

DAYN HARDIE
DEPUTY ATTORNEY GENERAL
IDAHO PUBLIC UTILITIES COMMISSION
PO BOX 83720
BOISE, IDAHO 83720-0074
(208) 334-0312
IDAHO BAR NO. 9917

RECEIVED
2021 JUL 29 PM 3:45
IDAHO PUBLIC
UTILITIES COMMISSION

Street Address for Express Mail:
11331 W CHINDEN BLVD, BLDG 8, SUITE 201-A
BOISE, ID 83714

Attorney for the Commission Staff

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF AVISTA CORPORATION)
DBA AVISTA UTILITIES' 2021 NATURAL GAS) **CASE NO. AVU-G-21-02**
INTEGRATED RESOURCE PLAN)
)
)
) **COMMENTS OF THE**
) **COMMISSION STAFF**
)
_____)

STAFF OF the Idaho Public Utilities Commission, by and through its Attorney of record, Dayn Hardie, Deputy Attorney General, submits the following comments.

BACKGROUND

On March 31, 2021, Avista Corporation dba Avista Utilities (“Company”) filed its 2021 Natural Gas Integrated Resource Plan (“IRP”). The Company filed its IRP by the deadline set in Order No. 34697, which extended the Company’s typical, August 31, 2020, filing deadline to April 1, 2021¹. 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 Per Commission Order No. 32233, Avista must file its Natural Gas IRP by August 31 of every even-numbered year.

The Company's 2021 natural gas IRP contains an Executive Summary, and chapters on Demand Forecasts; Demand-Side Resources; Supply-Side Resources; Carbon Reduction; the Company's Integrated Resource Portfolio; Alternate Scenarios, Portfolios, and Stochastic Analysis; Distribution Planning; 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 included natural gas demand forecasts, supply-side resources, demand-side management ("DSM"), computer modeling tools, carbon legislation, and distribution planning. The Company states that it addresses uncertainties surrounding supply and demand by evaluating multiple scenarios with wide-ranging possible outcomes. The Company states the IRP planning strategy produced an IRP that effectively analyzes risks and resource options, which sufficiently ensures customers will receive safe and reliable energy delivery services with the best-risk, least-cost, long-term solutions.

STAFF REVIEW

Staff reviewed the Company's 2021 natural gas IRP to affirm that it complies with requirements specified by previous Commission orders. Based on its review, Staff believes that the 2021 IRP contains the required information. Staff examined the Company's: (1) natural gas demand forecasts; (2) supply-side resources; (3) DSM, resource and distribution planning; and (4) action plans. Staff discusses each of the aforementioned subjects in detailed sections below. Based on its review, Staff recommends that the Commission acknowledge the Company's IRP as timely filed and in compliance with its previous orders.

Natural Gas Demand Forecast

Staff reviewed the Company's demand forecast assumptions, along with projections for demand growth rates. Staff confirmed the Company's demand forecasts are based on reasonable assumptions using historical data over the planning horizon and provide a range of demand projections to test the sensitivity of future resource investments. The demand forecasts used in development of the 2021 IRP are like past IRPs.

The Company developed a reference case forecast based on use-per-customer, customer growth, and weather using historical data. From the reference case forecast, the Company developed five alternative demand scenarios: an average case, an expected case, a high growth/low price case, a low growth/high price case, and a carbon reduction case. For each scenario, two primary types of forecasts were developed including an annual average demand forecast and a peak-day forecast. The annual average demand forecast is used in budgeting, procurement, and purchased gas adjustment (“PGA”)² filings. The peak-day demand forecast is used to determine resource adequacy for meeting customer needs in extreme weather conditions.

For the expected case scenario, the Company forecasts its system-wide average annual daily demand to increase from 95,126 dekatherms per day (Dth/day) in 2021 to 102,054 Dth/day in 2040, or 7.28%. The Company forecasts a 12% system-wide peak-day demand increase from 363,586 Dth/day in 2021 to 407,216 Dth/day in 2040. System-wide, the number of customers is projected to increase at an average annual rate of 1.0% which is slightly lower than the 2018 projection of 1.2%. Staff believes these rates are based on reasonable growth and consumption projections for the Company’s service area.

The high growth/low price, low growth/high price, and carbon reduction scenarios were developed to account for variations in customer growth, usage, and carbon regulation. The additional demand scenarios create a more robust analysis by allowing the Company to evaluate the risks of potential resource plans given a range of possible demand outcomes.

Using the expected case scenario, the Company’s analysis shows that it will not be resource deficient during the 20-year planning horizon. However, a resource deficiency is projected to occur in 2035 for the high growth/low-price scenario using existing resources. The Company has not recommended resource options to meet the 2035 deficiency because it occurs well into the future. Staff believes that this a reasonable approach because the deficiency occurs past the five-year planning horizon, which gives the Company sufficient lead time to perform additional analysis and explore alternatives as needed.

