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BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF AVISTA CORPORATION)
DBA AVISTA UTILITIES' 2014 NATURAL GAS) **CASE NO. AVU-G-14-03**
INTEGRATED RESOURCE PLAN.)
) **COMMENTS OF THE**
) **COMMISSION STAFF**
)

The Staff of the Idaho Public Utilities Commission comments as follows on Avista Corporation's 2014 Natural Gas Integrated Resource Plan.

BACKGROUND

On September 2, 2014, Avista Corporation dba Avista Utilities ("Avista," or the "Company") filed its 2014 Natural Gas Integrated Resource Plan ("IRP"). The Company files a natural gas IRP every two years. The IRP describes the Company's plans to meet its customers' future natural gas needs. It must discuss the subjects required by Commission Order Nos. 25342, 27024, 27098, and 32698, and Section 303(b)(3) of the Public Utility Regulatory Policies Act (PURPA), 15 USC § 3202.¹

The IRP contains an Executive Summary, and chapters on Demand Forecasts; Demand-Side Resources; Supply-Side Resources; the Company's Integrated Resource Portfolio; Alternate

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

Scenarios, Portfolios, and Stochastic Analysis; Distribution Planning; and the Company's Action Plan.

IRP REQUIREMENTS

Commission Order No. 25342 adopted IRP requirements for local gas distribution companies under amended Section 303 of 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. Order No. 32698 required the Company's IRP to include a more reader-friendly progress report, and that a geographically-convenient Technical Advisory Committee ("TAC") or other public outreach meeting be made available to Idaho customers. Order No. 32698 also encouraged Avista to work with Staff to address statistical modeling inconsistencies. In summary, the Commission 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. An explanation of whether or not there are cost-effective DSM opportunities;
4. 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;
5. A short-term action plan;
6. A progress report that relates the new plan to the previously filed plan; and
7. Public participation.

STAFF REVIEW

Staff reviewed the Company's 2014 gas IRP to ensure that it contains the information required by the Commission's orders. Based on its review, Staff believes that the IRP contains the required information. Avista's IRP discusses four distinct service territories:

Washington/Idaho ("WA/ID"), Medford/Roseburg OR, Klamath Falls OR, and La Grande OR. For each service territory, Avista compares the existing resources to the expected demand estimates. The Company foresees that the existing resources can meet peak-day demand over the IRP's 20-year planning horizon. However, Avista acknowledges that if demand growth accelerates, then resource shortages may occur. *See* IRP at 10.

Staff reviewed the Company's natural gas demand forecasts, supply-side resources, demand-side management ("DSM"), computer-modeling tools and distribution planning. Each of these subjects is discussed in a separate section below. Avista's expected-case scenario forecasts sufficient resources to meet peak demand through the planning horizon. The Company uses four alternate demand scenarios — average case, high growth/low price, low growth/high price, and alternate weather standard — to account for various customer growth, usage and weather assumptions. According to the Company, existing resources meet peak demand in all scenarios within the WA/ID and Medford service territories in 2029, except for the high growth/low price scenario. Based on its analysis, Staff believes the Company's estimates are reasonable and cover a range of possible future scenarios.

Natural Gas Demand

Avista developed two primary types of demand forecasts over the 20-year planning horizon: annual average daily and peak day (coincident and non-coincident). The expected average day, system-wide demand forecast will increase from 91,352 dekatherms per day (Dth/day) in 2014 to 102,937 Dth/day in 2033, representing an annual average growth rate of 0.7%. The coincidental peak day, system-wide demand forecast will increase from a peak of 358,736 Dth/day in 2014 to 404,122 Dth/day in 2033. Forecasted non-coincidental peak day demand peaks at 333,129 Dth/day in 2014 and increases to 375,747 Dth/day in 2033 for a 0.6% compounded growth rate in peak day requirements.

