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Attorney for the Commission Staff

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF AVISTA CORPORATION)
DBA AVISTA UTILITIES' 2018 NATURAL GAS) **CASE NO. AVU-G-18-05**
INTEGRATED RESOURCE PLAN)
) **COMMENTS OF THE**
) **COMMISSION STAFF**
)

COMES NOW the Staff of the Idaho Public Utilities Commission, by and through its attorney of record, Edith Pacillo, Deputy Attorney General, and in response to the Notice of Filing, Notice of Modified Procedure and Notice of Intervention Deadline issued in Order No. 34149 on September 21, 2018, in Case No. AVU-G-18-05, submits the following comments.

BACKGROUND

On August 31, 2018, Avista Corporation dba Avista Utilities (the Company) filed its 2018 Natural Gas Integrated Resource Plan (IRP). The Company files a natural gas IRP every two years to describe the Company's plans to meet its customers' future natural gas needs. The IRP must discuss the subjects required by Commission Order Nos. 25342, 27024 and 27098, and Section 303(b)(3) of the Public Utility Regulatory Policies Act (PURPA), 15 USC § 3202.¹

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

The Company's natural gas 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; Policy Considerations, and the Company's Action Plan.

The Company states its IRP identifies a strategic natural gas resource portfolio that meets expected customer demand requirements over the next 20 years. The IRP involves input from the Company's Technical Advisory Committee (TAC), which includes Commission Staff, peer utilities, customers, and other stakeholders. Topics discussed with the TAC include natural gas demand forecasts, demand-side management (DSM), supply-side resources, computer modeling tools, and distribution planning. The Company states that it addresses uncertainties surrounding supply and demand by evaluating multiple scenarios with wide-ranging possible outcomes. *Id.* The Company states the result is an integrated resource portfolio designed to serve customers' natural gas needs well into the future while balancing cost and risk. IRP at 1.

STAFF REVIEW

Staff reviewed the Company's 2018 natural gas IRP to affirm that it complies with Commission requirements. Based on its review, Staff believes that the 2018 IRP meets these requirements. Staff examined the Company's natural gas demand forecasts, supply-side resources, demand-side management (DSM), distribution planning, and 2019-2020 Action Plan with each of these subjects addressed in greater depth in sections below.

Natural Gas Demand

Staff reviewed the Company's demand forecast methodology assumptions, along with projections for demand growth rates. Staff confirmed the Company's demand forecast methodology is based on reasonable assumptions over the planning horizon and provides a range of demand projections to test the sensitivity of future resource investments.

The Company forecasts a 0.02% system-wide average annual daily demand increase and a 0.71% increase in peak day demand requirements (net of projected DSM program savings) projected to occur in 2037. *Id.* at 1-4. In the Washington/Idaho service territory, the number of customers are projected to increase at an average annual rate of 1.30%. *Id.* at 42-43. Staff believes these rates are based on reasonable growth and consumption projections in the Company's service area.

In addition to the average case, which represents normal planning, and the expected case, which represents the most likely scenario given peak weather conditions, the Company modeled four additional demand scenarios – high growth/low price, low growth/high price, alternate weather standard, and 80% below 1990 emissions – to account for variations in customer growth, usage, weather, and carbon regulation. The Company also generated demand sensitivities from different time periods for use-per-customer (e.g. 2, 3, and 5 year historical) and weather (e.g. 20 year average, coldest on record, and coldest in 20 years) to account for variations in both. Performing multiple demand scenarios creates a more robust analysis by allowing the Company to evaluate and plan for a range of possible futures.

The Company shows that it will not be resource deficient during the 20-year planning horizon in all cases except for the High Growth and Low Prices modeling scenario. Under the High Growth and Low Prices scenario, existing resources would be inadequate to meet peak demand starting in year 2032. The Company has not recommended resource options to meet the 2032 deficiency. Staff believes that this a reasonable approach because the deficiency occurs well past the five-year planning horizon, which gives Company sufficient time to explore and analyze alternatives as needed.

