KARL KLEIN DEPUTY ATTORNEY GENERAL IDAHO PUBLIC UTILITIES COMMISSION 472 W. WASHINGTON STREET (83702) PO BOX 83720 BOISE, IDAHO 83720-0074

Tel: (208) 334-0320 Fax: (208) 334-3762 Idaho Bar No. 5156

Attorney for the Commission Staff

# RECEIVED

2011 DEC -5 PM 3: 15

IDAHO PUBLIC UTILITIES COMMISSION

#### BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF AVISTA CORPORATION )		
DBA AVISTA UTILITIES' FILING OF ITS 2011 )		CASE NO. AVU-E-11-04
INTEGRATED RESOURCE PLAN (IRP).		
)		COMMENTS OF THE
)	ŧ.	COMMISSION STAFF
)	+	

The Staff of the Idaho Public Utilities Commission comments as follows on Avista Utilities' 2011 Electric Integrated Resource Plan (IRP).

#### **BACKGROUND**

Avista filed its IRP with the Commission on August 25, 2011. The IRP is a biennial planning document that sets forth how the Company intends to serve its customers' anticipated electric requirements. *See* Commission Order Nos. 22299 and 24729.

The 2011 IRP is the Company's 12<sup>th</sup> plan. It contains sections describing Avista's process for involving stakeholders, current and forecasted loads and resources, energy efficiency programs, environmental policy considerations, transmission and distribution systems, generation resource options, market analysis, preferred resource strategies and a summary of actions to be taken by the Company in accordance with its 2011 IRP Action Plan.

#### STAFF REVIEW

#### Overview

The main purpose of Avista's IRP process is to develop a Preferred Resource Strategy (PRS). The PRS describes a future resource plan needed to meet forecasted load growth while simultaneously considering cost and various risk factors. However, the Company clarifies that the PRS is only one of many potential resource portfolios that optimize the tradeoff between cost and risk and that the IRP and resulting PRS is used more as a guide in the Company's resource acquisition efforts. As evidence, the IRP process also produced 22 action items (Avista, 2011 IRP, section 9) to continually monitor or obtain better information to improve future IRP and business planning efforts.

The Company developed the PRS primarily using two analytical models: AURORAxmp and PRiSM. AURORAxmp is a resource dispatch model that can predict resource dispatch costs, greenhouse gas emissions, and more importantly, wholesale market prices at key hubs throughout the Western Interconnect. These outputs are used as inputs into the PRiSM model. Avista uses PRiSM to select portfolios of resources from a menu of potential resources that simultaneously optimize cost and risk while satisfying energy, capacity, and renewable portfolio standard (RPS) requirements. Having several portfolios that fall along a risk/cost continuum of "optimal" solutions allows Avista to select a PRS that, in the Company's judgment, will meet the needs of shareholders, ratepayers, and the general public. By utilizing this method, the Company selected a portfolio that is needed to meet annual energy deficits that begin to occur in year 2020, and summer and winter capacity deficits in years 2019 and 2020, respectively. The PRS is primarily composed of 323 aMW of "cost-effective DSM" (netted against the load forecast), 70 aMW of wind generation, and 669 aMW of both simple-cycle and combined-cycle natural gas generation.

Staff has reviewed Avista's 2011 IRP. Based on this review, Staff believes that Avista generally has demonstrated a rigorous approach in developing its IRP and has reasonably met requirements set forth by the Commission. Further details of the PRS and Staff's analysis are outlined below. In summary, however, Staff believes the 2011 IRP raises three important issues:

1. The early acquisition of wind resources to meet Washington State Energy Independence Act requirements (page 9).

- 2. Using two different assumptions for carbon credit allocations, which could understate the sales forecast (p.6).
- 3. Transmission in-service dates not synchronized between different utility IRP's (p.11).

#### **Public Involvement**

Avista utilized a Technical Advisory Committee (TAC) comprised of a variety of stakeholders to gather input and to help develop the 2011 IRP. There were 75 people on the TAC list representing customers, academia, government, consultants, other utilities, and other interested parties that were either invited or who asked to participate.

