

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

JURISDICTION:	Oregon	DATE PREPARED:	11/02/2015
CASE NO:	UG 288	WITNESS:	Jeff Webb
REQUESTER:	CUB	RESPONDER:	Jeff Webb
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	CUB - 33	TELEPHONE:	(509) 495- 4424
		EMAIL:	jeff.webb@avistacorp.com

REQUEST:

Please identify all aliases or all former names that Ladd Canyon Gate Station (#817) has been or is known by, and provide copies of all reviews of the project by the Capital Review Group regardless of the name used for Ladd Canyon Gate Station.

RESPONSE:

Other known names for the Ladd Canyon Gate Station:

Station # 0817
Union Gate Station
Union Meter Station
Ladd Canyon Meter Station

**AVISTA CORP.
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JURISDICTION:	Oregon	DATE PREPARED:	11/02/15
CASE NO:	UG 288	WITNESS:	Karen Schuh
REQUESTER:	CUB	RESPONDER:	Karen Schuh
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	CUB - 37	TELEPHONE:	(509) 495-2293
		EMAIL:	karen.schuh@avistacorp.com

REQUEST:

Does Avista set a capital budget for combined utility operations (that is, gas and electric total, total company), the gas utility (total company), or the gas utility (Oregon specific), or otherwise. If otherwise, please describe.

RESPONSE:

Capital Budget is initially developed based on the level of capital spending deemed necessary in each jurisdiction, as reflected in Business Cases for each project. This is rolled into an overall Capital Budget for the organization, with adjustments made, where necessary, to prioritize expenditures. (Please see response to CUB- 38). In the development of a general rate case the Company breaks apart the components between Service (Natural Gas and Electric) and Jurisdiction (OR, ID, WA).

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

JURISDICTION:	Oregon	DATE PREPARED:	11/3/2015
CASE NO:	UG 288	WITNESS:	Karen Schuh
REQUESTER:	CUB	RESPONDER:	Margie Stevens
TYPE:	Data Request	DEPT:	Finance
REQUEST NO.:	CUB - 38	TELEPHONE:	(509) 495-8978
		EMAIL:	margie.stevens@avistacorp.com

REQUEST:

How is that budget developed?

RESPONSE:

Senior management establishes the capital budget for each year in the five-year planning cycle. It is the responsibility of the Capital Planning Group (CPG) to allocate the approved funding to individual capital projects and programs. Project and program sponsors develop and submit new and updated Business Cases to support the need for capital spending. These Business Cases are reviewed, challenged and then included on the preliminary list of projects and programs to be considered for funding by the CPG. The CPG meets to review the submitted Business Cases and prioritize funding requests to meet the Capital Budget targets set by senior management. The Business Cases are ranked based on an overall assessment score with the following four criteria:

- 1) Financial Assessment – Customer IRR
- 2) Strategic Assessment – alignment to the strategic objectives of the organization
- 3) Business Risk Assessment – reduction in business risk with the following 5 business risk categories:
 - a) Environmental
 - b) Safety and Health: Public
 - c) Legal, Regulatory, and External Business Affairs
 - d) Safety and Health: Employees
 - e) Customer Service and Reliability
- 4) Project/Program Risk Assessment – level of certainty around resources, cost and schedule (high, medium, or low).

Business Case assessments and rankings are **one data point** considered but other considerations are given to prioritize capital requests including but not limited to mandatory and compliance requirements, safety and reliability beyond what is included in the assessment score, resource availability as well as other qualitative factors. A recommended/approved five-year Capital Plan is presented to the Officers for review. As a result of the Officer review, if any adjustments are needed, those adjustments are made and the final Capital Plan is then communicated to Business Case owners and budget sponsors. The Capital Plan is presented to the Finance Committee of the Board of Directors for review and approval of the next year's capital budget.

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

JURISDICTION:	Oregon	DATE PREPARED:	11/19/2015
CASE NO:	UG 288	WITNESS:	Karen Schuh
REQUESTER:	CUB	RESPONDER:	Margie Stevens
TYPE:	Data Request	DEPT:	Finance
REQUEST NO.:	CUB -41 Supplemental	TELEPHONE:	(509) 495-8978
		EMAIL:	margie.stevens@avistacorp.com

REQUEST:

Provide the total capital budget for combined utility operations for the last 10 years, and show how that was allocated between Electric and Gas and among States.

RESPONSE:

Please see attachment A for the Company's capital budgeted spend for utility operations (system level) for the last 10 years. The capital budget is initially developed based on the level of capital spending deemed necessary in each jurisdiction, as reflected in Business Cases for each project. This is rolled into an overall Capital Budget for the organization, with adjustments made, where necessary, to prioritize expenditures. In the development of a general rate case, the Company determines which projects are expected to transfer to plant in service for the specific jurisdiction. For transfers to plant that are budgeted at a common level, allocation factors for the given jurisdiction/service are used to determine the transfer to plant for each jurisdiction/service. This is a manual process for which the preceding 10 years are not readily available. The Company is in the process of completing an analysis of the last 10 years of capital transfers to plant in an effort to provide the Oregon basis on a historical level. Upon completion of this analysis, the company will provide the analysis as a supplemental response to this DR. The system level of transfers to plant in any given year may not match the capital spend in Attachment A, because spend can occur over multiple years; whereas the accumulated spend will be transferred at a point in time in one year.

Supplemental Response (November 19, 2015):

This supplemental response includes the completed analysis of the last 10 years (2006 through September 2015) of capital transfers to plant (see CUB_DR_041 Supplemental Attachment A), by jurisdiction and service (using current allocation factors). This analysis groups transfers to plant based on functional grouping of electric/gas FERC plant accounts.

Avista - Historical Transfers to Plant, by Jurisdiction & Service**Oregon Gas**

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015*
Intangible Plant	556,856	522,247	931,517	730,553	887,536	937,978	1,326,924	1,952,169	1,750,027	7,883,496
Production Plant	5,730	-	693	-	-	-	-	-	-	-
Underground Storage Plant	-	309,625	4,751,274	(217,535)	16,137	1,598,356	52,830	43,101	70,245	55,304
Distribution Plant	14,489,512	23,648,297	17,194,168	13,357,729	10,393,258	12,791,981	7,548,465	24,723,394	20,394,033	15,736,201
General Plant	2,450,287	1,203,388	2,697,313	2,823,494	2,192,448	2,652,182	2,366,989	3,459,290	2,883,333	3,632,656
Total Plant Placed in Service	17,502,385	25,683,557	25,574,964	16,694,241	13,489,379	17,980,496	11,295,209	30,177,953	25,097,638	27,307,656

Washington Electric

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Intangible Plant	3,121,860	2,975,529	3,910,404	4,791,340	3,666,262	5,654,611	7,443,666	11,928,370	17,578,760	44,108,047
Steam Production Plant	3,529,836	3,214,129	2,523,675	3,863,017	1,859,937	5,217,932	3,928,806	4,467,360	6,321,095	3,386,262
Hydraulic Production Plant	2,969,744	13,227,784	11,801,307	15,163,607	10,239,177	9,917,300	7,119,483	9,799,496	16,090,239	14,350,754
Other Production Plant	(3,162,948)	234,660	7,484,911	779,319	1,700,280	710,307	4,254,651	7,446,987	622,153	785,606
Transmission Plant	7,413,924	43,541,549	12,063,740	8,631,997	16,905,621	19,340,948	15,708,455	16,705,462	26,381,164	10,057,380
Distribution Plant	30,095,243	32,205,565	43,478,579	45,758,241	46,608,030	59,956,712	52,754,421	50,768,249	52,836,202	42,188,922
General Plant	9,748,896	10,718,578	13,562,246	18,174,976	25,436,364	21,269,428	23,286,497	28,727,196	19,123,011	19,479,194
Total Plant Placed in Service	53,716,557	106,117,796	94,824,862	97,162,497	106,415,671	122,067,239	114,495,981	129,843,119	138,952,623	134,356,165

Washington Gas

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Intangible Plant	840,976	638,897	1,075,689	1,173,705	2,144,771	1,498,325	2,126,289	3,142,837	2,838,300	12,659,499
Production Plant	-	-	-	-	-	-	-	-	-	-
Underground Storage Plant	86,331	81,037	8,696,557	(317,323)	86,506	4,230,164	350,397	285,867	465,901	366,804
Distribution Plant	11,190,840	10,861,533	15,255,697	16,894,442	11,069,728	18,129,081	10,529,468	30,521,170	23,855,622	19,199,072
General Plant	3,492,193	2,149,408	2,707,810	4,258,450	5,217,966	6,565,785	5,108,592	7,401,959	5,026,407	5,522,710
Total Plant Placed in Service	15,610,340	13,730,875	27,735,752	22,009,274	18,518,971	30,423,355	18,114,746	41,351,833	32,186,230	37,748,086

Idaho Electric

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Intangible Plant	1,475,872	1,405,693	1,838,879	2,070,840	1,586,875	2,149,031	3,145,182	5,339,813	7,181,387	20,895,189
Steam Production Plant	1,925,018	1,752,845	1,376,302	2,106,720	1,014,328	2,845,632	2,142,599	2,436,303	3,447,248	1,846,719
Hydraulic Production Plant	1,619,568	7,213,854	6,435,916	8,269,567	5,583,999	5,408,461	3,882,654	5,344,216	8,774,912	7,826,272
Other Production Plant	(1,724,933)	127,973	4,081,943	425,006	927,258	387,370	2,320,300	4,061,261	339,295	428,435
Transmission Plant	4,034,007	23,791,608	6,587,999	4,710,619	9,337,256	10,766,292	8,545,154	9,070,988	14,387,132	5,407,362
Distribution Plant	17,450,345	23,163,011	37,159,244	23,721,870	18,737,076	21,180,312	17,552,989	21,409,583	26,695,011	22,678,165
General Plant	5,009,405	4,735,307	9,965,831	8,625,091	10,786,917	8,261,959	12,366,071	12,437,407	10,010,493	9,729,665
Total Plant Placed in Service	29,789,283	62,191,292	67,446,113	49,929,715	47,973,709	50,999,058	49,954,950	60,099,569	70,835,478	68,811,807

Idaho Gas

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Intangible Plant	358,080	279,073	444,547	485,055	588,650	621,218	891,314	1,310,237	1,149,168	5,240,698
Production Plant	-	-	-	-	-	-	-	-	-	-
Underground Storage Plant	35,537	33,357	3,579,780	(130,620)	35,609	1,741,270	144,234	117,672	191,780	150,988
Distribution Plant	7,762,858	12,165,819	22,065,092	5,510,258	4,943,546	3,573,213	6,182,245	7,048,504	8,486,240	13,488,140
General Plant	1,133,088	884,770	2,170,003	1,418,973	1,852,082	1,945,418	2,172,157	2,347,137	2,148,215	2,517,644
Total Plant Placed in Service	9,289,563	13,363,019	28,259,423	7,283,665	7,419,887	7,881,118	9,389,951	10,823,550	11,975,403	21,397,470

Total	125,908,128	221,086,538	243,841,114	193,079,392	193,817,617	229,351,265	203,250,836	272,296,024	279,047,373	289,621,184
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*Includes transfers to plant through September 2015.

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

JURISDICTION:	Oregon	DATE PREPARED:	11/03/2015
CASE NO:	UG 288	WITNESS:	Karen Schuh
REQUESTER:	CUB	RESPONDER:	Margie Stevens
TYPE:	Data Request	DEPT:	Finance
REQUEST NO.:	CUB - 43	TELEPHONE:	(509) 495-8978
		EMAIL:	margie.stevens@avistacorp.com

REQUEST:

Please provide, for all of the capital projects, blanket and otherwise, included in this case, their ranking within the capital budget committee's approval list. Please demonstrate when each of the project (1) showed up for the first time (2) moved up in ranking (3) moved down in ranking. Please do this on a total company basis and Oregon only.

Please explain whether the Company allocates and prioritizes projects on a Companywide or state specific basis.

RESPONSE:

Please see Attachment A for a list of the capital projects included in this case and their ranking within the Capital Planning Group's prioritization list on a system basis. Please be advised that assessment scores and the resulting rank were not assigned prior to 2012, therefore the information provided is from 2012 through 2015.

Changes in ranking can occur for a number of reasons. These reasons include but are not limited to: additional or fewer project requests, change in strategic focus, and correction or update of assumptions used in the assessment score.

Additionally, as discussed in CUB_DR_038, the business case assessment scores from which these rankings are derived are one data point for consideration, but not the only data point. Please see CUB_DR_038 for additional discussion of the other factors considered.

OR CUB Data Request #43

General Plant Capital Projects - 2015 Transfers to Plant

Business Case Ref.	Business Case Name	System	OR Share	1) Showed up for the first time	2012 ranking	2013 ranking	2014 ranking	2015 ranking
ET-1	SCADA - SOO & BUCC		1,019,999	88,760	2012	88	86	108 114
ET-2	Technology Refresh to Sustain Business Process		21,378,623	1,860,368	2012	22	77	53 57
ET-3	Technology Expansion to Enable Business Proces		7,431,367	646,678	2012	84	55	80 86
ET-4	Enterprise Business Continuity Plan		648,814	56,460	2012	28	27	33 36
ET-5	Enterprise Security - previously security initiative		5,399,818	469,892	2012	75	38	48 52
ET-6	Next Generation Radio Refresh		4,200,000	365,484	2012	1	2	10 11
ET-7	Microwave Refresh		2,755,148	239,753	2012	86	66	78 83
*	CSS Replacement		95,385,719	8,300,465	2012	78	41	41 44
ET-8	AvistaUtilities.com and AvaNet Redesign		7,038,197	612,464	2013		78	95 103
ET-9	Mobility in the Field		420,000	36,548	2013		94	113 118
T-1	Fleet Budget		7,834,114	959,402	2012	81	63	73 78
G-1	Structures and Improvements/Furniture		4,600,000	400,292	2012	56	63	73 78
G-2	Capital Tools & Stores Equipment		2,367,385	223,411	2012	68	58	73 79
G-3	HVAC Renovation Project		10,978,826	955,377	2012	31	25	26 29
G-4	COF Long-Term Restructuring Plan		5,000,000	435,100	2012	37	54	62 68
G-5	COF LngTrm Restruct Ph2		2,000,000	174,040	2014			111 116
G-6	Apprentice Training		121,407	10,565	2012	not ranked	not ranked	not ranked not ranked
			<u>178,579,417</u>	<u>15,835,060</u>				

Oregon Gas Distribution Capital Projects - 2015 Transfers to Plant

NGD-1	New Revenue - Growth		16,433,282	4,793,113	2012	14	31	36 40
NGD-2	Gas Reinforcement Program		1,480,886	760,886	2012	44	27	3 3
NGD-3	Gas Deteriorated Steel Pipe Replacement Progra		1,000,000	1,000,000	2012	53	85	100 107
NGD-4	Gas Regulator Stn Replacement Program		947,300	387,299	2012	83	81	100 107
NGD-5	Gas Replacement Street and Highway Program		4,827,444	3,477,444	2012	9	7	7 8
NGD-6	Gas Cathodic Protection Program		950,003	49,999	2012	12	10	6 7
NGD-7	Gas Non-Revenue Program		6,001,954	3,601,954	2012	66	45	53 57
NGD-8	Gas Overbuilt Pipe Replacement Program		900,000	828,000	2012	12	82	10 11
NGD-9	Gas Isolated Steel Replacement Program		3,450,000	850,011	2012	16	13	16 18
NGD-10	Aldyl A Replacement		18,317,429	6,298,198	2012	20	14	17 19
					2013 for			
NGD-11	Gas ERT Replacement Program		401,891	401,891	funding in 2015		47	53 57
NGD-12	Gas PMC Program		1,030,000	295,559	2012	7	6	2 2
NGD-13	Gas Telemetry Program		400,000	120,000	2014			80 86
NGD-14	Gas East Medford HP Main Reinforcement Proje		4,999,907	4,999,907	2012	48	53	61 66
NGD-15	Gas Ladd Canyon Gate Station		1,650,000	1,650,000	mid-2014			11 11
NGD-16	Gas Bonanza Gate Stn Project		600,485	600,485	2014			66 71
NGD-17	Jackson Prairie Storage		1,356,300	130,883	2012	17	12	15 18
			<u>64,746,881</u>	<u>30,245,629</u>				

Oregon Gas New Customer Hookups- 2016 AMA Transfers to Plant

NGD-1	New Revenue - Growth		7,278,760	2,049,424	2012	14	31	36 40
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JURISDICTION:	Oregon	DATE PREPARED:	11/3/2015
CASE NO:	UG 288	WITNESS:	Karen Schuh
REQUESTER:	CUB	RESPONDER:	Margie Stevens
TYPE:	Data Request	DEPT:	Finance
REQUEST NO.:	CUB - 38	TELEPHONE:	(509) 495-8978
		EMAIL:	margie.stevens@avistacorp.com

REQUEST:

How is that budget developed?

RESPONSE:

Senior management establishes the capital budget for each year in the five-year planning cycle. It is the responsibility of the Capital Planning Group (CPG) to allocate the approved funding to individual capital projects and programs. Project and program sponsors develop and submit new and updated Business Cases to support the need for capital spending. These Business Cases are reviewed, challenged and then included on the preliminary list of projects and programs to be considered for funding by the CPG. The CPG meets to review the submitted Business Cases and prioritize funding requests to meet the Capital Budget targets set by senior management. The Business Cases are ranked based on an overall assessment score with the following four criteria:

- 1) Financial Assessment – Customer IRR
- 2) Strategic Assessment – alignment to the strategic objectives of the organization
- 3) Business Risk Assessment – reduction in business risk with the following 5 business risk categories:
 - a) Environmental
 - b) Safety and Health: Public
 - c) Legal, Regulatory, and External Business Affairs
 - d) Safety and Health: Employees
 - e) Customer Service and Reliability
- 4) Project/Program Risk Assessment – level of certainty around resources, cost and schedule (high, medium, or low).

Business Case assessments and rankings are **one data point** considered but other considerations are given to prioritize capital requests including but not limited to mandatory and compliance requirements, safety and reliability beyond what is included in the assessment score, resource availability as well as other qualitative factors. A recommended/approved five-year Capital Plan is presented to the Officers for review. As a result of the Officer review, if any adjustments are needed, those adjustments are made and the final Capital Plan is then communicated to Business Case owners and budget sponsors. The Capital Plan is presented to the Finance Committee of the Board of Directors for review and approval of the next year's capital budget.

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

JURISDICTION:	Oregon	DATE PREPARED:	11/03/2015
CASE NO.:	UG 288	WITNESS:	Jeffrey Webb
REQUESTER:	CUB - McGovern	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	CUB - 044	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

The Company's most recent IRP¹ lists the need for the Ladd Canyon (Union Station) gate station upgrade as 2019 or beyond. Please explain what has changed since the IRP and the filing of the Company's 2015 GRC and how those changes necessitated implementation of the project in 2015. To the extent that maps or other visuals may help illustrate this change in need, please provide.

RESPONSE:

First, it is important to consider the context of the portion of Avista's 2014 Natural Gas Integrated Resource Plan (IRP) that has been referenced in this request. The following table is an excerpt from page 131 of the IRP.

Table 7.2 City Gate Station Upgrades

Location	Gate Stn	Project to Remediate	Cost	Year
Athol, ID	Athol #219	TBD	-	2019+
Genesee, ID	Genesee #320	TBD	-	2019+
Rathdrum, ID	*Chase Rd	Chase Rd Gate Stn & Hayden Ave HP Main	\$5.4M	2014
CDA (East), ID	CDA East #221	Rathdrum Prairie HP Gas Reinforcement	\$10M	2016-17
Post Falls, ID	McGuire #213			
CDA (West), ID	Post Falls & CDA West			
Colton, WA	Colton #316	TBD	-	2019+
Sutherlin, OR	Sutherlin #2626	TBD	-	2019+
La Grande, OR	La Grande #815 & Union #817	Union HP Connector	\$3M	2019+

*Details of project described in IRP

In the context of this table, what is shown is that the “Union HP Connector” (in other documents also called “Elgin 6” HP Main Reinforcement” and “Pierce Road La Grande High Pressure Reinforcement” – which is the current name of the project) is scheduled for completion in 2019 or beyond. In order for that project to achieve its purpose (the remediation of a design heating degree day capacity deficiency in the Elgin area), either city gate station #0815 (La Grande) or #0817 (Ladd Canyon) must be upgraded no later than the completion of the Pierce Road High Pressure Reinforcement, which is discussed in the following paragraph.

Second, during the Capital Planning Group’s completion of the five-year capital plan for 2015-2019, which was finalized on September 4, 2014 (as discussed in CUB_DR_045), it was determined that the Pierce Road La Grande High Pressure Reinforcement had risen in priority such that it should be completed in 2017, which means the Ladd Canyon gate station needs to be completed prior to that time. Please see CUB_DR_045 for further discussion of why the 2015-2019 five-year capital plan updates (finalized September 4, 2014) could not be included in the 2014 Natural Gas IRP (final draft circulated May 30, 2014 and filed date of the IRP of August 31, 2014). Additionally, CUB_DR_045 Confidential Attachment A includes discussion of this Union H.P. reinforcement as the #2 system priority (after #1, the East Medford High Pressure Reinforcement), given that the existing distribution system was only able to serve load at design pressures up to between a 60 and 65 heating degree day (while the design heating degree day in the La Grande area is 74 heating degrees).

Third, it is important to consider that there was an existing capacity deficiency at the Ladd Canyon gate station, where demand grows to 40.9 mcfh (thousand cubic feet per hour) on a design heating degree day. The design heating degree day demand exceeds the capacity of the preceding Ladd Canyon gate station, which was 37.2 mcfh. As a result, on a design heating degree day, the approximately 750 customers in the city of Union are at risk of outage due to insufficient capacity at the gate station.

Avista experienced design day conditions in its Oregon service territory in Klamath Falls as recently as December 8, 2014, when a 72 HDD occurred.

Given the three factors listed above, the current upgrade of the gate station is a prudent investment decision, which addresses both a current deficiency and enables the subsequent completion of the Pierce Road La Grande High Pressure Reinforcement project. This is irrespective of any consideration of the Paving Customer discussed in previous CUB DRs.

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RESPONSE TO REQUEST FOR INFORMATION**

JURISDICTION:	Oregon	DATE PREPARED:	11/03/2015
CASE NO.:	UG 288	WITNESS:	Jeffrey Webb
REQUESTER:	CUB - McGovern	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	CUB - 045	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

The Company's most recent IRP² lists the need for the East Medford Upgrade as 2018.

This has been a multi-phase project spanning several years. As forecasted, needs have changed over time, and with no immediate resource need, completing the final phase of the project has been delayed.

Please demonstrate what factors have changed between the IRP and the filing of the Company's General Rate Case and how those changes necessitated completion of the project.

RESPONSE:

Please see the Company's response in CUB_DR_045C for the requested information. CUB_DR_045C is **CONFIDENTIAL SUBJECT TO GENERAL PROTECTIVE ORDER**.

In late July of 2014, Avista's Gas Engineering group identified that the SynerGEE load study for the Medford distribution system had incorrectly modeled the delivery of natural gas from the Williams Northwest Pipeline (Williams NWP) transmission pipeline at Avista's Jones Creek gate station. The Jones Creek gate station is near Grants Pass and serves as the second feed into the Medford high pressure system. The SynerGEE load study included delivery at 400 psig (pounds per square inch gauge). This pressure (400 psig) is the normal gate station operation on a best efforts basis from Williams NWP; however, under our contract with Williams NWP, Williams NWP only guarantees delivery at 300 psig. Because design heating degree day modeling considers only firm supply and firm demand, the SynerGEE model had to be updated to reflect the contractually guaranteed supply pressure. This update resulted in the identification that the last phase of the East Medford reinforcement was priority #1 for completion, due to the substantial difference in modeling conditions, which revealed many more customers to be at risk of loss of service on a design heating degree day.

CUB_DR_045C Confidential Attachment A is an email (dated August 1, 2014) from the engineer who performs the SynerGEE modeling to Jeff Webb, Manager of Gas Engineering & Measurement, and which highlights the need for the completion of the last phase of the East Medford reinforcement. Please notice that the subject line is titled "HP priorities, E Medford H.P. reinforcement is priority one" and that the message was sent with High importance. These factors underscore the need for this project to be addressed promptly through the completion of the East Medford reinforcement project.

Within CUB_DR_045C Confidential Attachment A, the image on the first page, titled “Medford, Ashland, Grants Pass 61 HDD” demonstrates the system dynamics of the Medford area with the “before” modeling of delivery at the previously modeled 400 psig at the Jones Creek gate station.

The following image (second page of CUB_DR_045C Confidential Attachment A, first image), titled “Medford, Ashland, Grants Pass 61 HDD After 12” Reinforcement” demonstrates the same natural gas distribution system at the correct 300 psig intake after the completion of the East Medford High Pressure Reinforcement project.

A model demonstrating the correctly modeled intake of 300 psig, but without the completion of the East Medford reinforcement project is not included in this email. However, this system model (intake pressure of 300 psig at Jones Creek, without the completion of the East Medford reinforcement) is included as CUB_DR_045C Attachment B.

Please note that in each of these three illustrations, the area circled with 1,267 customers is Jacksonville, Oregon, and the deficiency there was incorrectly modeled – thus, these customers should be excluded from the number of at risk customers in each of the three illustrations.

