pacific Power's imprudent and inadequate analysis and decision-making put ratepayers at risk. The full costs of the investments resulting from that imprudence should not be recoverable in rates.
>
> Because the purpose of a prudence review is to hold ratepayers harmless from any amount imprudently invested, a disallowance should equal the amount of the unreasonable investment. For example, we recently concluded that a utility had failed to establish that it acted prudently in building a natural gas pipeline years ahead of a demonstrated need for the project. Finding there was no persuasive evidence that the pipeline was needed to serve customers at this time, we excluded the entire amount from rate base.
>
> We are unable to easily calculate the precise amount of a proper disallowance in this case, however. Quantifying the impact of Pacific Power's imprudence has been hindered by the very actions that underlie our finding of imprudence-the utility's inadequate analysis and decision-making. Had Pacific Power reasonably considered other compliance alternatives and performed proper and robust analyses, we would have the information necessary to calculate the harm to ratepayers for the utility's decision to proceed with its investments rather than

[63] OPUC Order No. 12-493 at26.
[64] OPUC Order No. 12-493 at 27.

> pursuing other, least-costly, options. Without that information, we are left with determining a disallowance that reasonably penalizes Pacific Power for its imprudence, while acknowledging our inability to assess a precise amount.
>
> CUB recognizes this dilemma and offers three recommendations. First, CUB suggests that we could simply disallow the investments, reasoning that costs incurred from imprudent actions should be eliminated. Alternatively, CUB proposes that we require Pacific Power to perform the analysis it failed to perform so that the economic costs to ratepayers resulting from the utility's actions can be modeled. CUB's final and primary recommendation is to disallow 25 percent of the investments.
>
> We dismiss CUB's first two proposals. With regard to a total disallowance, even CUB acknowledges the difficulty of excluding from rate base investments that enable the affected plants to continue to operate and provide service to customers. Moreover, although Pacific Power failed to reasonably consider other compliance scenarios or timing options, significant investments in its coal fleet were necessary. And while we agree that new analysis to model the impact on ratepayers would provide us additional information to determine a disallowance, the proposal is not possible under the statutory framework governing ratemaking. As the parties are aware, we are restricted to a statutory suspension period to investigate and resolve a proposed rate request. Requiring the additional analysis would take more time than we are allotted. We find merit in CUB's third proposal to adopt a percentage disallowance. Because our finding of imprudence is based on Pacific Power's inadequate analysis and decision-making used for all of its investments, we find a partial disallowance applied to all of its unit upgrades is appropriate.
>
> The question then becomes how much of a percentage to disallow. As noted above, Pacific Power seeks recovery, on a company-wide basis, of approximately $661 million in its emission control investments. The Oregon-allocated share of those investments is approximately $170 million. Accepting the fact that it is impossible, on this record, to precisely quantify the impact of Pacific Power's imprudence, we conclude sufficient evidence exists to support a 10 percent ($17 million) disallowance.[65]

While CUB recommends some disallowances for specific projects, CUB believes, at a minimum, an across the board 10% disallowance is necessary in this case for the same reason it was in the PacifiCorp case—the decision-making process failed to consider alternative courses of action and failed to perform adequate analysis to support

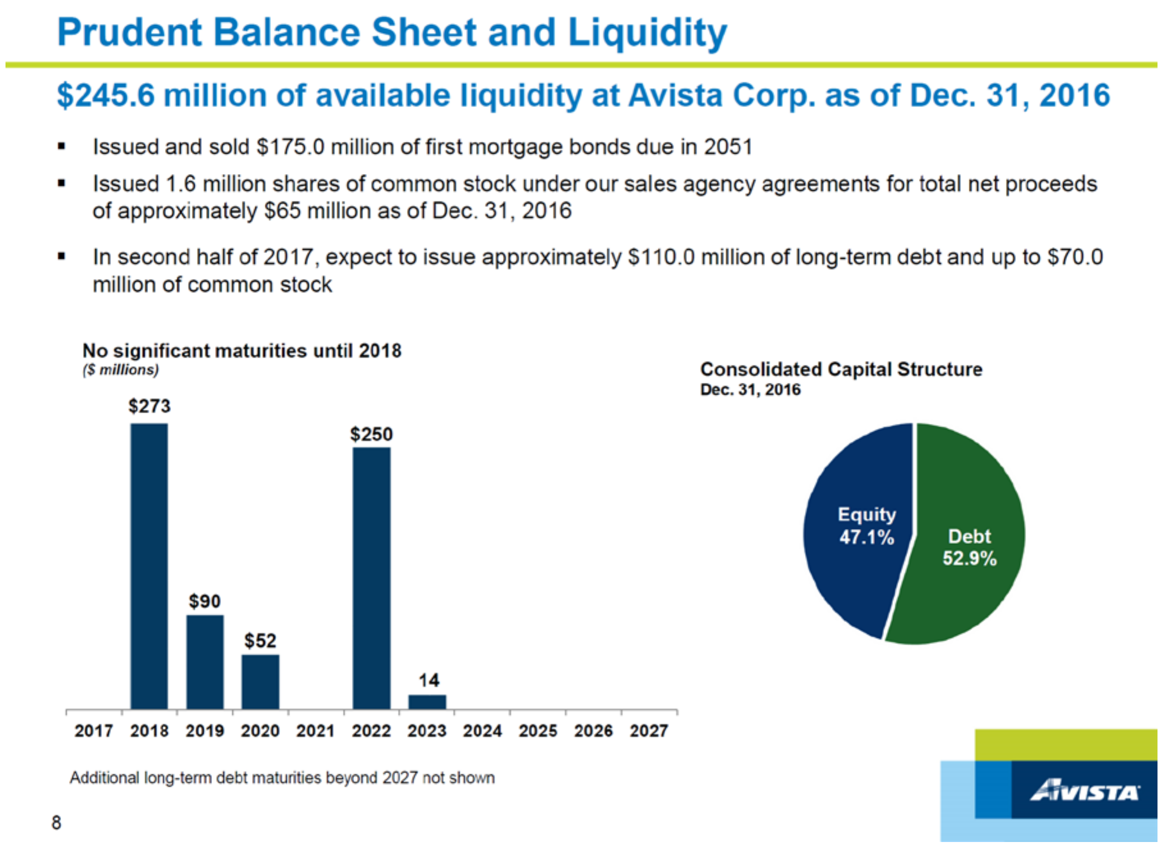
[65] OPUC Order No 12-493 at 31-32.

its investments. Last year, the Commission gave Avista some standards to use as part of its decision-making process. Because Avista's decision-making process does not comply with the Commission standards, a disallowance is necessary.

IV. CAPITAL STRUCTURE

The Company has filed for a 9% increase with a 9.9% ROE and a 50/50 capital structure, even though it has been operating at a much lower ratio for a while. CUB argued in UG 288 that the Company should adjust the regulated debt equity structure down to 48.5% to reflect actual operations[66] and also take into consideration the current lower cost of debt. The Company pushed back claiming that recent operations were not reflective of future Company trends and that it would be imminently returning to 50/50 in actual operations. This is clearly not the case, as the Company's actual equity is 47.1%. Rather than moving towards 50/50 as the Company claimed, the capital structure is moving away from 50/50. In 2016, the Company issued $175 million in debt and $66 million in equity. In 2017, the Company is forecasting $110 million in debt and $70 million in equity: [67]

[66] OPUC Order No. 16-109, p 6.
[67] CUB Exhibit 105, pg 8.



Last year the Company argued that it intended to return to a 50/50 capital structure and the Commission accepted that argument. But the Company has made no progress in that direction and instead is moving away from it. CUB again recommends that the Commission based capital structure on the Company's actual capital structure, which is now 47.1% equity.

V. RATE SPREAD AND RATE DESIGN CONCERNS

A. *LRIC, Rate Spread and Rate Design*

From the Company's most recent 10-k, capturing 2016 results, it is interesting to note that it delivered more therms to Commercial, Interruptible and Industrial customers, than the year prior, yet each in 2016 of those customer classes payed less in total than the year before. [68]

AVISTA UTILITIES NATURAL GAS OPERATING STATISTICS

	Years Ended December 31, 2016	2015	2014
NATURAL GAS OPERATIONS			
OPERATING REVENUES (Dollars in Thousands):			
Residential	$ 195,275	$ 193,825	$ 203,373
Commercial	92,978	96,751	103,179
Interruptible	2,179	2,782	2,792
Industrial	3,348	3,792	4,158
Total retail	293,780	297,150	313,502
Wholesale	153,446	204,289	228,187
Transportation	8,339	7,988	7,735
Other	5,787	5,578	7,461
Decoupling	12,309	6,004	—
Provision for earnings sharing	(2,767)	—	(221)
Total natural gas operating revenues	$ 470,894	$ 521,009	$ 556,664
THERMS DELIVERED (Thousands of Therms):			
Residential	186,565	176,613	190,171
Commercial	112,686	107,894	116,748
Interruptible	5,700	4,708	5,033
Industrial	5,234	5,070	5,648
Total retail	310,185	294,285	317,600

.

69

Yet, in this case, 84% of the revenue requirement is proposed capital deployment[70], which the Company describes as serving all customer classes.[71]

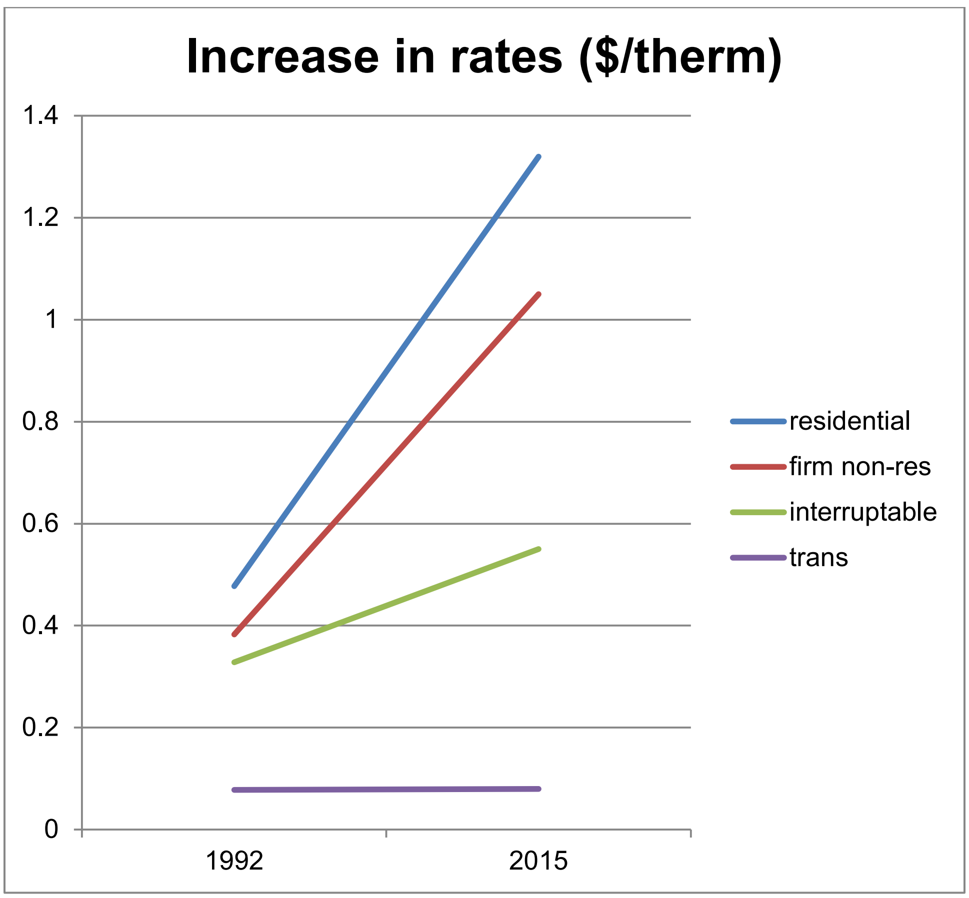
> While the Company's forecast shows a total overall increase in customer usage of 3.3% from the twelve-months ended June 30, 2016 base year to the twelve-months ended September 30, 2018 test year (a 27-month period), only 36% of the projected load increase is from higher margin sales customers (Schedules 410 – 444), with the other 64% coming from lower margin transportation and special contract customers (Schedules 447 and 456).[72]

Yet the Company does not propose increases for large customers.

[68] Avista 10k pg 23 http://investor.avistacorp.com/phoenix.zhtml?c=97267&p=irol-sec
[69] Avista 10k pg 23 http://investor.avistacorp.com/phoenix.zhtml?c=97267&p=irol-sec
[70] Avista/100/Morris/pg 8.
[71] CUB Exhibit 115.
[72] CUB Exhibit 116.

1. This Follows a 25 Year Practice

Avista purchased its Oregon service territory from CP National in 1991. 1992 was the first full year that Avista operated the system. By comparing today's rates, to the rates when Avista took over shows that residential customers have absorbed the great share of rate hikes on the system, followed by firm non-residential customers, while interruptible customers have seen a much smaller increase and transportation customers have seen no increase in that time:[73]



[73] Rates taken from OPUC Utility Statistics Book, 2016 and 1992.

However when adjusted for inflation it is clear that some customers have seen substantial real rate increases while other have seen substantial rate decreases:[74]

	Rate change 1992-2015 (in 2015 dollars)
residential	61%
firm non-res	62%
interruptible	-2%
transportation	-38%

2. UG 288

In last year's rate case, Avista proposed rate increases for residential and small commercial customers and rate decreases for industrial, interruptible and transportation customers. The PUC rejected this, affirming its general policy that when costs are generally going up, customer classes should not be given rate decreases:

> We do not adopt any of the rate spread proposals. Instead, we allocate the rate increase to the residential and general service customers and do not increase or reduce rates for the large customers.
>
> While the result does move the rate schedules closer to their apparent marginal costs, we do not adopt adherence to marginal cost as the sole consideration in setting rates. As stated by NWIGU, "[w]hile the Commission has not used LRIC studies to mandate strict rate parity, the results of the studies have provided informed guidance on class rate spread."
>
> As noted by CUB, we have a longstanding policy of not reducing rates for some customers where rates are increased for other customers. We reaffirmed this in Avista's most recent rate case, stating that we would apply this policy "[a]bsent compelling evidence that warrants more immediate action." The parties' efforts to characterize their LRIC studies as compelling evidence are to no avail. Their evidence in this case is no more compelling than it was in the last case.'

[74] Rates taken from OPUC Utility Statistics Book, 2016 and 1992, adjusted for inflation using Consumer Price Index.

> Staff and NWIGU try to justify their rate spread proposals by minimizing the effect on residential customers. One could just as readily argue the converse—the adopted rate spread has a small impact on the larger customers. There is no evidence to support the inference that the slight difference in the rates for large customers would materially affect Avista's loads[75].

