Office of the Secretary
Service Date
February 1, 2018

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF AVISTA CORPORATION'S 2017 ELECTRIC INTEGRATED RESOURCE PLAN	))))	**CASE NO. AVU-E-17-08** **ORDER NO. 33971**

On August 31, 2017, Avista Corporation dba Avista Utilities filed its 2017 electric Integrated Resource Plan (IRP). The IRP outlines and analyzes the Company's strategy for meeting its customers' projected energy needs over the next 20 years. The Company files an IRP every two years, and uses it to guide resource acquisitions. After the Company filed its IRP, the Commission invited interested persons to submit comments. Order No. 33900. At the request of the Idaho Conservation League (ICL), the Commission also held a telephonic public hearing on November 2, 2017, at which 18 people testified. Order No. 33907. Staff, ICL, and 23 members of the public timely filed written comments, and the Company timely replied. Having reviewed the record, we find that the Company's 2017 Electric IRP adequately addresses the subjects required by the Commission's prior Orders, and we acknowledge it.

OVERVIEW OF THE IRP PROCESS

An IRP is a status report on the utility's ongoing, changing plans to adequately and reliably serve its customers at the lowest system cost and least risk over the next 20 years. The report informs the Commission and the public about the utility's plans, and is similar to an accounting balance sheet; that is, it is a "freeze frame" look at the utility's fluid resource planning process. *See* Order No. 22299. The IRP is meant to demonstrate to the public that the Company has reasonably planned for different scenarios. The Commission thus expects a utility to have vigorously tested the IRP's assumptions to ensure the IRP accurately reflects changing markets and customer demand.

The Company must update its IRP every two years and allow the public to participate in developing the IRP. *See id.*; Order No. 25260. The final IRP must include the subjects required by the Commission's prior Orders, including Order Nos. 22299 and 25260. In summary, the final IRP should explain the Company's present load/resource position, expected responses to possible future events, and the role of conservation in those responses. It also should discuss

> any flexibilities and analyses considered during comprehensive resource planning, such as: (1) examination of load forecast uncertainties; (2) effects of known or potential changes to existing resources; (3) consideration of demand and supply side resource options; and (4) contingencies for upgrading, optioning and acquiring

> resources at optimum times (considering cost, availability, lead time, reliability, risk, etc.) as future events unfold.

Order No. 22299. The IRP should separately address the Company's:

- "Existing resource stack," by identifying all existing power supply resources;

- "Load forecast," by discussing expected 20-year load growth scenarios for retail markets and for the federal wholesale market including "requirements" customers, firm sales, and economy (spot) sales. This section should summarize the utility's present load condition, expectations, and level of confidence; and

- "Additional resource menu," by describing the utility's plan for meeting all potential jurisdictional load over the 20-year planning period, referring to expected costs, reliability, and risks inherent in the range of credible future scenarios.

Id.

If the Commission finds the IRP discusses these required subjects, then it will enter an Order acknowledging that the Company filed the IRP. By acknowledging the IRP, the Commission is acknowledging the Company's ongoing planning process, not the conclusions or results reached through that process.

THE 2017 ELECTRIC IRP

Avista's 2017 IRP guides its resource strategy over the next two years, and provides insight into preferred resource procurements through 2037. The 2017 IRP shows the Company can meet its customers' energy needs through 2026 with Company-owned or contractually controlled generation resources, conservation, and market purchases. In the longer term, plant upgrades, energy efficiency measures, solar, demand response, energy storage, and additional natural gas-fired generation are integral to the Company's 2017 Preferred Resource Strategy. Among other things, the 2017 IRP discusses stakeholder involvement in the IRP process; projected load growth; existing supply resources; energy efficiency and demand response; environmental policy considerations; the Company's Preferred Resource Strategy; and progress on action items referenced in the 2015 IRP and new action items to be addressed in the 2019 IRP.

A. Stakeholder Involvement

The Company developed the 2017 IRP in consultation with its Technical Advisory Committee (TAC). IRP at 2-1. The TAC consists of more than 100 invited participants, including customers, Commission Staff, the Northwest Power and Conservation Council, consumer advocates, academics, environmental groups, utility peers, government agencies, and other interested parties. *Id.* 2-3. The Company held six TAC meetings for the 2017 IRP and plans to continue expanding TAC membership and diversity and to maintain TAC meetings as an open public process. *Id.* at 2-1.

