Exhibit No. ___(JDM-4T)

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UG-160229

REBUTTAL TESTIMONY OF

JOSEPH D. MILLER

REPRESENTING AVISTA CORPORATION

I. INTRODUCTION

Q. Please state your name, business address and present position with Avista Corporation?

A. My name is Joseph D. Miller and my business address is 1411 East Mission Avenue, Spokane, Washington. I am presently assigned to the State and Federal Regulation Department as a Senior Regulatory Analyst.

Q. Have you filed direct testimony in this proceeding?

A. Yes. I have filed direct testimony in this case addressing natural gas revenue normalization adjustments and the cost of service study performed for this proceeding.

Q. What is the scope of your rebuttal testimony?

A. My testimony will provide the Company's response to the Northwest Industrial Gas User's ("NWIGU") natural gas cost of service study proposal. Specifically, my rebuttal testimony will cover three main areas as follow:

1. The natural gas distribution plant related portion of Advanced Metering Infrastructure ("AMI") costs should be assigned to FERC Account 381 – Meters as proposed by NWIGU. The effect of incorporating this change is minimal and would not alter the rate spread, as proposed by Company witness Ehrbar, in this case.
2. The Peak and Average Methodology is the proper basis for assigning distribution main and regulator station equipment costs, because it provides an appropriate balance between the way the system is designed (to meet peak demand) and the way it is used on an annual basis (throughput based on gas usage that occurs during all conditions, not only peak conditions) as supported by prior Commission orders.

3. NWIGU's allocation of a portion of distribution main costs on a customer-related basis is unreasonable and significantly over-allocates distribution main investment to the mostly residential General Service Schedules 101/102.

Q. Are you sponsoring any exhibits that accompany your testimony?

A. No.

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II. PROPER ALLOCATION OF AMI RELATED COSTS

Q. Do you agree with NWIGU's testimony that all AMI-related costs should be allocated to FERC Account 381 (Meters).

A. Yes. NWIGU recommends that, to the extent that the Commission approves the Company's proposal for AMI, the Company should correct the natural gas cost of service study to include all proposed natural gas distribution related AMI investment cost (both plant and expenses) in Account 381 - Meters. The Company made this correction in its response to the data request labeled ICNU-075S Supplemental. In that response the Company stated:

> Upon further review, the Company discovered that it had inadvertently allocated the natural gas distribution plant related AMI meter costs (pro forma adjustment 4.03 G-CAMI) similar to the allocation of all other distribution plant. The Company should have allocated the natural gas distribution plant related AMI meter costs based on the

meter cost allocator (C03), consistent with the allocation described in the Company's response to ICNU-075 for electric.

Communication and software pro forma investments related to the Advanced Metering Project did not receive any special treatment in the natural gas cost of service study provided in this case. Both communication equipment and software were allocated by the Company's blended 4-part factor consistent with all general plant. Please note, the communication and software pro forma investments were appropriately allocated in the Company's original filing and therefore no adjustments have been made in this response.

The Company has provided a summary of the rate of return and relative rate of return at present rates as an attachment labeled "ICNU_DR_075 Supplemental Attachment A". In addition, a complete electronic version of the cost of service study, reflecting the change described above has been provided as part of the attachment.

The result of this adjustment has a minor effect on the present return ratio's provided to Company witness Ehrbar for his consideration into the proposed rate spread. The Company believes the results of this adjustment are minor and would not change the proposed rate spread in this case.

Table No. 1 below shows a comparison of the relative rate of return and return ratio from the Company's original filing to the results described in the response to the data request labeled ICNU – 075S Supplemental. Generally the AMI adjustment had minimal impact on the cost of service results.

Table No. 1 – Cost of Service AMI Adjustment Comparison

	(As Filed)		(AMI Adjusted)	
Rate Schedule	Present Relative ROR	Present Rate of Return	Present Relative ROR	Present Rate of Return
General Service Schedules 101/102	0.84	5.7%	0.84	5.6%
Large General Service Schedules 111/112	1.80	12.1%	1.81	12.2%
Ex. Lg. General Service Schedules 121/122	1.70	11.5%	1.75	11.7%
Interruptible Service Schedules 131/132	1.37	9.2%	1.38	9.3%
Transportation Service Schedule 146	0.82	5.5%	0.86	5.8%
Total	1.00	6.7%	1.00	6.7%

III. PEAK AND AVERAGE ALLOCATION METHODOLOGY

Q. What is Avista's response to NWIGU's claim that the Peak and Average methodology is not an appropriate basis for assigning distribution main and regulator station equipment costs.

A. The Peak and Average methodology was the last approved distribution main allocation methodology in the State of Washington in Docket No. UG-940814. Avista has consistently used this methodology since that time. As the Commission recognized, the Peak and Average methodology provides a necessary balance between the way the system is designed (to meet peak demand) and the way it is used on an annual basis (throughput based on gas usage that occurs during all conditions, not only peak conditions). Avista believes that this methodology continues to provide an appropriate basis for distribution main and regulator station equipment cost assignment.

