BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of Avista Corporation d/b/a Avista Utilities **2018 Natural Gas Integrated Resource Plan**	**DOCKET UG-170940**

COMMISSION STAFF COMMENTS REGARDING 2018 NATURAL GAS INTEGRATED RESOURCE PLAN RCW 80.01.040 and RCW 80.04.160 WAC 480-90-238

OCTOBER 12, 2018

Table of Contents

Introduction

Avista Corporation d/b/a Avista Utilities (Avista or Company) provides natural gas service to 348,000 customers in Washington, Oregon, and Idaho. There are 163,000 Avista gas customers in Washington, almost 47 percent of Avista's gas customers.[1] In Avista's Northern Division (Washington and northern Idaho), 90.2 percent of the Company's gas customers are residential. Residential customers in this area represent 61.5 percent of the annual total core customer gas demand, with commercial and industrial customers representing 36.5 percent and 2 percent, respectively.[2]

This document provides Commission staff's (Staff) comments on the final 2018 natural gas integrated resource plan (IRP) submitted by Avista to the Washington Utilities and Transportation Commission (Commission). These plans are submitted every two years, and are developed with input of an advisory group of interested parties, the public, and Staff. The next section provides an overview of the rule that requires integrated resource plans, followed by a retrospective evaluation of Avista's responsiveness to issues raised by the Commission in its most recent acknowledgment letter, following the submittal of the 2016 IRP.[3] Next, Staff reviews how the Company's findings have changed from the 2016 IRP, and Avista's forecast for new resource additions for the one scenario where there may be a long-term resource need. The final sections of this document provide Staff's suggestions for improvements.

Background and Regulatory Compliance

Under WAC 480-90-238, natural gas investor-owned energy companies (IOUs or utilities) have the responsibility to develop an integrated resource plan every two years which describes "the mix of natural gas supply and conservation designated to meet current and future needs at the lowest reasonable cost to the utility and its ratepayers."[4] In preparing an IRP, utilities are required to use consistent analyses to examine in detail a wide range of commercially available resources. In evaluating the lowest reasonable cost, each gas utility much consider "resource costs, market-volatility risks, demand-side resource uncertainties, the risks imposed on ratepayers, resource effect on system operations, public policies regarding resource preference adopted by Washington State or the federal government, the cost of risks associated with environmental effects including emissions of carbon dioxide, and the need for security of supply."[5] The intent is for each regulated company to develop a strategic approach that fits its

[1] 2018 Avista Natural Gas IRP, Figure 1.2, Page 16.
[2] 2018 Avista Natural Gas IRP, Figure 1.4, Page 19, most industrial customers pay for gas transportation-only services and purchase their gas under contract from other suppliers.
[3] Docket UG-151751, letter of February 10, 2017.
[4] WAC 480-90-238(2)(a)
[5] WAC 480-90-238(2)(b).

unique situation by evaluating the likely impacts of a host of possible risks and costs to the company and its ratepayers.

Avista timely submitted their final 2018 Natural Gas Integrated Resources Plan on August 31, 2018, in accordance with the natural gas IRP rule.[6]

Avista's Responsiveness to the 2016 IRP Acknowledgement Letter

On February 10, 2017, the Commission issued an acknowledgement letter in response to Avista's 2016 gas IRP, which indicated that Avista met the requirements for natural gas utility IRPs in WAC 480-90-238.[7] The acknowledgement letter also recommends that the Company elaborate on certain subjects in the 2018 IRP. The areas of improvement for the 2018 IRP are summarized as:

- Include a discussion of the potential impact of the Clean Air Rule and model the cost and risk of additional carbon regulation or tax,
- Provide details on the Company's gas hedging strategy,
- Ensure improvements to the conservation potential assessment are made by the conservation consultant, and use the Sendout® model to evaluate individual conservation measures by service area, and
- Discuss with the technical advisory group the Northwest Energy Efficiency Alliance natural gas initiative.