Looking at historical data shows that while there is a longstanding policy of not reducing rates for some customers while increasing rates for others, when looking over the life of Avista's Oregon service territory, this is exactly what Avista has systematically done.

3. Joint and Common Costs

The focus of a cost of service study is joint and common costs. It is relatively straightforward to assign to an individual customer, the cost of the resources that are specifically dedicated to that customer (meter, for example). But most of the distribution system, however, is made up of joint and common costs. These are elements that we all share but are allocated across various customer classes and charged to individual customers within those classes.

The Commission has recognized that there are different ways to do this and it is as much art as science:

[75] OPUC Order No. 16-109 p.21.

> We will not require a single marginal cost approach for all utilities. Calculating marginal costs is as much an art as it is a science. Allowing utilities to address the issue of calculating marginal costs in different ways has led to significant and productive new approaches to efficient pricing and costing of electrical service. We do not believe that mandating a single approach will advance the art of marginal cost analysis, and it could significantly impede progress.[76]

The goal should be to allocate the costs of a shared system in a fair manner. Consider the following simple, but illustrative, example. Three roommates share an apartment and pay $150/month for high speed internet (250 Mbps download). One option would be to recognize that they all have equal access to the internet and to spread the cost equally ($50/person). However, assume that one person uses the internet solely for the purpose of email and could have gotten along fine with slower service at $50/month (25Mbps) while another roommates watches high definition movies and requires the greater speed. This person might argue that he/she should only pay $16.67 dollars/month because that his/her share of the level of service needed and that the other roommates should pick up the difference. So in once instance we could charge all roommates $50/month and in the other instance we could charge one roommate $16.67 and the others, $66.67. Neither of these is inherently unfair. They simply represent different ways to allocate the costs of a shared system.

In the case of Avista, it is not making investments on behalf of an individual customer, but the entire system. Therefore, when assigning costs incurred on behalf of, and subsequently passed through to customers, the company must consider the impact on the individual customer, including the

[76] OPUC Order No. 95-322.

value to the individual customer served by a particular investment, the individual customer's options and alternatives and the affordability to the customer.

4. LRIC

CUB has been critical of Avista's LRIC methodology. Oregon uses marginal or incremental costs as the basis of cost of service studies. This can be contrasted with embedded cost studies that are used in other jurisdictions. The difference is that a marginal/incremental cost study is forward-looking, while an embedded cost study is backward-looking. The marginal cost of service study is trying to define what, on a going-forward basis, is the cost of serving a new customer or new therm of demand. An embedded cost study looks at the existing system of investments and is trying to determine who these investments were made to serve.

One point of CUB's criticism is that Avista does not take into account that a residential customer uses less gas today, and that because of that the system is overbuilt in some places. During Avista's first three full years of Oregon service (1992-1995), the average Oregon residential customer used 772 therms per year.[77] During the most recent three years available (2012-2015), the average Oregon residential customer used approximately 1/3 less or 528 therms per year.[78] This obviously means that pipes and other elements to the distribution system which have capacity limits can now serve significantly more residential customers than

[77] Oregon Utility Statistics Book, 1997, http://www.puc.state.or.us/Pages/Oregon_Utility_Statistics_Book.aspx
[78] Oregon Utility Statistics Book, 2015, http://www.puc.state.or.us/Pages/Oregon_Utility_Statistics_Book.aspx

they historically could. CUB believes that the LRIC study has to take this into account.

The methodology to take this into account is relatively straightforward. Rather than examine the gas distribution system and reprice the existing (embedded) system based on today's dollars, the Company needs to identify how that distribution system would change based on current usage. The Company should conduct sampling of individual distribution system elements to identify elements that can be either downsized or used to serve more customers than the current alignment. This information should then be used to provide the incremental cost of a hypothetical system that is designed to serve customers based on their expected loads.

5. Rate Spread and Price Signals

Avista proposes to raise rates for residential and small commercial customers, but to keep rates as they currently are for all other classes of customers.

CUB objects to this, because it sends poor price signals to large industrial customers. Avista expects to drive continued rate increases as the cost of its capital investment is planned to remain well above inflation.[79] The rate increase this year is not an unique experience. It is the latest in a series which is expected to continue indefinitely. All customer classes should get price signals that tell them that the cost of maintaining the distribution system and meeting load growth (primarily industrial) is leading to higher rates. This can be done, while still

[79] UG 325/ Avista/100/Morris/pg 6.

moving all customer classes towards an equal percentage of LRIC by using an approximate 3 to 1 rate spread, where all classes of customers get rate increases, but the customer classes that are furthest below an equal percent of (an accurate) LRIC should get 3 times the rate hike of the class that is the furthest above equal percent of LRIC.

With the current revenue requirement, this can be accomplished by giving schedules 424, 440, 444, and 456 a three percent increase, with this additional revenue being used to equally moderate the rate increases for the residential and small commercial customers.

6. Rate Design

Avista is proposing to increase the customer charge for residential customers from \$9 to \$10.[80] CUB generally supports keeping the customer charge low and applying revenue increases to the variable charge. On the gas system this is important for two reasons. First, for many customers gas is a seasonal service, supplying only heat. High customer charges encourage customers to seasonally disconnect from the utility which can reduce utility revenues – this, then leads to higher reconnect charges to discourage seasonal disconnections. And while we can price reconnection in a manner to discourage seasonal disconnection, many customers do not appreciate paying for gas service when they do not consume any gas. Second, variable charges encourage

[80] UG 325/Avista/900/Ehrbar/36.

customers to invest in energy efficiency which has benefits to the customer, the utility system and to society, generally.

VI. ANALYSIS OF INDIVIDUAL CAPITAL INVESTMENTS

In analyzing capital expenditure, CUB analyzed, 2011-2016 historical annual budgets, 2011-2016 actual transfers to plant (TTP), 2016 monthly TTP[81,82,83,84,85,86,87,88,89,90,91], 2017 forecasted monthly TTP[92], UG 288 budgets and capital requests, along with business cases descriptions, business case forms, investor reports, data responses, IRP segments and the Commission order in UG 288. CUB attempted to get a full picture for each capital project and reflect that in its proposed adjustment.

For perspective, and because CUB references UG 288 throughout this section, we insert two tables of capital requests from that case,[93] then we look at specific projects from this case.

[81] CUB Exhibit 117.
[82] CUB Exhibit 118.
[83] CUB Exhibit 119.
[84] CUB Exhibit 120.
[85] CUB Exhibit 121.
[86] CUB Exhibit 122.
[87] CUB Exhibit 123.
[88] CUB Exhibit 124.
[89] CUB Exhibit 112.
[90] CUB Exhibit 113.
[91] CUB Exhibit 125.
[92] CUB Exhibit 126.
[93] UG 288/Avista/Schuh/600/9-10.

Table No. 1
General Plant Capital Projects - 2015 Transfers to Plant

Project	ER	2015 System (000's)	2015 Oregon Allocated (000's)
SCADA Upgrade	2277	$ 1,020	$ 89
Technology Refresh to Sustain Business Process	5005	21,379	1,860
Technology Expansion to Enable Business Process	5006	7,431	647
Enterprise Business Continuity	5010	649	56
Enterprise Security Systems	5014	5,400	470
Next Generation Radio System	5106	4,200	365
Microwave Replacement with Fiber	5121	2,755	240
Customer Information and Asset System Replacement	5138	95,386	8,300
AvistaUtilities.com Redevelopment	5143	7,038	612
Mobility in the Field	5144	420	37
Subtotal - Technology Projects		145,678	12,676
Transportation Equipment	7000	7,834	959
Structures and Improvements	7001	3,400	296
Office Furniture	7003	1,200	104
Stores Equipment	7005	648	56
Tools Lab & Shop Equipment	7006	1,719	167
Battery Storage Strategic Initiative[3]	7060	2,062	179
COF HVAC Improvement	7101	10,979	955
Long Term Campus Re-Structuring Plan	7126	5,000	435
Long Term Campus Re-Structuring Plan - Phase 2	7131	2,000	174
Apprentice Craft Training	7200	121	11
Subtotal - General Plant Projects		34,963	3,336
TOTAL		$ 180,641	$ 16,012

Table No. 2
Oregon Gas Distribution Capital Projects - 2015 Transfers to Plant

Project	ER	2015 System (000's)	2015 Oregon Allocated (000's)
Gas Revenue Growth Projects	1001	$ 13,545	$ 3,846
Gas Meters Growth Projects	1050	1,880	658
Gas Regulators Growth Projects	1051	330	52
Gas ERT Growth Projects	1053	678	237
Gas Reinforce - Minor Blanket	3000	1,481	761
Replace Deteriorating Gas System	3001	1,000	1,000
Regulator Reliable - Blanket	3002	947	387
Gas Replace - Street & Highway	3003	4,827	3,477
Cathodic Protection - Minor Blanket	3004	950	50
	3005		
Gas Distribution Non-Revenue Projects		6,002	3,602
Overbuilt Pipe Replacement Projects	3006	900	828
Isolated Steel	3007	3,450	850
Aldyl-A Pipe Replacement	3008	18,317	6,298
Gas ERT Replacement Program	3054	402	402
Gas Meter Replacement	3055	1,030	296
Gas Telemetry	3117	400	120
East Medford Reinforcement	3203	5,000	5,000
Ladd Canyon Gate Station Upgrade	3303	1,650	1,650
Bonanza Gate Station Move	3307	600	600
Jackson Prairie Storage	7201	1,356	131
TOTAL		$ 64,745	$ 30,245

In reviewing each capital project, we begin with a summary of Avista's recovery request, partitioned by 2016 TTP and 2017 TTP in this case. Below that is CUB's recommended adjustment for each year's investment, followed by an explanation of CUB's disallowance.

1. ER: 1001/1050/1051/1053 Investment in New Customer Connects (test year)[94] **–**

ER1001	Company	$2,610,000	CUB	$0	
ER1050	Company	$125,000	CUB	$0	
ER1051	Company	$17,000	CUB	$0	
ER1053	Company	$157,000	CUB	$0	

None of these projects will be in service by the rate effective date. The Company aims to get capital pre-approved for the up-coming test year on the basis that if the forecasted customer growth estimated materializes, and if all other expenses and revenues play out as planned so that the Company can not absorb these costs with fair and reasonable rates, then these would be costs that would be incurred to serve new customers.

> In this hypothetical scenario, where investments were included in ratebase, but the customer growth did not materialize, the revenue associated with this capital investment would be included in the annual earnings test calculation. However, the other side of a hypothetical scenario in which forecast customer growth did not materialize must also be considered. That is, the reduction in revenue requirement associated with the revenue

[94] UG 325/Avista/600/Machado/12, Table No. 2.

attributable to new customers would also not materialize. This factor would also be included in the annual earnings test calculation[95].

The "Company believes it is appropriate, under the matching principle, that the utility plant required to serve these new customers also be included in the test year."[96] CUB is not aware of a "matching principle" that supersedes the used and useful statute. In addition, the outcome of a General Rate Case should produce fair and reasonable rates, yet it is very unclear whether the Company's estimate of budgeted costs accurately reflect it actual operations in any given year. Consider the following table that compares 2015 budget to 2015 actuals:

Erval	Er desc	2015 Budget	2015 Actual	$ Change	% Change	Variance Explanation Threshold greater than 10% and $250,000
Avista Corp						
2015 Variance Analysis						
Staff DR 245 Attachment D						
1001	Gas Revenue Blanket	3,644,083	6,001,557	2,357,474	65%	New connects of gas customers were 130% of forecast in Oregon, due to recovering economy, coupled with rising building permit activity. Gas development work in new subdivisions has continued, with connects expected in future periods.
1050	Gas Meters Minor Blanket	658,104	453,576	(204,528)	-31%	
1051	Gas Regulators Minor Blanket	51,745	61,522	9,777	19%	
1053	Gas ERT Minor Blanket	237,417	498,776	261,360	110%	Beginning of our ERT replacement program for ERTs over 14 years old, which have an increased risk of battery failure. OR was converted to ERTs in the late 1990's, and we are now in the process of replacing older units. Note that the budget for this item was increased in 2016.
	Total New Revenue Growth Bus. Case	4,591,348	7,015,431	2,424,083	53%	
3000	Gas Reinforce-Minor Blanket	280,000	930,193	650,193	232%	As reinforcement prioritization continued to be evaluated, additional Oregon projects were prioritized.
3001	Replace Deteriorating Gas System	1,000,000	448,174	(551,826)	-55%	Other district work took priority over this category.
3002	Regulator Reliable - Blanket	240,000	349,332	109,332	46%	
3003	Gas Replace-St&Hwy	3,150,000	1,683,354	(1,466,646)	-47%	Fewer road project conflicts happened this year than historically experienced.
3004	Cathodic Protection-Minor Blanket	49,999	113,239	63,240	126%	
3005	Gas Distribution Non-Revenue Blanket	3,599,999	4,261,619	661,620	18%	This work type is reactive (not planned--e.g., leak repair, etc.), budget is based off historicals, actual quantity of work came in higher than expected. Some of the underspend in the other categories was due to this extra work.
3006	Overbuilt Pipe Replacement Blanket	828,000	449,331	(378,669)	-46%	Other district work took priority over this category.
3007	Isolated Steel Replacement	850,011	349,383	(500,628)	-59%	Other district work took priority over this category.
3008	Aldyl -A Pipe Replacement	6,298,198	6,504,790	206,592	3%	
3054	Gas ERT Replacement Program	401,891	84,277	(317,614)	-79%	Work was originally planned to start Q4 of 2015 and run through Q1 of 2016. Due to equipment and material availabiltiy, the start was delayed until Jan 2016. This will be the schedule moving forward.
3055	Gas Meter Replacement	295,559	391,923	96,364	33%	
3057	Gas HP Pipeline Remediation Program	-	-	-	n/m	
3117	Gas Telemetry	120,000	28,737	(91,263)	-76%	
3203	East Medford Reinforcement	4,999,907	-	(4,999,907)	-100%	Construction delayed from 2015 to 2016 due to unexpected ground conditions and work restrictions that were encountered.
3303	Ladd Canyon Gate Station Upgrade	1,650,000	1,423,413	(226,587)	-14%	
7201	Jackson Prairie Storage	130,944	107,970	(22,974)	-18%	
Grand Total		**28,485,856**	**24,141,166**	**(4,344,689)**	**-15%**	

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[95] CUB Exhibit 127.
[96] CUB Exhibit 127.
[97] CUB Exhibit 121.

In some years the Company spends over budget and some years under, but it is unpredictable. For these reasons, along with the used and useful principle, which the Company recognizes

> Ratemaking practice in Oregon in the past has generally limited the new plant investment included in retail rates to investment that is transferred to plant in service on or before the new retail rates go into effect[98]

CUB recommends a full adjustment for the capital not in service on the rate effective date.