In summary, the first illustration (the before model, at 400 psig intake) illustrates the original evaluation that approximately 3,300 customers were at risk. The intermediate model (at the correct 300 psig intake, without the East Medford reinforcement) illustrates that, in reality, approximately 8,200 customers were at risk of an outage on a design heating degree day. The third model illustrates that, with the completion of the East Medford reinforcement, only approximately 2,900 customers will be at risk of an outage on a design heating degree day. This represents a reduction in customers at risk of approximately 65%.

Therefore, it is clear that this project was immediately necessary and improves the service quality in the Medford distribution system substantially.

Avista’s 2014 Natural Gas IRP includes both of the following statements, which are instructive in light of the questions about the timing of this project. The first, which addresses the fact that all distribution projects included in the IRP are preliminary estimates of timing and cost, is as follows (emphasis added):

Table 7.1 summarizes the cost of major distribution system enhancements addressing growth-related system constraints, system integrity issues and the timing of these expenditures. These projects are preliminary estimates of timing and costs of major reinforcement solutions. The scope and needs of these projects generally evolves with new information requiring ongoing reassessment. Actual solutions may differ due to differences in actual growth patterns and/or construction conditions from the initial assessment.¹

The second, which is specific to East Medford, is as follows (emphasis added):

This has been a multi-phase project spanning several years. As forecasted, needs have changed over time, and with no immediate resource need, completing the final phase of the project has been delayed. Other factors may drive completion of the project including reliability needs, flexibility of natural gas supply management and optimizing synergies

¹ Avista Utilities 2014 Natural Gas Integrated Resource Plan, page 129.

of other construction projects to reduce project cost. Avista will continue to evaluate forecasts and assess the most appropriate timing for completion of this project.²

It is important to recognize and consider that the IRP represents the facts and project completion estimates at a given point in time and that facts and circumstances can, and likely will, change after that point. The following timeline demonstrates why it was not possible for the IRP to reflect the updated project timing associated with the East Medford reinforcement project:

May 30, 2014	Final draft of IRP is provided to Technical Advisory Committee for comment (this is effectively the cut-off date for finalization of the IRP).
July 2014:	Avista's Gas Engineering department recognizes the need to update the SynerGEE load study modeling parameters.
August 1, 2014	The results of the SynerGEE load study update are communicated to Jeff Webb.
August 18, 2014	Jeff Webb submits a request to the Capital Planning Group to complete the East Medford reinforcement in 2015.
August 31, 2014	Filed date of the IRP.
September 4, 2014	Capital Planning Group finalizes its five-year capital plan, including approval of the completion of the East Medford reinforcement in 2015.

As this timeline demonstrates, all of the additional information that led to a re-evaluation of the priority of the East Medford reinforcement as the highest priority reinforcement occurred subsequent to the completion and distribution of the final draft of Avista's 2014 Natural Gas IRP. Additionally, the approval of the updated timing of the East Medford reinforcement did not occur until after the filed date of the IRP. Therefore, even if this change were deemed material to the overall IRP and the IRP was updated to reflect the new information subsequent to the final draft, the approval of the change had not yet occurred, and any update to the IRP could not have reflecting any change in timing.

Furthermore, the IRP recognizes that facts can, and likely will, change, as noted above. Therefore, Avista's decision to complete the project in 2015, as opposed to 2018, is not inconsistent with the IRP, when considered in the full context of the distribution planning section of the IRP and the changes in facts and circumstances that occurred in the second half of 2014 surrounding the East Medford project.

² Avista Utilities 2014 Natural Gas Integrated Resource Plan, pages 129-130.

CUB Exhibit 206, Attachment A is confidential and will be provided to those parties who have signed the protective order in this docket.

CUB Exhibit 206, Attachment B
is confidential and will be provided to those parties who have signed the
protective order in this docket.

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	Oregon	DATE PREPARED:	11/03/2015
CASE NO:	UG 288	WITNESS:	Jeff Webb
REQUESTER:	CUB	RESPONDER:	Jeff Webb
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	CUB - 46	TELEPHONE:	(509) 495- 4424
		EMAIL:	jeff.webb@avistacorp.com

REQUEST:

On page 128 of the Company's most recent IRP₃, Compressor stations are identified as relatively low cost distribution system enhancements designed to assist with growing demand.

These smaller compressor stations are well suited for areas where gas demand is growing at a relatively slow and steady pace, so that purchasing and installing these less expensive compressors over time allows a pipeline to serve growing customer demand for into the future.

- a) Were compression stations considered to meet the needs identified in the Ladd Canyon Station upgrade or East Medford
- b) If Compression stations were considered, please provide documentation
- c) If Compression stations would not resolve the issues at these stations, please explain why.
- d) Please provide the cost analysis of installing compression stations at those sites if the compression stations would resolve the low pressure issue identified at the 10/20/2015 settlement conference by Jeff Webb for either East Medford or Ladd Canyon, on a (1) short term or (2) permanent or long term basis

RESPONSE:

The next paragraph in the IRP states:

Compressors can be a cost effective option to resolving system constraints; however, regulatory and environmental approvals to install a station, along with engineering and construction time can be a significant deterrent. Adding compressor stations typically involves considerable capital expenditure. Based on Avista's detailed knowledge of the distribution system, there are no foreseeable plans to add compressors to the distribution network.

- a) No (Please see (c) below)
- b) n/a
- c) Despite the inclusion and brief description of compressors in Avista's IRP, the economics and hydraulic advantages of compressors are limited to long distance, large diameter, high pressure applications. Across the industry, compressors are regularly installed on interstate pipelines that meet these criteria, not on complex distribution systems such as Avista's. There are no compressors currently on Avista's system, nor are there plans to install any. Additionally, the ongoing operating and maintenance costs for a compressor station are far greater than a pipeline.

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	Oregon	DATE PREPARED:	11/03/2015
CASE NO:	UG 288	WITNESS:	Jeff Webb
REQUESTER:	CUB	RESPONDER:	Jeff Webb
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	CUB - 46	TELEPHONE:	(509) 495- 4424
		EMAIL:	jeff.webb@avistacorp.com

REQUEST:

On page 128 of the Company's most recent IRP₃, Compressor stations are identified as relatively low cost distribution system enhancements designed to assist with growing demand.

These smaller compressor stations are well suited for areas where gas demand is growing at a relatively slow and steady pace, so that purchasing and installing these less expensive compressors over time allows a pipeline to serve growing customer demand for into the future.

- a) Were compression stations considered to meet the needs identified in the Ladd Canyon Station upgrade or East Medford
- b) If Compression stations were considered, please provide documentation
- c) If Compression stations would not resolve the issues at these stations, please explain why.
- d) Please provide the cost analysis of installing compression stations at those sites if the compression stations would resolve the low pressure issue identified at the 10/20/2015 settlement conference by Jeff Webb for either East Medford or Ladd Canyon, on a (1) short term or (2) permanent or long term basis

RESPONSE:

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Compressors can be a cost effective option to resolving system constraints; however, regulatory and environmental approvals to install a station, along with engineering and construction time can be a significant deterrent. Adding compressor stations typically involves considerable capital expenditure. Based on Avista's detailed knowledge of the distribution system, there are no foreseeable plans to add compressors to the distribution network.

- a) No (Please see (c) below)
- b) n/a
- c) Despite the inclusion and brief description of compressors in Avista's IRP, the economics and hydraulic advantages of compressors are limited to long distance, large diameter, high pressure applications. Across the industry, compressors are regularly installed on interstate pipelines that meet these criteria, not on complex distribution systems such as Avista's. There are no compressors currently on Avista's system, nor are there plans to install any. Additionally, the ongoing operating and maintenance costs for a compressor station are far greater than a pipeline.

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

JURISDICTION:	Oregon	DATE PREPARED:	11/18/2015
CASE NO.:	UG 288	WITNESS:	Jeffrey A. Webb
REQUESTER:	PUC Staff	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff -330	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

What is the temperature used for the design heating degree day model that the Company uses to support the need for the East Medford Reinforcement and Ladd Canyon Station gate upgrade projects? Are the design heating degree days the same for all areas in Oregon?

RESPONSE:

The design heating degree day (HDD) temperature for the Medford area (East Medford Reinforcement) is 61 heating degree days, or 4 degrees Fahrenheit average daily temperature.

The design heating degree day temperature for the La Grande area (Ladd Canyon Gate Station Upgrade) is 74 heating degree days, or -9 degrees Fahrenheit average daily temperature.

As discussed in Avista's 2014 Natural Gas Integrated Resource Plan (IRP), "Oregon weather input [uses] four weather stations, corresponding to the areas where Avista provides natural gas services. HDD weather patterns between the areas are uncorrelated." That is to say, the design heating degree days are not the same for all areas in Oregon.

Nevertheless, while the design heating degree days are not the same for all areas in Oregon, the fact that a design heating degree day was reached in one area (Klamath Falls, Oregon, where the design HDD is 72 HDD) as recently as December 8, 2013 confirms the design heating degree day as a prudent planning standard.

Prior to the December 8, 2013 design heating degree day in Klamath Falls, Oregon, the previous design heating degree day in Klamath Falls had occurred on December 21, 1990.¹ Further, in the 20 years preceding the completion of Avista's 2012 Natural Gas IRP, the coldest day in 20 years in Klamath Falls had been a 64 heating degree day.²

These factors, along with the recent December 8, 2013 design heating degree day, demonstrate that the absence of a design heating degree day in the past 20 years does not mean that a design heating degree day will not happen. In fact, this further confirms that the design heating degree day is a prudent planning standard.

Please see Avista's response to Staff_DR_331 for further discussion of the determination of design heating degree days.

¹ Avista Utilities 2012 Natural Gas Integrated Resource Plan, page 3.6.

² Avista Utilities 2012 Natural Gas Integrated Resource Plan, page 3.7.

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

JURISDICTION:	Oregon	DATE PREPARED:	11/23/2015
CASE NO.:	UG 288	WITNESS:	Jeffrey A. Webb
REQUESTER:	PUC Staff	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 331	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

Please describe how the design heating degree day for Oregon was determined.

RESPONSE:

Avista's design heating degree day is determined for distribution system modeling using the coldest day on record for each given service area. This practice is consistent with the peak day demand forecast utilized in the peak day demand forecast for Avista's natural gas Integrated Resource Plans. The 2014 Natural Gas Integrated Resource Plan (IRP), explains the methodology for determining the peak day demand forecast as follows:¹

The peak day demand forecast includes adjustments to average weather to reflect a five-day cold weather event. This consists of adjusting the middle day of the five-day cold weather event to the coldest temperature on record for a service territory....

The IRP goes on to describe the coldest days on record for each of the Oregon service areas, stating the following:²

Medford experienced the coldest day on record, a 61 HDD, on Dec. 9, 1972. This is equal to an average daily temperature of 4 degrees Fahrenheit. Medford has experienced only one 61 HDD in the last 40 years; however, it has also experienced 59 and 58 HDD events on Dec. 8, 1972 and Dec. 21, 1990, respectively.

The other three areas in Oregon have similar weather days. For Klamath Falls, a 72 HDD occurred on Dec. 8, 2013; in La Grande a 74 HDD occurred on Dec. 23, 1983; and a 55 HDD occurred in Roseburg on Dec. 22, 1990. As with Washington/Idaho and Medford, these days are the peak day weather standard for modeling purposes. (emphasis added)

The IRP also addresses the appropriateness of the use of the coldest day on record as the planning standard, stating:³

Utilizing a peak planning standard of the coldest temperature on record may seem aggressive given a temperature experienced rarely, or only once. Given the potential

¹ Avista Utilities 2014 Natural Gas Integrated Resource Plan, page 31.

² Avista Utilities 2014 Natural Gas Integrated Resource Plan, page 32.

³ Avista Utilities 2014 Natural Gas Integrated Resource Plan, page 32.

impacts of an extreme weather event on customers' personal safety and property damage to customer appliances and Avista's infrastructure, it is a prudent planning standard. While remote, peak days do occur, as on Dec. 8, [2013]⁴, when Avista matched the previous peak HDD in Klamath Falls.

Further, the IRP addresses the question of whether global warming should be considered in the determination of peak day planning standards, stating:⁵

Avista was unable to find any definitive evidence to support a peak day warming trend. After discussion with the [Technical Advisory Committee], Avista decided to discontinue global warming trend adjustments to peak day weather events in the HDD forecast. Therefore, the modeling and analysis with respect to peak day planning is unaffected by global warming.

See Staff DR_330 for further discussion of the length of time between peak weather events in Klamath Falls, Oregon, which is consistent with the decision that global warming should not be considered in the determination of peak day planning standards.

Additionally, each of the parties to this case (the Oregon Public Utility Commission, CUB, and the Northwest Industrial Gas Users) were represented on the Technical Advisory Committee, which "is a vital component of our IRP process, as it provides a forum for the exchange of ideas from multiple perspectives, identifies issues and risks, and improves analytical methods."⁶

Given the well-founded basis for the determination of peak day weather standards (design heating degree days) as described above, and the involvement of PUC Staff, CUB, and the Northwest Industrial Gas Users, specifically, and the Technical Advisory Committee, more broadly, in the determination of peak day weather standards, Avista's design heating degree days are appropriate planning standards.

⁴ The IRP states that this event occurred on December 8, 2014. However, this date was inadvertently mis-typed, as December 8, 2014 had not yet occurred as of the filing date of the IRP (August 31, 2014). This peak day actually occurred on December 8, 2013.

⁵ Avista Utilities 2014 Natural Gas Integrated Resource Plan, page 33.

⁶ Avista Utilities 2014 Natural Gas Integrated Resource Plan, page 1.

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

JURISDICTION:	Oregon	DATE PREPARED:	11/25/2015
CASE NO.:	UG 288	WITNESS:	Jeffrey A. Webb
REQUESTER:	PUC Staff	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 332	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

a) When was the current design heating degree day for both the Medford and La Grande areas (if different) determined? b) Would the design heating degree day for Medford and La Grande be the same if it was based on the last twenty-year weather history? c) If not, using the last twenty years of weather, what would be the design heating degree day for Medford and La Grande?

RESPONSE:

- a. See the response to Staff_DR_331 for discussion of determination of the design heating degree day for both the Medford and La Grande areas.
- b-c. Avista's 2014 Natural Gas Integrated Resource Plan (IRP) provides information regarding the coldest day in the last 20 years for each of Avista's forecast regions, stating:

In Medford, the coldest day in 20 years is a 54 HDD, equivalent to a temperature of 11 degrees Fahrenheit. ... In La Grande, the coldest day in 20 years is a 64 HDD, equivalent to a temperature of 1 degree Fahrenheit.

Thus, if the last 20 years of weather were the determining factor for a design heating degree day for Medford and La Grande, these aforementioned HDD values would be the design heating degree day standards for these areas, respectively.

However, Avista's response to Staff_DR_331 includes discussion regarding the appropriateness of the use of the coldest day on record to determine Avista's peak day weather planning standards. Additionally, the response to Staff_DR_331 includes discussion regarding the decision, reached by both Avista and the Technical Advisory Group to the IRP process, that a global warming adjustment should not be made to peak day weather planning. Therefore, the use of the coldest day in 20 years for the determination of peak day weather planning is not appropriate for system design considerations.

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

JURISDICTION:	Oregon	DATE PREPARED:	11/23/2015
CASE NO.:	UG 288	WITNESS:	Jeffrey A. Webb
REQUESTER:	PUC Staff	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 333	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

What is the most recent date that Avista implemented its Cold Weather Action plan in Oregon, in which manual intervention of the distribution system was required to maintain service to customers? At which location(s) did this occur?

RESPONSE:

As discussed in my Reply Testimony (AVISTA/1500, Webb/15–/16), the Cold Weather Action Plan is a decision tree intended to initiate high-level manual intervention activities in particular areas at a pre-defined temperature. These plans have been implemented as an operational response in areas where the distribution system capacity is insufficient and the “activation” of such plan is not formally documented in each instance. The activation of a Cold Weather Action Plan is triggered in response to the temperature dropping below a predetermined point in the given region. The activation of a Cold Weather Action Plan means that additional attention is paid to the system in order to address any potential system deficiencies that are identified. However, it does not necessarily mean that manual intervention occurred in the field each and every time that the temperature threshold was reached.

Based upon inquiry of system operations personnel in each of Avista’s four districts in Oregon, manual intervention in the field has been required two or three times in the previous eight to nine years in Medford (these interventions include manual adjustment of pressure regulating stations); manual intervention in the field was required in Klamath Falls in the winter of 2009-2010.

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

JURISDICTION:	Oregon	DATE PREPARED:	11/26/2015
CASE NO.:	UG 288	WITNESS:	Jeffrey A. Webb
REQUESTER:	PUC Staff	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 334	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

Please provide all dates and locations in Oregon for which Avista implemented either its Cold Weather Action Plan, or a similar plan, in which manual intervention of the distribution system was required to maintain service to customers?

RESPONSE:

Please see Avista's response to Staff_DR_333.

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

JURISDICTION:	Oregon	DATE PREPARED:	11/26/2015
CASE NO.:	UG 288	WITNESS:	Jeffrey A. Webb
REQUESTER:	PUC Staff	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 335	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

Please provide all dates and locations for which Avista curtailed service to any Oregon interruptible customer due to capacity and/or system pressure constraints? For each instance of curtailment, please explain the factors that necessitated such curtailment.

RESPONSE:

Prior to the completion of high pressure pipeline to the north of Medford (completed in 2007), service to the U.S. Department of Veterans Affairs in White City, Oregon was periodically curtailed during winter months due to capacity and system pressure constraints.

Prior to the completion of Gas Transmission Northwest's Medford Lateral from Klamath Falls (completed in 1995), Southern Oregon University's service would be periodically curtailed during winter months due to capacity and system pressure constraints.

Additionally, the location of the interruptible customers is an important factor in determining the status of their service. If an interruptible customer is on a "healthy" part of the gas system (i.e., an area where pressure shortfalls are not expected on a design heating degree day), there is little to no advantage in curtailing the customer. The benefits to curtailment are present if the interruptible customer happens to be located in an area of poor pressure, or upstream of an area of poor pressure.

There have not been any curtailments in Oregon subsequent to the aforementioned completion of the high pressure pipeline to the north of Medford in 2007.

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

JURISDICTION:	Oregon	DATE PREPARED:	11/26/2015
CASE NO.:	UG 288	WITNESS:	Jeffrey A. Webb
REQUESTER:	PUC Staff	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 336	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

Does Avista currently have any interruptible customers in the Medford, Ashland, Grants Pass area that could potentially have service curtailed due to, or associated with, the implementation of a Cold Weather Action Plan?

RESPONSE:

Avista does have interruptible customers in the Medford, Ashland, Grants Pass area. However, as discussed in Mr. Webb's Reply Testimony at AVISTA/1500, Webb/20, lines 4-9:

While it is true that loads can be interrupted or curtailed in the event of supply or capacity shortfalls, the load studies performed to model the Company's gas distribution system on design [heating degree] days consider only firm load. That is to say, Avista's design heating degree day models presume that all interruptible customers have already been interrupted, and only firm loads are being served. Therefore, the capacity deficits shown in the previously discussed load studies could not be alleviated through intervention.

Thus, the consideration of whether customers can be interrupted is irrelevant to the existing capacity deficits in Medford, as further discussed in Mr. Webb's Reply Testimony.

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

JURISDICTION:	Oregon	DATE PREPARED:	11/25/2015
CASE NO.:	UG 288	WITNESS:	Jeffrey A. Webb
REQUESTER:	PUC Staff	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 337	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

Does Avista currently have any interruptible customers in the La Grande area that could potentially have service curtailed due to, or associated with, the implementation of a Cold Weather Action Plan?

RESPONSE:

Avista does have interruptible customers in the La Grande area. However, as discussed in my Reply Testimony at AVISTA/1500, Webb/20, lines 4-9:

While it is true that loads can be interrupted or curtailed in the event of supply or capacity shortfalls, the load studies performed to model the Company's gas distribution system on design [heating degree] days consider only firm load. That is to say, Avista's design heating degree day models presume that all interruptible customers have already been interrupted, and only firm loads are being served. Therefore, the capacity deficits shown in the previously discussed load studies could not be alleviated through intervention.

Thus, the consideration of whether customers can be interrupted is irrelevant to the existing capacity deficits in Union and Elgin (in the La Grande area), as further discussed in my Reply Testimony.

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

JURISDICTION:	Oregon	DATE PREPARED:	11/25/2015
CASE NO.:	UG 288	WITNESS:	Jeffrey A. Webb
REQUESTER:	PUC Staff	RESPONDER:	Karen Schuh
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 338	TELEPHONE:	(509) 495-2293
		EMAIL:	karen.schuh@avistacorp.com

REQUEST:

Please provide a copy of all documentation that supports the cost of the East Medford Reinforcement project that is included in the filing. This should include contractor bids, material invoices, permit costs, engineering and labor charges broken down by position, as well as a transaction-level detail of all costs incurred as of the date of this request.

RESPONSE:

The attachments provided are **CONFIDENTIAL SUBJECT TO GENERAL PROTECTIVE ORDER**.

The Company has provided extensive documentation regarding the requested capital dollars for the East Medford Reinforcement Project, both in the initial filing and through the six month discovery period. For example, in the Company's original filing, in Exhibit 600/Schuh, page 18, lines 31-40, the following description for East Medford was given:

ER 3203: East Medford Reinforcement – 2015: \$5,000,000

This project will complete the 12" high-pressure steel pipeline loop across the east side of Medford, Oregon. The length of the remaining segment will be about 3.2 miles. Avista's Gas Integrated Resource Plan requires increased gas deliveries from the TransCanada Pipeline source at Phoenix Road Gate Station in SE Medford. Existing distribution piping exiting the station will be unable to receive the increased gas volumes. A new high-pressure gas line encircling Medford to the east and tying into an existing high pressure line in White City will improve delivery capacity and provide a much needed reinforcement in the East Medford area, which is forecasting higher growth.

The Company included the Capital Business Case, in witness Schuh's workpapers and again in Exhibit Schuh/1401. This information provided in the original filing, demonstrated the need for East Medford and other capital projects. Subsequently, additional discovery was undertaken concerning the specifics of East Medford. The data responses and corresponding dates are listed below:

Requestor	Data Request Number	Date Requested	Topic
Staff	167	06.23.15	In Service Dates, budget to actual expenditures
Staff	168	06.23.15	Actual to budget information on several capital projects including East Medford.
Staff	233	08.04.15	Describes the purpose of the East Medford Reinforcement Project.
Staff	288	09.17.15	Clarifies the language and timing surrounding the East Medford Project in the Natural Gas IRP and moving the project forward.
CUB	5	09.18.15	2014 Load in the Medford area.
CUB	28	10.07.15	Historical five years of load data in the Medford area.
CUB	31	10.21.15	Demonstrates need for East Medford in 2015 and includes pressure maps and other support.
CUB	45	10.21.15	Clarifies the language and timing surrounding the East Medford Project in the Natural Gas IRP and moving the project forward.
CUB	46	10.21.15	Clarifies that Compressor stations are not a viable for Avista

The Company has also provided Reply Testimony and Exhibits regarding the East Medford Reinforcement project in Webb/1500 – 1505. Finally, the Company responded to several Staff data requests also relating to East Medford on November 24, 2015, which include: Staff_DR_330, Staff_DR_331, Staff_DR_332, Staff_DR_333, Staff_DR_336, Staff_DR_339 and Staff_DR_341.

Additional information requested above is attached in Staff_DR_338 CONFIDENTIAL Attachment A, which is a matrix illustrating the five bids received for the East Medford Reinforcement Phase 5 project. Brotherton Pipeline was chosen based on lowest bidder and past favorable experiences with this contractor. Staff_DR_338 CONFIDENTIAL Attachment B and CONFIDENTIAL Attachment B.1 represent the contract and change order with Brotherton.

Please see Staff_DR_338 Attachment C, which is a table of the transaction level detail of all costs incurred as of November 15, 2015. This is also being provided in electronic format so that the detailed transaction information can be accessed and reviewed.

Staff_DR_338 CONFIDENTIAL Attachment D includes a listing of and copies of all invoices incurred through November 15, 2015 on the East Medford Project.

Staff_DR_338 Attachment F includes all of the Company's data responses to requests from Staff and CUB listed in the above table.

CUB Exhibit 216, Attachment A is confidential and will be provided to the parties that have signed the protective order in this docket.

CUB Exhibit 216, Attachment B is confidential and will be provided to the parties that have signed the protective order in this docket.

CUB Exhibit 216, Attachment B.1 is confidential and will be provided to the parties that have signed the protective order in this docket.

For ease of readability, CUB Exhibit 216, Attachment C will be provided to all parties on CD.

CUB Exhibit 216, Attachment D is confidential and will be provided to the parties that have signed the protective order in this docket.