B. Projected Load Growth

The 2017 IRP predicts the Company's average annual load will grow by 0.47% per year (down from the 2015 IRP's prediction of 0.6% per year). *Id.* at 3-1. The Company noted that peak load growth is lower than energy growth at 0.42% in the winter and 0.46% in the summer. *Id.* The highest peak loads are expected in winter due to more extreme weather. *Id.* at 3-19. The Company stated it "has adequate resources combined with conservation to meet peak load requirements through October 2026." *Id.* at 1-1.

C. Existing Supply Resources

The Company owns a mix of generating resources, including hydroelectric facilities with 972 megawatts (MW) of nameplate capacity, and thermal generation (including one coal resource, five natural gas resources, and one wood burning facility) with about 845 megawatts (MW) of nameplate capacity. *Id.* at 4-4–4-6. The Company also has power purchase agreements allowing it to obtain about 482 average MW (aMW). *Id.* at 4-8–4-9. In addition, Avista had 3.5 MW of installed capacity through net metering customers as of June 2017. *Id.* at 4-10.

D. Energy Efficiency and Demand Response

The Company's energy efficiency programs provide conservation and education options to the Company's residential, low-income, commercial, and industrial customers. *Id.* at 5-1. The Company reported that its historical energy efficiency efforts have decreased its load requirements by 145 aMW, or about 12%. *Id.* The Company estimated that 53% of future load growth can be served with demand-side resources, and that expected conservation programs will defer resource needs five years, to 2026. *Id.* at 1-3, 6-1. The Company also reported about 6 MW of achievable commercial and industrial demand response potential for 2018. *Id.* at 5-18. The Company stated it would continue to evaluate the potential for residential demand response in its 2019 IRP. *Id.* at 5-17.

E. Environmental Policy Considerations

The 2017 IRP notes that greenhouse gas regulation is continually evolving and varies throughout the country. *Id.* at 7-1–7-2. The IRP indicates California failed to extend its cap-and-trade program beyond 2020 (see correction in Comments), but raised its renewable portfolio standards to 50% and extended energy storage requirements. *Id.* at 7-2. The IRP notes that Washington State has implemented a Clean Air Rule, and that the Environmental Protection Agency plans to reevaluate its Clean Power Plan following a shift in priorities signaled by the President. *Id.* at 7-1–7-2. The Company's Climate Policy Council discusses climate change issues, develops recommendations and action plans for the Company, and actively participates in state and federal legislation about climate change policies. *Id.* at 7-3.

F. Preferred Resource Strategy

The IRP's Preferred Resource Strategy (PRS) states how the Company plans to meet its resource requirements over the next 20 years, and provides an optimized least-cost portfolio for a range of risk levels. *Id.* at 11-1, 11-13. The Company explains the 2017 IRP's PRS includes demand response as a resource because options are more competitive compared to building new resources. *Id.* at 11-1. Storage also appears in the plan for the first time. *Id.* In addition, the Company is acquiring a small utility-scale solar facility for subscribing commercial and industrial customers. *Id.* Major changes from the 2015 strategy include less energy efficiency (due to lower projected loads), the addition of demand response and storage resources, less natural gas-fired peaking capacity, and replacement of the planned 2026 combined cycle combustion turbine with natural gas-fired peakers. *Id.* The Company's PRS is summarized in the table below.

2017 Preferred Resource Strategy

Resource	By the End of Year	ISO Conditions (MW)	Winter Peak (MW)	Energy (aMW)
Solar (Solar Select Program)	2018	15	0	3
Natural Gas Peaker	2026	192	204	178
Thermal Upgrades	2026-2029	34	34	31
Storage	2029	5	5	-0
Natural Gas Peaker	2030	96	102	89
Natural Gas Peaker	2034	47	47	43
Total		**389**	**392**	**344**
Efficiency Improvements	Acquisition Range		Winter Peak Reduction (MW)	Energy (aMW)
Energy Efficiency	2018-2037		203	108
Demand Response	2025-2037		44	<0
Distribution Efficiencies			<1	<1
Total			**247**	**108**

Id. at 11-7.

To develop the PRS, the Company first identified potential new generation resources to serve projected electricity demand through 2037. *Id.* at 10-4. The Company used the modeling tool AURORA to simulate the dispatch of resources to serve loads across the Western Interconnect electricity market, given fuel prices, hydroelectric conditions, and transmission and resource constraints. *Id.* at 10-1. The Company modeled data over 500 iterations of potential future market conditions. *Id.* at 10-12.

