

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE FILING OF)	
AVISTA CORPORATION DBA AVISTA)	CASE NO. AVU-G-18-05
UTILITIES' 2018 NATURAL GAS)	
INTEGRATED RESOURCE PLAN)	ACCEPTANCE OF FILING
)	
)	ORDER NO. 34227
)	

On August 31, 2018, Avista Corporation dba Avista Utilities filed its 2018 natural gas Integrated Resource Plan (IRP). Per Commission Order, the Company must file an IRP biennially – every even-numbered year. *See* Commission Order No. 25342, Case No. GNR-G-93-2; and Order No. 32233, Case No. AVU-G-11-02.

The Commission issued a Notice of Filing and Notice of Modified Procedure that sought comments on the IRP. *See* Order No. 34149. Commission Staff timely filed the only comments in the matter, and recommended that the Commission acknowledge the IRP and accept it for filing. The Company did not file a reply.

A natural gas IRP describes a company's plans to meet its customers' future natural gas needs. In Order No. 25342, the Commission adopted IRP requirements for local gas distribution companies in response to amended Section 303 of the Public Utility Regulatory Policies Act of 1978 (PURPA). In Order No. 27024, the Commission shortened the required planning horizon from 20 years to at least 5 years. Order No. 27098 removed any requirement that IRPs formally evaluate potential demand-side management (DSM) programs, and instead directed the companies to explain whether cost-effective DSM opportunities exist. Finally, in Order No. 32698, the Commission required the Company to offer a Technical Advisory Committee (TAC) or other public outreach meeting that is geographically convenient for Idaho customers.

In summary, these three Orders direct gas utilities to file an IRP every two years that includes:

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 a long-range (at least a five-year) 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 (e.g., two-year) plan outlining the specific actions to be taken by the utility in implementing the IRP;
6. A progress report that relates the new plan to the previously filed plan; and
7. Public participation, including input from the TAC.

THE 2018 IRP

The Company's natural gas IRP is 185 pages long. The IRP contains an Executive Summary, and chapters on Demand Forecasts; Demand-Side Resources; Supply-Side Resources; Policy Considerations, the Company's Integrated Resource Portfolio; Alternate Scenarios, Portfolios, and Stochastic Analysis; Distribution Planning; and the Company's Action Plan. The following information is from the IRP's Executive Summary. Further detail may be obtained in the IRP's remaining chapters and appendices.

In the IRP, the Company "identifies a strategic natural gas resource portfolio to meet customer demand requirements over the next 20 years." IRP at 1. The IRP takes input from the Company's TAC, which includes Commission Staff, peer utilities, customers, and other stakeholders. *Id.* For the IRP, the Company discussed topics with the TAC, including "natural gas demand forecasts, price forecasts, [DSM], supply-side resources, modeling tools, and distribution planning." *Id.* According to the Company, the end result is "a resource portfolio designed to serve our customers' natural gas needs while balancing cost and risk." *Id.*

The Company also discusses the IRP planning environment, noting that natural gas is an abundant North American resource with expectations for sufficient supplies for many decades because of continuing technological advancements in extraction. The Company states that the use

of natural gas in liquefied natural gas exports, natural gas vehicles, power generation, and exports to Mexico will add demand for natural gas.

The Company discusses its demand forecasts by defining eleven distinct demand areas in its service territory, then recognizing and accounting for factors influencing natural gas prices and demand, including “weather, customer growth and use-per-customer,” as well as “population, employment, age and income demographics, construction levels, conservation technology, new uses (e.g., natural gas vehicles), and use-per-customer trends.” *Id.* at 2.

The Company states that it forecasts a 0.71% average annual growth rate (net of projected DSM program savings), with average day, system-wide core demand increasing from an average of 93,900 dekatherms per day (Dth/day) in 2018 to 94,205 Dth/day in 2037. The Company forecasts that coincidental peak day, system-wide core demand will increase from a peak of 377,206 Dth/day in 2018 to 427,852 Dth/day in 2037. *Id.* at 3.