2. ER3000: Gas Reinforcement Program[99] –

Company	2016	$292,000	2017	$238,000	
CUB	2016	$0	2017	$151,107	

The Company does not explain the various allocation factors between the states along with direct assignment. However, in UG 288, the Company requested system wide $1.481[100] million but provides no data as to actual transfers to plant system wide.[101] Therefore, CUB recommends a full adjustment for 2016.

The Company currently has a budget specifically for Oregon. [102]

		Year							OR
Erval	Jurisdiction	2010	2011	2012	2013	2014	2015	2016	Allocation
3000	AA	472,501	470,000	799,999	350,000	1,000,000			30.3660%
	OR						280,000	363,636	100.0000%

However, this has only been the case since the Company has been filing the last two rate cases (as can be seen above). In addition, actual expenditures, until recently,

[98] CUB Exhibit 127.
[99] Avista/600/Machado/pg 12/Table No. 1.
[100] UG 288/Avista/Schuh/600/10.
[101] CUB Exhibit 119.
[102] CUB Exhibit 120.

were above and below actuals[103] (the Company only provided this information on an Oregon basis for past years) and it is clear from the table above that the Company has increased its budget significantly in recent years. CUB recommends that the Commission make an adjustment to use the allocation factor and apply it to 4 year average of actuals system wide. The Company has increased spending in this area quite a bit recently, but it is unexplained. Prior years were not nearly as high[104]. Additionally, in 2016 TTP by month demonstrates that a large portion of the Company's TTP is historically right at year end, which will be well after rate effective date for the 2017 forecasted TTP.[105] Until we get further information on actuals, we assume that the budget has been representative of actual spend. Because allocations have not been explained, and the Company added additional projects to Oregon throughout the year,[106] and because this is a periodic replacement program and the Company is also committing many other reliability upgrades that may overlap with this program, using the 4-year average system budgets above and the allocation factor, we recommend $151,017 for 2017.

3. ER3001: Replace deteriorating Gas Systems– OR[107]

Company	2016	$698,000 OR	2017	$750,000 OR	
CUB	2016	$677,000 OR	2017	$677,000 OR	

CUB examined system transfers to plant, budget, historical[108] and forecasted[109]. CUB notices that Only Idaho and Oregon have projects ER3001 in the system, and would like

[103] CUB Exhibit 119.
[104] CUB Exhibit 119.
[105] CUB Exhibit 126.
[106] CUB Exhibit 121.
[107] Avista/600/Machado/pg 12/Table No. 1.

clarification from the Company on how it conducts similar processes for Washington. The Company explains [110]that other projects took priority which moved the project off budget. CUB recognizes that this can happen, so we recommend an average of 4 years of actuals and arrive at $677,000. However, we would like the Company assess how all the infrastructure, remediation, replacement and improvements will have an impact on ER3001. That is, in the future, CUB expects that as the system is modernized the proportion that is deteriorating should decrease and a historical average may be overstating the amount of work that needs to be done.

4. ER3002: Regulator Station Reliability– OR[111]

Company	2016	$363,000 OR	2017	$290,000 OR	
CUB	2016	$200,000 OR	2017	$200,000 OR	

In this case, CUB recognizes that this is an ongoing program that the Company must manage and smooth over time. The Company has not made a case for the large increase over the past two years while they have been filing rate cases. Before that, actuals ran averages around $196,000, which is also only about $20,000 more than budgeted average from 2011-2016 for Oregon[112]. Interestingly, the Company plans to commit for the first three months of 2017 transfers to plant specifically dedicated to Oregon, and then the rest of the year (2017) transferring to system plant with an Oregon

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[108] CUB Exhibits 119, 120, 121.
[109] CUB Exhibit 126, lines 411 and 412.
[110] CUB Exhibit 121.
[111] Avista/600/Machado/pg 12/Table No. 1.
[112] CUB Exhibit 117, lines 19-20.

allocation factor of 34%[113]. The adjustment is made for failure to explain the increase, demonstrate the prudence of the timing, or pacing of investments given that it is a long standing ongoing project that has been funded at a lower level for many years. In addition, The Company budget often doesn't reflect actuals, and since the Company does not present business cases for actuals, only budgets, it is difficult to establish prudence.

5. ER3003: Gas Replacement Street and Highways– OR[114]

Company	2016	$678,000 OR	2017	$889,000 OR	
CUB	2016	$0 OR	2017	$444,500 OR	

In UG 288, the Company requested $3.477 million from Oregon customers for this project, but only placed in service $1.7 million in 2015 and only $19,000 by the rate effective date in 2016.[115] Therefore, CUB recommends a full adjustment for 2016 and a 50% adjustment for 2017. For the past two years, the Company has significantly overestimated the amount required for this project. Given that is driven by franchise agreements, and the Company must find a way to meet this obligation, CUB understands the need to complete. However, CUB also feels that it is incumbent on the Company to improve its estimates. In addition, the Company has been able to keep the revenue collected on behalf of this program for work that never materialized or transferred to plant.

113 CUB Exhibit 126.
114 UG 325/Avista/600/Machado/12/Table No. 1.
115 CUB Exhibit 119.

6. ER3004: Cathodic Protection Program– OR

Company	2016	$214,000 OR	2017	$59,000 OR	
CUB	2016	$121,000 OR	2017	$59,000 OR	

CUB understands that the Company overestimated 2016 costs for this project[116], and that the Oregon portion is more appropriately $121,000.[117] CUB understands that these costs are driven by PHMSA regulations and supports maintenance. CUB encourages the Company in the future to include progress and safety plans with the business plan for this project. In addition, through CUB's involvement in the safety planning docket last year, CUB understands PHMSA's regulations to be pro-active and long term. CUB expects the Company to establish long term plans with regard to safety, and to notify parties and the Commission if there is an urgent safety project.

7. ER3005: Gas Distribution Non-Revenue Program– OR[118]

Company	2016	$1,944,000 OR	2017	$2,572,000 OR	
CUB	2016	$1,749,000 OR	2017	$1,749,000 OR	

CUB appreciates the direct assignment of most of these costs. CUB recommends a 10% adjustment because the Company has recently continued to go over budget.[119] CUB believes that as the Company replaces its system and upgrades technology, it should have fewer shallow and obsolete pipes. In addition, for 2017, much of the work is

[116] CUB Exhibit 121.
[117] CUB Exhibit 119.
[118] UG 325/Avista/600/Machado/12/Table No. 1.
[119] CUB Exhibit 121.

forecasted to come very close to the rate effective date, and be more costly than the earlier months. The Company has not explained the rationale for this, and CUB is concerned about the ability to established used and useful by rate effective, and therefore sets the 2017 budget equal to the 2016 budget.

8. ER3006: Overbuild pipe Replacement Blanket– OR[120]

Company	2016	$379,000 OR	2017	$225,000 OR	
CUB	2016	$0 OR	2017	$0 OR	

CUB appreciates the direct assignment of this program. The Company for the past four years has transferred approximately two-thirds of its budget[121]. This is a reactive program. The Company is notified of or discovers overbuilds and must put them into this ongoing programmatic schedule. It has some control over timing, and also has some control over cost as it can pursue payment from the parties responsible for the overbuild. Most importantly, in UG 288, the Company filed for $828,000 Oregon[122], but only transferred to plant, $535,000 by rate effective date 2016[123]. Given all of these considerations, CUB recommends full adjustments for 2016 and 2017.

[120] Avista/600/Machado/pg 12/Table No. 1
[121] CUB Exhibit 121.
[122] UG 288 Avista/600/Schuh/pg 10.
[123] CUB Exhibit 119.

9. ER3007: Isolated Steel Replacement– OR[124]

Company	2016	$325,000 OR	2017	$602,000 OR	
CUB	2016	$0 OR	2017	$0 OR	

CUB appreciates the direct assignment of these costs. For the past three years the Company has budgeted for approximately double the costs in this program[125]. In UG 288, the Company filed for $850,000 and actual transfer to plant was $417,825 by rate effective date 2016.[126] CUB is very concerned about these reactive programs that the Company seems to have no ability to forecast. Customers are being expected to front revenues for plant that is not placed in service by rate effective date. CUB recommends that the Company reconsider which capital investments need to be programmatic, and which ones may change structure as the Company modernizes its system. An audit of the state of the Oregon system would be useful. CUB has no reason to expect that transfer to plant will be $602,000 as that would be unprecedented in recent history for the Company. CUB recommends a full adjustment for 2016 and 2017.

10. ER3008: Aldyl-A Pipe Replacement– OR[127]

Company	2016	$3,842,000 OR	2017	$6,610,000 OR	
CUB	2016	$ 3,457,800 OR	2017	$5,162,000 OR	

[124] Avista/600/Machado/pg 12/Table No. 1
[125] CUB Exhibit 121.
[126] UG 288/Avista/600/Schuh/10 *and* CUB Exhibit 119.
[127] UG 325/Avista/600/Machado/pg 12/Table No. 1.

CUB does not appreciate the allocation of this program, and thinks that it would be more appropriately and accurately accounted for by direct assignment, given that the pipe is distinctly placed into service in three separate states. CUB thinks that the pace of this project does not need to be increased. The Company is likely coming in for additional rate cases over the next two years, given the capital spending trend.[128] The Company plans to remediate these pipes throughout its system. Washington has not approved any recovery, and therefore CUB has no certainty that Oregon dollars will not be used to transfer to Washington plant. Therefore CUB believes that the Company can progress at the $18.9 million level system wide in 2017. The Oregon portion would be $5,736,123. CUB also recommends a 10% adjustment for both 2016 and 2017 for lack of transparency due to allocation over direct assignment.

11. ER 3054: ERT Replacement– OR[129]

Company	2016	$86,000 OR	2017	$240,000 OR	
CUB	2016	$ 0 OR	2017	$0 OR	

The Company filed for $402,000 from Oregon in UG 288[130], and drastically overestimated costs for 2015 and 2016[131]. Despite transferring to plant approximately only half that in total over two years ($84,000 in 2015 and $145,000 in 2016),[132] the

[128] CUB Exhibit 105 pg 7.
[129] UG 325/Avista/600/Machado/12/Table No. 1.
[130] UG 288/Avista/Schuh/600/10 (inserted table above for ease of reference).
[131] CUB Exhibit 121.
[132] CUB Exhibit 121.

Company would like to now collect an additional $326,000 from Oregon customers. CUB proposes a full adjustment for 2016 and 2017.

12. ER 3055: Gas Meter Replacement Non-Revenue– OR[133]

Company	2016	$271,000 OR	2017	$375,000 OR	
CUB	2016	$ 271,000 OR	2017	$375,000 OR	

CUB appreciates the direct assignment of the program. At this time, CUB has no adjustments, but recommends that the Company record and report the status of the system and meters replaced, along with those in queue and provide an explanation methodology for the management of the queue.

13. ER 3057: Gas HP Pipeline Replacement Non-Revenue– OR[134]

Company	2016	$1,100,000 OR	2017	$5,000,000 OR	
CUB	2016	$ 475,000 OR	2017	$0 OR	

The Company budgeted for more than double actual transfer to plant in 2016[135]. CUB recommends an adjustment that reflects actuals.[136] In addition, the majority (approximately $3,000,000) scheduled by the Company for 2017 transfers to plant directly prior to rate effective date[137]. The Company has not made an argument how a

[133] UG 325/Avista/600/Machado/12/Table No. 1.
[134] UG 325/Avista/600/Machado/pg 12/Table No. 1.
[135] CUB Exhibit 121.
[136] CUB Exhibit 121.
[137] CUB Exhibit 126, lines 468 and 469.

portion of the Klamath program will be used and useful without completion of the program. In this testimony, CUB recommends a full adjustment for 2017, while we consider the possibility of the Company providing more information regarding the status of the project and an attestation that it is used and useful by rate effective date.

14. ER 3117: Gas Telemetry Non-Revenue– OR[138]

Company	2016	$127,000 OR	2017	$65,000 OR	
CUB	2016	$ OR	2017	$0 OR	

In UG 288, the Company requested $120,000 from Oregon customers [139]and transferred to plant only $29,000 by rate effective date[140]. In 2016, The Company transferred to plant $96,000 instead of the budgeted (and requested in this case) $127,000[141]. The Company, in UG 288, placed in ratebase for one year approximately the amount it actually transferred to plant over the span of two years. CUB is very concerned about the company's over forecasting. The Company, for many projects budgeted more, requested more, and received more than it actually transferred to plant. If the Company claims that it is under earning in the test year, the Company should be demonstrating that it spent the customers money prudently since it did not place it in service where it claimed it would during the rate case. CUB recommends a full adjustment for this project.

[138] UG 325/Avista/600/Machado/pg 12/Table No. 1.
[139] UG 288/Avista/Schuh/10.
[140] CUB Exhibit 117.
[141] CUB Exhibit 121.

15. ER 3203: East Medford Reinforcement– OR[142]

Company	2016	$28,000 OR	2017	$0 OR	
CUB	2016	$ 0 OR	2017	$0 OR	

The East Medford Reinforcement relied on a business case arguing that design day conditions made it necessary for the Company to reinforce their system to meet cold weather needs of their customers. Parties questioned the urgency of this program at the time of filing in UG 288, and it was approved by the Commission despite arguments to the Contrary. However, the Company did not complete the construction of the project until the following year (2016)[143], and the customers did not get the benefit of the enhanced system for that winter. The fact that the Company went over budget should not be transferred to customers that were forced to pay for a project that was not in service at the time the rates for that project were in service. CUB recommends a full adjustment.

16. ER 3209: Pierce Road La Grande HP Reinforcement– OR[144]

Company	2016	$0 OR	2017	$3,500,000 OR	
CUB	2016	$ 0 OR	2017	$0 OR	

CUB has outstanding data requests on this issue and is investigating capacity modeling along with interruptible customers and service territory additions. The project

[142] UG 325/Avista/600/Machado/12/Table No. 1.
[143] CUB Exhibit 121.
[144] UG 325/Avista/600/Machado/pg 12/Table No. 1

is expected to be completed by August 1, 2017,[145] but given experience with other similar capital projects, such as Ladd Canyon and East Medford among others, CUB currently recommends a full adjustment from lack of certainty that the plant will be used and useful by the rate effective date, while being open to an attestation.

In addition, this is one of the projects that CUB was concerned about, and when asked, the Company did not demonstrate the prudency of timing.

> Regarding the urgency of these items, the Company has deemed the completion of each of these capital investments to be prudent in the periods presented[146]

Therefore, in order to recommend recovery, CUB requires the Company to provide analysis regarding timing decisions.