Based on its analyses, the Company expects the levelized Mid-Columbia electricity price to be $35.85 per megawatt hour (MWh) in nominal dollars from 2018-2037. *Id.* at 10-20–10-21. The Company expects nominal levelized Stanfield natural gas prices to be $4.21 per dekatherm over the next 20 years. *Id.* at 10-13. Also, the Company forecasted a continued reduction of Western Interconnect greenhouse gas emissions due to coal plant closures brought on by federal and state regulations and low natural gas prices. *Id.* at 10-1. The Company forecasted that its 15% ownership interest in Colstrip plants 3 and 4 (*id.* at 4-5) will remain cost-effective for the next 20 years. *Id.* at 12-2. However, at the request of the TAC and various state commissions, the 2017 IRP examined scenarios in which Colstrip is retired in 2030 and 2035. *Id.*

G. Action Items

The 2017 IRP contains an Action Plan based on input from Commission Staff, the Company's management team, and the TAC. *Id.* at 13-3. The 2017 Action Plan updates the Company's progress on action items from the 2015 IRP. *Id.* at 13-1. It also identifies three categories of new actions to be performed before the 2019 IRP is published: generation resource-related analysis, energy efficiency, and transmission planning. *Id.*

THE COMMENTS

Commission Staff, ICL, and several Avista customers commented on the Avista's 2017 Electric IRP, and the Company replied. Staff and ICL both recommended that the Commission acknowledge the 2017 IRP.

A. Staff

Staff believes the Company's load forecasts for its 2017 IRP are reasonable. Staff Comments at 3. Staff also believes the 2017 IRP "thoroughly identified, analyzed, and planned for transmission and distribution needs." *Id.* at 7.

Staff highlighted that the Company expects demand-side management efforts to yield 88,000 MW hours (MWh) of savings in 2018, and 1,516,000 MWh of cumulative savings in 2037. *Id.* at 4. Staff noted that the future load growth served by the Company's demand-side resources delays the Company's first capacity deficit by five years from what it would have been without demand-side resources. *Id.*

Staff appreciated the Company's progress in modeling of demand-side resources. *Id.* at 4-5. Staff had asked the Company to model its demand-side management resources using utility costs rather than total costs, to ensure that supply-side and demand-side resources are treated equally in the IRP process. *Id.* Because the Company had modeled resources for its 2017 IRP based on total costs, it applied an adjustment to approximate the amount that would have been identified using only utility costs. *Id.* at 4. The Company also agreed to use only utility costs when modeling demand-side resources in its 2019 IRP. *Id.* at 4-5.

Staff believed that the Company did not adequately explain why it plans to build a 204 MW natural gas peaker plant in 2026 on expiration of its (283 MW) Lancaster power purchase agreement, rather than having the IRP consider a Lancaster contract extension. *Id.* at 5. Staff believed the Company should have modeled scenarios that included renewing the Lancaster contract. *Id.* at 5. Also, Staff noted that the 2017 IRP did not clearly state that each of the Company's portfolios complies with the Environmental Protection Agency's Clean Power Plan (CPP). *Id.* at 7.

Staff believed most of the Company's inputs and assumptions to forecast future energy usage were reasonable. *Id.* at 9. In particular, Staff supported the Company's inclusion of negative pricing in its pricing model as "reasonable to get the most accurate valuation and dispatch of resources. *Id.* at 9, 10. However, Staff was concerned that the Company's gas price forecast was "extremely low throughout the entire planning period." *Id.* at 9. Staff stated that planning on extremely low gas prices inappropriately assumes a "'best case' scenario rather than a robust planning criteria designed to limit disproportionate price risk." *Id.* Staff also expressed concern that the Company failed to provide evidence supporting its claim "that coal price risk is not a significant factor for Colstrip operations." *Id.* at 10. In particular, Staff indicated that Colstrip's coal contract expires in 2019 and that the Rosebud mine that feeds Colstrip is expected to be depleted in 2024. *Id.* (citing the Securities and Exchange Commission Form 10-K of the Rosebud mine's owner, Westmoreland). As a result, Staff recommended "that price risk for coal associated with Colstrip operations be explicitly modeled in the Company's 2019 IRP." *Id.*

Staff appreciated the Company's analyses of Colstrip retirement scenarios and encouraged the Company "to continue analyzing alternatives and cost mitigation strategies for the plant." *Id.* at 12. Staff also recommended that the Company "specify significant capital investments required for plant operation and provide a more transparent assessment of the costs and availability of fuel for the plant." *Id.* at 13. Staff found the Company's two-year Action Plan "is sufficient to implement the preferred portfolio." *Id.*

Ultimately, Staff found the Company "performed sufficient analyses, reasonably considered supply and demand-side resources, and provided acceptable opportunities for public input," thus satisfying Order Nos. 25260 and 22299. *Id.* at 14. Accordingly, Staff recommended that the Commission acknowledge the Company's 2017 IRP.