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

JURISDICTION:	Oregon	DATE PREPARED:	06/26/2015
CASE NO.:	UG 288	WITNESS:	Karen Schuh
REQUESTER:	PUC Staff - Moore	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 167	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

Regarding Table 2 of Exhibit Avista/600, Schuh/Page 10, where the company provides capital expenditures information for 20 Oregon projects, please provide, **as of the date of generating Table 2:**

- a. The information requested in Attachment A to this batch of data requests;
- b. As backup workpapers to the information requested in part “a” of this data request, monthly System and Oregon allocated information of each Oregon project; please provide such information in electronic spreadsheet format with cell references and formulae intact;
- c. Actual or anticipated in-service date for each Oregon project; if the in-service date does not apply because the project is programmatic (ongoing) please explain;
- d. Actual annual capital expenditures for each Oregon project from 2010-2014, inclusive;
- e. Budgeted annual expenditures for each Oregon project from 2010-2014, inclusive;
- f. A tabular comparison of the budgeted to the actual capital expenditures identified in part “d” and “e” of this data request; and explain the differences between actual and budgeted information;
- g. Regarding the Company’s response to part “d” of this data request, please explain the trends, fundamentals of the trends, actions taken by the Company to address any trend that transpired from 2010 to 2014, inclusive, specifically focused on such Oregon project; and
- h. Regarding the Company’s response to part “d” of this data request, please provide copies of any internal documentation discussing the trends, fundamentals of the trends, specific actions taken by the Company to address any trend that transpired from 2010 to 2014, inclusive, specifically focused on such Oregon project; if there is not any internal documentation available, please explain why not.

Please include the workpapers used to respond to any of the above questions, in electronic spreadsheet format with cell references and formulae intact. If the information in the above questions and sub-questions was derived or obtained from other sources, please identify each such specific source and provide a copy of each such specific source document in portable document format (PDF) file(s); MS Word file(s), Excel workbook (with cell references and formulae intact) file(s), or any other common document format indicating the specific page, section, etc. of the relevant source document.

RESPONSE:

- a. Please see the Company's response in Staff_DR_167 Attachment A.
- b. Please see the Company's response in Staff_DR_165 Attachment B.
- c. The actual or forecast transfers to plant for a given month represent the actual or forecast in-service dates for the respective assets associated with the transfer to plant balance in that month. Please see the Company's response in Staff_DR_165 Attachment B for the monthly amount that has been or is budgeted to be transferred to plant.
- d. Please see the Company's response in Staff_DR_167 Attachment B.
- e. Please see the Company's response in Staff_DR_167 Attachment C.
- f. Please see the Company's response in Staff_DR_167 Attachment D. Attachment D includes budgeted and actual information (on a system basis), by year. Each tab has one year of information and uses a threshold to determine if the variance is material for explanation.

The Company budgets on a system level. Therefore, as priorities change throughout the year, dollars could be shifted from one project to another. However, the entire capital budget amount remains the same. Therefore, looking at a select few ERs may not be reflective of the entire budget for the year. For example, if a project has been identified as needing additional funding in order to accelerate completion of the project (possibly to meet compliance requirements, for example) and there is another project that may be deferred, the funds from the latter project may be shifted to the former project in order to fund the acceleration.

- g. A majority of the projects listed in Attachment B are blanket capital projects (e.g., Gas Revenue Blanket, etc.). The overall trend relative to these blanket capital project ERs increases in 2010 and 2011, with a dip in 2012, and a return to higher levels in 2013 and 2014.

The overall capital budget is increasing because it is necessary to meet safety, service, and reliability objectives, and to further optimize our facilities as optimization opportunities are identified through specific analysis and other studies. During 2012, the Company implemented a new plant accounting system and noted an error with regards to blanket project transfers to plant, wherein blanket projects were not transferring to plant on a monthly basis as completed. However, this problem was corrected in 2013, which accounts for a significant increase from 2012 to 2013.

While we have increased the level of capital funding, a number of programs and projects remain that have not been fully funded at this time.

- h. As mentioned above, most of these projects are blanket projects that transfer to plant on a monthly basis. Please see above for discussion of trends. The copies of internal documentation are too voluminous in nature to provide. However, this information is available for onsite review or can be provided on a sample basis.

Attachment F

UG288 - Avista 2015 General Rate Case
 Attachment A to Staff Data Requests 167 Issued on June 22, 2015
 Capital Expenditures information

Table 1 - Gas Distribution Capital Expenditures (GPCEs) - Oregon Amounts in '000s

ER	Project	Year 2014		Budget as represented in Avista's 2014 GRC in Docket No. UG284 (1)	Year 2015		2016
		Budget as represented in Avista's 2014 GRC in Docket No. UG284	Actual		Budget as of the date of filing Avista's 2014 GRC in Docket No. UG288 (Including actual information as of the date requested on data request and budgeted information thereafter) (2)	Budget as represented in Avista's 2015 GRC in Docket No. UG288 (3)	
1001	Gas Revenue Growth Projects	2,464	3,396	2,714	4,937	3,773	
1050	Gas Meters Growth Projects	601	787	638	648	289	
1051	Gas Regulators Growth Projects	52	44	55	51	23	
1053	Gas ERT Growth Projects	25	10	87	252	329	
3000	Gas Reinforce - Minor Blanket	649	197	507	671		
3001	Replace Deteriorating Gas System	406	783	507	845		
3002	Regulator Reliable - Blanket	504	287	406	329		
3003	Gas Replace - Street & Highway	2,722	3,568	2,281	3,602		
3004	Cathodic Protection - Minor Blanket	563	37	405	35		
3005	Gas Distribution Non-Revenue Projects	2,789	4,027	3,042	3,543		
3006	Overbuilt Pipe Replacement Projects	506	733	456	590		
3007	Isolated Steel	521	465	564	639		
3008	Aldyl-A Pipe Replacement	5,594	5,254	5,718	7,290		
3054	Gas ERT Replacement Program	-	-	-	457	255	
3055	Gas Meter Replacement	507	337	522	356		
3117	Gas Telemetry	207	478	104	82		
3203	East Medford Reinforcement	-	-	-	5,000		
3303	Ladd Canyon Gate Station Upgrade	-	-	-	1,650		
3307	Bonanza Gate Station Move	-	-	-	600		
7201	Jackson Prairie Storage	125	70	250	113		

- (1) For comparative purposes, balances represent the full year 2015 budget. Avista only included the first 3 months of 2015 in the original filing (UG284).
- (2) Balances presented include actual transfers to plant from January through May 2015 and forecast transfers to plant (as included in the Company's UG288 filing) for June through December 2015. Additionally, we plan to update the forecast transfers to plant for all 2015 capital additions prior to the first settlement conference.
- (3) Avista only included gas distribution capital assets related to new customer hook-ups for 2016 in UG288. Therefore, we have only included 2016 budgeted amounts for these four expenditure requests (ERs) herein. We did not include forecast capital for any of the other ERs in the filed case (UG288).

Staff In: mitch.moore@state.or.us

503-378-6635

Avista Corp
 Actual Transfers to Plant: 2010-2014 (Gas Distribution Capital Projects)
 Staff DR 167 Attachment B

Jurisdiction (All)

Sum of Current Activity Cost SUM	Year					Grand Total
Erval	2010	2011	2012	2013	2014	Grand Total
1001	9,675,869	8,998,825	7,975,576	15,347,174	13,487,169	55,484,614
1050	2,086,780	2,883,685	2,348,976	1,898,171	2,004,445	11,222,058
1051	102,244	262,660	226,077	415,648	325,098	1,331,728
1053	685,570	342,343	459,091	889,181	684,038	3,060,221
3000	79,123	636,707	213,870	1,158,132	1,022,034	3,109,866
3001	834,716	1,154,817	874,176	804,043	1,246,834	4,914,585
3002	1,146,101	528,767	543,951	572,079	688,192	3,479,090
3003	1,896,880	1,783,326	1,429,317	4,064,494	4,730,914	13,904,932
3004	754,233	340,016	687,426	830,840	787,435	3,399,950
3005	3,723,488	3,812,518	2,596,647	10,612,341	6,362,302	27,107,296
3006	445,221	781,423	789,139	692,699	779,069	3,487,551
3007		2,322,891	1,800,827	2,266,500	1,833,690	8,223,907
3008		2,683,207	187,815	17,690,260	16,875,629	37,436,911
3055					1,173,064	1,173,064
3117	5,568	293,708	195,450	126,173	1,051,838	1,672,737
3203	12,106			689,040		701,146
7201	151,009	7,569,789	547,461	446,639	727,926	9,442,825
Grand Total	21,598,907	34,394,683	20,875,798	58,503,415	53,779,678	189,152,481

Attachment F

Avista Corp
 Budgeted Transfers to Plant: 2010-2014 (Gas Distribution Capital Projects)
 Staff DR 167 Attachment C

Sum of Current Activity (Column Labels)						
Row Labels	2010	2011	2012	2013	2014	Grand Total
1001	15,000,001	12,053,001	12,863,814	9,672,698	10,601,277	60,190,791
1050	1,500,000	1,525,000	1,826,903	1,709,468	1,768,579	8,329,950
1051	650,000	160,000	242,102	296,322	305,825	1,654,249
1053	500,000	500,000	500,812	605,863	627,280	2,733,955
3000	472,501	470,000	799,999	350,000	1,000,000	3,092,500
3001	1,049,999	1,052,002	800,001	600,002	800,001	4,302,005
3002	420,001	500,001	399,999	400,000	600,000	2,320,001
3003	1,260,003	1,850,001	2,199,999	2,000,000	4,500,000	11,810,003
3004	472,500	500,000	500,001	500,001	800,000	2,772,502
3005	3,360,002	2,900,002	3,822,998	3,949,690	5,600,000	19,632,692
3006	440,000	440,000	499,999	900,000	900,000	3,179,999
3007			1,095,000	2,348,333	2,598,333	6,041,666
3008			5,000,000	8,250,000	16,452,196	29,702,196
3055					1,000,000	1,000,000
3117	217,860	360,000	370,800	511,010	400,000	1,859,670
3203	597,355		550,056	-		1,147,411
7201	429,000	580,666	630,000	1,000,000	500,000	3,139,666
Grand Total	26,369,222	22,890,673	32,102,483	33,093,387	48,453,491	162,909,256

Note: The Company's budget amounts listed above may not agree to the budgets that are prepared for the general rate case (Staff_DR_167 Attachment A). The transfers to plant budget amounts are prepared once a year in the Oct./Nov. timeframe, whereas the amounts included in the general rate case are updated for the most current expectation at the time of filing the case.

Attachment F

Avista Corp							
2014 Variance Analysis							
Staff DR 167 Attachment D							
		2014	2014	\$	%	Variance Explanation	
Erval	Er desc	Budget	Actual	Change	Change	Threshold greater than 10% and \$1,000,000 (System) or 10% and \$250,000 Oregon Share	Responder
1001	Gas Revenue Blanket	10,601,277	13,487,169	2,885,892	27%	Gas hookups exceeded the forecast by 30%. The ER1001 budgeted transfers to plant were calculated based on the hookup forecast done in July of 2013. Economic conditions improved markedly in all our service areas, causing us to overrun our new customer connect forecast.	Neil Thorson
1050	Gas Meters Minor Blanket	1,768,579	2,004,445	235,866	13%		
1051	Gas Regulators Minor Blanket	305,825	325,098	19,273	6%		
1053	Gas ERT Minor Blanket	627,280	684,038	56,758	9%		
3000	Gas Reinforce-Minor Blanket	1,000,000	1,022,034	22,034	2%		
3001	Replace Deteriorating Gas System	800,001	1,248,834	448,833	56%		
3002	Regulator Reliable - Blanket	600,000	688,192	88,192	15%		
3003	Gas Replace-St&Hwy	4,500,000	4,730,914	230,914	5%		
3004	Cathodic Protection-Minor Blanket	800,000	787,435	(12,565)	-2%		
3005	Gas Distribution Non-Revenue Blanket	5,600,000	6,362,302	762,302	14%	During 2014, the Company identified a 10" high pressure pipeline relocate in Medford, which had not been planned, was required. The Capital Planning Group allocated an additional \$1 million to this ER to accomplish this work plus several small projects in this category which had not been planned in the initial budget.	Jeff Webb
3006	Overbuilt Pipe Replacement Blanket	900,000	779,069	(120,931)	-13%		
3007	Isolated Steel Replacement	2,598,333	1,833,690	(764,643)	-29%	In the 4th quarter of 2014, the Isolated Steel Replacement returned \$850,000 to the Capital Planning Group, as fewer isolated steel projects were identified in 2014 than had been budgeted for.	Jeff Webb
3008	Aldyl -A Pipe Replacement	16,452,196	16,875,629	423,433	3%		
3054	Gas ERT Replacement Program	-	-	-	n/m		
3055	Gas Meter Replacement	1,000,000	1,173,064	173,064	17%		
3117	Gas Telemetry	400,000	1,051,838	651,838	163%	The difference between planned and actual transfers to plant is primarily due to the timing of project close-outs to in-service plant. \$810K associated with this ER was in CWIP at 12/31/2013, while only \$53K associated with this ER was in CWIP at 12/31/2014. Therefore, this variance reflects the transfer of prior year expenditures during this period, rather than over-budget expenditures during this period.	Jeff Webb
3203	East Medford Reinforcement	-	-	-	n/m		
3303	Ladd Canyon Gate Station Upgrade	-	-	-	n/m		
3307	Bonanza Gate Station Move	-	-	-	n/m		
7201	Jackson Prairie Storage	500,000	727,926	227,926	46%		
Grand Total		48,453,491	53,779,678	5,153,123	11%		

Attachment F

Threshold:					
A threshold was utilized to determine material amounts for explanation of variances. Most of the above amounts are reflected at a system level. A Threshold of \$500,000 (at a system level) was used in order to determine if the variance was material to the Oregon jurisdiction (note that the threshold of \$500,000 was used here, versus \$1,000,000 for the general plant capital projects in Staff_DR_165 Attachment E, because portions of the budgeted system amounts for gas distribution capital projects are ultimately placed in service within the Oregon jurisdiction, whereas the general plant assets are allocated over all jurisdictions - therefore, we believe this lower threshold to be appropriate). Oregon direct ER's were given a threshold of \$250,000 The calculation below reflects what that threshold would calculate on an Oregon basis.					
	Threshold		500,000	100,000	
	Allocate to Oregon @ 8.702%		43,510	100,000	
	OR Revenue Requirement		6,241	14,314	
Revenue Requirement on threshold amount					
1	Depreciation Expense		\$ 1,096	\$ 2,520	
2	Property Tax @ 1.3% of Gross Plant		566	1,300	
3	Total Expenses		1,662	3,820	
4	Net Operating Income Before FIT		(1,662)	(3,820)	
5	SIT	4.68%	78	179	
6	Subtotal		(1,584)	(3,641)	
7	FIT Benefit of Depreciation and Property Tax		(555)	(1,274)	
9	SIT Debt Interest		(53)	(124)	
8	FIT Benefit of Interest Expense		(376)	(881)	
10	Net Operating Income Requirement		\$ (601)	\$ (1,363)	
11	Net Plant		\$ 43,510	\$ 100,000	
12	Accumulated Depreciation		(1,096)	(2,520)	
13	Accumulated DFIT		(187)	(431)	
14	Net Rate Base		42,226	97,050	
15	Settlement Rate of Return		7.5%	7.5%	
16	Return on Rate Base		\$ 3,154	\$ 7,250	
17	Net Operating Income Requirement including Return		\$ 3,755	\$ 8,612	
18	Net-to-Gross Factor		0.60167	0.60167	
19	Revenue Requirement for		\$ 6,241	\$ 14,314	

Attachment F

Avista Corp							
2013 Variance Analysis							
		2013	2013	\$	%	Variance Explanation	
Erval	Er desc	Budget	Actual	Change	Change	Threshold greater than 10% and \$1,000,000 (System) or 10% and \$250,000 Oregon Share	Responder
1001	Gas Revenue Blanket	9,672,698	15,347,174	5,674,476	59%	General economic recovery contributed to this, as developments picked up to almost \$1million. Connects were above budget, which cost an additional \$1.8million. Cost per individual connect were above budget, which caused variances totaling \$1.7million. The remainder is due to timing of plant closures.	Neil Thorson
1050	Gas Meters Minor Blanket	1,709,468	1,898,171	188,703	11%	Gas hookups exceeded the forecast by 30%. The ER1001 budgeted transfers to plant were calcul	
1051	Gas Regulators Minor Blanket	296,322	415,648	119,326	40%		
1053	Gas ERT Minor Blanket	605,863	889,181	283,318	47%		
3000	Gas Reinforce-Minor Blanket	350,000	1,158,132	808,132	231%		
3001	Replace Deteriorating Gas System	600,002	804,043	204,041	34%		
3002	Regulator Reliable - Blanket	400,000	572,079	172,079	43%		
3003	Gas Replace-St&Hwy	2,000,000	4,038,724	2,038,724	102%	This is considered work in request of others. The Budget amount is estimated by analyzing historical costs and adjusting for any known upcoming projects. 2013 had more projects than recent historical years.	Jeff Webb
3004	Cathodic Protection-Minor Blanket	500,001	830,840	330,839	66%		
3005	Gas Distribution Non-Revenue Blanket	3,949,690	10,638,111	6,688,421	169%	Some of these transfer to plant charges were from 2012. More meter sets were replaced due to the Periodic Meter Change and Failed Family programs (now those two are under ER 3055).	Jeff Webb
3006	Overbuilt Pipe Replacement Blanket	900,000	692,699	(207,301)	-23%		
3007	Isolated Steel Replacement	2,348,333	2,266,500	(81,833)	-3%		
3008	Aldyl -A Pipe Replacement	8,250,000	17,690,260	9,440,260	114%	The original 2013 budget of \$8.25MM was developed and locked down in late 2012, which was prior to concluding the RFP process and execution of the new multi-year unit price contract with NPL. The budget for this was increased in early 2013. The increase is also related to a delay in transfers from 2012 (see 2012).	Michael Whitby
3117	Gas Telemetry	511,010	126,173	(384,837)	-75%		
3203	East Medford Reinforcement	-	689,040	689,040	100%	This budgeted amount was directly related to a phase of the project going across a particular street intersection that was planned to be realigned by the City of Medford. That project was originally planned for 2010, then delayed to 2012, work was completed in 2013.	Jeff Webb
7201	Jackson Prairie Storage	1,000,000	446,639	(553,361)	-55%		
Grand Total		33,093,387	58,503,415	25,410,028	77%		

Attachment F

Avista Corp							
2012 Variance Analysis							
		2012	2012	\$	%	Variance Explanation	
Erval	Er desc	Budget	Actual	Change	Change	Threshold greater than 10% and \$1,000,000 (System) or 10% and \$250,000 Oregon Share	Responder
1001	Gas Revenue Blanket	12,863,814	7,975,576	(4,888,238)	-38%	Again connects improved only slightly in the slow recovery, causing a \$2.5million shortfall. Cost per install increased slightly, due to tariff allowance being slightly higher than budget. About \$2million of the variance was due to problems with transfers to plant.	Neil Thorson
1050	Gas Meters Minor Blanket	1,826,903	2,348,976	522,073	29%	Gas hookups exceeded the forecast by 30%. The ER1001 budgeted transfers to plant were calculated based on the hookup forecast done in July of 2013. Economic conditions improved markedly in all our service areas, causing us to overrun our new customer connect forecast.	
1051	Gas Regulators Minor Blanket	242,102	226,077	(16,025)	-7%		
1053	Gas ERT Minor Blanket	500,812	459,091	(41,721)	-8%		
3000	Gas Reinforce-Minor Blanket	799,999	213,870	(586,129)	-73%		
3001	Replace Deteriorating Gas System	800,001	874,176	74,175	9%		
3002	Regulator Reliable - Blanket	399,999	543,951	143,952	36%		
3003	Gas Replace-St&Hwy	2,199,999	1,428,807	(771,192)	-35%		
3004	Cathodic Protection-Minor Blanket	500,001	687,426	187,425	37%		
3005	Gas Distribution Non-Revenue Blanket	3,822,998	2,597,157	(1,225,841)	-32%	Work levels were consistent with historical years, but the some of the Transfer to Plant hit in 2013. 2013 had a higher than normal spend.	Jeff Webb
3006	Overbuilt Pipe Replacement Blanket	499,999	789,139	289,140	58%		
3007	Isolated Steel Replacement	1,095,000	1,800,827	705,827	64%		
3008	Aldyl -A Pipe Replacement	5,000,000	187,815	(4,812,185)	-96%	This was the first year of the Aldyl A program and \$4.6M of the budgeted \$5M was spent in 2012 and transferred in early 2013. This project now transfers to plant on a monthly basis.	Michael Whitby
3117	Gas Telemetry	370,800	195,450	(175,350)	-47%		
3203	East Medford Reinforcement	550,056		(550,056)	-100%	This budgeted amount was directly related to a phase of the project going across a particular street intersection that was planned to be realigned by the City of Medford. That project was originally planned for -2010, but got delayed until 2013.	Jeff Webb
7201	Jackson Prairie Storage	630,000	547,461	(82,539)	-13%		
Grand Total		32,102,483	20,875,798	(11,226,685)	-35%		

Attachment F

Avista Corp							
2011 Variance Analysis							
		2011	2011	\$	%	Variance Explanation	
Erval	Er desc	Budget	Actual	Change	Change	Threshold greater than 10% and \$1,000,000 (System) or 10% and \$250,000 Oregon Share	Responder
1001	Gas Revenue Blanket	12,053,001	8,998,825	(3,054,176)	-25%	Continued slow recovery, in spite of lower forecasts, still led to a deficit in customer connects, contributing to \$2million of the shortfall. Another \$.7million was due to still lower development work.	Neil Thorson
1050	Gas Meters Minor Blanket	1,525,000	2,683,685	1,358,685	89%	Gas hookups exceeded the forecast by 30%. The ER1001 budgeted transfers to plant were calculated based on the hookup forecast done in July of 2013. Economic conditions improved markedly in all our service areas, causing us to overrun our new customer connect forecast.	Neil Thorson
1051	Gas Regulators Minor Blanket	160,000	262,660	102,660	64%		
1052	Industrial Gas Customer Minor Blanket	30,000		(30,000)	-100%		
1053	Gas ERT Minor Blanket	500,000	342,343	(157,657)	-32%		
3000	Gas Reinforce-Minor Blanket	470,000	636,707	166,707	35%		
3001	Replace Deteriorating Gas System	1,052,002	1,154,817	102,815	10%		
3002	Regulator Reliable - Blanket	500,001	528,767	28,766	6%		
3003	Gas Replace-St&Hwy	1,850,001	1,783,248	(66,753)	-4%		
3004	Cathodic Protection-Minor Blanket	500,000	340,016	(159,984)	-32%		
3005	Gas Distribution Non-Revenue Blanket	2,900,002	3,812,596	912,594	31%		
3006	Overbuilt Pipe Replacement Blanket	440,000	781,423	341,423	78%		
3007	Isolated Steel Replacement		2,322,891	2,322,891	100%	Isolated steel was a new program started this year that came about from a settlement with the WUTC. It didn't have an original budget because the program was started after the budgeting process was already complete. A small portion of these costs are related to Oregon.	Jeff Webb
3008	Aldyl -A Pipe Replacement		2,683,207	2,683,207	100%	There was not a budgeted amount for this project in 2011 as most of these costs relate to the Odessa incident that occurred in Washington. A small portion of these costs relate to Oregon.	Michael Whitby
3117	Gas Telemetry	360,000	293,708	(66,292)	-18%		
7201	Jackson Prairie Storage	580,666	7,569,789	6,989,123	1204%	Avista Utilities gained 30.3 million therms of additional capacity at Jackson Prairie on May 1, 2011 for use in its utility operations. This capacity was originally held by Avista Energy and as part of the asset sales agreement this capacity had been assigned to Shell Energy through April 30, 2011.	Christine Machado
Grand Total		22,920,673	34,394,683	11,474,010	50%		

Attachment F

Avista Corp							
2010 Variance Analysis							
		2010	2010	\$	%	Variance Explanation	
Erval	Er desc	Budget	Actual	Change	Change	Threshold greater than 10% and \$1,000,000 (System) or 10% and \$250,000 Oregon Share	Responder
1001	Gas Revenue Blanket	15,000,001	9,675,869	(5,324,132)	-35%	The economy continued to be an issue, as forecasted customers didn't materialize. (This sluggish economic recovery was not anticipated by most economists nationwide) Customer hookup deficit accounted for \$4.4 million of the variance, development work continued to slow, accounting for another \$.6million, and the rest to timing.	Neil Thorson
1050	Gas Meters Minor Blanket	1,500,000	2,086,780	586,780	39%		Gas hookups exceeded the forecast by 30%. The ER1001 budgeted transfers to plant were calculated based on the hookup forecast done in July of 2013. Economic conditions improved markedly in all our service areas, causing us to overrun our new customer connect forecast.
1051	Gas Regulators Minor Blanket	650,000	102,244	(547,756)	-84%		
1053	Gas ERT Minor Blanket	500,000	685,570	185,570	37%		
3000	Gas Reinforce-Minor Blanket	472,501	79,123	(393,378)	-83%		
3001	Replace Deteriorating Gas System	1,049,999	834,716	(215,283)	-21%		
3002	Regulator Reliable - Blanket	420,001	1,146,101	726,100	173%		
3003	Gas Replace-St&Hwy	1,260,003	1,896,880	636,877	51%		
3004	Cathodic Protection-Minor Blanket	472,500	754,233	281,733	60%		
3005	Gas Distribution Non-Revenue Blanket	3,360,002	3,723,488	363,486	11%		
3006	Overbuilt Pipe Replacement Blanket	440,000	445,221	5,221	1%		
3117	Gas Telemetry	217,860	5,568	(212,292)	-97%		
3203	East Medford Reinforcement	597,355	12,106	(585,249)	-98%	This budgeted amount was directly related to a phase of the project going across a particular street intersection that was planned to be realigned by the City of Medford. That project was originally planned for 2010, but got delayed. (see 2012 & 2013)	Jeff Webb
7201	Jackson Prairie Storage	429,000	151,009	(277,991)	-65%		
Grand Total		26,369,222	21,598,907	(4,770,315)	-18%		

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

JURISDICTION:	Oregon	DATE PREPARED:	06/30/2015
CASE NO.:	UG 288	WITNESS:	Karen Schuh
REQUESTER:	PUC Staff - Moore	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 168	TELEPHONE:	(509) 495-4554
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REQUEST:

Regarding Table 2 of Exhibit Avista/600, Schuh/Page 10, where the company capital expenditures information for 20 Oregon projects, please provide, **as of the date of generating Table 2:**

- a. A list of the sub-projects that comprise each Oregon project referenced in Table 2 (e.g., Gas revenue projects, Gas Reinforce – Minor Blanket, etc.); and
- b. For each sub-project requested in part “a” of this data request:
 - i. A general description of each sub-project;
 - ii. The information requested in Attachment A to this batch of data requests;
 - iii. As backup workpapers to the information requested in part “a” of this data request, monthly System and Oregon allocated information of each sub-project; please provide such information in electronic spreadsheet format with cell references and formulae intact;
 - iv. Actual or anticipated in-service date for each sub-project; if the in-service date does not apply because the project is programmatic (ongoing) please explain;
 - v. Actual annual capital expenditures for each sub-project from 2010-2014, inclusive;
 - vi. Budgeted annual expenditures for each sub-project from 2010-2014, inclusive;
 - vii. A tabular comparison of the budgeted to the actual capital expenditures identified in part “v” and “vi” of this data request; and explain the differences between actual and budgeted information;

Please include the workpapers used to respond to any of the above questions, in electronic spreadsheet format with cell references and formulae intact. If the information in the above questions and sub-questions was derived or obtained from other sources, please identify each such specific source and provide a copy of each such specific source document in portable document format (PDF) file(s); MS Word file(s), Excel workbook (with cell references and formulae intact) file(s), or any other common document format indicating the specific page, section, etc. of the relevant source document.

