

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

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

**OPENING TESTIMONY OF THE
CITIZENS' UTILITY BOARD OF OREGON**

10/16/2015



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1 Our names are Jaime McGovern and Bob Jenks. Our qualifications are listed in
2 CUB Exhibit 101.

3 **I. Introduction**

4 CUB is filing independent testimony, which we present here, concerning rate
5 spread and rate design issues. CUB also files joint testimony with the Northwest
6 Industrial Gas Users (NWIUGU) and expert Michael Gorman on revenue requirement,
7 capital structure and cost of equity.

8 Avista Utilities (Avista or the Company) filed this general rate case before the
9 original rate effective date of its last general rate case. Avista also contends that it plans
10 to file multiple subsequent rate cases. This rate case alone has approximately a nine
11 million dollar revenue requirement impact and sends a substantial signal to customers
12 that the cost of providing their natural gas service is increasing, in a world where natural
13 gas prices are at all-time lows. If accepted, this rate case will have significant impact on

1 overall cost of service for customers. If adopted as proposed, that effect will be quite
2 disparate over different classes of customers. CUB believes that the rate structure
3 proposed by the Company, which offers significant declines to some industrial customers
4 while imposing steep rate increases for other customers, is inappropriate and not in line
5 with the cost causation principles. CUB presents the individual concerns below, but
6 summarizes them here.

7 **I. Introduction**

8 **II. CUB Recommendations**

9 **III. Problems with Avista's Decoupling Mechanism**

10 **IV. Ladd Canyon Station Upgrade**

11 **V. Rate Spread**

12 **A. Industrial Customers as Cost Drivers**

13 **B. The LRIC study is fundamentally flawed**

14 **C. Subsidy is exaggerated**

15 **D. Current rate spread in Oregon is reasonable**

16 **E. Policy Considerations**

17 **VI. Summary of CUB's recommendations**

18 1. Decoupling.

19 The Commission should allow a limited decoupling mechanism. New customers
20 should be excluded until Avista can demonstrate an appropriate baseline for new
21 customers. The decoupling mechanism should be weather normalized until the Company

1 can demonstrate that its new CIS system can make the weather related adjustments in
2 real-time.

3 2. Ladd Canyon.

4 The Commission should reject the Ladd Canyon upgrade as a prudent expenditure
5 that is necessary to serve customers in the test year. This should reduce rate base by
6 approximately \$1.6 million.

7 3. Rate Spread.

8 The Commission should order Avista to spread the final revenue requirement
9 from this case to customers so that no customer class gets any more than 3 times the
10 increase of any other class. For transportation customers, this should be done after
11 imputing Avista's commodity costs (gas plus interstate transportation), so it is an apples-
12 to-apples comparison (transportation and commodity). Interruptible customers, who
13 currently pay lower rates than NW Natural interruptible customers, should receive the
14 average increase.

15 **II. Problems with Avista's Decoupling Mechanism**

16 In this case, Avista presents a decoupling mechanism that, in theory, "compares
17 the actual, non-weather adjusted revenues to the allowed revenue determined on a per-
18 customer basis, with any differences deferred for later rebate or surcharge."¹

19 A direct consequence of a decoupling mechanism is a reduction of risk for the
20 Company, by shifting that risk onto the customer. The Company gets a benefit, and
21 therefore, CUB believes that it is important to make sure customers are not harmed.
22 Unfortunately, there is no way to ensure such a thing for Oregon customers, because

¹ Avista/900/Ehrbar/16.

² CUB Exhibit 102.

1 although the Company proposes to apply the mechanism on a per-customer basis, it does
2 not track individual usage:

3 The Company does not track usage data for new residential customers and
4 is therefore unable to provide historical usage for these customers.²

5 The decoupling mechanism must establish a baseline use per customer. If usage varies
6 from that baseline usage, because of weather, conservation, economics, or otherwise, the
7 Company tracks an expense or revenue. However, the determination of that baseline is
8 important.

9 Several Oregon utilities have decoupling mechanisms, and CUB has been
10 supportive of most of them. One of the standard issues that gets reviewed is the baseline
11 and whether that baseline for existing customers is adequate for new customers. One of
12 the basic design questions is whether the mechanism should incorporate new customers,
13 or be limited to changes in load for the customers that are present during the test year.

14 This is an important question for a gas utility like Avista. The efficiency
15 standards for natural gas have increased and the federal government is currently
16 considering an additional increase:

17 On March 10, 2015, DOE published in the Federal Register a notice of
18 proposed rulemaking (NOPR) and public meeting to amend energy
19 conservation standards for residential non-weatherized gas furnaces
20 (NWGF) and mobile home gas furnaces (MHGF). 80 FR 13119. The
21 proposed standards, which are expressed as minimum annual fuel
22 utilization efficiencies (AFUE), are shown in Table I.1. These proposed
23 standards, if adopted, would apply to all products listed in Table I.1 and
24 manufactured in, or imported into, the United States on or after the date 5
25 years after the publication of the final rule for this rulemaking.³

² CUB Exhibit 102.

³ Accessed at <http://www.regulations.gov/#!documentDetail;D=EERE-2014-BT-STD-0031-0166>.

Table I.1—Proposed AFUE Energy Conservation Standards for Non-Weatherized Gas Furnaces and Mobile Home Gas Furnaces (TSL 3)

| Product class | AFUE % |
|------------------------------------|--------|
| Non-Weatherized Gas-Fired Furnaces | 92 |
| Mobile Home Gas-Fired Furnaces | 92 |

1 Avista’s average use of gas by residential customers is falling each year. But is it
 2 falling due to generalized efficiency gains throughout the rate class or is it because the
 3 new customers coming onto the system have a significant lower gas usage than existing
 4 customers – or some combination? If it is largely due to new customers coming onto the
 5 system, then inaccurately assuming those customers have the same baseline usage as an
 6 average residential customer would mean that each new customer brings a decoupling
 7 surcharge to the system and other customers have to fund the difference between this
 8 more efficient customer and the average customer.

9 In addition, Avista’s service territory includes significantly different weather
 10 regions. Southern Oregon is relatively mild, while the La Grande area has some of the
 11 harshest weather in Oregon. If the growing part of the service territory is in the milder
 12 parts of the Company’s service territory, then these new customers may not follow the
 13 pattern of the baseline usage.

14 The issue of whether new customers have the same usage pattern as existing
 15 customers is not a new issue. This is a fairly standard question to ask in a decoupling
 16 review. The Regulatory Assistance Project discusses in its Guide to Decoupling (note:
 17 RPC stands for Revenue Per Customer):

1 In cases in which new customers (that is, those who joined the system
2 during the term of the decoupling plan) have significantly different
3 consumption patterns (and, therefore, revenue contributions to the utility)
4 than existing customers, regulators may want to modify the decoupling
5 formula to account for the difference. This can be accomplished by using
6 different RPC values for new customers and existing customers. The
7 nature of this issue and methodologies for addressing it are discussed in
8 Section 6, Application of RPC Decoupling: New vs. Existing Customers.⁴

9 In this case, CUB is concerned that new customers may already have usage
10 patterns that are significantly below the average usage and that the new codes and
11 standards could make this disparity grow.

12 Design options exist for decoupling to deal with this problem. The mechanism
13 can be limited to current customers, so customers joining the system between ratecases
14 are not decoupled or the new customers can be assigned a different baseline.

15 Unfortunately, Avista cannot identify the usage that new customers are placing on
16 the system in order to determine whether these customers should be included in the
17 decoupling mechanism or assigned a different baseline. Unfortunately, Avista has been
18 unable to provide CUB with any data related to customer usage for recent customers:

19 The Company cannot easily identify new residential customers that have
20 been added to the system over the last 5 years because the Company
21 recently replaced its legacy CIS system with a new system (Project
22 Compass) which went live in February 2015. In order to gather the
23 requested information from the legacy system, it would require a
24 significant amount of time and programming expense.⁵

25 The Company did, however, say that its new system would, in the future, be integral in
26 tracking new customer usage:

⁴ Revenue Regulation and Decoupling: A Guide to Theory and Application, June 2011, Regulatory Assistance Project, p. 19. Accessed at http://www.raponline.org/docs/RAP_RevenueRegulationandDecoupling_2011_04.pdf.

⁵ CUB Exhibit 103 at 1.

1 As it relates to decoupling and new customers, with the new CIS system
2 (Project Compass) we will be able to query the database to track new
3 customers and their usage.⁶

4 And the Company made clear that it intended to include new customers in
5 its decoupling mechanism regardless of whether the baseline was correct for those
6 customers:

7 To the extent the usage of new or existing customers is more, or less, than
8 what was included in the 2016 baseline values, those differences would be
9 tracked and deferred for later rebate or surcharge.⁷

10 The Company's response that if new customers have different usage patterns,
11 "that difference would be tracked and deferred for later rebate or surcharge," is exactly
12 what CUB believes may be inappropriate. CUB believes that new customers that come
13 onto the system after 2016 should not be included in the decoupling adjustment because
14 the Company cannot establish that the decoupling baseline is reasonable for these
15 customers. Loads and revenues from customers that are new to the system after the end of
16 the test year should not be included.

17 Additionally, there is a design choice as it concerns the weather. PGE's
18 decoupling mechanism is weather-normalized, and changes in load due to weather do not
19 lead to surcharges and sur-credits.⁸ NW Natural's decoupling mechanism is also
20 weather-normalized.⁹ In addition to decoupling, NW Natural proposed its WARM
21 program. WARM makes a decoupling-like adjustment, but does it in real-time.¹⁰ If the

⁶ CUB Exhibit 103 at 1.

⁷ CUB Exhibit 103 at 1.

⁸ PGE Adjustment Schedule 123. Accessed at
https://www.portlandgeneral.com/our_company/corporate_info/regulatory_documents/pdfs/schedules/Sched_123.pdf.

⁹ NW Natural Adjustment Schedule 190. Accessed at
[https://www.nwnatural.com/uploadedFiles/25190ai\(4\).pdf](https://www.nwnatural.com/uploadedFiles/25190ai(4).pdf).

¹⁰ NW Natural Adjustment Schedule 195. Accessed at
[https://www.nwnatural.com/uploadedFiles/25195ai\(6\).pdf](https://www.nwnatural.com/uploadedFiles/25195ai(6).pdf).

1 Company were to refund/charge the decoupling surcharge in real time, then in very cold
2 winters, when customers are creating high usage on the system, their therms will be high,
3 and hence, so will their bills, and those conditions would initiate a surcredit which would
4 lower that high bill. Alternatively, in a warm winter, when residential customer usage is
5 low, a surcharge might be triggered, but in a warm winter with low usage, and therefore
6 lower bills, this would not be as traumatic. CUB supported NW Natural's WARM
7 mechanism despite the fact that it shifted the weather risk from shareholder to customers
8 because it did so in a manner that was not harmful to customers.

9 Avista is proposing decoupling that includes weather, but not with a real-time
10 mechanism. CUB is concerned that the reduced risk to the Company that comes with
11 incorporating weather into decoupling should not burden customers with extremely high
12 bills in the winter. When a utility delays the refund/surcharge for the next year, a warm
13 winter that generates a surcharge deferral could be dumped onto a customer in a very
14 cold winter, causing hardship. This risk should not be borne by customers.

15 CUB knows that there are advantages to decoupling and has no objections to the
16 Company implementing revenue decoupling once the Company is able to differentiate
17 new and existing customers, or in general, track individual customer usage, and is able to
18 refund/surcharge in real time.

19 CUB believes the Commission should reject Avista's decoupling mechanism as it
20 is proposed. Instead, the Commission should provide for limited decoupling at this time,
21 and should clarify what is required of Avista to expand the mechanism. Specifically the
22 Commission should incorporate the following adjustments to the decoupling proposal:

- 1 *1. Allow for weather-normalized decoupling that is limited to the customers that are*
2 *forecasted into the test year and whose forecasted usage is included in the baseline.*
3 *New customers that take service will be excluded. In a future rate case, the*
4 *Company can expand it to include all customers, including new customers, if it can*
5 *establish an appropriate baseline for new customers.*
- 6 *2. While weather-related decoupling is being rejected at this time, the Commission will*
7 *reconsider if, with the new CIS system, the Company can demonstrate that it can*
8 *adjust bills in real time.*

9 **III. Ladd Canyon Upgrade**

10 The Ladd Canyon Station Upgrade should not be allowed in base rates, and it
11 should not be included at the current proposed cost.

12 **A. Need driven by one interruptible temporary customer.**

13 On 10/08/2015, CUB was informed that the Paving Customer discussed in the
14 Ladd Canyon section below, was no longer a customer of Avista's, and had ceased
15 service. The Customer had been a temporary interruptible customer, as documented
16 below. Much of the testimony was written prior to this revelation. CUB updated as
17 much data as possible, but it was not possible to rewrite all of the testimony. But the fact
18 that this project was driven by the need to serve a customer who has already left the
19 system only increases CUB's concerns with the project.

20 It is clear from the Company's response to Staff data requests that the Oregon
21 Mainline Paving (Paving Customer) is driving the urgent need for the station upgrade.¹¹

¹¹ CUB Exhibit 104 at 3 and CUB Exhibit 105 at Attachment C.

1 The Company states that the existing load was below the capacity of the gate station.¹²
2 The Company tries to make the case that the gate station will serve all customers
3 eventually.¹³ However, the question is not whether the upgrade will be needed
4 eventually, but whether it will be needed within the test year. The La Grande/Union load
5 study demonstrates that the current capacity needs, net of the Paving Customer, can be
6 met with existing capacity, 37.2Mcfh,¹⁴ which is greater than the 35Mcfh that the
7 Company provides as approximate load.¹⁵ The analysis that produces the
8 recommendation to upgrade the Ladd Canyon City Gate assumes "*with* industrials on
9 line."¹⁶

10 In response to OPUC DR 291, the Company states that the load requirements will
11 grow to 40.9 Mcfh:

12 The existing capacity of the Ladd Canyon gate station was 37.2 Mcfh, and
13 existing load before considering the impact of Oregon Mainline Paving
14 was around 35 Mcfh. Additionally, the load study found that the capacity
15 requirement at the gate station is expected to grow to a minimum of 40.9
16 Mcfh (exclusive of Oregon Mainline Paving).¹⁷

17 However, in response to a subsequent data request, *after it was revealed that the Paving*
18 *Company had ceased service with Avista*, the Company contradicts its earlier response,
19 stating that the load already hits 40.9 Mcfh. It is concerning to CUB that the upgrade was
20 not needed now for existing customers, when there was a new customer, but once that
21 new customer left, suddenly the Company claims that it still needs the upgrade:

¹² CUB Exhibit 105 at Attachment C, pg 2.

¹³ CUB Exhibit 105 at Attachment C, pg 2 - the Company states that the load without the Paving Customer was around 35 Mcfh, and that the capacity requirement is expected to grow to 40.9Mcfh, but doesn't say when this is expected to occur.

¹⁴ Mcfh = thousand cubic feet per hour

¹⁵ CUB Exhibit 105 at 2.

¹⁶ CUB Exhibit 105 at 2.

¹⁷ CUB Exhibit 105 at 2.

1 Rather, the Company's Gas Engineering Department performed a system
2 load study, based upon existing loads, to determine the capacity demand
3 upon this gate station on a design heating degree day. This study, which
4 was included as the Company's response to Staff DR 291 Attachment C,
5 demonstrates that, excluding any consideration of the Paving Company,
6 the required design day capacity of City Gate #0817 is 40.9 Mcfh. Given
7 that the maximum capacity of City Gate #0817 is 37.2 Mcfh, there is a
8 clear capacity deficit on a design day and the Company would not be able
9 to serve load on a design day (again, excluding the Paving Customer).¹⁸

10 CUB does not feel that the Company has demonstrated that the Ladd Canyon
11 Gate Station needs to be upgraded during the test year now that the Paving Customer is
12 gone. CUB did not feel, while the Paving Customer was a customer, that the upgrades
13 scheduled clearly for the benefit of the Paving Customer should be funded by other
14 customers. CUB does not take issue with Avista upgrading its system. However, it is
15 clear that this particular large project is not only associated with, but was being driven by
16 a particular customer. Avista even places load (and therefore revenue) requirements on
17 the Paving Customer, mandating that its "combined usage must meet or exceed 305,000
18 therms through the end of 2015,"¹⁹ though the Company confirmed that the Paving
19 Customer is not required to contribute anything toward the permanent upgrade requested
20 in this case.²⁰ The company, in its contract with the Paving Company, has received
21 approximately \$0.40/therm for 476,000 therms or \$190,000 from the Paving Customer
22 for services:²¹

23 If this customer had been non-interruptible, the customer would have paid
24 \$369,461.²² Avista justifies the low interruptible tariff rate by the Company's

¹⁸ CUB Exhibit 106 at 2.

¹⁹ CUB Exhibit 107 at 1.

²⁰ CUB Exhibit 107 at 1.

²¹ CUB Exhibit 111.

²² This number was achieved by multiplying the number of therms used by the schedule 424 l rate at https://www.avistautilities.com/services/energypricing/or/curgas/Documents/OR_G_shortcuts_4.16.15.pdf.

1 prioritization of its non-interruptible, core customers, and its ability to curtail
2 interruptible service whenever needed:

3 Some core customers are on interruptible rate schedules. These customers
4 pay a lesser rate than firm customers since their service can be
5 interrupted.²³

6 However, this becomes solely a theoretical distinction when the Company has not
7 interrupted any customer, even once, including the Paving Customer in the past 10
8 years.²⁴ Moreover, because Avista cannot identify what customer classes are served by
9 the Gate Station, it does not know how much of the claimed design day deficit can be
10 interrupted. Interrupting transportation customers is a clear alternative to upgrading the
11 Gate Station, and increasing rates on residential and small commercial customers.

12 At the current tariff rates, the permanent upgrade to Ladd Canyon of \$1.6
13 million²⁵ will be equal to more than 3 years of margin from the revenues of this Paving
14 Customer. CUB's understanding of interruptible customers is that they receive service so
15 long as the Company's system can accommodate the load of the customer, but service
16 may be interrupted whenever it conflicts with serving core customers. The Company's
17 understanding appears to be consistent with CUB's:

18 It is assumed that on a peak day all interruptible customers have left the
19 system in order to provide service to firm customers. Avista does not
20 make firm commitments to serve interruptible customers. Therefore, our
21 IRP analysis of demand-serving capabilities only focuses on the
22 residential, commercial and firm industrial classes.²⁶

23 It seems as if this statement applies to upstream capacity and not distribution investments.
24 First, because distribution investments are driving rate cases, it seems as if there should
25 be some examples where interrupting a customer would have allowed the Company to

²³LC 61 - Avista Utilities 2014 Integrated Resource Plan (August 31, 2014) at pg 17 (Avista 2014 IRP).

²⁴CUB Exhibit 109 at 1.

²⁵Avista/600/Schuh/19.

²⁶Avista 2014 IRP at pg. 81.

1 put off investments over the last 10 years. Second, when we asked what customer classes
2 would be served by the new Gate Station, Avista told us that:

3 Avista does not perform load forecasting at the individual gate station
4 level. The most disaggregated level at which Avista's load forecast is
5 performed is the service schedule in each given forecasting region (for
6 Oregon, these regions are Medford, Roseburg, Klamath Falls, and La
7 Grande).²⁷

8 Third, it is clear that the capacity of the Paving Company, an interruptible load,
9 was considered when considering this investment and the timing of this investment:

10 The capacity constraints were the result of the addition of a new
11 customer's load, but the gate station provides service to all customers in
12 the area previously served by the preceding gate station.²⁸

13 The Company doesn't appear to be willing to curtail the Paving Customer's load to
14 guarantee service to core customers with the existing system. An email from Victor
15 Bautista to Jeff Webb details how the Paving Company dictated the schedule that they
16 need service on:²⁹

From: Bautista, Victor
Sent: Wednesday, August 07, 2013 2:04 PM
To: Webb, Jeff; Bryan, Catherine
Cc: Samsell, Seth; Kellogg, Donald; Harper, Steve; Scott, Eric; Faulkenberry, Mike; Ehrbar, Pat
Subject: RE: Oregon Mainline Paving, LaGrande (Union) Update

Jeff,

Per our conversation I spoke with Matt Seehawer earlier today and assured him we are actively working to resolve any possible issues in supplying OMP NG.

Here are the basics of our conversation;

- 2.4 therms per ton is an accurate assumption
- There is no possibility to postpone Monday's mix-they have a commitment with the state to do emergency repair work (requires lane closures on interstate)
- Beginning Tuesday they will be mixing and poring during the night (8pm to 8am)
- Schedule calls for night mix and pore during 8-13 through 8-23 (8pm to 8am)(once this phase is complete, mixing stops until September)
- Schedule consists of 8-10 hour days
- Average ton per hour is 350,max would be 450 (they are planning on being in the 350 area)
- Next year majority of work will be done during day time

²⁷ CUB Exhibit 110 at 1.

²⁸ CUB Exhibit 110 at 2.

²⁹ CUB Exhibit 104, Attachment E at 1-2.

1 The Company spent approximately \$45,000 for temporary facilities to
2 accommodate the new customer and will spend an additional \$30,000 for salvage and
3 removal.³⁰ However, it soon became clear that "the gate station did not have sufficient
4 capacity to serve the increased load associated with this customer."³¹ Now, the Company
5 proposes to charge the customer a lower rate than other customers, and invest in
6 expanding the capacity of the gate, including a \$1.6 million upgrade.³² All of this
7 expense would be shouldered by other ratepayers.

8 The Company justifies the initial investment in the temporary facilities by the take
9 or pay arrangement with the Paving Company:

10 The facilities that were used to serve the customer during this time period
11 were treated in accordance with the Company's line extension tariff (Rule
12 No. 15). Specifically, Rule No. 15, Subpart D states "Extensions for
13 temporary service or speculative business will be made under the
14 temporary service rule." Rule No. 13, "Temporary Service", states that
15 the applicant "will pay, in advance or otherwise as required by the
16 Company, the estimated cost ..." While Rule No. 13 contemplates that
17 temporary customers must pay in whole for the cost for Avista to provide
18 service, Section B of Rule No. 13 gives Avista the authority to treat this
19 customer as a "permanent service" for purposes of granting a line
20 extension allowance because the customer obligated itself, through
21 contract, to take service for a period greater than "12 consecutive months."

22 The customer, through the Natural Gas Line Extension Agreement
23 ("Agreement") provided as CUB_DR_010C Confidential Attachment A,
24 entered into a "take or pay" arrangement as shown in Section 5 of the
25 Agreement. Under that arrangement, the customer obligated itself to use a
26 certain level of natural gas by the end of 2015. In order to justify the
27 Company's investment of approximately \$45,000, the customer was
28 required to use 305,000 therms in that time period. If the customer did not
29 meet their usage requirements, they would be required to pay a deficiency
30 as shown in the Agreement. When the customer closed its account in
31 August 2015, it had actually used approximately 476,000 therms, meeting

³⁰ CUB Exhibit 111 at 1.

³¹ CUB Exhibit 104 at 3.

³² Avista/600/Schuh/ 19.

1 its contractual obligations and, therefore, the customer did not need to
2 otherwise make a contribution towards the cost of providing service.³³

3 CUB is concerned about the Company including in its business case a \$1.6
4 million project rationale that takes into consideration a customer that can be classified as
5 "temporary" or "speculative business."³⁴ While the take or pay arrangement may have
6 justified the temporary investment, the same cannot be said for the permanent Ladd
7 Canyon Upgrade.

