DECISION MEMORANDUM

TO: **COMMISSIONER KJELLANDER**
COMMISSIONER SMITH
COMMISSIONER HANSEN
COMMISSION SECRETARY
COMMISSION STAFF
LEGAL

FROM: **DONOVAN E. WALKER**

DATE: **DECEMBER 15, 2005**

SUBJECT: **AVISTA'S 2005 ELECTRIC INTEGRATED RESOURCE PLAN, CASE NO. AVU-E-05-8**

On September 1, 2005, Avista Utilities (Avista, Company) filed its 2005 Electric Integrated Resource Plan (IRP) with the Idaho Public Utilities Commission (Commission). The Company is required to file a biennial resource management report (IRP) describing the status of the Company's electric resource planning. Order No. 22299. On October 6, 2005, the Commission issued a Notice of Filing establishing a November 18, 2005, deadline for filing written comments. Order No. 29887. The only comments received were those of Commission Staff and a joint filing by the Renewable Northwest Project and the NW Energy Coalition.

The 2005 IRP

Avista's 2005 IRP was developed with the participation of its Technical Advisory Committee (TAC). TAC members include customers, Commission Staff, consumer advocates, academics, utility peers, government agencies and other interested parties. The Company sponsored seven TAC meetings, which were held between October 23, 2003 and June 23, 2005. Each meeting focused on specific planning topics, reviewed the status and progress of planning activities, and solicited ongoing input as the IRP was developed. The agendas and presentations for all of the TAC meetings are located in Appendices A-C to the Company's Filing.

Avista predicts its electricity sales to grow 2.1 percent annually through 2026, growing to approximately 350,000 customers in 2007 and nearly 485,000 in 2026. Energy deficits begin in 2010 with loads exceeding resource capability by 40 aMW. Energy deficits rise to 360 aMW in 2016 and 640 aMW in 2026. Capacity deficits begin in 2009 with the Company

being short by 5 MW. Capacity deficits grow to 508 MW in 2016 and 901 MW by the end of the study in 2026. The Company requires new generation resources starting in 2009. The IRP includes a reserve margin of approximately 15 percent.

Avista's Preferred Resource Strategy (PRS) contains the Company's forecasted preferred mix of new resources over the IRP time horizon. The PRS is defined by three generation categories: wind generation, coal-fired generation, and other small renewables. It also contains upgrades to existing Avista resources and a significant increase in conservation acquisition from today's levels. The PRS does not recommend additional natural gas-fired generation due to the high level of gas-fired generation already in the Company's portfolio, the high price of natural gas, and the resource's tendency to introduce additional volatility into the Company's portfolio. In 2016 the PRS calls for total installed capacity comprised of 400 MW of wind, 250 MW of coal, and 80 MW of other small renewables. Resource requirements are 69 MW lower because of conservation and 52 MW lower because of efficiency upgrades to existing resources. By 2026 total installed capacity equals 1,332 MW and is comprised of 650 MW of wind, 450 MW of coal, 180 MW of other renewables and 52 MW of plant efficiency upgrades. Needs are 138 MW lower because of conservation.

Avista's conservation acquisition is 50 percent higher than in the 2003 IRP. With the additional funding recommended by the IRP, the Company expects conservation to lower load growth in its service territory by 6.9 MW per year, totaling 138 MW over 20 years.

Avista is in the process of implementing a transmission upgrade plan to add over 100 circuit miles of new 230 kV transmission line to its system and will later increase the capacity of another 50 miles. Avista is also constructing two new 230 kV substations and is reconstructing three existing transmission substations. Related projects at six 230 kV substations are necessary to meet capacity requirements, upgrade protective relaying systems, and to meet regional and national reliability standards. In total, the Company will perform work in 11 of its 230 kV substations or 85 percent of its system. Several of the more significant projects are described more fully in the IRP. Transmission costs to integrate new resources into Avista's system were estimated in the IRP by the Company's Transmission Department. Transmission costs were reported as estimates based upon "engineering judgment" and are not "construction estimate" quality. As the size of the resource increases, the certainty of the associated cost estimate for the transmission requirements to integrate it into the system diminishes. The estimated construction

costs of new transmission associated with the integration of new generation varies from $10 million to $1.5 billion depending on location and project size.

The Company's IRP contains a review of the 2003 IRP Action Plan including how the Company addressed each item in the 2003 plan. The IRP also contains the Company's Action Plan for 2005. Progress will be monitored and reported in the Company's 2007 IRP. The 2005 Action Plan includes specific items in four areas: renewable energy and emissions, modeling enhancements, transmission modeling and research, and conservation.

