Exh. HLR-7T

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-170485

DOCKET NO. UG-170486

REBUTTAL TESTIMONY OF

HEATHER L. ROSENTRATER

REPRESENTING AVISTA CORPORATION

I. INTRODUCTION

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

A. My name is Heather Rosentrater and I am employed as the Vice President of Energy Delivery for Avista Utilities, at 1411 East Mission Avenue, Spokane, Washington.

Q. Have you filed direct testimony in this proceeding?

A. Yes. I have filed direct testimony in this case addressing electric and natural gas energy delivery facilities; discussing our electric reliability objectives, types of investments, and system performance; and explaining the factors driving our investment in electric distribution infrastructure.

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

A. My rebuttal testimony will address the Company's Transmission, Distribution (electric and natural gas) and General Plant capital projects included in the Company's pro forma capital adjustment based on a "functionalized" threshold as discussed by Company witness Ms. Schuh, in response to the use of a much higher, and inappropriate, threshold used by Staff witness Ms. Scanlan. I will also address Staff's discussion on the Company plane and hangar.

Q. Are you sponsoring any exhibits?

A. No.

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II. THE COMPANY'S RESPONSE TO STAFF'S USE OF ITS THRESHOLD

Q. In its original filing in May 2017, did the Company provide a description of the need and timing for each capital project for purposes of deriving a revenue requirement?

A. Yes. In my direct testimony, labeled Exh. HLR-1T, I explained why the planned investments are necessary to maintain the current levels of asset reliability and performance of our system, and the need for each capital project and program by the "Investment Driver" classification used to categorize our infrastructure investment needs.[1] In addition, I provided the capital Business Case summary documents for each of the infrastructure investments described in my testimony in Exh. HLR-6. The Business Cases generally provide an overall description of the project, the problem being addressed, as well as proposals and a recommended solution, together with approvals and authorizations.[2]

Q. Of the 69 electric and 32 natural gas projects contained in the original filing that you supported, how many projects were the subject of additional discovery by Staff?

A. In Staff's response to data request No. 1, Ms. Scanlan points to pages 20 and 21 of Exh. KBS-1T, Tables 1 and 2, which identify those projects that exceeded Staff's 0.5% "threshold", and were the subject of additional discovery by Staff. These tables include a total of only 5 of the 101 projects I supported in the original filing. Stated differently, Staff chose

[1] The six investment driver criteria include: 1) Respond to customer requests for new service or service enhancements; 2) Meet our customers' expectations for quality and reliability service; 3) Meet regulatory and other mandatory obligations; 4) Address system performance and capacity issues; 5) Replace infrastructure at the end of its useful life based on asset condition; and 6) Replace equipment that is damaged or fails, and support field operations.

[2] "Project" refers to an individual investment for a specific period of time. "Programs" represent investments that address systemic needs that are ongoing with no recognized endpoint, such as wood pole management program. For ease of reference, the term "project" will be used to represent both capital projects and capital programs.

to audit over the last five months only 5 projects out of the 101 projects for which information was provided based on the application of a "threshold". There were no other constraints on time or the availability of supporting documentation that would prevent an audit.

Q. What is your understanding of why Staff only selected certain projects?

A. As described in greater detail in Ms. Schuh's rebuttal testimony, Staff's case only includes those projects where the Washington-allocated share of the total project cost is greater than 0.5% of the Company's latest year-end Washington-allocated net utility plant in service.

Q. What is the result of applying such a threshold in this case for purposes of deriving a revenue requirement as it relates to the projects you are supporting?

A. For electric, the use of an $8.6 million threshold only captures 2 projects, or $8.1 million, out of a total of 69 projects, or $134.9 million, as requested by the Company. For natural gas, the use of a $1.7 million threshold only captures 3 projects, or $8.5 million, out of a total of 32 projects, or $35.6 million, as requested by the Company. These thresholds say nothing about the level of plant that will be in service and used and useful when rates go into effect in May 2018. In the end, Staff's threshold leaves 96 projects (electric and natural gas), or $153.8 million of the projects I support on the "cutting room floor". Table No. 1 below provides a comparison of the capital projects included in the Company's filed case, to that of Staff, and the Company's rebuttal case:

Table No. 1: Capital Project Comparison (For Projects Addressed in my Testimony)

Electric	Total Investment Amount (Gross Plant)	Number of ER Projects
Avista Filed	$ 134,894	69
Staff	8,098	2
Avista Rebuttal	$ 41,459	16

Natural Gas	Total Investment Amount (Gross Plant)	Number of ER Projects
Avista Filed	$ 35,550	32
Staff	8,542	3
Avista Rebuttal	$ 15,550	10

Q. As Company witness Ms. Schuh discusses in her testimony, please briefly explain the Company's methodology on rebuttal regarding pro forma capital additions.

