

Attachment

Avista 2014 Natural Gas Integrated Resource Plan Docket UG-131621

Introduction

WAC 480-90-238 directs investor-owned utilities (IOUs) to describe the mix of natural gas supply resources and conservation that will meet current and future needs at the lowest reasonable cost to the utilities and its ratepayers.¹ In determining the lowest reasonable cost mix of resources, a utility must consider such factors as resource cost, market-volatility risks, public policies regarding resource preference contemplated or adopted by Washington State or the federal government and the cost of risks associated with environmental effects including emissions of carbon dioxide.² The rule necessitates IOUs conduct a comprehensive analysis of the costs and benefits, including risk mitigation benefits, of various approaches for meeting future resource needs using the best available information.

On August 29, 2014, Avista Corporation dba Avista Utilities (Avista or Company) filed with the Commission its 2014 Natural Gas Integrated Resource Plan (IRP). In this IRP, Avista describes its evaluation of potential resource strategies for meeting resource need over the next 20 years.

Summary

Avista projects its Washington/Idaho demand to grow at 0.7 percent annually while expecting its peak day demand to grow at 0.6 percent. Given these rates of growth, Avista does not project to be resource deficient in the 20-year planning horizon. Even in its high growth scenario, Avista has sufficient resources to meet load in its Washington/Idaho system through 2029.

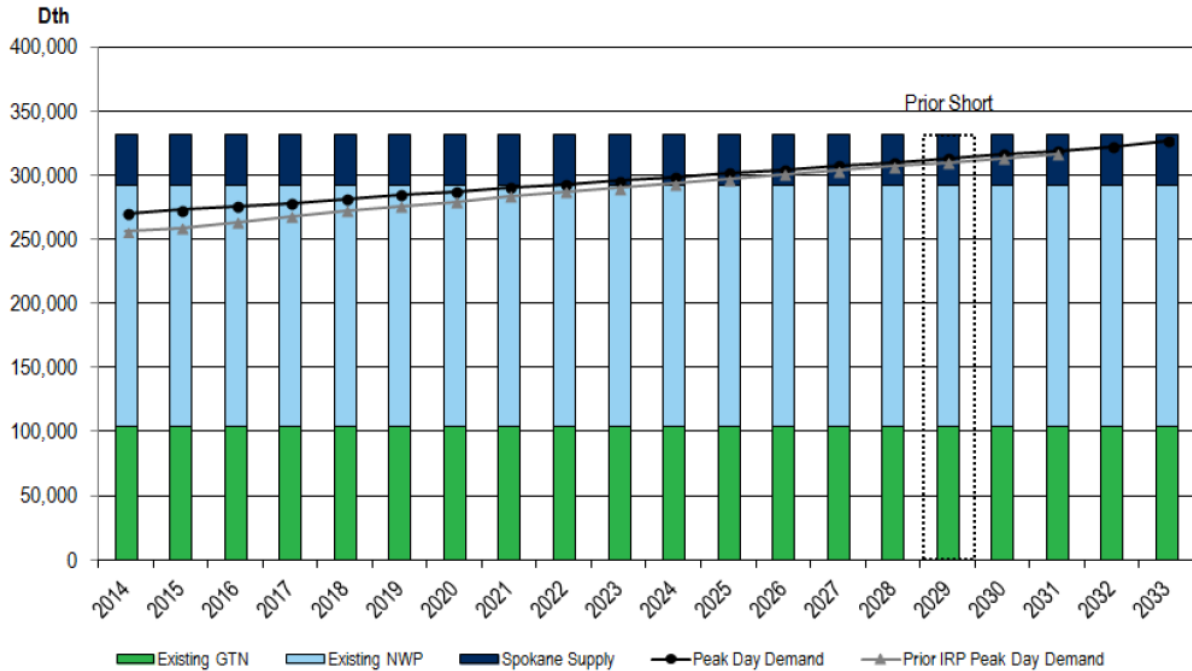
Over the 20-year planning horizon, Avista's resource strategy will consist of management of its surplus capacity along with investments in conservation resources and select distribution system enhancements. Avista intends to further develop its distribution system in Washington by installing 8,000 feet of high pressure steel gas distribution pipeline north of Spokane along U.S. Highway 2 in 2015, and upgrading a city gate station in the town of Colton, Washington, projected to need additional capacity in 2019. Conservation is expected to offset 75 percent of Avista's projected growth in demand over the 20-year planning horizon.

