Avista Corp.
1411 East Mission PO Box 3727
Spokane, Washington 99220-3727
Telephone 509-489-0500
Toll Free 800-727-9170

AVISTA
Corp.

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Mark Walker
Director of Public Affairs
Northwest Power & Conservation Council
851 SW 6th Avenue, Suite 1100
Portland, OR 97204-1348

Subject: Avista Comments on Sixth Power Plan Issues Paper

Dear Mark:

Avista appreciates the opportunity to provide comments on the Northwest Power and Conservation Council's (NPCC's) "Issues for the Sixth Pacific Northwest Power and Conservation Plan" ("Issues Paper"). We rely in many ways on work performed by the NPCC for our resource planning efforts. We therefore are keenly interested in both the development and results of the 6th Plan. Avista believes that the Issues Paper contains a very robust list of issues that together will help guide the region as it moves forward in meeting future customer requirements in a cost-effective and environmentally balanced way.

Avista asks that the NPCC consider the following issues as it develops material in support of the 6th Plan.

Transmission

The Issues Paper identifies transmission constraints as a major issue. Unfortunately, FERC actions over the past years have severely limited resource planners from interacting with their transmission departments to help in developing studies of the economic viability of transmission plans. The NPCC could provide unique and vital assistance in this area. Though the NPCC does cover transmission issues to some extent today, it would make good sense to retain new staff with specific expertise in transmission to help bridge the gap between transmission system and power resource planners. Specific insights gained from this new skill set could greatly benefit future planning exercises by regional utilities.

For example, presently there are a number of plans affecting our region. At a recent WECC meeting we learned that there could be as much as $20 billion in infrastructure improvements over the next 5-7 years. While the transmission studies appear sound from a system reliability perspective, the financial viability of these projects is much less clear. Avista is concerned that a number of these projects might not be viable, but it has very limited means to be certain of this. Are there other better ways to meet the future needs

of the Northwest that will provide a similar or other acceptable level of reliability? What would be the impact of thousands of new megawatts of transfer capability from the Northwest to California; might such a new line actually not be in the interest of Northwest customers due to the potential for rising wholesale market and renewable resource costs? Is the proposed "hub and spoke" concept sound? Might renewable resources located more closely to load be less expensive than large transmission infrastructure projects? Does the low capacity factor of wind justify the costs of new long-distance transmission lines?

Wind Generation

The Northwest, through the Wind Integration Action Plan, has obtained invaluable insights into the latest resource development trend—wind. The 6th Plan would benefit the region by focusing on integration costs, the benefits of geographic diversity, and a re-assessment of the resource's ultimate contribution potential.

A number of integration cost studies, including one by Avista, have moved the ball forward on this issue since the last Power Plan. There remains significant work to determine not only the capability of our traditional source of reserves—hydro—but also the potential of other technologies (e.g., coal, CCCT, CT) to provide reserves for wind, especially during the second quarter when costs are the highest.

Some analysis has been performed by the NPCC and in the Wind Integration Action Plan to determine the benefits of geographical diversity when applied to wind. If the benefits are large, the region would benefit from a better understanding of their magnitude and how much geographical diversity is necessary to achieve them (e.g., shared ownership of geographically distant sites between utilities, either contractual or physical, building heretofore costly transmission to import power from east of the Rockies).

Given changing market and societal conditions, and a better understanding based on recent development, the region would benefit from a new estimate of wind generation potential in the Northwest. "Lower-quality" wind sites that might have been excluded from the 5th Power Plan might now be economic.

Methods to Mitigate Gas Price Risk

As carbon legislation moves nearer to reality, utilities will respond by shunning coal and other carbon-intensive resources. Puget Sound Energy talks about the future being "gassy and windy." Avista agrees. With increased reliance on natural gas comes the potential for greater fuel price volatility that ultimately is translated into retail rate changes. Avista's 2007 Integrated Resource Plan identified the potential for locking down medium- to long-term natural gas supplies as a means to achieve the price stability traditionally associated with coal-fired generation without its carbon impacts. Three options were identified: coal gasification east of the Rockies near oil fields that would benefit from storing the carbon, the purchase of gas fields, and locking in prices with

contracts that cover multiple forward years. There likely are other alternatives that Avista has not yet explored.

Hedging natural gas prices, through any of the above means like will entail asking regional rate payers to pay a risk premium. Might these premiums be preferable to other strategies? Might it be reasonable to hedge some or a gas plant's entire fuel budget?

Demand Shocks

The rising costs of energy in the Northwest during the WPPSS era, combined with poor economic conditions, created a situation where resource planners greatly over-forecasted future demand. The general consensus is that our national and regional economies will perform below trend for a number of years forward. Combine a weakening economy with rapidly rising energy costs and impending carbon and renewable portfolio legislation, and the region might well witness demand destruction on the scale of the early 1980's.

On the other hand, many new electrical devices could push usage above our expected trend. Where electric cars begin to substitute for our traditionally gas-fueled transportation needs, loads might increase on a massive scale.

