



**Work Plan for Avista's
2018 Natural Gas Integrated Resource Plan**

**For the
Washington Utilities and Transportation Commission**

August 31, 2017

2018 Natural Gas Integrated Resource Planning Work Plan

This Work Plan is submitted in compliance with the Washington Utilities and Transportation Commission's Integrated Resource Planning (IRP) rules (WAC 480-90-238). It outlines the process Avista will follow to develop its 2018 IRP for filing with Washington, Idaho and Oregon Commissions by August 31, 2018. Avista uses a public process to solicit technical expertise and feedback throughout the development of the IRP through a series of public Technical Advisory Committee (TAC) meetings. Avista will hold its first TAC meeting for the 2018 IRP on January 25, 2018.

The 2018 IRP process will be similar to those used to produce the previous IRPs. Avista will use SENDOUT® (a PC based programming model widely used to solve natural gas supply and transportation optimization questions) for peak day demand, resource valuation and for conducting Monte-Carlo style risk analyses. SENDOUT® modeling results will be used to select the Preferred Resource Strategy (PRS). Further details about Avista's process for determining the risk adjusted least-cost resource mix is shown in Exhibit 1.

Avista will use both detailed site-specific and generic resource assumptions in development of the 2018 IRP. The assumptions combine Avista's research of similar supply-side resources, engineering studies and two third-party consultant analyses. This IRP will study environmental costs, peaking requirements and resource adequacy, energy efficiency programs, and weather.

Avista will test the PRS against a range of scenarios and potential futures. The TAC meetings will help to develop and determine the underlying assumptions used in the scenarios and futures. The IRP process is very technical and data intensive; public comments are welcome but timely input and participation will be necessary for inclusion into the process so the plan can be submitted according to the tentative schedule identified in this Work Plan.

Additionally, Avista intends to incorporate action plan items identified in the 2016 Natural Gas IRP, including analyses of market opportunities for various gas procurement contracts, methods to enable a dynamic analytics process for the evaluation of conservation potential within individual portfolios, impacts of the Clean Air Rule in Washington and other state and federal carbon policies, customer forecasts using two different methods, impacts of weather specific to Avista's service territories, and greater detail on Avista's natural gas hedging strategy.

The following topics and meeting times may change depending on the availability of presenters and requests for additional topics from the TAC members. The tentative timeline and agenda items for TAC meetings follows:

- **TAC 1: Thursday, January 25, 2018:** TAC meeting expectations, review of 2016 IRP acknowledgement letters, customer forecast, and demand-side management (DSM) update.
- **TAC 2: Thursday, February 22, 2018:** Weather analysis, supply-side resources overview, overview of the major interstate pipelines, and the procurement plan.

- **TAC 3: Thursday, March 29, 2018:** Distribution, environmental policies, market dynamics, price forecasts, cost of carbon, and initial modeling results.
- **TAC 4: Thursday, May 17, 2018:** DSM results, stochastic modeling and supply-side options, final portfolio results, and 2020 Action Items.
- **TAC 5: July 2018:** TAC final review meeting (if necessary)

2018 Natural Gas IRP Draft Outline

This section provides a draft outline of the major sections in the 2018 Natural Gas IRP. This outline may change as IRP studies are completed and input from the TAC has been received.

- 0. Executive Summary**
 - a. IRP Overview
 - b. Action Plan
- 1. Introduction and Stakeholder Involvement**
- 2. Demand Forecasts**
 - a. Economic Conditions
 - b. Weather Standard
 - c. Avista Energy & Peak Load Forecasts
 - d. Load Forecast Scenarios
- 3. Demand-Side Resources**
 - a. Conservation Potential Assessment
 - b. Demand Response Opportunities
- 4. Supply-Side Resources**
 - a. Avista Resources
 - b. Incremental Supply-Side Resource Options
- 5. Market Analysis**
 - a. Marketplace
 - b. Price Forecasts
 - c. Scenario Analysis
 - d. Emerging Markets
 - e. Procurement Plan
- 6. Policy Considerations**
 - a. Environmental Concerns
 - b. State and Federal Policies
- 7. Preferred Resource Strategy**
 - a. Resource Selection Process
 - b. Preferred Resource Strategy
- 8. Portfolio Scenarios**
 - a. Portfolio Scenarios
 - b. Stochastic modeling
- 9. Distribution Planning**
 - a. Avista's Distribution System
 - b. Distribution System Planning Methodology
 - c. Planning Results
 - d. Significant Distribution Planning Capital Projects

2018 Natural Gas IRP Draft Timeline

The following is Avista's tentative 2018 Natural Gas IRP timeline:

- August 31, 2017 – Work Plan filed with WUTC
- January through May 2018 – Technical Advisory Committee meetings
- April – May 2018 – Prepare draft of IRP
- June 1, 2018 – Draft of IRP document sent to TAC
- June 29, 2018 – Comments on draft due back to Avista
- July 2018 – TAC final review meeting (if necessary)
- August 2018 – Final editing and printing of IRP
- August 31, 2018 – File IRP submission to Commissions and TAC

Exhibit 1: Avista's 2018 Natural Gas IRP Modeling Process