8 **B. Increasing budget for Ladd Canyon capacity improvement**

9 In addition to the assignment of cost of the Ladd Canyon project, CUB takes issue
10 with the prudence of the proposed project at the current cost. CUB asked for details of
11 the cost estimate for the project.³⁵ As of 05/9/2014, the project was estimated to cost
12 \$1,161,912.³⁶ The Company then added a 25% contingency buffer, which pushed the
13 possible cost up to \$1,452,390.³⁷ The Company provides no justification for this
14 contingency. Moreover, there has been no justification for why the contingency buffer
15 should be included in rate base. Certainly in construction projects there are delays,
16 setbacks, and errors but ratepayers should not be asked to fund such a large increase in
17 costs through rate base just in case something comes up. Additionally, the Company
18 states, without further documentation, that "subsequent to the initial estimate, the project
19 manager requested, and received, approximately \$200,000 more from the Capital
20 Planning Group", raising the cost to \$1.65 million.³⁸ There is no explanation why the

³³ CUB Exhibit 112 at 1-2.

³⁴ CUB notes that this is the first notice that CUB had that the Paving Company ceased service with Avista.
CUB Exhibit 112 at 1.

³⁵ CUB Exhibit 113 at 1.

³⁶ CUB Exhibit 113 at Attachment A.

³⁷ CUB Exhibit 113 at Attachment A.

³⁸ CUB Exhibit 113 at 1.

1 original 25% contingency could not absorb this higher cost. If in fact, the project is
2 deemed prudent at \$1.4 million, the project is not automatically prudent at a higher cost.

3 CUB has a difficult time rationalizing why the Company would expend over a
4 million dollars to support a customer on an interruptible rate schedule, and then propose
5 to have other customers subsidize the cost of meeting that customer's needs.

6 **C. Ladd Canyon recommendation**

7 While this project might be needed in future, the Company has failed to
8 demonstrate that the cost and timing of the project was prudently incurred to serve core
9 customers. The Company has failed to identify why the capacity of an interruptible
10 customer drove the timing of the investment. This entire project should be removed from
11 rate base.

12 **IV. Rate Spread**

13 In this case, the Company proposes to alter the rate spread to place more costs on
14 residential and small commercial customers, and to reduce the rates of large customers.
15 The justification for this change lies singly on one study, the Long Run Incremental Cost
16 Study (LRIC) by the Company. Although the LRIC may be used as a guide, it is
17 important when designing optimal rate spread to look at the system and customer base
18 holistically, and use all relevant information. There is reason to believe that residential
19 customers are not being subsidized nearly as much as the LRIC suggests. In addition,
20 with Avista claiming that pipe replacement and other investments will continue to
21 increase rates over the next few years,³⁹ it makes little sense to send price signals to
22 customers suggesting that Avista's costs are declining.

³⁹ Avista/100 Morris/7-8.

1 **A. Residential customers are not driving system upgrades and increases**

2 Avista states that:

3 only approximately 33% of the projected load increase is from higher
4 margin sales customers, with the other 67% coming from lower margin
5 transportation customers.⁴⁰

6 and

7 Over 65% (or approximately \$5.6 million) of the Company's need for
8 additional rate relief relates to the increase in rate base.⁴¹

9 Some of the proposed increase in rate base comes from replacement of faulty
10 infrastructure,⁴² but much of it will be spent on new infrastructure and growth.⁴³

11 Today, residential customers consume less per household and live in more
12 densely populated areas than when Avista first built its system. Avista recognizes in its
13 2014 IRP that small customers have relatively flat demand:

14 Avista does not anticipate that traditional residential and commercial
15 customers will provide growth in demand.⁴⁴

16 and

17 The Company's analysis indicates there is no near term needs to acquire
18 additional supply side resources to meet customer demand.⁴⁵

19 Yet these are the same customers for which the Company proposes to increase
20 rates so that, in part, larger customers can get rate reductions. Consider Avista/903:⁴⁶

⁴⁰ Avista/900/Ehrbar/4.

⁴¹ Avista/100/Morris/ 9, lines 10-11.

⁴² CUB Exhibit 104 at Attachment A, pg. 5.

⁴³ CUB Exhibit 104 and 104Attachment A at pgs. 1-2,3-4,13-15, 16-17.

⁴⁴ Avista 2014 IRP at 11.

⁴⁵ Avista 2014 IRP at 12.

⁴⁶ Avista/903/Ehrbar/4.

Table 2

| Residential | 2013 | 2014 | 2015 | 2016 |
|---------------------|------------|------------|------------|------------|
| Normalized Usage | 48,255,599 | 47,711,116 | 49,097,140 | 49,018,942 |
| Avg # of customers | 85,137 | 85,789 | 86,298 | 87,065 |
| annual Use/customer | 567 | 556 | 569 | 563 |

1 One can quickly see that within the residential class, both use per customer and
 2 normalized usage are expected to decrease during the test year, while the number of
 3 customers is growing by less than 1%. The pattern is clearly not the same for larger
 4 customers:⁴⁷

Table 3

| Large Sales Schedules 424,440 & 444 | 2013 | 2014 | 2015 | 2016 |
|--|-----------|-----------|-----------|-----------|
| Normalized Usage | 7,953,649 | 8,174,865 | 8,637,435 | 8,821,802 |
| Avg # of customers | 117 | 115 | 119 | 121 |
| annual Use/customer | 67,980 | 70,932 | 72,670 | 72,983 |

5 There has been a steady rise in industrial usage overall, and several large new customers
 6 are expected to come online in 2015 and 2016. The story is similar for other non-
 7 residential schedules.

8 Given this apparent discrepancy, CUB feels that it is relevant, in the face of bi-
 9 directional rate changes, to determine how the Company assesses the cost of serving the
 10 Customer. For example, the Ladd Canyon project has been billed by the Company as:

ER 3303: Ladd Canyon Gate Station Upgrade – 2015: \$1,650,000

12 The existing gate station has reached its physical capacity due to the growth
 13 in the area and needs to be upgraded to support the gas load increases. The
 14 new Gate Station will include separate regulation facilities to modify the
 15 existing system and maintain service for the Union supply main and the

⁴⁷ Avista/903/Ehrbar/4.

1 Airport main extension along Pierce Rd. The new facility will require heater,
2 odorizer, regulation, and relief facilities for the Avista site. New telemetry
3 facilities will be installed at this location as well. This project will
4 accommodate the long term benefit of adding capacity to the Elgin area once
5 the 3 miles of HP is extended from Union to the Elgin HP line out of La
6 Grande.⁴⁸

7 In efforts to ascertain the load at that gate station, CUB queried the loads and
8 customer classes at that gate station and was told by the Company that neither load
9 forecast nor historical usage is available at the gate station level.⁴⁹ The Company
10 proposes to place costs onto small customers without showing that those same customers
11 are driving those costs. The Ladd Canyon Station Upgrade is just one example of how
12 larger customers and their growth are driving increases in system costs.

13 **B. The LRIC study is fundamentally flawed**

14 *i. Useful life of investments are exaggerated for industrial customers*

15 Residential customers move out of their houses all the time, and when they do,
16 usually someone else moves in, taking up service with the same provider as the prior
17 residence, requiring no alterations to the system by Avista. This is not true with
18 industrial customers. If an industrial customer closes up shop for economic reasons or
19 otherwise, it is not necessarily a foregone conclusion that another natural gas customer
20 will be able to utilize the facilities that Avista put in place to serve the prior customer at
21 all. If a new customer does arrive, it is quite likely that alterations will be required. In
22 many cases, investments by the Company simply become obsolete, like the temporary
23 investment that Avista made for the temporary Paving Customer at Ladd Canyon.⁵⁰

⁴⁸ Avista/600/Schuh/ 19.

⁴⁹ CUB Exhibits 110 and 114.

⁵⁰ CUB Exhibit 111. CUB DR 11 received on 10/13/2015 revealed that the Paving Customer ceased service from Avista in August. However, all testimony cannot be rewritten, and therefore, sometimes the temporary Paving Customer is merely referred to as "Paving Customer."

1 Even when the Paving Customer was still part of Avista's system, this would have been
2 the case:

3 Completion of [the Ladd Canyon Station Upgrade] will eliminate the short
4 term temporary facilities at this site.⁵¹

5 This means that the \$45,000 initial investment that was made to serve interruptible load
6 would no longer serve customers. However, the Company in its LRIC gives all
7 equipment the same service life, 36 years, regardless of the rate schedule they service.⁵²

8 While it may be true that a meter or regulator that serves a Paving Company or a potato
9 chip manufacturer is functionally operable for 36 years, just like that which serves a
10 residential house, it is questionable whether it is appropriate to assume that those
11 installations will be used to serve customers for an equal numbers of years.

12 Given that the LRIC takes these investments and annualizes the cost, the result is
13 an exaggerated assumption about the years in service that artificially underestimates the
14 cost of service to the customer on that schedule. The incremental investment costs are
15 inaccurate, even on a theoretical basis if actual service lives are not considered.

16 *ii. Accurately sizing the system*

17 The above project is one example of how large costs are being incurred by the
18 desire to serve large customers, and those costs are planned on being shifted onto smaller
19 customers. In this rate case, the Company proposes to increase overall rate base by \$8.6
20 million, to \$218 million, while simultaneously proposing to lower rates for large
21 customers.⁵³ The Company cites its LRIC study as the justification for this, claiming that
22 residential and small commercial customers are "in essence, being subsidized by the other

⁵¹ CUB Exhibit 104 at Attachment A, pg 13.

⁵² Avista/801/ Miller/2.

⁵³ UG 288 - Avista Executive Summary at Exhibit A.

1 non-residential customer schedules."⁵⁴ However, the foundation on which this claim
2 rests is flawed. The LRIC study has inherent biases that are not accounted for.

3 The Company does not measure actual customer load on a granular level, or
4 generally, even at the gate station.⁵⁵ Therefore, the cost of serving an individual
5 customer is estimated without that specific information.

6 In Oregon, the Commission sets revenue requirement based on actual costs, or
7 embedded costs, and not on replacement, or marginal costs. However, when attempting
8 to appropriately allocate costs to customers, the Company can look to an LRIC to inform
9 rate spread and rate design. The LRIC is theoretical in nature, and so therefore does not
10 actually provide cost of service numbers. Therefore, the logistics of actually providing
11 service and the real structure of the system should be considered when giving weight to
12 the theoretical results that come out of the LRIC.

13 The Company, in the absence of customer-specific information, computes the
14 theoretical cost of replacing Avista's entire system at current costs, and then, based on
15 customer usage, attributes portions of that overall cost to customers. This method
16 assumes two important things: (1) that the current system is the appropriate system and
17 (2) that all customers within a class have the same cost causality.

18 However, given the declining usage of the residential class, it is clear that the
19 system needs have changed since it was built. Individual customers do not now need as
20 much capacity as the Company built for them years ago. That capacity, when freed up,
21 allows the Company to accept additional customers with the corresponding margin, some
22 with no base rate. The Company explicitly recognizes this in its planning:

⁵⁴ Avista/900/Ehrbar/7.

⁵⁵ CUB Exhibit 114 at 1.

1 Since the approximate gas usage for the average customer is known, it can
2 be determined what the theoretical maximum number of new customers
3 that can be added to the system before necessitating system
4 reinforcements.⁵⁶

5 These additional customers benefit from the system that was built to serve the
6 customer base, of which 82% is currently residential and small commercial customers.⁵⁷

7 That is to say that the current system was built for a historical residential customer, who
8 used more gas, and had more volatile peak usage. That same system is oversized for the
9 current residential customer. This capacity allows for new customers without
10 “necessitating system reinforcements.” Therefore, even if the allocation percentage is
11 correct, an appropriate percentage multiplied by an inflated total is still inflated. An
12 LRIC study is supposed to look at the incremental cost of serving new customers and
13 loads. If the current system is oversized, then the LRIC should not be based on the
14 current costs of the current system, but should look at the forward-looking cost of a new
15 system that is sized for the actual expected loads.

16 Put a different way, if one were to consider an existing residential area, and the
17 facilities installed in that area decades ago, they were built for larger usage, given the
18 effects of conservation and weatherization, that system is too big for the existing
19 residential area. If it were to be replaced, replacing it with the status quo, instead of
20 replacing it with the facilities currently needed to serve modern load is inappropriate.

21 Moreover, in the Company's analysis on Supply Side Resources, it recognizes
22 alternative resources as having value.⁵⁸ In particular, storage is identified as having value
23 by minimizing the "need for future high cost annual firm transportation" and increasing

⁵⁶ http://www.avistautilities.com/assets/resources/plans/natural_gas/Appendix_D_-_Distribution_Planning.pdf at pg 9.

⁵⁷ Avista/903/Ehrbar/3, on a therm basis, excluding transportation only.

⁵⁸ https://www.avistautilities.com/assets/resources/plans/natural_gas/Appendix_C_-_Supply_Side_Resources.pdf at pg C-10.

1 "load factor of existing firm transportation."⁵⁹ That is, if the Company were to build a
2 new system from scratch to serve its existing customers, would it build the same exact
3 system? This line of inquiry may be dismissed as irrelevant because the Company cannot
4 feasibly scratch its entire system and start anew. However, the purpose of the LRIC is
5 not to determine revenue requirement of the existing system, but get a better picture of
6 cost causality on a theoretical marginal system. If new customers of various schedules
7 were added to the system, it is inappropriate to think that the current system replicated
8 out, would be the most efficient system. Taking the existing system and then reducing
9 some of the facilities to be optimally sized for current customers would lead to more
10 accurate assessment of overall costs.

11 It should not be taken for granted that the Company's current system is optimally
12 sized. Avista's response to CUB DR 22 is evidence that the system, built from the
13 revenues of core customers is big enough to accommodate excess demand:

14 Avista has not needed to interrupt the service to any customer in Oregon
15 in the last 10 years.⁶⁰

16 In fact, the Company intentionally builds excess capacity ahead of need:

17 Sizing the gate station to accommodate a maximum flow rate slightly
18 larger than the currently identified maximum is appropriate from a design
19 planning perspective, given that limiting the capacity to the current
20 maximum would not allow for any load growth on the system.
21 Additionally, relative to the cost of the labor to complete this upgrade
22 (which would be incurred at any size of the gate station upgrade), the
23 incremental cost of sizing the gate station to accommodate future growth
24 is relatively minor.⁶¹

25 While this may make sense from a planning perspective, it raises several points.

26 First, customers are pre-paying for capacity in revenue requirement. While this may

⁵⁹ Accessed at https://www.avistautilities.com/assets/resources/plans/natural_gas/Appendix_C_-_Supply_Side_Resources.pdf at pg C-10.

⁶⁰ CUB Exhibit 109 at 1.

⁶¹ CUB Exhibit 106 at 2.

1 make sense for the Company when considering a business plan, for the customer, the cost
2 of capital and the annual revenue requirement associated with that becomes a key
3 component in prudence analysis or simple economic efficiency. In effect, there is an
4 adder from the customer's point of view to installing early that the Company does not
5 internalize.⁶²

6 Second, the cost of additional pipeline capacity is lower than the cost of the initial
7 pipeline capacity. Therefore when allocating costs via a LRIC, it is not appropriate to
8 consider the entire cost of the pipeline capacity allocate based on usage. The marginal
9 capacity that the Company intentionally overbuilt, even when it becomes used and useful,
10 the exact excess capacity that may be used to meet design day, is the cheapest part of the
11 installed capacity. Therefore, when allocating costs to customers in the LRIC, it should
12 be recognized that the cost of meeting design day is marginal, and if residential
13 customers are the main considerations in peaking capacity, then those marginal costs
14 should be identified with them. The initial installation and minimum, non-peaking
15 pipeline capacity is the expensive part of the investment.

16 Third, the LRIC includes this oversized system, and therefore allocates a larger-
17 than-necessary cost to residential customers. This is not just on a revenue requirement
18 basis, as it does for all customers, but also multiplicatively, as residential customers are
19 identified as being served at rate lower than their marginal cost of service. Therefore,
20 this oversized system that is being built for future possible cost avoidance is driving the
21 argument for a change in rate design, which places more costs on residential customers.

⁶² For example, taxes and ROE.

1 Finally, while the Company is claiming that design day capacity constraints
2 within the distribution system, are “limiting the capacity to the current maximum”⁶³ and
3 “would not allow for any load growth on the system,”⁶⁴ this is only true if the constraint
4 does not include interruptible customers. Because interruptible customers can be
5 curtailed if a design day event occurs, this constraint only occurs in the circumstances
6 where there are no interruptible customers served by that part of the distribution network.
7 But Avista does not consider customer classes when planning this level of distribution
8 investment so it fails to take into account whether the design day capacity constraint can
9 be met through interruption.

10 **C. Subsidy is exaggerated**

11 *i. Company considers distribution revenue, customer considers total bill*

12 Even if one were to take the results of the LRIC as gospel, the lens under which
13 they are viewed is important. The allocation factors that are determined by the LRIC
14 give the reader an idea of whether the customers, from a particular customer class, may
15 be overpaying or underpaying, and by how much. From the point of view of the
16 Company, at any single snapshot in time, the results of the LRIC are irrelevant. The
17 Company is authorized to recover its cost through revenue requirement.⁶⁵ The impact of
18 the LRIC if used to implement rates is on the customers within the customer classes, in
19 two respects.

20 First, if a customer underpays for the gas service it consumes, that customer
21 undervalues the resource that he or she receives and therefore may over-consume. That

⁶³ CUB Exhibit 106at 2.

⁶⁴ CUB Exhibit 106 at 2.

⁶⁵ note: In the discussion that follows, we assume that the LRIC is accurate.

1 is that rates, which reflect resource costs, discourage high levels of consumption by
 2 simple economics.

3 Second, the customer, if his or her cost of service is inflated by some percentage,
 4 may be inclined to secure service elsewhere, or shop competitively.

5 Underpaying, in a regulated environment for gas service, would suggest that
 6 someone else is picking up the tab, or that some customers are being subsidized by
 7 others. The question of the magnitude of this subsidy is relevant.

8 From the LRIC in this rate case, the Company claims, that at present rates:

Table 4⁶⁶

| Customer Class | LRIC Summary Component Allocation Relative Margin-to-Cost Present Rates |
|--|---|
| Residential Service Schedule 410 | 0.98 |
| General Service Schedule 420 | 0.92 |
| Large General Service Schedule 424 | 1.78 |
| Interruptible Sales Service Schedule 440 | 1.47 |
| Seasonal Sales Service Schedule 444 | 1.77 |
| Transportation Service Schedule 456 | 1.66 |
| Total Oregon Gas | 1.00 |

9 This means, from the Company's perspective, customers under Schedule 410 pay
 10 for 98 percent of their own cost of service. This is pretty close to paying exactly the
 11 amount that the study says customers should pay. Large General Service Customers, on
 12 the other hand, pay for more than their fair share. If the entire system were to be
 13 replaced, Large General Service Customers under Schedule 424 would foot 178% of their
 14 share of the bill. However, to say that Transportation Customers under Schedule 456 are

⁶⁶ Avista/801/Miller/1.

1 paying 166% of their share of gas service would be misleading. Since it is irrelevant to
2 the Company how the pie is divided as long as the number at the bottom equals 1, the
3 important consideration is how much the Transportation Customers' costs are inflated.
4 But the transportation (only) customers purchase gas in the market and use Avista's
5 system solely for transporting the gas that they buy elsewhere. They don't pay Avista for
6 gas. Presumably, this is because they find a better arrangement elsewhere. That is, it is
7 fair to assume that transportation-only customers pay less for gas than they would at
8 Avista--their total *actual* bill is less than it would be if they received full service through
9 Avista. So the relevant question becomes how much more do they overpay as a
10 percentage of their overall bill, not how much do they overpay as a percentage of their
11 distribution-only bill. To get a reasonable proxy of this subsidy, one needs to first
12 calculate what the customer's bill would look like if it received full service from Avista,
13 and then recognize that number is an upper bound of what they pay in total.

14 Transportation Customers only pay for distribution. To see what other customers
15 pay for non-distribution services, we net distribution revenue from billed revenue for
16 each customer class, as demonstrated in *Table 5*.

Table 5:

| | (a) | (b) | (c) | (d) | (f) |
|----------|---|----------|--|------------------------------------|--------------------------------------|
| line no. | type of service | schedule | Distribution revenue under present rates | Billed Revenue under present rates | Billed revenue -distribution revenue |
| 1 | Residential | 410 | \$34,864,000 | \$66,399,000 | \$31,535,000 |
| 2 | General Service | 420 | \$13,605,000 | \$30,571,000 | \$16,966,000 |
| 3 | Large Gen Service | 424 | \$687,000 | \$3,611,000 | \$2,924,000 |
| 4 | Interruptible Service | 440 | \$463,000 | \$2,307,000 | \$1,844,000 |
| 5 | Seasonal Service | 444 | \$44,000 | \$209,000 | \$165,000 |
| 6 | Transportation Service | 456 | \$3,330,000 | \$3,384,000 | \$54,000 |
| 7 | Special Contract | 447 | \$231,000 | \$231,000 | \$0 |
| 8 | | | | | |
| 9 | Total | | \$53,224,000 | \$106,712,000 | \$53,488,000 |
| | | | | | |
| * | columns a,b,c,d are taken directly from exhibit Avista/903/Ehrbar/3 | | | | |

1 Then we consider the usage of each customer class:

Table 6:⁶⁷

| | (a) | (b) | (c) |
|----------|------------------------|----------|-------------|
| line no. | type of service | schedule | therms |
| 1 | Residential | 410 | 49,019,000 |
| 2 | General Service | 420 | 26,621,000 |
| 3 | Large Gen Service | 424 | 4,588,000 |
| 4 | Interruptible Service | 440 | 3,975,000 |
| 5 | Seasonal Service | 444 | 258,000 |
| 6 | Transportation Service | 456 | 39,792,000 |
| 7 | Special Contract | 447 | 7,327,000 |
| 8 | | | |
| 9 | Total | | 131,580,000 |

⁶⁷ Avista/903/Ehrbar/ 3, which uses test year numbers

1 To get non-distribution revenue per therm:

Table 7:⁶⁸

| | (a) | (b) | (c) |
|----------|------------------------|----------|------------------------------------|
| line no. | type of service | schedule | non distribution revenue per therm |
| 1 | Residential | 410 | \$0.64332 |
| 2 | General Service | 420 | \$0.63732 |
| 3 | Large Gen Service | 424 | \$0.63731 |
| 4 | Interruptible Service | 440 | \$0.46390 |
| 5 | Seasonal Service | 444 | \$0.63953 |
| 6 | Transportation Service | 456 | \$0.00136 |
| 7 | Special Contract | 447 | \$0.00000 |

2 Not surprisingly, most customers, aside from Interruptible and Special Contract,
 3 pay a similar rate per therm. Most of those rates are captured in the schedules in the tariff
 4 sheets,⁶⁹ including the PGA, and the Gas Cost Rate Adjustment, DSM Cost recovery,
 5 which are similar for many customers. The Transportation Customers are exempt from
 6 all of these schedules, and pay a rate that is effectively a fraction of similarly sized
 7 customers.

8 Then, instead of considering assessing the magnitude of this number in the
 9 context of a percentage of cost-of-service, which is the number relevant to Avista, we
 10 consider it in the context of the percentage of the customer's overall bill. That is, the
 11 Transportation Customer cannot take gas without distribution services, and does not need
 12 Avista's distribution services without gas volume, so the Transportation Customer, even
 13 if it buys gas commodity and gas distribution separately, views them as a package. So, as

⁶⁸ To calculate column (c), CUB divided Table 5 column (f) by Table 6 column (c).

⁶⁹ Avista/901/Ehrbar.

1 a percentage of that Transportation Customer's overall bill, are they overpaying, and if so,
 2 by how much?

