BEFORE THE
PUBLIC UTILITY COMMISSION OF OREGON

DOCKET NO. UG-389

DIRECT TESTIMONY OF JEANNE M. PLUTH
REPRESENTING AVISTA CORPORATION

Working Capital

I. INTRODUCTION

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

A. My name is Jeanne M. Pluth. I am employed by Avista Corporation as the Manager of Regulatory Accounting in the Regulatory Affairs Department. My business address is 1411 East Mission, Spokane, Washington.

Q. Would you please describe your educational background and professional experience?

A. Yes. I am a 1986 graduate of Eastern Washington University with a Bachelor of Arts Degree in Business Administration, majoring in Accounting. In 1987, I passed the Certified Public Accountant exam, earning my CPA License in April 1988. I worked for McFarland & Alton, CPAs from 1991 to 1997, before joining the Company in April 2001. I worked at Advantage IQ, a subsidiary of Avista, before transferring to Avista Utilities in December 2004. I served in the Projects and Fixed Assets section of the Finance Department before I was hired into the Regulatory Affairs Department in November 2006. My primary responsibilities include the preparation of the regulatory results of operations reports, managing various accounting applications for deferral requests and other accounting issues, and preparation of various general rate case adjustments, including performing the lead/lag study for the Oregon's cash working capital.

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

A. As described in the Second Partial Settlement Stipulation filed on August 13, 2020, all issues were settled with the exception of working capital. The Parties agreed that the Company would file testimony supporting the Company's position and the calculation of its lead/lag study methodology.[1]

My testimony and exhibit, therefore, in this proceeding will provide supporting testimony and the Company's calculation of the cash working capital needs to operate the Oregon operations using the Commission's approved lead/lag study methodology. A lead/lag study determines the revenue and expense lags by category for revenue and operating expenses and then applies the leads and lags to the jurisdictional operating expenses in order to calculate appropriate daily and annual cash working capital requirements necessary to operate the Oregon operations.

A table of contents for my testimony is as follows:

Q. Are you sponsoring any exhibits to be introduced in this proceeding?

[1] Staff recommended in its prefiled testimony (Gardner, Staff/100, pp. 8-11), that, if the Company wanted to include the entirety of its working capital in rates, it provide supplemental testimony in support thereof.

A. Yes. I am sponsoring Exhibit No. 1001, which consists of the final results of applying the leads and lags developed in the study to the expenses related to natural gas service in Oregon, and the associated cash working capital requirement. The Exhibit also includes the calculations of the leads and lags for revenues and expenses by major category for Oregon operations.

II. <u>SUMMARY RESULTS OF THE STUDY</u>

Q. Would you please summarize the Company's working capital need for its Oregon natural gas operations?

A. The Company proposes to include approximately $2.511 million in rate base for cash working capital (CWC). As the Company explains below, it computed its lead/lag study and applied the resultant CWC factor of 3.72 percent to its proposed operating expenses of $67.6 million to forecast the working cash. The increase in revenue requirement associated with this adjustment is $229,000.

Q. What is the Company's revenue requirement in this case, when including the working capital revenue requirement?

A. The Parties to the case agreed to a revenue requirement of $4.212 million as described in the Settlement Stipulation filed on August 13, 2020, with all issues settled except the working capital issue. The updated revenue requirement that includes the working capital needs is $4.441 million.

Q. Why was working capital not included in the settlement by the Parties?

A. Avista has included a working capital adjustment in every rate case since the late-2000's, but had used the investor supplied working capital methodology. When Avista filed this case in March 2020, the lead/lag study was not complete, so Avista supplemented the filing by submitting the calculation in a data request response. During settlement, the Parties indicated that for working capital to be considered in this case as it was not yet included in the formal record, testimony and exhibits would need to be filed. Further, the Parties indicated their preference to have a workshop to review Avista's calculation. Avista and the parties have agreed to conduct an informal workshop on Avista's study.

III. BASIS OF THE STUDY

Q. Please explain the basis of your study.

A. Generally a utility provides service prior to receipt of payment from ratepayers (revenue lag), and there is also a delay in payment for goods and services purchased by the utility (expense lead). The calculation of the appropriate level of cash working capital is based on the number of days of revenue lag and expense lead Avista experiences in a test year, as well as the dollar amounts for each. To determine lead/lag days, transactions for the year are analyzed.