¹ WAC 480-90-238(2)(a).

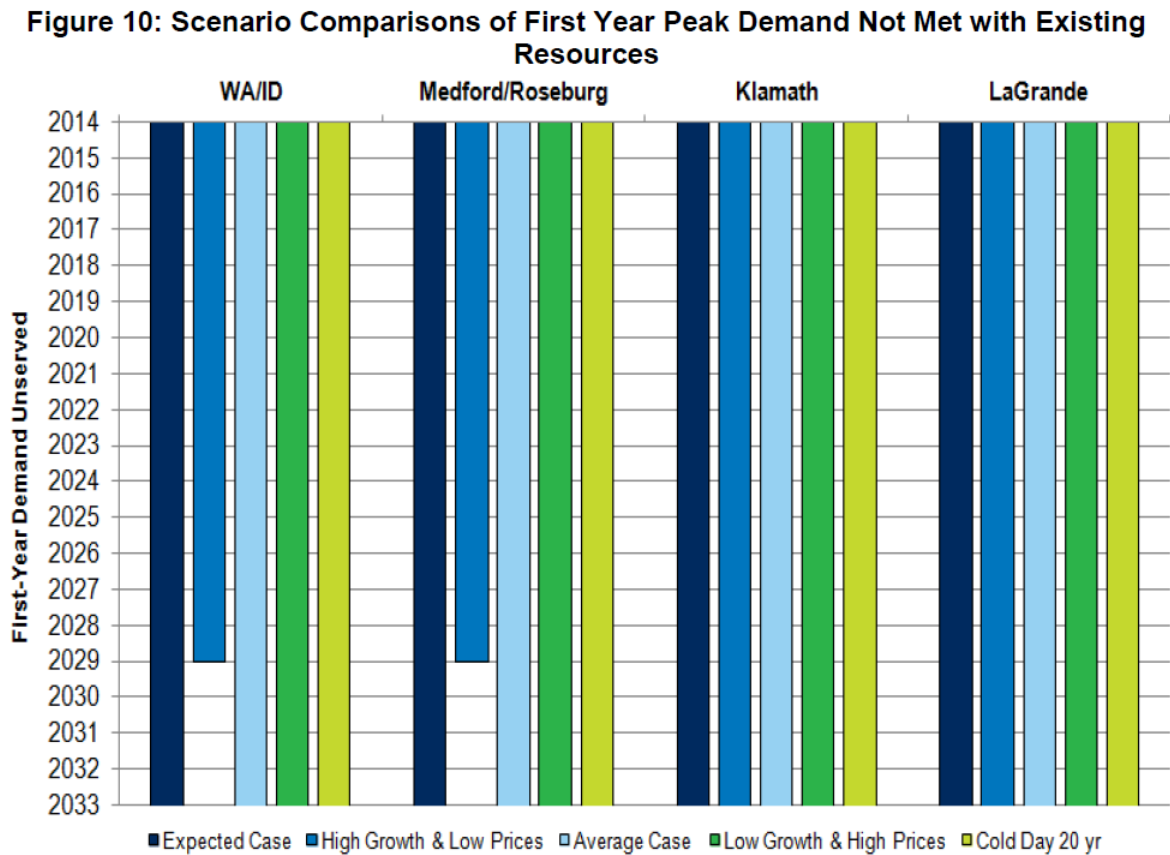
² WAC 480-90-238(2)(b).

A plot of Avista's supply-side resources against projected peak day demand is shown in the IRP's Figure 5 below.

Figure 5: Expected Case – WA/ID Existing Resources vs. Peak Day Demand (Net of DSM)



Shown in Figure 10 below are the results of Avista’s analysis of the first year in which peak demand is not met under a variety of scenarios.



Avista’s analysis of its resource needs over the 20-year planning horizon presented in this IRP is comprehensive. The Commission is satisfied with Avista’s general analytical approach and with the overall presentation of the analysis in the IRP. However, the Commission has a number of expectations it believes will make for a stronger analysis and presentation for the 2016 IRP. The expectations are as follows:

1. In the 2016 IRP:
 - a. Include a section that discusses the ongoing management of Avista’s surplus capacity;
 - b. Provide more detail on the distribution model results and analysis that identify specific distribution system needs;
 - c. Provide the resource portfolio solution that fills any demand not served for each scenario; and

- d. Ensure that the entity performing the Conservation Potential Assessment (CPA) evaluates the effect of the temporary operation under a Utility Cost Test (UCT) cost-effectiveness metric on near-term, achievable conservation potential, while maintaining the longer-term assumption that Avista will eventually be reverting back to a TRC test cost-effectiveness metric.
2. Discuss with the TAC:
 - a. Evaluation of state-specific resource needs when a resource deficiency is identified;
 - b. The appropriateness of using a one-in-572 event for peak day planning; and
 - c. The need for stress-testing the Company's storage resources during a peak event in a high-demand year.