3 Let's pretend that those Transportation Customers bought their gas from Avista
 4 instead of some other supplier. Then, given that, by the tariff descriptions, Schedule 456
 5 is most characteristically similar to Schedule 424, assume that if they would pay the same
 6 amount for non distribution costs (mostly gas) as Schedule424. Instead of paying Avista
 7 \$3,384,000 in the test year, Avista would collect this plus approximately \$0.63732/therm,
 8 or

$$\$3,384 + \$0.63732/therm \times 39,792,000therm = \$28,744,027$$

9 That is, Transportation Customers spend, between gas supply and distribution,
 10 approximately \$29 million per year. But how much more were they paying to Avista
 11 than their cost of service?

Table 8: ⁷⁰

| | (a) | (b) | (c) | (d) | (e) |
|----------|---|----------|--|-----------------|-----------------------------|
| line no. | type of service | schedule | Distribution revenue under present rates | Cost of Service | overpayment or underpayment |
| 1 | Residential | 410 | \$34,864,000 | \$41,104,746 | -\$6,240,746 |
| 2 | General Service | 420 | \$13,605,000 | \$17,205,725 | -\$3,600,725 |
| 3 | Large Gen Service | 424 | \$687,000 | \$446,794 | \$240,206 |
| 4 | Interruptible Service | 440 | \$463,000 | \$366,419 | \$96,581 |
| 5 | Seasonal Service | 444 | \$44,000 | \$28,919 | \$15,081 |
| 6 | Transportation Service | 456 | \$3,330,000 | \$2,333,113 | \$996,887 |
| 7 | Special Contract | 447 | \$231,000 | \$295,284 | -\$64,284 |
| | *columns a,b,c,d are taken directly from exhibit Avista/903/Ehrbar/2 | | | | |
| | *note: Distribution is under present rates and cost of service includes the proposed increase in rate base. | | | | |

⁷⁰ Avista/903/Ehrbar/2. Note: column (e) is calculated from column (c) - column (d)

1 So, in the context of the overall bill that the Transportation Customers pay,
 2 between Avista and their supplier, they possibly overpay by \$996,887 out of
 3 \$29,744,027, or approximately 3%. In fact, looking at all schedules, and considering the
 4 revenue deficiency or surplus to the Company compared to cost of service, all are within
 5 a reasonable range.

6 *ii. Excess pipeline capacity and the PGA allocations*

7 Subsidies can go both ways. CUB believes that residential customers get
 8 implicated in cost causality of certain components of Avista's system, but don't
 9 necessarily get a proportionate share of the revenues that those components bring to the
 10 system. Avista designs its system for design day capacity. Residential customers are
 11 known to have lower load factors:

Table 10:⁷¹

| | sched | estimated design day load factor |
|------------------------|-------|-------------------------------------|
| Residential | 410 | 22.35% |
| General Service | 420 | 24.81% |
| Large Gen Service | 424 | 52.95% |
| Interruptible Service | 440 | 50.42% |
| Seasonal Service | 444 | 0.00% |
| Transportation Service | 456 | 38.13% |
| Special Contract | 447 | 87.79% |

12 That means that peak consumption for residential customers (or other customers with low
 13 load factors) compared to off peak consumption is much higher, or put simply, residential
 14 customers don't have constant usage. The Company designs its system around peak day
 15 usage:

⁷¹ Avista/801/Miller/2.

1 Customers' design day load characteristics are the primary criteria
2 associated with system capacity planning.⁷²

3 So, when residential customers are off peak, significant amounts of capacity on the
4 system is freed up. For customers with higher load factors or more constant use, this is
5 not true. Avista markets this capacity that is freed up by residential customers,⁷³ and
6 returns it to customers, in the form of rate reductions through the PGA, or schedule
7 461/462.⁷⁴ However, a quick glance at those tariff sheets, or the ones included in this
8 filing⁷⁵ make it clear that those revenues are distributed equally among core⁷⁶ customers.
9 But this means that small customers with higher load factors are being allocated costs for
10 pipeline capacity that gets released for revenues that are distributed to other customers.
11 Instead, capacity release revenues should be allocated according to marginal capacity
12 charges. In other words, the revenue from capacity releases show flow in the same
13 manner as the costs from capacity charges.

14 CUB believes that it makes sense to allocate capacity release revenue to
15 customers based on the ratio of their marginal capacity charges rather than equal percent.
16 However, this is a PGA issue, not a general rate issue. But the fact that capacity release
17 revenue is not being properly allocated to residential customers informs CUB's
18 recommended rate spread.

⁷² Avista/800/Miller/6.

⁷³ Avista 2014 IRP at pg 106.

⁷⁴ See *In re Avista Utilities*, OPUC Docket No UG 289.

⁷⁵ Avista/901/Ehrbar.

⁷⁶ Schedules 410, 420, 424, and 444.

1 **D. Current rate spread in Oregon is reasonable**

2 Avista’s exhibit 903 shows the final recommended cost allocation out of this
 3 docket. Dividing the revenues by therms shows that the proposed price per therm for
 4 each class of customers:

| Class Name | Rate class | \$/therm |
|------------------|------------|----------|
| Residential | 410 | 1.475407 |
| Small commercial | 420 | 1.257954 |
| Industrial | 424 | 0.776591 |
| Interruptible | 440 | 0.580377 |
| Transportation | 456 | 0.079187 |

5 *i. Compare this to Washington’s Avista Gas Service*

6 The Washington UTC publishes a spreadsheet that has Avista data going back to
 7 1993. From it we can see the revenues/therm charged in Washington:⁷⁷

| | <u>2012</u> | <u>2013</u> |
|---------------------------------|-------------|-------------|
| RESIDENTIAL SALES | 1.0400 | 1.0079 |
| COMMERCIAL SALES | .8503 | .8235 |
| INDUSTRIAL SALES | .6819 | .6454 |
| SALES FOR RESALE | .2661 | .3654 |
| TRANSPORTATION OF GAS OF OTHERS | .0455 | .0474 |

9
 10 The biggest take away from this comparison is that Oregon customers of Avista
 11 are paying significantly higher rates than were recently charged to similarly situated
 12 customers in Washington.

⁷⁷ <http://www.utc.wa.gov/regulatedIndustries/utilities/energy/Pages/financialDataForGasCompanies.aspx>

1 Residential customers are being asked to pay rates that are 46% higher than
 2 residential customers in Washington were paying just 2 years ago. Oregon industrial
 3 customers are being asked to pay rates that are 20% higher than Washington customers,
 4 and transportation customers are being asked to pay rates that are 67% higher. While this
 5 makes the transportation customers look like they are getting the worst deal, it should be
 6 noted that they are paying just 3.2 cents per therm higher than a similarly situated
 7 Washington Avista customer. An Oregon industrial customer is paying 13.1 cents more
 8 per therm and a residential customer is paying a whopping 46.8 cents per therm more
 9 than a residential customer in Washington State.

10 When Avista seeks a gas rate increase in Washington, they propose a much
 11 different rate spread:⁷⁸

12 **Table 2 - Proposed % Natural Gas Increase by Schedule Rate Schedule**

| | Increase in Base Rates | Increase in Billing Rates |
|---|-------------------------------|----------------------------------|
| 14 General Service Schedule 101 | 8.0% | 7.8% |
| 15 Large General Service Schedules 111/112 | 3.8% | 3.7% |
| 16 Ex. Lg. General Service Schedules 121/122 | 2.7% | 2.5% |
| 17 Interrupt. Sales Service Schedules 131/132 | 3.5% | 3.4% |
| 18 Transportation Service Schedule 146 | 22.9% | 22.9% |
| 19 Overall | 7.0% | 6.9% |

20 As we can see, revenue requirement is going up by 7% and Avista is proposing a rate
 21 spread where the lowest class gets an increase of 2.7% and the largest (excluding
 22 transportation) gets an 8 percent. This is essentially a 3-to-1 rate spread, where the greatest
 23 increase is three times the size of the smallest increase. As we said, Transportation

⁷⁸ Washington Rate Spread & Rate Design UG-150205, Direct Testimony of Patrick D. Ehrbar, page 5, available at <http://www.utc.wa.gov/docs/Pages/DocketLookup.aspx>.

1 Customers are outside of this 3-to-1 rate spread, but this excludes the cost of gas. Avista’s
 2 testimony makes clear that if you impute the cost of gas and interstate transportation, these
 3 customers would be receiving a more modest 3.7% increase.⁷⁹

4 **ii. Idaho**

5 We see the same thing in Idaho:

**Table B: 2016 & 2017 Natural Gas Rate Request by Rate Schedule
 Rate Schedule Description**

| | 2016 Billing Increase | 2017 Billing Increase |
|---|----------------------------------|----------------------------------|
| Increase | | |
| General Service Schedule 101 | 6.5% | 2.9% |
| Large General Service Schedules 111 & 112 | 3.5% | 1.3% |
| Interruptible Service Schedules 131 & 132 | 5.5% | 2.0% |
| Transportation Service Schedule 146* | 4.5% | 5.4% |
| Total | 5.8% | 2.5% |

* *excludes commodity and interstate pipeline transportation costs*⁸⁰

6 **E. Policy Considerations.**

7 Rate spread is not a new issue for this Commission. It has been a contested issue
 8 on the electric side since the mid-70’s when new coal and nuclear investments led to a
 9 series of significant rate cases. Since CUB’s formation in 1984, CUB has participated in
 10 dockets with contested rate spread on a regular basis. The first testimony Bob Jenks
 11 supplied to this Commission in a contested case concerned marginal cost of service
 12 studies and rate spread.⁸¹ Marginal cost of service studies were controversial, with rate
 13 spread regularly contested in electric dockets until the late 90’s. Since then it has been
 14 less of an issue, for two reasons. First, after a series of rate increases which used a 4-to-1

⁷⁹ *Ibid*, page 19.

⁸⁰ Idaho Utilities Commission, CASE NO. AVU-G-15-01, DIRECT TESTIMONY of PATRICK D. EHRBAR, page 4, available at <http://www.puc.idaho.gov/fileroom/cases/gas/AVU/AVUG1501/company/20150601EHRBAR%20DIRECT.PDF>.

⁸¹ UE 88/CUB/1/Jenks.

1 rate spread for PGE⁸² and 3-to-1 rate spread for PacifiCorp,⁸³ customer classes moved
2 closer to parity. Second, in 1997's UM 827, the Commission ordered electric rate spread
3 to be based on a functionalized cost of service studied, and this meant that distribution
4 marginal costs were no longer driving generation revenue requirement towards residential
5 customers.⁸⁴

6 Some of this history on the electric side relates to this case. In addition, CUB's
7 history on these issues leads CUB to recommend a set of principles that we believe grew
8 out of these decisions.

9 ***i. History***

10 ***a. Marginal Cost Methodology***

11 Rate cases identify the revenue a utility needs in order to recover its costs and earn
12 a reasonable return. Because many of the costs of the system are common (shared by
13 multiple customers) methodologies need to be developed to allocate this revenue
14 requirement. From a high level, there are two approaches: embedded cost-of-service, or
15 marginal cost-of-service. The theoretical difference is described in the NARUC Cost
16 Allocation Manual:

17 It is important to note that the difference between an embedded cost of
18 service study and a marginal cost of service study lies in their different
19 concepts of cost. The embedded cost study uses the accounting costs on
20 the company's book during the test year as the basis of the study. In
21 contrast, the marginal cost study estimates the resource costs of the utility
22 in providing the last unit of production. Once "cost" is determined, the
23 procedures for allocating cost among services, jurisdictions and customers
24 are largely the same. Thus, the practical and theoretical debates in
25 marginal cost studies tend to center around the development of costs, while

⁸² See *In re Portland General Electric*, OPUC Docket UE 79 and *In re Portland General Electric*, OPUC Docket No. UE 88.

⁸³ See *In re Idaho Power Company*, OPUC Docket No. UE 92 and *In re PacifiCorp*, OPUC Docket No. UE 94.

⁸⁴ OPUC Order 98-374.

1 the debates in embedded costs studies focus on how the costs taken
2 directly from the company's books should be divided among customers.⁸⁵

3 CUB understands that the Oregon PUC adopted a marginal cost approach to
4 electric utilities in the mid-1970s. For gas utilities, a Long-Run Incremental Cost study is
5 used to provide the marginal costs—note that “resource costs of the utility in providing
6 the last unit of production” used in the above quote is the same as saying the resource
7 costs of providing incremental production.

8 **b. Application to the Electric Utilities**

9 From 1979 to 1985, marginal customer-related costs were not used for purposes
10 of rate spread. Since the use of customer-related costs drive more of the revenue
11 requirement towards residential customers, this had the effect of offering some rate
12 protection to residential customers.⁸⁶ This changed in 1985 when the Commissioner⁸⁷
13 ordered that customer-related costs be used for the purposes of LRIC calculation.⁸⁸ This
14 led to a situation, much like Avista is proposing today, where the residential class was
15 getting big rate increases while industrial customers were getting large decreases:

16 The effect of this decision has been that residential rates have increased
17 while other classes of customers have seen their rate decrease. Since
18 1985, PGE residential ratepayers have seen their rates increase
19 approximately 9.9%, while Schedule 31&32 have seen their rates decrease
20 9.6%, Schedules 82 & 83 have seen their rate decrease by 11%, and
21 Schedules 89 & 90 have seen their rates decrease by 26.9%.⁸⁹

⁸⁵ NARUC, *Electric Utility Cost Allocation Manual*, pg. 15 (1992).

⁸⁶ UE 88 - CUB/1/Jenks/20.

⁸⁷ At that time Oregon had a single Public Utility Commissioner, not a Commission.

⁸⁸ UE 88 - CUB/1/Jenks/20.

⁸⁹ UE 88 - CUB/1/Jenks/20.

1 This practice of allowing some customer classes get rate decreases while other classes got
2 rate increases was abandoned by 1990, when the PUC established a 4-to-1 rate spread for
3 PGE.⁹⁰

4 Since 1990, CUB is unaware of any contested cases where the PUC ordered a rate
5 spread that allowed for rate increases for one or more major customer class, while
6 simultaneously allowing rate decreases for other major customer classes. Instead, the
7 Commission has allocated a higher share of a rate increase to classes of customers that
8 are believed to be underpaying and a lower share of a rate increase to classes of
9 customers that are overpaying. An example of this is the 3-to-1 or 4-to-1 rate spreads
10 that were used in the 1990s.

11 ***ii. Principles of Rate Spread***

12 CUB believes that the Commission was well grounded in rejecting the idea of
13 having rates for major customer classes move in opposite directions. From CUB's
14 experience in these rate cases, CUB believes there are solid principles that support that
15 1990 Commission decision.

16 ***1. Marginal cost studies are theoretical and contain a great deal of assumptions.
17 Changing assumptions can greatly influence cost allocation. Oregon does not
18 require a uniform methodology for these assumptions and uses marginal cost
19 studies to inform and guide rate spread and rate design, not to dictate rate spread
20 and rate design.***

21 Identifying the theoretical marginal cost is not a simple exercise, nor is it a precise
22 exercise. There are a variety of different approaches that can be taken, and each approach
23 requires a great deal of assumptions. The Commission itself has said that it is more "art
24 than science":

⁹⁰ OPUC Order No. 95-322.

1 We will not require a single marginal cost approach for all utilities.
2 Calculating marginal costs is as much an art as it is a science. Allowing
3 utilities to address the issue of calculating marginal costs in different ways
4 has led to significant and productive new approaches to efficient pricing
5 and costing of electrical service. We do not believe that mandating a
6 single approach will advance the art of marginal cost analysis, and it could
7 significantly impede progress.⁹¹

8 Identifying a uniform methodology is not necessary because Oregon has placed
9 marginal cost studies in context. Choosing the methodologies and assumptions is as much
10 art as science. CUB believes this context helps explain why marginal cost studies are
11 used to inform and guide rate spread and rate design, not to dictate rate spread and rate
12 design.

13 ***2. Only on rare occasions will marginal costs equal the utility's revenue requirement.***

14 ***The goal is not to price at marginal cost, but to use the marginal cost of service***
15 ***study to inform rate spread and rate design in order to send the most appropriate***
16 ***price signals.***

17 While Oregon uses a marginal cost approach to pricing, prices are set to collect
18 the utility's revenue requirement, not its marginal cost. One of the reasons that marginal
19 costs are considered is that economic theory says that a market is in equilibrium when the
20 supply and demand curves intersect at the level of marginal cost.⁹² At this point we have
21 optimized the market and generated benefits to consumers and producers, called
22 "consumer surplus" and "producer surplus."⁹³ But the Commission cannot set prices at
23 this equilibrium point, because doing so would in some cases leave the utility unable to
24 collect its prudently incurred costs and a reasonable return, and in other cases would
25 allow the utility to over-collect its costs and return. In this current Avista case, pricing at

⁹¹ OPUC Order No. 95-322.

⁹² NARUC, *Electric Utility Cost Allocation Manual*, pg. 147 (1992).

⁹³ *Ibid.*

1 the equilibrium “market” price would lead to lower overall prices, and Avista would
 2 under recover its costs.

3 One of the critiques of using marginal costs to guide utility pricing is that we
 4 cannot charge the marginal price—the equilibrium market price. But using a marginal
 5 cost study to inform our rate spread and rate design does allow us to come closer to that
 6 equilibrium price than if we simply use an embedded cost-of-service study. But no
 7 matter what happens in a rate case, it is only in the rarest of circumstances that the prices
 8 that are set send the same price signals as a market in equilibrium.

9 ***3. Price signals contain a directional element. If costs are generally rising, all***
 10 ***customer classes should receive a price signal.***

11 One of the reasons the Commission adopted the 3-to-1 and 4-to-1 approaches was
 12 the recognition that there are multiple aspects to price signals. In a market where costs
 13 are generally rising, implementing price signals that tell a customer that the product is
 14 getting cheaper could lead that customer to purchase inefficient equipment that is not
 15 well suited for a market where costs are growing. This directional price signal is
 16 important.

17 Avista is currently the most expensive natural gas company in Oregon for firm
 18 service but charges lower rates for interruptible service:⁹⁴

| 2013 Revenue Per Therm | Avista | Cascade | NW Natural |
|------------------------|--------|---------|------------|
| Residential | 1.20 | .86 | 1.09 |
| Firm C & I | .98 | .71 | .84 |
| Interruptible | .42 | NA | .49 |

⁹⁴ <http://www.puc.state.or.us/docs/statbook2013.pdf>.

| | | | |
|----------------|-----|-----|-----|
| Transportation | .08 | .02 | .04 |
|----------------|-----|-----|-----|

1 And Avista is expecting its costs to continue to rise. Avista projects that net plant
 2 will grow significantly faster than sales through 2018.⁹⁵ This means that rates will
 3 continue to increase. Knowing this, it violates the principle of directional price signals to
 4 give some customers rate decreases. Sending a message that the distribution costs of
 5 Avista are going down is not accurate. Signaling to all customers that due to pipe
 6 replacement and other investment, the cost of delivery of natural gas by Avista will
 7 continue to go up in the future is the right price signal to send.

8 ***4. While the cost of service study is an important element to cost allocation, cost***
 9 ***allocation is also informed by other concerns such as fairness and avoiding rate***
 10 ***shock.***

11 While the LRIC study is an important concern while considering rate spread, it is
 12 not the only concern. Historically, the Commission has been concerned about general
 13 fairness and rate shock. It is a common practice in nearly every rate case to look at both
 14 the average rate change and each individual rate class’s rate change. Typically, if
 15 applying the cost of service study results in a rate class being given a rate change that
 16 varies too far from the average rate change, there is an adjustment. In some cases, this is
 17 directly tied to the concerns of rate shock and trying to keep rates affordable for all. In
 18 other cases where the rate increase may not be great enough as to be considered a
 19 “shock,” it is done out of fairness.

⁹⁵ Avista/100/Morris/7-8.

1 **F. CUB's Recommended Rate Spread**

2 CUB recommends that Avista be ordered to spread the final revenue requirement
3 from this case to customers so that no customer class gets any more than 3 times the
4 increase of any other class. For transportation customers, this should be done after
5 imputing Avista's commodity costs (gas plus interstate transportation), so it is an apples-
6 to-apples comparison (transportation and commodity). Interruptible customers, who
7 currently pay lower rates than NW Natural customers, should receive the average
8 increase. This reflects the fact that driving these costs are investments in the capacity of
9 the distribution system, and those investments allow interruptible customers to avoid
10 interruption.

11 **V. CUB's recommendations**

12 1. Decoupling.

13 The Commission should allow a limited decoupling mechanism. New customers
14 should be excluded until Avista can demonstrate an appropriate baseline for new
15 customers. The decoupling mechanism should be weather normalized until the Company
16 can demonstrate that its new CIS system can make the weather related adjustments in
17 real-time.

18 2. Ladd Canyon.

19 The Commission should reject the Ladd Canyon upgrade as a prudent expenditure
20 that is necessary to serve customers in the test year. This should reduce rate base by
21 approximately \$1.6 million.

1 3. Rate Spread.

2 The Commission should order Avista to spread the final revenue requirement
3 from this case to customers so that no customer class gets any more than 3 times the
4 increase of any other class. For transportation customers, this should be done after
5 imputing Avista's commodity costs (gas plus interstate transportation), so it is an apples-
6 to-apples comparison (transportation and commodity). Interruptible customers, who
7 currently pay lower rates than NW Natural interruptible customers, should receive the
8 average increase.

WITNESS QUALIFICATION STATEMENT

NAME: Bob Jenks

EMPLOYER: Citizens' Utility Board of Oregon

TITLE: Executive Director

ADDRESS: 610 SW Broadway, Suite 400
Portland, OR 97205

EDUCATION: Bachelor of Science, Economics
Willamette University, Salem, OR

EXPERIENCE: Provided testimony or comments in a variety of OPUC dockets, including UE 88, UE 92, UM 903, UM 918, UE 102, UP 168, UT 125, UT 141, UE 115, UE 116, UE 137, UE 139, UE 161, UE 165, UE 167, UE 170, UE 172, UE 173, UE 207, UE 208, UE 210, UE 233, UE 246, UE 283, UG 152, UM 995, UM 1050, UM 1071, UM 1147, UM 1121, UM 1206, UM 1209, UM 1355, UM 1635, UM 1633, and UM 1654. Participated in the development of a variety of Least Cost Plans and PUC Settlement Conferences. Provided testimony to Oregon Legislative Committees on consumer issues relating to energy and telecommunications. Lobbied the Oregon Congressional delegation on behalf of CUB and the National Association of State Utility Consumer Advocates.

Between 1982 and 1991, worked for the Oregon State Public Interest Research Group, the Massachusetts Public Interest Research Group, and the Fund for Public Interest Research on a variety of public policy issues.

MEMBERSHIP: National Association of State Utility Consumer Advocates
Board of Directors, OSPIRG Citizen Lobby
Telecommunications Policy Committee, Consumer Federation of America
Electricity Policy Committee, Consumer Federation of America
Board of Directors (Public Interest Representative), NEEA

WITNESS QUALIFICATION STATEMENT

NAME: Jaime McGovern

EMPLOYER: Citizens' Utility Board of Oregon

TITLE: Senior Utility Analyst

ADDRESS: 610 SW Broadway, Suite 400
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EDUCATION: 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.

**AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION**

| | | | |
|---------------|--------------|----------------|----------------------------|
| JURISDICTION: | Oregon | DATE PREPARED: | 09/30/2015 |
| CASE NO.: | UG-288 | WITNESS: | Patrick Ehrbar |
| REQUESTER: | CUB | RESPONDER: | Joe Miller |
| TYPE: | Data Request | DEPT: | State & Federal Regulation |
| REQUEST NO.: | CUB - 006 | TELEPHONE: | (509) 495-4546 |
| | | EMAIL: | joe.miller@avistacorp.com |

REQUEST:

Please provide average use per customer of **new** residential customers for each of the last 5 years and the same for existing residential customer base (a) on a weather normalized basis, and (b) on a non-weather normalized basis.