Q. Was there any discussion in the last Commission order that helps to inform the reasoning for approving the Peak and Average methodology?

A. Yes, in that Order the Commission adopted Staff's approach for allocating natural gas distribution mains, and stated the following:[1]

> **Commission Staff** would also use a Peak and Average methodology, similar to the Company, but would substitute its peak for that of the Company. Commission Staff quotes the Commission from prior orders, noting that plant is built to deliver gas year-round, not just on the peak day. Staff allocates distribution mains 49% to commodity and 51% to demand. [Emphasis added]

Q. Has the Company's design criteria related to its distribution system materially changed since the Commission last approved the Peak and Average

[1] Docket No. UG-940814, Fifth Supplemental Order, page 11.

methodology?

A. No, it has not.

Q. Is Staff supportive of the allocation methodology used for assigning distribution main costs?

A. Yes. Staff witness Mr. Ball stated in his direct testimony the following: "The Company has proposed a well-designed allocation methodology for assigning costs among customer classes. The Company's proposed main allocation is consistent with the approach proposed by Staff in Avista's 2012 and 2014 GRCs."[2]

Q. Do other utilities in the State of Washington use a Peak and Average approach for allocating natural gas distribution mains?

A. Yes. It is my understanding that the Peak and Average methodology is the accepted natural gas distribution main cost allocation approach and has been utilized by virtually every natural gas distribution company in Washington for many years.

Q. Does the NARUC Gas Distribution Rate Design Manual provide any discussion on the Peak and Average method for allocating distribution main?

A. Yes, the NARUC Gas Distribution Rate Design Manual provides the following description:[3]

> Average and Peak Demand Method
> This method reflects a compromise between the coincident and noncoincident demand methods. Total demand costs are multiplied by the system's load factor to arrive at the capacity costs attributed to average use and are apportioned to the various customer classes on an annual volumetric basis. The remaining costs are considered to have been incurred to meet the individual peak demands of the various classes of service and are allocated on the basis of the coincident peak of each class. This method allocates cost to all customers and tempers the apportionment of costs between the high and low load factor customers.

[2] Exhibit No.__JLB-1T Revised, p. 11:1–4.
[3] NARUC Gas Distribution Rate Design Manual, June 1989, page 27.

Q. Do you agree with NWIGU that throughput, or average demand, is not an appropriate basis for allocating distribution mains and regulator station equipment costs?[4]

A. No. As I stated above the purpose of the Peak and Average methodology is to provide a balance between the way the system is designed (to meet peak demand) and the way it is used on an annual basis (throughput based on gas usage that occurs during all conditions, not only peak conditions). Distribution plant is built to deliver natural gas year-round, not just on a peak day. By splitting the allocation between peak demand and average throughput, the cost allocations appropriately reflect the dual use of the assets.

Q. NWIGU states that a major flaw of the Peak and Average calculation is that is double counts the "average" component of demand.[5] Do you agree?

A. No, as previously discussed, the Peak and Average method reflects two separate allocators apportioning costs based on peak demands and throughput to reflect the dual use of the assets. The purpose of the peak and average calculation is to look at the two allocators in isolation. When the Company experiences a peak day on its system, the usage that makes up that peak includes both the usage that would occur under normal operating conditions (average usage) and usage that is attributable to extreme weather and any other factor that contributes to the peak. Therefore it is appropriate to include all usage in the peak portion of the allocator. The average or throughput portion is designed to capture the "everyday" use of the system which is independent from the peak conditions. That is to say, the throughput portion represents the initial and continued investments made to deliver gas year round, irrespective of the peak.

[4] Exhibit No.__BCC-1T, p. 8:20 – 9:6.
[5] Exhibit No.__BCC-1T, p. 9:7 – 12:7.

It is common practice in cost of service studies to use multipart allocation factors in an attempt to characterize the multiplicity of reasons that are driving the investments companies make.

Q. Under the Company's approach for allocating distribution mains do high load factor customers (Schedules 131/132 & 146) receive a full allocation of the average throughput allocation?

A. No. As detailed in my pre-filed testimony, the throughput portion of the main investment allocation has been segregated into small, medium and large mains, with large usage customers (Schedules 131/132 & 146) receiving zero allocation of small mains and only a 33% allocation of medium mains. All customers receive a full allocation of large mains. In other words, the throughput portion of the allocation has been tempered, or limited, for high load factor customers under the Company's approach

IV. CUSTOMER COMPONENT FOR DISTRIBUTION MAINS

Q. NWIGU asserts that the Company's class cost of service study should classify a portion of distribution main costs as customer-related and allocate those costs based on the number of customers. Do you agree?

A. In the realm of cost of service studies around the country, NWIGU's position related to a portion of the main allocation being assigned to customers is nothing new. As such, I believe their position is worthy of consideration. As accurately stated by NWIGU:

> "A significant portion of the Company's distribution main system is designed to move gas to the location of all of its customers on the system and is related to length of main, not demand or volume. Hence, a portion of the distribution main cost is driven by the location of customers on the system, and not the customers' peak day demands or annual volumes."[6]

[6] Exhibit No.__BCC-1T, p. 15:17-21.