Discussion

Surplus Capacity

In this IRP, Avista has demonstrated that it has sufficient resources to meet demand through 2033. The corollary to this statement is that Avista currently has firm rights to substantial surplus capacity. However, Avista provides little detail on how it manages this surplus capacity to reduce costs to customers. The only discussion of the Company's "underutilized resources" is in three paragraphs on pages 105-107. Avista's management of existing surplus capacity will be a significant component of the Company's resource planning over the next 20 years. Therefore, the Commission expects that Avista will include a comprehensive discussion of its ongoing management of its surplus capacity in the 2016 and all future IRPs.

Distribution System Enhancements

Avista uses the commercially available planning model SENDOUT to perform its natural gas supply, storage and transportation optimization calculations. Due to the aggregated, system-wide methodology employed by SENDOUT, the model does not readily solve for, or even uncover, city-gate level resource deficiencies. To address this shortcoming, Avista models each of its city gates outside of SENDOUT. If forecasted city gate demand exceeds operational capacities, a higher-resolution analysis is performed in SynerGEE software.³

³ GL Noble Denton's SynerGEE is a software tool used for modeling distribution network loads.

However, Avista does not describe the analysis of any of these SynerGEE runs in its IRP. Although Avista does provide a description of the modeling process in Appendix 7.1, a description and analysis of the model runs that produced the reported distribution system needs found on Table 7.1 were not provided. In future IRPs, the Commission recommends that the Company provide more discussion on the analyses that identify such specific distribution system needs.

Unsolved Models

Although Avista's high-growth scenario (which does not represent the most likely future) shows the Company's Washington/Idaho system becoming resource deficient in 2030, Avista did not allow SENDOUT to select specific resources to fill the projected resource deficiency. As a result, the high-growth model remains unsolved for 2030. The most basic of purposes of an IRP is to generate a resource plan that meets load across the full planning horizon under a variety of scenarios. If a company does not solve for a resource mix given unmet load during the planning horizon, it has not fulfilled the primary purpose of planning. Although Avista only projected a resource deficiency in its high-growth scenario, it is still necessary to show how the Company would choose to fill such a deficiency.

For the coming 2016 IRP, the Commission requests that Avista solve for the resource portfolio meeting any load not served across the 20-year planning horizon for any modeled scenario.

Washington-Specific Resource Needs

In Avista's high-growth scenario, the Company's Washington/Idaho system becomes resource deficient in 2030. However, because Avista models its Washington and Idaho service territories as a single system, it is not clear where load is not met nor is it clear whether it is Washington or Idaho that is the primary contributor to the resource deficiency in 2030. From a regulatory standpoint, it is helpful to understand the resource requirements specific to each jurisdiction being regulated. The Commission understands that Avista operates its Washington and Idaho service territories as one continuous system. However, Avista indicates that Idaho demand is growing much faster than Washington demand.⁴ Also, insofar as a resource deficiency is identifiable to a specific jurisdiction, it is essential that this information is reported in the IRP.

⁴ *Avista Corporation*, 2014 Natural Gas Integrated Resource Plan (August 29, 2014), Table 3.1, at page 48.

For the 2016 IRP, the Commission encourages Avista to discuss with the TAC conducting an analysis of its state-specific resource needs and the extent to which each state contributes to any projected resource deficiency.

Weather Design Criteria

Peak day planning

In the 2014 IRP, Avista uses a coldest day on record to plan for its Washington/Idaho peak. However, Avista models this coldest day on record to occur once every 572 years.⁵ This corresponds to a temperature of -17° F on December 30, 1968.⁶ The Commission understands that Avista needs to maintain a reliable system, but a one-in-572 event is potentially too remote of a possibility to use as a reasonable planning standard. Having said that, Avista does evaluate trends in winter temperatures and found no winter warming trend (although it has identified a warming trend in summer temperatures). If there is no increase in winter minimum temperatures, planning for a coldest day on record is reasonable. However, if future analysis identifies the presence of a warming trend in winter minimum temperatures, planning for the one-in-572 event should be re-evaluated.