RESPONSE:

The Company does not track usage data for new residential customers and is therefore unable to provide historical usage for these customers as requested above. Below is average monthly use per customer data for all residential customers on both a weather normalized and non-weather normalized basis.

Schedule 410 (Residential)
Average Monthly Use-Per-Customer

| Year | Actual Use-Per-Customer | Weather Normalized Use-Per-Customer |
|------|----------------------------|--|
| 2010 | 45.8 | 46.4 |
| 2011 | 50.6 | 45.9 |
| 2012 | 46.3 | 46.0 |
| 2013 | 50.1 | 47.2 |
| 2014 | 40.8 | 46.3 |

**AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION**

| | | | |
|---------------|--------------|----------------|----------------------------|
| JURISDICTION: | Oregon | DATE PREPARED: | 10/08/2015 |
| CASE NO.: | UG 288 | WITNESS: | Patrick Ehrbar |
| REQUESTER: | CUB | RESPONDER: | Patrick Ehrbar |
| TYPE: | Data Request | DEPT: | State & Federal Regulation |
| REQUEST NO.: | CUB - 029 | TELEPHONE: | (509) 495-8620 |
| | | EMAIL: | pat.ehrbar@avistacorp.com |

REQUEST:

The following questions refer to the Company's response to CUB DR 6:

- a) Can the company use its CIS system to identify new residential customers who have been added to the system over the last 5 years and identify whether these customers use on average more or less than average customers. Please explain the methodology if the answer is yes.
- b) If the answer is no, under what basis does the Company propose to include new customers in its decoupling mechanism, given the Company's response to CUB DR 6 stating that it "does not track usage data for new residential customers." Please provide the methodology which the Company proposes to use to distinguish new customers from existing customers in the proposed decoupling mechanism.

RESPONSE:

- a) The Company cannot easily identify new residential customers that have been added to the system over the last 5 years because the Company recently replaced its legacy CIS system with a new system (Project Compass) which went live in February 2015. In order to gather the requested information from the legacy system, it would require a significant amount of time and programming expense.
- b) As it relates to decoupling and new customers, with the new CIS system (Project Compass) we will be able to query the database to track new customers and their usage. It is important to note that the Company is basing its rates on its 2016 forecast number of customers and 2016 forecast billing determinants. As such, existing customers, as well as new customers forecasted in the rate year, as well as their combined forecasted usage are included in the baseline decoupling values (the allowed revenue per customer). To the extent the usage of new or existing customers is more, or less, than what was included in the 2016 baseline values, those differences would be tracked and deferred for later rebate or surcharge.

**AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION**

| | | | |
|---------------|-------------------|----------------|------------------------------|
| JURISDICTION: | Oregon | DATE PREPARED: | 08/03/2015 |
| CASE NO.: | UG 288 | WITNESS: | Karen Schuh |
| REQUESTER: | PUC Staff - Moore | RESPONDER: | David Machado |
| TYPE: | Data Request | DEPT: | State & Federal Regulation |
| REQUEST NO.: | Staff – 191 | TELEPHONE: | (509) 495-4554 |
| | | EMAIL: | david.machado@avistacorp.com |

REQUEST:

For the projects listed below, please provide: Project justification forms, studies, presentations, memoranda, meeting notes and any other supporting documentation identifying, demonstrating, or justifying why the project is necessary or prudent *for Oregon operations* at this time.

- a. Gas Revenue Growth projects – ER 1001
- b. Gas Meters Growth projects – ER 1050
- c. Gas Reinforcement – minor blanket – ER 3000
- d. Replace deteriorating Gas System – ER 3001
- e. Gas Replacement – Street & Hwy – ER 3003
- f. Gas Distribution – Non-revenue projects – (no ER)
- g. Overbuilt pipe replacement projects – ER 3006
- h. Ladd Canyon Gate Station Upgrade – ER 3203
- i. Bonanza Gate Station Move – ER 3307

RESPONSE:

Please see the Company's response in Staff_DR_191C for the requested information. Staff_DR_191C is **CONFIDENTIAL SUBJECT TO GENERAL PROTECTIVE ORDER**.

Please see Staff_DR_191, Attachment A for the business case summary sheets for each project listed above, which are presented to Avista's Capital Planning Group—the oversight body in charge of allocating the capital expenditure budget among Avista's projects. These summary sheets include information regarding the justification for and necessity or prudence of the given projects and are excerpted from Company Witness Ms. Schuh's work papers, which were included in Avista's submission of this general rate case filing. Further discussion of these projects is included below.

Gas Revenue Growth projects (ER 1001) and Gas Meters Growth projects (ER 1050): Both of these ERs fall under the *New Revenue – Growth* business case. This business case addresses costs to serve new loads for natural gas service, including the cost to construct new gas piping, as well as the cost of equipment required to provide service, such as meters or regulators, among other equipment.

Capital expenditures under ER 1001 are responsive to customer requests to connect service in Oregon and addresses the costs of constructing new gas pipeline to provide service. Capital expenditures under ER 1050 relate to the purchase and installation of new metering equipment to

provide new service and are also responsive to customer requests to connect service. Therefore, capital expenditures under these ERs are required under Avista's obligation to serve. Staff_DR_191, Attachment B is a summary of Avista's forecast new customer connections for 2015 and 2016, upon which the forecast capital additions included for this business case are based.

Gas Reinforcement – minor blanket (ER 3000): This annual program provides for necessary reinforcements and reliability looping of Avista's existing natural gas distribution systems in all jurisdictions and is allocated or directly assigned to Oregon. Periodic reinforcement of the system is required to serve customers reliably when increased demand or new customer connections affect existing service locations. Work under this program addresses Avista's obligation to serve and Avista's continuity of service requirements outlined Oregon Tariff – Rule 14(A)(2). Staff_DR_191, Attachment C details gas reinforcement planning proposals throughout Avista's natural gas service territories.

Replace deteriorating Gas System (ER 3001): This annual program addresses the replacement of sections of existing steel gas piping that are suspect for failure or are showing signs of deterioration within the gas system. Staff_DR_191, Attachment D details the Oregon projects included in the deteriorated pipe replacement plan.

Gas Replacement – Street & Hwy (ER 3003): Work under this business case is “work in request of others” that must be performed in accordance with our franchise agreements with various public entities in Oregon. This annual program replaces sections of existing gas piping that require replacement due to relocation or improvement of streets or highways in areas where gas piping is installed. Avista installs many of its facilities in public right-of-way under established franchise agreements. Avista is required under the franchise agreements, in most cases, to relocate its facilities when they are in conflict with road or highway improvements. The Franchise Agreements and/or permits Avista has with the various city/county/state/RR entities provide the mandatory language for these types of projects.

Gas Distribution – Non-revenue projects (ER 3005): This annual program addresses the replacement of sections of existing gas piping that require replacement to improve the operation of the gas system but which are not directly linked to new revenue or another pipeline replacement project. The program includes replacement of pipe and facilities that are at the end of their useful life or have failed in Oregon. It includes improvements in equipment and/or technology to enhance system operations and/or maintenance, replacement of obsolete facilities, replacement of main to improve cathodic performance, and projects to improve public safety and/or improve system reliability in Oregon. Therefore, work under this program addresses Avista's obligation to serve and Avista's continuity of service requirements outlined Oregon Tariff – Rule 14(A)(2).

Overbuilt pipe replacement projects (ER 3006): This program addresses the replacement of sections of existing gas piping that have experienced encroachment or have been overbuilt by customer constructed improvements (i.e., decks, driveways, etc.) that restrict the Company's access to natural gas pipe and prevent safe operation of these sections of gas pipe in Oregon. The replacements are completed to enhance public safety and comply with FERC requirements at 49 CFR 192.361(f). Staff_DR_191, Attachment D details the projects planned under the Overbuilt Pipe Replacement Program.

Ladd Canyon Gate Station Upgrade (ER 3203): This project is necessary to support gas load increases in the La Grande, OR area, particularly as relates to a new customer that Avista allowed to connect to the natural gas system in the La Grande district in 2013. The gas piping system capacity was capable of handling the loads associated with the new customer, but it was later determined that the gate station did not have sufficient capacity to serve the increased load associated with this customer. See Staff_DR_191 Attachments E and F for emails discussing the capacity constraints. Williams Pipeline provided a temporary metering station (see Staff_DR_191C Confidential Attachment A for the temporary services contract), with the agreement that Avista and Williams would complete a permanent gate station (see Section 3.1 of the aforementioned services contract). The project to construct this gate station was delayed in 2014 due to permitting, but Williams Pipeline extended the timeline to allow Avista to construct this project in 2015.

Bonanza Gate Station Move (ER 3307): This project is a joint effort between Avista and GTN (TransCanada) in order to move the Bonanza Gate Station, which had been the subject of a legal case (of which the Oregon Public Utility Commission Safety, Reliability, and Security Division is aware). Both Avista and GTN agreed to the timing of the gate station move and agreed to share the costs of such move (which is unusual, as Avista normally bears the majority of the costs associated with gate station work, and of benefit to Avista customers).

UG 288 - CUB/Exhibit 104 - Attachment A
McGovern-Jenks/1

Schuh Workpapers
NGD-1

Capital Program Business Case



| | | | | | | | |
|--|-----------------------------|-------------------|---|--|---------------------|--------------------|----------------------------|
| Investment Name: | New Revenue - Growth | | Assessments: | | | | |
| Requested Amount | \$ | 33,170,486 | Financial: | 8.40% | | | |
| Duration/Timeframe | On Going | Year Program | Strategic: | Other | | | |
| Dept., Area: | Energy Delivery | | Business Risk: | Business Risk Reduction >0 and <= 5 | | | |
| Owner: | Al Fisher | | Program Risk: | Moderate certainty around cost, schedule and resources | | | |
| Sponsor: | Don Kopczynski | | Assessment Score: | 97 | | | |
| Category: | Mandatory | | Annual Cost Summary - Increase/(Decrease) | | | | |
| Mandate/Reg. Reference: | Growth | | Performance | Capital Cost | O&M Cost | Other Costs | Business Risk Score |
| Recommend Program Description: | | | describe any incremental changes that this Program would benefit present operations | \$ 33,170,486 | \$ - | \$ - | 4 |
| This program is for costs to serve new loads for gas and electric. This includes the cost to construct new overhead and underground lines, gas piping, street and area lights. Devices such as transformers, meters, regulators, ERTs, and network transformers and protectors are also included in this business case. 2014 Budget: 23% increase (from 2013's original plan) in hookups is projected. | | | | | | | |

| Alternatives: | | Performance | Capital Cost | O&M Cost | Other Costs | Business Risk Score |
|--|---|--|---------------------|---------------------|--------------------|----------------------------|
| Unfunded Program: | We have an obligation to serve. Additionally if not funded, there would be minimal customer load growth | n/a | \$ - | \$ - | \$ - | 12 |
| Alternative 1: Brief name of alternative (if applicable) | Describe other options that were considered | describe any incremental changes in operations | \$ - | \$ - | \$ - | 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 |

| | Capital Cost | O&M Cost | Other Costs | Approved |
|--------------|-----------------------|-------------|-------------|-----------------------|
| Previous | \$ - | \$ - | \$ - | \$ - |
| 2014 | \$ 33,170,486 | \$ - | \$ - | \$ 33,170,486 |
| 2015 | \$ 38,465,049 | \$ - | \$ - | \$ 38,512,116 |
| 2016 | \$ 40,785,194 | \$ - | \$ - | \$ 41,434,864 |
| 2017 | \$ 41,389,769 | \$ - | \$ - | \$ 40,763,946 |
| 2018 | \$ 42,027,959 | \$ - | \$ - | \$ 40,657,672 |
| 2019 | \$ 42,027,959 | \$ - | \$ - | \$ 42,027,959 |
| Total | \$ 237,866,416 | \$ - | \$ - | \$ 236,567,043 |

| | | | |
|------|------|------|------|
| 1000 | 1001 | 1002 | 1003 |
| 1004 | 1005 | 1009 | 1050 |
| 1051 | 1053 | | |

| ER | 2014 | 2015 | 2016 | 2017 | 2018 | Total | Mandate Excerpt (if applicable): |
|--------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|---|
| 1000 | \$ 11,620,718 | \$ 13,606,838 | \$ 14,471,120 | \$ 15,578,871 | \$ 16,125,357 | \$ 71,402,904 | provide brief citation of the law or regulation and a reference number if possible |
| 1001 | \$ 10,601,275 | \$ 12,062,433 | \$ 12,913,301 | \$ 14,015,398 | \$ 14,502,519 | \$ 64,094,926 | |
| 1002 | \$ 340,410 | \$ 340,410 | \$ 340,410 | \$ 340,410 | \$ 340,410 | \$ 1,702,050 | |
| 1003 | \$ 5,766,400 | \$ 5,874,400 | \$ 6,150,400 | \$ 4,179,562 | \$ 4,179,562 | \$ 26,150,324 | |
| 1004 | \$ 650,000 | \$ 650,000 | \$ 650,000 | \$ 650,000 | \$ 650,000 | \$ 3,250,000 | |
| 1005 | \$ 600,000 | \$ 625,000 | \$ 650,000 | \$ 675,000 | \$ 700,000 | \$ 3,250,000 | |
| 1009 | \$ 890,000 | \$ 920,000 | \$ 950,000 | \$ 980,000 | \$ 980,000 | \$ 4,720,000 | |
| 1050 | \$ 1,768,580 | \$ 1,875,666 | \$ 1,994,413 | \$ 2,126,567 | \$ 1,894,939 | \$ 9,660,165 | |
| 1051 | \$ 305,825 | \$ 324,552 | \$ 345,474 | \$ 368,929 | \$ 328,220 | \$ 1,673,000 | |
| 1053 | \$ 627,279 | \$ 2,185,750 | \$ 2,320,075 | \$ 2,475,031 | \$ 2,326,952 | \$ 9,935,087 | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | Additional Justifications: Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc. |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| Total | \$ 33,170,486 | \$ 38,465,049 | \$ 40,785,194 | \$ 41,389,769 | \$ 42,027,959 | \$ 195,838,457 | |

Resources Requirements: (request forms and approvals attached)

Internal Labor Availability: Low Probability Medium Probability High Probability
 Contract Labor: YES NO

Enterprise Tech: YES - attach form NO or Not Required
 Facilities: YES - attach form NO or Not Required
 Capital Tools: YES - attach form NO or Not Required
 Fleet: YES - attach form NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm commitment).

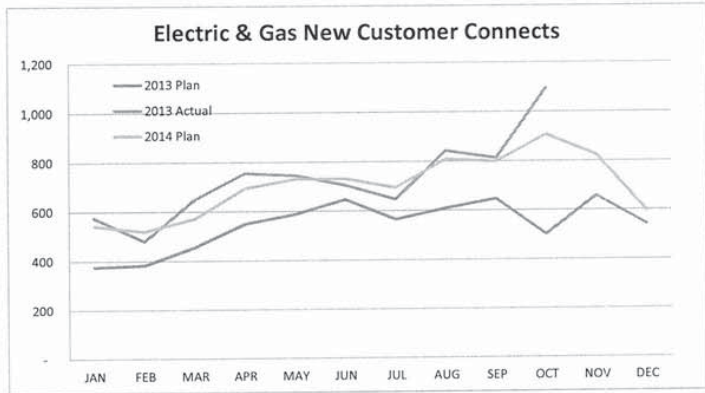
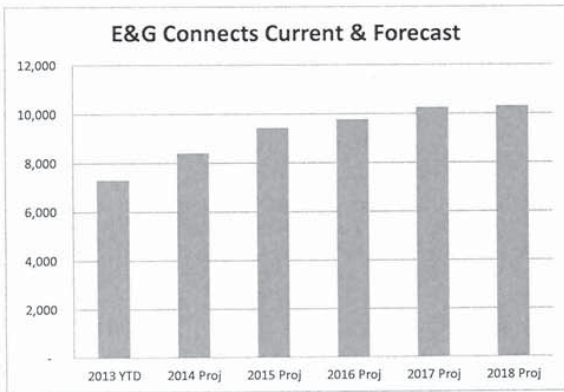


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Director/Manager

Other Party Review signature *Manni Stevens*
(if necessary) Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaluating the Program



To be completed by Capital Planning Group

| Rationale for decision | Review Cycles | |
|------------------------|---------------|----------|
| | 2012-2016 | |
| | Date | Template |
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Capital Investment Business Case



| | | | |
|--|---|---|---|
| Investment Name: | Gas Reinforcement | Assessments: | |
| Requested Amount | \$1,000,000 | Financial: | MH - >= 9% & <12% CIRR |
| Duration/Timeframe | On-Going 2012+ | Strategic: | Reliability & Capacity |
| Dept., Area: | Gas Operations | Operational: | Operations not impacted by execution |
| Owner: | Mike Faulkenberry | Business Risk: | ERM Reduction >10 and <= 15 |
| Sponsor: | Don Kopczynski | Program Risk: | Moderate certainty around cost, schedule and resources |
| Category: | Mandatory | Assessment Score: | 143 |
| Mandate/Reg. Reference: | WAC 480-90-148(2)(d), IDAPA 31.31.01.151, OR | Annual Cost Summary - Increase/(Decrease) | |
| Recommend Program Description: | | Performance | Capital Cost |
| This annual program will provide for necessary reinforcements and reliability looping of the existing gas distribution system in WA, ID, and OR. Avista has an obligation to provide reliable service that is of adequate pressure and capacity. Periodic reinforcement of the system is required to reliably serve due to increased demand at existing service locations and new customers. Execution of this program on an annual basis will ensure the continuation of reliable gas service that is of adequate pressure and capacity. The 2013 budget was cut and needs to be increased for 2014+ (to \$1,000,000) to ensure adequate capacity that will meet a design day load. Specific ER's may be added to this Business Case as they are defined as Reinforcement Projects. | | describe any incremental changes that this Program would benefit present operations | \$ 1,050,000 |
| | | O&M Cost | Other Costs |
| | | \$ - | \$ - |
| | | Business Risk Score | 4 |

| Alternatives: | | Performance | Capital Cost | O&M Cost | Other Costs | Business Risk Score |
|---|--|--|---------------------|---------------------|--------------------|----------------------------|
| Status Quo : | Gas distribution reinforcements are identified on an on-going basis and need to be completed when identified to ensure continuation of reliable service. | n/a | | \$ - | \$ - | 16 |
| Alternative 1: Pipe Installation | Capital Pipe Installations - Install additional pipe to reinforce and loop existing gas distribution system to increase system reliability. | Reduced system monitoring during cold | \$ 1,000,000 | | \$ - | 4 |
| Alternative 2: Uprate Alternative | Distribution System Uprates - Increase the operating pressure of existing gas distribution system to a 60 PSIG MAOP. Uprating gas distribution system will increase the delivery capacity in addition to increases operating efficiency by tying existing distribution system together with similar operating pressures. | Reduction in regulator station maintenance. | \$ 50,000 | \$ 100,000 | \$ - | 4 |
| 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 | | | | | Associated Ers (list all applicable): | | | | |
|---------------------------|---------------------|---------------------|--------------------|-------------------------|--|--|--|--|--|
| 2012-2016 | | | | | Current ER | | | | |
| | Capital Cost | O&M Cost | Other Costs | Approved Capital | 3000 | | | | |
| 2012 | \$ 1,050,000 | \$ - | \$ - | \$ 800,000 | | | | | |
| 2013 | \$ 1,050,000 | \$ - | \$ - | \$ 1,120,000 | | | | | |
| 2014 | \$ 1,000,000 | \$ - | \$ - | \$ 1,000,000 | | | | | |
| 2015 | \$ 1,000,000 | \$ - | \$ - | \$ 1,000,000 | | | | | |
| 2016 | \$ 1,000,000 | \$ - | \$ - | \$ 1,000,000 | | | | | |
| 2017 | \$ 800,000 | \$ - | \$ - | \$ 800,000 | | | | | |
| 2018 | \$ 600,000 | \$ - | \$ - | \$ 600,000 | | | | | |
| 2019 | \$ - | \$ - | \$ - | \$ 600,000 | | | | | |
| Total | \$ 6,500,000 | \$ - | \$ - | \$ 6,920,000 | | | | | |

Mandate Excerpt (if applicable):
 WAC 480-90-148(2)(d), "Each gas utility must maintain its gas system in a condition that enables it to furnish safe, adequate, and efficient service." IDAPA 31.31.01.151, "Service to the customer shall assure the customer of adequate pressure, a definite heat content, and the accurate measurement of gas.", OR Tariff - Rule 14(A)(2), "The Company will exercise reasonable diligence and care to furnish and deliver a continuous and sufficient quantity of gas to its customers but does not guarantee continuity or sufficiency of quantity."

Additional Justifications:
 Program required to reliably serve customers



Capital Investment Business Case

Resources Requirements: (request forms and approvals attached)

Internal Labor Availability: Low Probability Medium Probability High Probability
 Contract Labor: YES NO

Enterprise Tech: YES - attach form NO or Not Required
 Facilities: YES - attach form NO or Not Required
 Capital Tools: YES - attach form NO or Not Required
 Fleet: YES - attach form NO or Not Required

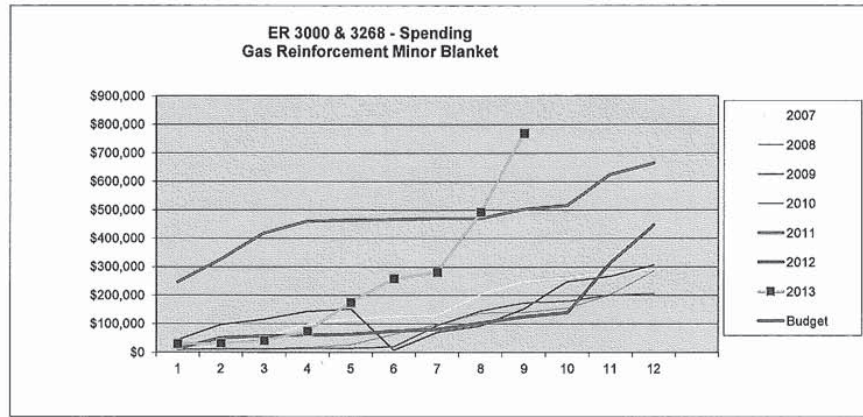
Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm commitment).

