# BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON

LC 28

In the Matter of the Investigation into	)	
Least-Cost Planning for Resource Acquisition by	)	FINAL ORDER
AVISTA UTILITIES, a division of AVISTA	)	
CORPORATION.	)	

#### DISPOSITION: PLAN ACKNOWLEDGED

On July 20, 2000, Avista Utilities (Avista or the company), a division of Avista Corporation, filed its integrated resource plan (IRP) in accordance with Public Utility Commission of Oregon (Commission) Order No. 89-507. Avista held technical conferences prior to filing its plan. A summary of those activities is contained in Appendix A.

Staff circulated a draft proposed order, recommending that the Commission acknowledge Avista's plan, on December 11, 2000. Staff's final proposed order was distributed January 16, 2001. At a public meeting on January 23, 2001, the Commission considered and adopted staff's final proposed order.

## PROVISIONS OF THE PLAN AND COMMENTS

## Avista's Least-Cost Plan

Unlike Avista's previous plans, this least-cost plan (LCP, IRP or the plan) has integrated both Avista's North (Washington and Idaho) and South (Oregon) operating regions into one concise plan entitled, 2000 Natural Gas Integrated Resource Plan. The entire document was submitted to the Oregon, Washington and Idaho commissions. The document summarizes the resource decision-making process, its conclusions, and two-year action plan. Technical appendices, modeling exhibits, and a glossary provide detailed supporting documentation.

Avista's 2000 IRP describes the basic components of the company's planning process. The planning process includes a forecast of its future market demand, assessments of demand-side and supply-side resource options, analysis and selection of resource options for meeting future needs, and identification of actions required in the next two-year period to carry out the company's resource strategy.

- Forecast. The 2000 IRP uses a 10-year forecast horizon. In prior IRPs, Avista produced a 20-year plan consistent with Commission Order No. 89-507. Early in 1999, the Company requested and was granted permission to reduce the planning horizon to 10 years for this plan. The Company's planning horizon for capital budgeting and pipeline capacity is 10 years; for revenue budgeting it is 5 years. The shorter planning horizon is consistent within the natural gas industry as pipelines are now able to increase capacity in a more timely fashion than in the past. Also, due to the volatility in the natural gas market, LDCs' planning horizons are much shorter than 20 years to allow for flexibility with the market. Avista is achieving forecast efficiencies by utilizing common forecast assumptions between its natural gas forecasts and its electric operations forecasts. The forecast captures economic trends for Avista's five county service areas. It aggregates expected population growth patterns, employment, income, anticipated natural gas prices, and potential impacts from the developing natural gas vehicle market. Econometric models, along with weather data, are employed to produce usage patterns for residential, firm commercial and firm industrial, interruptible and special contract customers. Both a high and low scenario, along with the company's base case provide a range of sensitivities. For the base case, over the ten-year period, Avista expects sales to residential customers to grow by 4.1% compounded. Firm commercial and firm industrial sales growth over the ten-year period is expected to grow by a compound rate of 2.6% and 0.5% respectively. Overall, total firm sales are expected to grow 3.4% compounded over the ten-year period.
- Demand-Side Resources. Avista's demand-side resources are undergoing change and re-evaluation. The high-efficiency gas equipment programs for space and water heating have been operating at reduced incentive levels. Avista expected to end the direct customer incentive phase of the program as of December 31, 2000, but has recently filed to remove the termination date. Avista will fund an efficiency conservation message to persuade customers to choose high efficiency appliances. Overall, between 1994 and 3rd quarter of 1999, the residential high efficiency program has attained 340,880 first year therm savings. Avista continues to offer its commercial incentive program, commercial and residential energy audits. Avista has committed to remain active in pursuing cost effective DSM programs by re-evaluating the viability of additional gas DSM offerings as gas avoided costs increase. It is, in fact, the gas cost increases that have led the company to forestall termination of its high efficiency equipment programs. Avista will also continue to investigate new gas end-use technologies and gas DSM implementation techniques. The IRP states that with expected higher avoided costs, additional DSM programs may be feasible which the company will review.
- *DSM's Impact on Small Businesses*. Avista continues to utilize the private sector for providing DSM measures and programs. This addresses the concern expressed in Section 303 of the Energy Policy Act of 1992 of the potential impact that utility integrated resource planning and DSM activities could have on small businesses.