The demand forecast methodology is similar to past IRPs, although the Company increased the number of defined demand areas. The 2018 IRP includes eleven demand areas, instead of eight demand areas used in the 2016 IRP. The additional demand areas were created by separating three Washington/Idaho combined demand areas by state. Separating the two states benefits Idaho by providing greater detail and allows the model to accept inputs that affect each state differently, such as each states' carbon policies.

Natural Gas Supply Resources and Options

The IRP describes both existing and potential natural gas supply resources. The Company's portfolio of gas supply resources includes contracts to purchase gas, stored gas, and firm pipeline capacity rights. The Company stated that slightly higher customer growth continues to be offset by lower use-per-customer and increased DSM.

Gas prices are a significant part of the resource cost which affects the avoided cost threshold for determining the cost-effectiveness of conservation measures and how customers consume natural gas. The Company developed high, expected, and low price forecasts to represent a reasonable range of natural gas pricing possibilities over the next 20 years. Each of

the three forecasts start in 2017-2018 at approximately \$3.00 per dekatherm. The high price scenario peaks at approximately \$11.00 per dekatherm and the expected case peaks at approximately \$7.00 per dekatherm. The low price scenario remains at approximately \$3.00 per dekatherm over the 2017 – 2037 planning horizon. Staff believes the expected case scenario is reasonable.

Distribution Planning

The Company's Idaho distribution system contains approximately 3,300 miles of service and main pipelines. Transportation-only customers are excluded in long-term capacity planning exercises but are included in distribution planning because of their use of the Company's distribution system. The Company uses a modeling tool to assess distribution system growth and needs.² The tool provides a graphic representation of the Company's system, which behaves very similar to the actual system allowing Company users to simulate and model alternatives.

The Company has started an enhancement to its distribution system in Idaho. The Post Falls area distribution system was unable to meet growth demands. As a result, the Company is working on a project known as the Coeur d'Alene High Pressure Reinforcement – Post Falls Phase. Construction on the project started in 2018 and includes installation of approximately 14,600 feet of high pressure steel gas main pipe from Rathdrum to Post Falls at an estimated cost of \$4,000,000.

The Company has also included two additional projects in its plans to serve increased or new commercial demand. These two projects, called Schweitzer Mountain Road and Warden High Pressure Reinforcements, are both planned for construction in 2020 or later. The Schweitzer Mountain Road project is estimated to cost \$1,500,000 and the Warden High Pressure Reinforcements project is estimated to cost \$6,000,000. The Company will continue to list these projects in their plans but not start construction until actual distribution constraints occur.

Staff appreciates the descriptions and details provided by the Company for distribution system enhancement and projects that impact Idaho customers. However, Staff is concerned that these projects were undertaken without being analyzed in the IRP. Staff recommends that in future IRPs, the Company provide an analysis of alternatives to resolve each identified

² GL Noble Denton Synergi modeling tools.

distribution system issue and justification for selecting each project. Staff believes this is important for developing least-cost, least-risk solutions.

Demand-Side Management

In 2017, the Company contracted with Applied Energy Group (AEG) to complete a Conservation Potential Assessment (CPA) evaluation of its DSM potential. AEG indexed its CPA tool, known as LoadMAP, to the Company’s unique service area characteristics to determine technical, economic, and achievable conservation potential. The primary cost-effectiveness measure used in Idaho is the UCT (Utility Cost Test), which assesses resource value from the utility’s perspective. If benefits are greater than costs for a given measure, the UCT will be 1.0 or greater. Only measures with a UCT ratio of 1.0 or greater were included in AEG’s cumulative achievable economic potential, as shown in the following table:

Table 1: Idaho Cumulative UCT Achievable Economic Potential by Sector (dekatherms)³

Sector	2018	2019	2022	2028	2038
Residential	18,354	41,176	174,333	720,226	1,615,844
Commercial	7,417	16,035	58,160	239,015	481,888
Industrial	569	1,140	2,922	6,584	9,952
Total	26,340	58,352	235,414	965,825	2,107,684

