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**BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION**

**IN THE MATTER OF THE FILING BY AVISTA )  
CORPORATION DBA AVISTA UTILITIES OF ) CASE NO. AVU-G-12-08  
ITS 2012 NATURAL GAS INTEGRATED )  
RESOURCE PLAN. ) COMMENTS OF THE  
) COMMISSION STAFF  
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The Staff of the Idaho Public Utilities Commission comments as follows on Avista Corporation's Application.

**BACKGROUND**

On August 31, 2012, Avista Corporation dba Avista Utilities filed its 2012 Natural Gas Integrated Resource Plan (IRP) with the Commission. Avista provides natural-gas service to 74,800 customers in northern Idaho, and to about 243,500 customers in Washington and Oregon. Avista files a natural gas IRP every two years to describe the Company's plans to meet its customers' future natural gas needs.<sup>1</sup> The IRP's purpose is to:

- Provide a comprehensive long-range planning tool;
- Fully integrate forecasted requirements with existing and potential resources;
- Determine the most cost-effective, risk-adjusted means for meeting demand requirements; and
- Respond to Washington, Idaho and Oregon rules and orders.

<sup>1</sup> Per Commission Order No. 32233, Avista must file its IRP by August 31 of every even-numbered year.

Avista's Natural Gas IRP consists of two spiral-bound manuals, including appendices. The IRP contains an Executive Summary, and chapters on Demand Forecasts; Demand-Side Resources; Supply-Side Resources; the Company's Integrated Resource Portfolio; Alternate Scenarios, Portfolios, and Stochastic Analysis; Distribution Planning; and the Company's Action Plan. IRP, Ch. 1-10.

## **STAFF REVIEW**

In its IRP, Avista considers several distinct service territories: Washington/Idaho, Medford/Roseburg OR, Klamath Falls OR, and La Grande OR. For each service territory, Avista presents separate analyses on demand, available resources, and cost-effective resource selection for addressing deficiencies. Avista foresees that its existing resources are sufficient to meet peak-day demand as follows:

- Washington/Idaho until 2030.
- Oregon until 2029 (Medford/Roseburg), 2030 (Klamath Falls), and throughout the 20-year planning horizon (La Grande).

Once deficiencies arise in the Washington/Idaho service territory, Avista's modeling finds the most cost-effective way to meet them is to use currently unsubscribed capacity on the TransCanada Gas Transmission Northwest (GTN) pipeline. In the Oregon service territory, Avista plans to meet deficiencies by using unsubscribed GTN capacity and expansion/purchase of laterals.

Avista prepared this IRP in an environment of forecasts of low natural gas prices and low-to-moderate economic growth. Avista recognizes that these conditions could change, and it stresses the need to closely monitor them.

### IRP Requirements

Commission Order No. 25342 adopted IRP requirements for local gas distribution companies under amended Section 303 of the Public Utility Regulatory Policies Act of 1978 (PURPA). Order No. 27024 shortened the required planning horizon from 20 years to 5 years. Order No. 27098 removed the requirement that IRPs fairly evaluate potential demand-side management (DSM) programs, and instead directed the companies to explain whether cost-effective DSM opportunities exist. In summary, these three Orders direct gas utilities to file biennial IRPs that include:

1. A forecast of future gas demand for each customer class, which includes the number, type, and efficiency of gas end-users as well as effects from economic forces on gas consumption;
2. An analysis of gas supply options for each customer class, which includes a projection of spot market versus long-term purchases for both firm and interruptible markets, an evaluation of the opportunities for using company-owned or contracted storage or production, an analysis of prospects for company participation in a gas futures market, and an assessment of opportunities for access to multiple pipeline suppliers or direct purchases from producers;
3. A comparative evaluation of gas purchasing options and improvements in the efficient use of gas based on a consistent method for calculating cost-effectiveness, which considers the total costs of each resource including externalities;
4. An explanation of whether or not there are cost-effective demand-side management (DSM) opportunities;
5. The integration of the demand forecast and resource evaluations into at least a five-year integrated resource plan describing the strategies designed to meet current and future needs at the lowest cost to the utility and its ratepayers;
6. A short-term action plan;
7. A progress report that relates the new plan to the previously filed plan; and
8. Public participation.

Staff believes that Avista's 2012 Natural Gas IRP satisfies these requirements as explained below, with one exception: Avista does not include a *progress report* that relates the new plan to the previously filed plan. Avista's 2012 IRP does include some references to how it relates to the 2010 IRP. But these references are spread throughout the plan and not summarized in one location.

Still, in Appendix 2.2, Avista suggests it has satisfied the progress report requirement by noting that it: "strives to meet at least bi-annually with Staff and/or Commissioners to discuss the state of the market, procurement planning practices, and any other issues that may impact resource needs or other analysis within the IRP." While Avista may strive to have such meetings, Staff believes a more effective way to meet the progress report requirement is for the Company to devote an IRP chapter to summarizing and explaining the changes between the current plan and the prior plan. This would allow stakeholders to easily understand how and why Avista's long-term plan changes over time.