Staff found that Avista addressed all of the recommendations in the 2016 IRP acknowledgement letter. This is documented in various places in the 2018 IRP, including the 2017-2018 Action Plan Review section in Chapter 9. Some of the details of these efforts and next steps are reflected in Staff comments.

Comparison to Avista's 2016 IRP Resource Need

Avista's 2016 natural gas IRPs found that in all but one of the modeling scenarios and sensitivities, the Company has sufficient existing gas resources to satisfy projected demand throughout the 20-year planning timeframe. In the 2016 IRP, the only demand scenario where there was a projected need for additional gas resources in the 20-year timeframe was the scenario of high growth rates in gas demand, coupled with low long-term gas prices, called the High Growth & Low Prices demand scenario. The projected resource need in the 2016 IRP did not materialize until the year 2033, at the 18th year of the 20-year planning horizon.

2018 IRP Findings

The 2018 IRP found similar modeling results as the 2016 IRP. The 2018 IRP again found that only the High Growth & Low Prices scenario projected a resource need within the 20-year

[6] WAC 480-90-238.
[7] Docket UG-151751.

planning timeframe. Because of a slightly higher assumed level of future growth in system gas demand, the estimated timing for the need of additional gas resources in the High Growth & Low Prices scenario is projected in the year 2032 for their Washington/Idaho service area.[8] This is one year earlier than in the 2016 IRP, but still far enough in the future to be speculative.

Avista performed analyses to determine how to solve the possible 2032 unserved Washington/Idaho load from the High Growth & Low Prices scenario. To satisfy this long term potential resource need, Avista modeled five types of renewable natural gas (RNG) resources, as well as hydrogen, compressor upgrades, and unsubscribed firm pipeline capacity.[9] RNG was a resource modeled for the first time by Avista in this IRP. Through deterministic and stochastic analyses, the Company found that the most likely least cost and reasonable risk option would be to acquire unsubscribed pipeline capacity on the TransCanada Gas Transmission Northwest (GTN) pipeline system from Kingsgate to Spokane.[10]

The 2018 IRP forecast cost-effective portfolio demonstrates thoughtfulness and a significant effort by Avista analysts and management in exploring the use of many types of resources. Because the timing of the forecast needs are far enough into the future, small changes in sustained energy programs starting in the near term can result in significant longer-term impacts. This allows for *optimizing opportunities* for resources such as conservation, demand response, and other distributed energy resource initiatives and programs to develop and have impact on long-term resource needs. Consequently, Staff recommends that Avista delve into those distribution energy resource options in more depth in the 2020 IRP.

Because the Company currently has excess resources to serve their customers' demand for gas, it is important for Avista to prudently manage their underutilized resources in the meantime to the benefit of its customers.

Continuous Improvement

The next planning cycle will provide the opportunity to address ongoing economic and technological changes together with a variety of scenarios and sensitivity analyses. The following Staff comments provide suggestions for improving the 2020 Avista Gas IRP.

Conservation and Distributed Resources

During Avista's 2018 modeling process, it found the Sendout® analytical tool inadequate to model granular conservation resources by service area. This restricted the ability to dynamically model the contribution of conservation as a resource on equal footing with other resources. The Company plans to employ a different modeling tool to allow conservation to be dynamically selected as a resource in all portfolio runs in the 2020 IRP. Staff agrees with this direction and

[8] 2018 Avista Natural Gas IRP, Figure 10, Page 11.
[9] 2018 Avista Natural Gas IRP, Table 7.2, Page 155.
[10] 2018 Avista Natural Gas IRP, Table 7.6, Page 164, and major pipeline map, Page 93.

believes that this approach may also be useful in evaluating other distribution energy resources in the next IRP cycle.

IRP Modeling Assumptions

Avista used current assumptions regarding gas forward prices, carbon policy, and a range of other projected conditions in the 2018 IRP modeling process.[11] In the 2018 IRP, Avista separated the impact of different carbon policies and possible carbon price impacts by state for the first time. This more granular incorporation of anticipated carbon policy pricing was a useful and significant advancement, as compared to the 2016 IRP.[12] This approach also allowed the Company to model the impacts of Washington's Clean Air Rule as the Commission requested in its' acknowledgement letter.