17. ER 3303: Ladd Canyon Station Upgrade– OR[147]

Company	2016	$5,000 OR	2017	$0 OR	
CUB	2016	$ 0 OR	2017	$0 OR	

The request here is egregious. The Company, on a highly contested issue was approved, by the Oregon Commission, $1.65 million for Ladd Canyon. Instead, it transferred to plant $1.47 million, approximately $180 thousand less (not all of it in service by the rate effective date from UG 288)[148]. Now, it wants to collect $5,000 of

[145] CUB Exhibit 126, lines 474, 475.
[146] CUB Exhibit 115.
[147] UG 325/Avista/600/Machado/12/Table No. 1.
[148] CUB Exhibit 119.

"trailing charges" from customers[149] because they occur in the following year. CUB recommends a full adjustment.

18. ER 7201: Jackson Prairie Storage Projects– OR

Company	2016	$112,000 OR	2017	$118,000 OR	
CUB	2016	$ 91,840 OR	2017	$91,840 OR	

Rates were reset in UG 288 and since then (for 2015 and 2016) the Company has over-estimated capital costs for its obligation at Jackson Prairie by approximately 17-18%[150]. In addition, the Company did not provide a rigorous response to CUB's data request regarding the prudence of performing optimization in-house vs. with an optimization partner that specializes in such activities[151]. Therefore, CUB recommends an adjustment of 18% and because the Company offers no compelling evidence for a 2017 increase, that the budgeted level remain the same.

19. ER 2277: SCADA Upgrade– OR[152]

Company	2016	$70,000 OR			
CUB	2016	$ 36,000 OR			

The Company has over-budgeted and over asked, again, with no explanation.[153] What this means is that, in general, on many projects that the Company is asking for

[149] UG 325/Avista/600/Machado/17-18.
[150] CUB Exhibit 121.
[151] CUB Exhibit 128.
[152] Avista/600/Machado/pg 13/Table No. 3.

more than it needs (in this case, as in many, almost twice as much). CUB recommends using actual transfers to plant as a basis and then applying at 10% adjustment for the Company continually misrepresenting its need for rate relief (recall at the beginning of its case it understated it ROR by approximately one percentage point). Parties must ferret through this voluminous information and are bound to miss one or two mistakes in the plethora of spreadsheets. CUB recommends that the Company be held responsible. Nothing is requested in 2017. CUB offers no adjustment. However, if trailing charges are asked for, CUB recommends rejection.

20. ER 5005: Technology Refresh to Sustain Business Process– OR[154]

Company	2016	$850,000 OR	2017	$1,199,000 OR	
CUB	2016	$ 0 OR	2017	$1,147,000 OR	

In UG 288, the Company received approval for $1.860[155] million from Oregon Customers. It transferred to plant $1.385 million[156] and offered no explanation for the difference. Considering this, CUB recommends that the Commission apply a full adjustment to 2016 and use a four year average of actual transfers to plant for 2017.[157,158]

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[153] CUB Exhibit 125.
[154] UG 325/Avista/600/Machado/13/Table No. 3.
[155] UG 288/Avista/Schuh/9.
[156] CUB Exhibit 125.
[157] CUB Exhibit 112.
[158] Note, the Company did not explain the addition of direct assignment to Oregon, so CUB did not factor that in calculations

21. ER 5006: Technology Expansion to Enable Business Process– OR[159]

Company	2016	$587,000 OR	2017	$1,054,000 OR	
CUB	2016	$ 518,000 OR	2017	$518,000 OR	

The Company, does not explain the rationale for the drastic increase in spending[160]. Moreover, it does not explain how this benefits gas customers. CUB takes a 4 year average, excluding the unexplained increase of 2016 for this adjustment and recommends that the Commission approve $518,000 for 2016 and 2017, given that this is a 10 year program.

22. ER 5010: Enterprise Business Continuity Plan– OR[161]

Company	2016	$1,000 OR	2017	$34,000 OR	
CUB	2016	$ 0 OR	2017	$0 OR	

CUB recommends a complete disallowance. In UG 288, the Commission approved recovery of $56,000 from Oregon customers[162]. Yet the Company transferred to plant only $37,000 in 2015 and only $1400 in 2016[163], despite the company's forecasted budget of $58 thousand that year[164]. Again, the Company over-forecasts, collects, doesn't transfer to plant, but files a rate case including uncredible transfer to plant for the following year.

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[159] UG 325/Avista/600/Machado/13/Table No. 3.
[160] CUB Exhibit 125.
[161] UG 325/Avista/600/Machado/13/Table No. 3
[162] UG 288 Avista/600/Schuh/9-10.
[163] CUB Exhibit 112.
[164] CUB Exhibit 113.

23. ER 5014: Enterprise Security Systems– OR[165]

Company	2016	$230,000 OR	2017	$260,000 OR	
CUB	2016	$ 0 OR	2017	$165,000 OR	

In UG 288 the Company received approval for the requested $470,000 from Oregon customers,[166] but transferred to plant merely $178,000.[167] It is true that the Company documents actual transfers to plant in 2016 at $230,000. However, this barely surpasses the amount approved by the Commission in UG 288 when added to 2015 transfer to plant. CUB recommends a complete disallowance for 2016 and for 2017, using a 4 year average of actual transfers to plant resulting in $165,000.[168]

24. ER 5106: Next Generation Radio– OR[169]

Company	2016	$774,000 OR	2017	$9,000 OR	
CUB	2016	$ 0 OR	2017	$0 OR	

In UG 288, the Company asked for $365,000[170] for 2015, only budgeted $127,000,[171] but only transferred to plant $25,209.[172]. The Company, in general has approved, $30 million dollars system wide for a project that was supposed to be five years, when, in fact, only $27 million was requested system wide[173]. In addition, the

[165] UG 325/Avista/600/Machado/pg 13/Table No. 3
[166] UG 288/Avista/Schuh/9.
[167] CUB Exhibits 112, 113, 125.
[168] CUB Exhibits 112, 113, 125.
[169] UG 325/Avista/600/Machado/13/Table No. 3.
[170] UG 288/Avista/Schuh/9.
[171] CUB Exhibit 125.
[172] CUB Exhibit 125.
[173] UG 325/Avista/Machado/80.

Company plans to only spend $100,000 system wide in 2017[174]. For all these reasons, CUB recommends a complete disallowance.

25. ER 5121: Microwave Refresh (replacement with fiber)– OR[175]

Company	2016	$15,000 OR	2017	$107,000 OR	
CUB	2016	$ 0 OR	2017	$0 OR	

CUB recommends complete disallowance. In UG 288, the Company requested $240,000 from Oregon customers, but in 2016 and 2015 didn't transfer anything to plant.[176] When Staff asked the Company to explain any discrepancies between budget and actual plant, the Company offered no explanation. CUB has no reason to believe that this program is necessary, after two years of delay, urgent, or actually likely to be placed in service, in addition to the concerns about dollars already collected. To put this in a larger perspective, the Company, over the past 6 years has budgeted for $14.6 million system wide[177] and has spent a total of $659K[178] system wide in 2015, and almost nothing in 2016. The Company offers no explanation in for this discrepancy[179].

[174] UG 325/Avista/602/Machado/79.
[175] UG 325/Avista/600/Machado/13/Table No. 3.
[176] CUB Exhibit 125.
[177] CUB Exhibit 113.
[178] CUB Exhibit 112.
[179] CUB Exhibit 125.

26. ER 5143: AvistaUtilities.com– OR[180]

Company	2016	$1,000 OR	2017	$814,000 OR	
CUB	2016	$ 1,000 OR	2017	$814,000 OR	

CUB currently has no adjustment for this project, although it currently has a data request outstanding regarding transfers to plant, and used and usefulness. At the time of the filing of this response testimony (March 1,2107), the website is scheduled to be complete.[181] CUB also notes that given the Company's description of the website overhaul.[182]

> **ER 5143: AvistaUtilities.com Redevelopment – 2016: $1,000; 2017: $814,000**
> Like many businesses today, the Company is experiencing continued growth in the use of its customer website, Avistautilities.com. The website was built in 2006-2007, but because the technology landscape has advanced so quickly, the site does not meet current web best practices for customer usability. This project will update and improve the technology, overall web usability, and customer satisfaction. The website is part of the Company's strategy to provide customers a more effective channel to meet their expectations for self-service options, including mobile access, energy efficiency education, and to drive self-service as a means to lower transaction costs.

CUB is skeptical that the website was designed for or significantly benefits gas customers.

27. ER 5144: Mobility in the Field– OR[183]

Company	2016	$1,000 OR	2017	$53,000 OR	
CUB	2016	$ 0 OR	2017	$ 0 OR	

[180] UG 325/Avista/600/Machado/13/Table No. 3.
[181] CUB Exhibit 126.
[182] UG 325/Avista/600/Machado/23.
[183] UG 325/Avista/600/Machado/13/Table No. 3.

According to the Company's business case, this is a 5 year program, expected to cost, in total $1.6 million system wide[184]. However according to actual transfers to plant $1.9 million dollars has already been spent on this program (note: the company has proactively approved $2 million dollars in coming years that hasn't been requested)[185]. In addition, the company estimates a benefit of $2,000 per device[186] and does not show this as a reduction in revenue requirement anywhere else. CUB recommends a full disallowance for all these reasons.

28. ER 5147: Avista Facilities Management Commercial OTS Migration–OR[187]

Company	2016	$228,000 OR	2017	$456,000 OR	
CUB	2016	$228,000 OR	2017	$ 228,000 OR	

This project has no history (UG 288 or prior)[188], and given that, in this case, the Company, has such an abysmal accuracy rate in forecasting capital costs, CUB recommends a 50% disallowance, because the capital is meant to be deployed in June 2017.[189]

[184] UG 325/Avista/602/Machado/94.
[185] CUB Exhibit 112.
[186] UG 325/Avista/602/Machado/94.
[187] UG 325/Avista/600/Machado/13/Table No. 3.
[188] UG 288/Avista/Scuh9.
[189] CUB Exhibit 126 and CUB Exhibit 129.

29. ER 5151: Customer Facing Technology– OR[190]

Company	2016	$0,000 OR	2017	$8,000 OR	
CUB	2016	$ 0,000 OR	2017	$ 0,000 OR	

CUB recommends a full disallowance. Given the Companies business case description:

> **ER 5151: Customer Facing Technology – 2016: $0; 2017: $8,000**
> New technologies continue to emerge at a rapid pace. The Company has already funded the development of foundational systems that will better allow us to keep pace with customer expectations and demands, through projects such as Project Compass. Customers continue to demand a more engaging user experience and access to data and tools that are comparable to technology industry leaders. This program is focused on enhancing customer engagement across digital channels and providing customers with tools and resources to manage their energy use and bill payment and management effectively, making it easier for them to do business with Avista.

[191]

This program seems like advertising. The Company has also not explained the "rapid pace" of technology needs for gas customers. CUB understands that many more malleable rate and conservation real time options may be emerging for electric customers but fails to see how gas customers will benefit from this program. CUB recommends that the Company demonstrate why investment, at this time, is prudent for its gas customers.

30. ER 2586: Meter Data Management– OR[192]

Company	2016	$0,000 OR	2017	$2,470,000 OR	
CUB	2016	$ 0,000 OR	2017	$ 0,000 OR	

[190] UG 325/Avista/600/Machado/13/Table No. 3.
[191] UG 325/Avista/Machado/600/24.
[192] UG 325/Avista/600/Machado/13/Table No. 3.

CUB recommends a full disallowance. This project benefits electric customers much more than a standard allocation factor. The description in the business case of daily meter reads, large volumes of data[193] doesn't have any clear benefit to gas customers. This project is also described as Washington AMI in CUB Exhibit 126, and in Mr. Machado's testimony.[194] Additionally, half of the transfer to plant is expected in July 2017 and half in September 2017, [195] too close to rate effective date completion. In addition, the Washington Commission denied approval of any rate increase, including this project.[196]. CUB is wary that the Company will be completing the project on time, without the majority of its allocated customer base chipping in.

31. ER 7000: Fleet Budget -Transportation Equip– OR[197]

Company	2016	$305,000 OR	2017	$544,000 OR	
CUB	2016	$ 274,500 OR	2017	$ 489,600 OR	

The Company requests, from Oregon customers, in total, $849,000. With its given allocation factor, this amounts to $10,159,000 system wide, for the test year. CUB recommends a 10% adjustment. CUB does not appreciate allocations in an area where direct assignment is not only feasible, but logical. Oregon gas fleets are correlated with Oregon usage. In addition, the Company is deploying large amounts of capital to reduce service calls and improve mapping and emergency responses throughout UG 288 and UG

[193] UG 325/Avista/600/Machado/24.
[194] UG 325/Avista/600/Machado/102.
[195] CUB Exhibit 126.
[196] *See* Order 06, *supra* note 19.
[197] UG 325/Avista/600/Machado/13/Table No. 3.

325. This should improve the life of the fleet. In addition, the Company is building a new fleet parking garage, which CUB argues is likely to improve the life of the fleet as well.

32. ER 7127: GNC Fleet Conversion– OR[198]

Company	2016	$5,000 OR	2017	$0 OR	
CUB	2016	$ 0 OR	2017	$ 0 OR	

According to Staff DR 247, the Company transferred nothing to plant in 2016. CUB recommends a full adjustment

33. ER 7001/7003: Structures &Improvements/Office Furniture– OR[199]

Company	2016	$101,000/23,000 OR	2017	$223,000/20,000 OR	
CUB	2016	$101,000/23,000 OR	2017	$ 223,000/20,00 0OR	

CUB offers no additional basis for adjustment, yet reserves the right to propose additional adjustments.

34. ER 7005/7006: Capital Tools & Stores Equipment– OR[200]

[198] UG 325/Avista/600/Machado/pg 13/Table No. 3.
[199] UG 325/Avista/600/Machado/pg 13/Table No. 3.
[200] UG 325/Avista/600/Machado/pg 13/Table No. 3.

Company	2016	$23,000/98,000 OR	2017	$44,000/113,000 OR	
CUB	2016	$ 23,000/98,000 OR	2017	$ 44,000/113,000 OR	

CUB offers no additional basis for adjustment, yet reserves the right to propose additional adjustments.

35. ER 7126: Long Term Central Office Facility Restructuring– OR[201]

Company	2016	$39,000 OR	2017	$295,000 OR	
CUB	2016	$ 39,000 OR	2017	$ 295,000 OR	

CUB offers no additional basis for adjustment, but plans to follow construction progress throughout the case and reserves the right to propose additional adjustments.