A. Certainly. As Ms. Schuh describes in further detail in her rebuttal testimony at Exh. KKS-3T, the Company is removing the original pro forma adjustment proposed in its direct filed case and also removing the capital associated with the 2017 EOP Study. On rebuttal, the Company is including, instead, a calculation for only a subset of pro forma adjustments that are calculated using a similar methodology as Staff used in the recent Puget Sound Energy (Docket Nos. UE-170033 and UG-170034) general rate case. In that case, Staff witness Mr. Wright used a "functionalized" threshold for determining the capital projects included in that case. He states:

> First, the Commission recently found it reasonable to define a major plant addition as at least 0.5 percent of the utility's rate base.[3] However, Staff found smaller adjustments that would otherwise be reasonable, such as Distribution plant adjustments, would not be captured if the threshold were only applied to gross rate base. Therefore, Staff refined the standard in this case, applying the one-half of one percent threshold to net utility plant in

[3] Wash. Utils. & Transp. Comm'n. V. Avista Corp., Dockets UE-150204 and UG-150205, Order 05, ¶ 40 (Jan. 6, 2016).

service by category instead of rate base.[4] Staff believes the refinement will allow a better review of plant adjustments in this, and future, rate cases.[5]

Q. In your rebuttal testimony, which plant items that were originally included in Avista's filing are still accounted for in the Company's rebuttal case.

A. Using the functionalized threshold methodology discussed by Ms. Schuh, in my area, of the 101 projects ($170.4 million) I previously testified to in Exh. HLR-1T, Avista's rebuttal case still only captures 26 projects ($57.0 million actuals through October), thereby excluding 75 projects ($113.4 million).

Q. What are the projects included using the "functionalized" threshold?

A. Table No. 2 below represents the capital projects included in the Company's functional group method and represented in my testimony. What that table shows are the ER number and Business Case name, by functional area, for electric and natural gas service. The next column, "Total Project Amount, As Filed, for 2017" shows the total amount of the project, through December 31, 2017, that was included in Avista's original case. As Ms. Schuh describes in her testimony, Avista is only including on rebuttal the actual transfers to plant for each ER, as functionalized, through October 2017. As you will see, the overall amount transferred through October by plant category is significantly less than the annual amount for 2017. Typically such a variation is due to the projects in those ER's transferring later to plant in service in November or December 2017. The final two columns shown in the table provide where in my exhibits you will find the Business Cases supporting the project, as well as where I describe the project in my direct testimony.

[4] The categories are Production, Distribution, Transmission, and General, as reported on the most recent FERC reports. 2015 Puget Sound Energy, Inc., FERC Form 1 and Form 2.
[5] Docket Nos. UE-170033 and UG-170034, Exh. ECW-1T, pp. 6:21 – 7:6