In addition, the Company presents its natural gas price forecasts. The Company states that gas prices are a “significant element to the total cost of a resource option,” thus affecting the “avoided cost threshold for determining cost-effectiveness of conservation measures” and how customers consume natural gas. *Id.* at 5. According to the Company, information about costs and volumes of produced shale gas reflect that “production costs will remain low for quite some time . . . even with increased incremental demand for [Liquefied Natural Gas (LNG)] exports, transportation fuels, and increased industrial consumption.” *Id.* The Company states that it developed high and low price forecasts to “represent a reasonable range of pricing possibilities” for its IRP analysis, providing variation needed to address the uncertainty of future prices. *Id.* at 6.

The Company discusses existing and potential natural gas supply resources. The Company states it has a “diversified portfolio of natural gas supply resources,” including contracts to buy gas from several supply basins, stored gas, and firm capacity rights on six pipelines. *Id.* at 6-7. In addition, the Company considers “incremental pipeline transportation, storage options, distribution enhancements, and various forms of LNG storage or service” for potential resource additions. *Id.* at 7. The Company states that, starting with its 2020 IRP, it “intends to include conservation as a potential resource addition.” *Id.*

Further, the Company discusses projected resource needs. The Company states that Average and Expected Case demand scenarios show it will not be resource deficient in the 20-year

planning horizon. *Id.* The Company anticipates that, “where a resource deficiency is nearly present,” it will have “time to carefully monitor, plan and take action on potential resource additions.” *Id.*

The Company states that uncertainty still exists, even with “the planning, analysis, and conclusions reached in [its] IRP.” *Id.* at 11. Thus, the Company states that it will diligently monitor issues and challenges, including: (1) demand scenarios that will provide “insight into how quickly resource needs can change if demand varies from the Expected Case”; (2) price issues arising from increased supply due to the increasingly efficient shale gas and drilling technology; and (3) the effects on demand and price from LNG exports and the development of new pipeline resources. *Id.* at 12-13.

The Company’s IRP also includes a 2019-2020 Action Plan, outlining “activities for study, development and preparation for the 2020 IRP.” According to the Company, the purpose of its Action Plan is “to position Avista to provide the best cost/risk resource portfolio and to support and improve IRP planning.” *Id.* Key ongoing components of the Action Plan include:

- Incorporate an individual measure level for Dynamic DSM program structure in the Company’s 2020 IRP;
- Work with Staff to clarify types of natural gas distribution system analyses for possible inclusion in the 2020 IRP;
- Work with Staff to clarify types of distribution system costs for possible inclusion in the Company’s avoided cost methodology;
- Revisit coldest on record planning standard with TAC;
- Provide additional information on resource optimization benefits and analyze risk exposure;
- Discuss integration of Energy Trust of Oregon (ETO) and Applied Energy Group (AEG)/Conservation Potential Assessment (CPA) data into DSM, as well as experience and knowledge of current and developing markets, and future codes and standards;
- Ensure that ETO has sufficient funding to acquire therm savings of the amount identified and approved by Energy Trust Board;
- Meet regularly with Commission Staff 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; and
- Appropriate management of existing resources including optimizing underutilized resources to help reduce costs to customers.

Id. at 13-14.

STAFF COMMENTS

Staff reviewed the Company's 2018 natural gas IRP and believes the IRP generally complies with Order Nos. 25342, 27024, 27098, and 32698. Staff thus recommended that the Commission accept the IRP for filing.

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 (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 is projected to increase by an average of 1.30% per year. *Id* at 42-43. Staff explained these rates are based on reasonable growth and consumption projections.

Besides 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. Staff stated that performing multiple demand scenarios allows the Company to evaluate and plan for a range of possible futures.

The Company shows it will have sufficient resources for the next 20 years in all cases but the high growth/low price modeling scenario. Under the high growth/low price 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 this is a reasonable approach because the deficiency occurs well past the five-year planning horizon, which gives the Company sufficient time to explore and analyze alternatives as needed.

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 (1) contracts to purchase gas, (2) stored gas, and (3) firm pipeline capacity rights.