36. ER 7131: Central Office Facility Restructuring phase 2– OR[202]

Company	2016	$0,000 OR	2017	$537,000 OR	
CUB	2016	$ 0,000 OR	2017	$ 0 OR	

CUB recommends a full adjustment for 2017, given that the majority of transfers to plant occur in June 2017[203]. The Company does not offer evidence that the transfers to plant earlier in the year will be used and useful if the project is not complete. Given that

[201] UG 325/Avista/600/Machado/pg 13/Table No. 3.
[202] UG 325/Avista/600/Machado/pg 13/Table No. 3.
[203] CUB Exhibit 126 rows 575-580.

the Company describes the project as a fleet garage and parking garage, it is not clear, how the project would be used and useful to customers until it was complete.

37. ER 7139: Downtown Campus– OR[204]

Company	2016	$6,000 OR	2017	$0,000 OR	
CUB	2016	$ 6,000 OR	2017	$ 0,000 OR	

CUB offers no additional basis for adjustment, but plans to follow construction progress throughout the case and reserves the right to propose additional adjustments.

38. ER 7144: Ergonomic Equipment– OR[205]

Company	2016	$0,000 OR	2017	$20,000 OR	
CUB	2016	$ 0,000 OR	2017	$ 20,000 OR	

CUB offers no additional basis for adjustment, but plans to follow construction progress throughout the case and reserves the right to propose additional adjustments.

39. ER 7200: Apprentice Craft Training– OR[206]

Company	2016	$0,000 OR	2017	$4,000 OR	
CUB	2016	$ 0,000 OR	2017	$ 4,000 OR	

[204] UG 325/Avista/600/Machado/pg 13/Table No. 3.
[205] UG 325/Avista/600/Machado/13/Table No. 3.
[206] UG 325/Avista/600/Machado/13/Table No. 3.

CUB offers no additional basis for adjustment, but plans to follow construction progress throughout the case and reserves the right to propose additional adjustments.

40. Summary of Capital Projects

In total, CUB is recommending a disallowance o $5.4 million from 2016 capital additions and $16.8 from 2017 capital additions and $2.9 million dollars in test year adjustments, for a total of a $25,138,000 adjustment to rate base.

Table 1: ER#	System	Oregon	System	Oregon		CUB proposal	CUB proposal

	2016 (000's)	2016 (000's)	2017 (000's)	2017 (000's)	2016 (000's)	2017 (000's)
1001	$13,151	$3,335	$13,984	$3,720	$3,335	$3,720
1050	$659	$175	$1,525	$456	$175	$456
1051	$154	$22	$362	$71	$22	$71
1053	$575	$491	$835	$668	$491	$668
3000	$1,153	$292	$797	$238	$0	$151
3001	$698	$698	$750	$750	$677	$677
3002	$797	$363	$866	$290	$200	$200
3003	$1,555	$678	$2,203	$889	$0	$445
3004	$890	$214	$607	$59	$121	$59
3005	$3,706	$1,944	$4,272	$2,572	$1,749	$1,749
3006	$551	$379	$371	$225	$0	$0
3007	$1,134	$325	$1,440	$602	$0	$0
3008	$13,270	$3,842	$15,107	$6,610	$3,458	$5,162
3054	$86	$86	$240	$240	$0	$0
3055	$709	$271	$867	$375	$271	$375
3057	$1,100	$1,100	$5,000	$5,000	$475	$0
3117	$184	$127	$201	$65	$0	$0
3203	$28	$28	-	-	$0	$0
3209	-	-	$3,500	$3,500	$0	$0
3303	$5	$5	-	-	$0	$0
7201	$1,114	$112	$1,220	$118	$92	$92
total	$41,519	$14,487	$54,147	$26,448	$11,066	$13,824

Table 2:						
1001			$9,031	$2,601	$0	$0
1050			$1,072	$125	$0	$0
1051			$241	$17	$0	$0
1053			$562	$157	$0	$0
total			$10,906	$2,900	$0	$0

	ER#	System 2016 (000's)	Oregon 2016 (000's)	System 2017 (000's)	Oregon 2017 (000's)		CUB proposal 2016 (000's)	CUB proposal 2017 (000's)
Table 3	2277	$799	$70	$818	N/A		$36	N/A
	5005	$9,881	$850	$13,782	$1,199		$0	$1,147
	5006	$6,749	$587	$12,113	$1,054		$518	$518
	5010	$15	$1	$388	$34		$0	$0
	5014	$2,637	$230	$2,988	$260		$0	$165
	5106	$8,876	$774	$100	$9		$0	$0
	5121	$170	$15	$1,229	$107		$0	$0
	5143	$15	$1	$9,359	$814		$1	$814
	5144	$6	$1	$609	$53		$0	$0
	5147	$2,621	$228	$5,237	$456		$228	$228
	5151	-	-	$87	$8		$0	$0
	2586	-	-	$39,380	$2,470		$0	$0
	Subtotal	$31,769	$2,757	$86,090	$6,464		$783	$2,872
	7000	$3,907	$305	$6,252	$544		$275	$490
	7127	$54	$5	-	-		$0	$0
	7001	$1,260	$101	$2,557	$223		$101	$223
	7003	$259	$23	$234	$20		$23	$20
	7005	$476	$23	$504	$44		$23	$44
	7006	$974	$98	$1,296	$113		$98	$113
	7126	$447	$39	$3,391	$295		$39	$295
	7131	$1	-	$6,172	$537		$0	$0
	7139	$72	$6	$7,039	-		$6	$0
	7144	-	-	$225	$20		$0	$20
	7200	-	-	$47	$4		$0	$4
	subtotal	$7,450	$600	$27,717	$1,800		$565	$1,209
	Total	$39,219	$3,357	$113,807	$8,264		$1,348	$4,081

WITNESS QUALIFICATION STATEMENT

NAME:	Dr. Jaime McGovern
EMPLOYER:	Oregon Citizens' Utility Board
TITLE:	Senior Utility Analyst
ADDRESS:	610 SW Broadway, Suite 400 Portland, OR 97205
EDUCATION:	Certificate of Attendance, Regulatory Studies Program Institute of Public Studies Michigan State University PhD, Economics W.P. Carey School of Business Arizona State University Masters of Science, Economics Arizona State University Bachelors of Arts, Economics and Mathematics Arizona State University
EXPERIENCE:	Provided testimony or comments in a number of OPUC dockets, including UE 262, UE 283, UM 1633, and UM 1654. Worked as Utility Analyst at the Oregon Public Utility Commission from 2006-2008, providing advice on rate cases, analysis in meetings with the Bonneville Power Administration and performing benchmarking studies regarding telecom and electric competition in the state of Oregon. Economics professor at Mesa Community College and the State University of New York from 2004–2010.

		Oregon Actual Rate of Return (ROR)	
	Twelve Months Ended June 30, 2016	6.22%	(1)
	Twelve Months Ended July 31, 2016	6.58%	
	Twelve Months Ended August 31, 2016	6.53%	
	Twelve Months Ended September 30, 2016	6.69%	
	Twelve Months Ended October 31, 2016	6.86%	
	Twelve Months Ended November 30, 2016	6.67%	
	Twelve Months Ended December 31, 2016		
	Twelve Months Ended January 31, 2017		
	Twelve Months Ended February 28, 2017		
	Twelve Months Ended March 31, 2017		
	Twelve Months Ended April 30, 2017		
	Twelve Months Ended May 31, 2017		
	Twelve Months Ended June 30, 2017		
	Note:		
	(1) Company witness Mr. Morris' testimony on page 5 inadvertantly stated Avista's June 30, 2016 actual ROR for its Oregon gas operations was 5.63%. The 5.63% ROR represents the pro formed ROR for the twelve months ended September 30, 2018.		

Authorized Cost of Capital

mix	element	cost		
50%	debt	5.52%		2.76%
50%	equity	9.40%		4.70%
			ROR	**7.46%**

Authorized Cost of Capital Adjusted for Actual Equity

mix	element	cost		
52.9%	debt	5.52%		2.92%
47.1%	equity	9.40%		4.43%
			ROR	**7.34%**

Staff Low End of Reasonable Adjusted for Actual Equity

mix	element	cost		
52.9%	debt	5.52%		2.92%
47.1%	equity	8.97%		4.22%
			ROR	**7.14%**

CUB/NWIGU Low End of Reasonable Adjusted for Actual Equity

mix	element	cost		
52.9%	debt	5.52%		2.92%
47.1%	equity	8.90%		4.19%
			ROR	**7.11%**

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	Oregon	DATE PREPARED:	02/06/2017
CASE NO:	UG 325	WITNESS:	Mark Thies
REQUESTER:	PUC Staff -	RESPONDER:	Jason Lang
TYPE:	Data Request	DEPT:	Finance
REQUEST NO.:	Staff – DR 341	TELEPHONE:	(509) 495-2930
		EMAIL:	jason.lang@avistacorp.com

REQUEST:

See Avista/201, Thies/4. Avista reports roughly $54 million of interest rate hedging losses it relates to a 2016 debt issuance.

a) Please indicate whether or not Avista agrees with this statement: If the $54 million in losses on the Company's $125 million of fixed-float swaps are *hedging* losses, then there must exist $54 million (or so, depending on hedge effectiveness) of offsetting gains that can be demonstrated. If the Company does not agree with this statement, please explain why.

b) If Avista's response to subpart a) is affirmative, please provide a spreadsheet demonstrating in detail a calculation of the gains offsetting the above-referenced swap losses.

RESPONSE:

a. & b.) As discussed at the workshop on January 23, 2017, there is a case to be made for offsetting costs and benefits. Under the Company's interest rate hedging program, Avista "averages in" the cost of an upcoming debt issuance by entering into multiple swaps over a period of time (through hedge windows). The hedges are essentially a surrogate for pricing and issuing debt in each of the windows over time. For example, for the December 2016 debt issuance of $175 million, the first hedge was entered into on April 5, 2013. At that time, interest rates (excluding the "spread" related to Avista's credit risk) was 3.2%. Avista entered into a swap for $20 million at a fixed rate of 3.2%.

At the time Avista priced the full $175 million in August 2016, the comparable rate was 1.77%. From April 2013 to August 2016, interest rates decreased. This decrease in interest rates represents a benefit, and is reflected in the coupon rate of the debt issued in December 2016 (the $175 million was priced in August 2016, and issued in December 2016). This benefit, however, is offset by the cost associated with the swap that was executed in April 2013.

If Avista had "averaged in" the cost of the $175 million debt by actually pricing and issuing debt during each of the seven hedge windows, the overall cost of the $175 million debt would be the same as it is today, including the cost of the swaps. The benefit from the decrease in interest rates is offset by the cost of the swaps. A spreadsheet illustrating these costs and benefits is provided in Staff_DR_341 Attachment A.

The goal of the Company's Interest Rate Risk Management Plan is to reduce cash flow volatility related to future interest rate variability (associated with forecasted debt issuances). The plan reduces interest rate risk associated with the single future date that the forecasted debt is expected to be priced by entering into fixed rate contracts on different dates over the period leading up to the issuance. The fixed rate contracts are entered into based on the guidelines in the Plan.

In summary, the contracts entered into, related to the 2016 debt issuance, can be viewed the same as issuing debt on seven different dates. Utilizing the swaps allows the Company to lock in interest rates for customers over a period of time without having to make interest payments until the contract is settled. The total interest expense reflects the cost of issuing debt based upon a blended rate of each contract.

Furthermore, the analysis in Staff_DR_341 Attachment B shows how the seven interest rate hedges executed, related to the 2016 debt issuance, protected customers from the risk of interest rate variability. It shows the potential cost to customers associated with interest rates moving higher based upon a statistical analysis of the interest rate volatility. The statistical analysis also demonstrates the potential benefit related to interest rates moving lower. The charts illustrate the asymmetrical risk that was inherent in the market at the time each contract was entered.

The analysis calculates the volatility present in the interest rate market at the time each of the seven hedges were executed. The potential risk of interest rates moving higher (VaRC) and the potential risk of interest rates moving lower (VaRL) that existed for each executed interest rate hedge (based on historical interest rate volatility and calculated at a 98% confidence factor). The VaRC is the maximum amount of interest payments avoided if the interest rates increased above the swap rate. The VaRL is the maximum amount that would be paid if interest rates declined below the swap rate. Both are based on a 98% confidence factor.

Chart 1 shows the range interest rates could have moved, until settlement, for each interest rate hedge based on the 1-day volatility over the preceding year, time to expiry, and a 98% confidence factor. Chart 2 shows the range based on a present value basis utilizing the same statistical analysis. Based upon the analysis, the potential impact from interest rates moving higher could have resulted in approximately $72 million of increased interest costs to customers. Entering into these hedges protected customers from this interest rate variability. The main tab is a summary of the analysis for each of the hedges that were executed.

AVISTA®

Welcome

Fourth Quarter 2016 Earnings Webcast

February 22, 2017

Call Participants

Scott Morris
Chairman, President and CEO

Mark Thies
Sr. VP and CFO

Dennis Vermillion
Sr. VP, Avista Corp.
President, Avista Utilities

Ryan Krasselt
VP, Controller and
Principal Accounting Officer

Forward-Looking Statements

This presentation contains forward-looking statements, including statements regarding our current expectations for future financial performance and cash flows, capital expenditures, financing plans, our current plans or objectives for future operations and other factors, which may affect the company in the future. Such statements are subject to a variety of risks, uncertainties and other factors, most of which are beyond our control and many of which could have significant impact on our operations, results of operations, financial condition or cash flows and could cause actual results to differ materially from those anticipated in such statements.

For a further discussion of these factors and other important factors, please refer to our Annual Report on Form 10-K for the year ended Dec. 31, 2016. The forward-looking statements contained in this presentation speak only as of the date hereof. We undertake no obligation to update any forward-looking statement or statements to reflect events or circumstances that occur after the date on which such statement is made or to reflect the occurrence of unanticipated events. New risks, uncertainties and other factors emerge from time to time, and it is not possible for management to predict all of such factors, nor can it assess the impact of each such factor on our business or the extent to which any such factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statement.

Net Income (Loss) and Diluted EPS

($ in thousands, except per-share data)	**Q4 2016**	**Q4 2015**	**Year 2016**	**Year 2015**
Operating Revenues	$402,123	$387,305	$1,442,483	$1,484,776
Income from Operations	$82,533	$70,367	$289,803	$253,214
Total Net Income attributable to Avista Corp. Shareholders	**$40,091**	**$38,521**	**$137,228**	**$123,227**

Net Income (Loss) per diluted share by Business Segment attributable to Avista Corp. Shareholders

Avista Utilities	$38,059	$31,973	$132,490	$113,360
Alaska Electric Light and Power Company	$3,083	$2,688	$7,968	$6,641
Ecova (discontinued operations)	-	$4,662	-	$5,147
Other	$(1,051)	$(802)	$(3,230)	$(1,921)

Earnings (Loss) per diluted share by Business Segment attributable to Avista Corp. Shareholders

Avista Utilities	$0.59	$0.51	$2.07	$1.81
Alaska Electric Light and Power Company	$0.05	$0.04	$0.13	$0.11
Ecova (discontinued operations)	-	$0.07	-	$0.08
Other	$(0.02)	$(0.01)	$(0.05)	$(0.03)
Total Earnings per diluted share attributable to Avista Corp. Shareholders	**$0.62**	**$0.61**	**$2.15**	**$1.97**

2016 Highlights

The 110-year old Post Falls South Channel Dam was officially returned to service after a two-year rehabilitation in February 2016.