Table No. 2: Capital Projects By Functional Group Included in Company's Rebuttal

	Case ER	Business Case Name	Total Project Amount, As Filed, for 2017	Rebuttal Case Actual Transfers Through October	Business Case Ref. - HLR-6	Testimony Ref. - HLR-1T
WA Electric						
Transmission						
	2051	Electric Transmission Plant-Storm	$ 697	$ 2,284	pg. 2, 111-114	pg. 32, 35
	2057	Transmission Minor Rebuild	3,225	2,485	pg. 2, 101-103	pg. 32-34
	2215	Substation Asset Mgmt Capital Maintenance	3,997	2,414	pg. 2, 93-97	pg. 32-33
	2423	System Transmission:Rebuild Condition	3,039	3,014	pg. 2, 104-106	pg. 32-33
	2457	Benton-Othello 115 Recond	2,629	2,177	pg. 2, 132-134	pg. 32, 36-37
	2564	Devils Gap-Lind 115kV Transmission Rebuild	3,145	(230)	pg. 2, 141-143	pg. 32, 38
			$ 16,733	**$ 12,144**		
Distribution						
	2055	Electric Distribution Minor Blanket	5,971	5,717	pg. 1, 49-54	pg. 13, 20-21
	2060	Wood Pole Mgmt	6,961	5,594	pg. 1, 21-28	pg. 13, 15-16
*	2204	Substation Rebuilds	10,414	1,245	pg. 1, 43-48	pg. 13, 20-21
*	2470	Dist Grid Modernization	9,835	9,768	pg. 1, 5-12	pg. 13, 15
			$ 33,181	**$ 22,323**		
General/Software/Transportation						
	7000	Transportation Equip	3,846	2,959	pg. 4, 376-389	pg. 52, 59
	7001	Structures & Improv	1,453	83	pg. 4, 290-296	pg. 52, 55-56
	7006	Tools Lab & Shop Equipment	960	956	pg. 4, 297-303	pg. 52, 56
	7126	Long term Campus Re-Structuring Plan	1,005	1,472	pg. 4, 244-257	pg. 52-54
*	7131	COF Long Term Restructuring Plan Phase 2	6,669	1,521	pg. 4, 307-326	pg. 52-53
	7139	Downtown Campus	5,148	(0)	pg. 1, 55-59	pg. 13, 21, 52-53
			$ 19,080	**$ 6,992**		
		Total - Electric Service (Rosentrater)	**$ 68,994**	**$ 41,459**		
WA Natural Gas						
Underground Storage						
	7201	Jackson Prairie Storage	**$ 1,095**	**$ 746**	pg. 4, 390-392	pg. 59
Natural Gas Distribution						
*	3005	Gas Distribution Non-Revenue Blanket	1,739	2,552	pg. 3, 185-189	pg. 42-43
*	3008	Aldyl-A Pipe Replacement	11,258	8,324	pg. 3, 192-198	pg. 42-43
	3237	US2 N Spo Gas HP Reinforce(Kaiser Prop	342	-	pg. 3, 222-227	pg. 42, 47-48
			$ 13,339	**$ 10,876**		
General						
	7000	Transportation Equip	1,108	554	pg. 4, 376-389	pg. 52, 59
	7001	Structures & Improv	419	24	pg. 4, 290-296	pg. 52, 55-56
	7006	Tools Lab & Shop Equipment	277	518	pg. 4, 297-303	pg. 52, 56
	7126	Long term Campus Re-Structuring Plan	289	440	pg. 4, 244-257	pg. 52-54
*	7131	COF Long Term Restructuring Plan Phase 2	1,921	455	pg. 4, 307-326	pg. 52-53
	7132	Dollar Rd Service Center Addition and Rem	45	1,937	pg. 4, 258-268	pg. 52, 54
			$ 4,059	**$ 3,928**		
		Total - Natural Gas Service (Rosentrater)	**$ 18,492**	**$ 15,550**		
		Grand Total (Rosentrater)	**$ 87,486**	**$ 57,009**		

* Staff included and audited these projects

Q. Will you give a brief description for the Electric Transmission projects included in Table No. 2 that are above the "threshold" applied on a "functionalized basis?

A. Yes. Summarized below are excerpts from my direct testimony, Exh. HLR 1T, that describe each of these projects:

ER 2051 Electric Transmission Plant Storm–
This ongoing program provides for the timely restoration of the Company's transmission, substation and distribution facilities into serviceable condition during or following major weather-related or other natural events including high winds, heavy ice and snow loads, lightning storms, flooding and wildfires. The Electric Transmission Plant Storm investment of $2.3 million included in the Company's rebuttal case has transferred to plant and I can attest that the amounts included are used and useful and in service for customers as of 10/31/17.

ER 2057 Transmission Minor Rebuild–
This project covers transmission structure replacements based upon the results of the Company's annual Wood Pole and Aerial Patrol inspection programs, and field operations. Both the Wood Pole and Aerial Patrol inspection programs are undertaken to maintain compliance with NERC Standard FAC-501-WECC-1. Failing to make the necessary replacements identified by the Company's inspection programs increases the risk of transmission system outages and the potential to ignite fires in dry areas. The Electric Transmission Minor Rebuild investment of $2.5 million included in the Company's rebuttal case has transferred to plant and I can attest that the amounts included are used and useful and in service for customers as of 10/31/17.