B. ICL

ICL did not intervene, but filed public comments. ICL thanked the Company "for welcoming ICL to the [TAC], where this IRP was discussed and where Avista accepted customer input." ICL Comments at 2. ICL's general purpose in providing comments was to encourage the Commission "to use its review and analysis of Avista's 2017 IRP . . . to provide policy direction that will help inform and guide any new utility personnel that may be involved with or takeover the 2019 IRP," should Hydro One's proposed acquisition of Avista be completed and approved. *Id.* at 2-3.

ICL asked the Commission to note that Avista failed to correct an error in the IRP stating California failed to extend its cap-and-trade program beyond 2020, which ICL asserts California extended. *Id.* at 3. In addition, ICL asked the Commission to direct Avista to include a "thorough and detailed discussion" in its 2019 IRP, of the policies and financial plans of the utility co-owners of Colstrip Units 3 and 4, and their impact on the cost of producing and distributing electricity from Avista's share of Units 3 and 4. *Id.* ICL specified that such discussion should include analysis of provisions in Puget Sound Energy's (PSE) 2017 settlement with the Washington Utilities and Transportation Commission that (1) changed the depreciation schedule for Units 3 and 4 from 2045 to 2027; and (2) allocated $10 million for transition funds to the community of Colstrip. *Id.* at 3-4. ICL also recommended that Avista include analysis of Oregon State Bill 1547, directing PGE and PacifiCorp to end distribution of coal-generated electricity in Oregon by 2030. *Id.* at 4.

ICL commended the Company for adding a summary of supply-side resource costs (Appendix G to IRP), in response to ICL's feedback. *Id.* ICL asked the Commission to direct Avista "to provide a more transparent accounting and explanation" of how Avista's AURORA and PRiSM models work. *Id.* at 4-5. ICL also asked that Avista provide a more thorough analysis "of the fuel price of coal at Colstrip and a forecasted range of price volatility over the 20-year timeframe of the 2019 IRP." *Id.* at 5.

C. Customers

The Commission conducted a public telephone hearing at which 18 people testified, most of whom were Avista customers. The hearing participants testified about retiring Colstrip early, switching from coal to renewables, and other environmental concerns. The Commission also received 23 written comments. Most comments opposed investing in Colstrip, although a few supported it.

D. Avista's Reply

Avista noted that no commenter recommended that the Commission not acknowledge its 2017 Electric IRP. Reply at 2. Instead, commenters asked the Commission to direct Avista to perform specific analyses in future IRP processes. *Id.* Avista replied to concerns expressed by Staff and ICL.

About its Lancaster power purchase agreement, Avista stated it is open to extending the contract if doing so would be beneficial to customers and the Company, and that it said as much "many times in the TAC meetings." *Id.* at 3. Because the contract does not expire until October 2026, Avista believes it would be premature to discuss contract extension until 2021. *Id.*

About the Company's compliance with the CPP, Avista explained that when preparing its 2017 IRP, the CPP was a state-level goal, "so all ensured that each state would be in compliance." *Id.* The CPP was then stayed in legal proceedings and the change in administrations has "fundamentally changed" the status of the CPP. *Id.* Avista concludes "none of the states in which Avista has covered resources ever developed company-level goals to compare the Company's portfolios to." *Id.*

In response to Staff's recommendation that Avista be more specific about environmental capital investment, the Company stated it intends to provide additional details through the TAC process for its 2019 IRP. *Id.*

The Company also addressed Staff's comments regarding its natural gas price forecast. According to the Company, the forecast was "discussed in detail with the TAC in several different meetings and Avista was unaware of any Staff concerns." *Id.* at 4. The Company explains that its forecast is "stochastically, or randomly determined to account for the risk of higher and lower prices." *Id.* The Company also states that "a second consultant's price forecast will be incorporated in the modeling for the 2019 IRP" and the information will be shared with the TAC for review and consultation. *Id.*

In addition, the Company addressed Staff's comments regarding the Rosebud mine, which supplies Colstrip, and coal prices. According to Avista, "there is no indication [Westmoreland Coal] want[s] to stop mining at Rosebud," thus there is a strong incentive to renew the contract. *Id.* Avista disputed Staff's interpretation of Westmoreland's Securities and Exchange Commission filing Form 10-K as indicating that the Rosebud mine would run out of coal in 2024. *Id.* at 4-5. Avista contends the 2024 date "is simply a calculation of the current amount of permitted coal divided by the annual production capacity." *Id.* at 5.[1] Avista stated that in developing the 2019 IRP, it would discuss with the TAC the renewal of the coal contract beyond 2019 and new coal permits beyond 2024. *Id.*