The Commission expects that Avista will continue to monitor trends in peak day temperatures and peak day usage and discuss with the TAC the appropriateness of using a one-in-572 event for peak day planning.

Storage Resources “Stress Test”

In addition to designing its system to meet a coldest-day-on-record planning standard, Avista also plans its system to meet annual shaped loads for an average year. The Commission has concerns that using an average year planning standard does not adequately “stress test” the Company’s storage resources. For example, in a high-load year, it is not clear over what time frame, or whether, Avista’s Jackson Prairie storage resources will be able to withstand a 5-day peak event and how Avista would meet its peak-load obligations under such a scenario.

Given that Avista has ample resources to meet load for the next 20 years, it is not likely that this will become an issue in the near future. The Commission does, however, recommend that Avista

⁵ *Id.* at page 118. Figure 6.4 shows seven peak events drawn from the 4000 years modeled or, equivalently, seven peak events in two hundred 20-year stochastic runs.

⁶ *Id.* at page 31.

discuss with the TAC the value of performing additional analysis of the Company's resource adequacy under a more aggressive annual planning standard.

Conservation Potential Assessment

Avista filed its natural gas CPA on August 29, 2014, with its 2014 IRP in Docket UG-131621. Typically, a CPA informs the Company on the quantity of cost-effective conservation savings that is achievable in its service territory. The Company will then design an annual portfolio in pursuit of all cost-effective conservation which should be in alignment with the annual, pro rata level of conservation determined to be achievable in the CPA. However, while Avista's CPA determined the achievable potential for 2015 to be 1,287,000 therms, its 2015 Business Plan projects to achieve only 602,011 therms in 2015.⁷

This misalignment appears to stem from differences between the customer participation assumptions in the CPA and the expected customer participation used for business planning under a UCT cost-effectiveness metric. Under a UCT cost-effectiveness metric, the relatively high personal expense necessitated by a relatively low incentive level will contribute to diminished participation levels. However, the CPA did not take this effect into consideration when estimating Avista's achievable potential. Therefore, the Commission believes that the expected acquisition in the Company's 2015 Business Plan is a much more accurate calculation of achievable potential in 2015 than the pro rata level of achievable potential in the CPA, and represents a close approximation to what would have been the achievable potential in the CPA had the CPA accounted for the effect of lower incentive levels. However, without alignment of assumptions in the CPA with assumptions for business planning, the third-party CPA loses its value as an independent tool for evaluating the level of conservation the Company plans to acquire.

The Commission reiterates here its preference for use of a properly balanced TRC test when calculating the economic potential and when evaluating the cost effectiveness of a conservation portfolio.⁸ The Commission expects Avista to continue to cooperate with regional efforts to quantify the non-energy benefits⁹ associated with natural gas conservation measures and incorporate these benefits into the Company's TRC tests. The Commission fully expects a

⁷ *Avista Corporation*, Docket UG-143917, 2015 DSM Business Plan (October 31, 2014).

⁸ *Washington Utilities and Transportation Commission*, Docket UG-121207, Policy Statement on the Evaluation of the Cost Effectiveness of Natural Gas Conservation Programs (October 9, 2013) at ¶ 35.

⁹ For example, a non-energy benefit of an energy-efficient clothes washer is the reduction in water expenses related to relatively low water use.

reversion to a TRC cost-effectiveness metric within the IRP planning horizon and, indeed, within the ten years over which the CPA generates the ten-year potential. Therefore, it is appropriate to evaluate the ten year conservation potential using TRC-based economic assumptions and TRC-based ramp rates. However, it is also appropriate that companies temporarily operating under a UCT will also evaluate the annual (or biennial) conservation potential using a UCT-based economic screen and UCT-based ramp rate assumptions.

For the 2016 IRP, in the event that Avista has no other choice but to continue using a UCT cost-effectiveness metric, the Commission expects that the entity performing the CPA will evaluate the effect of the temporary operation under a UCT cost-effectiveness metric on near-term, achievable conservation potential, while maintaining the longer-term assumption that Avista will eventually be reverting back to a TRC test cost-effectiveness metric.

Conclusion

The Commission acknowledges that Avista's 2014 Natural Gas Integrated Resource Plan complies with WAC 480-90-238, on the condition that the recommendations made herein are addressed prior to the submission of the 2016 Integrated Resource Plan.