Commission Staff actively participated by attending all six TAC meetings and providing input outside of meetings throughout the process. This includes thoroughly reviewing drafts of the IRP and providing comments back to the Company. Staff believes the Company made considerable effort to increase public participation in developing the 2011 IRP; however, achieving significant participation across the spectrum of stakeholders continues to be difficult. Staff encourages the Company to continue its efforts to improve public participation to as wide of constituency as possible in future IRPs.

#### Load and Resource Balance

Avista's IRP shows that the Company will have surplus capacity and energy to meet load for several years. The Company should be able to supply customer requirements until at least 2020 from an annual average energy perspective. The size of the shortage is relatively small at 49 aMW for three consecutive years and then gradually increases to 475 aMW in 2031. The Company uses a 90 percent monthly confidence interval on load hydroelectricity variability as a contingency margin. Planning for this contingency means there is a 10% probability that the Company will need to go to market during any given month. Staff believes this is a reasonable assumption given that the Company has sufficient transmission to access surplus generation through the Mid-Columbia energy market.

Except for a 54 MW summer peak deficit that occurs in 2016, summer and winter peak capacity shortages begin to regularly occur in 2019 and 2020, respectively. The Company predicts summer deficits to occur starting in 2019 at 98 MW rising to 774 MW in 2031. Winter deficits begin to occur in 2020 starting at 42 MW rising to 883 MW by the end of the IRP

planning horizon. For capacity planning purposes, Avista uses an 18-hour 3-day peak event standard which effectively smoothes large peak hour events. The Company then adds operating reserve requirements and a 15 percent summer peak and 14 percent winter peak planning margin approximating the Northwest Power and Conservation Council's planning targets. Staff believes these are reasonable assumptions especially given Avista's access to and availability of market resources if predicted deficits are understated. The table below provides a summary of energy and capacity balances reflected in the 2011 IRP.

Net Load Resource Balance																				
Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Winter Peak (MW)	654	635	567	373	254	311	199	152	-42	-125	-216	-259	-296	-342	-401	-704	-746	-796	-835	-883
Summer Peak (MW)	251	1	91	9	-54	36	2	-98	-140	-152	-211	-234	-249	-316	-352	-599	-660	-689	-708	-774
Average Energy (aMW)	116	69	108	89	82	54	11	13	-49	-67	-46	-103	-126	-112	-218	-408	-405	-456	-482	-475

#### Load Forecast

An environment of uncertainty has remained throughout the development of the 2011 IRP. The average energy load forecast is expected to grow 1.7 percent annually, which is approximately 390 aMW over the 20-year planning horizon. This is approximately the same growth rate forecasted in the 2009 IRP; however, the actual measured load for 2010 was lower than was forecasted in the 2009 IRP, resulting in a 2011 IRP load forecast that is lower year-to-year. Staff's comments on the 2009 IRP reflect concern that the Company's 2009 load forecast did not adequately account for the recession's effects. Staff believes the Company has addressed this issue by reducing the overall 2011 load forecast compared to the 2009 forecast.

The Company created three separate cases for the average energy load forecast to test the risk sensitivity of the Company's PRS using a 0.5 and 1.5 multiplier relative to the expected case forecast for the low and high case scenarios, respectively. Staff agrees with the use of multipliers because they provide insight into the effects of load growth variation so that planning contingencies can be developed.

The Company predicts peak demand will grow 1.5 percent annually totaling 571 MW of incremental load through 2030. The peak demand forecast utilizes 11 years of historical net native load and actual peak demand to develop its peak demand forecast; however, it is smoothed so that extreme weather events do not overwhelm it. The Company produced both winter and

summer peak demand forecasts with winter peaks being consistently higher than summer peaks. The Company notes that the spread between winter and summer is narrowing due to higher summer air conditioning penetration.

Avista uses a retail sales forecast to develop the net native load projections used in its IRP. The sales forecast is a summation of electricity demand across all customer classes. The major factors driving *increases* in the sales forecast by customer class are: (1) housing starts for residential class demand; (2) residential growth on the growth for commercial class customers; (3) employment growth for the industrial sector; and (4) population growth for street lighting.