ER 2215 Substation Asset Management Capital Maintenance -
This program replaces and/or upgrades existing electric telecommunications and computing systems as they reach the end of their useful lives, require increased capacity, or cannot accommodate necessary equipment upgrades due to existing constraints. Some system upgrades are initiated by other requirements, including NERC reliability standards, growth, and new projects (e.g. Smart Grid). The failure to make these investments in the timeframe planned will result in the Company losing information connectivity with its transmission system and to be in violation of NERC transmission planning standards, and subject to financial and other penalties. The Electric Substation Asset Management Capital Maintenance investment of $2.4 million included in the Company's rebuttal case has transferred to plant and I can attest that the amounts included are used and useful and in service for customers as of 10/31/17.

ER 2423 System Transmission Rebuild Condition -
Projects in this program rebuild existing transmission lines based on overall asset condition (at the end of their useful life). The failure to timely replace aging transmission infrastructure

on a planned basis will subject our customers to the increased risk of service outages and increased restoration costs as we become less able to continue providing our current level of reliability. In addition to customer outages, the added risk of failure also impacts the economic dispatch of our Company's generation resources and increases the risk of fire in dry areas. The Electric Transmission Rebuild investment of $3.0 million included in the Company's rebuttal case has transferred to plant and I can attest that the amounts included are used and useful and in service for customers as of 10/31/17.

ER 2457 Benton-Othello 115 Recondition -
This program reconductors and rebuilds existing transmission lines to maintain compliance with NERC transmission planning standards. Investments mitigate NERC transmission planning standard (TPL-001-4) deficiencies that have already been identified for both our current system and for the Near Term transmission planning horizon (1-5 years). Failure to make these planned investments will result in our failure to comply with mandatory NERC standards. The Electric Benton-Othello 115 Recondition investment of $2.2 million included in the Company's rebuttal case has transferred to plant and I can attest that the amounts included are used and useful and in service for customers as of 10/31/17.

ER 2564 Devils Gap-Lind 115kV Transmission Rebuild -
This program reconductors and rebuilds existing transmission lines to maintain compliance with NERC transmission planning standards. Investments mitigate NERC transmission planning standard (TPL-001-4) deficiencies that have already been identified for both our current system and for the Near Term transmission planning horizon (1-5 years). Failure to make these planned investments will result in our failure to comply with mandatory NERC standards. The Electric Devils Gap-Lind 115V Transmission Rebuild investment met the Company's "threshold", however ($0.2 million) has transferred to plant as of 10/31/17. This credit balance has been included in the Company's rebuttal case.

Q. Will you give a brief description for the Electric Distribution projects included in Table No. 2 that are above the "threshold" applied on a "functionalized" basis?

A. Yes. Summarized below are excerpts from my direct testimony, Exh. HLR-1T, that describe each of these projects:

ER 2055 Electric Distribution Minor Blanket–
A major portion of the investments made under this program are driven by faults or damage to our system that result in service outages for our customers. The vast majority of the outages our customers experience each year occur on our overhead distribution system. In 2016, there were 7,083 outages on the distribution grid compared to only 53 related to substations and 61 associated with transmission lines. If Avista did not make the required investments under this program, we would be unable to repair and / or replace infrastructure that is damaged or fails,

and would therefore fail to provide service continuity to our customers. The Electric Distribution Minor Blanket investment of $5.7 million included in the Company's rebuttal case has transferred to plant and I can attest that the amounts included are used and useful and in service for customers as of 10/31/17.