RESPONSE:

- a. Please see Staff_DR_168 Attachment A for a listing by ER and project number (sub-project). Please note that the Company does not budget by project number, therefore, the sub-projects listed are projects that are currently listed under the given ERs and which had not yet been placed in service at the beginning of 2015. There may be capital transfers to plant that are included in table 1 at an ER level, but which do not yet have an associated project number if work on the sub-project has not yet begun. (That is, sub-project numbers may not be created until work has begun on the project.)
- b.
 - i. Please see Staff_DR_168 Attachment A for the description of each project number listed.
 - ii.-vii. The Company has provided this information on an ER level as a response to Staff_DR_167. The Company budgets at an ER level. When actual charges are incurred for an ER, a project number is set up and the charges are then directly assigned to each service and jurisdiction. Since the Company does not budget by project number, the analysis performed on an ER level in the Company's response to Staff_DR_167 cannot be completed at the sub-project level.

Attachment F

Avista Corp
ER Sub-Projects
Staff DR 168 Attachment A

Er	Er Desc	BI	Project Number	Project Desc	Project Long Name
1001	Gas Revenue Blanket	13D83	97301110	Gas New Mains - Goldendale	New Gas Revenue Mains - Goldendale
			97301111	Gas New Res Serv-Goldendale	Gas New Residential Services - Goldendale
			97301112	Gas Commercl Mains-973	Gas Commercial New Revenue Mains - 973
			97301115	Development Gas Rev-Goldendale	Developments New Gas Revenue Mains - Goldendale
			97301130	Res Gas Revenue-Goldendale	Gas New Revenue Blanket Goldendale - Residential
			97301131	ComGas Revenue-Goldendale	Gas New Revenue Blanket Goldendale - Commercial
			97301137	Development Gas-Goldendale	Developments New Gas Revenue Mains-Goldendale, Washington
			97301139	Gas Commercial Mains-973	There is a need to track non-residential new revenue main extensions. This project will do that for location 973.
			MN304	98401110	Gas New Mains - Medford
		98401111		Gas New Res Serv-Medford	Gas New Residential Services - Medford
		98401113		Gas New Com Servcs - Medford	Gas New Commercial Services - Medford
		98401114		Gas New Ind Servcs - Medford	Gas New Industrial Services - Medford
		98401115		Development Gas Rev-Medford	Developments New Gas Revenue Mains - Medfrd
		98401130		Gas New Mains-Medford	Gas New Revenue Blanket Medford New Mains
		98401131		Gas New Res Services-Medford	Gas New Residential Services-Medford
		98401132		Gas Meters/Regulators-Medford	Gas New Revenue Blanket Medford Meters and Regulators
		98401133		Gas Regulator Stations-Medford	Gas New Revenue Blanket Medford Regulator Stations
		98401134		Gas Indl Regulators-Medford	Gas New Revenue Blanket Medford Industrial Regulators
		98401135		Gas New Ind Services-Medford	Gas New Industrial Services-Medford
		98401136		Gas New Com Services-Medford	Gas New Commercial Services-Medford
		98401137		Developments Gas Rev-Medfrd	Developments New Gas Revenue Mains - Medford
		98401139		Gas Commercial Mains-984	There is a need to track non-residential new revenue main extensions. This project will do that for location 984.
		98401150		Shady Cove Blanket Serv	Shady Cove blanket services, costs related to services attached to the Shady Cove extension
		98401151		Shady Cove Blanket Mains	Shady Cove Blanket Mains, costs related to mains attached to the Shady Cove HP extension
		98405080		LTM Concrete HP service comm	This accounting will cover the installation a new high pressure tap, 120 foot of 2inch HP gas service and meter set for LTM's new concrete Plant at Rogue Aggregates, 3770 Kirtland rd, Central Point, Oregon. The new HE direct (more on CPR)
		98405251		Blackwell Rd. Extension_land	This project will supply gas to a trucking company and an asphalt plant at 7111 & 6960 Blackwell Rd. The project will require HP Tap, HP Main, 5700 feet of Distribution Main 55#, Regulator Station, Industrial Meter Set, Easement, Railroad..
		98405252		Blackwell Rd. Extension & Svcs	This project will supply gas to a trucking company and an asphalt plant at 7111 & 6960 Blackwell Rd, Central Point, OR. Includes HP Tap, HP Maint, 5700ft of Dist Main #55, REg Station 1183. More on cpr.
		98405262		7878 Blackwell Rd-New Sta#6848	It is proposed to install a new farmtap style regulator STA#6848 to serve a new customer load at 7878 Blackwell Rd in OR. Approx 50' of new 3/4" high Pressure mainline will be installed...see cpr.
		98501110		Gas New Mains - Grants Pass	New Gas Revenue Mains - Grants Pass
		98501111		Gas New Res Serv-Grants Pass	Gas New Residential Services - Grants Pass
		98501113		Gas New Com Servcs-Grnts Pass	Gas New Commercial Services - Grants Pass
		98501115		Development Gas Rev-Grnts Pass	Developments New Gas Revenue Mains - Grnts Pass

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1001	Gas Revenue	MN304	98501130	Gas New Mains-Grants Pass	Gas New Revenue Blanket Grants Pass Mains
			98501131	Gas New Res Services-G Pass	Gas New Residential Services-Grants Pass
			98501132	Gas Meters/Regs-Grants Pass	Gas New Revenue Blanket Grants Pass Meters and Regulators
			98501135	Gas New Ind Services-G Pass	Gas New Industrial Services-Grants Pass
			98501136	Gas New Com Services-G Pass	Gas New Commercial Services-Grants Pass
			98501137	Developments Gas Rev-G Pass	Developments New Gas Revenue Mains - Grants Pass
			98501139	Gas Commercial Mains-985	Project for non-residential new revenue gas main extensions.
			98505043	Rogue Lea Estates Gas Main	This project consists of approx 8,000 ft of new 2" gas main which will serve a manuf retirement park in Grants Pass, Or. A portion of the park is currently already being served by a Master Meter which will be removed. more on CPR
			98505044	Swanson Lumber Ph 2	To serve Phase 2 of a new customer load at Swanson Lumber in Glendale, OR. It is propsoed to repalce approx 1900' of 4" steel main with 6" PE and 680' of 4" steel main. New mainline will support an additional 1800' service ext to Swanson.
		MN305	98601110	Gas New Mains - Roseburg	New Gas Revenue Mains - Roseburg
			98601111	Gas New Res Serv-Roseburg	Gas New Residential Services - Roseburg
			98601112	Gas Commercl Mains-986	Gas Commercial New Revenue Mains - 986
			98601113	Gas New Com Servcs - Roseburg	Gas New Commercial Services - Roseburg
			98601114	Gas New Ind Servcs - Roseburg	Gas New Industrial Services - Roseburg
			98601115	Development Gas Rev-Roseburg	Developments New Gas Revenue Mains - Rosebrg
			98601130	Gas New Mains-Roseburg	Gas New Revenue Blanket Roseburg Mains
			98601131	Gas New Res Services-Roseburg	Gas New Residential Services-Roseburg
			98601132	Gas Meters/Regulators-Roseburg	Gas New Revenue Blanket Roseburg Meters and Regulators
			98601133	Gas New Ind Services-Roseburg	Gas New Industrial Services-Roseburg
			98601136	Gas New Com Services-Roseburg	Gas New Commercial Services-Roseburg
			98601137	Developments Gas Rev - Rsebrg	Developments New Gas Revenue Mains - Roseburg
			98601139	Gas Commercial Mains-986	There is a need to track non-residential new revenue main extensions. This project will do that for location 986.
			98605029	Gate station 2623 Land purch	Purchase land for city gate station 2623 in Looking Glass Oregon. Currently, Looking Glass Oregon does not have gas service. Installation of a gate station will allow Avista to serve new customers. The gate station will be (more on cpr)
			98605094	Rolling Hills Estates	Gas growth opportunity and new man extensions into NW area of Reseburg-Green District installing 10,453 ft of 2" PE main pipe and 3,250ft of 3/4" PE pipe.
			98605095	Del Rio Asphalt-Service & MSA	It is proposed to install approx 150' of new 4" PE service and a new industrial meter set assembly #1779 to serve Del Rio Asphalt (Umpqua Aggregate Resource Co at 425 Del Rio Rd in Roseburg, OR).
			MN306	06805187	Midland(Scen#1)-Old Midland Rd
		98701110		Gas New Mains - Klamath Falls	New Gas Revenue Mains - Klamath Falls
		98701111		Gas New Res Serv-Klamath Falls	Gas New Residential Services - Klamath Falls
		98701112		Gas Commercl Mains-987	Gas Commercial New Revenue Mains - 987
		98701113		Gas New Com Servcs-Klmth Flls	Gas New Commercial Services - Klamath Falls
		98701114		Gas New Ind Servcs-Klmth Flls	Gas New Industrial Services - Klamath Falls
		98701115		Development Gas Rev-Klmth Flls	Developments New Gas Revenue Mains - Klamth Falls
		98701130		Gas New Mains-Klamath Falls	Gas New Revenue Blanket Klamath Falls Mains
		98701131		Gas New Res Services-K Falls	Gas New Residential Services-Klamath Falls
		98701132		Gas Meters/Regulators-Klamath	Gas New Revenue Blanket Klamath Falls Meters and Regulators
		98701133		Gas New Ind Services-K Falls	Gas New Industrial Services-Klamath Falls
		98701136		Gas New Com Services-K Falls	Gas New Commercial Services-Klamath Falls
		98701137		Developments Gas Rev-KI Flls	Developments New Gas Revenue Mains - Klamath Falls
		98701139		Gas Commercial Mains-987	There is a need to track non-residential new revenue main extensions. This project will do that for location 987.

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1001	Gas Revenue Blanket	MN306	98705060	RbldCollinsPrdctsMSA27C04 2714	It is proposed to rebuild the Collins Products #2 MSA 27C04 at the site in Klamath Falls, OR. The existing MSA #27C04 has an old cast iron 23Mmeter that will require full rebuild to replace. Existing regulator installation(more on cpr)
			98705079	The ShuttleInc-Indust MSA#4653	It is proposed to install appox 350' of new 2" steel HP main and 100' of new 2" HP steel service to 451 S. Spring St for a new CNG service. This will include new Industrial MSA#4653=150 PSIG to the cust.
			98705080	Bonanza Oregon-Growth Project	Install appox 3.6 miles of 4" PE and 3.9miles of 2"PE to serve the town of Bonanza Oregon. This project was approved for \$666k at 6.09% prelim IRR to serve 152 customers. More on CPR
		MN307	98801110	Gas New Mains - LaGrande	New Gas Revenue Mains - LaGrande
			98801111	Gas New Res Serv-LaGrande	Gas New Residential Services - LaGrande
			98801112	Gas Commercl Mains-988	Gas Commercial New Revenue Mains - 988
			98801113	Gas New Com Servcs - LaGrande	Gas New Commercial Services - LaGrande
			98801114	Gas New Ind Servcs - LaGrande	Gas New Industrial Services - LaGrande
			98801115	Development Gas Rev-LaGrande	Developments New Gas Revenue Mains-LaGrande
			98801130	Gas New Mains-LaGrande	Gas New Revenue Blanket LaGrande Mains
			98801131	Gas New Res Services-LaGrande	Gas New Residential Services-LaGrande
			98801132	Gas Meters/Regulators-LaGrande	Gas New Revenue Blanket LaGrande Meters and Regulators
			98801133	Gas New Ind Services-LaGrande	Gas New Indurtrial Services-LaGrande
			98801134	Gas New Com Services-LaGrande	Gas New Commerical Services-LaGrande
			98801137	Developments Gas Rev-LaGrnd	Developments New Gas Revenue Mains - LaGrande
			98801139	Gas Commercial Mains-988	There is a need to track non-residential new revenue main extensions. This project will do that for location 988.
		MN308	98101130	Gas New Mains-Tahoe	Gas New Revenue Blanket Tahoe Mains
			98101131	Gas New Res Services-Tahoe	Gas New Residential Services-Tahoe
			98101132	Gas Meter and Regulators-Tahoe	Gas New Revenue Blanket Tahoe Meters and Regulators
			98101133	Gas New Ind Services-Tahoe	Gas New Industrial Services-Tahoe
			98101136	Gas New Com Services-Tahoe	Gas New Commercial Services-Tahoe
		ZBG11	02806150	N. Newport Hwy Gas Growth	Extend 2400 ft of 6" P.E. to serve commercial customers at 10800 N. Newport Hwy. This main will also give access to the corner of the former Kaiser property. This is gas availability project.
			02806151	Austin Rd Gas Growth	Extend gas to 36 rural developed and 20 undeveloped properties along a 12,800 ft proposed route along Austin Rd from Wild Rose. The final destination - a pet crematorium consuming approx 64,160qallons of LP annually. Gas availability projec
			02806173	Austin Rd Gas Growth-land	Along Augstin Rd from Wild Rose, land easement to gas development.
			95201110	New Gas Revenue Main-Deer Park	Residential New Gas Revenue Mains - Deer Park
			95201111	Res Gas Rev Services-Deer Park	Residential New Gas Revenue Services - Deer Park
			95201112	Gas Commercial Mains-952	There is a need to track non-residential new revenue main extensions. This project will do that for location 952.
			95201113	Com Gas Rev Services-Deer Park	Commerical New Gas Revenue Services - Deer Park
			95201114	Ind Gas Rev Services-Deer Park	Industrial New Gas Revenue Services - Deer Park
			95201115	Developments Gas Rev-Deer Park	Commerical New Gas Revenue Mains - Deer Park
95501110	New Gas Revenue Mains - 955		Residential New Gas Revenue Mains - Spokane Valley		
95501111	Res Gas Rev Services-Spk Val		Residential New Gas Revenue Services - Spokane Valley		
95501112	Gas Commercial Mains-955		There is a need to track non-residential new revenue main extensions. This project will do that for location 955.		
95501113	Com Gas Rev Services-Spl Val		Commerical New Gas Revenue Services - Spokane Valley		
95501114	Ind Gas Rev Services-Spok Val		Industrial New Gas Revenue Services - Spokane Valley		
95501115	Developments Gas -Spokane Val		Developments New Gas Revenue Mains - Spokane Valley		
95601110	New Gas Revenue Mains-Spokane		Residential New Gas Revenue Mains - Spokane		
95601111	Res Gas Rev Services-Spokane		Residential New Gas Revenue Services - Spokane		
95601112	Gas Commercial Mains-956	There is a need to track non-residential new revenue main extensions. This project will do that for location 956.			

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1001	Gas Revenue	ZBG11	95601113	Com Gas Rev Services-Spokane	Commerical New Gas Revenue Services - Spokane	
			95601114	Ind Gas Rev Services-Spokane	Industrial New Gas Revenue Services - Spokane	
			95601115	Developments Gas Rev-Spokane	Developments New Gas Revenue Mains - Spokane	
			95605689	Nelson Service Center, Spokane	Proposed to install new PE main, PE service, industrial meter set, and small commercial meter set to serve the new City of Spokane Nelson Service Center located at 2304 E Mallon Ave, Spokane WA. More on CPR.	
			95605739	Forker Rd Gas Growth	Extend Gas north of Pleasant Prairie Rd and East of Lehman Rd. In 2010 we installed 6730ft of 2in dry line and 360ft of 3/4in at a cost of \$27,543.30. We need to build 5400ft of 6 in main to reach the dry line. Gas availability project.	
			95605814	Rockwood Towers MSA #4786	It is proposed to replace approx 1800 feet of 2" PE pipe with 4" PE pipe to serve a customer's new load, as well as install a new industrial meter set that will repaice the customer's existing meter set (#6053) and serve their new bldg.	
			95801110	New Gas Rev Mains-West Plains	Residential New Gas Revenue Mains - West Plains	
			95801111	Res Gas Rev Svcs-West Plains	Residential New Gas Revenue Services - Spokane West Plains	
			95801112	Gas Commercial Mains-958	There is a need to track non-residential new revenue main extensions. This project will do that for location 958.	
			95801113	Com Gas Rev Services-W Plains	Commerical New Gas Revenue Services - West Plains	
			95801114	Ind Gas Rev Services-W Plains	Industrial New Gas Revenue Services - West Plains	
			95801115	Developments Gas Rev-W Plains	Commerical New Gas Revenue Mains - West Plains	
			95801116	Res Gas Rev Services-W Plains	Residential New Gas Revenue Services- West Plains	
			95805025	Fairchild AFB new res gas	Blanket - installing new res services for new housing at Fairchild AFB	
			97101110	New Gas Rev Mains-Ritzville	Residential New Gas Revenue Mains - Ritzville	
			97101111	Res Gas Rev Services-Ritzville	Residential New Gas Revenue Services - Ritzville	
			97101112	Gas Commercial Mains-971	There is a need to track non-residential new revenue main extensions. This project will do that for location 971.	
			97101113	Com Gas Rev Services-Ritzville	Commerical New Gas Revenue Services - Ritzville	
			97101114	Ind Gas Rev Services-Ritzville	Industrial New Gas Revenue Services - Ritzville	
			97101115	Developments Gas Rev-Ritzville	Developments New Gas Revenue Mains - Ritzville	
		97105025	Washington Potato Co. Meter	This project is proposed to replace the outdated meter set at WA Potato Co. The meter set has many aspects that no longer meet the Avista standards for meter design. Located in Warden, WA.		
		ZBO11	97001110	New Gas Revenue Mains-Othello	Residential New Gas Revenue Mains - Othello	
			97001111	Res Gas Rev Services-Othello	Residential New Gas Revenue Services - Othello	
			97001112	Gas Commercial Mains-970	There is a need to track non-residential new revenue main extensions. This project will do that for location 970.	
			97001113	Com Gas Rev Services-Othello	Commerical New Gas Revenue Services - Othello	
			97001114	Ind Gas Rev Services - Othello	Industrial New Gas Revenue Services - Othello	
			97001115	Developments Gas Rev-Othello	Commerical New Gas Revenue Mains - Othello	
			97105022	Install Main n Svcs for Loves	Install 3,000' of 6" PE, 480' of 2" PE and 200' of 3/4" PE and Two meter sets to serve new Loves Truck stop in Ritzville WA. more on cpr	
		ZBR11	97401110	New Gas Revenue Main-Davenport	Residential New Gas Revenue Mains - Davenport	
			97401111	Res Gas Rev Services-Davenport	Residential New Gas Revenue Services - Davenport	
			97401112	Gas Commercial Mains-974	There is a need to track non-residential new revenue main extensions. This project will do that for location 974.	
			97401113	Com Gas Rev Services-Davenport	Commerical New Gas Revenue Services - Davenport	
			97401114	Ind Gas Rev Services-Davenport	Industrial New Gas Revenue Services - Davenport	
			97401115	Developments Gas Rev-Davenport	Commerical New Gas Revenue Mains - Davenport	
		ZBW11	96001110	New Gas Revenue Mains-Colville	Residential New Gas Revenue Mains - Colville	
			96001111	Res Gas Rev Services-Colville	Residential New Gas Revenue Services - Colville	
			96001112	Gas Commercial Mains-960	There is a need to track non-residential new revenue main extensions. This project will do that for location 960.	
			96001113	Com Gas Rev Services-Colville	Commerical New Gas Revenue Services - Colville	
				96001114	Ind Gas Rev Services-Colville	Industrial New Gas Revenue Services - Colville

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1001	Gas Revenue	ZBW11	96001115	Developments Gas Rev-Colville	Commerical New Gas Revenue Mains - Colville		
			96001116	Res Gas Rev Services-Chewelah	Residential New Gas Revenue Services - Chewelah		
			96001118	Com Gas Rev Services-Chewelah	Commerical New Gas Revenue Services - Chewelah		
			96001119	Ind Gas Rev Services-Chewelah	Industrial New Gas Revenue Services - Chewelah		
		ZCJ11	03805372	Lakeside Ave Apt complex CDA	A new apartment complex (60 units @ 1500 SF/unit) has been proposed at the instersection of Lakeside Ave and 2nd street in CDA, ID. This is a preliminary CPR for engineering development and initial cost analysis.		
			90101110	New Gas Revenue Mains-CDA	Residential New Gas Revenue Mains- CDA		
			90101111	Res Gas Revenue Services-CDA	Residential New Gas Revenue Services- CDA		
			90101112	Gas Commercial Mains-901	There is a need to track non-residential new revenue main extensions. This project will track the activity for 901..		
			90101113	Com Gas Revenue Services-CDA	Commerical New Gas Revenue Services - CDA		
			90101114	Ind Gas Revenue Services-CDA	Industrial New Gas Revenue Services - CDA		
			90101115	Developments Gas Revenue-CDA	Developments New Gas Revenue - CDA		
			90105139	Hackney Field Airstrip	This CPR is requesting \$57,500 for a 2 inch main extension providing service for approximately 43 homes North and east of Athol, Idaho. This area has been identified after mailers and initial customer contact was made over (more on cpr)		
			90105383	Main Ext- Wild Ridge Estates	A 2600 ft 4 in PE main ext is needed to provide gas to the 56 lot Wild Ridge Development which was dry piped in 2009. The developer at the time went bankrupt before completion. A new developer is ready to proceed. More on cpr.		
			ZCM11	03805150	Smelterville Natural Gas Ext	The project included a large potential 90 residential home development, 3 commercial customers, and 1 asphalt plant. The project bridges 2 natural barriers I-90 and the CDA river. Included is a 6inch main ext approx, 1900ft (more on cpr)	
		90701110		New Gas Revenue Mains-Kellogg	Residential New Gas Revenue Mains - Kellogg		
		90701111		Res Gas Rev Services-Kellogg	Residential New Gas Revenue Services - Kellogg		
		90701112		Gas Commercial Mains-907	There is a need to track non-residential new revenue main extensions. This project will do that.		
		90701113		Com Gas Rev Services-Kellogg	Commerical New Gas Revenue Services- Kellogg		
		90701114		Ind Gas Rev Services-Kellogg	Industrial New Gas Revenue Services - Kellogg		
		ZCS11	93001115	Developments Gas Revenue-Kell	Developments New Gas Revenue - Kellogg		
			93001110	New Gas Revenue Main-Sandpoint	Residential New Gas Revenue Mains - Sandpoint		
			93001111	Res Gas Rev Services-Sandpoint	Residential New Gas Revenue Services - Sandpoint		
			93001112	Gas Commercial Mains-930	There is a need to track non-residential new revenue main extensions. This project will do that for location 930.		
			93001113	Com Gas Rev Services-Sandpoint	Commerical New Gas Revenue Services - Sandpoint		
		ZLL11	93001114	Ind Gas Rev Services-Sandpoint	Industrial New Gas Revenue Services - Sandpoint		
			93001115	Developments Gas Rev-Sandpoint	Commerical New Gas Revenue Mains - Sandpoint		
			92201110	New Gas Revenue Main-Clarkston	Residential New Gas Revenue Mains - Clarkston		
			92201111	Res Gas Rev Services-Clarkston	Residential New Gas Revenue Services - Clarkston		
			92201112	Gas Commercial Mains-922	There is a need to track non-residential new revenue main extensions. This project will do that.		
			92201113	Com Gas Rev Services-Clarkston	Commerical New Gas Revenue Services - Clarkston		
			92201114	Ind Gas Rev Services-Clarkston	Industrial New Gas Revenue Services - Clarkston		
			92201115	Developments Gas Rev-Clarkston	Developments New Gas Revenue - Clarkston		
93201110	New Gas Revenue Mains-Lewiston		Residential New Gas Revenue Mains - Lewiston				
93201111	Res Gas Rev Services-Lewiston		Residential New Gas Revenue Services - Lewiston				
93201112	Gas Commercial Mains-932		There is a need to track non-residential new revenue main extensions. This project will do that.				
93201113	Com Gas Rev Services-Lewiston		Commerical New Gas Revenue Services - Lewiston				
93201114	Ind Gas Rev Services-Lewiston		Industrial New Gas Revenue Services - Lewiston				
93201115	Developments Gas Rev-Lewiston	Commerical New Gas Revenue Mains - Lewiston					