Key Performance Indicator(s)
 Expected Performance Improvements
 KPI Measure: Cold Weather Related Outages
 Fill in the name of the KPI here

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 Director/Manager

Other Party Review signature Margie Stevens
 (if necessary) Director/Manager



| Business Case | ERM Risk Reduction | Status Quo Raw Score | Risk on Completion Raw Score | Status Quo Risk | | | | | |
|-------------------|--------------------|----------------------|------------------------------|---|-------------------|---|-------------------|--|-------------------|
| | | | | Financial Impact (Consequential Costs/Revenues) | Likelihood | Legal, Regulatory, External Business Affairs | Likelihood | Customer Service and Reliability (# customers * duration of an outage) | Likelihood |
| Gas Reinforcement | 12 | 16 | 4 | 2 - \$200K - \$2MM | < Once / year | 4 - Potential for regulators to impose onerous restrictions or Board or management to make leadership change | < Once / year | 5 - > 120,000 Customer-hours | < Once / 5 years |
| | | | | Environmental | Likelihood | Safety and Health: Public | Likelihood | Safety and Health: Employee | Likelihood |
| | | | | | | 1 - Potential for injury (Public health infrastructure impact up to 8 hours) | < Once / 10 years | 1 - Potential for injury | < Once / 50 years |
| | | | | Risk upon Completion | | | | | |
| | | | | Financial Impact (Consequential Costs/Revenues) | Likelihood | Legal, Regulatory, External Business Affairs | Likelihood | Customer Service and Reliability (# customers * duration of an outage) | Likelihood |
| | | | | 1 - < \$200K | < Once / 10 years | 2 - Could result in a moderate negative impact to local, online, or industrial relationships and/or regional media coverage | < Once / 10 years | 1 - < 1,500 Customer-hours | < Once / 10 years |
| | | | | Environmental | Likelihood | Safety and Health: Public | Likelihood | Safety and Health: Employee | Likelihood |
| | | | | | | 1 - Potential for injury (Public health infrastructure impact up to 8 hours) | < Once / 50 years | 1 - Potential for injury | < Once / 50 years |

To be completed by Capital Planning Group

| Rationale for decision | Review Cycles 2012-2016 | |
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| | Date | Template |
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Capital Investment Business Case



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|--------------------------------|--|--|---|
| Investment Name: | Repl. Deteriorating Steel Gas Systems | Assessments: | |
| Requested Amount | \$800,000 | Financial: | <= 0% CIRR |
| Duration/Timeframe | On-Going | Strategic: | Life Cycle Programs |
| Dept., Area: | Gas Operations | Operational: | Operations improved beyond current levels |
| Owner: | Mike Faulkenberry | Business Risk: | ERM Reduction >5 and <= 10 |
| Sponsor: | Don Kopczynski | Program Risk: | Moderate certainty around cost, schedule and resources |
| Category: | Program | Assessment Score: | 79 |
| Mandate/Reg. Reference: | | Annual Cost Summary - Increase/(Decrease) | |

| | | | | | |
|---|---|--|---------------------|--------------------|----------------------------|
| Recommend Program Description: | Performance | Capital Cost | O&M Cost | Other Costs | Business Risk Score |
| This annual program will replace sections of existing steel gas piping that are suspect for failure or are showing signs of deterioration within the gas system. This program will address the replacement of sections of gas main with corrosion related issues that no longer operate reliably and/or safely. Sections of the gas system require replacement due to many factors including material failures, environmental impact, increased leak frequency, or coating problems. This program will identify and replace sections of steel pipe to improve public safety and system reliability; it's primary focus is to address corrosion related pipe issues. | describe any incremental changes that this Program would benefit present operations | \$ 800,000 | \$ - | \$ - | 1 |
| | | Annual Cost Summary - Increase/(Decrease) | | | |

| | | | | | |
|--|--|---------------------|---------------------|--------------------|----------------------------|
| Alternatives: | Performance | Capital Cost | O&M Cost | Other Costs | Business Risk Score |
| Status Quo : | A number of locations have been identified in Medford, Klamath Falls, Roseburg, and La Grande OR that have older main at a higher operating risk related to leaks. | \$ - | \$ - | \$ - | 6 |
| Alternative 1: Pipe Installation | Strategically replace sections of at-risk steel piping. | \$ 800,000 | \$ - | \$ - | 1 |
| Alternative 2: | describe any incremental changes in operations | \$ - | \$ - | \$ - | 0 |
| Alternative 3 Name: Brief name of alternative (if applicable) | describe any incremental changes in operations | \$ - | \$ - | \$ - | 0 |

| | | | | | | | | | |
|---------------------------|---------------------|---------------------|--------------------|---------------------|--|--|--|--|--|
| Program Cash Flows | | | | | Associated Ers (list all applicable): | | | | |
| 2012-2016 | | | | | Current ER | | | | |
| | Capital Cost | O&M Cost | Other Costs | Approved | 3001 | | | | |
| 2012 | \$ 800,000 | \$ - | \$ - | \$ 800,000 | | | | | |
| 2013 | \$ 600,000 | \$ - | \$ - | \$ 665,000 | | | | | |
| 2014 | \$ 800,000 | \$ - | \$ - | \$ 1,280,000 | | | | | |
| 2015 | \$ 1,000,000 | \$ - | \$ - | \$ 1,000,000 | | | | | |
| 2016 | \$ 1,000,000 | \$ - | \$ - | \$ 1,000,000 | | | | | |
| 2017 | \$ 1,000,000 | \$ - | \$ - | \$ 1,000,000 | | | | | |
| 2018 | \$ 1,000,000 | \$ - | \$ - | \$ 1,000,000 | | | | | |
| 2019 | \$ - | \$ - | \$ - | \$ 1,000,000 | | | | | |
| Total | \$ 6,200,000 | \$ - | \$ - | \$ 7,745,000 | | | | | |

Mandate Excerpt (if applicable):
 N/A

Additional Justifications:
 This program has been executed historically using a qualitative assessment method at the district level.



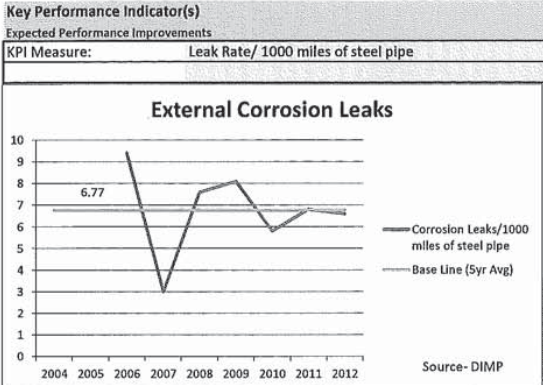
Capital Investment Business Case

Resources Requirements: (request forms and approvals attached)

Internal Labor Availability: Low Probability Medium Probability High Probability
 Contract Labor: YES NO

Enterprise Tech: YES - attach form NO or Not Required
 Facilities: YES - attach form NO or Not Required
 Capital Tools: YES - attach form NO or Not Required
 Fleet: YES - attach form NO or Not Required

Check the appropriate box. The Internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm commitment).

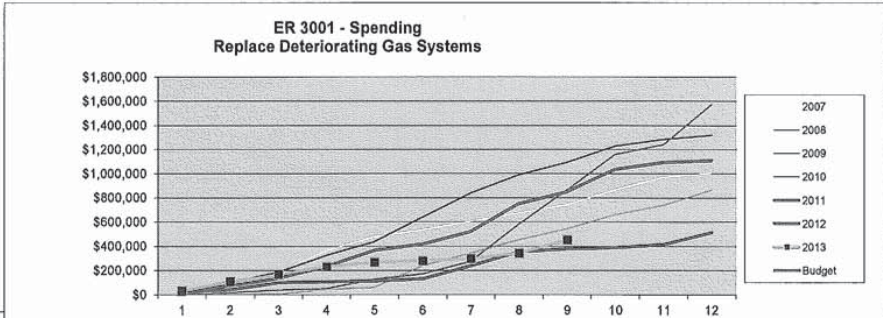


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 Director/Manager

Other Party Review signature *Margie Stevens* _____
 (if necessary) Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaluating the Program



| Reduction Score | Compliance Raw Score | Financial Impact (Consequential Costs/Revenues) | Likelihood | Legal, Regulatory, External Business Affairs | | Customer Service and Reliability (if customers * duration of an outage) | |
|-----------------|----------------------|--|-------------------|--|-------------------|---|-------------------|
| | | | | Likelihood | Impact | Likelihood | Impact |
| 7 | 8 | 1- \$2MM - \$4MM | < Once / 10 years | 4- Potential for regulators to impose onerous restrictions or board or management to make leadership change | < Once / 10 years | 1- < 1,500 Customer-hours | < Once / 10 years |
| | | Environmental | Likelihood | Safety and Health Public | Likelihood | Safety and Health Employee | Likelihood |
| | | 1- Isolated spill with 0 to low level PCBs, no migration, air emission minor exceedance, standard clean-up | < Once / year | 1- Potential for serious injury Significant damage to equipment, property or business Public health infrastructure impact up to 48 hours | < Once / 10 years | 1- Potential for injury | < Once / 10 years |
| | | Risk upon Completion | | | | | |
| | | Financial Impact (Consequential Costs/Revenues) | Likelihood | Legal, Regulatory, External Business Affairs | Likelihood | Customer Service and Reliability (if customers * duration of an outage) | Likelihood |
| | | 1- < \$200k | < Once / 50 years | 1- No likely impact on media or regulatory relationships | < Once / 50 years | 1- < 1,500 Customer-hours | < Once / 50 years |
| | | Environmental | Likelihood | Safety and Health Public | Likelihood | Safety and Health Employee | Likelihood |
| | | 1- Isolated spill with 0 to low level PCBs, no migration, air emission minor exceedance, standard clean-up | < Once / 50 years | 1- Potential for injury Public health infrastructure impact up to 8 hours | < Once / 50 years | 1- Potential for injury | < Once / 50 years |

To be completed by Capital Planning Group

| Rationale for decision | Review Cycles 2012-2016 | |
|------------------------|-------------------------|----------|
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Capital Investment Business Case

| | | | |
|---|---|--|---|
| Investment Name: | Gas Replacement Street and Highway | Assessments: | |
| Requested Amount | \$4,500,000 | Financial: | Medium - >= 5% & <9% CIRR |
| Duration/Timeframe | On-Going | Strategic: | Other |
| Dept., Area: | Gas Operations | Operational: | Operations require execution to perform at current levels |
| Owner: | Mike Faulkenberry | Business Risk: | ERM Reduction >10 and <= 15 |
| Sponsor: | Don Kopczyński | Program Risk: | Moderate certainty around cost, schedule and resources |
| Category: | Mandatory | Assessment Score: | 140 |
| Mandate/Reg. Reference: | Franchise Agreements and Permits | Annual Cost Summary - Increase/(Decrease) | |
| Recommend Program Description: | | Performance | Capital Cost O&M Cost Other Costs Business Risk Score |
| This annual program will replace sections of existing gas piping that require replacement due to relocation or improvement of streets or highways in areas where gas piping is installed. Avista installs many of its facilities in public right-of-way under established franchise agreements. Avista is required under the franchise agreements, in most cases, to relocate its facilities when they are in conflict with road or highway improvements. | describe any incremental changes that this Program would benefit present operations | \$ 4,500,000 | \$ - \$ - 2 |

| Alternatives: | | Performance | Capital Cost | O&M Cost | Other Costs | Business Risk Score |
|---|---|--|---------------------|---------------------|--------------------|----------------------------|
| Status Quo : | Avista would be out of compliance with established franchise agreements and/or permits if work is not completed. | n/a | \$ - | \$ - | \$ - | 16 |
| Alternative 1: | Relocate facilities in conflict with street and highway projects where established franchise agreements and/or permits exist. | n/a | \$ 4,500,000 | \$ - | \$ - | 2 |
| Alternative 2: | | n/a | \$ - | \$ - | \$ - | 0 |
| Alternative 3 Name : Brief name of alternative (if applicable) | | describe any incremental changes in operations | \$ - | \$ - | \$ - | 0 |

| Program Cash Flows | | | | | Associated Ers (list all applicable): | | | | |
|---------------------------|----------------------|---------------------|--------------------|----------------------|--|--|--|--|--|
| 2012-2016 | | | | | Current ER | | | | |
| | Capital Cost | O&M Cost | Other Costs | Approved | | | | | |
| 2012 | \$ 2,200,000 | \$ - | \$ - | \$ 2,200,000 | 3003 | | | | |
| 2013 | \$ 4,500,000 | \$ - | \$ - | \$ 4,550,000 | 3302 | | | | |
| 2014 | \$ 4,500,000 | \$ - | \$ - | \$ 4,300,000 | 3297 | | | | |
| 2015 | \$ 4,500,000 | \$ - | \$ - | \$ 4,500,000 | | | | | |
| 2016 | \$ 4,500,000 | \$ - | \$ - | \$ 4,500,000 | | | | | |
| 2017 | \$ 4,500,000 | \$ - | \$ - | \$ 4,500,000 | | | | | |
| 2018 | \$ 4,500,000 | \$ - | \$ - | \$ 4,500,000 | | | | | |
| 2019 | \$ - | \$ - | \$ - | \$ 4,500,000 | | | | | |
| Total | \$ 29,200,000 | \$ - | \$ - | \$ 33,550,000 | | | | | |

Mandate Excerpt (if applicable):
 Franchise agreements and typical state highway and R/R permits prescribe that the utility will relocate at their expense when in conflict with entity activities.

Additional Justifications:
 Mandatory work to maintain compliance with existing franchise and operating permits with state highway districts and rail roads.



Capital Investment Business Case

Resources Requirements: (request forms and approvals attached)

Internal Labor Availability: Low Probability Medium Probability High Probability
 Contract Labor: YES NO

Enterprise Tech: YES - attach form NO or Not Required
 Facilities: YES - attach form NO or Not Required
 Capital Tools: YES - attach form NO or Not Required
 Fleet: YES - attach form NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm commitment).

Key Performance Indicator(s)
 Expected Performance Improvements
 KPI Measure:

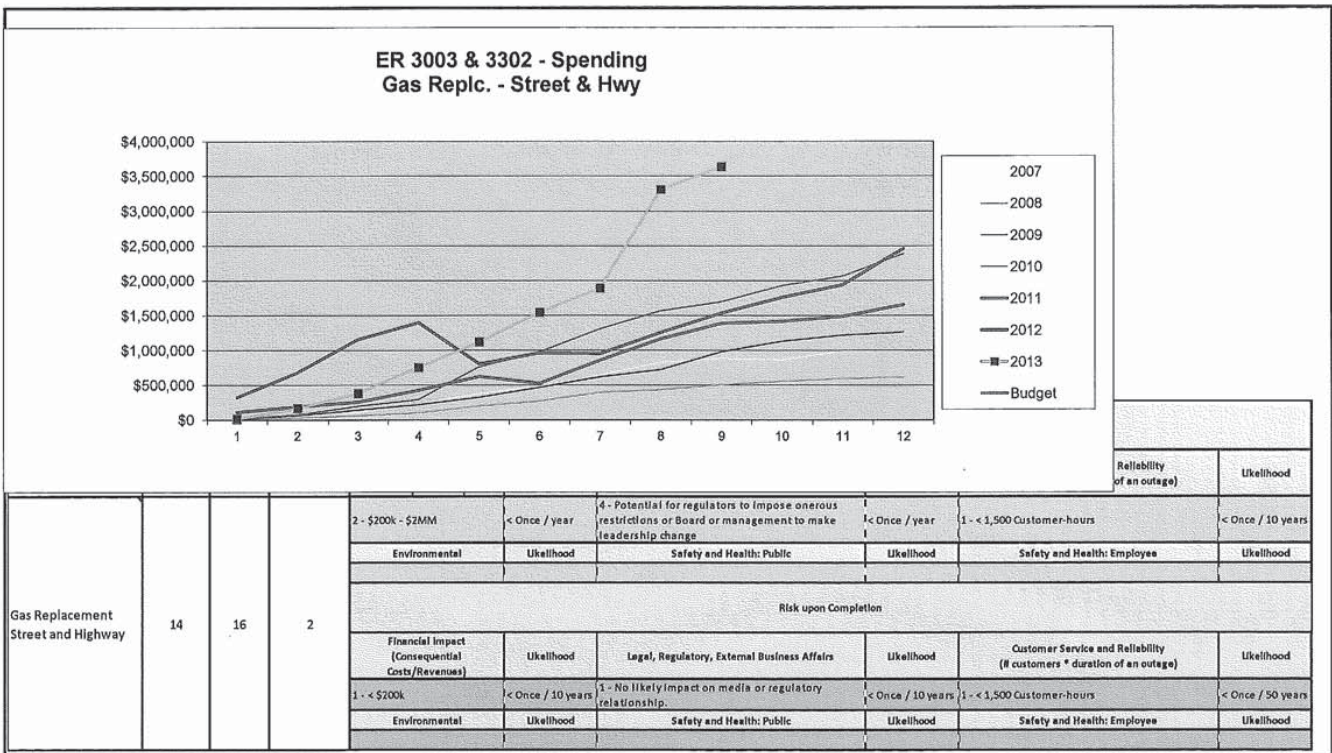
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Director/Manager

Other Party Review signature
 (if necessary)

Margie Stevens
 Director/Manager



To be completed by Capital Planning Group

| Rationale for decision | Review Cycles 2012-2016 | |
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| | Date | Template |
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Capital Program Business Case



| | | | | | |
|---|---|--------------|----------|---|---|
| Investment Name: | Gas Non-Revenue Program | | | Assessments: | |
| Requested Amount | \$5,600,000 | | | Financial: | Medium - >= 5% & <9% CIRR |
| Duration/Timeframe | On-Going | Year Program | | Strategic: | Reliability & Capacity |
| Dept., Area: | Gas Operations | | | Operational: | Operations require execution to perform at current levels |
| Owner: | Mike Faulkenberry | | | Business Risk: | ERM Reduction >10 and <= 15 |
| Sponsor: | Don Kopczynski | | | Program Risk: | Moderate certainty around cost, schedule and resources |
| Category: | Program | | | Assessment Score: | 89 |
| Mandate/Reg. Reference: | | | | Annual Cost Summary - Increase/(Decrease) | |
| Recommend Program Description: | Performance | Capital Cost | O&M Cost | Other Costs | Business Risk Score |
| This annual program will replace sections of existing gas piping that require replacement to improve the operation of the gas system but are not directly linked to new revenue. The program includes replacement of pipe and facilities that are at the end of their useful life or have failed. It includes improvements in equipment and/or technology to enhance system operation and/or maintenance, replacement of obsolete facilities, replacement of main to improve cathodic performance, and projects to improve public safety and/or improve system reliability. Starting in 2014, costs associated with the labor and minor materials to complete the PMC program will no longer be captured in this Business Case, they will be on the "Gas PMC Program". This results in a \$1M reduction in the 2014 budget request; however the historical spend has been high in this category, so the resultant 2014 request is \$6,00,000 (total). | describe any incremental changes that this Program would benefit present operations | \$ 5,600,000 | \$ - | \$ - | 8 |
| Annual Cost Summary - Increase/(Decrease) | | | | | |

| Alternatives: | Performance | Capital Cost | O&M Cost | Other Costs | Business Risk Score |
|--|--|--------------|----------|-------------|---------------------|
| Unfunded Program: Avista will be unable to complete capital non-revenue system enhancements | n/a | \$ - | \$ - | \$ - | 8 |
| Alternative 1: Brief name of alternative (if applicable) Complete installation and/or upgrade of non-revenue assets. | n/a | \$ 5,600,000 | \$ - | \$ - | 2 |
| Alternative 2: Brief name of alternative (if applicable) | n/a | \$ - | \$ - | \$ - | 0 |
| Alternative 3 Name: Brief name of alternative (if applicable) | describe any incremental changes in operations | \$ - | \$ - | \$ - | 0 |

| Program Cash Flows | | | | | Associated Ers (list all applicable): | | | | |
|--------------------|---------------|----------|-------------|---------------|---------------------------------------|--|--|--|--|
| 5 years of costs | | | | | Current ER | | | | |
| | Capital Cost | O&M Cost | Other Costs | Approved | 3005 | | | | |
| Previous | \$ - | \$ - | \$ - | \$ - | | | | | |
| 2012 | \$ 4,223,000 | \$ - | \$ - | \$ 3,823,000 | | | | | |
| 2013 | \$ 4,349,690 | \$ - | \$ - | \$ 7,949,690 | | | | | |
| 2014 | \$ 5,600,000 | \$ - | \$ - | \$ 6,600,000 | | | | | |
| 2015 | \$ 6,000,000 | \$ - | \$ - | \$ 6,000,000 | | | | | |
| 2016 | \$ 6,000,000 | \$ - | \$ - | \$ 6,000,000 | | | | | |
| 2017 | \$ - | \$ - | \$ - | \$ 6,000,000 | | | | | |
| 2018 | \$ - | \$ - | \$ - | \$ 6,000,000 | | | | | |
| 2019 | \$ - | \$ - | \$ - | \$ 6,000,000 | | | | | |
| Total | \$ 26,172,690 | \$ - | \$ - | \$ 48,372,690 | | | | | |

Mandate Excerpt (if applicable):

Additional Justifications:
The program addresses a number of mandatory projects, at the direction of the commission and/or projects that enhance public safety and system reliability. (Example: Incremental pipe enhancements, replacement of odorization equipment, installation of steel pipe to enhance system cathodic protection, etc.)