- Supply-Side Resources. Under the currently approved Gas Benchmark Mechanism, Avista Energy manages Avista Utilities' supply and transportation needs, contracts, and capacity releases. The Gas Benchmark Mechanism expires in March of 2002. Avista Utilities employs traditional supply-side options such as storage and flowing gas supplies through interstate pipelines. Avista contracts with Northwest Pipeline Corporation (NPC) for interstate pipeline transportation into the Avista service areas. Avista also contracts with NPC for Jackson Prairie storage and Plymouth LNG. Jackson Prairie Storage is an underground storage project located next to NPC's mainline near Chehalis, Washington. Plymouth LNG is a liquefied natural gas storage facility located next to NPC mainline near Plymouth, Washington. Avista contracts with Pacific Gas and Electric Gas Transmission – Northwest (GTN) for interstate pipeline transportation to Medford that commenced November of 1995. For the 2000 IRP, the company's strategy is to contract for a reasonable amount of firm transportation to serve firm customers should a design peak day occur in about a seven to ten year period. From the company perspective, too much firm transportation could impair its goal of being a low-cost energy provider. With the increasing ability to do capacity releases, this is minimized. On the other hand, too little firm transportation reduces the company's ability to be a reliable energy provider. The company is evaluating the potential expansion of the Eugene lateral or additional transportation on GTN to obtain additional capacity to Southern Oregon.
- Environmental Externality Costs. Consistent with OPUC Order No. 93-695, Avista's plan includes an analysis to consider the impact of environmental externality costs in planning for future energy resources. For the 2000 IRP, Avista's analysis includes a range of potential cost impacts that range from \$0.06082 to \$0.24166 per therm based on the emission cost adders specified in the OPUC Order. This analysis considers the natural gas environmental cost impacts from emitting carbon dioxide, nitric oxide, carbon monoxide, and methane.
- Integration Strategies. Avista's integrated resource portfolio, developed using the company's SENDOUT model, indicates: DSM options are not chosen due to cost-effectiveness considerations; Alberta supplies via GTN firm transportation are taken at a high level, with swings coming from supplies via NPC; spot resources from AECO, Sumas, and the Rockies have an increasing supply role in the later years of the planning period; and GTN firm transportation will provide the additional capacity needed by the Avista system for load growth into the next decade. For peak day system-wide planning purposes, results show unserved demand beginning with a small amount in 2003 and doubling thereafter through 2007. The company's resource strategy maintains Oregon-mandated DSM measures it has budgeted; continues diversification of its firm transportation sources by increasing its supply access via firm GTN and NWP transportation; and under the gas benchmark mechanism, optimizes value by pursuing flexible capacity releases of firm transportation.
- Two-Year Action Plan. Avista's Two-Year Action Plan describes the actions the company will undertake through 2001 to implement its resource strategy and accomplish its goal of meeting customers' needs for low-cost and reliable gas services. Avista will focus on five

primary areas to further its objective of integrating the company's operations with its resource planning process: sales forecasting, modeling, supply/capacity activities, demand-side activities, and distribution planning. Forecasting and modeling tasks include re-estimating temperature sensitive customer usage models using alternative measures of degree days, studying price elasticity impacts on the lag variable of the existing model, installing a daily forecasting system, collaborating with New Energy Associates (NEA) on software improvements to the gas resource optimization model, and increasing the use of the resource optimization model as a decision aid for gas operations. Supply-side/capacity tasks include monitoring the actions taken by Avista Energy under the Gas Benchmark Mechanism (GBM) for managing swing and peak supply contracts, Jackson Prairie and Plymouth LNG storage. GBM monitoring also includes planning tasks related to capacity releases, exchanges, off-system sales and financial hedging instruments. The DSM action items include improving reporting DSM efforts, maintaining stakeholder relationships, supporting cost-effective energy code changes and monitoring new DSM technologies. Distribution planning tasks include continuing development of the Stoner gas flow modeling and integrating the GIS system into planning operations.

## **Comments of the Parties**

The Commission staff developed extensive comments on the company's draft integrated resource plan submitted in December 1999, and distributed a draft proposed order on the company's final IRP which was distributed to all parties on December 11, 2000. Even though parties have been given notice of Staff's activities during the development of this IRP, other parties' participation has been absent.

Commission Staff Comments. As a result of the company's cooperative approach to resource planning and its resolution of all of the substantive issues prior to filing its final integrated resource plan submitted in July 2000, staff makes no suggestions for modification to the company's IRP. On January 16, 2001, staff distributed its final recommendation that the Commission acknowledge Avista's IRP.