Avista modeled customer demand as a function of the number of customers and per customer use. First, Avista forecasts the number of customers for each customer class (residential, commercial, and industrial) in each service territory. Avista also includes high and

low population forecasts to develop high and low customer growth scenarios. The number of customers for the expected case in the 2014 IRP is lower than in the 2012 IRP due to the way it forecasts customer growth (decreased from 1.8% in 2012 to 1.0% in 2014). Avista applies these growth factor ratios to its expected case to obtain high and low cases for customer growth.

Second, Avista forecasts per-customer use. Avista separates usage per-customer into daily base usage and weather-sensitive usage. Weather-sensitive usage is any usage above base usage, and is measured as a function of heating degree days. Avista modified its future weather pattern modeling by using daily weather data from the National Oceanic Atmospheric Administration. It also went from using a rolling 30-year average with global warming adjustments to using a rolling 20-year average without any adjustments for global warming.

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 to account for the average case, expected case, high customer growth/low gas prices, low customer growth/high gas prices, and an alternate cold weather standard. Peak demand is met with existing resources in the WA/ID demand area, with the exception of the high growth/low prices scenario in 2029.

Avista's demand forecast 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 end-users by only including three 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 incorporated into the forecast.

Commission Order No. 32698 directed the Company to work with Staff to address statistical modeling inconsistencies. Staff believes the Company has met this requirement. Furthermore, Staff has reviewed the Company's modeling methods and believes the Company reasonably modified its demand forecast. The table below summarizes the differences between Avista's forecasted demand for natural gas between the 2014 IRP and the 2012 IRP.

Table 1

Issue	2014 Natural Gas IRP	2012 Natural Gas IRP
Expected Customer Growth	Expected Case customer growth is 1% compounded annually.	Expected Case customer growth is 1.8% compounded annually.
High/Low Growth	High and low growth scenarios are based on forecasted long run employment growth.	Based on Washington State Office of Financial Management. Low growth is 40% below the expected case. High growth is 60% above expected case.
Price Elasticity	Utilized a -0.15 response based on multiple historic analysis. Incorporated mechanism to represent existing rate mechanisms that shield customers from timely price signals (i.e. comfort level billing, PGA mechanisms, deferrals, etc.)	Utilized a -0.13 response based on an AGA survey. Applied to year-over-year commodity price.
Weather	Rolling 20-year average with no adjustment for global warming.	Rolling 30-year average with an adjustment for global warming.

Natural Gas Supply Options (Supply Side Resources)

The Company discusses existing and potential natural gas supply resources. The Company has a diversified existing portfolio of gas supply resources, including contracts to buy gas from several supply basins, stored gas, and firm capacity rights on six pipelines. Potential resources include incremental pipeline transportation, storage options, distribution enhancement, and various forms of liquefied natural gas (“LNG”) storage or service.

Avista’s Idaho and Washington customers are served by two different pipelines: the Williams-Northwest Pipeline (“NWP”) and the TransCanada Gas Transmission Northwest (“GTN”) pipeline. This provides Avista some flexibility in serving its customers. While the NWP is fully subscribed, the GTN pipeline has unsubscribed capacity. This is important because Avista’s WA/ID service areas lie at the end of NWP laterals, which means that Avista would bear the cost of any capacity expansions. Avista is a one-third owner at Jackson Prairie, which provides Avista more flexibility to meet peak-demand needs and reduces exposure to price volatility. Avista also employs a hedging strategy using financial and physical delivery contracts to reduce exposure to price volatility.

The table below summarizes the differences between Avista’s analysis of supply-side resources in the 2014 IRP and the 2012 IRP. Based upon Staff’s evaluation of the Company’s IRP, Staff believes the Company reasonably evaluated its supply-side resource options.

Table 2

Issue	2014 Natural Gas IRP	2012 Natural Gas IRP
Spokane Supply	Increased the amount of supply available to take from GTN onto NWP to serve WA/ID that was not included in the 2012 IRP.	Resource not included in this IRP.
Resource Deficiency	Not resource deficient in the Expected Case.	Resource deficient in 2029 in Oregon and 2030 in WA/ID in the Expected Case.
Supply Side Scenarios	The only case that identifies a resource deficiency is the High Growth/Low Price scenario. Avista utilized only the existing plus expected available resource scenario for modeling purposes.	Evaluated three supply side scenarios on cases with resource deficiencies. Existing resources, existing plus expected available, and GTN fully subscribed.