## Demand for natural gas

Avista models customer demand as a function of the number of customers and per-customer use. First, Avista forecasts the number of customers for each combination of customer class (residential, commercial, and industrial) and service territory. Avista projects residential customers using single-family housing starts, while it projects commercial and industrial customers using the current number of customers or a trend. Avista also includes high and low population forecasts from the Washington State Office of Financial Management (OFM) to build high and low customer growth scenarios. Specifically, for Spokane County, OFM forecasts a high population forecast that is 1.6 times the medium population forecast and a low population forecast that is 0.6 times the medium population forecast. Avista applies these ratios to its expected customer growth case to obtain high and low customer growth cases.

Second, Avista forecasts per-customer use. Avista separates usage per-customer into daily base usage per customer and weather-sensitive usage per customer. Weather sensitive usage is defined as any usage above base usage and is measured as a function of heating degree days. Future weather patterns are modeled using daily weather data from the National Oceanic Atmospheric Administration, which is adjusted for global warming. Avista calls this forecast the “annual average demand forecast.”

While this model captures the average effect of weather patterns on usage, it does not necessarily capture how peak-weather days (extremely cold days) affect usage. Thus, Avista also models usage during a peak-weather event (defined as two extremely cold days followed by the coldest day on record followed by another two extremely cold days). Avista calls this forecast the “peak day demand forecast.” One of its uses is to determine whether existing resources can meet customer demand in extreme weather. Avista notes that if resources can meet peak-day demand, they generally can meet annual average demand.

Avista tests the sensitivity of its demand forecasts by considering several alternative outcomes. Included in these alternative outcomes are scenarios with high customer growth and low gas prices, low customer growth and high gas prices, and an alternate weather standard.

Avista’s forecast of demand for natural gas meets the criteria outlined in Order No. 25342. Specifically, the forecast includes the number and type of gas customers in the customer demand forecast. It includes the efficiency of gas customers by only including recent years of historical data to calibrate the model. Using only very recent data to capture usage and how it relates to weather means that changes in efficiency are automatically incorporated.

Staff believes it found several inconsistencies between how Avista described the statistical models in the text and how Avista implemented the models. Staff also believes there may be errors in how the models were implemented. Staff would like to work through these issues with Avista before the next IRP. But, Staff is confident that these errors do not significantly change the outcome of Avista's analysis.

#### Demand-side management (DSM)

During the IRP process, much time was spent discussing how the recent decline in natural gas prices affects Avista's customers. The price decline significantly impacted demand-side management. Specifically, as natural gas becomes cheaper, fewer DSM programs are cost-effective. Avista's business planning projections anticipated that the natural gas DSM portfolio will not be cost-effective going forward. In September 2012, the Commission allowed Avista to suspend its natural gas DSM programs. *See* Order No. 32650. This was not an unprecedented step – in 1997, the Commission also allowed Avista to suspend natural gas DSM programs. These programs were ultimately re-implemented in 2001.

The decision to suspend Avista's DSM programs was made after the IRP process began; thus, the IRP analysis included DSM programs. That said, DSM does not significantly change annual demand for any of the sub-areas analyzed by Avista. Therefore, examining demand net of DSM should not appreciably change the resource plan.

Avista's DSM analysis meets the criteria outlined in Order No. 25342 by treating DSM as a resource equivalent to supply-side resources and explaining that there were not any cost-effective DSM opportunities with the current natural gas prices.

#### Natural gas supply options

Avista's Idaho and Washington (ID/WA) customers are served by two different pipelines – the Williams-Northwest Pipeline (NWP) and the TransCanada Gas Transmission Northwest (GTN) pipeline. This gives Avista some flexibility in serving their customers. While the NWP is fully subscribed, the GTN pipeline has unsubscribed capacity. This is important because Avista's ID/WA service areas lie at the end of NWP laterals, which means that Avista would bear the cost of any capacity expansions.

Avista also has access to storage at Jackson Prairie, which gives Avista more flexibility to meet peak-demand needs and reduced exposure to price volatility. Avista also employs a hedging strategy using financial and physical delivery contracts to reduce exposure to price volatility.

### Integrated resource portfolio

The Commission requires that IRPs include “the integration of the demand forecast and resource evaluations into at least a five-year integrated resource plan describing the strategies designed to meet current and future needs at the lowest cost to the utility and its ratepayers.” Avista uses the SENDOUT® computer program to identify the least-cost solution given various physical and contractual constraints. SENDOUT® lets Avista examine different future scenarios and how changes in different variables will affect the least-cost resource plan.