In 2016, the last two (of four) original turbine generating units at our 108-year-old Nine Mile Powerhouse were replaced with new, more efficient units as part of a multi-year project to increase the generation of clean, renewable, low-cost hydropower.

Launched the electric vehicle pilot program to install 272 electric vehicle charging port connections in approximately 200 locations in Eastern Washington.

AVISTA

Driving Effective Regulatory Outcomes

Continued recovery of costs and capital investments

Washington

- Dec. 15 2016, received an order which denied the Company's proposed electric and natural gas rate increase requests of $38.6 million and $4.4 million, respectively, that were originally filed in February 2016.
- Current electric and natural gas retail rates will remain unchanged in Washington State.
- Dec. 23, 2016, filed a Petition for Reconsideration, or in the alternative, for Rehearing. The Commission provided notice that it expects to enter an order resolving the Petition no later than March 16, 2017.
- Expect to file a new electric and natural gas general rate case in the second quarter of 2017 that will address the issues raised by the Commission.

Idaho

- Dec. 28 2016, received approval of all-party settlement agreement designed to increase annual electric base revenues by 2.6% or $6.3 million, plus continued recovery of $4.1 million of costs related to Palouse Wind Project through the PCA mechanism.
- Based on a 9.5% return on equity with a 50.0% common equity ratio.
- New rates took effect Jan. 1, 2017.

Oregon

- Nov. 30, 2016, filed a natural gas rate request to increase revenues by 9% or $8.5M.
- Request based on 50% equity ratio and 9.9% return on equity.
- The PUC has up to 10 months to review and rule; if approved, new rates would take effect no later than Oct. 1, 2017.

Alaska

- Sept. 16, 2016, filed an electric general rate request to increase revenues by 8.1% or $2.8 million.
- An interim rate increase of 3.86% or $1.3 million was effective Nov. 23, 2016.
- An additional $2.9 million annually from interruptible service was approved to reduce overall revenue requirement from $5.7 million to $2.8 million.
- Request based on a 58% equity ratio and a 13.8% return on equity.
- The RCA has approximately 15 months to rule on the permanent rate increase.
- The statutory timeline for the AEL&P GRC, with the consent of the parties, has been extended to Feb. 8, 2018.

Attractive and Growing Dividend

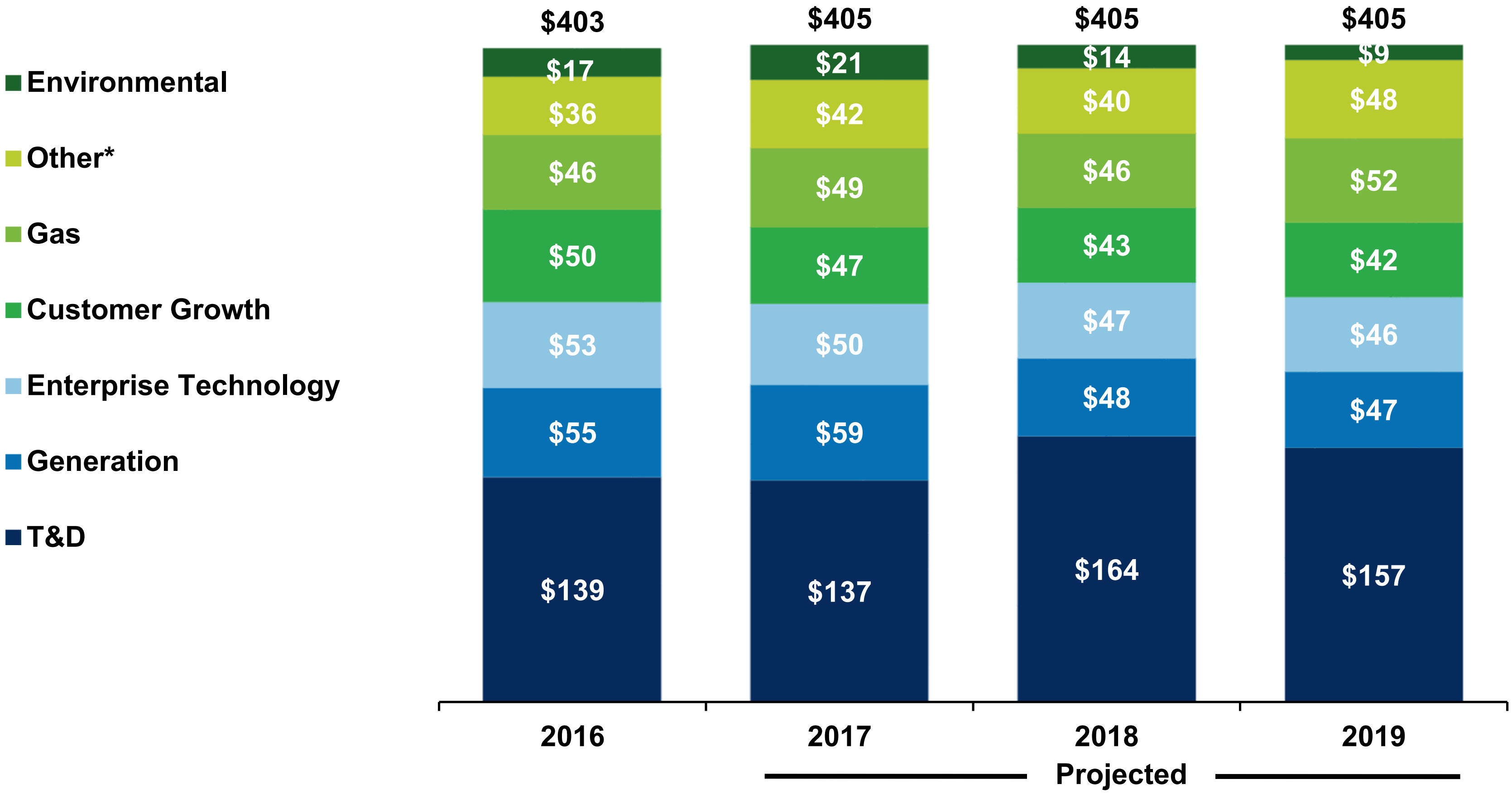
Dividend growth expected to keep pace with long-term earnings growth

*Current quarterly dividend of $0.3575 annualized

Investments to Upgrade Our Systems

5% to 6% rate base growth

Avista Utilities Capital Expenditures**
($ millions)



* Other includes Facilities and Fleet

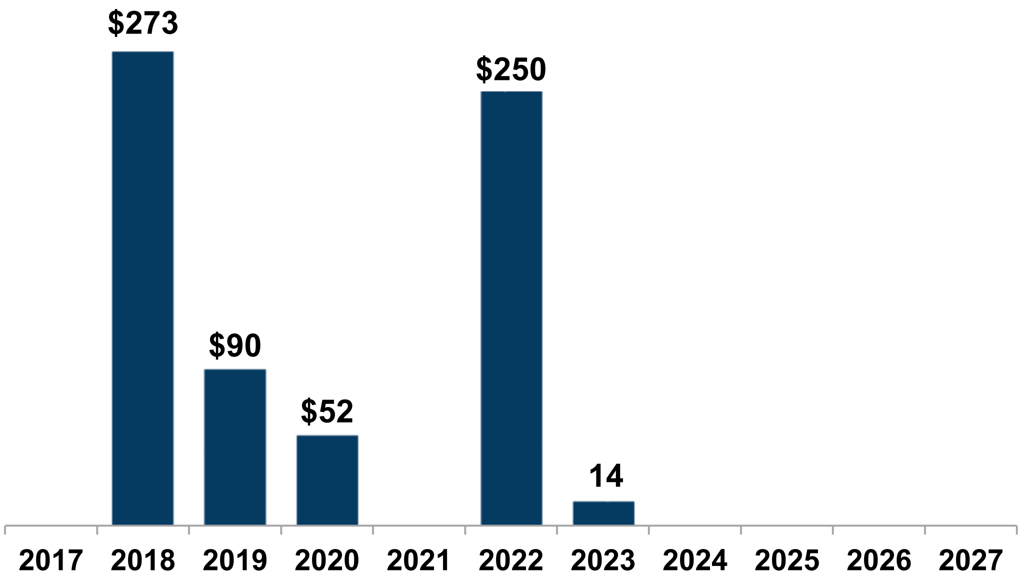
** Excludes capital expenditures at AEL&P of $16 million in 2016, and projected capital expenditures of $7 million in 2017, $7 million 2018 and $13 million in 2019

Prudent Balance Sheet and Liquidity

$245.6 million of available liquidity at Avista Corp. as of Dec. 31, 2016

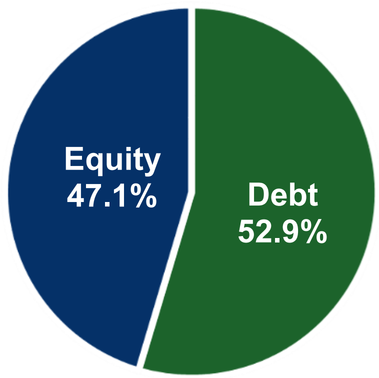
- Issued and sold $175.0 million of first mortgage bonds due in 2051
- Issued 1.6 million shares of common stock under our sales agency agreements for total net proceeds of approximately $65 million as of Dec. 31, 2016
- In second half of 2017, expect to issue approximately $110.0 million of long-term debt and up to $70.0 million of common stock

No significant maturities until 2018
($ millions)



Additional long-term debt maturities beyond 2027 not shown

Consolidated Capital Structure
Dec. 31, 2016



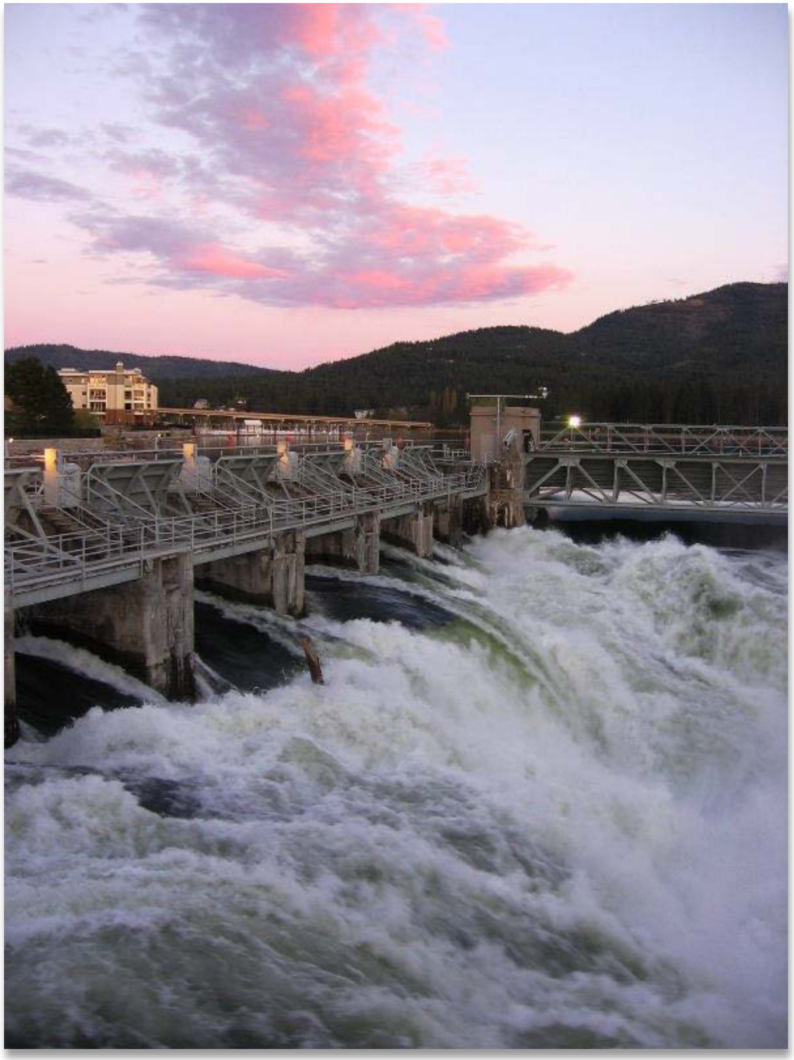
2017 Earnings Negatively Impacted by Washington Order

2017 Earnings Guidance	
Avista Utilities	$1.71 – $1.85
AEL&P	$0.10 – $0.14
Other	$(0.01) – $0.01
Consolidated	**$1.80 – $2.00**

Guidance Assumptions

- Our outlook for Avista Utilities assumes, among other variables, normal precipitation and temperatures for the remainder of the year.
- Our outlook for AEL&P assumes, among other variables, normal precipitation, temperatures and hydroelectric generation for the remainder of the year.
- Our guidance range for Avista Utilities encompasses expected variability in power supply costs and the application of the ERM to that power supply cost variability.
- The midpoint of our guidance range for Avista Utilities includes $.07 of expense under the ERM; which is within the 90 percent customers/10 percent shareholders sharing band. The impacts of the ERM are included in the midpoint of our guidance for 2017 as power supply costs were not reset in the Washington order for 2017.

Questions?



Post Falls Dam
Post Falls, Idaho

Contact Information

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Replay	Available at Passcode	(888) 843-7419 44214190#
Webcast	Archived on www.avistacorp.com	

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	Oregon	DATE PREPARED:	02/09/2017
CASE NO:	UG 325	WITNESS:	Patrick Ehrbar
REQUESTER:	CUB	RESPONDER:	Patrick Ehrbar
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	CUB - 046	TELEPHONE:	(509) 495-8620
		EMAIL:	pat.ehrbar@avistacorp.com

REQUEST:

Regarding the Company's response to CUB DR 6:

> "As it relates to the costs associated with plant investment and O&M/A&G, those costs are growing at a rate greater than the growth in sales. Because annual costs are growing at a faster pace than sales, it is necessary to increase retail rates each year so that total revenues are sufficient to cover operating costs and provide a fair rate of return on investment."

Please elaborate on the above response. Specifically, last year, CUB did not understand this above average Company growth to be permanent. However, with multiple rate cases where expenditures are above growth, CUB would like to know how far into the future the Company sees this trend. Please provide any analysis the Company has regarding long term growth forecasts relative to plant investment and O&M/A&G growth.