Demand-Side Management (DSM)

The Company’s 2012 Natural Gas IRP concludes that natural gas DSM is not cost-effective due to low avoided costs that are primarily caused by low wholesale market prices. Consequently, the Company applied for, and was authorized by the Commission to, suspend its natural gas DSM programs on September 25, 2012. *See* Case No. AVU-G-12-03, Order No. 32650. The Commission ordered the Company to “re-implement its gas DSM programs when avoided costs sufficiently increase to make such programs cost-effective.” *Id.* at 6. The Company has used its WACOG (weighted average cost of gas) to indicate when natural gas avoided costs may be cost-effective in between IRPs.² The 2014 IRP included an independent natural gas Conservation Potential Assessment (CPA) that assesses energy efficiency potential

² The WACOG includes fuel charges to move gas at the city gate, plus some variable transport costs, and Gas Research Institute funding. It does not include third party gas management fees. *See* Avista’s Purchased Gas Cost Adjustment, Case No. AVU-G-14-04.

and characterizes it as technical, economic, or achievable potential.³ Using the Company's avoided-cost streams, the CPA concluded that Idaho's cumulative achievable potential will be 228,000 therms in 2015 and 3,629,000 therms by 2034. In other words, besides fuel conversions, cost effective potential exists with the Company's current avoided costs.

According to the Company, "the high level assumptions made as part of the CPA may be overly optimistic when applied to individual programs." *See* IRP at 57. Yet the Company did not provide a thorough analysis that countered the CPA results, and instead provided an overly-simplistic and generalized rationale on the broad assumptions made in the CPA. According to the Company, "These challenges [high level CPA assumptions] are more appropriately left to the operation business planning processes." *Id.* Avista further states that it is already developing the 2015 DSM Business Plan, and that it would "review the electric and natural gas DSM portfolios and perform the optimizations noted above." *Id.* at 58. Staff recognizes the Company historically refines CPA results in its annual DSM Business Plan. However, the Company submitted its 2015 DSM Business Plan on November 3, 2014 and did not include an analysis of gas DSM in Idaho.

Staff understands that lower natural gas prices directly impact avoided costs and may contribute to gas programs not being cost-effective, and that it may be difficult to fully and accurately quantify all avoided costs. Yet, according to the Company's third party CPA, cost-effective natural gas DSM is achievable. The Company's IRP and 2015 DSM Business Plan did not, however, further analyze or comment on offering gas DSM. Further, the Company's avoided-cost calculation includes some avoided supply-side resource costs, but omits avoided costs related to delayed or avoided distribution enhancements. Distribution enhancements are considered as potential supply-side resources. For example, the IRP includes about \$15 million in distribution capacity upgrades in Idaho over the next three-to-four years.

Staff is concerned the Company may not know when avoided costs increase to the point where gas DSM programs should be re-implemented. Staff thus recommends that the Company submit an addendum to its 2015 DSM Business Plan that fully analyzes the CPA results to determine when it might be cost-effective to re-implement natural gas DSM in Idaho.

³ "Technical potential" is the theoretical upper limit and assumes all customers replace equipment with the most efficient option available regardless of cost-effectiveness. "Economic potential" incorporates cost-effective measures under the Total Resource Cost test. "Achievable potential" is the theoretical lower limit and applies ramp rates to establish an acquisition savings target that is perceived to be more realistic.