Responding to ICL's concern about Hydro One's acquisition of Avista, the Company stated "[t]here are no plans or provisions in the merger agreement for Hydro One to take over the direction, development or staffing of the IRP team or any other operational function at Avista." *Id.* at 6. Avista acknowledged that the IRP incorrectly states California did not extend its cap-and trade program, as ICL pointed out. *Id.* at 7. The Company noted that, where relevant, modeling in the IRP assumed the cap and trade program continued. *Id.*

About PSE's settlement with the Washington Utilities and Transportation Commission, Avista noted it was not a participant in that settlement, and the settlement was reached after Avista's 2017 IRP was completed. *Id.* Further, regarding Oregon State Bill 1547, Avista stated there was no publicly available information to discuss or analyze in the 2017 IRP about how PGE's or PacifiCorp's ownership in Colstrip would be altered by the law, beyond what Avista included in the 2017 IRP. *Id.* Avista added that the PSE settlement and the Oregon State Bill would be discussed with the TAC for the 2019 IRP. *Id.* Regarding the transparency of its AURORA and PRiSM models, Avista stated it "has and will continue to provide as much non-confidential information as [it] can in the TAC meetings and the IRP." *Id.* at 7-8.

Regarding the Company's analysis of the fuel price of coal at Colstrip and forecasted range of price volatility, raised by ICL, Avista noted the coal prices for Colstrip are confidential. *Id.* at

[1] To arrive at 2024, Avista divided the current amount of permitted coal (85,453,000 tons) by the annual production capacity (13,300,000 tons/year), resulting in 6.4 years from now (or 2024). Avista also explained that the estimate of 6.4 years of remaining permitted coal may be conservative because it is based on 13.3 million tons per year of production capacity, and the actual production levels have been much less since 2014 (ranging from 8.8 million tons to 9.6 million tons). Reply at 5. Further, the amount of coal mined will further decrease when units 1 and 2 shut down by 2022. *Id.*

5. Avista stated it used expectations of future prices for Colstrip because its contract expires in 2019 and a new contract is being negotiated. *Id.* However, "[t]he costs of the new contract will be used for modeling the 2019 IRP, and for prices beyond the length of the contract a high/low price scenario can be studied if desired by the TAC." *Id.*

DISCUSSION AND FINDINGS

The Company is an electrical corporation and public utility as defined in *Idaho Code* §§ 61-119 and -129, and the Commission has jurisdiction over it and the issues in this case under Title 61 of the Idaho Code, including *Idaho Code* § 61-501. Having reviewed the record, we find that the Company's 2017 Electric IRP satisfies the requirements in the Commission's prior Orders. We thus acknowledge that the Company has filed the 2017 Electric IRP. In doing so, we reiterate that an IRP is a working document that incorporates many assumptions and projections at a specific point in time. It is a plan, not a blueprint, and by issuing this Order we merely acknowledge *the Company's ongoing planning process*, not the conclusions or results reached through that process. With this Order, the Commission is not approving the IRP or any resource acquisitions referenced in it, endorsing any particular element in it, or opining on the Company's prudence in selecting the IRP's preferred resource portfolio. The appropriate place to determine the prudence of the IRP or the Company's decision to follow or not follow it, and the validation of predicted performance under the IRP, will be a general rate case or another proceeding in which the issue is noticed.

The Commission appreciates the active participation in the IRP process of the Staff, ICL, and other stakeholders and customers, and we are confident that their input helps the Company develop a better and more comprehensive IRP. We note that customers and Staff commented on alternatives regarding the closure of Colstrip and the inclusion in the PRS of a new gas peaker plant after the expiration of the Lancaster agreement. We encourage the Company to continue evaluating all options regarding these resources, and to consider the best interests of its customers when developing the 2019 IRP. The Commission appreciates the Company's collaboration with stakeholders in developing the 2017 Electric IRP.

O R D E R

IT IS HEREBY ORDERED that the filing of the Company's 2017 Electric IRP is acknowledged.

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.

DONE by Order of the Idaho Public Utilities Commission at Boise, Idaho this 31st day of January 2018.

PAUL KJELLANDER, PRESIDENT

KRISTINE RAPER, COMMISSIONER

ERIC ANDERSON, COMMISSIONER

ATTEST:

Diane M. Hanian
Commission Secretary

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