In Avista's study, Avista grouped these transactions into major groups. Once the lead/lag days are determined, the annual dollars for each group are multiplied by the lead/lag days to calculate the "total dollar days." The total revenue lag is calculated by dividing the total dollar days by the "annual dollars." The same is true for the total expense lead. The difference between the revenue days and expense days is divided by 365 days in the year to determine the lead/lag factor. This factor is multiplied by the total O&M expense to estimate the cash working capital. The calculations included in the study were based on a review of the revenue, accounts receivable and operating and maintenance expenses for the base year ended December 31, 2019.

IV. WORKING CAPITAL METHODS

Q. Please describe cash working capital and how it impacts the Company's revenue requirement.

A. Cash working capital represents the funds required to enable the Company to operate its business on a daily basis. The need for these funds results from the fact that there is a lag in time between the collection of revenues for services rendered and the necessary outlay of cash by the Company to pay the expenses of providing those services. Cash working capital represents investor-supplied funds that are properly included in the Company's rate base for ratemaking purposes. Application of the overall rate of return to this element of rate base allows the Company to service the capital costs associated with the cash working capital. In order to determine total working capital requirement, cash working capital is typically added to both the average or ending Materials & Supplies inventory balances and Gas Inventory balances for the test period.

Q. What are the primary methods used in regulatory proceedings to determine cash working capital?

A. There are three primary methods used in regulatory proceedings to determine cash working capital: the FERC Formula Method (often referred to as the "FERC" method), the Balance Sheet Method, and the Lead/Lag Study Method. The Lead/Lag Method requires a lead/lag study be performed to determine the cash working capital requirement. The Commission has typically allowed utilities to include CWC in rate base when the lead/lag method has been used. This can be demonstrated by testimony of Commission Staff witness Ms. Gardner in Portland General Electric's rate case (Docket UE-335) at Exhibit 400, page 7, as follows:

> "For ratemaking purposes, working capital is a measure of the amount of funding needed to satisfy the level of the daily operating expenditures and a variety of non-plant investments that are necessary to sustain ongoing operations of the utility." The components of working capital are generally rate base items identified as fuel inventory, materials and supplies (M&S) inventory, prepayments not included in cash working capital (CWC), and in some circumstances, CWC. Historically, the Commission typically authorizes electric utilities to include an allowance for CWC in rate base if the utility has used a lead/lag study to estimate the factor for CWC. (footnote excluded)

V. CALCULATION OF LEAD/LAG DAYS

Q. Please explain how you developed the cash working capital requirement for this case.

A. Avista performed a lead/lag study to determine the Company's cash working capital requirement for its Oregon operations. The Company's meter reading, billing and collection procedures and experience were analyzed, payment practices were reviewed, service dates and payment dates by expense category were obtained, and an analysis of the accounts payable for the Company's major operating expense components were prepared. Using this data, the leads and lag were determined and applied to the revenue and expense accounts to determine the daily cash working capital requirement and the overall cash working capital requirements.

Q. Please explain in further detail Exhibit No. 1001, pages 1 through 29, which presents the results of the lead/lag study.

A. The Company's lead/lag study has been provided in Exhibit No. 1001. Page 1 of this Exhibit is the calculation of the lead/lag days and the cash working capital needs for Avista's Oregon operations. Pages 2 through 29 are the high-level overview of the lead/lag days calculations for the various revenue and expenses. There are additional confidential workbooks that provide the back-up for each of the revenues and expense categories in this summary of working capital that were provided to the Parties in response to Staff's data request No. 152. An explanation of pages 2 through 3, which describes the calculation of days lag for revenues, follows:

2. Revenue from Customers (Exhibit 1001, Page 2)

The revenue lag represents the period of time from when the Company rendered service to its customers to the time it received payment for that service. To determine this lag, one must look at three components. They are the service lag, billing lag, and the collection lag. Revenue lag was calculated separately for operating revenues and other operating revenues.

The service lag for metered customers represents the time from the midpoint of service to the meter read date. Since all of the customers are billed on a monthly basis, the service lag equates to approximately 1/2 of a month. The service periods related to every meter reading date during the test year period calculates the average number of service days per meter reading period. The Company's average service lag was determined to be **15.2 days**.

The billing lag represents the time from the meter reading date to the billing date. Since Avista installed its meter data management system in 2017, the Company reads and bills for service on the same day. Therefore, the Company's average billing lag was determined to be **0 days**.