COMMENTS

NW Energy Coalition and Renewable Northwest Project. The Renewable Northwest Project and the NW Energy Coalition submitted joint comments on November 18, 2005. They were generally pleased with Avista's 2005 IRP stating that Avista's analysis led to significant positive changes in its Preferred Resource Strategy compared with its 2003 Plan. They commented that they were "thrilled" that the PRS identifies 650 MW of wind and 180 MW of other renewables to be acquired, rather than the reliance on coal and gas envisioned in the Company's 2003 Plan. The comments focus on Avista's analysis of energy efficiency, renewable energy, coal, and greenhouse gas emissions.

The comments supported Avista's recognition of energy efficiency as a resource rather than a decrement to load, and recommended using a more robust analysis in the next IRP to show whether accelerating energy efficiency acquisitions at varying times through the planning period would affect cost and risk. The comments were complimentary of the Company for the depth of its renewables analysis and wind modeling in the IRP. With regard to coal, the comments recommend, at the least, delaying any commitment to a new coal plant until further research into IGCC and sequestration is undertaken. They state that while IGCC and sequestration, as compared to a traditional pulverized plant, present some technology risks today, that could change over the next five years. They state that the Company's analysis regarding emissions is deficient for not including a carbon tax adder in the base case, as other Idaho electric utilities do. The comments also suggested an analysis in the next IRP showing the cost and risk of one or more portfolios that meet Avista's entire load growth with energy efficiency and new renewable resources.

Commission Staff. Staff actively participated throughout the development process of Avista's 2005 IRP, thoroughly reviewed the draft IRP, and provided extensive comments to

the Company. The Company addressed Staff's comments in preparing the final IRP document. Staff thoroughly reviewed the final IRP document and filed its comments in this case. After review, Staff recommends that Avista's 2005 IRP be accepted and acknowledged.

Staff believes that Avista has done a good job in assessing its load-resource conditions, incorporating demand-side management, evaluating new resource alternatives, analyzing risk, and in selecting a reasonable portfolio of new resources. However, Staff believes it is important to recognize that new resource additions are not needed for several years. Consequently, the quantity and mix of Avista's resource selections will likely change in future IRPs as conditions change, fuel prices become more certain, and technology advances.

With regard to the public process, Staff stated that participation in the 2005 IRP process was improved over previous plans. However, Staff stated it continues to be difficult to achieve full participation from a broad cross section of customers and interest groups. Staff suggests that in future IRPs, Avista try making direct invitations to key customers, customer group representatives, environmental organizations, and others to attempt to obtain a more comprehensive and balanced representation on the Technical Advisory Committee.

Staff believes that the load forecast prepared and used by Avista for its 2005 IRP is reasonable. In addition to considering a base case forecast, "high" and "low" economic forecasts were also prepared to evaluate plausible changes in load due to population change within the Company's existing service area. Staff found the methodology and analysis used by the Company in its analysis of conservation potential and resources to be thorough and comprehensive. Staff generally found the assumptions used by the Company to be reasonable and appropriate.

Staff compared the differences in the Preferred Resource Strategy (PRS) from the 2005 and 2003 IRPs. Staff commented that the most significant difference is the replacement of a significant portion of the coal-fired generation with wind and other renewable resource projects. Staff also pointed out several other factors that account for differences between the 2003 and 2005 plans. The acquisition of Coyote Springs 2 brought 140 MW of natural gas-fired combined cycle combustion into the Company's portfolio, which fulfilled much of the 2003 IRP gas goal. Additionally, higher forecasted natural gas and electricity prices have allowed resources that previously were uncompetitive, such as wind and other renewables, to now

become competitive. Also, wind integration studies and actual experience with integrating wind into the Company's system lead Avista to believe that it can rely more heavily on this resource.

Staff commented that Avista made considerable analytical effort to evaluate the PRS against several alternative strategies under various scenarios of load, hydro, wind, and natural gas prices. Overall, the PRS performed well, both in the Base Case and under numerous scenarios. The chosen combination of resources provides for a significant reduction of risk at a very modest impact to expected costs. The 2003 IRP PRS was based predominantly on a mix of resources defined by weighting cost and risk at 50 percent each. Staff concurs that the PRS selected by the Company is superior to the other resource strategies considered in the IRP.

Staff supports the resource acquisition choice in Avista's PRS, but has some concern over whether all of the planned resources can be acquired. For example, much of the wind and coal generation must come from outside of Avista's service territory. This will require transmission additions over which Avista will not have complete control. Without new transmission, the Company's future resource portfolio likely will be different than presented in its 2005 IRP. Consequently, Staff recommends that the Company continue to work with regional entities and other utilities to identify low cost solutions to more power across the Northwest. Because transmission is so crucial to the Company's obligation to meet future loads, Staff believes that the transmission planning discussion in the IRP is absolutely necessary to fully evaluate future resource alternatives.

COMMISSION DECISION

Does the Commission wish to acknowledge and accept Avista's 2005 electric Integrated Resource Plan filing?

DONOVAN E. WALKER

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