Under the carbon reduction scenario, an energy deficiency does not exist, but instead will require the Company to plan for carbon reducing, or neutral resources in 2022, due to expected carbon legislation in Oregon and Washington State. The Company expects Oregon to pass cap-and-trade legislation, and for Washington to require utilities to include the social cost of carbon

² The Company files a PGA annually to adjust gas costs.

to evaluate its resource plans. Because of these expectations, the Company plans to further model carbon reduction as it develops its next natural gas IRP.

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 developed high, expected, and low-price forecasts to represent a reasonable range of Henry Hub natural gas pricing possibilities over the next 20 years. Each of the forecasts start in 2020-2021 at under \$3.00 per dekatherm. The high price scenario peaks at approximately \$17.00 per dekatherm in 2045 and the expected case to peak at approximately \$7.00 per dekatherm in 2045. The low-price scenario shows natural gas at under \$5.00 per dekatherm over the 2021-2045 planning horizon.

The expected case scenario shows a gradual price increase over the twenty-year planning horizon. Staff believes it is reasonable because the Company's Henry Hub forecasts are consistent with forecasts generated by other utilities and the gas industry generally. The fundamentals reflect availability with an abundance of natural gas and minimal price volatility.

Both Oregon and Washington State have put legislation in place supporting the development of Renewable Natural Gas ("RNG") and the recovery of investments in RNG resources and infrastructure. The Company evaluated RNG as a resource in its IRP and has been preparing for its potential use by hiring an RNG Manager. The Company has also assembled a cross functional RNG team that meets routinely to coordinate efforts as well as address program and project updates.

Demand Side Management

In 2020, the Company contracted with Applied Energy Group ("AEG") to complete a Conservation Potential Assessment ("CPA") of its DSM programs for the 2021-2040 planning horizon. AEG determined energy efficiency ("EE") potential for Idaho using three analyses: (1) Technical Potential which is the theoretical upper limit of EE potential; (2) Achievable Technical Potential; and (3) Utility Cost Test ("UCT") Achievable Economic Potential. The Company primarily focuses on the UCT Achievable Economic Potential which uses the

Achievable Technical Potential results and screens each measure for cost effectiveness using the UCT, the primary cost-effectiveness measure used in Idaho. 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 UCT Achievable Economic Potential, as shown in the following table:

Table No. 1: Idaho Cumulative UCT Achievable Economic Potential by Sector (dekatherms)³

Sector	2021	2022	2025	2030	2040
Residential	17,529	44,289	77,379	339,502	1,256,282
Commercial & Industrial	18,287	43,706	151,904	398,207	769,118
Total	35,816	87,995	229,283	737,710	2,036,410

Recent trends with the Company’s IRP have shown a decline in cumulative residential savings and a steady increase in EE savings in the Commercial and Industrial sectors. In the current filing, AEG’s 20-year cumulative UCT Achievable Economic Potential for Commercial and Industrial sectors increased 56% from the 20-year forecast conducted in the Company’s 2018 Natural Gas IRP. Despite the increase in the Company’s most recent natural gas DSM Prudency filing, AVU-G-20-08, the Company reported 3,327 dth of savings for Commercial and Industrial sectors in 2019, which is 36% of their savings target from the 2018 IRP. Most of the Company’s EE savings in recent DSM prudency filings have been in the Residential sector. The Commercial and Industrial Sectors have had marginal impacts on total EE savings. Staff believes that the Commercial and Industrial savings potential may be overstated. Staff will continue to monitor the CPA analyses, and the Company’s DSM goals in future IRP filings to ensure the Company is attaining targeted DSM goals.

Modeling DSM

In its 2016 IRP, the Company planned to use a new DSM modeling method known as Dynamic DSM in the 2018 IRP. The Dynamic DSM Model examines individual measures and

³ See 2021 Natural Gas IRP Appendix page 193.

combinations of measures from the CPA to optimize conservation potential and minimize costs in the future portfolio. 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 resources to determine which resource options are least-cost. The Company's previous natural gas DSM modeling used a deterministic method based on the Expected Case assumptions, examining DSM measures grouped by dollar or savings values rather than by individual measures.

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. In the 2018 IRP action plan, the Company stated that "Avista's 2020 IRP will contain an individual measure level for dynamic DSM program structure in its analytics." The Company decided to use the Energy Trust of Oregon CPA modeling protocols in Oregon. The Company asserts that these protocols work well with their software used in other IRP modeling applications. For these reasons, the Company decided to not pursue dynamic DSM modeling in its analytics.

Resource Evaluation

The Company evaluated its ability to obtain adequate natural gas supply and ensure sufficient pipeline transportation capacity to its city gates to meet demand. The Company must also ensure that its distribution system is sufficient to meet demand and projected load growth requirements.

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 uses a modeling tool to assess distribution system growth and needs.⁵

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

⁵ GL Noble Denton Synergi modeling tools.

The tool provides a graphic representation of the Company’s system, which behaves similarly to its actual system allowing users to simulate and model alternatives.