The collection lag represents the time from the billing date to the date that payment is received. To determine this lag the average accounts receivable balance was calculated using a 12 month average of accounts receivable, and divided by the average daily sales to determine the average number of days it takes to turn over the accounts receivable balance. This methodology is used to estimate the number of days that it takes to collect billed revenue. For Oregon natural gas customers, the average accounts receivable turnover lag was **18.8 days**.

The total operating revenue lag is the sum of the service lag, billing lag and collection lag. As shown on the working capital spreadsheet, the Company has an average operating revenue lag of **34 days**.

3. Other Revenues (Exhibit 1001, Page 3)

For other operating revenue, the lag was calculated based on a 30 days service period, no billing lag and payment terms of net 30 days. Average lag for this revenue category was calculated as 30 days/2 + 30 days or **45 days**. This is consistent with company policy and experience for other operating revenues.

After weighting the operating revenue lag and the other revenue lag, the net average revenue lag is **34** days.

Q. Please explain how you determined the leads and lags for operating expenses.

A. There are two types of lags utilized in expense analysis. They are either for materials received or for service rendered. For materials, the lag represents the time from receipt of the material to the time the Company makes payment for the material. When the delivery date was not known the invoice date was used.

Generally, there are two types of services, periodic and continuous. The periodic service would utilize the same lag day methodology as was used for materials. For continuing service, the lag represents the time from the midpoint of service to the time the Company pays for that service.

All of the expenses were broken out and calculated independently in order to accurately analyze and reflect the appropriate lag for each of the items. In addition, the analysis includes only those costs that were incurred for Oregon operations. Therefore, no electric expenses have been included in the analysis. Each of these categories was analyzed independently, based on the service periods and historic payment practices of the Company. An explanation of pages 4 through 29, which describes the calculations of days lag for expenses, follows:

4. Purchased Gas Costs (Exhibit 1001, Pages 4 through 7)

Oregon purchased gas costs in 2019 was $80,735,782, which is a net amount of actual gas costs purchased of $87,228,731 with gas costs amortization of $6,492,949. Included in these gas purchases are amounts that were used for Oregon customers and amounts that were sold to wholesale customers. Those wholesale sales (recorded in FERC Account No. 483 – Sales for Resale) have the same payment terms as Avista's purchased gas costs. Therefore, the Company removed $54,882,172 of wholesale sales from its purchased gas costs to determine Avista's cash needs.

Including the net gas costs of $32,346,559 is appropriate in the analysis even though Avista has a purchased gas adjustment mechanism. It is only appropriate to exclude purchased gas from cash working capital if the Company's purchased gas adjustments include a recovery mechanism for the lag between the time the company receives and pays for its purchased gas, and the date the funds are recovered by the company through payments from customers.

Purchased gas adjustment mechanisms usually recover only the cost of the natural gas and the time value of money on over/under collections. Such agreements do not normally consider the lag from the date of the expenditure of funds to purchase of natural gas by the utility until the date the utility is able to recover the revenue through payments from customers. Unless there is a separate cost adjustment in the purchased gas adjustment mechanisms to cover these lags, it is appropriate to include these expenses in the calculation of cash working capital.

The Company recovers and/or pays interest on over and under collections in rates, but does not recover for the lag when funds must be expended to purchase gas or power and the related collection of revenue from customers. The funding of these expenses during this period represents investor supplied working capital, therefore, purchased gas expenditures should be included in the calculation of the Company's cash working capital claim.

The purchased gas cost lag represents the period of time from when the Company rendered service to its customers to the time it makes payment for the gas costs to deliver those services. To determine this lag, one must look at two components. They are the service lag and the payment lag.

The service lag for metered customers represents the time from the midpoint of service to the meter read date. Since all of the customers are billed on a monthly basis, the service lag equates to approximately 1/2 of a month. This is the same calculation that was used for revenue from customers, therefore, he Company's average service lag used for gas costs was **15.2 days**.

The payment lag represents the time from the last day of the service period and the actual payment date for those gas costs. Avista's payment terms for these costs is typically 25 days from the previous month. By analyzing actual payment days, Avista determined the payment lag to be **23.4 days**. Therefore, total lag days for purchased gas costs is **38.6 days**.

5. Labor (Exhibit 1001, Page 8)

Labor costs include the bi-weekly payroll paid to employees plus the annual incentive paid after the close of the year. Each of these costs are analyzed separately to determine lag days.

