

**U.S. HOUSE OF REPRESENTATIVES  
COMMITTEE ON NATURAL RESOURCES  
SUBCOMMITTEE ON WATER AND POWER**

**Hearing on:**

***EXPLORING HYDROPOWER'S ROLE AS A CONTINUED SOURCE OF  
CLEAN RENEWABLE ENERGY FOR THE FUTURE***

**Bruce Howard, Director, Environmental Affairs**

**Avista Corporation**

**June 12, 2008**

## **I. INTRODUCTION**

Chairwoman Napolitano, Ranking Member McMorris-Rodgers and members of the Subcommittee, I am Bruce Howard, the Director of Environmental Affairs for Avista Corporation. Avista appreciates the opportunity to testify, and commends the Subcommittee for holding this hearing on the critical role of hydropower as a renewable resource.

Avista is an investor-owned utility headquartered in Spokane, Washington, that provides electric and/or natural gas service to approximately 480,000 customers in eastern Washington, Northern Idaho, and Oregon. Hydropower is Avista's largest power resource, comprising approximately 52% of our electric generating capacity.

Our hydropower resources are licensed by the Federal Energy Regulatory Commission (FERC), and include the 788 megawatt (MW) Cabinet Gorge-Noxon Rapids Project in Montana and Idaho (also known as the Clark Fork Project), and the 154 MW Spokane River Project in Washington and Idaho. We also own the 50 MW Kettle Falls biomass generation station in Kettle Falls, Washington, which is fueled by wood waste. Our investments in renewable hydropower and biomass, along with our highly efficient natural gas generation and energy efficiency, conservation, and other demand side management programs, make Avista's "carbon footprint" very low in comparison to most electric utilities in the United States.

## **II. THE MANY BENEFITS OF THE RENEWABLE HYDROPOWER RESOURCE**

Hydropower provides extensive economic, environmental and reliability benefits. It is the largest renewable electric resource in the U.S., providing approximately nine percent of U.S. total summer capacity. Hydropower is emission-free, a very significant environmental benefit in

an era in which we are seeking to reduce greenhouse gas emissions to slow global climate change. In addition, any adverse environmental impacts of hydropower on aquatic resources have been substantially reduced or eliminated through the relicensing process, new and innovative technology, and the application of key environmental laws.

To give just one example, the collaborative alternative licensing process used by Avista for the relicensing of the Clark Fork Project in Montana and Idaho resulted in a “win-win” settlement with all key agencies and stakeholders. For example, to implement the project’s new license, over 2,600 acres of key bull trout habitat have been acquired, protected, and restored, and six miles of stream habitat have been recreated or restored. The settlement and new license, which was approved by the FERC in 2000, provide major environmental enhancements and, at the same time, preserve the economic benefits of the Project. In addition, this Project, like many others, provides unique recreational and other community benefits.

Hydropower also enhances the reliability of the electric system. As a highly flexible firm power resource, hydropower provides load following, spinning reserve, and other “ancillary” services that are critical for keeping the lights on. In addition, emission-free hydropower is ideally suited to firming intermittent renewable resources such as wind and solar power. Therefore, hydropower is not only a renewable resource in its own right, but it also enables additional wind and solar power resources.

### **III. HYDROPOWER CAN PROVIDE EVEN MORE BENEFITS IN THE FUTURE**

In some circles, the conventional wisdom is that while hydropower is a fine resource, it has little growth potential in the future. This is not the case. Instead, given the challenges

associated with climate change, we must make a concerted effort to maximize the use of all emission-free renewable resources, including hydropower.

While the opportunities for building large, new conventional hydropower projects are limited, significant potential exists to add generation capacity at existing hydropower dams and new electrical generation to existing non-hydropower dams. There are also opportunities for entirely new small hydropower facilities. Moreover, substantial new hydropower resources are available from new and innovative hydrokinetic technologies that tap the energy of river, tidal, and ocean currents, without the installation of any dam or impoundment.

Further, considerable potential exists for new “pumped storage” hydropower facilities that pump water into an off-river upper reservoir during off-peak hours when power demand and prices are low (typically at night and on the weekends) and then release the stored water to generate power on-peak during weekdays when demand and power costs are high.

FERC statistics indicate that there are pending license applications for 430 MW of conventional hydropower capacity and 900 MW of pumped storage capacity. Also, there are 448 MW of conventional hydropower capacity, 2,783 MW of pumped storage capacity, and 6,000 MW of hydrokinetic capacity in the pre-filing stage at FERC, before a license application is filed. While not all projects in the pre-filing stage at FERC will mature into applications, these figures demonstrates tremendous interest in new hydropower technologies and pumped storage.