## **OPINION**

#### Jurisdiction

Avista is a public utility in Oregon, as defined by ORS 757.005, which provides natural gas service to or for the public.

On April 20, 1989, pursuant to its authority under ORS 756.515, the Commission issued Order No. 89-507 in Docket UM 180 adopting least-cost planning for all energy utilities in Oregon.

# Requirements for Least-Cost Planning under Order No. 89-507

Order No. 89-507 establishes procedural and substantive requirements for least-cost planning and requires the Commission's acknowledgment of plans that meet the requirements of the order.

**Procedural requirements.** At a minimum, the least-cost planning process must involve the Commission and public prior to making resource decisions rather than after the fact. *See* Order No. 89-507 at 3.

Avista sought public input during the planning process by informing the general public and customers about its planning process and by conducting technical conferences on the plan. The company's technical advisory group, consisting of representatives from other utilities, regulatory agencies, industrial customers, county government and pipeline companies, provided input on planning assumptions, energy resource options, and future scenarios that influence the demands for and supply of energy. The company distributed a draft plan for comment before developing and submitting the final plan to the Commission. Appendix A reflects these activities.

**Substantive requirements.** The substantive requirements were also set forth in the order as follows:

- 1. All resources must be evaluated on a consistent and comparable basis.
- 2. Uncertainty must be considered.
- 3. The primary goal must be least cost to the utility and its ratepayers consistent with the long-run public interest.
- 4. The plan must be consistent with the energy policy of the state of Oregon as expressed in ORS 469.010.

Order No. 89-507 at 7.

**Evaluation of Resources.** Avista's IRP evaluates both supply- and demand-side resources consistently and comparably over time. Numerous linear programming model runs, including a Staff requested model run, were completed to evaluate resource scenarios for the company's plan and related gas operations. In addition, the company has included estimates of potential costs for environmental externalities consistent with Order No. 93-695, issued May 17, 1993, regarding the treatment of external environmental costs. The company also applied the same discount rate to costs for both demand- and supply-side resources. We conclude that Avista satisfactorily complied with this requirement for purposes of this plan.

Uncertainty. Avista's IRP planning approach addressed both uncertainty in demand and uncertainty in resource availability. The company considered uncertainty in demand by developing a range of demand forecasts. The forecasts include a medium case as well as high and low load growth scenarios. These scenarios reflect a range of possible economic and weather events that may affect customer demand. Other factors considered by the company to address planning uncertainty include customer price sensitivity, environmental externalities, changes in financial condition, pricing of alternative fuels, and the effects of changing public policy.

A gas utility's primary source of traditional supply is a flowing gas supply that is transported using interstate pipeline capacity. The cost and availability of pipeline capacity, however, is dependent on the actions of third party pipelines, other project sponsors, government agencies, and other market participants. The actions of these parties represent an element of uncertainty that is difficult to quantify for planning purposes. For example, Avista's IRP describes uncertainty generated by FERC Order No. 636 and how it influenced the company's current resource decisions. We are satisfied that Avista's IRP is sufficiently flexible to allow the company to respond to the uncertainties identified in the planning process.

Primary Goal of Plan Must Be Least Cost. The objective of least-cost planning is to plan for resources that both meet the needs of the utility's customers and minimize total system costs over the long term. Avista has set forth its integrated resource plan goals to "properly balance the need to be a reliable" and "low-cost provider of energy." Avista realizes that to be successful it must not only plan for, but implement, a least cost resource path, and believes that its 2000 IRP assists the company in meeting the reliability expectations of its customers at competitive prices. Based on the company's analysis and its commitment to continue to develop and utilize the optimization modeling capability it has acquired, we are satisfied that Avista has met this requirement for purposes of this integrated resource plan.

Consistency with Oregon's Energy Policy. The Legislature mandated certain energy-related goals in ORS 469.010. These goals relate primarily to the development of sustainable energy resources. Avista's plan is consistent with these goals. Avista has considered conservation resources in its resource plan. In addition, the company has indicated it will continue to assess the potential for additional residential, commercial, and firm industrial DSM programs.

## **Commission Decisions on Parties' Comments**

Staff's final recommendation document recommends Commission acknowledgment of Avista's plan. We adopt that recommendation.