Resources Requirements: (request forms and approvals attached)

| | | | | | | | |
|------------------------------|--|---|--|------------------|--|--|--|
| Internal Labor Availability: | <input type="checkbox"/> Low Probability | <input type="checkbox"/> Medium Probability | <input checked="" type="checkbox"/> High Probability | Enterprise Tech: | <input type="checkbox"/> YES - attach form | <input checked="" type="checkbox"/> NO or Not Required | Check the appropriate box. The Internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm commitment). |
| Contract Labor: | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | Facilities: | <input type="checkbox"/> YES - attach form | <input checked="" type="checkbox"/> NO or Not Required | |
| | | | | Capital Tools: | <input type="checkbox"/> YES - attach form | <input checked="" type="checkbox"/> NO or Not Required | |
| | | | | Fleet: | <input type="checkbox"/> YES - attach form | <input checked="" type="checkbox"/> NO or Not Required | |



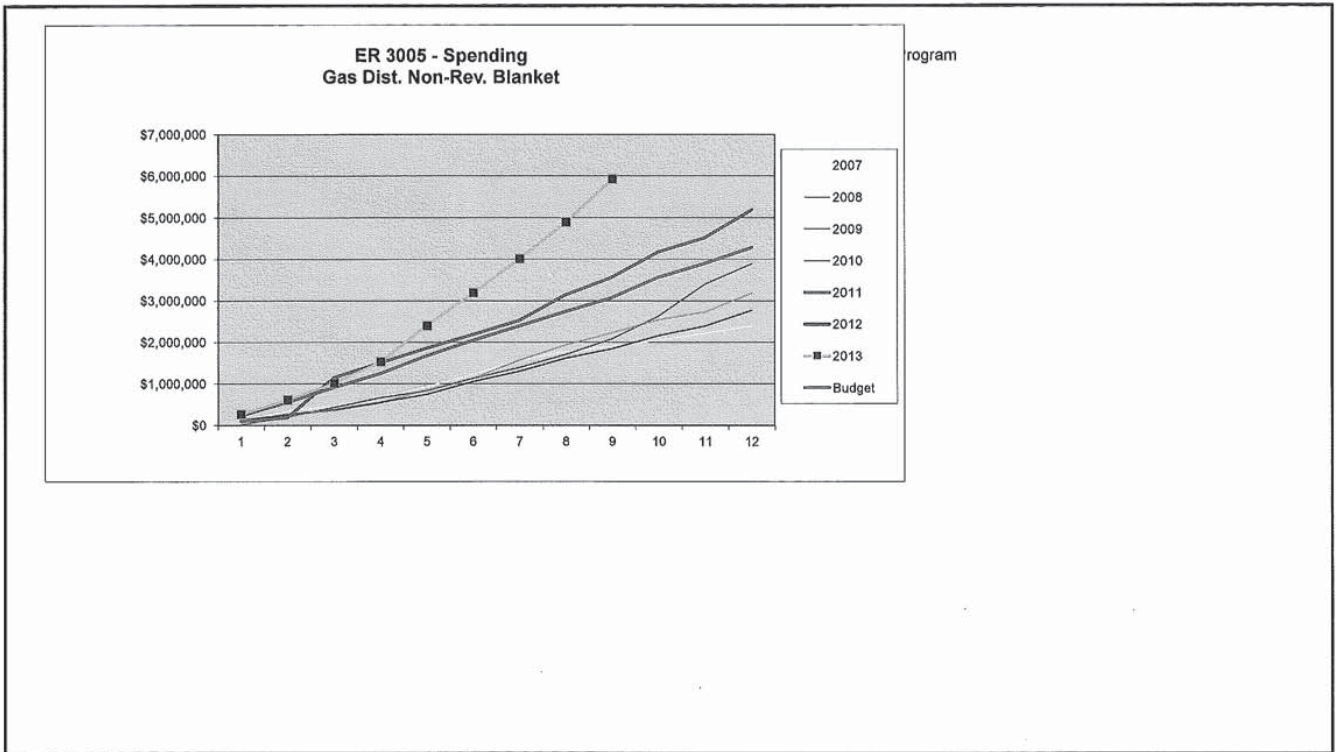
Capital Program Business Case

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| Key Performance Indicator(s) |
| Expected Performance Improvements |
| KPI Measure: |

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 Director/Manager

Other Party Review signature *Margie Stevens*
 (if necessary) Director/Manager



| To be completed by Capital Planning Group | | Review Cycles 2012-2016 | |
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| Rationale for decision | Date | Template | |
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Capital Program Business Case



| | | | |
|-------------------------|----------------------------|-------------------|--|
| Investment Name: | Overbuilt Pipe Replacement | Assessments: | |
| Requested Amount: | \$900,000 | Financial: | 7.00% |
| Duration/Timeframe: | On Going Year Program | Strategic: | Reliability & Capacity |
| Dept., Area: | Gas Operations | Business Risk: | Business Risk Reduction >5 and <= 10 |
| Owner: | Mike Faulkenberry | Program Risk: | High certainty around cost, schedule and resources |
| Sponsor: | Don Kopczynski | Assessment Score: | #NAME? |
| Category: | Mandatory | | |
| Mandate/Reg. Reference: | 49 CFR 192.361(f) | | |

| Recommend Program Description: | | Performance | Capital Cost | O&M Cost | Other Costs | Business Risk Score |
|---|--|---|--------------|----------|-------------|---------------------|
| This program will replace sections of existing gas piping that have experienced encroachment or have been overbuilt by customer constructed Improvements (i.e. decks, driveways, etc.) that restricts the Company's access to pipe. It will address the replacement of sections of gas main and services that no longer can be operated safely. The replacements will be completed to enhance public safety. All types of overbuilds will be addressed with the primary focus of the project being overbuilds in manufactured/mobile home developments. | | describe any incremental changes that this Program would benefit present operations | \$ 900,000 | \$ - | \$ - | 4 |
| Alternatives: | | Performance | Capital Cost | O&M Cost | Other Costs | Business Risk Score |
| Unfunded Program: | Avista will continue operating with increased risk due to overbuilds | n/a | \$ - | \$ - | \$ - | 12 |
| Alternative 1: Brief name of alternative (if applicable) | Complete programmatic replacement of overbuilt pipe. | describe any incremental changes in operations | \$ 900,000 | \$ - | \$ - | 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 |

| | Capital Cost | O&M Cost | Other Costs | Approved |
|----------|--------------|----------|-------------|--------------|
| Previous | \$ 500,000 | \$ - | \$ - | \$ 500,000 |
| 2013 | \$ 900,000 | \$ - | \$ - | \$ 470,000 |
| 2014 | \$ 900,000 | \$ - | \$ - | \$ 700,000 |
| 2015 | \$ 900,000 | \$ - | \$ - | \$ 900,000 |
| 2016 | \$ 900,000 | \$ - | \$ - | \$ 900,000 |
| 2017 | \$ 900,000 | \$ - | \$ - | \$ 900,000 |
| 2018 | \$ 900,000 | \$ - | \$ - | \$ 900,000 |
| 2019 | \$ - | \$ - | \$ - | \$ 900,000 |
| Total | \$ 5,400,000 | \$ - | \$ - | \$ 5,670,000 |

| | | | |
|------|--|--|--|
| 3006 | | | |
| | | | |
| | | | |

| ER | 2013 | 2014 | 2015 | 2016 | 2017 | Total | Mandate Excerpt (if applicable): |
|-------|------------|------------|------------|------------|------------|--------------|---|
| 3006 | \$ 900,000 | \$ 900,000 | \$ 900,000 | \$ 900,000 | \$ 900,000 | \$ 4,500,000 | 49 CFR 192.361(f) "Installation of service lines under buildings. Where an underground service line is installed under a building:" [Not allowed w/o conduit] |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | Additional Justifications: Avista operates with an increase risk to its customers and the general public when operating pipeline facilities that exist under structures. |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
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| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
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| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| Total | \$ 900,000 | \$ 900,000 | \$ 900,000 | \$ 900,000 | \$ 900,000 | \$ 4,500,000 | |

Resources Requirements: (request forms and approvals attached)

Internal Labor Availability: Low Probability Medium Probability High Probability
 Contract Labor: YES NO
 Enterprise Tech: YES - attach form NO or Not Required
 Facilities: YES - attach form NO or Not Required
 Capital Tools: YES - attach form NO or Not Required
 Fleet: YES - attach form NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm commitment).



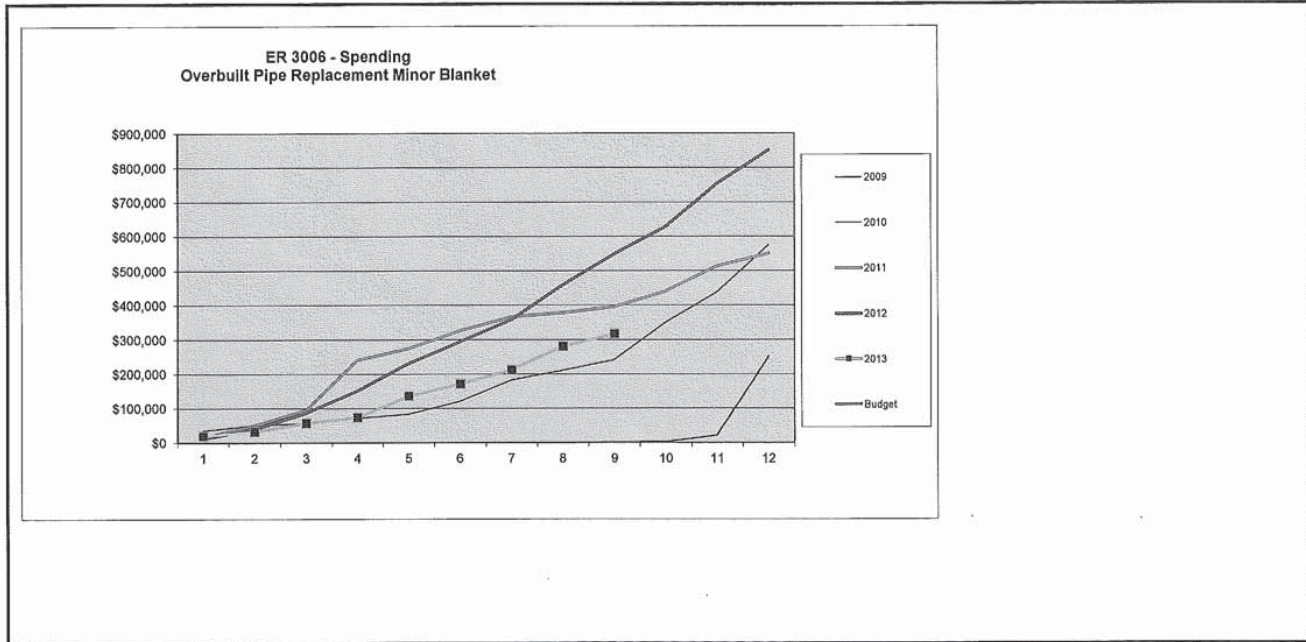
Capital Program Business Case

| |
|-----------------------------------|
| Key Performance Indicator(s) |
| Expected Performance Improvements |
| KPI Measure: |

Prepared signature

Reviewed signature
 Director/Manager

Other Party Review signature *Maria Stevens*
 (if necessary) Director/Manager



| To be completed by Capital Planning Group | | Review Cycles | |
|---|------|---------------|--|
| Rationale for decision | Date | 2012-2016 | |
| | | Template | |
| | | | |
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| | | | |

UG 288 - CUB/Exhibit 104 - Attachment A
McGovern-Jenks/13

Schuh Workpapers
NGD-15



Capital Project Business Case

| | | | | | | |
|--|--|--|--|--|----------------------------|---|
| Investment Name: | Ladd Canyon Stn Upgrd | Assessments: | | | | |
| Requested Amount | \$ 1,453,000 | Financial: | 7.00% | | | |
| Duration/Timeframe | 1 Year Project | Strategic: | Reliability & Capacity | | | |
| Dept., Area: | NGAS | Business Risk: | Business Risk Reduction >5 and <= 10 | | | |
| Owner: | Mike Faulkenberry | Project Risk: | High certainty around cost, schedule and resources | | | |
| Sponsor: | Don Kopczynski | Assessment Score: | 131 | Annual Cost Summary - Increase/(Decrease) | | |
| Category: | Mandatory | | | Capital Cost | O&M Cost | |
| Mandate/Reg. Reference: | Service Agreement With Williams Pipeline | | | Other Costs | Business Risk Score | |
| Recommend Project Description: | | Performance | | | | |
| <p>It is proposed to upgrade the existing Ladd Canyon/Union Gate Stn #0817 (not #817) near LaGrande, OR. The existing gate station has reached its physical capacity due to the growth in the area and needs to be upgraded to support the gas load increases. The new Gate Station #7080 will include separate regulation facilities to modify the existing system and maintain a 150 PSIG MAOP (STA #7081) for the Union supply main and a 400 PSIG MAOP (STA #7082) for the Airport main extension along Pierce Rd. The new facility will require heater, odorizer, regulation and relief facilities for the Avista site. New telemetry facilities will be installed at this location as well. This project will accommodate the long term benefit of adding capacity to the Elgin area once the 3 miles of HP is extended from Union to the Elgin HP line out of La Grande. This CPR has been updated to reflect complete construction cost estimates and includes fees required for the Williams Northwest Pipe portion of the facility that Avista will be required to reimburse.</p> <p>The Facilities Agreement with Williams states that an agreement to complete the permanent upgrades needs to be in place within 90 days. 90 days was up on Nov. 9th, 2013. Williams graciously extended the timeline to allow Avista to conduct a thorough system analysis to ensure the metering and regulating facilities will be sized appropriately.</p> | | Completion of this project eliminate the short term temporary facilities at this site. | \$ 1,453,000 | \$ - | \$ - | 1 |

| | | | Annual Cost Summary - Increase/(Decrease) | | | |
|--|---|--|--|---------------------|--------------------|----------------------------|
| Alternatives: | | Performance | Capital Cost | O&M Cost | Other Costs | Business Risk Score |
| Unfunded Project: | Short Term Temporary facilities would remain in service. This would be a violation of our agreement with Williams Pipeline NW. This would degrade a positive working relationship Avista currently has with Williams. | n/a | \$ - | \$ - | \$ - | 8 |
| Alternative 1: Rebuild Gate Stn | As described above | describe any incremental changes in operations | \$ 1,453,000 | \$ - | \$ - | 1 |
| 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 | \$ - | \$ - | \$ - | \$ - |
| 2013 | \$ - | \$ - | \$ - | \$ - |
| 2014 | \$ 1,453,000 | \$ - | \$ - | \$ 838,000 |
| 2015 | \$ - | \$ - | \$ - | \$ 615,000 |
| 2016 | \$ - | \$ - | \$ - | \$ - |
| 2017+ | \$ - | \$ - | \$ - | \$ - |
| Total | \$ 1,453,000 | \$ - | \$ - | \$ 1,453,000 |

Associated Ers (list all applicable):

| | | | |
|------|--|--|--|
| 3303 | | | |
| | | | |
| | | | |
| | | | |

| ER | 2013 | 2014 | 2015 | 2016 | 2017+ | Total | Mandate Excerpt (if applicable): |
|--------------|-------------|---------------------|-------------|-------------|-------------|---------------------|---|
| 3303 | \$ - | \$ 1,453,000 | \$ - | \$ - | \$ - | \$ 1,453,000 | Obligation to serve and the existing Facilities Agreement with Williams Pipeline states a permanent fix needs be Additional Justifications: Avista has known of this project since the Fall of 2013. Capital funds have not been officially requested because the cost of the project was unknown until just recently. Williams Pipeline has only recently provided Avista with a construction estimate. |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| Total | \$ - | \$ 1,453,000 | \$ - | \$ - | \$ - | \$ 1,453,000 | |



Capital Project Business Case

| Milestones (high level targets) | | | | | | |
|---------------------------------|--------------------|------------|------|------------|------|---|
| June-14 | Start Construction | January-00 | open | January-00 | open | Milestones should be general. Use your judgement on project progress so that progress can |
| December-14 | In Service | January-00 | open | January-00 | open | |
| January-00 | open | January-00 | open | January-00 | open | |
| January-00 | open | January-00 | open | January-00 | open | |
| January-00 | open | January-00 | open | January-00 | open | |
| January-00 | open | January-00 | open | January-00 | open | |
| January-00 | open | January-00 | open | January-00 | open | |

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: Low Probability Medium Probability High Probability
 Contract Labor: YES NO

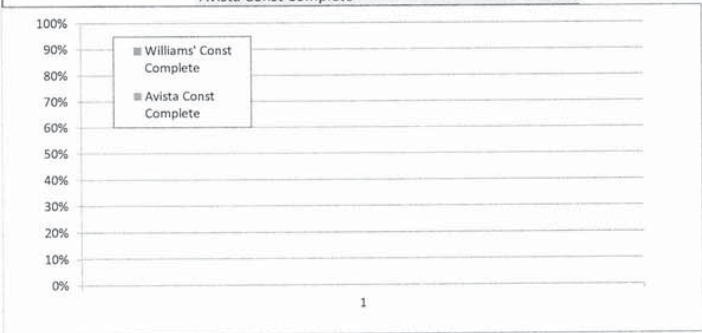
Enterprise Tech: YES - attach form NO or Not Required
 Facilities: YES - attach form NO or Not Required

Capital Tools: YES - attach form NO or Not Required
 Fleet: YES - attach form NO or Not Required

Key Performance Indicator(s)

Expected Performance Improvements

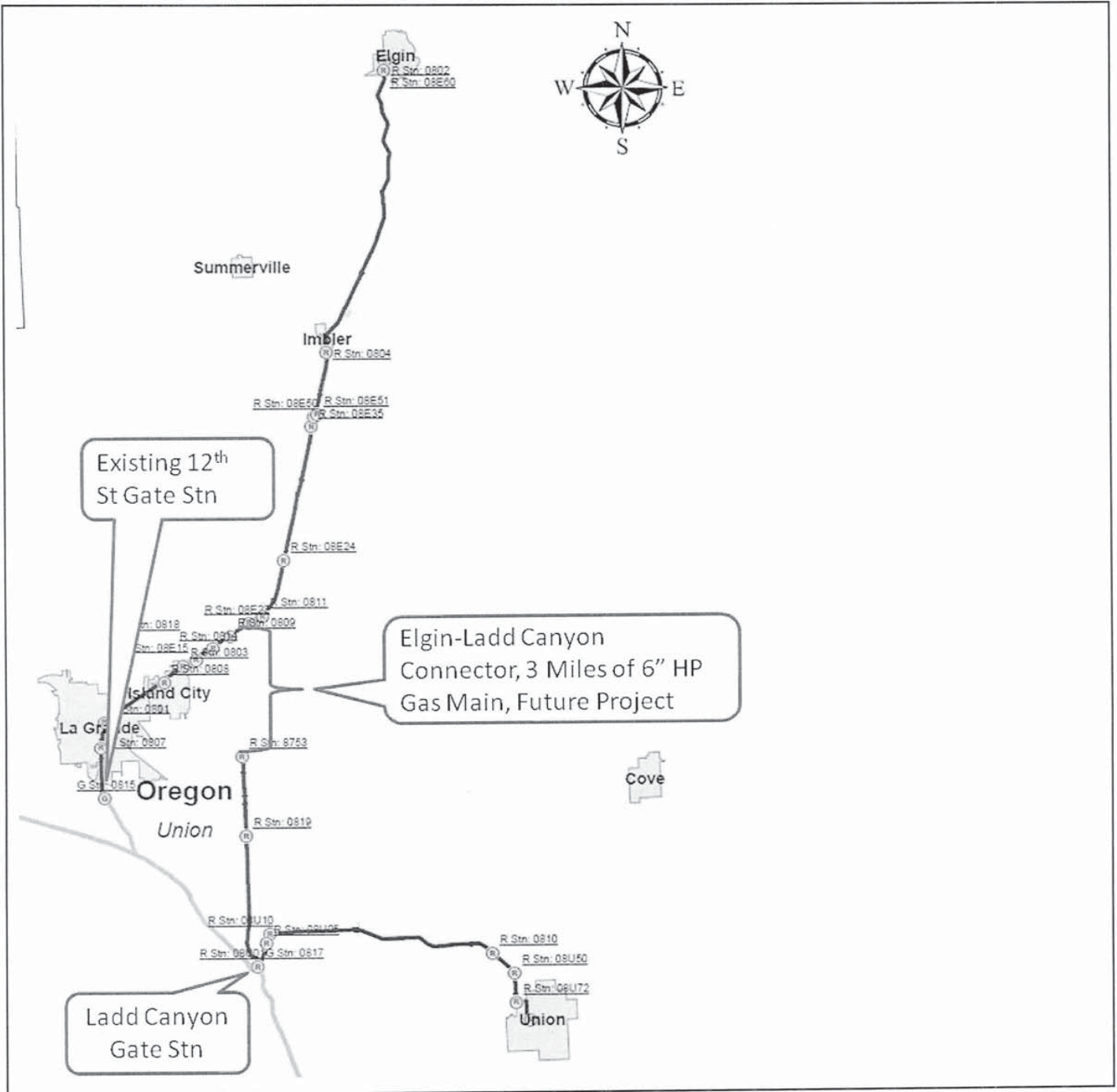
| KPI Measure: | Value | Percentage |
|--------------------------|-------|------------|
| Williams' Const Complete | | 0% |
| Avista Const Complete | | 0% |



Prepared _____

Reviewed Marilyn Stevens
 Director/Manager

Other Party Review (if necessary) _____
 Director/Manager



To be completed by Capital Planning Group

| Rationale for decision | Review Cycles | |
|------------------------|---------------|----------|
| | Date | Template |
| | 2012-2016 | |
| | | |
| | | |
| | | |
| | | |

Capital Project Business Case



| | | | |
|-------------------------|-------------------------------|---|--|
| Investment Name: | Bonanza Meter Stn Move | Assessments: | |
| Requested Amount | \$600,000 | Financial: | 7.00% |
| Duration/Timeframe | 1 Year Project | Strategic: | Reliability & Capacity |
| Dept., Area: | Gas Engineering | Business Risk: | Business Risk Reduction >5 and <= 10 |
| Owner: | Mike Faulkenberry | Project Risk: | Moderate certainty around cost, schedule and resources |
| Sponsor: | Don Kopczynski | Assessment Score: | 70 |
| Category: | Project | Annual Cost Summary - Increase/(Decrease) | |
| Mandate/Reg. Reference: | n/a | Performance | Capital Cost |

| | | | | | |
|--|---|--------------|----------|-------------|---------------------|
| Recommend Project Description: It is proposed to work with GTN to relocate the metering and odorizing equipment at the Bonanza Meter Stn. This project provides Avista the flexibility to lower the operating pressure of the Klamath Falls Lateral to lower than 20% if it were deemed advantageous. This pressure reduction would transition this line out of Transmission. It will cost Avista capacity on the lateral to do so, but that benefit may be offset if forced to do extraneous inspections due to Transmission Integrity Management Plan (TIMP). | Performance | Capital Cost | O&M Cost | Other Costs | Business Risk Score |
| | Adds service to AVA's system; eliminates reliability issues; adds operational flexibility | \$ 600,000 | \$ - | \$ - | 1 |

| Alternatives: | Performance | Capital Cost | O&M Cost | Other Costs | Business Risk Score |
|---|--|--------------|-----------|-------------|---------------------|
| Unfunded Project: By doing nothing, Avista and GTN have high visiblity and exposure due to an odorizer that Avista owns and GTN operates. | | \$ - | \$ 50,000 | \$ - | 8 |
| Relocate Meter Stn Relocate odorizer and meter as described above. | | \$ 600,000 | \$ - | \$ - | 1 |
| 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 | \$ - | \$ - | \$ - | \$ - |
| 2013 | \$ - | \$ - | \$ - | \$ - |
| 2014 | \$ - | \$ - | \$ - | \$ - |
| 2015 | \$ 600,000 | \$ - | \$ - | \$ 600,000 |
| 2016 | \$ - | \$ - | \$ - | \$ - |
| 2017+ | \$ - | \$ - | \$ - | \$ - |
| Total | \$ 600,000 | \$ - | \$ - | \$ 600,000 |

Associated Ers (list all applicable):

| | | | |
|------|--|--|--|
| 3307 | | | |
| | | | |
| | | | |

| ER | 2013 | 2014 | 2015 | 2016 | 2017+ | Total | Mandate Excerpt (if applicable): |
|-------|------|------|------------|------|-------|------------|--|
| 3300 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | provide brief citation of the law or regulation and a reference number if possible |
| 3307 | \$ - | \$ - | \$ 600,000 | \$ - | \$ - | \$ 600,000 | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| 0 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | |
| Total | \$ - | \$ - | \$ 600,000 | \$ - | \$ - | \$ 600,000 | Additional Justifications: Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc. |

Milestones (high level targets)

| | | | | | |
|------------|------|------------|------|------------|------|
| January-00 | open | January-00 | open | January-00 | open |
| January-00 | open | January-00 | open | January-00 | open |
| January-00 | open | January-00 | open | January-00 | open |
| January-00 | open | January-00 | open | January-00 | open |
| January-00 | open | January-00 | open | January-00 | open |
| January-00 | open | January-00 | open | January-00 | open |

Milestones should be general. Use your judgement on project progress so that progress can

Resources Requirements: (request forms and approvals attached)

| | | | | | | | | | |
|------------------------------|--|---|--|------------------|--|--|----------------|--|--|
| Internal Labor Availability: | <input type="checkbox"/> Low Probability | <input type="checkbox"/> Medium Probability | <input checked="" type="checkbox"/> High Probability | Enterprise Tech: | <input type="checkbox"/> YES - attach form | <input checked="" type="checkbox"/> NO or Not Required | Capital Tools: | <input type="checkbox"/> YES - attach form | <input checked="" type="checkbox"/> NO or Not Required |
| Contract Labor: | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | Facilities: | <input type="checkbox"/> YES - attach form | <input checked="" type="checkbox"/> NO or Not Required | Fleet: | <input type="checkbox"/> YES - attach form | <input checked="" type="checkbox"/> NO or Not Required |

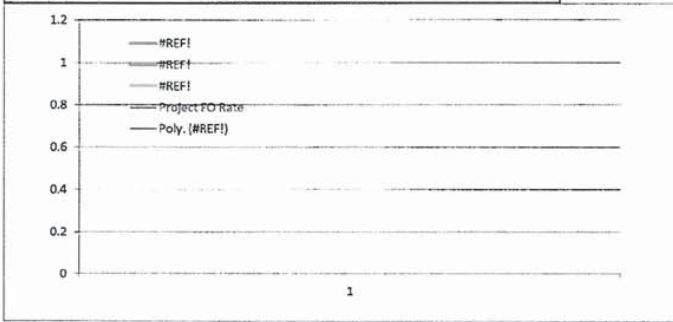
Capital Project Business Case



Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:



Prepared signature *[Handwritten Signature]*

Reviewed signature *[Handwritten Signature]*
 Director/Manager

Other Party Review signature
 (if necessary) Director/Manager

name here

To be completed by Capital Planning Group

| | | |
|------------------------|---------------|----------|
| Rationale for decision | Review Cycles | |
| | 2012-2016 | |
| | Date | Template |
| | | |
| | | |
| | | |

Kimball, Paul

From: Bautista, Victor
Sent: Wednesday, August 07, 2013 2:04 PM
To: Webb, Jeff; Bryan, Catherine
Cc: Samsell, Seth; Kellogg, Donald; Harper, Steve; Scott, Eric; Faulkenberry, Mike; Ehrbar, Pat
Subject: RE: Oregon Mainline Paving, LaGrande (Union) Update

Jeff,

Per our conversation I spoke with Matt Seehawer earlier today and assured him we are actively working to resolve any possible issues in supplying OMP NG.