Payroll represents a continuing service and the Company pays for the service on a periodic basis. For payroll costs, the lag represents the time from the midpoint of the service period to the time the Company pays its employees. All employees are paid every two weeks with a one week lag. Specifically, payroll is paid on the Friday following the two week service period ending on the prior Sunday, unless it is a holiday. In that case, payroll is paid on the first, non-holiday day immediately preceding the holiday. In order to calculate the total payroll lag, we must take the lag from the mid-point of the service period and add the lag between the end of the service period and the payment date. For payroll costs, the average lag is **11.5 days**.

For incentives, the midpoint of 2019 is July 2, 2019. The incentive was paid on February 14, 2020, therefore the lag days for the incentive is **227 days**.

6. Pension and Other Benefits (Exhibit 1001, Pages 9 through 15)

Benefits are the costs related to labor costs that are recorded in a pooling account and get either expensed or capitalized through a loading process. These costs include pension, the Company's match of 401(k), HRA (Health Retirement Account) cost, medical insurance cost, and injuries and damages costs. These costs were grouped into three categories to determine the average lag days for benefits expenses. The first group includes those costs that are invoiced like other accounts payable costs. The lag days were determined by summarizing the invoice date and the payment date. The second group includes those costs that are paid on the same day as the payroll is paid. The lag days of **11.5 days** was used for this group of costs. The third group includes the pension costs that were paid in March, June and September of 2019. By calculating the midpoint of the service month and comparing to these payments dates, the lag lead for pension costs was **19 days**. The net lag for benefits is equal to **1.6 days**.

7. Payroll Taxes (Exhibit 1001, Page 16)

Payroll taxes include a variety of federal and state taxes. Federal taxes are paid on the same day as payroll taxes, therefore, the payment lag days used was 11.5 days for all federal taxes. State payroll taxes are generally paid on the 15th of the month, following the end of the quarterly payroll period. The net lag for federal and state payroll taxes was **13.1** days.

8. Prepaid Insurance (Exhibit 1001, Page 17)

Insurance premiums are typically required to be prepaid, and thus create a negative expense lag, since the Company must outlay the funds prior to the applicable service period. This results in an increase in the cash working capital requirement, since such prepaid funds will not be available to the Company. The Company's insurance policies were analyzed based on service period and payment date. The days lead was **161 days**. Since the payments are made in advance, the value is expressed as a negative lag (or lead).

9. Prepaid IT (technology) Contracts (Exhibit 1001, Pages 18 through 21)

The Company has numerous service contracts to support its technology it uses to operate its business for Oregon customers. These contracts are typically paid for on an annual basis. In some cases, if the vendor offers a discount, there may be a two to three years' service period. Like prepaid insurance, this requires a cash outlay months before the actual service period and therefore is a use of cash. The Company's technology costs were analyzed based on service period and payment date. The days lead was **268.1 days**. Since the payments are made in advance, the value is expressed as a negative lag (or lead).

10. Regulatory Fees (Exhibit 1001, Page 22)

The Company pays regulatory fees to two entities, which both require an annual payment. Like prepaid insurance and prepaid technology costs, the payments are paid prior to the actual service period, therefore, there is a use of cash. The Company's regulatory fees were analyzed based on service period and payment date. The days lead was **68.5 days**. Since the payments are made in advance, the value is expressed as a negative lag (or lead).

11. DSM & LIRAP Costs (Exhibit 1001, Pages 23 through 24)

The Company's collection of DSM and LIRAP tariff rider billings are included in the customers' revenues lag days. Those funds are recorded in FERC Account Nos. 242600- DSM liability and 242770 – LIRAP Liability. These FERC accounts were analyzed to determine the lag days of the payments made to record the use of these funds. By analyzing actual payment days, Avista determined the payment lag to be **5.8 days**.

12. O&M and A&G Costs (Vendor Costs) (Exhibit 1001, Pages 25 through 26)

The lag for the remaining operating expenses was developed based on analyzing the Company's accounts payables, computing the associated leads and lags on an individual item basis by comparing the invoice date with the payment date. In total, over 38,000 items were analyzed. It is important to note that only those costs that were directly assigned or allocated to Oregon were included, therefore, no electric data has distorted the analysis. A summary of this analysis is shown in working capital summary and the detail has been provided as a confidential detailed supporting work paper. By analyzing actual payment days, Avista determined the payment lag to be **23.1 days**.