The price of electricity and customers' sensitivity to it is an important factor driving the overall sales forecast. Avista predicts electricity prices will rise on average eight percent annually from 2010 to 2018 followed by the general rate of inflation for subsequent years. The Company accounts for 25 percent of the rise in electricity prices based on carbon and renewable portfolio standard (RPS) legislation. Using the Company's price elasticity estimates, this equates to an overall 1.2 and 0.8 percent reduction in electricity sales annually (until 2018) for residential and commercial customers, respectively, due to growth in electricity prices.

The Company also considers customers' income elasticity and the cross-price elasticity of natural gas on electricity demand. Because of the Company's unique perspective as provider of both electricity and natural gas, the Company takes into account how much electricity demand is affected by customers who switch to natural gas as a substitute. Staff believes that these insights lead to a better forecast overall. For the expected case, the Company assumes that rising incomes offset the effects of rising electricity and natural gas prices.

New to Avista's IRP is a projection of electric vehicle consumption using data from the Northwest Power and Conservation Council's Sixth Power Plan. Although the amount is relatively small, Staff supports including it in the forecast so that future IRPs can account for the effects of this likely growing market.

The Company also included additional sales for very large customers. The only additions included were publicly announced long-lead time buildings that occur through year 2015. Staff supports this methodology because it provides a non-arbitrary basis to quantify load, and by using a 3-year time frame it allows sufficient lead time for the Company to react while identifying additional loads to be included in the next IRP planning cycle.

The only remaining factors that affect the sales forecast are weather effects and the amount of conservation that customers adopt. The combination of all these effects results in a sales forecast that grows at a 1.6 percent annually compounded rate through 2035.

Staff notes that Avista uses two sets of assumptions regarding the issuance of credits for greenhouse gas (GHG) legislation. The expected case sales forecast assumes there will be no free allocation of credits, while the rest of the IRP analysis assumes otherwise. If GHG legislation does allow free allocation of credits, the electricity price forecast could be overstated resulting in an underestimated sales forecast. Staff agrees with the Company that this difference in assumptions should not significantly affect the IRP results, given that the Company models load as a risk variable and understands its sensitivity on resource selection. Overall, Staff believes the Company's sales forecast appears reasonable and has taken into account all the major factors that affect it.

### Supply-side Resources

Avista's current portfolio of supply-side resources used to determine load resource balance deficits includes Company-owned assets totaling 1802 MW in nameplate capacity and approximately 438 aMW in power purchase agreements (PPA) and contracts. The IRP analysis assumes that all thermal resources will operate throughout the 20-year planning time horizon. Staff believes a legislated cost of carbon or additional emission abatement requirements could affect this assumption.

#### Demand-side Resources

Avista netted current and forecasted energy efficiency from the load forecast prior to determining load resource balance deficits. To determine the energy efficiency and demand response potential for its Washington and Idaho service territories, the Company hired Global Energy Partners to conduct a Conservation Potential Assessment (CPA). The study looked at "existing programs, naturally occurring energy savings, the impacts of known building codes and standards as of 2010, technology developments and innovations, changes to the economy, and energy prices." (Avista, 2011 IRP, p. 3-3). The consultant estimated what the Company could realistically achieve by taking into account cost effectiveness, industry standard incentive rates, expected participation rates, customer preferences, and budget constraints. Forecasted savings are illustrated in the table below. It shows that energy savings are projected to offset roughly 50 percent of load growth through 2022.

Baseline Forecast (MWh)
Achievable Energy Savings (MWh)
Achievable forecast (MWh)
Energy Savings (% of baseline)
Load Growth %

			i cui		
	2012	2017	2022	2027	2031
	8,799,039	9,463,880	10,417,347	11,536,869	12,574,182
	49,804	395,397	940,578	1,538,868	2,025,679
,	8,749,236	9,068,483	9,476,769	9,998,002	10,548,503
	0.6%	4.2%	9.0%	13.3%	16.1%
		8%	18%	31%	43%

Year

Besides energy efficiency programs, the Company evaluated several standard demand response programs. Because Washington State's Energy Independence Act (I-937) requires energy efficiency resources to be acquired first, need for additional capacity to meet peaks were not required until the 2020 timeframe making demand response currently not cost effective. Staff agrees with the Company that future demand response should be considered in the future, especially when capacity deficits exist and there is a lack of need for resources to meet average energy requirements.