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1001	Gas Revenue Blanket	ZLL11	93205086	Knife River Asphalt, Lewiston	It is proposed to connect a new customer to gas service in Lewiston, ID. The following will be required to serve their load needs; New district regulator station approx 3500' of 6" PE main, and an industrial turbine meter set.
		ZPJ11	03805321	I Minerals Plant Bovill Gas	This CPR is to cover all associated for planning, preparing, and engineering to extend our gas facilities to the I-Minerals Bovill Feldspar processing plant in Bovill Idaho. This will be revised to include construction costs(more on cpr)
			92301110	New Gas Revenue Mains-Pullman	Residential New Gas Revenue Mains - Pullman
			92301111	Res Gas Rev Services-Pullman	Residential New Gas Revenue Services - Pullman
			92301112	Gas Commercial Mains-923	There is a need to track non-residential new revenue main extensions. This project will do that for location 923.
			92301113	Com Gas Rev Services-Pullman	Commerical New Gas Revenue Services - Pullman
			92301114	Ind Gas Rev Services-Pullman	Industrial New Gas Revenue Services - Pullman
			92301115	Developments Gas Rev-Pullman	Developments New Gas Revenue - Pullman
			92801110	New Gas Rev Mains-Palouse-Wa	Residential New Gas Revenue Mains - Palouse - Wa
			92801111	Res Gas Rev Service-Palouse-Wa	Residential New Gas Revenue Services - Palouse - Wa
			92801112	Gas Commercial Mains-928	There is a need to track non-residential new revenue main extensions. This project will do that for location 928.
			92801113	Com Gas Rev Service-Palouse-Wa	Commerical New Gas Revenue Services - Palouse - Wa
			92801114	Ind Gas Rev Services-Palouse-W	Industrial New Gas Revenue Services - Palouse - Wa
			92801115	Developments G Rev-Palouse-Wa	Developments New Gas Revenue - Palouse - Wa
			93301110	New Gas Revenue Mains-Moscow	Residential New Gas Revenue Mains - Moscow
			93301111	Res Gas Rev Services-Moscow	Residential New Gas Revenue Services - Moscow
			93301112	Gas Commercial Mains-933	There is a need to track non-residential new revenue main extensions. This project will do that for location 933.
			93301113	Com Gas Rev Services-Moscow	Commerical New Gas Revenue Services - Moscow
			93301114	Ind Gas Rev Services-Moscow	Industrial New Gas Revenue Services - Moscow
			93301115	Developments Gas Rev-Moscow	Commerical New Gas Revenue Mains - Moscow
93305008	Trsf Proj for 93305006 FA Post	Same as project 93305006 to transfer charges to complete Fixed Assets posting. New project needs to be set up to transfer charges form 93305006. \$47.88 will be transferred so they can be moved to PIS to complete FA posting. (more on cpr)			
93305010	Hwy 95 S reg sta 3785 Com	9500 feet of 6inch gas main and 2500 feet of 2inch gas main with new reg staiton # 3785 to provide gas for new developments south of Moscow, idaho with a future to serve 500 to 200 new homes and businesses with 5 years			
93305058	New Farm Tap #3196,Deary ID	It is proposed to install new farm tap #3196. This is a new customer service at 1162 Olson Loop, Deary, ID. This will include the installation of about 800' of PE service piping. The customer is digging the trench for the service piping.			
1050	Gas Meters Minor Blanket	MN207	06801270	Gas Meter Purch-OR	Gas OR Meter Blanket Oregon Purchases
			06801275	Gas Meter Purchases OR STR	Gas Meter Purchases - Oregon (Maximo Location: STORE)
			07801270	Gas Meter/Regulator Purch-CA	Gas OrCa Meter Blanket California Purchases
		XE021	02801210	Gas Meter Purchases	Gas Waid Meter Blanket
			02801215	Gas Meter Purchases WAID STR	Gas Meter Purchases - WAID (Maximo Location: STORE)
			03805349	Gas Meters Idaho	Reallocate 2011 activity for Idaho and Washington gas meters. Net effect is zero because reallocation is done between Washingotn and Idaho. Project set up so that transaction can be put into fixed asset system.
1051	Gas Regulators Minor Blanket	MN508	06801220	OR Gas Regulator Purchases	To record Oregon gas regulator purchases separately from meter purchases in the correct ER 1051.
			98805026	Rev relief vlive on sta 811OR	Revise relief valave arrangement for the Hilgard Gate Station in order to provide relief protection when operating in by pass mode station # 811OR Hilgard, Oregon
		XE022	02801220	Gas House Regulator Purchases	Gas Waid Regulator Blanket
			95505010	Install farm tap 8008	Customer has requested gas service to small development on the Palouse area of south spokane. It is proposed to install a farm tap regulator and 4inch outlet riser to allow future growth. Install 400 feet of 2inch high pressure (more on cp

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1053	Gas ERT Minor Blanket	29B51	02801290	Gas ERT Purchases-Wald	Gas Wald ERT Blanket
			02801295	Gas AMR Purchases WAID STR	Gas AMR Purchases - WAID (Maximo Location: STORE)
			03805350	Gas ERTs Idaho	Reallocate 2011 activity for Idaho and Washington Gas ERTs. Net effect is zero because reallocation is done between Washington and Idaho. Project set up so that transaction can be put into fixed asset system.
		MN320	06801271	Gas ERT Purchases-OR	Gas OR Meter Blanket Oregon ERTS
06801276	Gas AMR Purchases OR STR		Gas AMR Purchases - Oregon (Maximo Location: STORE)		
3000	Gas Reinforce-Minor Blanket	MN303	97301090	G Pressure Rebuilds-Goldendale	Gas Pressure Rebuilds Goldendale
			98405075	Relocate Station 2402 Medford	This project will relocate reg station # 2402 on Beatty Street in Medford, Oregon. Reg station # 2402 is currently within an in-ground vault that fills with water. It will be relocated above ground, adjacent to it's (more on cpr)
			98405076	Relocate reg sta 2412 Medford	This project will relocate station #2412 on Willamette street in Medford, Oregon. Regulator station # 2412 is currently within an in-ground vault that has become overgrown with junipers and fills with water. It will be (more on cpr)
			98405077	Relocate reg sta 2407 Medford	this project will relocate the Hillcrest Reg station # 2407 in Medford OR. Reg sta # 2407 is currently located within a vault that causes moisture damage and access safety problems. It will be relocated to a new above ground (more on cpr)
			98601090	Gas Pressure Rebuilds-Roseburg	Gas Pressure Rebuilds Roseburg
			98701090	Gas Pressure Rebuilds-Klamath	Gas Pressure Rebuilds Klamath Falls
			98801090	Gas Pressure Rebuilds-LaGrande	Gas Pressure Rebuilds Lagrande
		MN413	98401090	Gas Pressure Rebuilds-Medford	Gas Pressure Rebuilds Medford
			98405102	Uprate East Medford 6lb syst	Uprate the main and services in the east portion of the 6 psig dist system. Medford (2203 customers). This project will address the costs related to regulator evaluation and replacement prior to uprating the system and will be capitalized
			98405143	Uprate East Medford 6psig sys	Uprate the main and services in the east portion of the 6psig distribution system Meford OR 2215 cust. Regulators will be evaluated and replace to ensure they operate properly at the new 60psig MAOP. This project will(more on cpr)
			98405189	Uprate W Medford 6 psig Dist	Uprate the main and services in the 6 psig system West Medford (3,316 customers) this distribution system fails a design heating degree day. Upgrating the system will ensure reliable service to customers. Regulators will be (more on cpr)
		MN415	98505039	6" PE Reinfcm, Grants Pass OR	Project will install approx 6500' of new 6" PE main as a reinforcement to the Grants Pass system. This will connect new main btwn an existing 6" PE stub-out in Park. More on CPR.
			06804470	Ave G Gas Extension	To Boost Gas pressure in Eagle Point, Oregon.
			98705028	Conger Ave Reg 2720 Easement	new Conger Ave Reg station 2720 to reinforce gas pressures in Klamath Falls-easement purchase
		MN416	98705055	Uprt KlamFalls 10psig 2 60psig	It is proposed to increase the maximum allowable operating pressure (MAOP) of the distribution mains and services downstream of Dist Reg Sta 2717 in the Klamath Falls 10 psig distribution system to 60 psig. Regulators will (more on cpr)
			98805082	4" PE Reinf-Fruitdale&Hunter	As part of a system reinforcement in La Grande, OR it is proposed to replace approx 2000' of existing 2" steel mainline operating at <60 PSIG with 4" PE gas mainline. More info on CPR.
		XE015	03804328	White Av Reinforce For Sta 335	Install 2080 Feet Of 2Inch Pe To Loop Feed White Ave And Lidgerview. Station 335 Out Of Spec Moscow, Id Project Will Take Place Fall 2003 -Waiting For Crops To Come In Since It Involves Farm Land (Per Trevo
77705012	US 2 N SPOKANE HP REINFORCEMNT		BEGIN INVESTIGATING PROJECT TO INSTALL 6" HP STEEL LINE FROM VICINITY OF HAWTHORNE & PERRY TO VICINITY OF US 2 & FAWELL. WILL ACQUIRE EASEMENT UNDER FUTURE CAPITAL PROJECTS REQUEST		
ZVG15	95601150	Gas System Reinforce-Spokane	Gas System Reinforcement - Spokane		
	95605049	University dist reinforce	This project is to upgrade 620 feet of existing 2inch pe with 4inch pe to allow the WSU academic center to operate their new boilers at capacity		

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3000	Gas Reinforce-Minor Blanket	ZVG15	95605737	Gov't Way Reinforcement, Spo	It is proposed to connect two existing one-way feeds together on Gov't way to provide reinforcement to the area via 2-way feed. More on CPR.
			95605781	Front St & Spokane Falls Reinf	It is proposed to install approximately 1710 feet of 6" PE gas main on Front St. and Spokane Falls Blvd., Spokane WA. This has been identified as having low pressure issues during periods of high gas demand.
			95605782	Sprague Ave 4" Steel Reinf	It is proposed to install approx 1060 feet of 4" intermediate pressure steel gas main on Sprague Ave Spokane WA. This has been identified as having low pressure issues during periods of high gas demand.
			95605783	Riverside Ave 6" PE Reinf	It is proposed to install approx 210 feet of 6" gas main on Riverside Ave, Spokane WA. This area is identified as having low pressure issues during periods of high gas demand.
			95605784	North Five Mile Rd 4" PE Reinf	It is proposed to install approx 2770 feet of 4" PE gas main on North Five Mile Rd, Spokane WA. This area has been identified as having low pressure issues during periods of high gas demand.
			95801150	Gas System Reinforce-W Plains	Gas System Reinforcement - West Plains
3001	Replace Deteriorating Gas System	MN302	97301080	G Deteriorated Pipe-Goldendale	Gas Deteriorated Pipe Goldendale
			98601080	Gas Deteriorated Pipe-Roseburg	Gas Deteriorated Pipe Roseburg
		MN408	06804399	Pipe Replace-Cathodic-Roseburg	Replaces Gas Mains And Services That Have Been Selected By Cathodic Tech As Needing To Be Replaced To Bring Up The Reading And To Protect Our Pipe From Corrosion
		MN409	98705048	Riverside Drive District Reg	Combine existing District regulators 2710 and 27F18 into a single new district regulator facility. Work is to support ongoing steel replacement project and reinforcement of the Klamath Falls system. Note: This CPR is for (more on cpr)
		XE016	95605103	Upgrade service valves spokane	Upgrade and install service valves in downtown Spokane area
		ZCG16	90705098	Terror Gulch Brdg Crsg, Osburn	It is proposed to replace the intermediate pressure main that is crossing the CDA River at Terror Gulch in Osburn, ID. The existing steel main has poor protective coating and support hangers need replaced.
3002	0	MN312	06804383	Telemet Elgin Station # 8020R	Car# 253244 Telemetry For The Hp Gas Main To Elgin, Oregon To Monitor Pressures. The Telemetry Will Be Set At Regulator Station # 0802Or
	Regulator Reliable Blanket	17J53	03804450	Schweitzer Telemetry	Install Telemetry At Schweitzer Regulator Station #203 Sandpoint, Id This Job On Hold Due To Budget Cuts Til Oct. 2002 Per Gary Pardun (By Brian-Outside Serviceman @ Sandpoin
		MN417	98405037	Relocation of station 2406	this project is the relocation of station 2406 in Medford, Oregon. regulator station 2406 is currently within an in ground vault that causes moisture problems and access safety problems. It will be relocated to a new above (more on hard cop
			98405093	Regulator stat 2404 rebuild	The project will rebuild and enlarge regulator station 2404 at Ave G and Hwy 62 in White city, Oregon. This station has Fisher 99 regulators that are being replaced with Mooney Flowgrid regulators
			98405119	Payne rd 2423 reg sta rblid Med	It is proposed to rebuild the Payne Road reg station # 2423. The existing station has sustained stress due to ground movement and must be rebuilt. The station will be rebuilt to reduce external stresses and additional capacity(more on cpr
			98405122	Reg sta 2411 reblid Phoenix	It is proposed to rebuild the district reg station # 2411 in the city of Phoenix. This station is an older design and no longer meets Avista's design standards. Existing plug valves and older regulator will be replaced. (more on cpr)
			98405139	White City Plywood Meter Rblid	The complete rebuild of the White City Plywood Industrial meter set. This accounting will cover the complete rebuild of the Industrial Meter set. The reasons for this rebuild are that the old style steel case rotary meter (more on cpr)
			98405141	S Oregon University Mtr reblid	Partial meter set rebuild at McNeal Center S Oregon University, Ashland Oregon. This rebuild will install a token relief, a regulated by-pass line and a differential test point for meter testing. It will replace the threaded (more cpr)
			98405183	Care Stream HP Serv MS 26C10 A	Due to a joint county & state road relocation project, the high pressure service and meter set to this industrial customer will need to be relocated. Care Stream 8124 Pacific Ave, White City, Oregon T36S-RO2W-SEC13

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3002	Regulator Reliable Blanket	MN417	98405256	Regulator Station #2464 Build	Install a new regulator station #2464 in Medford, OR. The existing regulator station #2407 is an obsolete, making maintenance difficult. Replacing the Stn will brin the station up to current standards.
			98405258	Regulator Station #5782 Build	Proposed to install a new regulator stn #5782 in Medford, OR. The existing station #2417 is an obsolete design that does not have parts available.
			98405265	STA #1406 to Replc STA #24F31	It is proposed to install new curb valve tee, HP inlet piping & far tap style district regulator #1406 near 6280 Ventura Lane, Central Point OR. This station will replace DR #24F31 which will be retire4d & removed.
		MN418	98605051	Rebld reg sta 2609 Myrtle Crk	This project will rebuild the Myrtle Creek Station which has developed fitting leaks and needs access improvements. This preliminary CPR is for the design, engineering and ordering of non stock items to repair the station
			98605060	Green Diamond Meter Rebuild	This accounting will cover the complete rebuild of the industrial meter set at the Green Diamond abrasive plant in the Roseburg district, Oregon. The Oregon meter shop has put on record that they can not put set on by-pass,(more on cpr)
			98605074	Roseburg Knife River Meter set	This for a new meter set for Knife River Asphalt plant in Roseburg, Oregon. There are 2 reasons for this change. 1st, the existing meter set at this location has deteriorated over the years and now has deteriorated over the (more on cpr)
			98605075	Roseburg Knife River Telemetry	This is for telemetry at the new meter set for Knife river asphalt plant (project 98605074) in Roseburg Oregon. The new meter set location is not near power and telephone, and to provide such to this location will (more on cpr)
			98605083	C and D Lumber MSA Rebuild	rebuild existing MSA #26C30 at C&D Lumber, Riddle Oregon. Replace existing above grade piping, rotary meter, regulators, & relief valves. Modify inlet piping as required. Note this CPR is Preliminary for engineering (more on cpr)
			98605086	RbldUmpquaComColIMSA26C28 2628	It is proposed to rebuild existing MSA #26C28 at Umpaqua Community College. The existing MSA is partially buried and located in a ditch line that is only accessible from a steep slope making access difficult/hazardous. The (more on cpr)
			MN419	98705052	KingsleyFld GateSta27P13 rebld
		98705053		Burgdorff Gate Sta 27P04 Reblid	Rebuild Gate station 27P04 Burgdorff in Klamath Falls, Or. Tap feeds off of GTN Pipeline. Replace existing above grade piping, regulators, relief valves and numerous threaded fittings with welded fittings. Modify inlet & (more on cpr)
		98705061		Rbld DR2704 4702 Klam Fls	It is proposed to rebuild the existing vaulted District Reg Sta 2704 and relocate approximately 600feet to the north and east on Oak Ave in Klamath Falls, Or. The district believes they have a preliminary easement from the (more on cpr)
		98705066		Reblid Keno Gate Stn Klamath	the Deno Gate Stn #2713 in Klamath Falls, OR shows sign of frost heave and settling. In addition, the pipe supports require removal. more on CPR
		MN420	98805059	Rebuild reg st 806OR Union OR	Rebuild reg stat 806or located in Union Oregon near the intersection of 10th st and Arch. The existing station has welds that need repair as well as cathodic concerns that need addressed. Additionally there is no token relief at this stat
			98805060	Rebuild reg sta 801OR LaGrande	Rebuild reg stat 801OR located in LaGrande OR near the intersection of pine and cove
		XE017	02805738	Rebld Reloc Reg sta 34	Spokane Reg station 34 at 11th & Spruce has hard to operate control and station valves and is in an area of possible flooding near Hangman Creek. It is proposed to rebuild station in new location to prevent flooding. O&M will be improved
			90705058	Osburn reg 248 removal	It is proposed to remove regulator station 248 in Osburn Id. With installation of some additional IP piping in Osburn this small station will no longer be needed. Removal will decrease company O&M expenses. Project cost (more on cpr)
			92305005	Reg sta 352 move and rebld	pullman wa a commercial lot owner wants us to move this station for redevelopment of the lot. it requires a main extension as well as cp and telemetry moves as well. we will use the opportunity to make improvements to (more on hard copy afe
			93005043	Rebuild Sta 205 Sandpoint	It is proposed to rebuild reg sta 205. The existing station will be updated to existing Avista design standards. The work will include removal of a regulated bypass that is no longer necessary due to system reinforcements and (more on cpr)

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3002	Regulator Reliable	XE017	95505003	Repl reg farm tap 55 Spokane	replace regulator in existing farm tap # 55 with new regulator Spokane,wa	
			95505027	Instl HP curb valve Liberty Lk	Agilent meter set #58 has no remote curb valve; the project will include the installation of a 4inch HP curb valve to accomodate future meter set rebuild and to provide a safe shut off for the service. Liberty Lake, WA	
			95505031	Rebuild meter set 58	Agilent meter set # 58 rebuild. Agilent meter set has Fisher 99 regulator, 2 out of production relief valves and one out of production secondary regulator. It is proposed to rebuild set into a better configuration to ensure (more on cpr)	
			95505032	Rebuild meter set 58 comm	Agilent meter set # 58 rebuild. Agilent meter set has Fisher 99 regulator, two out production relief valves and one out of production secondary regulator. It is proposed to rebuild set into a better configuration to ensure (more on cpr)	
			95605244	Rebld meter set 103 Gonz comm	Gonzaga University meter set # 103 has Fisher 99 regulator that can't be checked for lock up. Rotary meter is not in ideal orientation. it is proposed to rebuild set into a better configuration to ensure regulator lock up (more on cpr)	
			95605262	Rebuild meter set 72 Spokane	Whitworth College meter set # 72 rebuild. Spokane, WA. Whitworth college meter set has Fisher 99 regulators that can't be checked for lock up. Rotary meter is not in ideal orientation. It is proposed to rebuild set into a (more on cpr)	
			95605263	Rebuild meter set 72 comm Spok	Whitworth college meter set 72 rebuild. Whitworth College meter set has Fisher 99 regulators that can't be checked for lock up. Rotary meter is not in ideal orientation. It is proposed to rebuild set into a better (more on cpr)	
			98605066	D R Johnson Meter set rebld	D.R. Johnson meter set # 26C38A meter set rebuild due to new load and higher required delivery pressure. Customer has added new load which requires that the meter set be changed to line pressure metering to handle the load with existing eq	
	ZBW17			50905013	Retire Reg Sta 163	It is proposed to retire reg stat # 163 located at 1210 Serene Dr, Kettle Falls, Wa, installing approx 900 ft of 2inch PE gas main will eliminate the need for this reg station and will stop the ongoing maintenance for the station
				50905017	Retire Sngl Srv Farm Tap#525	Proposed to retire single svr farm tap#525 serving a cust @ 588 Sharps Rd Colville, WA. A new PE main is going to extend along Haller Crk Rd to svr new cust. Elim the need for this single svr farm tap station & ongoing maint.
				50905020	Install Regulator Station#8068	Install regulator stn #8068 located near 664 Gold Creek Loop Rd, Coville, WA. The new station will replace regulator Station #562. More on cpr.
				96005136	Instl Reg Sta 3232 Colville Wa	It is proposed to install a new regulator station 3232 to replace regulator station 103, located near Oakshott Rd and Valley -Westside Rd, Colville, Wa. The existing reg station # 103 is and outdated design that is configured (more on cpr)
				96005165	Rebld Stn #524, Colville WA	It is proposed to rebuild single service farm tap #524 located at 945 Townsend Sackman Rd, Colville. The existing station is an older all threaded design and has leaks at mulple joints. See CPR for more info.
				96105004	Instl Reg Sta 4046 Chewelah Wa	It is proposed to install a new reg station # 4046 to replace regulator station # 105 located on Lagoon Rd in Chewelah WA. The existing reg station # 105 is an outdated design that is configured in such a way that regulator (more on cpr)
				96105006	Instl Reg Sta 4046 Chewelah_L	Proposed to install new regulator station #4046 to replace regulator station #105. Reg station #105 is outdated. It is proposed to rebuild the Kettel Falls mainline valve bypass assembly located at this station. More on CPR.
	ZCG17			90105289	Regulator Gate Station #213	Replace the existing bypass odorizer at gate station 213 located north of the intersection of Crobin and Yukon Rd in Post Falls, Id. The existing bypass odorizer has a malfunctioning float which can cause it to overflow. (more on cpr)
				90105295	Rbld CDA E City Gate Reg 221	Rebuild CDA East City Gate Station(221-1) and reg stat 221-2 located near the intersection of Shadduck and 15th street in CDA, ID. The existing redundant meter will be removed, the YZ odorizer pulse will be installed form (more on cpr)
				90105296	Plummer Forst Ind InstlMSA2464	Rebuild MSA #422 at the Pottlatch Particle Board Plant located at 401 N Potlatch Rd. Post Falls, Id 83854. The existing meter set currently has obsolete axial flow regulators without a fixed bypass. The new station will be (more on cpr)

