



Work Plan for Avista's 2021 Electric Integrated Resource Plan

**For the
Washington Utilities and Transportation Commission
&
Idaho Public Utility Commission**

April 1, 2020

2021 Electric Integrated Resource Planning (IRP) Work Plan

This Work Plan is submitted in compliance with the Washington Utilities and Transportation Commission's Integrated Resource Planning (IRP) rules (WAC 480-100-238). It outlines the process Avista will follow to develop its 2021 Electric IRP for filing with the Washington and Idaho Commissions by April 1, 2021. Avista uses a public process to solicit technical expertise and feedback throughout the development of the IRP through a series of Technical Advisory Committee (TAC) meetings and uses a combination of social media and public outreach event to include the general public.

The 2021 IRP process will be similar to those used to produce the previous IRPs, but with changes to better align assumptions with the Natural Gas IRP. Exhibit 1 shows the planned 2021 IRP timeline for work products. Avista plans to use Aurora for electric market price forecasting, resource valuation and for conducting Monte-Carlo style risk analyses of the electric marketplace. Aurora modeling results will be used to select the Preferred Resource Strategy (PRS) and alternative scenario portfolios using Avista's proprietary PRiSM model. This tool fills future capacity and energy (physical/renewable) deficits using an efficient frontier approach to evaluate quantitative portfolio risk versus portfolio cost while accounting for environmental laws and regulations. Qualitative risk evaluations involve separate analyses. Avista plans to utilize its proprietary Avista Decision Support System (ADSS) model to conduct analyses to evaluate reserve products such as ancillary services and intermittent generation. Avista also plans to use its Avista Reliability Assessment Model (ARAM) to validate resource adequacy and resource peak contributions (ELCC) as introduced in the 2020 IRP. Avista contracted with Applied Energy Group (AEG) to conduct energy efficiency and demand response potential studies.

Avista intends to use both detailed site-specific and generic resource assumptions in development of the 2021 IRP. The assumptions will utilize Avista's research of similar generating technologies, engineering studies, and the Northwest Power and Conservation Council's studies. Avista will rely publically available data to the maximum extent possible and provide its cost and operating characteristic assumptions publically. The IRP may model certain resources as Power Purchase Agreements (PPA) rather than Company owned because these third party provided resources are more likely to be lower cost.

Avista intends to create a PRS using market and policy assumptions based on the results of newly implemented rules from the Clean Energy Transformation Act (CETA) for Washington and using the least cost planning methodology in Idaho. The plan will also include sections outlining the key components of the Washington Clean Energy Action Plan and an Idaho Preferred Resource Strategy. The IRP will include a limited number of scenarios to address alternative futures in the electric market and public policy. TAC meetings help determine the underlying assumptions used in the IRP including market scenarios and portfolio studies. Although, Avista will also engage the general public using social media and a public outreach event. The IRP process is very technical and data intensive; public comments are welcome and we encourage timely input and participation for inclusion into the process so the plan can be submitted according to the proposed schedule in this Work Plan. Avista will make all data available to the public *except* where it contains market intelligence or proprietary information. The planned schedule for this data is shown in Exhibit 2.

Avista intendeds to release data prior to its discussion at Technical Advisory Committee Meetings and expects any comments within two weeks after the meeting.

The following topics and meeting times may change depending on the availability of presenters and requests for additional topics from the TAC members. This shortened IRP cycle will only include five public meetings. The timeline and proposed agenda items for TAC meetings follows:

- **TAC 1: Thursday, June 18, 2020:**
 - TAC meeting expectations and IRP process overview,
 - Review of 2020 IRP Idaho acknowledgement,
 - Update on CETA rulemaking process,
 - Modeling process overview, including Aurora, ARAM, ADSS, PRiSM, and assumption overview,
 - Generation options (cost, assumptions, ELCC),
 - Highly impacted community discussion (WA- CETA).

- **TAC 2: Thursday, August 6, 2020 (joint with Natural Gas IRP TAC):**
 - Demand and economic forecast,
 - Conservation Potential Assessment (AEG),
 - Demand Response Potential Assessment (AEG),
 - Natural gas market overview and price forecast,
 - Regional energy policy update,
 - Gas/Electric coordinated studies,
 - Highly impacted community proposals.