RESPONSE:

Absent a structural shift in our Oregon service territories (i.e., a substantial increase in customer growth, an increase in use-per-customer, or a combination of the two), Avista will continue to see the trend of O&M and capital investment growing at a percentage greater than the growth in sales. As shown in Avista/100/Morris/pg 6, Illustration Number 1 (the subject of CUB data request No. 06), the growth in "Retail Therm Sales", on a system basis, has been, or is forecasted to be, generally been flat from 2007 through 2019. As discussed by Dr. Forsyth in his testimony (Exhibit No. 700, p. 11, ln. 20), the annualized increase in customers from the base year to the test year in this case is only 1.4%. However, as shown on line 8 of Exhibit No. 700, the Company is forecasting a reduction in use-per-customer on an annualized basis for the same time period. The result of the combination of slight increases in customer count and the decrease in use-per-customer is an overall increase in therm sales of only approximately 1 percent on annualized basis. That being said, as noted in the Company's response to CUB-009 with regard to capital investment, current information forecasts gross plant additions for Oregon in the 2018 and 2019 time period of approximately $27 million and $29 million, respectively (<u>a lower level of investment</u> as compared to the average annual gross plant additions of approximately $40 million in the 2015-2017 time period).

CUB Exhibit 107 is confidential and was submitted to each party designated to receive confidential information pursuant to Order 16-460.

CUB Exhibit 108 is confidential and was submitted to each party designated to receive confidential information pursuant to Order 16-460.

CUB Exhibit 109 is confidential and was submitted to each party designated to receive confidential information pursuant to Order 16-460.

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	Oregon	DATE PREPARED:	02/16/2017
CASE NO:	UG 325	WITNESS:	David J. Machado
REQUESTER:	CUB	RESPONDER:	David Machado / N. Thorson
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	CUB – 055	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

Re: Exhibit 602, pg. 3, please explain:

a. Why, the Capital Budget has approved, for years 2014-2020 amounts in excess of the annual capital cost.
b. Why, in 2020, $43,985,576 has been approved, when no capital costs for that year have been developed.
c. How the business risk score of alternative 1 can be "4" when there is no alternative listed.
d. What the Company means by "if not funded, there would be minimal customer load growth." Would the company refuse to hook up customers if these amounts had not been approved in rates?
e. The 23% increase referenced in the program description, and the cause for such increase.
f. Please provide the location of the workpapers that support the customer growth assumed here.

RESPONSE:

a. As discussed in the Company's response to Staff_DR_183, business case summaries are updated in the event of material changes to the scope, schedule, or budget. In addition, business cases for Programs (bodies of work that are long-lived over an extended period) are periodically refreshed. Additionally, updated requests for capital investment funding during the Capital Planning Group's ("CPG") five-year planning process each year are submitted separately from the business case summary. As a result, certain business cases may have "Capital Cost" balances that are less than the amount requested and/or less than the balance ultimately approved by the CPG.

   The Company's response in Staff_DR_367 Attachment A includes the derivation of the *system total* requested capital investment for the "New Revenue – Growth" business case for 2017-2021. These balances agree to the amounts approved by the Capital Planning Group, as illustrated in Staff_DR_185C Confidential Attachment B.

b. Refer to part "a" of this response.

c. No alternative was enumerated—the inclusion of a business risk score was inadvertent.

d. Part of Avista's Certificate of Convenience and Necessity to serve Natural Gas in the State of Oregon, is the concept of 'obligation to serve." The Company is required by law to respond to all new service requests, if the customer meets the requirements of OPUC Rule No. 15, Gas Main Extensions, and OPUC Rule No. 16, Service Connections and Facilities on Customers' Premises. New customers have the effect of spreading overhead costs over a larger customer base, contributing to downward rate pressure on existing customers. The nature of Avista's response was to emphasize that if we are denied the ability to connect new customers as we do under existing rules, it would limit our ability to grow, causing rate pressure on existing customers.

e. This 23% increase is in reference to 2014 and has been removed from the business case subsequent to Avista's filing in this case.

f. As referenced in part "a" of this response, the Company's response in Staff_DR_367 Attachment A includes information about the capital investment associated with customer growth.

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	Oregon	DATE PREPARED:	01/10/2017
CASE NO:	UG 325	WITNESS:	David J. Machado
REQUESTER:	PUC Staff - Kaufman	RESPONDER:	David Machado/L. Vickers
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 183	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

Please refer to Avista/602 Machado/3. Please explain the following information:

a. Please provide Avista's policy which addresses when to create and update the Capital Program Business Case forms.
b. Please provide Avista's policy which addresses how to use the completed Capital Program Business Case forms.
c. Please provide Avista's policy which addresses the approval process for capital expenses.
d. Please provide Avista's internal guidelines for filling the Business Case forms.
e. Please explain in general how each item under the "Assessments" heading is calculated.
f. Please explain in general how each column under the "Program Cash Flows" heading is calculated.

RESPONSE:

a. A business case is created any time new capital funding is requested. Existing business cases may also be split or combined by writing a new business case(s). There are two main categories of business cases: "project" and "program." A "project" business case describes a specific body of work and has defined start and completion dates (or milestones). A project business case need only be updated in the event of a material change to the scope, schedule or budget. A "program" business case describes a body of work that may consist of many smaller projects and/or is either very long-lived or does not have a definite end date (e.g., ongoing natural gas distribution capital maintenance). Program business cases are updated in the event of a material change, but also are refreshed every 3-5 years.

b. Completed business case forms are primarily used by the Capital Planning Group as discussion documents for funding decisions.

c. Each summer, the Capital Planning Group asks for updated capital requests for the next five calendar years. These requests are composed of existing funding amounts per the prior five year plan, any revisions to the requested timing or requested amounts for existing business cases, and new business case requests. The requested funding for each of the years in the five year plan is discussed within the Capital Planning Group to determine the prioritization of investment in the proposed business cases over the five year period, within the constraints of the established capital budget. Once a draft five year plan is prepared, it is presented to the Company officer team, then subsequently to the Finance Committee of the Board of Directors, for approval of the first year of the plan.

As the year progresses, more information and refined estimates in schedule, scope, and budget are available regarding business cases in the five year plan. This additional information may result in mid-year requests for or releases of capital investment funds. In the event of a release, the Capital Planning Group may elect to allocate additional funds to existing business case or new business case requests that are submitted throughout the year.

d. The business case template includes instructions in the cells that are overwritten as the business case is filled out (see Staff_DR_183 Attachment A, which contains a copy of the current business case template for a programmatic business case). The financial assessment is calculated with the help of a member of the Financial Planning & Analysis department. Requests for additional information or training are addressed on a case by case basis.

e. Each business case has five criteria that contribute to an assessment score. The “Assessments” section in the top right corner of the business case document contains four criteria, and the “Category” field in the top left corner also contributes to the “Assessment Score”. The financial assessment represents the customer, rather than shareholder, internal rate of return. Greater benefits to customers, which may take the form of reductions in costs or reductions in the growth of costs, result in a higher score. The strategic assessment represents the company strategy to which the project or program aligns. The business risk assessment refers to reductions in risk exposure, such as legal or environmental risk, as a result of the capital project. The project or program risk assessment reflects the level of certainty of cost, schedule, and resource estimates, where high certainty is preferable. Finally, the category serves to adjust the raw score. Most notably, a project that is mandatory via jurisdictional statute (in Oregon, Washington, or Idaho), Federal Energy Regulatory Commission (FERC) guidelines, etc. will have a higher score as compared to a non-mandatory project (all else being equal). The “Assessment Score” is then used for the funding prioritization discussion, along with considerations of availability/utilization of crews, compliance requirements, work efficiency, safety, and partially funding programs versus an “all or nothing” approach.

f. This section is a direct input by the business case user. The Capital Costs column refers to the loaded costs (such as AFUDC, labor loadings, etc) for the project/program. The O&M Costs column captures the incremental change to operating expense known at the time of submission. This may reflect an addition or reduction to expense depending on the business case. The Other Costs column may capture incremental efficiency gains (i.e., expense may not change because the capital project may result in resource capacity to complete more work), changes to non-operating expense, or estimated changes to customer expense (e.g., improving reliability reduces the estimated customer cost due to outage).

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	Oregon	DATE PREPARED:	01/31/2017
CASE NO:	UG 325	WITNESS:	Mark Thies
REQUESTER:	CUB	RESPONDER:	Karen Schuh
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	CUB - 036	TELEPHONE:	(509) 495-2293
		EMAIL:	karen.schuh@avistacorp.com

REQUEST:

Please provide application details and business cases for all projects that have been proposed to the capital funding group by year for the past 5 years.

a. Please list which projects were approved (including multiple iterations and resubmissions) and which ones were rejected, showing the determination analysis for each.
b. Please list which projects were delayed and the rationale.

RESPONSE:

Application details or business cases for the current year were provided in Company witness Machado's Exhibit 602. Business cases relating to Oregon for the previous two years have been provided in CUB_DR_036 Attachments A and B.

a-b. Each of the Capital Planning Group (CPG) members are Directors of the major capital intensive areas of the Company. Please see the Company's response to CUB_DR_034 for the listing of the CPG members and their roles. The list of projects brought before the CPG, is vetted (prioritized) within each department first, prior to it being presented to the CPG. During the annual prioritization meetings, the CPG members discuss, rationalize and make informed decisions as part of the give and take required to fit prudent, necessary projects within a limited authorized spending level.

The following attachments include the original investment amount requested (proposed to the CPG), adjustments made by the CPG to reduce, defer, or reject the overall balance of requested funds to the allowed capital investment budget, and the net request after adjustment. The projects that were rejected for the first budget year (2015, 2016 and 2017), are highlighted in red in each attachment. The projects that were deferred or reduced for the first budget year, are highlighted in yellow in each of the following attachments. Again, the rational for delay or rejection is discussed among the members of the CPG during the annual prioritization process.

Please see CUB_DR_036C for the requested information. CUB_DR_036C Confidential Attachments A-C are **CONFIDENTIAL SUBJECT TO GENERAL PROTECTIVE ORDER**.

CUB_DR_036C Confidential Attachment A – 2017 5 year Capital Plan (System) – During the budget prioritization meetings the CPG rejected and/or deferred approximately $56 million out of the $461 million in projects requested.

CUB_DR_036C Confidential Attachment B – 2016 5 year Capital Plan (System) – During the 2016 budget prioritization meetings the CPG rejected and/or deferred approximately $75 million out of the $450 million in projects requested.

CUB_DR_036C Confidential Attachment C – 2015 5 year Capital Plan (System) – During the 2015 budget prioritization meetings the CPG rejected and/or deferred approximately $49 million out of the $404 million in projects requested.

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	Oregon	DATE PREPARED:	02/17/2017
CASE NO:	UG 325	WITNESS:	David J. Machado
REQUESTER:	CUB	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	CUB – 054	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

For all the capital investment projects in exhibit 602 page 1, please list, in an excel spreadsheet, each: (1) project/item; (2) ratebase impact; (3) urgency; (4) growth / repair /other (explain); and (5) class of customers served.

RESPONSE:

CUB_DR_054 Attachment A is a spreadsheet that includes the tables presented in Avista/600, Machado/Pages 12-13. These tables include the same capital investment included in Avista/602, Machado/Page 1 referenced in this request. The spreadsheet, as well as the tables in Avista/600, Machado/Pages 12-13 include the gross plant additions associated with each investment item. Regarding the urgency of these items, the Company has deemed the completion of each of these capital investments to be prudent in the periods presented. Regarding the classification of the investments into "growth / repair / other," CUB_DR_054 Attachment A contains this information, though the Company does not believe that the summarization of the investment into a single word or category is fully reflective of the investment and the rationale behind such investment. Finally, regarding the class of customers served, given that these investments are generally in system resources (for example, natural gas pipeline is connected throughout a given distribution system area, while investment in the Avista Facility Management COTS Migration provides functionality that broadly supports natural gas service), these investments generally serve customers of all classes or schedules.

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	Oregon	DATE PREPARED:	01/12/2017
CASE NO.:	UG 325	WITNESS:	Patrick Ehrbar
REQUESTER:	CUB	RESPONDER:	Patrick Ehrbar
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	CUB – 06	TELEPHONE:	(509) 495-8620
		EMAIL:	pat.ehrbar@avistacorp.com

REQUEST:

Regarding Avista/100/Morris/pg 6, Illustration Number 1: Please provide the analogous illustration for Oregon only.

RESPONSE:

The Company has not prepared an Oregon-only version of the referenced illustration. Although the data underlying Illustration No. 1 represents information for Avista Utilities as a whole, the same is true for Avista's Oregon natural gas operations. As discussed by Company witness Dr. Forsyth, the combination of low customer growth and declining UPC for the Company's Schedules 410 and 420 results in a combined 2.7% increase in customer usage from the twelve-months ended June 30, 2016 base year to the twelve-months ended September 30, 2018 test year. While the Company's forecast shows a total overall increase in customer usage of 3.3% from the twelve-months ended June 30, 2016 base year to the twelve-months ended September 30, 2018 test year (a 27-month period), only 36% of the projected load increase is from higher margin sales customers (Schedules 410 – 444), with the other 64% coming from lower margin transportation and special contract customers (Schedules 447 and 456).

As it relates to the costs associated with plant investment and O&M/A&G, those costs are growing at a rate greater than the growth in sales. Because annual costs are growing at a faster pace than sales, it is necessary to increase retail rates each year so that total revenues are sufficient to cover operating costs and provide a fair rate of return on investment.

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	Oregon	DATE PREPARED:	01/19/2017
CASE NO:	UG 325	WITNESS:	David J. Machado
REQUESTER:	PUC Staff - Moore	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 245	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

See Exhibit Avista/600, Machado/12, for each capital project included in Table No. 1, please provide, as of the date of the filing:

a. Actual or anticipated in-service date for each project. If the project is programmatic (ongoing) please explain the operational timing and identify key dates;
b. Actual annual capital expenditures for each project from 2011-2016 inclusive;
c. Budgeted annual expenditures for each project from 2011-2016 inclusive;
d. A tabular comparison of the budgeted to the actual capital expenditures identified in the Company's response to subparts "b" and "c" of this data request with an explaination of any differences between actual and budgeted expenditures.

RESPONSE:

a. The actual in-service months associated with 2016 transfers are included in Staff_DR_245 Attachment B, which provides actual capital expenditures, by month, for the investments included in Table No. 1.

   Company witness David Machado's work papers include expected transfers to plant for 2017 by month. The workpaper file entitled "9) CAP17.1.xlsx" has been included as Staff_DR_245 Attachment A. A description of these programmatic investments was included as Staff_DR_182 Attachment AJ.

b. Staff_DR_245 Attachment B includes the requested information.

c. Staff_DR_245 Attachment C includes the requested information.

d. Staff_DR_245 Attachment D includes the requested information. Explanation of variances for 2011-2014 was carried forward from Avista's response to Staff_DR_189 so as to not recreate analysis that had already been performed.