Here are the basics of our conversation;

- 2.4 therms per ton is an accurate assumption
- There is no possibility to postpone Monday's mix-they have a commitment with the state to do emergency repair work (requires lane closures on interstate)
- Beginning Tuesday they will be mixing and poring during the night (8pm to 8am)
- Schedule calls for night mix and pore during 8-13 through 8-23 (8pm to 8am)(once this phase is complete, mixing stops until September)
- Schedule consists of 8-10 hour days
- Average ton per hour is 350,max would be 450 (they are planning on being in the 350 area)
- Next year majority of work will be done during day time

Thank you for all your work on this matter! Please let me know if I can help in any way.

Victor

From: Webb, Jeff
Sent: Tuesday, August 06, 2013 5:09 PM
To: Bryan, Catherine; Bautista, Victor
Cc: Samsell, Seth; Kellogg, Donald; Harper, Steve; Scott, Eric; Faulkenberry, Mike; Ehrbar, Pat
Subject: Oregon Mainline Paving, LaGrande (Union) Update
Importance: High

Regarding the new customer in LaGrande, Oregon Mainline Paving.

I'll know more in the morning, but we did find out that Williams has a portable meter stn that may work on a temporary basis to feed the gas needed, or a portion of it. I'll be contacting them in the morning to work through the details. The temp stn needs to be pressure tested and certified by their "Pipeline Safety" group, and then transported from Spokane to LaGrande. I've asked them to fast track this project for us. I hope to get a commitment from them in the morning regarding their ability to get this done in short order.

What we still need to know from the customer is their expected production rate. It's critical to know how many tons of asphalt they plan on producing a day, and over what period it will take to make that. For instance, is it:

- 3,500 tons in a 10 hour period -> 8,500 thms per 10 hr period -> **85,000 scfh**, or
- 1,000 tons in 2 hours -> 2,400 thms per 2 hr period -> **120,000 scfh**
- is the 2.4 therms per ton a good assumption?

And, what flexibility, if any, do they have in their start up schedule. Even if it's a day or two push, that will help the logistics greatly.

Next steps:

1. Get commitment from Williams that they can support this load with temporary facilities – Jeff/Eric
2. If we get commitment, call customer to confirm production rate and start date - Victor
3. If no commitment, start Plan B coordination with customer

Jeff Webb, PE | Mgr - Gas Engineering and Measurement
Office 509-495-4424 | Cell 509-714-4674 | Fax 509-777-9381
jeff.webb@avistacorp.com | www.avistautilities.com

<< OLE Object: Picture (Device Independent Bitmap) >>

Kimball, Paul

From: Samsell, Seth
Sent: Monday, August 05, 2013 11:51 AM
To: Kida, Wes
Cc: Webb, Jeff; Scott, Eric
Subject: Union Gate Station - NWP #21296/Avista #0817 @58042 Pierce Rd, La Grande, OR

Importance: High

Wes,

Per our conversation we have discovered a capacity issue at our Union Gate Station (NWP STA #21296/Avista STA #0817) at 58042 Pierce Rd in La Grande, OR. I would like to work with you to try to understand what the limiting factors of the gate station are as well as what our options are to increase the capacity at this station.

I apologize for the urgent nature of this request, however an oversight on my part as led to this request requiring a response as quickly as you are able.

What will it take to achieve the following at NWP STA #21296/Avista STA #0817:

- Current NWP Known Physical Capacity → 37.2 MCFH
- Proposed New Physical Capacity → ~200 MCFH
- Current Known Delivery Pressure → 150 PSIG
- Known Avista System MAOP → 150 PSIG (We are looking through internal records to better understand if we can validate that this MAOP is higher, but we will have to start with this until we know more)

Let me know if you have any questions for me.

Thank you,

Seth R. Samsell, P.E.
Gas Distribution Engineer



1411 E Mission MSC-24
Spokane, WA 99202
P 509.495.4883
C 509.951.5459
<http://www.avistautilities.com>



**AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION**

| | | | |
|---------------|-------------------|----------------|------------------------------|
| JURISDICTION: | Oregon | DATE PREPARED: | 09/28/2015 |
| CASE NO.: | UG 288 | WITNESS: | Karen Schuh |
| REQUESTER: | PUC Staff - Moore | RESPONDER: | David Machado |
| TYPE: | Data Request | DEPT: | State & Federal Regulation |
| REQUEST NO.: | Staff – 291 | TELEPHONE: | (509) 495-4554 |
| | | EMAIL: | david.machado@avistacorp.com |

REQUEST:

Regarding the Company's response to DR 191 Attachment F: please provide a copy of all correspondence that was made in response to the email sent August 5, 2013 from Seth Samsell to Wes Kida, in which Mr. Samsell requests information about the limiting factors and the options available to increase the capacity at the Union Gate Station.

RESPONSE:

Please see the Company's response in Staff_DR_291C for the requested information. Staff_DR_291C is **CONFIDENTIAL SUBJECT TO GENERAL PROTECTIVE ORDER**.

Staff_DR_291 Attachment A includes the remainder of the correspondence associated with the aforementioned email.

Subsequent to that email, the natural gas distribution engineer involved in connecting the large industrial customer to Avista's distribution system held a telephonic conversation with a Williams NWP engineer, on August 6, 2013. In this conversation, it was confirmed that the existing gate station equipment was insufficient to serve the proposed load to the new customer and the remainder of the system. The limiting factors include the heater, regulator, relief valve, and meter.

On August 7, 2013, Avista's natural gas distribution engineer spoke with an individual from Williams NWP regarding the interim solution to serve loads at the Ladd Canyon gate station. This interim solution was a temporary metering skid with sufficient capacity to serve loads at the Ladd Canyon gate station until a permanent solution could be defined, designed, and implemented.

Avista undertook a load study of the La Grande, Oregon distribution system to determine the appropriate course of action to implement a permanent solution. As a part of this study, Avista explored whether the accelerated completion of the Pierce Road high pressure reinforcement project in La Grande (at that time, this reinforcement project was scheduled for completion in 2016 or 2017) would serve as a solution.

Staff_DR_291 Attachment B is an email communicating the results of the load study, which determined that even with the Pierce Road reinforcement completed, the Ladd Canyon gate station capacity would still be insufficient and that a gate station rebuild would be required. This email includes two attachments, which are included here as Staff_DR_291 Attachment C (LaGrande_Union_study.docx) and Staff_DR_291C Confidential Attachment A (Load Study

Alternatives_Union-LaddSTA0817_9-26-13.pdf). Staff_DR_291 Attachment C contains the summary underlying the load study results presented in Staff_DR_291 Attachment B.

Staff_DR_291C Confidential Attachment A is the file provided to the Gas Planning Engineer to initiate the load study. Page 2 of this attachment includes the model scenarios that were requested. The third bullet point represents the scenario in which the Pierce Road reinforcement is accelerated. The load study determined that even under this scenario, system dynamics associated with the interconnection of the Ladd Canyon distribution network and the La Grande distribution network (through the Pierce Road reinforcement) would dictate a minimum capacity of 202 Mcfh at the Ladd Canyon gate station (see Staff_DR_291 Attachment C, page 2).

The existing capacity of the Ladd Canyon gate station was 37.2 Mcfh, and existing load before considering the impact of Oregon Mainline Paving was around 35 Mcfh. Additionally, the load study found that the capacity requirement at the gate station is expected to grow to a minimum of 40.9 Mcfh (exclusive of Oregon Mainline Paving).

Based upon these results, it was apparent that a rebuild of the Ladd Canyon gate station was the best alternative to support the distribution system.

Machado, David

From: Browne, Terrence
Sent: Friday, February 21, 2014 10:08 AM
To: Samsell, Seth
Cc: Webb, Jeff
Subject: Union City Gate Station study results
Attachments: LaGrande_Union_study.docx; Load Study_Alternatives_Union-LaddSTA0817_9-26-13.pdf

Seth,

Per our discussion, you are receiving:

- Word Doc detailing the results of several of our studies
- PDF map identifying location of loads (which you initially sent me)

Summary of our findings:

- **Minimum** inflow at Sta # 0817 (Union/Ladd Canyon City Gate) = **40.9 Mcfh**
 - Conditions:
 - station set @ 390 psig
 - existing system (no 6" h.p. tie-in)
 - 74 HDD (design HDD for this area)
 - with **no** industrials on line
 - **Still exceeds NWP capacity of 37.2 Mcfh**
- **Maximum** inflow at Sta # 0817 (Union/Ladd Canyon City Gate) = **363 Mcfh**
 - Conditions:
 - station set @ 390 psig
 - with 6" h.p. tie-in (reg station at end of tie-in set at 245 psig)
 - 25 HDD (non-winter temperature)
 - **with** industrials on line
 - **recommend sizing city gate to a minimum of 435 Mcfh (20% additional)**

Please refer to the Word attachment for more details, and please let me know if you have any questions.

Sincerely,

Terrence A. Browne P.E.

Senior Gas Planning Engineer

For the status of your request or project (as well as others), please see my ***Load Study Project Schedule*** on the **GAS PLANNING** home page:

<http://avanet/departments/gasplan/index.asp>

From: Samsell, Seth
Sent: Thursday, February 20, 2014 10:37 PM
To: Browne, Terrence
Subject: FW: Union update
Importance: High

Terrence,

Just following up on the numbers for Union Gate Rebuild in La Grande. I know we discussed this, but you were going to be putting together a summary of these numbers to assist with generation of the Facilities Request I will submit to Eric Scott and Williams NWP. See Jeff's email below.

When do you think you will have this summary completed. I will file this and use it for the request.

I am back in the office on Monday after being in Roseburg and Medford all of this week.

Thanks,

Seth R. Samsell, P.E.
Gas Distribution Engineer



From: Webb, Jeff
Sent: Monday, February 17, 2014 8:32 AM
To: Scott, Eric
Cc: Samsell, Seth
Subject: RE: Union update

Yes, we're going to ask for a rebuild. Seth should have the numbers today from Terrence, so an IRF should be coming soon.

-Jeff

LaGrande/Union Load Study

Rev 2/17/14

Loads to use:

(locations shown on attachment)

- April-Oct; “non-winter” loads:
 - **RD Mac 36 Mcfh → 80 Mcfh** Future
 - **OMP 150 Mcfh** (Verified)
 - **MINT STILLS** (Verified 2 Total on System) → **12.5 Mcfh & 30 Mcfh**Total Load Non Winter → 230 Mcfh (Current) to 270 (Future)+
- Year-round loads:
 - **Project Freedom 30 Mcfh**

Calibration confirmed:

- Pi: pressure at Elgin (end of h.p.) = 136 psig on 12/9/13 (56 HDD)
- SynerGEE on 56 HDD = 134 psig

Analysis I: Find total capacity at Gate stations

Without 6” h.p. tie-in (dashed line)

#0817 set at **390 psig**

note: feed to Union set only at 150 psig

#0815 set at **245 psig**

- Part 1: “Non-winter”; show all loads (including industrials) on a 25 HDD
 - City Gate #0817 = **249.7**_Mcfh
 - City Gate #0815 = **233.33**_Mcfh

*notes:

 - RD Mac max at 40 mcfh (RD MAC & OMP max = 190 Mcfh)
 - delivery pressure = **13.5 psig**
- Part 2: “Winter”; without industrials on a 74 HDD
 - City Gate #0817 = **40.9**_Mcfh **MIN Found**
 - City Gate #0815 = **441**_Mcfh

*notes:

 - Only able to reach a 65 HDD
 - Project Freedom = 0 Mcfh
 - lowest pressure @ Elgin = **85 psig**

Analysis II: Find total capacity at Gate stations

With 6" h.p. tie-in (dashed line)

#0817 set at **245 psig**

note: feed to Union set only at 150 psig

#0815 set at **245 psig**

- Part 1: "Non-winter"; show all loads (including industrials) on a 25 HDD
 - City Gate #0817 = **279.9**_Mcfh
 - City Gate #0815 = **203.2**_Mcfh

*notes:

 - RD Mac max at 40 mcfh (RD MAC & OMP max = 190 Mcfh)
 - delivery pressure = **13.5 psig**

- Part 2: "Winter"; without industrials on a 74 HDD
 1. **With** Project Freedom (30 Mcfh)
 - City Gate #0817 = **219**_Mcfh
 - City Gate #0815 = **352**_Mcfh

*notes:

 - lowest pressure @ Elgin = **195 psig**
 2. **Without** Project Freedom
 - City Gate #0817 = **202**_Mcfh
 - City Gate #0815 = **339**_Mcfh

*notes:

 - lowest pressure @ Elgin = **200 psig**

Analysis III: Find total capacity at Gate stations (**while setting #0817 at lowest possible pressure**)

With 6" h.p. tie-in (dashed line)

#0817 set at **lowest psig possible**

note: feed to Union set only at 150 psig

#0815 set at **245 psig**

- Part 1: "Non-winter"; show all loads (including industrials) on a 25 HDD
 - City Gate #0817 **set @ 115 psig** = **_178_** Mcfh
 - City Gate #0815 = **_305_** Mcfh
 - *notes:
 - lowest pressure @ Union = **82 psig**
 - pressure @ Elgin = **94 psig**
 - RD Mac max at 40 mcfh (RD MAC & OMP max = 190 Mcfh)
 - delivery pressure = **13.5 psig**
- Part 2: "Winter"; without industrials on a 74 HDD
 - City Gate #0817 **set @ 145 psig** = **_110_** Mcfh
 - City Gate #0815 = **_462_** Mcfh **MAX FOUND**
 - *notes:
 - lowest pressure @ Elgin = **97 psig**
 - pressure @ Union = **132 psig**

Analysis IV: Find total capacity at Gate stations: **find maximum inflow at City Gate #0817**

With 6" h.p. tie-in (dashed line)

#0817 set at **390 psig**

install h.p. reg station set to 245 psig at end of tie-in

note: feed to Union set only at 150 psig

#0815 set at **245 psig**

- Part 1: "Non-winter"; show all loads (including industrials) on a 25 HDD
 - City Gate #0817 = **_363_** Mcfh **MAX FOUND**
 - City Gate #0815 = **_120_** Mcfh **MIN Found**
 - *notes:
 - RD Mac max at 40 mcfh (RD MAC & OMP max = 190 Mcfh)
 - delivery pressure = **13.5 psig**
- Part 2: "Winter"; without industrials on a 74 HDD
 - City Gate #0817 = **_267_** Mcfh
 - City Gate #0815 = **_303_** Mcfh

**AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION**

| | | | |
|---------------|----------------|----------------|------------------------------|
| JURISDICTION: | Oregon | DATE PREPARED: | 10/08/2015 |
| CASE NO.: | UG 288 | WITNESS: | Karen Schuh |
| REQUESTER: | CUB - McGovern | RESPONDER: | David Machado |
| TYPE: | Data Request | DEPT: | State & Federal Regulation |
| REQUEST NO.: | CUB – 024 | TELEPHONE: | (509) 495-4554 |
| | | EMAIL: | david.machado@avistacorp.com |

REQUEST:

The following questions refer to the Company's response to CUB DR 1:

- a) How does the company know it has reached its capacity due to load growth in the area if it does not perform load forecasting at the gate?
- b) Please provide all documents that support Avista's claim that it has reached its capacity due to load growth.
- c) How can the company size the new facilities if it does not have load forecasting at the gate?
- d) Was the Ladd Canyon evaluated in an IRP?
- e) Please provide all analysis and documents that support the following statement about the Ladd Canyon project :

This project will accommodate the long term benefit of adding capacity to the Elgin area once the 3 miles of HP is extended from Union to the Elgin HP line out of La Grande.

- f) The Ladd Canyon investment is on Pierce road, near the airport. According to La Grande zoning map,¹ there is not land nearby that is zoned residential. With regard to the following statement that contained in the answer to CUB DR 1:

The Ladd Canyon Gate Station upgrade will serve customers across multiple schedules in the La Grande forecasting region, but specific forecasted load associated with this gate station is not available.

- i. When claiming the upgrade will serve customers across multiple schedules, please list all specific customer classes that you are referring to.
 - ii. Explain how this upgrade will serve residential customers.
 - iii. Physically (city, zip code, neighborhood, census track) where are the customers who will be served by this upgrade?
- g) According to DR 1 and Avista/600: Ladd Canyon "will accommodate the long term benefit of adding capacity to the Elgin area once the 3 miles of HP is extended from Union to the Elgin HP line out of La Grande."
 - i. When will this "benefit" be realized?
 - ii. Is this capacity addition included in the Company's most recent IRP? If not, why not? If so, please identify the location in the IRP.

- h) According to the Company's response to CUB DR 1, the "Ladd Canyon Gate Station upgrade serves numerous customers in the area. The capacity constraints were the result of the addition of a new customer's load, but the gate station provides service to all customers in the area previously served by the preceding gate station."
- i. Is the preceding gate station in the same location?
 - ii. Is the existing gate station sufficient to serve customers, aside from the Paving Customer, through December 31, 2015? If not, please demonstrate why.
 - iii. Is it primarily used to serve the airport and related businesses at the airport?
 - iv. If it serves residential customers, please identify which customers, where they are physically located and in what manner it serves them.
- i) Please provide a list of all Gate Stations that Avista has in Oregon and identify them by location.

RESPONSE:

- a. – c. The Company's determination that the Ladd Canyon gate station (City Gate #0817) has reached its capacity is not based upon a forecast. Basing this determination on a forecast would imply that the capacity deficit is expected to occur in the future, which is not the case.

Rather, the Company's Gas Engineering Department performed a system load study, based upon existing loads, to determine the capacity demand upon this gate station on a design heating degree day. This study, which was included as the Company's response to Staff_DR_291 Attachment C, demonstrates that, excluding any consideration of the Paving Company, the required design day capacity of City Gate #0817 is 40.9 Mcfh. Given that the maximum capacity of City Gate #0817 is 37.2 Mcfh, there is a clear capacity deficit on a design day and the Company would not be able to serve load on a design day (again, excluding the Paving Customer).

In this instance, the Company sized the facility of the gate station based upon an understanding of both the current capacity deficit, as well as expected upcoming investments in the system, namely the Pierce Road La Grande High Pressure Reinforcement project (also previously referred to as the Elgin and/or Union High Pressure Reinforcements), which is expected to be completed in 2017. This reinforcement will improve the reliability in that area by integrating the areas served by City Gate #0817 and City Gate #0815 (La Grande City Gate). The Company's aforementioned load study also modeled system dynamics (again, based on existing loads) upon completion of this reinforcement, noting that the system dynamics at this point would require a maximum load of up to 363 Mcfh. Therefore, the sizing of the new facility was based upon this number, and a final size of 435 Mcfh was recommended (20% larger than the modeled maximum).

Sizing the gate station to accommodate a maximum flow rate slightly larger than the currently identified maximum is appropriate from a design planning perspective, given that limiting the capacity to the current maximum would not allow for any load growth on the system. Additionally, relative to the cost of the labor to complete this upgrade (which would be incurred at any size of the gate station upgrade), the incremental cost of sizing the gate station to accommodate future growth is relatively minor.

Additionally, the appendices to the IRP address the difficulty of forecasting demand behind the city gate at pages 311 and 312 of the 2014 Natural Gas IRP Appendices, which are included as CUB_DR_024 Attachment A. These slides are instructive regarding this response.

- d. As CUB is aware, based upon its participation in the Technical Advisory Committee to the Company's 2014 Natural Gas IRP (Exhibit No. 401), table 7.2 (page 131) of the IRP includes a selection of certain city gate stations identified as being over utilized or deficient in capacity (note that gate station #817 – Ladd Canyon – is listed). The last row in this table indicates that the gate stations serving the La Grande region will need to be upgraded to serve the system following the completion of the Union HP Connector (which, as mentioned in the response to parts (a) – (c), above, is the Pierce Road High Pressure Reinforcement). At the time of completion of the IRP, this project had not yet been included in the Capital Planning Group's (CPG) five-year capital plan. Therefore, the IRP lists the upgrade timeline as 2019 or later. However, in the CPG's 2015 five-year capital plan, which was completed in September of 2014, the Pierce Road High Pressure Reinforcement project (titled Elgin 6" HP Main Reinforcement) was approved for completion in 2017.
- e. As has been discussed in the Company's response to (a) – (c), above, the aforementioned load study analysis previously provided in Avista's response Staff_DR_291 Attachment C demonstrates that, upon completion of the Pierce Road La Grande High Pressure Reinforcement, system dynamics would require a maximum capacity of 363 Mcfh at the Ladd Canyon City Gate (#0817). This will provide additional capacity to Elgin and Union and enhance the reliability of the system.

However, as previously discussed, this gate station upgrade will provide current benefits to existing customers, as it will allow the Company to continue to serve existing customers and reduce the risk associated with having insufficient capacity to serve load during the design heating degree day.

- f. Regarding the Ladd Canyon Gate Station's location and zoning, whether the land in the immediate vicinity is zoned as residential land is inconsequential. Rather, the entire distribution system within which the gate station is integrated must be considered. As shown in Avista's response Staff_DR_291C Confidential Attachment A, under the current system configuration the Ladd Canyon gate station serves the city of Union, Oregon, which primarily comprises residential customers. The physical location of customers at the requested level of detail is not tracked by Avista and is therefore not available. However, within the city of Union itself, Avista had 691 active residential meters and 58 general service meters in the month of August 2015.
- g. As has been previously discussed in the Company's responses to items (a) – (c) and (e), above, the benefit of reinforcing the La Grande distribution area by integrating the areas served separately by the two gate stations in the area and allowing both gate stations to feed into the same, reinforced distribution system will be realized upon the completion of the Pierce Road Reinforcement. As discussed in part (d), above, this project is addressed in the 2014 Natural Gas IRP on page 131 in Table 7.2. However, this upgrade also results in current benefits to existing customers, as previously discussed, by addressing the capacity shortfall on the heating degree design day.

- h. The gate station upgrade is located in the same location as the preceding gate station. The decision to keep the gate station in the same location allowed Avista to leverage existing resources (e.g., land and pipeline taps) and avoid the costs associated with the purchase of new property or the installation of a new tap into the transmission pipeline.

As discussed in the Company's response to parts (a) – (c), above, the existing gate station capacity is not sufficient to serve customers (considered exclusive of the Paving Customer) on a design heating degree day.

The airport and related businesses in the vicinity of the airport would certainly be served by distribution pipeline connected to this gate station. Additionally, though, as discussed in Avista's response to part (f), above, this gate station also serves residential customers in Union and will be integral to the operation of the reinforced La Grande distribution system upon completion of the Pierce Road Reinforcement project.

As previously discussed, Avista does not, in practice, trace the customer service points back to specific gate stations, and this information is not readily available for inclusion in this response. However, as previously discussed, the city of Union is served solely by this gate station. Thus, customers within Union, among others, are served by this gate station.