ER 2060 Wood Pole Management–

Avista has approximately 340 electric feeders with a total circuit length of approximately 7,700 miles. This system is composed mainly of overhead electric conductors and associated equipment that is supported by approximately 240,000 wood poles and attached equipment that includes crossarms, transformers, cutouts, insulators and pins, wildlife guards, lightning arresters, guy lines, and pole grounding. Poles, equipment and conductors comprise over 70% of the Company's electric distribution infrastructure. In managing these assets, it is the Company's goal to repair or replace aging poles and equipment before they actually fail, but late enough in their expected life span to capture the full value of the initial investment and any follow-up investments. The failure to fund this program at the planned levels for this period will result in more risk of customer outages, and higher expenses and capital costs due to unplanned maintenance and repair. The Electric Wood Pole Management investment of $5.6 million included in the Company's rebuttal case has transferred to plant and I can attest that the amounts included are used and useful and in service for customers as of 10/31/17.

ER 2204 Substation Rebuilds–

This program replaces and/or rebuilds existing substations as they reach the end of their useful lives or where installed equipment that fails or is being replaced for capacity needs cannot be accommodated within the physical constraints of the small, older stations. Included are wood substation rebuilds as well as upgrading stations to current design and construction standards. The failure to timely replace and rebuild end of life equipment in these substations will expose the Company to the risk of more frequent and long duration outages that have a significant impact on our customers. The Electric Substation Rebuild investment of $1.2 million included in the Company's rebuttal case has transferred to plant and I can attest that the amounts included are used and useful and in service for customers as of 10/31/17.

ER 2470 Distribution Grid Modernization–

In order to properly select the most appropriate feeders for rebuilding, Grid Modernization uses inventory information from the Wood Pole Management Program and our Avista Facilities Management System, to assess the potential energy efficiency savings, avoided customer outages, and avoided expenses for failure of equipment. This feeder criteria information is used to rank the potential benefits for each compared with all of the other feeders on our system. The failure to fund this program at the planned level for this period will push even more work into the wood pole management program and reduce the value of both programs. The Electric Grid Modernization investment of $9.8 million included in the Company's rebuttal case has transferred to plant and I can attest that the amounts included are used and useful and in service for customers as of 10/31/17.

Q. Will you give a brief description for the Electric and Natural Gas <u>General Plant</u> projects included in Table No. 2 that are above the "threshold" applied on a "functionalized" basis?

A. Yes. Summarized below are excerpts from my direct testimony, Exh. HLR-1T, that describe each of these electric and natural gas general plant projects:

<u>ER 7000 Transportation Equipment (Electric and Natural Gas)</u>–
Avista's replacement of its service vehicles and heavy equipment is based on the analysis of total life cycle costs, optimized to achieve the lowest total cost of ownership. Capital project requests are created for each vehicle and piece of equipment to be replaced and the prioritization of projects is based on minimizing our overall business risk and costs of ownership. This approach to replacing assets based on condition, prior to its likely failure, has helped the Company avoid numerous incidents of vehicles failing while in service, resulting in extended vehicle and crew down time, high cost for parts and labor required for emergency repairs, and unplanned replacements. These costly incidents would be the result if the Company were to fail to make the investments in its service vehicles and equipment planned during this timeframe. The Transportation Equipment investment of $3.5 million (Washington total) included in the Company's rebuttal case has transferred to plant and I can attest that the amounts included are used and useful and in service for customers as of 10/31/17.

<u>ER 7001 Structures and Improvements (Electric and Natural Gas)</u>–
This ongoing capital program funds lifecycle equipment replacements and needed improvements at more than 40 Avista offices and service facilities (exceeding 900,000 square feet). These needs are compiled, evaluated and prioritized based on need and asset condition and lifecycle standards, designed to address: 1) Lifecycle asset replacements 2) Lifecycle furniture replacements and new furniture additions, and 3) Business additions or site improvements. The failure to make these timely investments will result in reduced efficiency, safety issues, accelerated deterioration and failure of assets, such as roofing or HVAC systems, which can result in major damage to the facilities, and a bow-wave of needed investments to the future. The Structures and Improvements investment of $0.1 million (Washington total) included in the Company's rebuttal case has transferred to plant and I can attest that the amounts included are used and useful and in service for customers as of 10/31/17.

<u>ER 7006 Tools Lab & Shop Equipment (Electric and Natural Gas)</u>–
Avista's capital tools program provides Company employees with proper tooling and equipment needed to safely and efficiently construct, monitor, manage system integrity, and properly repair and maintain our electric, gas, communications, fleet, facilities, and generation infrastructure. If the Company fails to provide its employees proper tools and equipment when they are needed, we would be unable to provide our customers with adequate, reliable and cost effective services that meet their expectations for quality and value. These tools and

equipment also support the safety of our employees. The Tools Lab and Shop Equipment investment of $1.5 million (Washington total) included in the Company's rebuttal case has transferred to plant and I can attest that the amounts included are used and useful and in service for customers as of 10/31/17.