- **TAC 3: Tuesday, September 29, 2020:**
 - IRP Transmission planning studies,
 - Distribution planning within the IRP,
 - Discuss market and portfolio scenarios,
 - Existing resource overview,
 - Electric market forecast and scenarios.

- **TAC 4: Tuesday, November 17, 2020:**
 - Final resource needs assessment and resource adequacy,
 - Ancillary services and intermittent generation analysis,
 - Review draft resource plans for each state and scenarios.

- **TAC 5: Thursday, January 21, 2021:**
 - Review draft IRP,
 - Final state resource plans and scenarios,
 - Draft Clean Energy Implementation Discussion,
 - 2021 IRP Action Items,
 - Initial comments from TAC participants.

- **Public Outreach Meeting, February X, 2021**

2021 Electric IRP Draft Outline

This section provides a draft outline of the expected major sections in the 2021 Electric IRP. This outline may change based on IRP study results, CETA rulemaking, and input from the TAC.

- 1. Executive Summary**
- 2. Introduction, Stakeholder Involvement, and Process Changes**
- 3. Economic and Load Forecast**
 - a. Economic Conditions
 - b. Avista Energy & Peak Load Forecasts
 - c. Load Forecast Scenarios
- 4. Existing Supply Resources**
 - a. Avista Resources
 - b. Contractual Resources and Obligations
- 5. Energy Efficiency Potential Study**
- 6. Demand Response Potential Study**
- 7. Long-Term Position**
 - a. Reliability Planning
 - b. Resource Requirements
 - c. Reserves and Flexibility Assessment
- 8. Transmission Planning**
 - a. Overview of Avista's Transmission System
 - b. Future Upgrades and Interconnections
 - c. Transmission Construction Costs and Integration
 - d. Merchant Transmission Plan
- 9. Distribution Planning**
 - a. Overview of Avista's Distribution System
 - b. Future Upgrades and Interconnections
- 10. Supply Side Resource Options**
 - a. New Resource Options
 - b. Avista Plant Upgrades
- 11. Market Analysis**
 - a. Wholesale Natural Gas Market Price Forecast
 - b. Wholesale Electric Market Price Forecast
 - c. Scenario Analysis
- 12. Washington- Clean Energy Action Plan**
 - a. Preferred Resource Strategy
 - b. Highly Impacted Community Analysis
- 13. Idaho- Preferred Resource Strategy**
 - a. Preferred Resource Strategy
- 14. Portfolio Scenarios**
 - a. Resource Selection Process
 - b. Efficient Frontier Analysis
 - a. Portfolio Scenarios
 - b. Resource Avoided Cost
- 15. Action Plan**

Draft IRP will be available to TAC members on January 4, 2021. Comments from TAC members are expected back to Avista by March 1, 2021. Avista’s IRP team will be available for conference calls or by email to address comments with individual TAC members or with the entire group if needed.

Exhibit 1: 2021 Electric IRP Timeline

<u>Task</u>	<u>Target Date</u>
Identify Avista’s supply resource options	May 2020
Finalize natural gas price forecast	June 2020
Finalize demand response options	July 2020
Finalize energy efficiency options	July 2020
Update and finalize energy & peak forecast	July 2020
Finalize electric price forecast	August 2020
Transmission & distribution studies due	August 2020
Determine portfolio & market future studies	August 2020
Due date for study requests from TAC members	August 1, 2020
Finalize PRiSM model assumptions	September 2020
Simulate market scenarios in Aurora	September 2020
Portfolio analysis & reliability analysis	October 2020
Present portfolio analysis to TAC	November 2020
Writing Tasks	
File 2021 IRP Work Plan	April 1, 2020
Internal draft released at Avista	December 4, 2020
External draft released to the TAC	January 4, 2021
Comments and edits from TAC due	March 1, 2021
Final editing and printing	March 2021
Final IRP submission to Commissions and TAC	April 1, 2021

Exhibit 2: Public Data Release Schedule

<u>Task</u>	<u>Targeted Release</u>
Supply Side Resource Options	June 2020
Conservation Potential Study Data	July 2020
Demand Response Potential Study Data	July 2020
Peak & Energy Load Forecast	July 2020
Wholesale Natural Gas Price Forecast	August 2020
Wholesale Electric Price Forecast	September 2020
Transmission Interconnect Costs	September 2020
Existing Resource Data	September 2020
Annual Capacity Needs Assessment	November 2020