Distribution Planning

Avista studies network loads to determine distribution growth and resource needs. The Company's distribution system planning-and-upgrades analysis forecasts the near term need for several significant distribution capital projects in the Company's Idaho service territory. First, a \$5.4 million project at Chase Road Gate Station in Rathdrum is expected in 2014. This project would split the large load at the Rathdrum Gate Station by building about 18,000 feet of high pressure line. The Company believes it needs this gate station so it can increase the resource capacity to the growing load in the Post Falls/Coeur d'Alene areas. Second, the Company plans a \$10 million high pressure gas reinforcement upgrade in 2016 and 2017. The Company has identified this project for remediation because current winter or peak demand exceeds contractual and physical capacity of the existing station. Finally, the IRP identifies two more upgrade projects that are expected after 2019 because current winter demand or peak demand exceed the existing section's contractual and physical capacity. The estimated project costs were not provided.

Staff believes the IRP adequately evaluates the distribution resources required to serve customers.

Short-Term Action Plan

The 2014 IRP was prepared during a period of lower-to-moderate natural gas prices and economic growth. Avista's consideration of a broad range of demand scenarios accords with Staff's belief that resource needs can change quickly due to demand increases. While Avista does not anticipate much growth in demand from traditional residential and commercial customers, the Company acknowledges that natural gas usage may increase in other markets, such as transportation fuel, power generation, or as an industrial feedstock. *See* IRP at 11. Avista acknowledges the need to closely monitor these markets for significant demand increases due to the impacts to regional gas infrastructure and possibly higher natural gas prices.

Avista's short-term action plan is summarized in the IRP's Executive Summary, with a more detailed description provided in Chapter 8. Key ongoing components of the Action Plan listed in the Executive Summary include:

1. Monitor actual demand for growth exceeding the forecast to aggressively 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. Avista will provide these updates to Commission Staff at least bi-annually.

2. Continue to monitor supply resource trends including the availability and price of natural gas to the region, LNG exports, Canadian natural gas supply availability and interprovincial consumption, and pipeline and storage infrastructure availability.
3. Monitor availability of current resource options, and assess new resource lead-time requirements relative to the resources needed to preserve flexibility.
4. Meet regularly with Commission Staff to provide information on market activities and significant changes in assumptions or status of Avista activities related to the IRP or natural gas procurement practices.

Progress Report

Order No. 32698 directs the Company to include a more reader-friendly progress report in its IRPs. Avista addresses this expectation with a table entitled: “Summary of changes from the 2012 IRP.” *See* IRP at 21. The Company also meets twice a year with Staff 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. *See* IRP Appendix 1.2 at 14. Staff believes Avista’s 2014 IRP satisfies the requirements in Order No. 32698. Staff encourages the Company to continue to developing a progress report and summaries of changes from previous IRPs.

Public Participation

Avista held four Technical Advisory Committee (TAC) meetings focused on specific planning topics. The Company reported on the progress of planning activities, and solicited input from stakeholders on the IRP as it was developed. Topics discussed with the TAC included natural gas demand forecasts, DSM, supply-side resources, computer modeling tools and distribution planning. Commission Staff, peer utilities, customers and other stakeholders attended and provided input. Consistent with Order No. 32698, these TAC meetings occurred in a variety of locations, making it more convenient for Idaho stakeholders to attend. One meeting was recorded and made electronically available for those unable to attend in person. Staff appreciates the Company’s outreach efforts and encourages the Company to continue selecting locations convenient for Idaho customers as future TAC meetings are scheduled.

STAFF RECOMMENDATION

Staff believes that Avista's 2014 natural gas IRP fulfills the requirements for a natural gas IRP set forth in Commission Order Nos. 25342, 27024, 27098, and 32698. Staff recommends that the Company's 2014 IRP be acknowledged and accepted for filing. Staff further recommends the Company submit an addendum to the 2015 DSM Business Plan that analyzes the CPA's cost-effective natural gas energy efficiency potential. This recommendation for acknowledgement 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 16th day of December 2014.



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CERTIFICATE OF SERVICE

I HEREBY CERTIFY THAT I HAVE THIS 16TH DAY OF DECEMBER 2014, SERVED THE FOREGOING **COMMENTS OF THE COMMISSION STAFF**, IN CASE NO. AVU-G-14-03, BY E-MAILING AND MAILING A COPY THEREOF, POSTAGE PREPAID, TO THE FOLLOWING:

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