Work Plan for Avista's 2011 Electric Integrated Resource Plan

For the
Washington Utilities and Transportation Commission

August 31, 2010

2011 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 480-100-238). This work plan outlines the process Avista will follow to develop its 2011 Integrated Resource Plan to be filed with Washington and Idaho Commissions by August 31, 2011. Avista uses a public process to obtain technical expertise and guidance throughout the planning period through a series of public Technical Advisory Committee (TAC) meetings. The first of these meetings for the 2011 IRP was held on May 27, 2010.

The 2011 IRP process will be similar to those used to produce the previous three published plans. AURORA^{xmp} will be used for electric market forecasting, resource valuation, and for conducting Monte-Carlo style risk analyses. Results from AURORA^{xmp} will be used to select the Preferred Resource Strategy (PRS) using the proprietary PRiSM 3.0 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 legislation. Qualitative risk will be evaluated in a separate analysis. 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 this plan. These assumptions will be determined by using the 6th Power Plan for generic resources and site-specific assumptions developed by Avista will be used for existing resource upgrades. This plan will study renewable portfolio standards, environmental costs, sustained peaking requirements, and energy efficiency programs. This 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 stochastic 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 and will require input in a timely manner for appropriate inclusion into the process so the plan can be submitted according to the tentative schedule.

Topics and meeting times may be changed depending on the availability of and requests for additional topics from the TAC members. The tentative timeline for public Technical Advisory Committee meetings:

- **May 27, 2010 –** Load & resource balance, climate change, loss of load probability analysis, work plan, and analytical process changes
- **September 8, 2010 –** Plant tours for TAC members
- **September 9, 2010 –** Generic resource assumptions, reliability planning, combined heat & power, sustainability, and energy efficiency
- **November 4, 2010 –** Load forecast, stochastic assumptions, resource upgrade costs, and transmission cost studies

- **January 20, 2011 –** Electric and gas price forecasts, load & resource forecast
- **March 10, 2011 –** Draft PRS, review of scenarios and futures, and portfolio analysis
- **April 28, 2011 –** Review of final PRS and action items
- **June 23, 2011 –** Review of the 2011 IRP

2011 Electric IRP Draft Outline

This section provides a draft outline of the major sections in the 2011 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 Load Forecast
   c. Load Forecast Scenarios
   d. Supply Side Resources
   e. Reserve Margins
   f. Resource Requirements
4. Energy Efficiency and Demand Response
5. Environmental Policy Issues
6. Transmission Planning
7. Modeling Approach
   a. Assumptions and Inputs
   b. Risk Modeling
   c. Resource Alternatives
   d. The PRiSM Model
8. Market Modeling Approach
   a. Futures
   b. Scenarios
   c. Avoided Costs
9. Preferred Resource Strategy & Stress Analysis
10. Action Items

Exhibit 1: 2011 Electric IRP Timeline

Task	Target Date
Preferred Resource Strategy (PRS)	
Finalize load forecast	July 2010
Identify regional resource options for electric market price forecast	September 2010
Identify Avista's supply & conservation resource options	September 2010
Update AURORA^{xmp} database for electric market price forecast	October 2010
Finalize datasets/statistics variables for risk studies	October 2010
Draft transmission study due	October 2010
Energy efficiency load shapes input into AURORA^{xmp}	October 2010
Final transmission study due	November 2010
Select natural gas price forecast	December 2010
Finalize deterministic base case	December 2010
Base case stochastic study complete	January 2011
Finalize PRiSM 3.0 model	January 2011
Develop efficient frontier and PRS	January 2011
Simulation of risk studies "futures" complete	February 2011
Simulate market scenarios in AURORA^{xmp}	February 2011
Evaluate resource strategies against market futures and scenarios	March 2011
Present preliminary study and PRS to TAC	March 2011
Writing Tasks	
File 2011 IRP work plan	August 2010
Prepare report and appendix outline	September 2010
Prepare text drafts	April 2011
Prepare charts and tables	April 2011
Internal draft released at Avista	May 2011
External draft released to the TAC	June 2011
Final editing and printing	August 2011
Final IRP submission to Commissions and distribution to TAC	August 31, 2011

Exhibit 2: 2011 Electric IRP Modeling Process