ER 7126 Long term Campus Re-Structuring Plan (Electric and Natural Gas)–
The remaining investments under this plan conclude a multiyear effort that began in 2013 and included nine individual projects. These projects completed in their sequence were required for implementation of the Campus Repurposing Phase 2 plan. All of these projects have been completed, with the exception of the expansion of the warehouse storage yard. Without the expansion, the Company will lack adequate and efficient space for its materials storage needs, which today impact crews' efficient access to materials since they are stored at multiple locations at our central office as well as offsite. The Long Term Campus Restructuring Plan investment of $1.9 million (Washington total) included in the Company's rebuttal case has transferred to plant and I can attest that the amounts included are used and useful and in service for customers as of 10/31/17.

ER 7131 COF Long Term Restructuring Plan Phase 2 (Electric and Natural Gas)–
Phase 2 of this plan is a continuation of the long-term program to meet our ongoing and future operating needs by renovating, improving and expanding our existing central office and operating facilities. This phase is composed of three major projects that include re-routing a city street adjacent to our campus in 2017, constructing a new building for our fleet operations in 2017 and 2018, and constructing a parking garage in 2018. The Long Term Restructuring Plan Phase 2 investment of $2.0 million (Washington total) included in the Company's rebuttal case has transferred to plant and I can attest that the amounts included are used and useful and in service for customers as of 10/31/17.

ER 7132 Dollar Rd Service Center Addition and Remodel (Natural Gas Only)–
This planned investment would replace the existing natural gas operations service center at the existing site. The Dollar Road Service Center is the main natural gas operations center serving customers in the greater Spokane area, performed by approximately 70 field crew and administrative support employees. The service center also provides support for local gas crews from the Ritzville, Colville, and Davenport districts. The existing Dollar Road Service Center is approximately 22,000 square feet and was constructed in 1956. If the Company fails to make this investment as planned, we will continue to operate at the level of efficiency currently limited by this facility, we spend increasing amounts of capital and expenses for heavy maintenance, replacement of internal systems, and repair of structures and systems that fail prior to replacement. The Dollar Road Service Center Addition and Remodel investment of $1.9 million included in the Company's rebuttal case has transferred to plant and I can attest that the amounts included are used and useful and in service for customers as of 10/31/17.

ER 7139 Downtown Campus (Electric Only)–
The Downtown Campus project includes several related sub-projects discussed below. In the first phase of this plan in 2015 Avista purchased an existing office building with 22,000 square feet of space situated on a 2.3 acre parcel in Spokane. The office space was renovated in a second phase in 2016, and several employee project teams were relocated to this space, freeing

up needed office space in our central office facilities. The third and final phase of this project, estimated to be completed in late 2017, includes the construction of an operations center for the Company's electric network staff, craft workers, vehicles, equipment and materials storage. This project will consolidate the downtown crews and equipment onto one integrated site, improving safety, efficiency and our response to network reliability issues. As of 10/31/17 there have been no transfers to plant associated with the Downtown Campus investment.

Q. Will you give a brief description for the Underground Storage and Natural Gas Distribution projects included in Table No. 2 that are above the "threshold" applied on a "functionalized" basis?

A. Yes. Summarized below are excerpts from my direct testimony, Exh. HLR-1T, that describes each of these projects:

ER 7201 Jackson Prairie Storage–
These projects include various capital improvements that Avista and its partners will complete at the Jackson Prairie facility. The Company is one-third owner in the Jackson Prairie Storage Facility and as such, is a part of the Jackson Prairie Storage Management Committee that meets annually to discuss and approve the capital and O&M projects needed for this facility. The Company's failure to make these investments in the timeframe planned would place us in violation of the joint owners' agreement to make these needed investments. The Jackson Prairie Storage investment of $0.7 million included in the Company's rebuttal case has transferred to plant and I can attest that the amounts included are used and useful and in service for customers as of 10/31/17.