Avista finds that its existing resources meet average-day demand in all geographic regions over the 20-year planning horizon. Shortages occur for the peak-day demand in 2030 for Washington/Idaho and Klamath Falls, OR and in 2029 for Medford/Roseburg OR. SENDOUT® results indicate that these future shortages in the Washington/Idaho service territory are best addressed by using currently unsubscribed capacity on the GTN pipeline. For Oregon, the best options include expanding/purchasing laterals and further using unsubscribed capacity on the GTN pipeline.

Avista acknowledges that these projections are based on low to moderate growth in demand and relatively low natural gas prices (due to shale gas) over the next 20 years. If actual demand is higher than expected, then there is the risk that shortages will occur sooner than expected. Higher- or lower-than-expected natural gas prices may also affect Avista’s projections. Avista is closely monitoring future changes in demand and supply (including natural gas prices). To better understand how changes in demand or in supply could affect its analysis, Avista performed sensitivity analysis using different scenarios. The scenario with high customer growth and low gas prices led to the earliest deficiency in resources – 2018 for Klamath Falls, 2020 for Washington/Idaho and Medford/Roseburg, and 2026 for La Grande. Under this scenario, the least-cost method to meet unserved demand is similar to the base case.

Avista also examined whether the aggregation of supply and demand hid any deficiencies at individual gate stations. Avista did a gate-by-gate analysis that identified gates that were deficient on their peak day in their demand and operational capacity. For each gate that showed a deficiency, Avista did further analysis to identify the most economic way to address the deficiency.

While Avista does not explicitly include a “projection of spot market versus long-term purchases for both firm and interruptible markets” or “an analysis of prospects for Company participation in a gas futures market” as required in Order No. 25342, these requirements are

implicitly included in the SENDOUT® model. The SENDOUT® analysis results in an “integrated resource plan describing the strategies designed to meet current and future needs at the lowest cost to the utility and its ratepayers,” thereby fulfilling the Commission’s requirements.

#### Short-term action plan

Avista fulfilled the requirement to develop a short-term action plan. Specifically, Avista’s 2013-2014 action plan is to:

1. Monitor actual demand for indications of growth exceeding Avista’s forecast, and to respond aggressively to address potential accelerated resource deficiencies arising from exposure to “flat demand” risk. This will include providing commission staff with IRP demand forecast to actual variance analysis on customer growth and use per customer. This information will be provided in Avista’s updates to each commission staff at least biannually.
2. Pursue the possibility of a regional elasticity study through the Northwest Gas Association or possibly the American Gas Association.
3. Address potential demand impact from NGV/CNG vehicles and other uses of natural gas to Avista.
4. Continue to monitor supply resource trends including the availability and price of natural gas to the regions, exporting LNG, Canadian natural gas imports and interprovincial consumption, regional plans for gas-fired generation and its affect on pipeline availability, as well as regional pipeline and storage infrastructure plans.
5. Monitor new resource lead time requirements relative to when resources are needed to preserve resource option flexibility.
6. Regularly meet with commission staff members to provide information on market activities and significant changes in assumptions and/or status of Avista activities related to the IRP or natural gas procurement practices.

#### Public participation

There were several types of stakeholders present at the four Technical Advisory Committee (TAC) meetings, including representatives from:

- Avista,
- Staff from Idaho, Oregon, and Washington commissions,
- Staff from other Oregon and Washington state agencies,
- Other gas utilities,
- Pipeline companies,
- Trade associations (one representing the natural gas industry and one representing large industrial customers), and
- The Northwest Power and Conservation Council.

Idaho customers were not specifically represented at the meeting (except by Commission Staff), possibly because the meetings were held at the Portland Airport conference rooms. While this is a convenient location for other stakeholders, Avista should hold more outreach in locations convenient for Idaho customers.

**STAFF RECOMMENDATION**

Staff believes that Avista's 2012 natural gas IRP fulfills the requirements for a natural gas IRP set forth in Commission Order Nos. 25342, 27024, and 27098. Staff recommends that the Company's 2012 IRP be acknowledged and accepted for filing. This recommendation should not be interpreted as approval or as a judgment of prudence regarding any actions contained in the plan or the prudence of not following the plan.

Respectfully submitted this 3<sup>rd</sup> day of December 2012.



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Karl T. Klein  
Deputy Attorney General

Technical Staff: Cathleen McHugh

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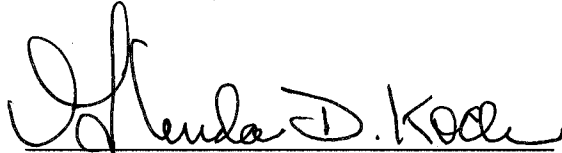


## CERTIFICATE OF SERVICE

I HEREBY CERTIFY THAT I HAVE THIS 3<sup>rd</sup> DAY OF DECEMBER 2012, SERVED THE FOREGOING **COMMENTS OF THE COMMISSION STAFF**, IN CASE NO. AVU-G-12-08, BY MAILING A COPY THEREOF, POSTAGE PREPAID AND VIA E-MAIL, TO THE FOLLOWING:

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