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	Oregon	DATE PREPARED:	01/19/2017
CASE NO:	UG 325	WITNESS:	David J. Machado
REQUESTER:	PUC Staff - Moore	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 246	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

See Exhibit Avista/600, Machado/12. For each capital project included in Table No. 2, please provide, as of the date of the rate case filing:

a. Actual or anticipated in-service date for each project. If the project is programmatic (ongoing) please explain the operational timing and identify key dates;
b. Actual annual capital expenditures for each project from 2011-2016 inclusive;
c. Budgeted annual expenditures for each project from 2011-2016 inclusive;
d. A tabular comparison of the budgeted to the actual capital expenditures identified in the Company's response to subparts "b" and "c" of this data request, with an explaination of any differences between actual and budgeted expenditures.

RESPONSE:

The projects included in Table No. 2 represent the investment during the twelve months ended September 30, 2018 related to new revenue growth. These projects are also included in Table No. 1. Therefore, the requested information can be found in Avista's response to Staff_DR_245.

Company witness David Machado's work papers include expected transfers to plant for the twelve months ended September 30, 2018 by month. The workpaper file entitled "11) CAP18.1.xlsx" has been included as Staff_DR_246 Attachment A.

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	Oregon	DATE PREPARED:	01/19/2017
CASE NO:	UG 325	WITNESS:	David J. Machado
REQUESTER:	PUC Staff - Moore	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 247	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

See Exhibit Avista/600, Machado/13. For each Capital project included in Table No. 3, please provide, as of the date of the filing:

a. Actual or anticipated in-service date for each project. If the project is programmatic (ongoing) please explain the operational timing and identify key dates;
b. Actual annual capital expenditures for each project from 2011-2016 inclusive;
c. Budgeted annual expenditures for each project from 2011-2016 inclusive;
d. A tabular comparison of the budgeted to the actual capital expenditures identified in the Company's response to subparts "b" and "c" of this data request, with an explaination of any differences between actual and budgeted expenditures.

RESPONSE:

a. The actual in-service months associated with 2016 transfers are included in Staff_DR_247 Attachment A, which provides actual capital expenditures, by month, for the investments included in Table No. 3.

   Company witness David Machado's work papers include expected transfers to plant for 2017 by month. The workpaper file entitled "9) CAP17.1.xlsx" has been included as Staff_DR_245 Attachment A.

b. Staff_DR_247 Attachment A includes the requested information.

c. Staff_DR_247 Attachment B includes the requested information.

d. Staff_DR_247 Attachment C includes the requested information. Explanation of variances for 2011-2014 was carried forward from Avista's response to Staff_DR_189 so as to not recreate analysis that had already been performed.

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	Oregon	DATE PREPARED:	02/13/2017
CASE NO:	UG 325	WITNESS:	David J. Machado
REQUESTER:	CUB	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	CUB – 053	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

Re: Avista/600/Machado/Page 9-10: Regarding the capital investments to support customer growth that the Company expects to deploy through September 30, 2018:

a. Are these investments based on forecast of customer growth?
b. If these investments were included in ratebase, but the customer growth did not materialize, what would happen to the revenue from this increased ratebase?
c. Will these investments be used and useful by the rate effective date?
d. How does the Company ascertain certainty over the deployment of these forecasted assets?

RESPONSE:

a. Refer to Avista's response to Staff_DR_367, which discusses Avista's considerations in forecasting the cost of capital investment associated with new customers.

b. In this hypothetical scenario, where investments were included in ratebase, but the customer growth did not materialize, the revenue associated with this capital investment would be included in the annual earnings test calculation. However, the other side of a hypothetical scenario in which forecast customer growth did not materialize must also be considered. That is, the reduction in revenue requirement associated with the revenue attributable to new customers would also not materialize. This factor would also be included in the annual earnings test calculation.

c-d. The twelve-months ended September 30, 2018 "test year" should reflect costs and revenues that will fairly represent the period when base rates from this docket will be in effect following a general rate case proceeding. Ratemaking practice in Oregon in the past has generally limited the new plant investment included in retail rates to investment that is transferred to plant in service on or before the new retail rates go into effect. Using an End of Period (EOP) balance as of September 30, 2017, reflects the utility plant in service as of the beginning of the forecasted test year (October 1, 2017 through September 30, 2018). Given that the forecasted test year revenues include growth in revenue resulting from customer growth during the test year, the Company believes it is appropriate, under the matching principle, that the utility plant required to serve these new customers also be included in the test year.

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	Oregon	DATE PREPARED:	01/12/2017
CASE NO.:	UG 325	WITNESS:	Jody Morehouse
REQUESTER:	CUB	RESPONDER:	Jody Morehouse
TYPE:	Data Request	DEPT:	Gas Supply
REQUEST NO.:	CUB – 017	TELEPHONE:	(509) 495-2760
		EMAIL:	jody.morehouse@avistacorp.com

REQUEST:

Regarding Avista/400/Morehouse/pgs. 9-10: When discussing the changes made at Jackson Prairie recently, has the Company considered third party optimization? If so, please provide the analysis performed, and any presentations made to the Board of Directors regarding the best optimization strategy.

RESPONSE:

There have been no substantive changes made at the Jackson Prairie Natural Gas Storage Facility (JP). The changes referenced in Avista/400/Morehouse/pages.9-10 refer to the storage management optimization tool the Company built in-house in 2015. As discussed in the Company's response to data request No. CUB-03, a third-party manager would optimize the asset in a very similar manner as Avista, in essentially the same marketplace. A third-party manager typically requires not only coverage of its management costs, but a meaningful share of the value of the storage benefits in exchange for managing the risks associated with the asset. On a net basis, we believe the benefits to customers would be lower with third-party management.

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	Oregon	DATE PREPARED:	01/16/2017
CASE NO:	UG 325	WITNESS:	David J. Machado
REQUESTER:	PUC Staff - Kaufman	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 182	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

Please refer to Avista/602. Please provide the following information for 2017 investment:

a. All workpapers underlying the Capital Program Business Case, including the calculations of capital, O&M, other, and approved costs for all years in the Business Case, the Business Risk Score, the Assessment Score, the "Financial" percentage value, and any values appearing in the Recommended Program Description, Alternative Description, and Additional Justification.
b. All work papers supporting the monthly transfer to plant amounts.
c. Percent of investment, related depreciation expense, and related rate base allocated, assigned, or charged to Oregon.
d. Name of Avista employee who approved the investment and all supporting information used by the employee to evaluate the investment.
e. Description of each component of the investment including a description of how the investment supports Oregon gas customers.
f. The cost savings resulting from the investment. Please include a description of how the savings were calculated or estimated.
g. Expected vendors or outside service providers for the item;
h. Alternative technologies, systems, vendors, or service providers considered by Avista for the item;
i. Reason for not selecting each alternative;
j. Total amount of Avista labor costs included in the approved business case spend amount.

RESPONSE:

a. Please see Staff_DR_182 Attachments A through AF, which have been provided electronically in a zip file, for the electronic format business cases for all business cases with 2017 transfers to plant in Avista/600, Machado/12-13.

The following index reflects which attachment is associated with each business case:

Attachment:		Business Case:
Staff_DR_182 Attachment A		New Revenue Growth Program Business Case and Review
Staff_DR_182 Attachment B		Gas Reinforcement
Staff_DR_182 Attachment C		Gas Deteriorated Steel Pipe Replacement Program
Staff_DR_182 Attachment D		Gas Regulator Station Reliability
Staff_DR_182 Attachment E		Gas Replacement Street and Highway Program
Staff_DR_182 Attachment F		Gas Cathodic Protection Program
Staff_DR_182 Attachment G		Gas Non-Revenue Program
Staff_DR_182 Attachment H		Gas Overbuilt Pipe Replacement Program
Staff_DR_182 Attachment I		Gas Isolated Steel Replacement Program
Staff_DR_182 Attachment J		Gas Facilities Replacement Program
Staff_DR_182 Attachment K		Gas ERT Replacement Program
Staff_DR_182 Attachment L		Gas PMC Program
Staff_DR_182 Attachment M		Gas HP Pipeline Remediation Program
Staff_DR_182 Attachment N		Gas Telemetry Program
Staff_DR_182 Attachment O		Gas Pierce Rd La Grande HP
Staff_DR_182 Attachment P		Jackson Prairie Storage
Staff_DR_182 Attachment Q		Tech Refresh to Sustain Bus Proc Program
Staff_DR_182 Attachment R		Tech Expansion to Enable Bus Proc Program
Staff_DR_182 Attachment S		Enterprise Business Continuity
Staff_DR_182 Attachment T		Enterprise Security
Staff_DR_182 Attachment U		Next Generation Radio
Staff_DR_182 Attachment V		AU Redesign
Staff_DR_182 Attachment W		Mobility in the Field Business Case Revised
Staff_DR_182 Attachment X		Project Atlas Business Case and Review Template
Staff_DR_182 Attachment Y		Customer Facing Technol
Staff_DR_182 Attachment Z		Fleet Budget
Staff_DR_182 Attachment AA		Structures and Improvem
Staff_DR_182 Attachment AB		Capital Tools and Store
Staff_DR_182 Attachment AC		COF Long-Term Restructuring
Staff_DR_182 Attachment AD		COF LngTrm Restruct Ph2
Staff_DR_182 Attachment AE		Ergonomic Equipment
Staff_DR_182 Attachment AF		Apprentice Training

As the provision of all work papers underlying each value in each business would be unduly burdensome, we invite Staff to select specific business cases for which further information can be provided. Additionally, as discussed in Staff_DR_183, the business cases are utilized by the Capital Planning Group as discussion documents to inform its qualitative consideration of capital investment prioritization.

b.- c. Please see Staff_DR_182 Attachment AI, which is the work paper underlying the monthly transfer to plant amounts.

d.-i. As discussed with Staff, given the large number of individual projects included under these business cases, Avista is providing a list of projects, from which Staff may select projects for which further information will be provided. The following list of projects included in 2017 investment will use Table Nos. 1 and 3 from Avista/600, Machado/12-13 as a guide. (Unless otherwise noted, each Expenditure Request ("ER") is the only ER within its business case).

Expenditure Requests (ER) 1001, 1050, 1051, and 1053: Each of these ERs is included within the New Revenue Growth Business Case. Generally, these ERs address growth across Avista's Oregon territory, with the majority of investment occurring in new mains and services in each of Avista's four Oregon service regions.

ERs 3000-3007 and 3054-3117: Each of these ERs falls within its own business case. These business cases address the programmatic investment in Avista's natural gas system. Please see Staff_DR_182 Attachment AG, which includes the planned work for Oregon in 2017 under these business cases, as of January 2017. Additionally, please see Staff_DR_182 Attachment AJ, which includes memos documenting the capital investment considerations driving the need for these business cases.

ER 3008—Natural Gas Facilities Replacement Program: This ER addresses the replacement and remediation of Aldyl-A pipe. During 2017, main pipe projects in Oregon include S/E Klamath Falls, N/E Klamath Falls, and Medford East, while service tee transition rebuild projects are planned in Roseburg and adjacent areas.

ER 3209—Pierce Road La Grande HP Reinforcement: This ER is a standalone project which addresses the reinforcement of the natural gas distribution system in the greater La Grande region.

ER 7201—Jackson Prairie Storage: This ER includes capital investment associated with Avista's 1/3 ownership in the Jackson Prairie natural gas storage facility.

ER 5005—Information Technology Refresh Program: Please see Avista's response to Staff_DR_190, which includes the projects which have begun under this business case and which are expected to be placed in service through September 30, 2017. Please note that additional projects may begin, with expected completion in 2017, under this business case over the course of 2017.

ER 5006—Information Technology Expansion Program: Please see Avista's response to Staff_DR_191, which includes the projects which have begun under this business case and which are expected to be placed in service through September 30, 2017. Please note that additional projects may begin, with expected completion in 2017, under this business case over the course of 2017.

ER 5010—Enterprise Business Continuity:

ER 5014—Security Systems: Please see Avista's confidential response Staff_DR_193C, which includes discussion of the projects planned for completion in 2017.

ER 510—Next Generation Radio Refresh: Capital investment associated with this ER consists of trailing charges for the Radio System investment which was placed in service at the end of 2016.

ER 5121—Microwave Replacement with Fiber: As discussed in Avista's response to Staff_DR_195, this business case was inadvertently included in this case.

ER 5143—AU.com Redevelopment: This ER includes two projects in 2017:

- iFactor Phase 1.1 (Mobile Application Outage)—which consists of trailing charges for final payments related to the last deliverable of the project. The majority of the work in this project was completed during 2016.
- Project Phoenix—the redesign of the customer facing web portal (www.AvistaUtilities.com). The planned release is in the second quarter of 2017.

ER 5144—Mobility in the Field: This business case includes for Geographic Information System (GIS) applications to solve business problems, primarily in Operations area, including a Gas QA/QC audit inspection tool.

ER 5147—Avista Facility Management COTS Migration: As discussed in Avista's response to Staff_DR_197, this ER includes projects for both an Electric and Gas design tool.

ER 5151—Customer Facing Technology: As discussed in Avista's response to Staff_DR_198, Avista's investments in customer facing technology include focuses on facilitating interactions with customers.

ER 2586—Meter Data Management: As discussed in Avista's response to Staff_DR_199, this is a single project to implement a meter data management system at Avista.

ER 7000—Transportation Equipment: As discussed in Avista's response to Staff_DR_200, this business case includes projects for the programmatic replacement of fleet vehicles.

ERs 7001 and 7003—These ERs comprise the Structures & Improvements and Office Furniture business case. Avista's response to Staff_DR_201 includes discussion of the significant projects planned for 2017.

ERs 7005 and 7006—These ERs comprise the Capital Tools and Stores business case. Avista's response to Staff_DR_202 includes the current requests for tools purchases in 2017.

ER 7126—Central Office Facilities (COF) Long-Term Restructuring Plan: For 2017 this business case includes a remodel of the HVAC facilities and office space in the service building at Avista's COF.

ER 7131—COF Long-Term Restructuring Plan Phase 2: For 2017 this business case includes the reroute of a street which bisects Avista's COF, in order to unify the COF.

ER 7144—Ergonomic Equipment: Avista's response to Staff_DR_203 provides additional information about this business case.

ER 7200—Craft Training: given the small investment for this business case related to Oregon, more information is available upon request.

j. Please see Staff_DR_182 Attachment AH, which includes the budgeted capital investment spend for 2017 by business case, separated into components (e.g., Labor, Non-Labor, etc.). Note that the “Other” category includes contributions in aid of construction, retirement, and salvage.