Work Plan for Avista's 2013 Electric Integrated Resource Plan

For the
Washington Utilities and Transportation Commission

August 30, 2012

2013 Integrated Resource Planning Work Plan

This Work Plan is submitted in compliance with the Washington Utilities and Transportation Commission's (UTC) Integrated Resource Planning (IRP) rules (WAC 480-100-238). It outlines the process Avista will follow to develop its 2013 Electric IRP. The Company's 2013 Electric IRP will be filed with Washington and Idaho Commissions by August 31, 2013. 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 held the first TAC meeting for the 2013 IRP on May 23, 2012.

The 2013 IRP process will be similar to those used to produce the previous four published plans. AURORA^{xmp} will be used for electric market price forecasting, resource valuation, and for conducting Monte-Carlo style risk analyses. AURORA^{xmp} modeling results will be used to select the Preferred Resource Strategy (PRS) using Avista's proprietary PRiSM model. This tool is used to determine how to fill future capacity and energy (physical/renewable) deficits with new resources using an efficient frontier approach to evaluate quantitative portfolio risk versus portfolio cost while accounting for environmental laws and regulations. Qualitative risks will be evaluated in separate analyses. The process timeline is shown in Exhibit 1 and the process to identify the PRS is shown in Exhibit 2.

Avista intends to use both detailed site-specific and generic resource assumptions in its development of the 2013 IRP. The assumptions are based on a combination of Avista's research of similar technologies, engineering studies, and the Northwest Power and Conservation Council's Sixth Power Plan. This plan will study renewable portfolio standards, energy storage, environmental costs, sustained peaking requirements and resource adequacy, energy efficiency programs, and demand response. The IRP will develop a strategy that meets or exceeds both the renewable portfolio standards and greenhouse gas emissions regulations.

Avista intends to test the PRS against several scenarios and potential futures. The TAC meetings will be an important factor to determine the underlying assumptions used in the scenarios and futures. The IRP process is very technical and data intensive; public comments are welcome, however input and participation will be needed in a timely manner for appropriate inclusion into the process so the plan can be submitted according to the tentative schedule outlined in this Work Plan.

Topics and meeting times may change depending on the availability of Company staff and requests for additional topics from the TAC members. The tentative timeline and agenda items for Technical Advisory Committee meetings follows:

- **TAC 1 – May 23, 2012:** Powering Our Future game, 2011 Renewable RFP, Palouse Wind Project update, 2011 IRP acknowledgement, Energy Independence Act compliance and forecast, and 2013 IRP Work Plan discussion.

- **TAC 2 (Day 1) – September 4, 2012:** Palouse Wind Project tour.

- **TAC 2 (Day 2) – September 5, 2012:** Avista renewable energy credit planning methods, energy and economic forecasts, 2012 Shared Value Report, generation options, and Spokane River Assessment.

- **TAC 3 – November 7, 2012:** Peak load forecast, reliability planning, Colstrip discussion, energy storage technologies, modeling, and energy efficiency.

- **TAC 4 – February 6, 2013:** Electric and natural gas price forecasts, transmission planning, resource needs assessment, and market and portfolio scenario development.

- **TAC 5 – March 20, 2013:** Draft PRS, review of scenarios and futures, and portfolio analysis

- **TAC 6 – June 19, 2013:** Review of final PRS and action items.

2013 Electric IRP Draft Outline

This section provides a draft outline of the major sections in the 2013 Electric IRP. This outline will be updated as IRP studies are completed and input from the Technical Advisory Committee has been received.

1. **Executive Summary**
2. **Introduction and Stakeholder Involvement**
3. **Loads and Resources**
   a. Economic Conditions
   b. Avista Energy & Peak Load Forecast
   c. Load Forecast Scenarios
   d. Avista's Resources and Contracts
   e. Reliability Planning and Reserve Margins
   f. Resource Requirements
4. **Energy Efficiency and Demand Response**
   a. Conservation Potential Assessment
   b. Demand Response Opportunities
   c. Washington State Energy Independence Act
5. **Policy Considerations**
   a. Environmental Concerns
   b. State and Federal Policies
6. **Transmission Planning**
   a. Avista's Transmission System
   b. Future Upgrades and Interconnections
   c. Transmission Construction Costs and Integration
   d. Efficiencies
7. **Generation Resource Options**
   a. New Resource Options
   b. Avista Plant Upgrades
8. **Market Analysis**
   a. Marketplace
   b. Fuel Price Forecasts
   c. Market Price Forecast
   d. Scenario Analysis
9. **Preferred Resource Strategy**
   a. Resource Selection Process
   b. Preferred Resource Strategy
   c. Efficient Frontier Analysis
   d. Avoided Costs
   e. Portfolio Scenarios
   f. Tipping Point Analysis
10. **Action Plan**
    a. 2011 Action Plan Summary
    b. 2013 Action Plan

Exhibit 1: 2013 Electric IRP Timeline

Task	Target Date
Preferred Resource Strategy (PRS)	
Finalize energy forecast	July 2012
Identify regional resource options for electric market price forecast	September 2012
Identify Avista's supply & conservation resource options	September 2012
Finalize peak load forecast	September 2012
Update AURORA^{xmp} database for electric market price forecast	October 2012
Finalize datasets/statistics variables for risk studies	October 2012
Energy efficiency load shapes input into AURORA^{xmp}	October 2012
Final transmission study due	December 2012
Select natural gas price forecast	December 2012
Finalize deterministic base case	December 2012
Base case stochastic study complete	January 2013
Finalize PRiSM model	January 2013
Develop efficient frontier and PRS	January 2013
Simulation of risk studies "futures" complete	February 2013
Simulate market scenarios in AURORA^{xmp}	February 2013
Evaluate resource strategies against market futures and scenarios	March 2013
Present preliminary study and PRS to TAC	March 2013
Writing Tasks	
File 2013 IRP work plan	August 2012
Prepare report and appendix outline	October 2012
Prepare text drafts	April 2013
Prepare charts and tables	April 2013
Internal draft released at Avista	May 2013
External draft released to the TAC	June 2013
Final editing and printing	August 2013
Final IRP submission to Commissions and distribution to TAC	August 31, 2013

Exhibit 2: 2013 Electric IRP Modeling Process