- i. Avista has previously provided Staff_DR_291C Confidential Attachment A, which identifies the gate stations in the La Grande region by location.

**AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION**

| | | | |
|---------------|-------------------|----------------|------------------------------|
| JURISDICTION: | Oregon | DATE PREPARED: | 09/28/2015 |
| CASE NO.: | UG 288 | WITNESS: | Karen Schuh |
| REQUESTER: | PUC Staff - Moore | RESPONDER: | David Machado |
| TYPE: | Data Request | DEPT: | State & Federal Regulation |
| REQUEST NO.: | Staff – 290 | TELEPHONE: | (509) 495-4554 |
| | | EMAIL: | david.machado@avistacorp.com |

REQUEST:

Did the industrial customer, Oregon Mainline Paving, that the Company represents as associated with the need to upgrade the Ladd Canyon station gate [ER #3303] contribute in any way towards the cost of the permanent upgrade requested in this case? (Staff understands from DR response #191C that the customer paid for the temporary upgrade). If so, please fully describe type and amount of the contribution. If there was a contribution of some type, did that contribution offset the capital cost that Avista is seeking recovery for? If so, please provide all documentation that supports this.

RESPONSE:

Please see the Company's response in Staff_DR_290C for the requested information. Staff_DR_290C is **CONFIDENTIAL SUBJECT TO GENERAL PROTECTIVE ORDER**.

First, to clarify staff's understanding of DR response #191C, in Staff_DR_191C Confidential Attachment A, the facilities agreement defines Avista as "Customer." Therefore, the reference to the customer in this facilities agreement with Northwest Pipeline does not refer to Avista's customer (Oregon Mainline Paving), but rather Avista itself.

Second, the customer did not provide direct contribution towards the cost of the Ladd Canyon gate station upgrade. However, within the line extension agreement between Avista and Oregon Mainline Paving (included as Staff_DR_290C Confidential Attachment A), Oregon Mainline Paving agreed that its total combined usage must meet or exceed 305,000 therms through the end of 2015. As demonstrated in Staff_DR_294, the customer has already met and exceeded this threshold.

**AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION**

| | | | |
|---------------|----------------|----------------|------------------------------|
| JURISDICTION: | Oregon | DATE PREPARED: | 10/08/2015 |
| CASE NO.: | UG 288 | WITNESS: | Patrick Ehrbar |
| REQUESTER: | CUB - McGovern | RESPONDER: | David Machado |
| TYPE: | Data Request | DEPT: | State & Federal Regulation |
| REQUEST NO.: | CUB – 022 | TELEPHONE: | (509) 495-4554 |
| | | EMAIL: | david.machado@avistacorp.com |

REQUEST:

Please identify all times in the last 10 years where any customer has been interrupted in Oregon?

RESPONSE:

Avista has not needed to interrupt the service to any customer in Oregon in the last 10 years.

**AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION**

| | | | |
|---------------|-------------------|----------------|------------------------------|
| JURISDICTION: | Oregon | DATE PREPARED: | 10/01/2015 |
| CASE NO.: | UG 288 | WITNESS: | Karen Schuh/Grant Forsyth |
| REQUESTER: | CUB - McGovern | RESPONDER: | David Machado |
| TYPE: | Data Request | DEPT: | State & Federal Regulation |
| REQUEST NO.: | CUB – 001 Revised | TELEPHONE: | (509) 495-4554 |
| | | EMAIL: | david.machado@avistacorp.com |

REQUEST:

Regarding the Ladd Canyon Gate Station Update:

- a. Please identify how many customers, the expected load for 2016 and the schedule number that this Update will serve.
- b. Please describe the Ladd Canyon Update, and provide all supporting analysis that discusses the need for this project.(or identify all workpapers and testimony locations where it is discussed.
- c. Will cost recovery for this Update be limited to the customer(s) benefiting from this Update or will the cost be spread across more customers?
- d. Does the Company plan in its proposal, to spread the cost across customers of the same schedule or all customers?
- e. Is the customer(s) served by the Ladd Canyon Update a new customer?
- f. If the customer is an existing customer, please demonstrate how the load will be changing.
- g. Is the customer's/customers' load served by the Ladd Canyon Update in the test year forecast? Please demonstrate this.
- h. Please provide the Company policy on when/whether customers pay for extensions to main or other capital infrastructure investments beyond the average that is built in rates. If such a policy exists, please explain how it is applied in the Ladd Canyon Update.

RESPONSE:

- a. Avista does not perform load forecasting at the individual gate station level. The most disaggregated level at which Avista's load forecast is performed is the service schedule in each given forecasting region (for Oregon, these regions are Medford, Roseburg, Klamath Falls, and La Grande). The Ladd Canyon Gate Station upgrade will serve customers across multiple schedules in the La Grande forecasting region, but specific forecasted load associated with this gate station is not available.
- b. As discussed in Ms. Schuh's testimony, the Ladd Canyon Gate Station upgrade is needed because:

The existing gate station has reached its physical capacity due to the growth in the area and needs to be upgraded to support the gas load increases. The new Gate Station will include separate regulation facilities to modify the existing system and maintain service

for the Union supply main and the Airport main extension along Pierce Rd. The new facility will require heater, odorizer, regulation, and relief facilities for the Avista site. New telemetry facilities will be installed at this location as well. This project will accommodate the long term benefit of adding capacity to the Elgin area once the 3 miles of HP is extended from Union to the Elgin HP line out of La Grande.¹

Additionally, Avista's response Staff_DR_191C provides further information regarding the need for this project. While the near-term need for this upgrade is driven by the increased load associated with a specific customer, this gate station upgrade provides a long-term benefit of providing added capacity to the Elgin area once high pressure pipeline is extended from Union to the Elgin high pressure line out of La Grande.

- c. Consistent with cost recovery for other capital investments, and given that the gate station will serve numerous customers in the region, the cost for this project is proposed to be spread consistent with the rate spread proposed by Mr. Ehrbar in his testimony.
- d. As discussed in our answer to item (c) of this request, the cost recovery associated with this project will be spread consistent with the rate spread proposed by Mr. Ehrbar in his testimony.
- e. The Ladd Canyon Gate Station upgrade serves numerous customers in the area. The capacity constraints were the result of the addition of a new customer's load, but the gate station provides service to all customers in the area previously served by the preceding gate station.
- f. The historical incremental load associated with the new customer is included in our response Staff_DR_294.
- g. Please see our response Staff_DR_293 for demonstration that the new customer's load is included in the test year forecast.
- h. Policies for line extensions are included in Avista's Oregon tariff sheets Rules 15 and 16.

¹ Avista/600 Schuh/Page 19.

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

| | | | |
|---------------|--------------|----------------|----------------------------|
| JURISDICTION: | Oregon | DATE PREPARED: | 10/08/2015 |
| CASE NO.: | UG 288 | WITNESS: | Patrick Ehrbar |
| REQUESTER: | CUB | RESPONDER: | Patrick Ehrbar |
| TYPE: | Data Request | DEPT: | State & Federal Regulation |
| REQUEST NO.: | CUB - 010 | TELEPHONE: | (509) 495-8620 |
| | | EMAIL: | pat.ehrbar@avistacorp.com |

REQUEST:

Please answer the following questions for both the (1) temporary capital investments needed to acquire the Paving Company as Avista's Customer, and (2) the proposed permanent mainline extension and capital investments:

- a) Was the Paving Company Customer's line extension treated in accordance with the standard line extension policy? Please explain exactly how, or how not.
- b) In addition, if there is any part of response (a) above that confounds with Avista's response to OPUC DR 290, please clarify how Avista's arrangement (described in OPUC DR 290) is or is not in accordance with rules 15 and 16.

RESPONSE:

Please see the Company's response in CUB_DR_010C for the requested information. CUB_DR_010C is **CONFIDENTIAL SUBJECT TO GENERAL PROTECTIVE ORDER**.

First, please note that the "Paving Company" took service starting on July 29, 2013 and stopped taking service (i.e., they are no longer a customer) effective August 31, 2015.

The facilities that were used to serve the customer during this time period were treated in accordance with the Company's line extension tariff (Rule No. 15). Specifically, Rule No. 15, Subpart D states "Extensions for temporary service or speculative business will be made under the temporary service rule." Rule No. 13, "Temporary Service", states that the applicant "will pay, in advance or otherwise as required by the Company, the estimated cost ...". While Rule No. 13 contemplates that temporary customers must pay in whole for the cost for Avista to provide service, Section B of Rule No. 13 gives Avista the authority to treat this customer as a "permanent service" for purposes of granting a line extension allowance because the customer obligated itself, through contract, to take service for a period greater than "12 consecutive months".

The customer, through the Natural Gas Line Extension Agreement ("Agreement") provided as CUB_DR_010C Confidential Attachment A, entered into a "take or pay" arrangement as shown in Section 5 of the Agreement. Under that arrangement, the customer obligated itself to use a certain level of natural gas by the end of 2015. In order to justify the Company's investment of approximately \$45,000, the customer was required to use 305,000 therms in that time period. If

the customer did not meet their usage requirements, they would be required to pay a deficiency as shown in the Agreement. When the customer closed its account in August 2015, it had actually used approximately 476,000 therms, meeting its contractual obligations and, therefore, the customer did not need to otherwise make a contribution towards the cost of providing service.

Assuming that the reference to “the proposed permanent mainline extension and capital investments” refers to the Ladd Canyon gate station upgrade, it is instructive to consider that (1) the Ladd Canyon gate station upgrade does not entail any main pipeline extension, and (2) the Ladd Canyon gate station upgrade is unrelated to line extension rules and thus is not considered under line extension rules. See CUB_DR_024 for discussion of the Ladd Canyon gate station upgrade, irrespective of consideration of the Paving Company.

**AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION**

| | | | |
|---------------|----------------|----------------|------------------------------|
| JURISDICTION: | Oregon | DATE PREPARED: | 09/28/2015 |
| CASE NO.: | UG 288 | WITNESS: | Karen Schuh |
| REQUESTER: | CUB - McGovern | RESPONDER: | David Machado |
| TYPE: | Data Request | DEPT: | State & Federal Regulation |
| REQUEST NO.: | CUB – 003 | TELEPHONE: | (509) 495-4554 |
| | | EMAIL: | david.machado@avistacorp.com |

REQUEST:

Avista/600/Schuh/ 19 states that the “new facility will require heater, odorizer, regulation, and relief facilities for the Avista site. New telemetry facilities will be installed at this location as well.” Please detail the costs of the components of the Ladd Canyon Update.

RESPONSE:

Please see CUB_DR_003 Attachment A, which provides the project estimate for the Ladd Canyon Gate Station upgrade. The project estimate includes materials and labor separately (i.e., the labor assigned to the installation of individual subcomponents is not available – only the labor cost in total is available). Note that the original project estimate was \$1.45 million. However, subsequent to the initial estimate, the project manager requested, and received, approximately \$200,000 more from the Capital Planning Group, primarily as a result of additional costs related to permitting.

| Project: STA #7080, Reg STA #7081 & #7082 | | Assumptions: | | | | |
|--|---|--------------------|----------|------|--------------|---------------------|
| Const. Area: La Grande, OR | | | | | | |
| Scope: Build new Gate Station to Replace Existing STA #0817. Will include all components of regulation, relief, odorization, heating etc... Tie to Williams Existing Taps downstream of new meter, valve and flange. | | | | | | |
| Date: 5/9/2014 | | | | | | |
| | | Stock # | Quantity | U/I | Unit Cost | |
| MATERIALS | | | | | \$ | 158,279 |
| New Gate Station/Reg Stations/Mainline Tie-ins | | | | | \$ | 158,279 |
| 1 | MOONEY REGULATOR, 2" SSP FLOWGRID | - | 2 | EA | \$2,100.00 | \$4,200.00 |
| 2 | MOONEY REGULATOR, 1" FLOWGRID | - | 2 | EA | \$1,900.00 | \$3,800.00 |
| 3 | SIVALLS INDIRECT, WATER BATH LINE HEATER | - | 1 | EA | \$30,000.00 | \$30,000.00 |
| 4 | KINGTOOL 55 GAL BYPASS ODORIZER | - | 1 | EA | \$3,800.00 | \$3,800.00 |
| 5 | 500 GALLON BULK ODORANT TANK | - | 1 | EA | \$2,500.00 | \$2,500.00 |
| 6 | FILTER, 4" ANSI 600, SAFECO | - | 1 | EA | \$3,000.00 | \$3,000.00 |
| 7 | 3" EZR RELIEF Valve, ANSI 600 | - | 1 | EA | \$3,600.00 | \$3,600.00 |
| 8 | 2" EZR RELIEF VALVE ANSI 300 | - | 1 | EA | \$2,400.00 | \$2,400.00 |
| 9 | 4" STEEL PIPE, X-52, BARE | - | 100 | LF | \$11.00 | \$1,100.00 |
| 10 | 4" STEEL PIPE, X-52, COATED | - | 300 | LF | \$15.00 | \$4,500.00 |
| 11 | PIPE, STEEL X-52, 6", 0.219" W.T., 42' ARO (BROWN) COATED | 7706127 | 150 | FT | \$24.47 | \$3,670.88 |
| 12 | PIPE, BLACK 4" STD WALL GRD B, 21' | 7706120 | 50 | FT | \$16.58 | \$829.09 |
| 13 | VALVE, BALL, 4", WELD ENDS, ANSI 300, (720 PSIG) | 7708742 | 5 | EA | \$289.98 | \$1,449.91 |
| 14 | VALVE, GATE, 4", WELD ENDS, 500 PSIG, (KEROTEST) | 7708725 | 2 | EA | \$672.36 | \$1,344.73 |
| 15 | VALVE, GATE, 6", WELD ENDS, 500 PSIG, (KEROTEST) | 7708730 | 1 | EA | \$1,584.15 | \$1,584.15 |
| 16 | PIPE, BLACK 2" STD WALL GRD B, 21' | 7706110 | 50 | FT | \$4.91 | \$245.55 |
| 17 | TUBING, STAINLESS STEEL, 1/2"X20', 2000 PSIG | 7708042 | 100 | FT | \$5.43 | \$543.40 |
| 18 | FLANGE, WELD NECK, 4", 300# | 7702312 | 2 | EA | \$43.16 | \$86.33 |
| 19 | FLANGE, WELD NECK, 2", 300# | 7702310 | 2 | EA | \$21.61 | \$43.22 |
| 20 | STOPPER FITTING, 4" ANSI 300 MSTOPP | 7702194 | 1 | EA | \$3,257.92 | \$3,257.92 |
| 21 | STOPPER FITTING, 6" ANSI 300 MSTOPP | 7702196 | 1 | EA | \$4,403.72 | \$4,403.72 |
| 22 | ELBOW, 4", XH | - | 15 | EA | \$80.00 | \$1,200.00 |
| 23 | TEE, 4" XH | - | 6 | EA | \$115.00 | \$690.00 |
| 24 | FLANGE WELDNECK, 4" ANSI 600 | - | 8 | EA | \$90.00 | \$720.00 |
| 25 | PIPE, STEEL 3/4" GRADE B, C&W 21' | 7706225 | 150 | FT | \$8.19 | \$1,227.80 |
| 26 | TEE, 3/4" STEEL SOCKET WELD 3000 PSIG | 7707850 | 1 | EA | \$6.98 | \$6.98 |
| 27 | VALVE, CURB, 1 INCH BUTT WELD ENDS, 1200 PSIG | 7708430 | 1 | EA | \$73.29 | \$73.29 |
| 28 | COUPLING, 3/4", STEEL SKT WELD, 3000 PSIG | 7701339 | 1 | EA | \$1.92 | \$1.92 |
| 29 | VALVE, 4" ANSI 600 BALL | - | 10 | EA | \$2,500.00 | \$25,000.00 |
| 30 | VALVE, 3" ANSI 600 BALL | - | 1 | EA | \$1,500.00 | \$1,500.00 |
| 31 | AMBITROL - HEATER | - | 1 | LOT | \$6,500.00 | \$6,500.00 |
| 32 | MISC FITTINGS, GASKETS, HARDWARE | - | 1 | LOT | \$10,000.00 | \$10,000.00 |
| 33 | TELEMETRY EQUIPMENT & BUILDING | - | 1 | LOT | \$35,000.00 | \$35,000.00 |
| LABOR | | | | | \$ | 66,725 |
| AVISTA TECHNICAL LABOR | | | | | \$ | 21,225 |
| 1 | Engineering (Gas & Measurement) | | 30 | day | \$ 350 | \$ 10,500 |
| 2 | Real Estate | | 7 | day | \$ 350 | \$ 2,450 |
| 3 | Environmental / Permitting | | 5 | day | \$ 350 | \$ 1,750 |
| 4 | Drafting/Surveying | | 10 | day | \$ 275 | \$ 2,750 |
| 5 | Catholic Technician | | 3 | day | \$ 275 | \$ 825 |
| 6 | Telemetry Technician | | 8 | day | \$ 300 | \$ 2,400 |
| 7 | GIS | | 2 | day | \$ 275 | \$ 550 |
| AVISTA CONSTRUCTION LABOR | | | | | \$ | 45,500 |
| HP Main | | | | | | |
| 1 | Build Station (Shop) | HP Controlman | 30 | day | \$ 350 | \$ 10,500 |
| 2 | Install/Set Station/Abandon Existing | HP Controlman (x2) | 40 | day | \$ 700 | \$ 28,000 |
| 3 | Tapping/Stopping | HP Controlman (x2) | 5 | day | \$ 700 | \$ 3,500 |
| 4 | Pressure Testing | HP Controlman (X2) | 2 | day | \$ 700 | \$ 1,400 |
| 5 | Heater Setup | HP Controlman (x2) | 3 | day | \$ 700 | \$ 2,100 |
| EQUIPMENT AND CONTRACT SERVICES | | | | | \$ | 745,200 |
| CONTRACT LABOR/SERVICES/LODGING/PER DIEM | | | | | \$ | 684,800 |
| 1 | Contract Crew Assist - Excavation | | 1 | LOT | \$ 15,000 | \$ 15,000 |
| 2 | Contract Crew Assist - Hourly (2 Men) | | 320 | HR | \$ 40 | \$ 12,800 |
| 3 | Station Gravel | | 1 | LOT | \$ 3,000 | \$ 3,000 |
| 4 | Station Fencing (Materials & Labor) | | 1 | LOT | \$ 7,500 | \$ 7,500 |
| 5 | Lodging & Meals (Avista - Non OH) | | 1 | LOT | \$ 9,000 | \$ 9,000 |
| 6 | Pressure Testing - Nitrogen | | 1 | LOT | \$ 10,000 | \$ 10,000 |
| 7 | Concrete Work (Heater Foundation) | | 1 | LOT | \$ 5,000 | \$ 5,000 |
| 8 | Williams NWP Station Work | | 1 | LOT | \$ 600,000 | \$ 600,000 |
| 9 | Crane Rental | | 1 | LOT | \$ 2,500 | \$ 2,500 |
| 10 | Easement/Land Purchase | | 1 | LOT | \$ 15,000 | \$ 15,000 |
| 11 | Permitting | | 1 | LOT | \$ 5,000 | \$ 5,000 |
| AVISTA EQUIPMENT | | | | | \$ | 60,400 |
| 1 | HP Main Crew's Equipment | | 45 | days | \$ 1,200 | \$ 54,000 |
| 2 | HP Main Crew Tapping Equipment | | 5 | days | \$ 800 | \$ 4,000 |
| 3 | Telemetry Tech Equipment/Vehicle | | 8 | days | \$ 300 | \$ 2,400 |
| INDIRECTS | | | | | \$ | 84,201 |
| Labor Overhead | | | | | 108.40% | \$ 72,330 |
| Material | | | | | 7.50% | \$ 11,871 |
| PROJECT COST SUMMARY | | | | | \$ | |
| Total Direct Costs (Materials/Labor/Equipment/Contract Services) | | | | | | \$ 970,204 |
| Total Indirect Costs | | | | | | \$ 84,201 |
| Project Subtotal (Indirects+Direct Costs) | | | | | | \$ 1,054,405 |
| Indirect Eng. & Constr. Supv. | | | | | 5.10% | \$ 53,775 |
| AFUDC (PER MONTH) | | | | | 8 mo 0.637% | \$ 53,732 |
| TOTAL: | | | | | Project Cost | \$ 1,161,912 |
| CONTINGENCY: | | | | | 25.00% | 290477.9512 |
| GRAND TOTAL: | | | | | Project Cost | \$ 1,452,390 |

Recent Mooney Quote 5/5/14 - Tri Pacific 2" SSP
Recent Mooney Quote 5/5/14 - Tri Pacific 1" SSP
Estimate - Based upon comparison - Winston Jackie Street \$26K & Glendale \$18K
6B KingTool - \$3500 (55 Gallon) - 5/5/2014 - Quote Estimate
\$2600 - 4" ANSI 600 - Winston Filter +10%
Quote 5/5/14 - 3" EZR ANSI 600
Quote 5/5/14 - 2" EZR ANSI 300
\$10.26/LF - Chase Rd
\$13/LF - Chase Rd

Chase Rd - \$77 Ea/ XH 4" X52
Chase Rd - \$112 Ea/ XH 4" X52
Winston - \$80Ea/4"

Winston - 4" ANSI 600 Cameron \$2300 Ea
Winston - 2" ANSI 600 \$1360 Ea
Winston - \$6454

\$35K - Dave Moeller Estimate

Trevor - Oxarc - Bottles Preferred at this location

2 Crewmen (Hrs x 2) - \$35/Hr for Crewman - NPL Contract OR
Estimate
Estimate - \$4500 Lewiston East Cyclone Fence - \$20/LF + 3 Gates @ \$500 Ea 300' (Materials & L
3 Guys - \$100/night Lodging + \$50/Day Meals
Estimate based upon historical Costs for Nitrogen Testing & Praxair
Estimate
Williams Estimates ranged from \$435K to \$583K - Provided 4/30/2014

Estimate
Estimate

Travel Included
\$600/Day + Mileage from Spokane (2 Taps into Existing Mains)

Updated 2/3/2014
0.20 - WA/ID; 5.10 - OR

**AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION**

| | | | |
|---------------|----------------|----------------|------------------------------|
| JURISDICTION: | Oregon | DATE PREPARED: | 09/28/2015 |
| CASE NO.: | UG 288 | WITNESS: | Karen Schuh/Grant Forsyth |
| REQUESTER: | CUB - McGovern | RESPONDER: | David Machado |
| TYPE: | Data Request | DEPT: | State & Federal Regulation |
| REQUEST NO.: | CUB – 002 | TELEPHONE: | (509) 495-4554 |
| | | EMAIL: | david.machado@avistacorp.com |

REQUEST:

Avista/600/Schuh/19 states that Ladd Canyon has “reached its physical capacity due to the growth in the area.”

- a. Please provide details of the historical growth for the past 5 years, and the forecast for that Station area for the next five years.
- b. Please break out part (a) by schedule.

RESPONSE:

- a. In terms of the inputs to load forecasts, historical usage is not tracked at the gate station level. Further, future forecasts do not occur at the gate station level. The most disaggregated forecast level in Oregon consists of the four regional forecasts (Medford, Roseburg, Klamath Falls, and La Grande). Historical usage at the La Grande forecast level has been provided by Company witness Mr. Forsyth in Staff_DR_193. Mr. Forsyth has also provided therein the forecast for La Grande for the next five years.
- b. As discussed in item (a), historical and forecast usage is not available at the gate station level. Historical usage for the La Grande area, broken out by schedule, has been provided in Staff_DR_193. The forecast data for the 2016 future test year is available therein as well.