Staff notes that the Company only uses its conservation program IRP analysis to establish baseline goals and to determine budgets and human resource operational needs (Avista 2011 IRP, p. 3-18). Avista makes actual resource acquisition decisions through its ongoing business and operations planning processes. This allows the Company to react to changing conditions by continually evaluating existing and potentially new programs to adjust its DSM resource portfolio.

Staff calls attention to concerns made in comments for the 2009 IRP about the exclusive use of the Total Resource Cost (TRC) test to evaluate programs in the IRP and its continued exclusive use in the 2011 IRP. Although the TRC is an important perspective, it is but one of four other cost-effectiveness tests including participant, utility, and ratepayer perspectives. Since the TRC is typically more restrictive than the participant and utility cost tests and the Company is only using the IRP for overall program direction setting, Staff agrees with using the TRC as a screen in its CPA as long as the other tests continue to be conducted for resource acquisition decisions.

#### **Environmental Policy Considerations**

Avista's IRP analysis takes into account several current and potential future environmental regulations. Primarily, this includes state and federal rules and regulations of greenhouse gas emissions (GHG), mandatory renewable energy standards, mandated investments in energy efficiency, and various renewable energy credits and incentives. The main importance

in considering future potential policies is the amount of risk due to uncertainty they create for planning large capital investments. The risk is a function of the nature of utility investments that require long lead times for construction compounded by large capital costs with economic lives that lock utilities into an investment for decades.

### Federal Policy

From a national perspective, the 2011 IRP has accounted for future greenhouse gas legislation by predicting a carbon price that ranges from approximately \$15 per short ton in 2015 to \$80 per short ton in 2031. Instead of picking one specific model legislation, the Company chose to do a weighted average of four potential outcomes with 30 percent allocated to a regional GHG policy, 30 percent to a national climate policy, 30 percent to a national carbon tax, and 10 percent to the current status quo. Staff believes that the Company's approach is reasonable for determining an estimated cost of carbon.

Currently, the federal government offers Production Tax Credits (PTC), Investment Tax Credits (ITC), and Treasury grants to incentivize renewable energy. Because the PTC and ITC are scheduled to expire in 2012 and 2013, respectively, the Company chose not to assume extension of any tax benefits beyond their expiration dates. Staff agrees with the Company that the continuation of these credits is uncertain and highly unlikely given the current budget setting environment and debt crisis in Washington, D.C.

### State Policy

From a state perspective, resource plans included in the IRP had to comply with Washington's Senate Bill 6001 prohibiting Avista from expanding or developing any new coal-fired generation capability without sequestering carbon. As a result, no additional coal-fired generation was included in the Company's PRS.

Second and more importantly, Washington State voters passed the Energy Independence Act (I-937) in 2006. This Act required Avista to serve three, nine, and 15 percent of retail load by 2012, 2015, and 2020, respectively, with qualified renewable energy or renewable energy credits while acquiring all cost effective conservation and energy efficiency measures. To fulfill this Renewable Portfolio Standard (RPS) through 2019, Avista recently signed a contract for the Palouse Wind project, even though it is not needed to meet forecasted energy loads until 2020 (Avista, 2011 IRP, p. 2-24). Although the power purchase agreement is not needed to meet Washington RPS requirements until 2015, the Company has acquired the resource to take

advantage of federal tax benefits mentioned earlier and the current low prices for wind energy. To meet the RPS requirements for year 2020, the Company will need an additional 42 aMW of wind or qualified renewable energy credits.

Staff notes that the need for the first increment of wind to meet load has shifted from 2018 in the 2009 IRP to 2020 in the 2011 IRP. This is likely due to a reduction in the load forecast. Additionally, Staff takes no position at this time on the prudence of Avista's renewable resource acquisition decisions, but mentions it because renewables acquisition is one of the most significant outcomes of the 2011 IRP. The choice of the specific selected resources, the decision to acquire resources early, and the allocation of costs amongst state jurisdictions will all be addressed later when Avista seeks to recover costs through rates.