In its 2016 IRP, the Company planned to use a new DSM modeling method known as Dynamic DSM in its 2018 IRP. The Dynamic DSM Model examines individual measures and combinations of measures from the CPA to optimize conservation potential and minimize costs in future portfolios. This model is intended to mirror a similar modeling structure used in the Company’s electric IRP, where DSM measures are modeled simultaneously with supply side alternatives to determine least cost resources options. Prior gas DSM modeling used a deterministic method based on the Expected Case assumptions, examining DSM grouped by dollar or savings values rather than individual measures.

³ 2018 Natural Gas Appendix page 184

In April 2018, the Company shared with Staff that SENDOUT⁴ was not able to provide dynamic DSM modeling. However, the Company confirmed that it is developing an Excel-based add on function for SENDOUT that will be able to provide Dynamic DSM modeling in the 2020 IRP. Staff encourages the Company to continue this work and to keep Staff updated on its progress.

In the Company's 2016 IRP, targeted location conservation programs were discussed as a potential method to delay or defer supply side investments in distribution system constraint areas. In that case, Staff asked the Company to provide information about targeted location conservation programs in Idaho. The Company responded that its Demand-Side Management Group, Gas Supply, and Gas Engineering teams would work together to determine projects for a pilot program. However, the 2018 IRP did not include any mention of this work. In discovery, Staff requested a description of work completed in this arena since the last IRP. The Company responded that it has not identified any projects where targeted location conservation benefits would offset needed enhancements, but that it will continue to consider targeted conservation and all cost-effective DSM programs in the future. Staff recommends that the Company include updates on this work for the 2020 IRP and associated TAC meetings.

2019 - 2020 Action Plan

The IRP 2019-2020 Action Plan contains activities identified by the Company's IRP team with input from Company management and TAC members. The Company states "the purpose of the Action Plan is to position Avista to provide the best cost/risk resource portfolio and to support and improve IRP planning." *Id.* at 12-14.

Key components of the 2019 -2020 Action Plan relevant to Idaho include:

- Adopt an individual measure level for Dynamic DSM program structure in its analytics for individual portfolios;
- Work with Staff to clarify distribution system analyses in the 2020 IRP;
- Work with Staff to clarify types of distribution costs for possible inclusion in avoided cost calculation;
- Revisit coldest on record planning standard and discuss with the TAC for prudence;

⁴ SENDOUT is a linear programming-based model used to solve natural gas supply, storage, and transportation optimization problems.

- Provide additional information on resource optimization risks and benefits;
- Perform high pressure distribution or city gate station capital work as needed; and
- Meet regularly with Staff to provide information on market activities and significant changes in assumptions and/or status of activities related to the IRP or natural gas procurement. *Id.* at 12-14

Based on Staff's review of the 2018 IRP, Staff believes these action items are reasonable.

Public Participation

The Company conducted four TAC meetings held at Company headquarters in Spokane, Washington. Each of the four meetings was also available online via WebEx and by phone. The Company provided details on the mechanics of its planning strategies, tools and results. Meetings included feedback and input from TAC team members as well as stakeholders.

STAFF RECOMMENDATIONS

Staff believes that the Company's 2018 Natural Gas IRP satisfies the requirements for a natural gas IRP set forth in Commission Order Nos. 25342, 27024, 27098, 32233, and 32698. Staff recommends the Company's 2018 Natural Gas IRP be acknowledged and accepted for filing.

Respectfully submitted this 16th day of December 2018.



Edith Pacillo
Deputy Attorney General

Technical Staff: Kevin Keyt
Michael Eldred
Brad Iverson-Long

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY THAT I HAVE THIS 13TH DAY OF DECEMBER 2018, SERVED THE FOREGOING **COMMENTS OF THE COMMISSION STAFF**, IN CASE NO. AVU-G-18-05, BY MAILING A COPY THEREOF, POSTAGE PREPAID, TO THE FOLLOWING:

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