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3002	Regulator Reliable Blanket	ZCG17	90105298	Inst reg sta 2120 repl sta 212	Install new Dist reg station # 2120 at the intersection of Boekel Rd and Atlas Rd in Hayden, Id. This station will replace existing reg sta # 212 which contains valves that are hard to turn and require replacement. The new reg(more on cpr)
			90105310	Ugrd Indst MtrSt 1032 ID Asph	Upgrade existing Industrial Meter set 1032 at Idaho Asphalt plant in Post Falls located at the intersection of Prarie Ave and Pleasant View rd to account for added load
			90105315	New Indust MSA#8615 & Svc	Install Indust Meter Set#8615 (Replaces IM#1032) & service piping at the ID Asphalt plant in PF, ID at the intersct of Pleasant View & Prairie Av to acct for addit cust load & separ req'd for maint. 350' pip will be installed to replc Aldyl
			90105328	Knife River MSA 2640 Rathdrum	install a bypass regulator on the meter set assembly serving Knife River Asphalt, 8940 W Wyoming, Rathdrum ID. The existing bypass is unregulated and difficult to use due to customer's large load. more on cpr
			90105343	CdA East CG-Telem Upgrade	CdA East CG - Upgrade telemetry inconjunction with Proj 90105295 to rebuild sta #221. Includes ABB Flow computer, full check, correction for both of NWP's meter runs & provide an Avista generated 4-20 mA Signal to control the odorizer.
		ZLG17	93205088	Replc Relief Vlv Reg#420, ID	Install a new relief valve on regulator station #420 in Lewiston, ID. The current relief valve is leaking. Station #420 is scheduled to be replaced in the next five years. This new relief valve will be re-used with the future station.
			93305055	Rebuild Reg Stn #323, Troy ID	It is proposed to rebuild regulator station #323, 1077 McKeehan Rd, Troy ID. The existing station has developed a leak. The station will be replaced with a new all-welded station that will bring the station up to current standards.
			93305056	Rebuild Reg Stn #387, Deary ID	It is proposed to rebuild reg station #387, 901 1st Ave, Deary ID. The existing station has developed a leak. The station will be replaced wht a new all welded station that will bring the station up to current design standards.
		ZPG17	62005008	Replace Farm Tap 337	troy, ID replace leaking threaded farm tap with new welded unit
			62005009	Replace Farm tap 323	Troy Id Replace Leaking Threaded farm tap with new welded unit
			62005010	Replace farm tap 3089	Troy Id. Replace leaking threaded farm tap # 3089 with new welded unit
			92305074	Retire reg sta 358 Pullman	Retire reg stat 358. It is proposed to retire reg stat 358 located in Pullman Wa. Existing main will be extended to serve the existing two customers served by the FT reg station 358. Completion of this project will reduce (more on cpr)
			92305144	Rebuild Station 315 Colton WA	It is proposed to update gate station #315 with a new odorizer and add regulators. This will change 1000' of steel main feeding the town from high pressure to intermediate pressure operation. Regulator station #316 will be (more on CPR).
			92305173	Rebld Reg Stn #366, Colton Wa	It is proposed to rebuild regulator station #366, 8704, Colton, WA. The existing station has developed a leak. The station will be replaced with a new all-welded station that will bring the station up to current design standards.
		ZVG17	02804449	Rebuild Reg # 5 Hawthorne/Newp	"Rebuild Station #5 From Reg/Relief To Reg/Monitor Hawthorne Road And Newport Highway - Spokane This Job Is On Hold And Will Be Done Sometime Latesummer 2002-Per Terry Barry (July 25,2002) This Job Is Still On Hold-Ownership On Property Is C
			50905019	Install Regulator Station #900	It is proposed to install reg station #900 at the intersection of Indian Trail and Rutter Parkway, Spokane, WA. This new station will replace regulator station #53. Station #53 is an outdated design that features obsolete (more on CPR)...
			51105002	Star Rd Gate Statn#49 Upgd	Install a new YZ odorizer & steel bldg at the Starr rd Gate Station #49 located in Newman Lake, WA. the existing odorizer features a vertically oriented tank that was prev owned by Williams Pipeline that has an outdated YZ controller.
			95605482	Rebuild reg stat 180 Spokane	It is proposed to rebuild farm tap regulator station # 180. the relief valve on the existing station requires significant pressure buildup to fully open which is causing operational issues because the set point must be lower (more on cpr)
			95605622	Repl Station 33 Spokane, WA	It is proposed to replace reg station #33 and move it approximately 50ft from its current location. The station is located down a steep embankment and must be accessed by a ladder. The new station # 4418 will be moved to (more on cpr)
			95605623	Repl station 38 Spokane Wa	It is proposed to replace regulator station #38 and move it approximately 50feet from its current location. The station is located within 10feet of thye inlet valve and also there is not outlet valve. The new station # 3256 (more on cpr)

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3002	Regulator Reliable Blanket	ZVG17	95605626	Instl Relief Valve Reg Sta 181	It is proposed to install a new relief valve at reg stat 181 located near Hayford & 12th, Spokane Wa. The existing relief valve is antiquated and no longer in production. Updating to a new relief valve will ensure reliable operation
			95605635	Rebuild Reg Station 60	rebuild regulator station #60 located near 1551 Washington St, Cheney. The existing station is oversized and features an axial flow relief valve. Replace the station with a standard farm tap station.
			95605661	Reloc the SacredHeart Ldry Mtr	Proposed to rebl & relocate the meter set serving the Sacred Heart Med Ctr laundry bldg- Spokane. The existing meter set is located inside teh ldry room difficult to access & perform maint. Proposed to move the mter set to the exterior.
			95605662	New Bypass Regl @MSA#8329	Proposed to install a new bypass regulator at meter set #8329 serving the Spkn Cty Regional Solid Waste Fac, Spkn. The existing bypass regul is an axial flow & has a small crack in the body which is leaking. Meeting Standards.
			95605716	Rebuild Reg Sta #78, SpokaneWA	It is proposed to rebuild regulator station #78 located at Palouse Hwy & Windmill Rd, Spokane WA. The existing station is an all threaded style and is leaking at a few threaded joints. More on CPR.
			95605717	Rebuild Reg Sta #55, SpokaneWA	It is proposed to rebuild regulator station #55 located near Dishman-Mica and Taylor Rd, Spokane WA. The existing station is an all threaded style and is leaking at a few threaded joints. More on cpr.
			95605720	Rebuild Reg Sta#84, Valleyford	It is proposed to rebuild regulator station #84 located at 10218 E Gibbs Rd, Valleyford, WA. More on cpr.
			95605766	Install Regulator Station 1762	Install reg station #1762 at intersection of Francis & Cannon, Spokane WA. Will replace reg station #10. Station 10 is outdated design with obsolete equip & configured in way that makes annual maint difficult. More on CPR.
			95605767	Regulator Station #7701 Build	Install a new regulator stn #7701 in Cheney, WA. The existing regulator stn #43 is an obsolete design that does not have parts available. Replacing the station will bring the station up to current standards and will ensure station reliabil.
			95605785	Meter Set #7840 Relief Valve	Install a new relief valve at industrial meter set #7840 located at Fairchild Air Force Base, Airway Heights. The existing relief valve is an outdated model that has known performance issues.
			95605786	Rebuild Station #759, Spokane	It is proposed to rebuild single service farm tap #759 located at 5523 S. Highway 27, Spokane. The existing station is an older all threaded design and has leaks at multiple threaded joints. More on CPR.
			95605787	Rebuild Statn #785, Valleyford	It is proposed to rebuild single service farm tap #785 located at 4911 E. Palouse Highway, Valleyford, WA. The existing station is an older all threaded design and has leaks at multiple threaded joints. More on CPR.
			95605788	Rebuild Statn #786, Valleyford	It is proposed to rebuild single service farm tap #786 located at 6811 E. Palouse Highway, Valleyford, WA. The existing station is an older all threaded design and has leaks at multiple threaded joints.
			95605789	Rebuild Statn #795, Valleyford	It is proposed to rebuild single service farm tap #795 located at 7607 E Palouse Highway, Valleyford WA. The existing station is an older all threaded design and has leaks at multiple threaded joints. More on CPR.
			95605790	Rebuild Station #796, Spokane	It is proposed to rebuild single service farm tap #796 located at 5211 S. Highway 27, Spokane, WA. The existing station is an older all threaded design and has leaks at multiple threaded joints. More on CPR.
			95605809	Rebld Stn #734 Otis Orchards	Proposed to rebuild single service farm tap #734 located at 6302 N. Lynden Rd, Otis Orchards, WA. The existing station is an older all threaded design and has leaks at multiple threaded joints. It is preferred to install a new station.
95605810	Rebld Stn #768, Medical Lake	Proposed to rebuild single service farm tap #768 located at 12311 S Clear Lake Rd, Medical Lake, WA. The existing station is an older all threaded design and has leaks at multiple threaded joints.			
95605811	Rebld Station #740, Spokane	Proposed to rebuild single service arm tap #740 located at 2403 W. 11th Ave Spokane, WA. The existing station is an older all threaded design and has leaks at multiple threaded joints.			

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3002	Regulator Reliable Blanket	ZVG17	95605812	Rebld Stn #776, Spokane	Proposed to rebuild single service farm tap #776 located at 6105 W. Grove Rd, Spokane. The existing station is an older all threaded design and has leaks at multiple threaded joints.
			95605813	Rebld Stn #781, Medical Lake	Proposed to rebuild single service farm tap #781 located at 11914 S. Sainave Rd, Medical Lake, WA. The existing station is an older all threaded design and has leaks at multiple threaded joints.
			95605817	Hollister Stier Meter Set	It is proposed to install a new high-pressure industrial meter set at Hollister Sier Labs, 3525 N Regal Street. The existing meter set is leaking and located in a small area between 2 doors on the facility. See CPR for more info.
			95805047	Rebld LakelandVill MtrSet 7701	It is proposed to rebuild the Lakeland Village meter set located at 2280 S Morhardt, Medical Lake, Wa. The existing meter set is configured in a way that makes regulator lock-up difficult to check and also features a turbine(more on cpr)
			95805050	Rebld Stn #712, Medical Lake	It is proposed to rebuild single service farm tap #712 located at 1820 S. Graham Rd Medical Lake, WA. The existing station is an older all threaded design and has leaks at multiple threaded joints. More on CPR.
			97305012	Rebld Kanaka Crk sta 150 1500	It is proposed to rebuild existing Gate Sta 150 Kanaka Creek in Stevenson Wa. The existing station is antiquated with a number of material, weld and equipment issues. The station outlet valve is also the differential valve (more on cpr)
			97305013	Rebuild Regulator Station 148	rebuild reg station #148 at 700 Loop Rd Goldendale WA. The existing station is outdated design and there are not pressure test records for it. Installing a new station with modern equipment and adequate test records - more on CPR
			97305014	Rebuild Regulator Station 147	rebuild reg station 147 located at 1098 Highway 07 Goldendale WA. The existing station is outdated design and there are no pressure test records for it. Installing a new station with modern equipment and adequate pressure - more on cpr
3003	Gas Replace-St&Hwy	MN300	98101040	Gas Road Projects-Tahoe	Gas Road Projects Tahoe
			MN401	06804388	Gas Main Relocate Grandview Av
		98401040		Gas Road Projects-Medford	Gas Road Projects Medford
		98401230		Gas Road Relocates-Medford	Gas Road Relocations - Medford
		98405185		Bear Creek Bridge at Exit 24	This project is in response to an ODOT road project that will rebuild the Phoenix Exit 24 interchange. This CPR will fund the cost to design and install a new 6"PE main across Bear Creek on a new bridge by ODOT's contractor. More on CPR
		98405197		Hersey Wimer Realign Ashland	This project will replace 600 feet of shallow steel main with 400ft of 4inch PE Main and 200ft of 2inch PE main. The city of Ashland will be aligning Hersey and Wimer Streets. Ashland Oregon for a road improvement project
		98405248		Freeman Rd. Improvement	This project will replace and lower the gas main and services along Freeman Rd, Central Point. Approx 1900 ft of 4"P main will be installed, and interconnected to 12 side mains and 17 individual services.
		98405249		ODOT Hwy 62 Corridor Project	This 11 phase project will replace, lower & retire various sections of gas main and service in response to ODOT's hwy 62 Project. Medford, OR approx 2300 ft of main will be installed. See CPR for more info.
		98405250		ODOT Hwy 62 Corridor- easement	This 11 phase project will replace, lower & retire various sections of gas main and service in response to ODOT's hwy 62 Project. Medford, OR approx 2300 ft of main will be installed. Hwy & streets will be bored. See CPR for more info.
		98405268		Lozier Lane Improvements	This project will repalce, lower & retire gas main and services in response to this road improvement project in Medford, OR. Approx 7k' of steel mains and 8200' of steel lines will be replaced. More on cpr.
		98501230		Gas Road Relocates-Grmts Pass	Gas Road Relocations - Grants Pass
		MN402	98601040	Gas Road Projects-Roseburg	Gas Road Projects Roseburg
			98601230	Gas Road Relocates-Roseburg	Gas Road Relocates - Roseburg

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3003	Gas Replace- St&Hwy	MN402	98605089	HWY 99 Improvmts 6 in HP Reloc	relocate an undetermined length of 6" HP steel gas main to accomodate improvmts to OR HWY99 between Happy Valley Road and HWY 42 in Roseburg, more on cpr		
		MN403	98701040	Gas Road Projects-Klamath	Gas Road Projects Klamath Falls		
			98701230	Gas Road Relocates-Klamath Fls	Gas Road Relocates - Klamath Falls		
		MN404	98801040	Gas Road Projects-LaGrande	Gas Road Projects LaGrande		
			98801230	Gas Road Relocates-LaGrande	Gas Road Relocates - LaGrande		
		MN405	97301040	Gas Road Projects-Goldendale	Gas Road Projects Goldendale		
			97301230	Gas Road Relocates-Goldndale	Gas Road Relocates - Goldendale		
		XE023	02804350	County Rd Proj 2972	Spokane County Is Re-Aligning The Intersections And Our Gas Facility May Need Relocation. This Afe Is Written To Cover The Costs Of Initial Engineering, Project Management, Real Estate Easement Research, Depth Pothole Work, Etc.		
			92305003	reloc gas main state route 270	WSDOT has proposed to widen state route (sr270) between Pullman WA and the Idaho/Washington border in Spring 2006. The construction work will necessitate relocation of approximately 18500 feet of existing 3inch and (more on hard copy afe)		
			95501231	Gas Sewer Relocates Spok Vly	Gas Replacement Blanket-Work due to sewer relocations in Spokane Valley		
			95601231	Gas Sewer Relocates-Spokane	Gas Sewer and Water Relocates - Spokane		
			95605087	Reloc 4inch main Wandermere Rd	Relocate 4inch I.P. gas main crossing Wandermere Rd at Hwy 395 Spokane, Wa Note: Vandervert construction will be billed for this job. not to exceed \$15,000		
		ZBG23	95601235	Gas Road Relocates-West Plains	Gas Road Relocates - West Plains		
		ZBO23	97001230	Gas Road Relocates-Othello	Gas Road Relocates - Othello		
		ZBR23	97401230	Gas Road Relocates-Davenport	Gas Replacement Blanket		
		ZBW23	96001230	Gas Road Relocates-Colville	Gas Road Relocates - Colville		
			96001235	Gas Road Relocates-Chewelah	Gas Road Relocates - Chewelah		
		ZCJ23	90101230	Gas Road Relocates-CDA	Gas Road Relocates - CDA		
		ZCM23	90701230	Gas Road Relocates-Kellogg	Gas Road Relocates - Kellogg		
		ZCS23	93001230	Gas Road Relocates-Sandpoint	Gas Road Relocates - Sandpoint		
			93005114	6inch PESchweitzerCutoffRdBrdg	The rebuild of the Schweitzer Cutoff Rd bridge is requiring the relocation of the existing 2inch PE gas main that is installed along side the existing bridge. It is proposed in install a new 6inch PE gas main on the new bridge		
		ZLG23	92201230	Gas Road Relocates-Clarkston	Gas Road Relocates - Clarkston		
			93201230	Gas Road Relocates-Lewiston	Gas Road Relocates - Lewiston		
		ZPJ23	92301230	Gas Road Relocates - Pullman	Gas Road Relocates - Pullman		
			92801230	Gas Road Relocates-Palouse-Wa	Gas Road Relocates - Palouse - Wa		
			94205011	Reloc HP Main Airport rdColfax	It is proposed to relocate 1800feet of 4inch HP main due to a county road construction project. Portions of the existing main will interfere with the new road grade. MAOP records are not available for the current main (more on cpr)		
		ZVG23	95201230	Gas Road Relocates-Deer Park	Gas Road Relocates - Deer Park		
			95501230	Road Moves-Spokane Valley	Road moves-gas distribution		
			95505073	Instl 6inchHP Sullivan Rd brdg	The rebuild of the Sullivan Rd bridge over the Spokane River in Spokane Valley, Wa is requiring the relocation of the existing 6inch HP gas main on the bridge. Decommission existing 6" HP main & install a new 8" HP gas main on the new brid		
			95601230	Gas Road Relocates-Spokane	Gas Road Relocates - Spokane		
			95605751	Swenson Road Main Relocation	It is proposed to replace approx 7600 ft of IP main on Swenson Rd between Hwy 291 and McKenzie Woolard Rd. Most of the project will take place south of Jergens Rd. More on CPR.		
		3004	Cathodic Protection-Minor Blanket	MN313	06801310	Cathodic Protection-Oregon	Gas OrCa Cathodic Protection Oregon
					07801310	Cathodic Protection-California	Gas OrCa Cathodic Protection California
98405180	CP New ground bed in Gold Hill				Install a new CP ground bed in Gold Hill, OR		

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3004	Cathodic Protection-Minor Blanket	MN313	98805054	CP grnd bed 7th M st LaGrande	It is proposed to install a new impressed current cathodic protection (cp) system at 7th & M st in LaGrande, Or. The existing CP system only marginally meets the proper level of cathodic (Negative) voltage protection as (more on cpr)	
		ZN200	90105288	AC Mitigat on Boekel Rd Rath	Install a new anode bed on Boekel Rd in Rathdrum, Id to help mitigate the existing A/C current issues found on site	
			90105311	Boekel Rd AC Mitigation	install an A/C mitigation system along the Boekel Rd HP system in Kootenai County. The existing pipeline is experiencing stray current issues that affect the cathodic protection of the pipeline more on CPR	
			93205089	New CP Deep Well, Lewiston	Install a new CP deep well in Lewiston, ID. This is a preliminary CPR that will be used to order materials and determine the location of construction. A revised CPR will be submitted at a later date when the location of the new well.	
			93205090	New CP Ground Bed, Lewiston	Install a new CP ground bed in Lewiston, ID. This is a preliminary CPR that will be used to order materials and determine the location of construction. A revised CPR will be submitted at a later date when the location of the new ground bed.	
		ZV721	02801400	Cathodic Protection-Washington	Gas Cathodic Protection - Washington	
			03801400	Cathodic Protection-Idaho	Gas Cathodic Protection - Idaho	
			95605723	Install CPDeepWell@Queen&Perry	It is proposed to install a cathodic protection deep well at Queen & Perry, Spokane WA. This deep well is needed to ensure adequate cathodic protection for the gas system in the area.	
			95605748	Instl CP DeepWell@2508N.Wall	It is proposed to install a cathodic protection deep well at 2508 N. Wall, Spokane, WA. This deep well is needed to ensure adequate cathodic protection for the gas system in the area.	
			95605750	InstlCPDeepWell@16th&McClellan	It is proposed to install a cathodic protection deep well at 16th & McClellan, Spokane WA. This deep well is needed to ensure adequate cathodic protection for the gas system in the area.	
			95605752	Instl CP DW@Hayden&21st,Airway	It is proposed to install a cathodic protection deep well at Hayden & 21st, Airway Heights, WA. This deep well is needed to ensure adequate cathodic protection for gas system in the area.	
			95605816	CP Deep Well at Sinto & Lacey	It is proposed to install a cathodic protection deep well at Sinto & Lacey, Spokane WA. This deep well is needed to ensure adequate cathodic protection for the gas system in the area.	
			96005048	CP system Chewelah Wa	Install impressed current cathodic protection system in Chewelah. It is proposed to install a new impressed current cathodic protection system in Chewelah to protect the intermediate pressure piping. The existing cathodic (more on cpr)	
		96005160	Instl CP Grnd Bed, Colville	Installation of a cathodic protection shallow ground bed in Colville. This ground bed is needed to ensure adequate cathodic protection for the gas system in the area. The exact location will be at 8th Ave & Oak St. Colville.		
		3005	Gas Distribution Non-Revenue Blanket	MN311	98101140	Gas Mains Non Revenue-Tahoe
12A50	03805535			ID Gas Meter Barricades	Installation of meter protection barricades to guard against damage. Program will address approx 2100 open meter protection required orders in Idaho during 2015-2016.	
	14D83			97301120	Gas Mains Non Rev-Goldendale	Gas Mains Non Revenue - Goldendale
				97301121	Gas Servcs Non Rev-Goldendale	Gas Services Non Revenue - Goldendale
				97301122	Gas Cust Caused Req-Goldndale	Gas Cust Caused Requested-Goldendale
				97301140	Gas Minor Blanket-Goldendale	Gas Minor Blanket-Goldendale
				97301141	Gas Customer Caused-Goldendale	Gas Distribution Minor Blanket Goldendale Customer Caused
				97301142	Gas Road Relocates-Goldendale	Gas Distribution Minor Blanket Goldendale Road Moves
MN206	05805186			OR Gas Meter Barricades 2015	Special capital program to install meter protection in Oregon as indicated by Atmospheric survey for 2015 year.	
	98101141			Gas Services Non Revenue-Tahoe	Gas Services Non Revenue-Tahoe	
	98401120			Gas Mains Non Rev - Medford	Gas Mains Non Revenue - Medford	
	98401121			Gas Servcs Non Rev-Medford	Gas Services Non Revenue - Medford	
	98401122			Gas Cust Caused Req-Medford	Gas Customer Caused Requested - Medford	

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3005	Gas Distribution	MN206	98401140	Gas Mains Non Revenue-Medford	Gas Distribution Minor Blanket Medford Non Revenue
			98401141	Gas Services Non Rev-Medford	Gas Services Non Rev-Medford
			98405155	Bill cde mtr st rbls Medford	this project will rebuild Code A and 8 meter sets into code 3 meter set in the Medford district
			98405255	Crater Lake Hwy Reg Sta Retrmt	This project will retire the gas mains, taps & station riser pipes and valves of a non-used regulator station along Crater Lake Hwy. About 85' of the new main will be used to crankshaft the gas flow around all the pipes being retired.
			98501120	Gas Mains Non Rev - Grnts Pass	Gas Mains Non Revenue - Grants Pass
			98501121	Gas Servcs Non Rev-Grants Pass	Gas Services Non Revenue - Grants Pass
			98501122	Gas Cust Caused Reg-Grnts Pass	Gas Customer Caused Requested - Grants Pass
			98501140	Gas Mains Non Rev-Grants Pass	Gas Distribution Minor Blanket Grants Pass Non Revenue
			98501141	Gas Services Non Rev-G Pass	Gas Services Non Rev-G Pass
			MN309	98701120	Gas Mains Non Rev - Kalmth Fls
		98701121		Gas Servcs Non Rev-Klamath Fls	Gas Services Non Revenue - Klamath Falls
		98701122		Gas Cust Caused Reg-Klam Fls	Gas Customer Caused Requested - Klamath Falls
		98701140		Gas Mains Non Revenue-Klamath	Gas Distribution Minor Blanket Klamath Falls Non Revenue
		98701141		Gas Services Non Rev-Klamath	Gas Services Non Rev-Klamath
		98705081		Relocate - 6" HP Mainline	Replace approx 140' of shallow 6" HP mainline in Klamath Falls, OR just upstream of STA#24701A at Beihn St and Crater Lake Hwy. Work is req'd to replace shallow mainline. The offset will require 2-5" bottom out stopper fittings, 4-6" steel
		MN310	98801120	Gas Mains Non Rev - LaGrande	Gas Mains Non Revenue - LaGrande
			98801121	Gas Servcs Non Rev-LaGrande	Gas Services Non Revenue - LaGrande
			98801122	Gas Cust Caused Reg-LaGrande	Gas Customer Caused Requested - LaGrande
			98801140	Gas Mains Non Revenue-LaGrande	Gas Distribution Minor Blanket LaGrande Non Revenue
			98801141	Gas Services Non Rev-LaGrande	Gas Services Non Rev-LaGrande
		MN360	98601120	Gas Mains Non Rev - Roseburg	Gas Mains Non Revenue - Roseburg
			98601121	Gas Servcs Non Rev-Roseburg	Gas Services Non Revenue - Roseburg
			98601122	Gas Cust Caused Reg-Roseburg	Gas Customer Caused Requested - Roseburg
			98601140	Gas Minor Blanket - Roseburg	Gas Mains Non Revenue-Roseburg
			98601141	Gas Services Non Rev-Roseburg	Gas Services Non Rev-Roseburg
			98601142	Gas Reinforcement-Roseburg	Gas Distribution Minor Blanket Roseburg Reinforcement
			98605068	Bill Cde mtr st reblds Rosebrg	This project will rebuild Code A and 8 meter sets into Code 3 meter sets in the Roseburg district
			98605093	Champagne Creek Bridge Crsg	Rplc approx 120 ft of 4" IP Main across Champagne Creek (Melrose Road) in Roseburg, OR. This project will replace the existing 4" IP Steel Main with new 4" IP Steel Main accross the bridge.
		ZBG12	02804447	Suncrest Reinforcement-Spokane	Approximately 1 Mile Of 6Inch Pe Needed To Reinforce The System At Suncrest. Future Development Alsoexpected In The Area. Spokane, Wa Per B
			02806229	Meter Barricades - WA	Installation of gas meter protection barricades in our WA service territory. Locations will be determined through the Atmospheric Corrosion Inspection program, at locations that are in danger of contact with vehicles, trailers, boats, ect.
			95201120	Gas Minor Mains-Deer Park	Gas Minor Blanket Mains - Deer Park
			95201121	Gas Blanket Services-Deer Park	Gas Minor Blanket Services - Deer Park
			95201122	Gas Customer Caused-Deer Park	Gas Customer Caused Blanket - Deer Park
			95501120	Gas Minor Mains-Spokane Val	Gas Minor Blanket Mains - Spokane Valley
			95501121	Gas Blanket Services-Spk Vly	Gas Minor Blanket Services - Spokane Valley
			95501122	Gas Customer Caused-Spok Val	Gas Customer Caused Blanket - Spokane Valley
			95601120	Gas Minor Mains-Spokane	Gas Minor Blanket Mains - Spokane
			95601121	Gas Blanket Services-Spokane	Gas Minor Blanket Services - Spokane
			95601122	Gas Customer Caused-Spokane	Gas Customer Caused Blanket - Spokane
			95601126	Gas Blanket Services-WV Plains	Gas Minor Blanket Services - West Plains
			95801120	Gas Minor Mains-West Plains	Gas Minor Blanket Mains- West Plains
95801121	Gas Blanket Serv-West Plains	Gas Minor Blanket Services - West Plains, Spokane			