### Transmission and Distribution Planning

Avista is putting significant effort into addressing supply-side energy efficiency by finding cost-effective investments in its distribution system to minimize costs related to line loss and other sources of operational cost. For the first time, the Company has included cost-effective distribution system feeder upgrades as a resource in the PRS. The Company predicts 6.1 aMW of losses may be avoided by the end of the IRP planning horizon. Avista is also forecasting an additional 6.6 aMW of savings due to Smart Grid investments and has sought outside grant funding to investigate various projects. Staff is encouraged by the Company's efforts in finding efficiency opportunities that can potentially reduce customer rates.

Staff also supports the Company's participation in several regional groups including, ColumbiaGrid, and Northern Tier Transmission Group. Its active participation ensures operational coordination of the transmission system for reliability purposes as well as Avista's interests in evaluating future transmission plans.

### **Future Resource Options**

Avista determined a levelized cost based on yearly maximum energy availability for resources considered for inclusion in its PRS. These costs also include any current state and federal incentives for qualifying resources up to the time they expire. The main options considered for the PRS include: (a) gas-fired combined cycle combustion turbine (CCCT), (b) gas-fired combustion turbine and reciprocating engines (SCCT), (c) wind turbines, (d) photovoltaic (PV) and thermal solar generation, (e) coal-fired thermal generation, and (f) upgrades to existing thermal and hydroelectricity facilities.

Avista considered two main types of natural gas fueled generation resources in its IRP. Both combined cycle (CCCT) and simple cycle (SCCT) technologies have relatively inexpensive capital cost but are disadvantaged by risk associated with fuel cost volatility. The Company estimated levelized cost for CCCT at \$99.07/MWh and \$110 to \$123/MWh for SCCT technology.

Wind and solar technology are mainly considered because they lack carbon emissions, qualify as renewable resources to meet RPS requirements, and are eligible for different kinds of renewable energy credits and incentives. Capital costs on a per-MWh basis are significantly higher than natural gas, but wind and solar do not have any fuel cost. Avista estimated levelized cost of wind to be between \$100 and \$109/MWh, while solar ranges from \$202/MWh for concentrating solar to \$325/MWh for PV technology.

Avista did not consider coal-fired generation as an incremental resource mainly because it is prohibited without carbon capture and sequestration through Washington's Senate bill 6001 and because of future carbon cost risk. For comparison purposes with other technologies, Avista estimated coal's levelized cost to be \$140 to \$156/MWh.

Avista currently has significant hydroelectricity and thermal resources. By upgrading existing facilities, the Company can obtain small amounts of capacity and energy at relatively low cost. Included in current resources is nine MW of capacity from upgrades to Noxon Rapids slated to be completed in 2012. In total, the Company estimates a total of 40 aMW of additional energy due to potential hydro upgrades. In addition, there is the potential for 167 MW of capacity from upgrades to Avista's Rathdrum and Coyote Springs natural gas plants.

#### **Market Analysis**

The Company conducted a market analysis to determine greenhouse gas emissions, dispatch percentages and costs, and prices of electricity at key hubs throughout the Western Interconnect. Avista used the output of this analysis as input in selecting the PRS. The analysis took into account several risk factors by using Monte Carlo sampling methods for each of the independent variables under consideration. Risk factors included: greenhouse gas prices, natural gas prices, load variability, hydroelectric availability, wind volatility, forced plant outages, and several smaller factors.

The Company's analysis predicts that greenhouse gas levels will be reduced 11.2 percent, while market prices will increase approximately 168 percent over the 20-year time period

primarily due to carbon and RPS policies included in the model. Staff agrees with the Company, that current and future greenhouse gas legislation and RPS requirements are changing the electricity marketplace in the West. Replacing coal-fired generation results in higher penetration levels of renewable generation increasing from five to 13 percent. Penetration of lower carbon-emitting natural gas generation is predicted to increase from 23 to 41 percent as well. This will inevitably lead to higher rates and increased price volatility in the future in order to maintain similar reliability levels.