Avista added a new risk scenario which posited a future where the Company was to achieve a reduction of gas demand which would result in emissions 80 percent below 1990 levels. Avista added this scenario to reflect "a continued policy shift toward a reduced role of natural gas as a fuel choice."[13] This was a useful exercise to examine the possible impact of such a future policy. To achieve the reduction, the model reduced system gas use volumes dramatically.

As gas price forecasts, carbon initiatives, and other market and policy projections continue to change, the Company will need to again make a best judgement call and a reasoned range of assumptions when they perform the modeling in the 2020 IRP. Accordingly, the Company has stated their plans for the 2020 Gas IRP to incorporate the direction given in Avista's 2017 Electric IRP Commission acknowledgment letter regarding the need to include the cost of risk of future greenhouse gas regulation in addition to the cost of existing regulations.[14]

The assumptions regarding future extreme weather events are very influential in determining the peak demand for the system and for different service areas. The Company has been thoughtful and robust in evaluating optional approaches to estimating these weather-related peak demand parameters. Staff encourages Avista to continue its focus on robustly estimating future peak demand because, as the Company states, a "slight increase in weather expectations can alter the unserved timeframe, especially in areas with higher populations or those nearing their current resource limits."[15]

[11] 2018 Avista Natural Gas IRP, Figure 6.5, Page 131 shows the impact on gas demand resulting from a range of possible carbon cost legislation including at the high end the social cost of carbon, at the low end the US Energy Information Agency's low price curve and, in the middle the projected costs from Washington proposed bill Senate Bill 6203.
[12] 2018 Avista Natural Gas IRP, Page 25.
[13] 2018 Avista Natural Gas IRP, Page 167.
[14] Docket UE-161036, and 2018 Avista Natural Gas IRP, Page 13.
[15] 2018 Avista Natural Gas IRP, Page 166.

Additional Staff Recommendations

As the more granular modeling of conservation resources is evaluated on a measure-by-measure basis in the 2020 Gas IRP, it would be useful to account for which saved therms are from weather-sensitive measures, and which are from other conservation measures.[16] If the proportion of weather-sensitive conservation measure therm savings is high, it may reduce the peak demand in the expected case. [17] If projected peak demand is reduced, related future resource needs might be extended further in time.

In addition to the recommendations mentioned above, Staff agrees with Avista's 2019-2020 Action Plan list of new activities and ongoing activities planned for its 2020 Gas IRP.

Public Comments

The Commission posted a Notice of Opportunity to File Written Comments in Docket UG-170940 on September 11, 2018, with a comment due date of October 12, 2018. As of October 11, 2018, no individuals or organizations had provided comments on Avista's final 2018 Gas IRP in this docket.

Closing Remarks

In summary, Avista has done a reasonable and in some ways innovative job of performing analyses, addressing interested parties' requests, and providing a rationale for further consideration of many promising resources. The recommendations made here, combined with the Company's 2020 Action Plan, should result in a comprehensive and appropriate Avista 2020 Gas IRP.

Staff notes that the direction and forecasts indicated by the results of Avista's Gas IRP are not binding on the Company or the Commission in determining the appropriateness or prudence of any Avista decisions regarding future resource acquisition.

The work plan for the 2020 Avista Gas IRP should be filed with the Commission by August 31, 2019. Staff looks forward to working with Avista and stakeholders again during the development of its 2020 Gas IRP.

[16] Weather-sensitive demand reductions would be expected for any type of building shell thermal enhancements such as insulation, as well as more efficient space heating appliances.
[17] 2018 Avista Natural Gas IRP, Table 3.6, Page 56 shows the vast majority of the top residential measures and savings are weather-sensitive. It is less clear cut for commercial and industrial sectors where most conservation savings are from custom measures on Table 3.9, Page 59.