I believe that at some level, it could be appropriate to allocate a portion of distribution mains based on the number of customers to reflect the physical location of customers to the distribution system.

Q. How much of the distribution main costs did NWIGU allocate to the customer component?

A. NWIGU proposed that the cost of all distribution mains 2 inches and smaller be allocated to all rate schedules based on the number of customers. This results in approximately $81.9 million of the total $198.6 million, or 41.2%, of total distribution main costs being classified and allocated to all rate schedules on a customer basis.

Q. Is 41.2% of the total distribution main costs being classified and allocated to all classes on a customer basis overstated?

A. Yes. NWIGU's calculation is commonly referred to as the minimum-size approach, where one estimates the customer component of mains based on the smallest (and cheapest) size pipe installed, which then serves as a proxy for the customer portion of mains. The problem with this approach is that even the smallest size of pipe has a considerable amount of load carrying capacity, and in fact, is used to meet all customers' design day demands that are connected to minimum-size pipe. Absent some sort of statistical correction, NWIGU's method considerably overstates the customer component inherent within the minimum-size approach.

Q. What are the implications of the customer component allocation as proposed by NWIGU on the cost of service study?

A. Table No. 2 below shows the actual dollars from the customer component of distribution mains allocated to each rate schedule as proposed by NWIGU.

Table No. 2 – Distribution Mains – NWIGU Customer Component Impact

Rate Schedule	Customer Component of Distribution Mains	Customer Allocation Percentage
General Service Schedules 101/102	$ 80,468,182	98.25%
Large General Service Schedules 111/112	$ 1,398,028	1.71%
Ex. Lg. General Service Schedules 121/122	$ 14,423	0.02%
Interruptible Service Schedules 131/132	$ 1,068	0.00%
Transportation Service Schedule 146	$ 20,299	0.02%
Total	$ 81,902,000	100.00%

What this means is that, 98.25% of the customer component of the Company's investment in distribution mains would be allocated to Schedule 101/102 customers, with little cost allocated to the other rate schedules, even though all customers benefit from the load carrying capacity of small distribution main. By most standards, this allocation is unreasonable and significantly over allocates distribution main investment to the mostly residential General Service Schedules 101/102.

Q. If the Commission were to agree that a customer component is appropriate at some level, has the Company conducted a separate cost of service study which attempts to take into account NWIGU's concerns?

A. Yes. The Company has conducted an alternative study which encompasses two separate modifications. The first modification appropriately assigns the AMI investments to the meter related FERC account. The second modification alters the Companies proposed allocation of distribution mains to reflect a customer component that is more reasonable than that proposed by NWIGU.

Q. Please describe the modified approach for allocating distribution mains with a customer component?

A. Consistent with the original filing, the Company used a system load factor to determine how much of the demand related portion of distribution main costs should be allocated based on peak demand (60.2%). The remaining portion, which had previously been assigned to annual throughput, has been equally split between annual throughput (19.9%) and customers (19.9%). This allocation would continue to recognize that coincident peak demand is the primary driver of capacity related costs. By continuing to allocate a portion based on annual throughput, albeit a smaller portion, this allocation continues to recognize that natural gas plant is built to deliver gas year-round, during all conditions, not just peak conditions. The remaining customer related allocation recognizes that the distribution system must be designed to physically connect each customer's service line with the city gate gas receipt points as described by NWIGU.

Q. Have you quantified the results of the distribution main methodology described above?

A. Yes, Table No. 3 below shows the rate of return and the relative return ratio at present rates for each rate schedule compared to what was included in the Company's original filing[7].

[7] As updated in the Company's data request response ICNU – 075S Supplemental.

Table No. 3 – Comparison of Cost of Service Results

	(Filed)		(Modified Approach)	
Rate Schedule	Present Relative ROR	Present Rate of Return	Present Relative ROR	Present Rate of Return
General Service Schedules 101/102	0.84	5.6%	0.84	5.6%
Large General Service Schedules 111/112	1.81	12.2%	1.80	12.1%
Ex. Lg. General Service Schedules 121/122	1.75	11.7%	1.74	11.7%
Interruptible Service Schedules 131/132	1.38	9.3%	1.43	9.6%
Transportation Service Schedule 146	0.86	5.8%	0.92	6.2%
Total	1.00	6.7%	1.00	6.7%

Q. What are your conclusions from the results of the cost of service studies from the Company's original filing and the modified approach above?

A. The studies continue to indicate that the General Service Schedules 101/102 (serves most residential customers) and Transportation Schedule (146) are providing less than the overall rate of return (unity), and Large General, High Load Factor Large General, and Interruptible service schedules (111/112, 121/122 and 131/132) are providing more than unity.

Q. Does this conclude your rebuttal testimony?

A. Yes.