Staff stated that, as prices are a significant part of the resource cost, they affect 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. Staff believes the expected price forecast 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 they use the Company's distribution system. The Company models its distribution system growth and needs with tools that graphically represent the Company's system.

The Company is working on a project known as the Coeur d'Alene High Pressure Reinforcement–Post Falls Phase. The Company started to build the project in 2018, and expects to spend \$4,000,000 to install about 14,600 feet of high pressure steel gas main pipe from Rathdrum to Post Falls.

The Company also plans two more projects to help serve increased or new commercial demand. The Company would start to build these projects—Schweitzer Mountain Road and Warden High Pressure Reinforcements—when distribution constraints occur in 2020 or later. Schweitzer Mountain Road should cost about \$1,500,000. Warden High Pressure Reinforcements should cost about \$6,000,000.

Staff was concerned that the Company's IRP identified these projects without explaining the analysis that lead the Company to select them. Accordingly, Staff recommended that the Company's future IRPs show its analysis and justification for choosing the particular projects the Company selects.

Demand-Side Management

In 2017, the Company retained AEG to complete a CPA of its DSM 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 a measure's benefits exceed its costs, the UCT will be 1.0 or greater. Only measures with a UCT of 1.0 or greater were included in AEG's cumulative achievable economic potential.

In its 2016 IRP, the Company expressed its intent to use a new DSM modeling method known as Dynamic DSM in its 2018 IRP. In April 2018, the Company told Staff that SENDOUT¹ could not provide Dynamic DSM modeling. The Company confirmed, however, that it is developing an Excel-based add on function for SENDOUT that can provide Dynamic DSM modeling in the 2020 IRP. Staff encouraged the Company to continue this work and to keep Staff updated on its progress.

In the Company's 2016 IRP, conservation programs were discussed as a potential way to delay or defer supply-side investments in distribution system constraint areas. The Company's 2018 IRP does not mention this work. In response to discovery requests, the Company stated it has identified no projects where targeted location conservation benefits would offset needed enhancements, but that it would continue to consider targeted conservation and all cost-effective DSM programs in the future. Staff recommended 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. Staff believes these action items are reasonable.

Public Participation

The Company conducted four TAC meetings at its headquarters in Spokane, Washington. Participants could attend the meetings in person, by phone, or online. The Company explained the mechanics of its planning strategies, tools and results. Meetings included feedback and input from TAC team members and stakeholders.

DISCUSSION

The Commission has reviewed Avista's IRP and Staff's comments. We appreciate Staff's thorough review and input in this matter. We find that the Company's IRP contains the required information and is appropriately formatted, consistent with Order Nos. 25342, 27024,

¹ SENDOUT is a linear programming-based model used to solve natural gas supply, storage, and transportation optimization problems.

27098, and 32698, as well as Section 303(b)(3) of PURPA. We therefore acknowledge the Company's 2018 natural gas IRP and accept it for filing.

Our acceptance of the IRP should not be interpreted as an endorsement of, or judgment of prudence as to any particular element of the plan, nor an approval of any resource acquisition or proposed action included in the IRP. We recognize the Company's ongoing efforts to keep customers informed, including through TAC meetings and other forms of public outreach. We encourage the Company to continue in its efforts to engage affected and interested persons.


ORDER

IT IS ORDERED that the Company's 2018 natural gas IRP is acknowledged and accepted for filing.

THIS IS A FINAL ORDER. Any person interested in this Order may petition for reconsideration within twenty-one (21) days of the service date of this Order. Within seven (7) days after any person has petitioned for reconsideration, any other person may cross-petition for reconsideration. *See Idaho Code* §§ 61-626.

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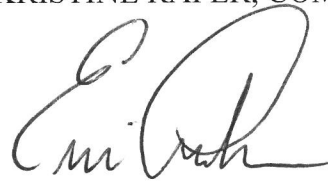
DONE by Order of the Idaho Public Utilities Commission at Boise, Idaho this 16th day
of January, 2019.



PAUL KJELLANDER, PRESIDENT



KRISTINE RAPER, COMMISSIONER



ERIC ANDERSON, COMMISSIONER

ATTEST:



Diane M. Hanian
Commission Secretary

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