#### **IV. WHAT CONGRESS CAN DO TO HELP TAP HYDROPOWER’S NEW POTENTIAL**

##### **A. Extend and Expand the Application of the Renewable Production Tax Credit/Clean Renewable Energy Bonds to Hydropower**

For Avista, the most important thing Congress can do at this time to spur additional hydropower development at its existing hydropower facilities is to secure a long-term extension and expansion of the production tax credit (PTC) for incremental hydropower that was enacted by Congress as part of the Energy Policy Act of 2005.

Based in part on obtaining the PTC half credit of 0.9 cents per kwh, Avista has embarked on a series of upgrades to its existing hydropower dams, adding at total of 7 MW of capacity to date, with approximately 36 more MW available from further upgrades. Because of the long lead times associated with replacing turbines, it is essential that Congress renew the PTC for an extended period, as well as the counterpart “Clean Renewable Energy Bond” (CREB) program that supports renewable investments by municipal and cooperative utilities.

Avista also strongly supports the landmark agreement recently reached between the National Hydropower Association (NHA), American Rivers (AR), the Union of Concerned Scientists (UCS), Trout Unlimited (TU), and the Natural Heritage Institute (NHI) to support the expansion and application of the PTC and the CREB program to the development of hydropower at non-hydropower dams. Avista commends these parties for working together constructively to develop compromise legislative language to provide PTC and CREB support for hydropower at non-hydropower dams, and greatly appreciates the inclusion of this language in the energy tax bill recently passed by the House. This is an excellent example of how policies regarding hydropower deserve reconsideration in light of the emission-free electricity hydropower provides. Avista also supports the language in the House-passed bill making new hydrokinetic technologies eligible for the PTC and CREB program.

## **B. Appropriate Treatment of Hydropower in Climate Change “Cap and Trade” Legislation**

Climate change legislation is likely to become the biggest policy driver impacting future energy investments, including investment decisions regarding hydropower. Avista believes it is very important that investments made in emission-free resources such as hydropower be rewarded, rather than penalized, in any cap and trade legislation, or other climate change legislation, adopted by Congress. Therefore, Avista urges Congress to allocate the valuable “emission allowances” that are at the center of any cap and trade system to electric utilities based on their electricity output or load served, not based on historic greenhouse gas emissions. Avista also supports work being done by NHA regarding the provision of “bonus allowances” to renewable power resources such as hydropower. Allowance allocation and the many other highly technical provisions of the complex climate change legislation that Congress is considering will have a major impact on hydropower’s future. Any climate change legislation should appropriately acknowledge and encourage this important resource.

## **C. Removal of Regulatory Barriers to Hydropower Development**

The regulatory process for the approval of new hydropower resources is often costly, complex, and time consuming, and does not always produce reasonable outcomes. In response, Congress made significant improvements to the licensing process through the adoption of licensing reforms in the Energy Policy Act of 2005. Avista strongly supported these reforms.

Avista appreciates that because hydropower relies on a public resource, the regulatory process must be comprehensive and inclusive so that all impacts and interests are fully considered. However, Congress should carefully monitor how the regulatory process treats the many conventional hydropower, pumped storage, and new hydrokinetic technology projects that

are currently in the licensing pipeline at the FERC, the Departments of Interior and Commerce, and at state resource and water quality agencies. If the regulatory process does not result in the timely and reasonable approval of hydropower projects that are in the public interest, Congress should address this matter through oversight, or even legislation, if necessary.

#### **D. Support for Hydropower Research and Development**

Federal support for hydropower research and development (R&D) has been minimal to non-existent for many years. This needs to change if we are to tap the full potential for the use of new technology at conventional hydropower facilities, as well as the many benefits that can be obtained from the new hydrokinetic technologies. New R&D investments in hydropower are essential. Congress took an important first step in support of hydropower R&D by appropriating \$10 million in FY 2008. Avista strongly supports NHA's efforts to expand this funding to \$54 million in FY 2009. Hydropower needs a vigorous and well-funded federal energy R&D program in order to achieve its full potential.

### **V. CONCLUSION**

Avista deeply appreciates the opportunity to testify and commends the Subcommittee for its leadership on the important issue of the contribution of hydropower to our nation's energy future. I am happy to answer any questions that you may have.