Fuel Switching

Avista believes that end-use space and water heating using natural gas is a much better use of our scarce resources, both in terms of efficiency and reduced carbon emissions. For example, heating a home using the most efficient gas-fired generation technology converts at a 50% efficiency level. At the end use, gas-fired space and water heat can reach efficiencies of 95%, nearly doubling the net energy created and halving carbon emissions.

In the early 1990's Avista embarked on the path of electricity to natural gas conversion for its residential and commercial customers. The program was an overwhelming success and those years represented the highest annual achievement of energy savings bar programmatic savings in the 2001 Energy Crisis. Our electricity loads today are approximately what they were in 1989, though the number of customers we serve is 60% higher.

There are large service areas in the Northwest that have not promoted fuel switching for various reasons. One is a lack of good cost information. Another is that in many of these areas the electricity and natural gas providers are not the same company. In the past an electricity distribution company would lose significant revenues where a customer switched to natural gas because its incremental cost of energy was below the cost included in retail rates. This created a significant barrier to fuel switching that might not exist in today's marketplace. Wholesale prices exceed power supply costs embedded in retail rates. No matter the reasons, as the region stretches to make its electricity dollars

go farther with conservation efforts, fuel switching should not be ignored in NPCC conservation evaluations.

Extra-Regional Imports

Unlike the regional utilities it counsels, the NPCC historically has not explicitly modeled marketplaces outside of the Northwest. It has instead greatly simplified interactions with areas such as California and the Desert Southwest. As an example of the significance of this issue, the current Resource Adequacy Metric being developed by the Resource Adequacy Forum has made an estimate of extra-regional resource availability that might be incorrect by a factor of 2 or more. The result has been a 20% planning standard that is high by historical standards. The new capacity resources that will be necessary to meet this standard will not be inexpensive. Given the magnitude of the dollars, the NPCC should consider broadening its modeling efforts to include the entire WECC for the 6th Power Plan to ensure we are not planning too conservatively.

Resources and Availability

Avista and others rely on NPCC information to ensure their IRPs are the best they can be. The NPCC has done a good job in surveying the marketplace for resource options available to Northwest utilities. More can be done, especially in the areas of carbon sequestration and the availability of renewable resources. Concerns over wind availability were covered earlier in this letter. Avista has similar concerns over how much it can rely on non-wind (e.g., biomass, solar, tidal, geothermal) renewables. Periodically industry, government, and other studies imply that all future needs can be met by renewable resources. Normally missing from these studies is an assessment of the impacts to the broader economy were such shifts to occur, including what the costs of this switch would mean to Northwest ratepayers. The NPCC will be of greater assistance to the Northwest if it can take a more holistic view of renewable resources and identify levels of achievable potential.

Given all of the recent discussion surrounding nuclear power, a more prominent role in the 6th Plan would be valuable. This does not presuppose that nuclear power would be the resource of choice for the Northwest, but instead would provide cost, operating and other information (e.g., waste disposal options). Further, as resource costs have risen dramatically, the NPCC might consider a more detailed look at supply and demand conditions that would affect such costs, and translate this information into the forecasts.

Avoided Costs versus Wholesale Market Prices

The NPCC recently released a revised long-term wholesale electricity price forecast that has surprised many with its low trajectory. One reason cited was the impact of renewable resources that depress wholesale prices in hours where they displace gas-fired generation. Avista doesn't necessarily challenge the NPCC's results, and in fact agrees that the regulatory/societal compact requiring the power grid to be over-built to meet infrequent peak period loads will depress wholesale prices; however, we are concerned that some

utilities might conclude that instead of constructing new generation resources they should instead rely on wholesale power markets to meet their customers' needs. This is a recipe for disaster, as market prices are significantly a reflection of the generation assets available to it. Where utilities decided to forgo construction, prices will not be low as forecast and reliability will be compromised.

To help alleviate this problem, the region would benefit from an analysis of the full avoided costs of power supply. Avoided costs would include at the minimum the wholesale price of energy and those costs that are not recovered from marketplace due to the power grid's over-built condition. The unrecovered costs ideally would be broken down between a risk premium, a capacity premium, and remaining costs not explicitly detailed.

Demand Curtailment and Time of Use Rates

There is a lot of talk among policymakers about benefits that might accrue from time of use rates and demand curtailment. The Northwest has historically not been able to support price differentials that would justify either program type on a large scale deployment. Central to this is the difference between on- and off-peak pricing, which has been below other regions that have successful implemented time of use and demand curtailment. But the answer is not this simple. Other savings, including avoided capacity installations and fuel risk probably should be considered and quantified.

Avista looks to the NPCC, with its regional focus and consultation with Northwest parties, for assistance as it makes future resource decisions. Any light that can be shed on the items contained in the Issues Paper and this letter will be very valuable. Thank you again for providing this opportunity for comments.

Sincerely,

Clint Kalich
Manager of Resource Planning & Power Supply Analyses
Avista Corporation
clint.kalich@avistacorp.com