The market analysis also took into consideration various regional transmission projects. Staff notes that Avista assumed a 2016 in-service date for Gateway West and a 2019 date for Boardman-to-Hemingway transmission projects. However, Idaho Power's 2011 IRP assumes a 2016 in-service date for Boardman-to-Hemingway and a 2022 date for Gateway West. Differences in in-service date assumptions could affect market prices used in the Company's IRP analysis, especially since both transmission projects will open market access for several utilities in corridors that are currently highly constrained.

## **Preferred Resource Strategy**

The PRiSM tool used to identify the PRS can simultaneously optimize cost and risk by selecting from a menu of potential resources while satisfying a set of constraints. Constraints used in the model include capacity, energy, RPS, and greenhouse gas emission requirements while using electricity prices generated from the market analysis. Avista believes it has selected a PRS that appropriately weighs cost and risk among several different resource portfolios falling along the risk/cost continuum of "optimal" solutions that balances the future needs of shareholders, ratepayers, and the general public.

The resulting PRS is primarily a combination of both simple-cycle and combined-cycle natural gas plants, wind generation, and energy efficiency, which makes up 97 percent of the total portfolio. The Company estimates the present value of the PRS investment at \$0.84 billion requiring approximately \$1.7 billion in capital expense. In addition, Avista estimates a total of \$1.4 billion (nominal) over 20 years will be needed to obtain 310 aMW in energy efficiency resources. The preferred resource strategy is illustrated in the table below.

**2011 Preferred Resource Strategy** 

Resource	By the End of Year	Nameplate (MW)	Energy (aMW)
NW Wind	2012	120	35
SCCT	2018	83	75
Existing Thermal Upgrades	2019	4	3
NW Wind	2019-2020	120	35
SCCT	2020	83	75
СССТ	2023	270	237
ссст	2026	270	237
SCCT	2029	46	42
Distribution Efficiency	All Years	28	13
Energy Efficiency	All Years	419	310
Total		1443	1062

#### Comparison with 2009 IRP

The 2011 PRS is similar in comparison to the 2009 PRS except for a few noted changes. Most significantly, the 2011 PRS replaces approximately 30% of total natural gas generation with simple-cycle technology (SCCT) that was exclusively combined-cycle technology (CCCT) in the 2009 PRS. The 2011 PRS also increases the amount of distribution and energy efficiency resources by seven percent while decreasing reliance on wind by about three percent of total energy for the portfolio.

Staff supports the increase in energy efficiency. Staff also encourages the Company to explore cost-effective demand response to meet peak demand requirements especially during periods when peak demand is driving resource acquisition decisions.

#### Risk Analysis

In addition to developing resource portfolios that fell along the risk/cost continuum of "optimal" solutions, the Company also performed a tipping point analysis to determine the sensitivity of certain factors to shift the PRS to a different resource mix.

The first analysis was done on solar capital cost. It showed that the capital cost of solar generation would need to decrease 53 percent to make it competitive with wind generation. The Company also looked at CCCT capital cost sensitivity to determine why the PRS shifted from using CCCT exclusively in 2009 to a combination of CCCT and SCCT in 2011. The analysis showed that the capital cost of CCCT would need to be 22 percent lower to replace SCCT in the PRS. Finally, Avista analyzed the PRS's sensitivity to load growth. Using a lower load growth

scenario than the expected case, the Company determined that the PRS would not change in the near term, but would require less wind and natural gas generation capacity in the long term.

Using a higher growth scenario, additional wind would be required to meet RPS requirements and peaking resources would be needed to meet peak load growth.

Staff believes the Company's tipping point analysis is an important tool for testing the robustness of the PRS. Identifying which variables make the PRS sensitive to changes can help the Company and the Commission know which factors to monitor on an ongoing basis so that resource acquisition decisions can be made in a timely fashion to meet ratepayer needs.

## **2011 Action Items**

The 2011 IRP includes a summary status report on 2009 IRP action items and a list of action items generated from the current IRP. Action items fall into five different categories: (1) resource additions and analysis, (2) energy efficiency, (3) environmental policy, (4) modeling and forecasting enhancements, (5) transmission and distribution planning. A summary of new action items included in the 2011 IRP are listed below.