ER 3005 Gas Distribution Non-Revenue–
The investments made under this program are responsive to issues identified by the Company in real time, which is why the expected capital spend each year is estimated based on historical trends. Typical activities include increasing the depth of existing gas lines that are identified as not meeting the required depth, performing customer-requested relocates, making leak repairs on mains and service lines, installing meter barricades, eliminating farm taps from the system, and relocating facilities as required (other than street and highway). Our failure to regularly perform these activities would result in a greater likelihood of our shallow pipe being damaged, which could result in citizen, customer, and employee safety, and prevent us from prudently managing our natural gas system. The Natural Gas Distribution Non-Revenue investment of $2.6 million included in the Company's rebuttal case has transferred to plant and I can attest that the amounts included are used and useful and in service for customers as of 10/31/17.

ER 3008 Aldyl-A Pipe Replacement–
The Company is continuing its program to systematically remove and replace select portions of the DuPont Aldyl-A medium density polyethylene pipe in its natural gas distribution system

in the States of Washington, Oregon and Idaho. Avista's asset management group identified this piping as prone to the increased potential of leaking as it ages, and based on the risks to our customers resulting from these leaks, Avista implemented its Priority Aldyl A Pipe replacement program. In addition to the Company's own analysis, this piping has also been identified as the highest threat to the integrity of Avista's natural gas system. Renamed the Gas Facilities Replacement Program, this effort fulfills the Company's obligation to mitigate such threats on its natural gas system. The natural gas Aldyl-A Pipe Replacement investment of $8.3 million included in the Company's rebuttal case has transferred to plant and I can attest that the amounts included are used and useful and in service for customers as of 10/31/17.

ER 3237 US2 North Spokane Gas HP Reinforcement–
Avista has identified an issue with the capacity of our distribution system in North Spokane. Based on load studies performed by our natural gas planning group the Company does not have sufficient pipeline capacity to meet our customer load obligations on a design day standard. Further, Avista is currently not able to reliably serve an existing industrial customer load in that area on a seasonal basis due to the capacity limitations of our system. As planned, this project will install 12,000 feet of new High Pressure pipe and a new regulator station to adequately reinforce our capacity in this area. If the Company fails to make this planned investment we will continue to have insufficient capacity to serve the existing industrial customer load and will expose approximately 4,300 of our customers to the risk of loss of service on a design day. As of 10/31/17 there have been no transfers to plant associated with the North Spokane Gas HP Reinforcement investment.

Q. For the projects Avista is including using its "functionalized" threshold, are there any offsets that should be accounted for?

A. Yes. It is important to note that many projects undertaken by the Company do not have, and have not been justified by, O&M offsets. That in no way should be a reason as to why these projects are excluded from the Company's case. Ms. Schuh discusses the O&M offsets the Company is including in its rebuttal case.

Q. You also mentioned 75 other electric and natural gas projects ($113.4 million) that have been excluded in the Company's rebuttal filing because they still did not meet the "threshold" even as applied on a "functional" basis. Will those projects also be completed by the end of the year?

A. Yes. The Company excluded these projects simply as a way to strike a balance between Avista's original filing and Staff's position, as discussed by Ms. Schuh.

Q. What are some examples of the projects that have effectively been left on "the cutting room floor", but otherwise will be used and useful and in-service in the rate effective period?

A. Below are only three examples of projects that will be in service and used and useful when rates go into effect in May 2018, yet have been excluded even from the Company's rebuttal case. Those serve to make the point that even the Company's rebuttal proposal will exclude some very basic capital investments made in the ordinary course of business.

Electric Replacement/Relocation -
Each year Avista is required to respond to the projects of municipalities, counties and state-level agencies to rebuild or realign roads, streets and highways. When these projects impact our distribution facilities located in public rights-of-way, the Company is required to remove and rebuild them in the clear zone of the new roadway, or to place them on a new purchased private easement. This work must be performed at the Company's expense, and while Avista may have some latitude to negotiate the timing of the construction, it has no choice with regard to removing and relocating its infrastructure and paying all of the associated costs. If Avista failed to make these investments we would be in violation of our operating franchises, municipal codes, state laws and regulations, and would be subject to litigation and financial and other penalties.