# Conclusion

Based on review of Avista's planning efforts, Avista's 2000 Natural Gas Integrated Resource Plan is acknowledged. Avista's IRP meets the minimum substantive and procedural requirements of Order No. 89-507. Achievement of the objectives in the company's 2000-2001 Action Plan will enhance the company's efforts in the development of future integrated resource plans and assist the company in remaining a reliable and low-cost provider of natural gas service over the ten-year planning horizon.

### EFFECT OF THE PLAN ON FUTURE RATE-MAKING ACTIONS

Order No. 89-507 sets forth the Commission's role in reviewing and acknowledging a utility's LCP or least-cost plan, as follows:

The establishment of least-cost planning in Oregon is not intended to alter the basic roles of the Commission and the utility in the regulatory process. The Commission does not intend to usurp the role of utility decision-maker. Utility management will retain full responsibility for making decisions and for accepting the consequences of the decisions. Thus, the utilities will retain their autonomy while having the benefit of the information and opinion contributed by the public and the Commission.

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Plans submitted by utilities will be reviewed by the Commission for adherence to the principles enunciated in this order and any supplemental orders. If further work on a plan is needed, the Commission will return it to the utility with comments. This process should eventually lead to acknowledgment of the plan.

Acknowledgment of a plan means only that the plan seems reasonable to the Commission at the time the acknowledgment is given. As is noted elsewhere in this order, favorable rate-making treatment is not guaranteed by acknowledgment of a plan.

Order No. 89-507 at 6 and 11.

This order does not constitute a determination on the rate-making treatment of any resource acquisitions or other expenditures undertaken pursuant to Avista's 2000 IRP. As a legal matter, the Commission must reserve judgment on all rate-making issues. Notwithstanding these legal requirements, we consider the integrated resource planning process to complement the rate-making process. In rate-making proceedings, in which the reasonableness of resource acquisitions is considered, the Commission will give considerable weight to utility actions which are consistent with acknowledged integrated resource plans. Utilities will also be expected to pursue

unanticipated least-cost opportunities beneficial to ratepayers which arise after Commission acknowledgment or, alternatively, explain why such opportunities were not pursued.

## **CONCLUSIONS**

- 1. Avista is a public utility subject to the jurisdiction of the Commission.
- 2. Avista's 2000 Natural Gas Integrated Resource Plan reasonably adheres to the principles for least-cost planning set forth in Order No. 89-507. The plan will assist in ensuring that Avista's customers receive adequate service at fair and reasonable rates and is otherwise in the public interest.

## **ORDER**

IT IS ORDERED that the 2000 Natural Gas Integrated Resource Plan filed by Avista on July 20, 2000, as modified herein, is acknowledged in accordance with the terms of this order and Order No. 89-507.

Made, entered, and effective \_ FEB 09 2001

Ron Eachus

Chairman

Roger Hamilton Commissioner

Joan H. Smith

Commissioner

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# **PUBLIC INVOLVEMENT**

part of the integrated resource plan is to involve the public in the least cost planning process. To accomplish this, the Company held three public Technical Advisory Committee (TAC) Meetings to review different phases of the plan during 1999. The first meeting was held jointly with the state utility commission staffs from Washington and Idaho, and with the Avista Corp. electric TAC members. The second meeting was held with the staffs from Oregon, and the third meeting was held jointly with the state utility commission staffs from Washington, Idaho, and Oregon.

In addition to state commission staff, the meetings included representatives from other state government agencies, several industrial customers, county government, and pipeline companies.

Table 1 lists the Technical Advisory Committee meetings that were held.

Comments regarding the December 6, 1999 draft filing of this plan were received from George Fink, Idaho Public Utilities Commission on March 13, 2000 and from Ray Nunez, Oregon Public Utility Commission on March 6, 2000.

# TABLE 1

# **TECHNICAL ADVISORY COMMITTEE MEETINGS**

Date

Location

August 19, 1999

Spokane, Washington

Topics of Discussion:

(Joint meeting with Avista Utilities electric IRP TAC)

Purpose of IRP

Background of Least Cost Planning

Forecast Methodology

Washington/Idaho Forecast

Washington/Idaho Demand Side Management

# August 26, 1999

Salem, Oregon

Topics of Discussion:

Purpose of IRP

Background of Least Cost Planning

Forecast Methodology

Oregon Forecast

Oregon Demand Side Management

October 15, 1999

Spokane, Washington

Topics of Discussion:

Explanation of Distribution Planning

Demonstration of Distribution Model

Demonstration of GIS

Explanation of Resource Planning

Demonstration of SENDOUT Planning Model