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3005	Gas Distribution	ZBG12	95801122	Gas Cust Caused-West Plains	Gas Customer Caused Blanket - West Plains
			97101120	Gas Minor Mains-Ritzville	Gas Minor Blanket Mains -
			97101121	Gas Blanket Services-Ritzville	Gas Minor Blanket Services - Ritzville
		ZBO12	97101122	Gas Customer Caused-Ritzville	Gas Customer Caused Blanket - Ritzville
			97001120	Gas Minor Mains-Othello	Gas Minor Blanket Mains - Othello
			97001121	Gas Blanket Services-Othello	Gas Minor Blanket Services - Othello
		ZBR12	97001122	Gas Customer Caused-Othello	Gas Customer Caused Blanket - Othello
			97401120	Gas Minor Mains-Davenport	Gas Minor Blanket Mains - Davenport
			97401121	Gas Blanket Services-Davenport	Gas Blanket Services - Davenport
		ZBW12	97401123	Gas Cust Caused-Davenport	Gas Customer Caused - Davenport
			50905018	Kettle Falls HP Main Replcmt	It is proposed to replace approx 100ft of 8" high pressure gas main near Hwy 395 & Agar Rd, Loon Lake, WA. This replcmt is required to make this segment of pipe able to pass an inline inspection device (pig) per requirements 49CFR 192.150.
			96001120	Gas Minor Mains-Colville	Gas Minor Blanket Mains - Colville
			96001121	Gas Blanket Services-Colville	Gas Minor Blanket Services - Colville
			96001122	Gas Customer Caused-Colville	Gas Customer Caused Blanket - Colville
			96001126	Gas Blanket Services-Chewelah	Gas Minor Blanket Services - Chewelah
			ZCJ12	90101120	Gas Minor Blanket Mains-CDA
		90101121		Gas Blanket Services-CDA	Gas Minor Blanket Services- CDA
		90101122		Gas Customer Caused-CDA	Gas Customer Caused Blanket - CDA
		90105133		Reg 622 sweep Site Easement	Easement to install reg station 622 Hwy 95 & Fairmont Loop in Coeur d'Alene. Station will have no regulation at this time but will consist of above ground piping of valves and bypass run. Project establish an easement until 500psig MAO
		ZCM12	90701120	Gas Minor Blanket Main-Kellogg	Gas Minor Blanket Mains - Kellogg
			90701121	Gas Blanket Services-Kellogg	Gas Minor Blanket Services - Kellogg
			90701122	Gas Customer Caused-Kellogg	Gas Customer Caused Blanket - Kellogg
			90705095	IsolatedSteelReplc, Pinehurst	It is proposed to install 800' of new 2" steel main in Pinehurst, ID. Portions of the gas system in Pinehurst have steel pipe that is connected by PE pipe, and therefore the only cathodic protection current comes through a tracer wire.
		ZCS12	93001120	Gas Minor Mains-Sandpoint	Gas Minor Blanket Mains - Sandpoint
			93001121	Gas Blanket Services-Sandpoint	Gas Minor Blanket Services - Sandpoint
			93001122	Gas Customer Caused-Sandpoint	Gas Customer Caused Blanket - Sandpoint
		ZLL12	92201120	Gas Minor Mains-Clarkston	Gas Minor Blanket Mains - Clarkston
			92201121	Gas Blanket Services-Clarkston	Gas Minor Blanket Services - Clarkston
			92201122	Gas Customer Caused-Clarkston	Gas Customer Caused Blanket - Clarkston
			93201120	Gas Minor Mains-Lewiston	Gas Minor Blanket Mains - Lewiston
			93201121	Gas Blanket Services-Lewiston	Gas Minor Blanket Services - Lewiston
			93201122	Gas Customer Caused-Lewiston	Gas Customer Caused Blanket - Lewiston
			93205091	HP Main Relocation, Lewiston	It is proposed to relocate approx 400' of 6" HP main in Lewiston, ID. The main to be relocated runs between Railroad Ave & Mill Road. This work will be completed at the request of the customer, Marvel Construction. Customer will be billed.
			ZPJ12	62005012	Boville Repl 2in HP Riv Cross
		92301120		Gas Minor Mains-Pullman	Gas Minor Blanket Mains - Pullman
		92301121		Gas Blanket Services-Pullman	Gas Minor Blanket Services - Pullman
		92301122		Gas Customer Caused-Pullman	Gas Customer Caused Blanket - Pullman
		92801120		Gas Minor Mains-Palouse - Wa	Gas Minor Blanket Mains - Palouse - Wa
		92801121		Gas Blanket Service-Palouse-Wa	Gas Minor Blanket Services - Palouse - Wa
		92801122		Gas Cust Caused- Palouse-Wa	Gas Customer Caused Blanket - Palouse - Wa
		93301120		Gas Minor Mains-Moscow	Gas Minor Blanket Mains - Moscow
		93301121		Gas Blanket Services-Moscow	Gas Minor Blanket Services - Moscow
93301122	Gas Customer Caused -Moscow	Gas Customer Caused Blanket - Moscow			

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3005	Gas Distribution	ZPJ12	93301230	Gas Road Relocates - Moscow	Gas Road Relocates - Moscow
			93305048	Retire Reg Station 3079,Troy	Proposed to remove regulator station #3079 in Troy, ID that is located near the corner of Main Street and B Street. There are two services currently connected to this farm-tap style station. These services will be tied into a new PE main.
3006	Overbuilt Pipe Replacement Blanket	ZBG06	02805356	Overbuilt Pipe WA	Blanket project-remedy overbuilt pipe issues in WA. When we discover overbuilds on our facilities, we need to relocate or remove piping to provide free and clear access to those facilities
			92305176	New Farm Tap#2680, Palouse WA	It is proposed to install new farm tap #2680. The current residence at 15912 Hwy 27 has a high pressure meter set (REG#3013). The service line for the existing meter set includes a casing that was part of an old highway crossing. SEE CPR.
		ZCJ06	03805188	Overbuilt Pipe ID	Remedy overbuilt pipe issues in Idaho. When we discover overbuilds on our facilities, we need to relocate or remove piping to provide free and clear access to those facilities
		ZOR06	06805034	Overbuilt Pipe OR	Blanket-Remedy overbuilt pipe issues in Oregon. When we discover overbuilds on our facilities, we need to relocate or remove piping to provide free and clear access to facilities
			06805170	Overbuild Gas OR	Rectify gas overbuild situations in Oregon for 2012
			98705032	Ovrblt Pipe rplcmnt 2010 Klmth	Replace overbuilt pipe in Klamath Falls Or. Overbuilt pipe presents an increased operating risk to Avista and the public. this project will address the replacement of overbuilt pipe in manufactured housing locations in Klamath Falls, OR
3007	Isolated Steel Replacement	MNG07	06804907	Isolated Steel - OR	Replace cathodically isolated mains & services
			ZBG07	02804907	Isolated Steel - WA
		ZCG07	03804907	Isolated Steel - ID	Replace cathodically isolated mains & services.
			90705081	Moon Gulch Iso Steel Kellogg	It is proposed to replace the existing 2" steel main crossing Moon Gulch with a new 2" PE main contained in a 4" steel casing. The Idaho Utilities Commission has requested that this section of isolated steel be removed. (more on CPR).
3008	Aldyl -A Pipe Replacement	GN106	02802058	Aldyl A Pipe Rplcmnt WA	Replacement of Aldyl-A plastic pipe in Avista gas system - WA
			03802058	Aldyl A Pipe Rplcmnt ID	Replacement of Aldyl-A plastic pipe in Avista gas system - ID
			06802058	Aldyl A Pipe Rplcmnt OR	Replace of Aldyl-A plastic pipe in Avista gas system - Oregon
		GN210	95605761	AA WA MainMajor Woodridge W15	Replace/retire 5.36 miles of pre-1987 Aldyl A mains. Aldyl A pipe is prone to brittle-like cracking leak failures eventually reaching unacceptable reliability.
			95605762	AA WA MainMajor Fairwood W15	Replace/retire 4.03 miles of pre-1987 Aldyl A mains. Aldyl A pipe is prone to brittle-like cracking leak failures eventually reaching unacceptable reliability.
		GN212	95605763	AA WA STTR MajorSpokaneVly '15	Rebuild 1501 Service Tee Transitions (STTR's) where pre-1987 Aldyl A service pipe connects to steel main pipe. STTR's are prone to bending and reaching unacceptable reliability.
		GN214	98405253	AA OR MainMajor MedfordEast'15	Replace/retire 6.2 miles of pre-1987 Aldyl A mains. Aldyl A pipe is prone to brittle-like cracking leak failures eventually reaching unacceptable reliability.
		GN215	98405254	AA OR STTRMajor Medford/Adj'15	Rebuild 836 Service Tee Transitions (STTR's) where pre-1987 Aldyl A service pipe connects to steel main pipe. STTR's are prone to bending and reaching unacceptable reliability.
			98805081	AA OR STTR Major LaGrande'15	Rebuild 793 Service Tee Transitions (STTR's) where pre-1987 Aldyl A service pipe connects to steel main pipe. STTR's are prone to bending and reaching unacceptable reliability.
		GN216	90105366	AA ID MainMajor PostFallsE'15	Replace/retire 3.65 miles of pre-1987 Aldyl A mains. Aldyl A pipe is prone to brittle-like cracking leak failures eventually reaching unacceptable reliability. More on cpr
		GN217	93205087	AA ID STTR Major Lewiston 2015	Rebuild 743 Service Tee Transitions (STTR's) where pre-1987 Aldyl A service pipe connects to steel main pipe. STTR's are prone to bending and reaching unacceptable reliability.
		3117	Gas Telemetry	YN102	92305165
95605749	Mead CG Telem Upgrade-meterg				We installed an ABB TotalFlow RTU in 2013 under Project 95605525 for relocation of piping for NWP and are now connecting additional transducers and modules to it for their upgrade of 3 meters.

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3117	Gas Telemetry	YN102	95605764	Travis Foundry Gas Telem Upgrd	Travis Foundry, E. 1413 Hawthorne Rd, Spokane, Acct #530012586, Station #3217 - Gas Telemetry Upgrade to MIWireless on AC Power. Not billable, Adding a MIW comm box to the existing Mini AT corrector.
			95605765	Sacred Heart Hosp Telm Upgrade	Sacred Heart Hosp, 101 W 8th Ave, near the ER, Acct#2104957, STation #6021 - Gas Telemetry Upgrade to MIWireless on AC Power. Not billable. No removal. Adding a MIW comm box to the existing Mini AT corrector. (there are 2 meters(more on CPR)
			95605774	Johanna Beverage-Add Telem	Johanna Beverage, 5625 W. Thorpe Rd Spokane 99224 - Add MIWireless Minimax to add telemtry to existing meter as they are converting to a gas transport customer.
			97305018	Goldendale Reg 145-Add Telem	Goldendale Reg Sta 145-add telemetry in conjunction with station rebuild (proj #97305017). no removals- adding new solar powered electronic pressure recorder with internal cellular modem.
			97305019	Goldendale CG 146-Upgd Telem	Goldendale City Gate Sta 146-upgrade telemetry in conjunction with station rebuild (proj#97305017)-add new electronic corrector with internal cell modem. Remove existing Mini AT.
		YN103	90105372	Rathdrum Sta 600 Telem Updrd	Install an ABB TotalFlow computer in existing enclosure vacated by Plant's PLC at RCT sta 600. Provides check correction and pressure monitoring. Remove existing mini AT used as a PA.
			90105384	McGuireSt 213-1 Telem Upgrade	McGuire Gate Station 213-1, 1600 N. Corbin Rd, Post Falls, ID-Gas Telemetry upgrade to ABB TotalFlow flow computer with cellular modem on AC power in conjunction with other station upgrades. The existing AT-PPT to be removed.
		YN104	98405263	Medford CG Telem Upgrade2431	Medford City Gate Sta 2431 upgrade the gas telemetry comms to MIWireless. (No prns or removals as the internal landline modem being abandoned is a circuit board within the Mini AT corrector and is not a unit of property.
			98405266	Skyline Plaza-Gas Telem Upgrd	Skyline Plaza, 1200 Mira-Mar Ave, Medford, OR, acct#3690961, sta #24C92-upgrade gas telemetry to MI Wireless comm box with cellular modem. No removal, coverting from landline adding a comm box on ACpower.
			98405267	Rogue Vily Mnr-Gas Telem Upgrd	Rouge Valley Manor, 1200 Miramara Ave, Medford, OR. Account #3690964, STA#24C16 - Upgrade gas telemetry to MIWireless comm box with cellular modem. No removal-converting from landline, adding a comm box on AC power.
			98705073	Kingsley Fld27P13 telem Reml	Kingsley Field sta 27P13, Klamath Falls, OR-upgrade gas telemetry. Removal of old telemetry.
			98705075	Keno CG Add Gas Telemetry	Keno City Gate Sta 2713 in Keno, OR - add gas telemetry. Add ABB totalFlow TRU, transducers, AC powered and cellular.
		YN925	02804357	Install Telemet Sacred Heart#2	Spokane, Wa Install Telemetry At Sacred Heart Hospital Plant #2 Meter Set-Existing Meter Set
			02804577	Gas System Telemetry-WA	Project exists to accumulate miscellaneous capital charges associated with Telemetry Installations in WA
			02805806	Gas System Telemetry WA 2012	This CPR exists to accumulate misc capital charges associated with telemetry installations in Washington in 2012
			03804486	Gas Sys Telemetry - ID	To Accumulate Miscelianeous Capital Charges Associated with Telemetry Installations in Idaho. G. Pardun will keep documentation of what was done.
			06805032	Gas system telemetry OR 2009	This CPR exists to accumulate miscellaneous capital charges associated with telemetry installations in Oregon
			06805159	Gas System Telemetry OR 2011	This CPR exists to accumulate miscellaneous capital charges associated with telemetry installations in Oregon 2011
			90105168	Harpers Furniture Telemetry	Harpers furniture/Flexel/Kimbal office in Post Falls, ID telemetry to convert to gas transport.Bill at time and material not to exceed \$5000. 1881 W. Seltice Way, Post Falls, Id.
			90105347	Rathdrum Sta 210&600 Telem	Install a single ABB totalFlow flow computer in a new bldg at Rathdrum City Gate Sta210. This will provide upgraded telemetry for this site & for the adjoining Combustion Turbine Gate Sta 600. 50/50 cost split.
		93205032	ATK Telemetry gas transport	ATK Lewiston Id-telemetry to convert from sales to gas transport. Bill at time and material not to exceed \$5000.	

Attachment F

3117	Gas Telemetry	YN925	93205033	SJRMC St Joe hosp Telem	Install transport metering telemetry at SJRMC in Lewiston ID. and combine pulses from both meters. St Joseph's regional medical center. Bill at time and material not to exceed \$6000
			95605357	Gonzaga U Gas telemetry Pulse	Gonzaga University Provide corrected pulse output from corrector at main meter to customer for energy managementsystem. Bill at time & material to Gonzaga
			95605509	Quarry Tile Telemetry	Install transport metering telemetry at Quarry Tile Company, 6828 E. Utah Ave Spokane.Adding MIWireless comm box and AC power to existing Mini AT
			95605510	SFCC Telemetry	Install transport metering telemetry at SFCC (Spokane Falls Community college). aDDING miWIRELESS COMM BOX AND ac POWER TO EXISTING MINI AT
			95605511	SCC Telemetry	Install transprot metering telemetry at SCC (Spokane Community College) Adding wireless comm box and AC power to existing mini AT
			98405127	Knife River Cent Point OR Tel	Knife River Materials-central point operation-telemetry to convert from sales to gas transport.
		YN926	02804578	Gas System Telemtry-WA	Project exists to accumulate miscellaneous capital charges associated with Telemetry Installs in WA
3203	East Medford Reinforcement	MN616	98405061	E Medford Reinforcement	It is proposed to hire a real estate Right of Way firm to assist Avista in choosing a route, navigating the myriad of zoning and permitting issues and acquiring necessary easements to complete construction of the east medford (more on cpr)
			98405247	E. Medford 12" HP - Phase 5	This project proposes design and engineering for the completion of the remaining 16,000 ft of 12-in HP steel mainline south along Springbrook Rd, west along Spring St, south along Pierce Rd and to connect into the existing 12-in on Hillcres
3303	Gas Ladd Canyon Gate Stn Upgrade, La Grande	GN309	98805078	Rebuild STA#817OR-Ladd CanyStn	Proposed to rebld the existing Ladd Canyon/Union Gate Stn#0817 near LaGrande, OR. More on CPR.
3307	Bonanza Gate Stn Move	GN410	81000006	Bonanza Gate Station Relocate	It is proposed to relocate the Bonanza Gate Station (#7100) to come off of the Medford Lateral near GTN Compressor Station #14. The station needs to be rebuilt, and moving the station will eliminate the need for an odorizer (more on CPR).
			81000007	Bonanza Gate 2730 Add Telemtry	Bonanza Gate 2730, Bonanza OR (12 mi E of KlamFalls) add gas telemetry and site electrical-small enclosure housing an ABB totalFlow with internal cell modem. New station built under 81000006, ER3307. more on cpr
7201	Jackson Prairie Storage	JN001	54505007	OR Cushion Gas Expansion Blnkt	A portion of annual capital maintenance costs at the Jackson Prairie Underground storage (JP) will be charged to Oregon. This will become effective after the deliverability expansion project is completed. Jackson Prairie (more on cpr)
			54505008	OR Cushon Gas Expansion	A portion of annual capital costs at the Jackson Prairie Underground Storage (JP) will be charged ot Oregon. This will become effective after the deliverability expansion project is completed
		JN101	54504501	OR Cushion Gas Expansion	Jackson Prairie UG Storage capacity expansion costs incurred for benfit of Oregon customers. 2007 cost of project was budgeted by AE. Eff 7/1/07 costs capitalized by AU.
		JN604	54504500	JP Capital Blanket for AN	Jackson Prairie Capital Improvements
			54505002	JP Software Expenditures	Jackson Prairie Underground Storage Project (JP)software costs
			54505003	JP Software Capital Blanket AN	Jackson Prairie Underground Storage project software costs
Grand Total					

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

JURISDICTION:	Oregon	DATE PREPARED:	08/17/2015
CASE NO.:	UG 288	WITNESS:	Karen Schuh/Jody Morehouse
REQUESTER:	PUC Staff - Moore	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 233C	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

Regarding the East Medford reinforcement project, identified as ER #3203 in Avista/600, Schuh/10, please identify the portion of the project that is attributable to deliveries from TransCascadia, and which portion relates to growth forecast.

RESPONSE:

The attachments provided are **CONFIDENTIAL SUBJECT TO GENERAL PROTECTIVE ORDER**.

The East Medford Reinforcement Project will allow the gas supply system to distribute the gas needed for a design day to our customers throughout the Medford area. The East Medford reinforcement project is driven by current system demand, whereby the current distribution system pressure on a design day would leave Avista at risk of not being able to provide service to customers. Completion of this project will allow Avista to fulfill its obligation to serve and align the capacity of the distribution system with the IRP forecasts. Please see Staff_DR_233C Confidential Attachment A, which displays design day system pressure models in East Medford both for the current system and for the future system, following completion of the East Medford reinforcement.

Additionally, Staff_DR_233C Confidential Attachment B is a presentation covering Avista's gas pipeline capacity projects, within which the East Medford Reinforcement project is discussed on slide #8, and pipeline capacity projects in general are discussed throughout (including the slide notes).

Under normal operating conditions, 100% of the gas flowing through the pipeline associated with this project will come from TransCanada.

CONFIDENTIAL PER GENERAL PROTECTIVE ORDER

Pages 35-52 Redacted

**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/Jeff Webb
TYPE:	Data Request	DEPT:	State & Federal Regulation /Gas Engineering
REQUEST NO.:	Staff – 288	TELEPHONE:	(509) 495-4554/(509) 495-4424
		EMAIL:	david.machado@avistacorp.com jeff.webb@avistacorp.com

REQUEST:

In the Avista 2014 Integrated Resource Plan (IRP), the Company states, with respect to completion of the East Medford Reinforcement project [ER 3203], that "...needs have changed over time, and with no immediate resource need, completing the final phase of the project has been delayed....Avista will continue to evaluate forecasts and assess the most appropriate timing for completion of this project." According to the IRP, the \$5 million the Company requests for this project are planned for 2018. Please describe what has changed in the Company's forecast from when the IRP was filed and the filing of this request. Please provide all documentation that supports your answer.

RESPONSE:

As documented within the 2014 Natural Gas Integrated Resource Plan (IRP)¹, and included as Staff_DR_288 Attachment A, the IRP was prepared over a period spanning approximately one year. Milestones of particular relevance to this request include the following:

- August 30, 2013 – Work plan filed with WUTC
- May 11, 2014 – Draft of IRP to Technical Advisory Committee
- June 29, 2014 – Comments on draft due back to Avista
- July 17, 2014 – TAC final review meeting (if necessary)
- August 31, 2014 – File IRP document

Further, Staff's excerpt from the IRP regarding the East Medford Reinforcement project omits a key sentence, the inclusion of which is important for full contextual perspective. The full paragraph reads as follows (emphasis added to highlight the omitted sentence):

This has been a multi-phase project spanning several years. As forecasted, needs have changed over time, and with no immediate resource need, completing the final phase of the project has been delayed. **Other factors may drive completion of the project including reliability needs, flexibility of natural gas supply management and optimizing synergies of other construction projects to reduce project cost.** Avista will

¹ 2014 Natural Gas Integrated Resource Plan Appendix 1.1.

continue to evaluate forecasts and assess the most appropriate timing for completion of this project.²

Furthermore, just a few paragraphs earlier in the IRP, the following excerpt establishes that the projects included in the IRP represent preliminary estimates of timing and cost, which are subject to change:

These projects are preliminary estimates of timing and costs of major reinforcement solutions. The scope and needs of these projects generally evolves with new information requiring ongoing reassessment. Actual solutions may differ due to differences in actual growth patterns and/or construction conditions from the initial assessment.³

Concurrent to the finalization of the IRP, the project manager for the East Medford Reinforcement Project submitted a project review file indicating a need to move the project forward from 2018 to 2015 based upon plans to downrate (i.e., reduce the operating pressure) certain high pressure pipe in West Medford in 2016. This planned downrate will result in the section of pipeline in West Medford being reclassified from transmission pipeline to distribution pipeline. The reduction in pressure will result in enhanced safety and reliability of the Medford distribution system. Avista's natural gas department has discussed this planned downrate with Oregon PUC SSRD Staff. Because the high pressure transmission pipe in West Medford currently serves a portion of the gas used in the eastern portion of Medford, reducing pressure in the transmission pipe would reduce the ability of this pipe to serve loads in East Medford. Additionally, the existing distribution pipeline on the eastern side of the Medford distribution network would not have the capacity to serve loads in east Medford. Completion of the East Medford reinforcement would alleviate this bottleneck.

The decision to pursue the downrate of the high pressure pipe was made in the third quarter of 2014 and the request to accelerate the project construction and completion to 2015 (attached as Staff_DR_288 Attachment B) was submitted on August 18th, 2014, as shown in Staff_DR_288 Attachment C, which is a screen shot of the file properties screen on the SharePoint site that serves as a repository for capital project submissions to the Capital Planning Group (CPG). Further, because this request impacted the subsequent year (2015, rather than 2014), the request was processed through the CPG's annual five-year capital planning process, which was not completed until September 4, 2014.

Submission of the project update occurred only 13 days prior to the target IRP filing date and one month after the final review meeting. Given this, and that full approval of the project acceleration did not occur until after the filing of the IRP, it is not logistically feasible for the IRP to have reflected the updated timing associated with the East Medford Reinforcement Project.

Finally, the purpose of the IRP is to analyze expected demand over a 20-year planning horizon. Thus, the focus of the IRP is on supply resources, and interpreting the phrase "*...and with no immediate resource need...*" as referring to anything other than a resource supply need would be incorrect. That is to say, the IRP is not stating that Avista's operations do not need the East Medford Reinforcement (which would require considering the resource need as referring to an operational resource – or asset). Rather, the IRP is saying that, from a gas supply/demand

² Avista Utilities 2014 Natural Gas IRP, page 129-130.

³ Avista Utilities 2014 Natural Gas IRP, page 129.

perspective, there is not an immediate supply shortfall. There is, however, a near-term need to complete this reinforcement in order to enable the planned downrate and improve distribution system safety and reliability. Further, the determination that the project timing should be accelerated is consistent with the statement (from above) that "Other factors may drive completion of the project, including reliability needs, flexibility of natural gas supply management and optimizing synergies of other construction projects to reduce project cost."