Spokane Electric Network -
Avista operates an underground electric network in the core business district of downtown Spokane. This underground system includes cables encased in concrete reinforced duct lines and major equipment such as underground transformers that are located in concrete vaults beneath the city streets and sidewalks. Most mid-size to large cities rely on such networks, including for example, the cities of Seattle, Portland, and Tacoma. Avista's network is relatively small, consisting of 100,000 feet of primary cable and 125,000 feet of secondary cable interconnected with 170 transformers. The Spokane network system dates back to the early 1900s and some of the vaults still in service were constructed as early as 1910. Capital investments made under this program are predominantly to replace failed vault structures, transformers, switches, and cable. If Avista did not make the required investments under this program, we would be unable to repair and / or replace infrastructure that is damaged or fails, and would therefore fail to provide service continuity to our customers.

Gas Regulator Station Reliability Replacement -
Investments made under this program replace or upgrade Avista's natural gas regulator stations and industrial meter sets that are at the end of their service life, or are obsolete and no longer supported, based on the Company's performance standards. Avista's regulator stations

require federally-mandated annual maintenance, and if the equipment at the stations is obsolete and replacement/maintenance parts are no longer commercially available, then proper maintenance cannot be completed. These investments also enhance the performance of our stations, improving natural gas system safety, reliability and operations. The failure to timely inspect our regulators and industrial meter sets, and to perform required maintenance and replacements, would render them less reliable and unsafe, and would expose the Company to regulatory and other consequences as a result of choosing to not make such investments.

These three projects are considered to be "bread and butter" type projects that have effectively been left out in an attempt by the Company to find common ground between Staff's position and the Company's filed case.

III. COMPANY PLANE AND HANGAR

Q. Staff witness Ms. Scanlan states that "staff has concerns about Avista's business cases for a new private plane and whether or not adequate documentation was presented for these two pro forma capital projects".[6] Can you provide some further information surrounding these two capital additions?

A. Yes. But first I should note that these two capital additions, occurring in 2018, are not part of the Company's or Staff's revenue requirement for 2018, as acknowledged by Staff witness Scanlan, and therefore are not at issue in this case. The Company has provided business cases surrounding these two capital additions in my direct testimony at Exh. HLR-6, page 327 and Exh. HLR-6 page 356. These two capital additions are set to go into service during 2018.

As it relates to the Company plane, Avista is not purchasing a new plane. Rather, the Company will exercise the end-of-term purchase option in its three-year lease of a 1999 Cessna Citation VII aircraft. Avista has leased the Company aircraft from PNC Aviation

[6] Exh. KBS-1T, p. 34, ll. 23-24

Finance since February 2000; the lease expires in March 2018. The current cost to lease and operate the plane is about $2.2 million O&M annually.

In 2016, a work group evaluated whether it made sense to purchase the current aircraft. It recommended purchasing the current aircraft at a cost of approximately $2.5 million, modifying the avionics to comply with new FAA requirements, and self-funding the parts plan required by our current lease. This option would save more than $1 million in O&M annually, offset by depreciation expense and return on this asset.

Turning now to the hangar for the airplane, Avista currently subleases a hangar owned by Spokane International Airport and leased by the airport to Merlin Enterprises. Avista will lose the sublease on the hangar after July 31, 2018, at which time Merlin's lease will end. Airport management plans to demolish the existing hangar as part of a plan to reclaim the existing property and relocate private hangars to a different part of the airport. At that time, Avista will need to immediately secure a new hangar for the aircraft.

We evaluated the options for securing storage and maintenance for the aircraft. The recommended solution was to lease a location directly from the Spokane International Airport and build a hangar for the following reasons:

- Spokane International Airport is convenient to headquarters.
- The new location would allow easier separation of the public entrance from the secured part of the airport (this is an issue with our current hangar).
- A long-term lease with the airport will lock in lease payments and ensure a complete life cycle of our hangar.
- Leasing directly from the airport will allow us to de-ice and fuel the aircraft ourselves or through a contractor we select, rather than having to use the airport's services exclusively, saving costs and increasing efficiency.
- Constructing the hangar would allow us to design a structure to maximize safe, efficient operations of our aircraft over the long-term.

Q. Does this conclude your rebuttal testimony?

A. Yes.