13. Property Taxes (Exhibit 1001, Page 27)

The lag days for property taxes were calculated based on the lag between the midpoint of service and the payment date. Oregon property taxes are paid annually on November 15th. The payment made in November 2018 is for the service period July 1, 2018 through June 30, 2019. The payment made in November 2019 is for the service period July 1, 2019 through June 30, 2020. Because the payments for 2019 service period are paid in advance, there is a net lead days for these costs. The days lead was **54.5 days**. Since the payments are made in advance, the value is expressed as a negative lag (or lead).

14. Municipal Franchise Fees (Exhibit 1001, Page 28)

Municipal franchise fees (excise tax) are primarily paid on a quarterly basis on the 15th of the month following the end of the quarter. The Company's municipal franchise fees were analyzed based on service period and payment date. Average service lag and payment lag is **62.9 days**.

15. State and Federal Income Taxes (Exhibit 1001, Page 29)

The lag days for income taxes were calculated based on the lag between the midpoint of service and the payment date. Federal taxes are paid quarterly, at dates prescribed by the IRS. Average service lag for each quarter was calculated. Using the accrual of federal income taxes by month and the actual payment date for each quarter, the lead days were calculated to be **35.4 days**. Since the payments are made in advance of the actual accrual, the value is expressed as a negative lag (or lead). Oregon state income taxes are paid on April 15, 2020 for 2019 taxes. Comparing the mid-point of the service period to the actual payment produces lag days of **288 days**.

VI. IMPACT OF WORKING CAPITAL ON OTHER RATE BASE

Q. Is it "double counting" when natural gas inventories and materials and

supplies inventories are included in the Company's rate base to then include cash working capital in rate base?

A. No, it is not. The Company has historically included in rate base both natural gas inventory and materials and supplies inventory. The Company believes the working capital should be added to rate base in addition to these inventory balances. The Company does not believe it is "double counting" when natural gas inventories are included in the Company's rate base, and natural gas expense is included in the lead lag study supporting the calculation of cash working capital. The same is true for materials and supplies inventory.

The Company calculates the rate base adjustment for natural gas inventories using an average inventory balance based on the expected injection and withdrawal schedule. Some natural gas is purchased and sold immediately, other natural gas remains in inventory for an extended period of time. This calculation is independent of the cash working capital calculations. The natural gas expense included in the lead-lag study does not reflect the amount of time that purchased gas remains in inventory, but only the difference between when the natural gas was received by the Company, and when it was paid for by the Company.

The following simplified example illustrates this point. The Company obtains a quantity of natural gas on June 1, 2019. The vendor sends the Company an invoice, which the Company pays on June 25, 2019. The payment lag on that item is 24 days, that is, the Company receives the benefit of possessing the natural gas for 24 days before having to pay for it. Regardless of how long the Company holds the natural gas in inventory, only the 24 day expense lag is included in the calculation of cash working capital, so there is no double counting.

The same is true for materials and supplies. By including Oregon's-share of the average monthly balances of materials and supplies in rate base, there is no double counting. This issue was a concern of Commission Staff in the general rate case of Portland General Electric in Docket No. UE-283, in that proceeding the parties to the case agreed to conduct a study by a third party to examine the possible double counting related to materials and supplies. The study was conducted, and no double counting was found.

VII. FINAL STUDY RESULTS AND REVENUE REQUIREMENT IMPACT

Q. What are the final results of the study?

A. The results of the study shows the cash working capital requirement for Avista's natural gas operations in Oregon. Natural gas operations in Oregon has a cash working capital requirement of $2,511,163. This is based upon the daily cash requirement calculated using the expenses associated with the Oregon natural gas operations multiplied by the net lag of **13.6 days**.

The net lag of 13.6 days was derived by subtracting the expense lead of 20.4 days from the revenue lag of 34.0 days. This represents the number of days on average that the Company must fund operating expenses prior to receiving the corresponding revenue related to those expenses.

In order to calculate the total working capital adjustment to rate base, the cash working capital requirement for the natural gas operations should be in addition to the Company's natural gas inventory balances and materials and supplies inventory balances. The increase in revenue requirement associated with this adjustment is $229,000.

Q. Does that conclude your direct testimony?

A. Yes, it does.