### Resource Additions and Analysis

- Continue to explore and follow potential new resources opportunities.
- Continue studies on the costs, energy, capacity and environmental benefits of hydro upgrades at both Spokane and Clark Fork River projects.
- Study potential locations for the natural gas-fired resource identified to be online by the end of 2018.
- Continue participation in regional IRP processes and, where agreeable, find opportunities to meet resource requirements on a collaborative basis with other utilities.
- Provide an update on the Little Falls and Nine Mile hydroelectric project upgrades.
- Study potential for demand response projects with industrial customers.
- Continue to monitor regional surplus capacity and Avista's reliance on this surplus for near- and medium-term needs.

#### Energy Efficiency

 Study and quantify transmission and distribution efficiency projects as they apply to Washington RPS goals.

- Update processes and protocols for conservation measurement, evaluation and verification.
- Continue to determine the potential impacts and costs of load management options.

#### Environmental Policy

- Continue studies of state and federal climate change policies.
- Continue and report on the work of Avista's Climate Change Council.

### Modeling and Forecasting Enhancements

- Continue following regional reliability processes and develop Avista-centric modeling for possible inclusion in the 2013 IRP.
- Continue studying the impacts of climate change on retail loads.
- Refine the stochastic model for cost driver relationships, including further analyzing year-to-year hydro correlation and the correlation between wind, load, and hydro.

### Transmission and Distribution Planning

- Work to maintain the Company's existing transmission rights, under applicable FERC policies, for transmission service to bundled retail native load.
- Continue to participate in BPA transmission processes and rate proceedings to minimize costs of integrating existing resources outside of Avista's service area.
- Continue to participate in regional and sub-regional efforts to establish new regional transmission structures to facilitate long-term expansion of the regional transmission system.
- Evaluate the costs to integrate new resources across Avista's service territory and from regions outside of the Northwest.
- Study and implement distribution feeder rebuilds to reduce system losses.
- Continue to study other potential areas to implement Smart Grid projects to other areas of the service territory.
- Study transmission reconfigurations that economically reduce system losses.

Staff believes that the Company has made satisfactory progress on action items from the 2009 IRP. In addition, Staff believes the new action items generated in the 2011 IRP will allow Avista to improve upon the information the Company needs to make better resource acquisition decisions in the future and continue to cost-effectively and reliably meet its obligation to serve load.

#### STAFF RECOMMENDATION

Avista's new resource needs over the next ten years are primarily driven by RPS requirements in the State of Washington and not to meet load. The Company's requirement for 120 MW of wind in 2012 outlined in the Company's PRS is not needed to meet RPS requirements until 2015 or energy load requirements until 2020. The Company has recently fulfilled this requirement by acquiring a 30-year power purchase agreement for 105 MW of wind from the Palouse Wind project. The early acquisition of this resource to meet a 2015 RPS requirement allows the Company to take advantage of federal tax incentives and current low wind energy costs. This early acquisition decision will be thoroughly scrutinized once the project is complete and Avista seeks to recover costs from ratepayers.

Overall, Staff believes that Avista performed extensive analyses, gave reasonably equal consideration of supply- and demand-side resources, and provided acceptable opportunities for public input, resulting in an integrated resource plan that satisfies the requirements set forth in Commission Order Nos. 24729 and 22299. Staff recommends that Avista's 2011 IRP be acknowledged.



Respectfully submitted this day of December 2011.

Karl Klein

Deputy Attorney General

Sel The

Technical Staff: Mike Louis

i:umisc:comments/avuel1.4kkml.doc

# **CERTIFICATE OF SERVICE**

I HEREBY CERTIFY THAT I HAVE THIS **5**<sup>TH</sup> DAY OF DECEMBER 2011, SERVED THE FOREGOING **COMMENTS OF THE COMMISSION STAFF**, IN CASE NO. AVU-E-11-04, BY MAILING A COPY THEREOF, POSTAGE PREPAID, TO THE FOLLOWING:

LINDA GERVAIS MGR REGULATORY POLICY AVISTA CORPORATION PO BOX 3727 SPOKANE WA 99220-3727 Linda.Gevais@avistacorp.com

SECRETARY . Woch