The following is Avista's TENTATIVE 2014 Natural Gas IRP timeline:

August 30, 2013	Work Plan filed with WUTC
January through April 2014	Technical Advisory Committee meetings (exact meeting dates <i>subject to change</i>). Meeting topics will include:
	January 17 Demand Forecast & Demand-Side Management
	February 21 Distribution Planning & Supply/Infrastructure and Potential Case Discussion
	March 20 SENDOUT® Preliminary Output Results and Further Case Discussion
	April 17 SENDOUT® results
May 11, 2014	Draft of IRP document to TAC
June 29, 2014	Comments on draft due back to Avista
July 17, 2014	TAC final review meeting (if necessary)
August 31, 2014	File finalized IRP document

Attachment F
Capital Review Template

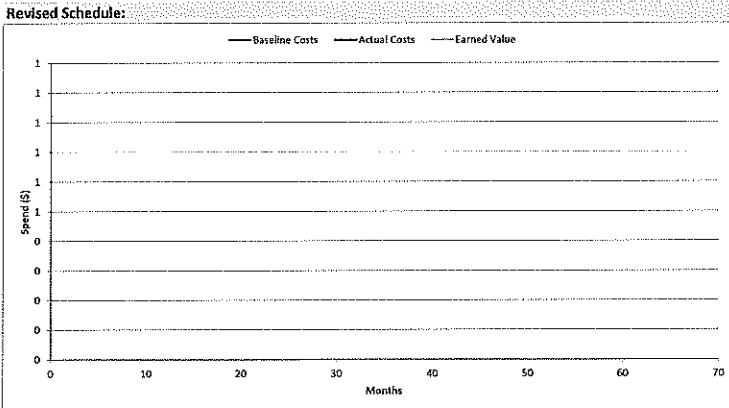


Investment Name:	East Medford Reinforcement		Original Assessments:				
Requested Amount	\$0		Financial:	MH - >= 9% & <12% CIRR			
Duration/Timeframe	1 2015		Strategic:	Reliability & Capacity			
Dept., Area:	Gas Engineering		Business Risk:	Operations improved beyond current levels			
Owner:	Mike Faulkenberry		Project/Project Risk:	ERM Reduction >10 and <= 15			
Sponsor:	Don Kopczynski		Assessment Score: 97				
Category:	Project		Project status				
Mandate/Reg. Reference	OR Tariff - Rule 14(A)(2)		Overall	Scope	Expected Spend at Year's End	Labor Resource Shortfall	Schedule (+ ahead/- behind)
Project Update Description:			On Track	No Change - No Impact	\$400,000	No Change - No Impact	On Track
This project will complete the 12" high-pressure steel pipeline loop across the east side of Medford, OR. The length of the remaining segment will be about 3.2 miles. Avista's Gas Integrated Resource Plan requires increased gas deliveries from the TransCanada Pipeline source at Phoenix Road Gate Station in SE Medford. Existing distribution piping exiting the station will			CPI =		-1.38	SPI = 1.43	

Requested Action:	No Action		Amount (\$):	
Year of Change			Date Required	
Consequence:	Project changed from 2018 construction to 2015 based on system capacity analysis by Gas Planning.		Offset:	

Status: Description - Describe any status in Yellow or Red above and Mitigation Plans to address

Overall	
Scope	
Expected Spend at Year's End	
Labor Resource Shortfall	
Schedule	



Construction Cash Flows (CWIP)

	Approved	Update Revised by Year	Variance
2012	\$ 550,000		\$ 550,000
2013	\$ 400,000		\$ 400,000
2014	\$ -		\$ -
2015	\$ -	\$ 5,000,000	\$ (5,000,000)
2016	\$ -	\$ -	\$ -
Total	\$ 950,000	\$ 5,000,000	\$ (4,050,000)

Prepared signature _____

Attachment F
 Capital Review Template



Reviewed signature _____
 (if necessary) Director/Manager

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

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

To be completed by Capital Planning Group	
Rationale for decision	Approvals
	Date Approval Amount (\$) (+ amount for added budget/- amount for reduced budget)

Submitted Review Sheets - East Medford Reinforcem_review.xlsm

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Title	
Overall	On Track
Scope	No Change - No Impact
Expected Spend at Year End	\$400,000.00
Labor Resource Shortfall	No Change - No Impact
Schedule	29.82%
Performance	
CPI	1.38
SPI	1.43
Requested Action	No Action
Name	East Medford Reinforcem_review
Date	7-2014
Category	Project

Created at 8/18/2014 3:18 PM by Webb, Jeff
Last modified at 8/18/2014 3:18 PM by Webb, Jeff

Close

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 - 005	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

With respect to the Medford Reinforcement Project, please identify what percentage of gas that moves through that pipe serves each of the following classes of customers:

- a. residential
- b. commercial
- c. industrial
- d. transportation

RESPONSE:

As noted in CUB_DR_04, given that the natural gas in our distribution system is fungible (i.e., one unit is identical to another, and all units are interchangeable for delivery) and that at any given moment the composition and magnitude of demand (i.e., the relative weighted demand for residential, commercial, industrial, and transportation customers) may vary from any other given moment, a breakdown of gas flow by customer class is not available.

A breakdown of historical load, by customer class, in the Medford area is the most similar measure available. The following table provides this breakout, based upon 2014 historical usage.

Customer Class	2014 Therms	Percentage of Total
Residential	26,035,967	38.73%
Commercial	17,740,378	26.39%
Industrial	574,528	0.85%
Transportation	22,865,040	34.02%
Total Medford	67,215,913	

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 - 028	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

The following question refers to the Company's response to CUB DR 5:

- a) Please provide 5 years of the same data as contained in the Company's response to CUB DR 5.

RESPONSE:

The table included as CUB_DR_028 Attachment A provides the previous five years of the same data as contained in the Company's response to CUB_DR_005, which represents a breakdown of load, by customer class, in the Medford service area. This information is sourced from Mr. Forsyth's response to Staff_DR_193 Attachment A.

Medford Service (in therms), by Customer Class

Customer Class	2014 Therms	Percentage of Total	2013 Therms	Percentage of Total	2012 Therms	Percentage of Total	2011 Therms	Percentage of Total	2010 Therms	Percentage of Total
Residential [1]	26,035,967	38.73%	29,695,156	42.27%	28,264,263	42.53%	29,443,187	44.33%	27,768,606	42.66%
Commercial [2]	17,740,378	26.39%	19,162,562	27.27%	18,323,327	27.57%	18,580,949	27.97%	17,687,776	27.17%
Industrial [3]	574,528	0.85%	516,363	0.73%	396,530	0.60%	424,464	0.64%	416,800	0.64%
Transportation [4]	22,865,040	34.02%	20,884,297	29.72%	19,474,577	29.30%	17,973,655	27.06%	19,225,004	29.53%
Total Medford	67,215,913		70,258,378		66,458,697		66,422,255		65,098,186	

[1] Calculated as the sum of the following ranges in Staff_DR_193 Attachment A, tab "WA, ID, OR Residential":

- 2014 - AH207:AH218, AJ207:AJ218
- 2013 - AH195:AH206, AJ195:AJ206
- 2012 - AH183:AH194, AJ183:AJ194
- 2011 - AH171:AH182, AJ171:AJ182
- 2010 - AH159:AH170, AJ159:AJ170

[2] Calculated as the sum of the following ranges in Staff_DR_193 Attachment A, tab "WA, ID, OR Commercial":

- 2014 - BV207:BV218, BX207:BX218, BZ207:BZ218, CB207:CB218, CD207,CD218
- 2013 - BV195:BV206, BX195:BX206, BZ195:BZ206, CB195:CB206, CD195,CD206
- 2012 - BV183:BV194, BX183:BX194, BZ183:BZ194, CB183:CB194, CD183,CD194
- 2011 - BV171:BV182, BX171:BX182, BZ171:BZ182, CB171:CB182, CD171,CD182
- 2010 - BV159:BV170, BX159:BX170, BZ159:BZ170, CB159:CB170, CD159,CD170

[3] Calculated as the sum of the following ranges in Staff_DR_193 Attachment A, tab "WA, ID, OR Industrial":

- 2014 - CF207:CF218, CH207:CH218, CJ207:CJ218, CL207:CL218
- 2013 - CF195:CF206, CH195:CH206, CJ195:CJ206, CL195:CL206
- 2012 - CF183:CF194, CH183:CH194, CJ183:CJ194, CL183:CL194
- 2011 - CF171:CF182, CH171:CH182, CJ171:CJ182, CL171:CL182
- 2010 - CF159:CF170, CH159:CH170, CJ159:CJ170, CL159:CL170

[4] Calculated as the sum of the following ranges in Staff_DR_193 Attachment A

- 2014 - tab "WA, ID, OR Commercial" CF207:CF218, tab "WA, ID, OR Industrial" CN207:CN218
- 2013 - tab "WA, ID, OR Commercial" CF195:CF206, tab "WA, ID, OR Industrial" CN195:CN206
- 2012 - tab "WA, ID, OR Commercial" CF183:CF194, tab "WA, ID, OR Industrial" CN183:CN194
- 2011 - tab "WA, ID, OR Commercial" CF171:CF182, tab "WA, ID, OR Industrial" CN171:CN182
- 2010 - tab "WA, ID, OR Commercial" CF159:CF170, tab "WA, ID, OR Industrial" CN159:CN170

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	Oregon	DATE PREPARED:	11/03/2015
CASE NO:	UG 288	WITNESS:	Jeff Webb
REQUESTER:	CUB	RESPONDER:	Jeff Webb
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	CUB - 31C	TELEPHONE:	(509) 495- 4424
		EMAIL:	jeff.webb@avistacorp.com

REQUEST:

Please provide any and all iterations of studies conducted in the past five years that are analogous to the one provided in response to Staff DR 233C Confidential Attachment A for both the Ladd Canyon and East Medford projects. Please also provide any that would have been included in the most recent IRP analysis.

RESPONSE:

The attachments provided are **CONFIDENTIAL SUBJECT TO GENERAL PROTECTIVE ORDER.**

Please see: CUB_DR_031C Confidential Attachment A
CUB_DR_031C Confidential Attachment B
CUB_DR_031C Confidential Attachment C
CUB_DR_031C Confidential Attachment D

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Pages 64-75 Redacted

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

JURISDICTION:	Oregon	DATE PREPARED:	11/03/2015
CASE NO.:	UG 288	WITNESS:	Jeffrey Webb
REQUESTER:	CUB - McGovern	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	CUB – 045C	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

The Company's most recent IRP² lists the need for the East Medford Upgrade as 2018.

This has been a multi-phase project spanning several years. As forecasted, needs have changed over time, and with no immediate resource need, completing the final phase of the project has been delayed.

Please demonstrate what factors have changed between the IRP and the filing of the Company's General Rate Case and how those changes necessitated completion of the project.

RESPONSE:

The attachments provided are **CONFIDENTIAL SUBJECT TO GENERAL PROTECTIVE ORDER**.

In late July of 2014, Avista's Gas Engineering group identified that the SynerGEE load study for the Medford distribution system had incorrectly modeled the delivery of natural gas from the Williams Northwest Pipeline (Williams NWP) transmission pipeline at Avista's Jones Creek gate station. The Jones Creek gate station is near Grants Pass and serves as the second feed into the Medford high pressure system. The SynerGEE load study included delivery at 400 psig (pounds per square inch gauge). This pressure (400 psig) is the normal gate station operation on a best efforts basis from Williams NWP; however, under our contract with Williams NWP, Williams NWP only guarantees delivery at 300 psig. Because design heating degree day modeling considers only firm supply and firm demand, the SynerGEE model had to be updated to reflect the contractually guaranteed supply pressure. This update resulted in the identification that the last phase of the East Medford reinforcement was priority #1 for completion, due to the substantial difference in modeling conditions, which revealed many more customers to be at risk of loss of service on a design heating degree day.

CUB_DR_045C Confidential Attachment A is an email (dated August 1, 2014) from the engineer who performs the SynerGEE modeling to Jeff Webb, Manager of Gas Engineering & Measurement, and which highlights the need for the completion of the last phase of the East Medford reinforcement. Please notice that the subject line is titled "HP priorities, E Medford H.P. reinforcement is priority one" and that the message was sent with High importance. These factors underscore the need for this project to be addressed promptly through the completion of the East Medford reinforcement project.

Within CUB_DR_045C Confidential Attachment A, the image on the first page, titled “Medford, Ashland, Grants Pass 61 HDD” demonstrates the system dynamics of the Medford area with the “before” modeling of delivery at the previously modeled 400 psig at the Jones Creek gate station.

The following image (second page of CUB_DR_045C Attachment A, first image), titled “Medford, Ashland, Grants Pass 61 HDD After 12” Reinforcement” demonstrates the same natural gas distribution system at the correct 300 psig intake after the completion of the East Medford High Pressure Reinforcement project.

A model demonstrating the correctly modeled intake of 300 psig, but without the completion of the East Medford reinforcement project is not included in this email. However, this system model (intake pressure of 300 psig at Jones Creek, without the completion of the East Medford reinforcement) is included as CUB_DR_045C Attachment B.

Please note that in each of these three illustrations, the area circled with 1,267 customers is Jacksonville, Oregon, and the deficiency there was incorrectly modeled – thus, these customers should be excluded from the number of at risk customers in each of the three illustrations.

In summary, the first illustration (the before model, at 400 psig intake) illustrates the original evaluation that approximately 3,300 customers were at risk. The intermediate model (at the correct 300 psig intake, without the East Medford reinforcement) illustrates that, in reality, approximately 8,200 customers were at risk of an outage on a design heating degree day. The third model illustrates that, with the completion of the East Medford reinforcement, only approximately 2,900 customers will be at risk of an outage on a design heating degree day. This represents a reduction in customers at risk of approximately 65%.

Therefore, it is clear that this project was immediately necessary and improves the service quality in the Medford distribution system substantially.

Avista’s 2014 Natural Gas IRP includes both of the following statements, which are instructive in light of the questions about the timing of this project. The first, which addresses the fact that all distribution projects included in the IRP are preliminary estimates of timing and cost, is as follows (emphasis added):

Table 7.1 summarizes the cost of major distribution system enhancements addressing growth-related system constraints, system integrity issues and the timing of these expenditures. These projects are preliminary estimates of timing and costs of major reinforcement solutions. The scope and needs of these projects generally evolves with new information requiring ongoing reassessment. Actual solutions may differ due to differences in actual growth patterns and/or construction conditions from the initial assessment.¹

The second, which is specific to East Medford, is as follows (emphasis added):

This has been a multi-phase project spanning several years. As forecasted, needs have changed over time, and with no immediate resource need, completing the final phase of the project has been delayed. Other factors may drive completion of the project including reliability needs, flexibility of natural gas supply management and optimizing synergies

¹ Avista Utilities 2014 Natural Gas Integrated Resource Plan, page 129.

of other construction projects to reduce project cost. Avista will continue to evaluate forecasts and assess the most appropriate timing for completion of this project.²

It is important to recognize and consider that the IRP represents the facts and project completion estimates at a given point in time and that facts and circumstances can, and likely will, change after that point. The following timeline demonstrates why it was not possible for the IRP to reflect the updated project timing associated with the East Medford reinforcement project:

May 30, 2014	Final draft of IRP is provided to Technical Advisory Committee for comment (this is effectively the cut-off date for finalization of the IRP).
July 2014:	Avista's Gas Engineering department recognizes the need to update the SynerGEE load study modeling parameters.
August 1, 2014	The results of the SynerGEE load study update are communicated to Jeff Webb.
August 18, 2014	Jeff Webb submits a request to the Capital Planning Group to complete the East Medford reinforcement in 2015.
August 31, 2014	Filed date of the IRP.
September 4, 2014	Capital Planning Group finalizes its five-year capital plan, including approval of the completion of the East Medford reinforcement in 2015.

As this timeline demonstrates, all of the additional information that led to a re-evaluation of the priority of the East Medford reinforcement as the highest priority reinforcement occurred subsequent to the completion and distribution of the final draft of Avista's 2014 Natural Gas IRP. Additionally, the approval of the updated timing of the East Medford reinforcement did not occur until after the filed date of the IRP. Therefore, even if this change were deemed material to the overall IRP and the IRP was updated to reflect the new information subsequent to the final draft, the approval of the change had not yet occurred, and any update to the IRP could not have reflecting any change in timing.

Furthermore, the IRP recognizes that facts can, and likely will, change, as noted above. Therefore, Avista's decision to complete the project in 2015, as opposed to 2018, is not inconsistent with the IRP, when considered in the full context of the distribution planning section of the IRP and the changes in facts and circumstances that occurred in the second half of 2014 surrounding the East Medford project.

² Avista Utilities 2014 Natural Gas Integrated Resource Plan, pages 129-130.

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Pages 79-82 Redacted

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

JURISDICTION:	Oregon	DATE PREPARED:	11/03/2015
CASE NO:	UG 288	WITNESS:	Jeff Webb
REQUESTER:	CUB	RESPONDER:	Jeff Webb
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	CUB - 46	TELEPHONE:	(509) 495- 4424
		EMAIL:	jeff.webb@avistacorp.com

REQUEST:

On page 128 of the Company's most recent IRP₃, Compressor stations are identified as relatively low cost distribution system enhancements designed to assist with growing demand.

These smaller compressor stations are well suited for areas where gas demand is growing at a relatively slow and steady pace, so that purchasing and installing these less expensive compressors over time allows a pipeline to serve growing customer demand for into the future.

- Were compression stations considered to meet the needs identified in the Ladd Canyon Station upgrade or East Medford
- If Compression stations were considered, please provide documentation
- If Compression stations would not resolve the issues at these stations, please explain why.
- Please provide the cost analysis of installing compression stations at those sites if the compression stations would resolve the low pressure issue identified at the 10/20/2015 settlement conference by Jeff Webb for either East Medford or Ladd Canyon, on a (1) short term or (2) permanent or long term basis

RESPONSE:

The next paragraph in the IRP states:

Compressors can be a cost effective option to resolving system constraints; however, regulatory and environmental approvals to install a station, along with engineering and construction time can be a significant deterrent. Adding compressor stations typically involves considerable capital expenditure. Based on Avista's detailed knowledge of the distribution system, there are no foreseeable plans to add compressors to the distribution network.

- No (Please see (c) below)
- n/a
- Despite the inclusion and brief description of compressors in Avista's IRP, the economics and hydraulic advantages of compressors are limited to long distance, large diameter, high pressure applications. Across the industry, compressors are regularly installed on interstate pipelines that meet these criteria, not on complex distribution systems such as Avista's. There are no compressors currently on Avista's system, nor are there plans to install any. Additionally, the ongoing operating and maintenance costs for a compressor station are far greater than a pipeline.

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

JURISDICTION:	Oregon	DATE PREPARED:	11/25/2015
CASE NO.:	UG 288	WITNESS:	Jeffrey A. Webb
REQUESTER:	PUC Staff	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 339	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

When was the most recent date that a design heating degree day occurred in the Medford, Grants Pass, Ashland area? How many design heating degree days have occurred in this area in the last 20 years?

RESPONSE:

Please see Avista's response to Staff_DR_331 for discussion of the most recent dates on which design heating degree days occurred. This response also discusses the methodology surrounding the determination of design heating degree days.

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

JURISDICTION:	Oregon	DATE PREPARED:	11/25/2015
CASE NO.:	UG 288	WITNESS:	Jeffrey A. Webb
REQUESTER:	PUC Staff	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 340	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

When was the most recent date that a design heating degree day occurred in the La Grande area?
How many design heating degree days have occurred in this area in the last 20 years?

RESPONSE:

Please see Avista's response to Staff_DR_331 for discussion of the most recent dates on which design heating degree days occurred. This response also discusses the methodology surrounding the determination of design heating degree days.

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

JURISDICTION: Oregon DATE PREPARED: 11/25/2015
CASE NO.: UG 288 WITNESS: Jeffrey A. Webb
REQUESTER: PUC Staff RESPONDER: David Machado
TYPE: Data Request DEPT: State & Federal Regulation
REQUEST NO.: Staff – 341 TELEPHONE: (509) 495-4554
 EMAIL: david.machado@avistacorp.com

REQUEST:

Please provide the actual annual transfers to plant for the first four phases of the East Medford Reinforcement project. In your answer please identify each phase.

RESPONSE:

The following table, excerpted from Mr. Webb's Reply Testimony,¹ provides the timing of the phases included in the East Medford Reinforcement Project.

<u>Phase</u>	<u>Year</u>	<u>Feet of Pipe</u>
Phase 1a	2008	7,500'
Phase 2	2008	18,500'
Phase 1b	2009	7,300'
Phase 3	2009	12,800'
Phase 4	2013	1,000'
Phase 5	2015	16,400'

¹ AVISTA/1500, Webb/9, lines 19-24.

The following table illustrates the actual transfers to plant, by year, related to the East Medford Reinforcement Project.

Year	Phase	Gross Plant Investment Transferred to Plant in Service
2008	Phases 1a & 2	5,862,527
2009	Phases 1b & 3	4,093,757
2010*	Phases 1b & 3	12,037
2013	Phase 4	787,493
Total		10,755,813

* Transfers to plant in 2010 represent trailing charges associated with work in 2009 on Phases 1b and 3. Trailing charges are the result of timing differences between completion of the project work near the end of a period and the receipt of invoices associated with that work in the subsequent period.

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

JURISDICTION:	Oregon	DATE PREPARED:	12/03/2015
CASE NO.:	UG 288	WITNESS:	Jeffrey Webb/Karen Schuh
REQUESTER:	PUC Staff - Moore	RESPONDER:	Jeffrey Webb/Karen Schuh
TYPE:	Data Request	DEPT:	Rates and Tariffs
REQUEST NO.:	Staff-342 Supplement 2	TELEPHONE:	(509) 495-2293
		EMAIL:	karen.schuh@avistacorp.com

REQUEST:

Please provide an updated version of your response to Staff DR #188 Attachment B, in which the Company provides a list of monthly actual and forecasted transfers to plant for *each* project in the Company's filing.

RESPONSE:

Please see Staff_DR_342 Attachment A for details of actual transfers to plant through September and estimated transfers from October through December of 2015, displayed in the same format as the Company's response to Staff_DR_188 Attachment B.

The Company originally planned to transfer to plant approximately \$46.2 million. As of September 30, 2015, the updated planned transfers to plant are \$43.7 million in 2015. This is shown by adding the total listed in Attachment A, page 1 of \$14.3 million and \$29.4 million listed on page 3.

Supplemental Response (December 2, 2015):

Subsequent to the original submission of Staff_DR_342, updated project progress information related to the East Medford Reinforcement Project (ER 3203) included in Staff_DR_342 Attachment A was received. The final portion of Phase 5 of the East Medford Reinforcement Project requires the completion of 3,900' of horizontal directional drilling. This drilling has encountered difficult, rocky conditions, which has slowed project progress. If these current conditions continue through the duration of the drilling, the project could be completed as late as mid-March. Avista will provide updated information as it becomes available.

Accordingly, Staff_DR_342 Supplemental Attachment A reflects the original Staff_DR_342 Attachment A, updated to reflect that, under current conditions, the transfer of the East Medford Reinforcement Project to plant-in-service could occur as late as March 2016.

As a result, the updated planned transfers to plant for 2015 are \$38.2 million in 2015 (the \$43.7 million total included in our original submission of this DR, less the \$5.5 million planned transfer in 2015 related to the East Medford Reinforcement).

Supplemental Response #2 (December 3, 2015):

Avista's target is still to complete the East Medford Project prior to March 1, 2016. Projects of this nature involve a partnership between Avista, the contractors involved, and the local municipal authorities. The City of Medford would like to have this Project completed as soon as

possible. The current rocky pipeline boring conditions, if they persist, could extend the completion date as late as the middle of March 2016. If these conditions persist, Avista will consider working with the contractor to work more hours per week, and/or add additional equipment to the project so that the Project can be completed on a more timely basis, and before March 1, 2016. Therefore, the Company is planning to leave the revenue requirement associated with East Medford in the case for the present. In the Company's Post-Hearing Brief on December 18th, we will address this issue, making reference to the amended testimony and the revised response to this Staff Data Request No. 342. The parties will then have the opportunity in their reply briefs to respond.

Before the record closes in this case, and certainly before the Commission issues its decision, the Company will advise the Commission of the planned completion date of the project, based on the most recent information available. It will also commit to providing an officer's certificate attesting to the completion date.

For ease of readability, UG 288 CUB Exhibit 220, Attachment A will be provided to all parties on CD.

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

JURISDICTION:	Oregon	DATE PREPARED:	11/25/2015
CASE NO.:	UG 288	WITNESS:	Jeffrey A. Webb
REQUESTER:	PUC Staff	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 343	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

The last time a design heating degree day occurred in Oregon, what were the additional costs incurred by Avista associated with activating its Cold Weather Action Plan, or other similar plan, where manual intervention measures were needed?

RESPONSE:

Please see Avista's response to Staff_DR_333, which includes an attachment detailing recent costs associated with cold-weather activities.

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

JURISDICTION:	Oregon	DATE PREPARED:	11/25/2015
CASE NO.:	UG 288	WITNESS:	Jeffrey A. Webb
REQUESTER:	PUC Staff	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff - 344	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

If Avista has not, in the last 10 years, needed to employ manual intervention measures in its distribution system due to extreme cold weather, please provide an estimate of what the additional costs *would be* if such an event were to occur in the future.

RESPONSE:

See Avista's response to Staff_DR_333