The Company states, “[s]ecuring adequate natural gas supply and ensuring sufficient pipeline transportation capacity to Avista’s city gates becomes a secondary issue if distribution system growth behind the city gates increases faster than expected and the system becomes severely constrained.” *Id. at 161*. Additionally, the Company monitors integrity of its distribution system because of load growth and the ability to maintain its system.

In its 2018 IRP, the Company included three distribution system enhancements: the Coeur d’Alene High Pressure Reinforcement - the Post Falls Phase; the Schweitzer Mountain Road Reinforcement; and the Warden High Pressure Reinforcement. The Company provided updates on each enhancement project in response to Staff’s Production Request No. 8. The Coeur d’Alene High Pressure Reinforcement – Post Falls Phase enhancement went into service November 30, 2018, at a final cost of approximately \$2,491,087 or just over 60% of the estimated cost of \$4,000,000 provided in the 2018 IRP. Construction of the Schweitzer Mountain Road project was deferred due to cancellation of expansion plans by large customers. The Company will reassess this project annually. The Warden High Pressure enhancement projected spend is \$2,950,000 in both 2022 and 2023 which is consistent with 2018 IRP project cost projection of \$6,000,000.

In this IRP, Staff observed that no distribution system enhancements were included for Idaho. The Company confirmed that the distribution system serving Idaho customers does not require any additional reinforcements at this time.⁶ Staff appreciates the Company keeping the Commission informed and its commitment to frequently assess the need for enhancement projects to achieve sufficient capacity to meet demand.

Action Plans and Progress

2019 - 2020 Action Plan Status:

The 2019-2020 IRP Action Plan listed in the 2018 IRP included the following components:

⁶ Email response from Avista regarding reinforcement projects dated June 1, 2021. “Due to the Idaho reinforcement projects that Avista completed in the last 5-10 years, the gas distribution system does not require any additional reinforcements in the near future. Thus, there are no planned Idaho reinforcement projects at this time.”

1. Adopt an individual measure level for Dynamic DSM program structure in its analytics for individual portfolios;
2. Work with Staff to clarify distribution system analysis for the 2020 IRP;
3. Work with Staff to clarify types of distribution costs for possible inclusion in avoided cost calculation;
4. Revisit coldest on record planning standard and discuss with the TAC for prudence; and
5. Provide additional information on resource optimization risks and benefits.

Staff believes the Company adequately completed the aforementioned action items and provided reasonable discussions of the issues and decisions.

2021 - 2022 Action Plan

The Company's IRP team with input from Company management and TAC members identified the 2021-2022 Action Plan to provide the best cost/risk resource portfolio and to support and improve future IRP planning.

Improvements to IRP planning for the next IRP include:

1. Investigating new resource plan modeling software and integrating the Company's system to run parallel with current modeling software;
2. Exploring the feasibility of using projected future weather conditions in the design day methods; and
3. Performing high pressure distribution or city gate station capital work as needed.

Staff believes these action items are appropriate and reasonable. Staff looks forward to reviewing the specifics of these action items prior to the 2023 IRP cycle.

Public Participation

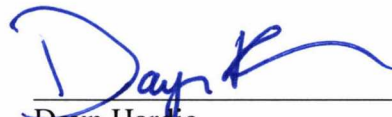
The Company conducted four virtual TAC meetings. During these meetings, the Company provided details on the mechanics of its planning strategies, tools, and results. Meetings were conducted in an interactive manner to include feedback and input from TAC team members and stakeholders. Topics presented and discussed were made available on the Company's website.

In addition to TAC meetings, the Company conducted an electronic natural gas IRP public outreach meeting and a virtual meeting with the Washington UTC where interested Idaho parties could participate.

STAFF RECOMMENDATION

Staff believes that the Company's 2021 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 2021 Natural Gas IRP be acknowledged and accepted for filing.

Respectfully submitted this 29th day of July 2021.



Dayn Hardie
Deputy Attorney General

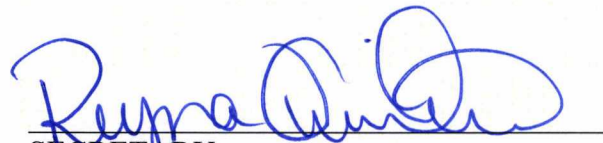
Technical Staff: Kevin Keyt
Michael Eldred
Kathy Stockton
Taylor Thomas

i:umisc/comments/avug21.2dhkkmeklstnc comments

CERTIFICATE OF SERVICE

I HEREBY CERTIFY THAT I HAVE THIS 29th DAY OF JULY 2021, SERVED THE FOREGOING **COMMENTS OF THE COMMISSION STAFF**, IN CASE NO. AVU-G-21-02, BY E-MAILING A COPY THEREOF, TO THE FOLLOWING:

SHAWN BONFIELD
DAVID J MEYER
AVISTA CORPORATION
PO BOX 3727
SPOKANE WA 99220-3727
E-MAIL: shawn.bonfield@avistacorp.com
david.meyer@avistacorp.com


SECRETARY