

Testimony of the Honorable Bob Morton
Washington State Senator
House Resources Water and Power Subcommittee
*"Hydropower: Providing 75% of America's Current Renewable Energy. Exploring its
role as a continued source of Clean, Renewable Energy for the Future"*
June 12, 2008

Chairwoman Napolitano, Ranking Member McMorris Rodgers, and Members of the Subcommittee, thank you for holding this important hearing regarding the benefits and future uses of hydropower.

My name is Bob Morton and it has been my pleasure and privilege to serve the 7th Legislative District since 1990 and the state Senate since 1994. I am currently the Ranking Member of the Natural Resources, Ocean and Recreation Committee and sit on the Water, Energy and Telecommunications as well as the Agriculture and Rural Economic Development committees.

For the past 70 years, since the construction of Bonneville Dam, the states of Washington, Oregon, Idaho, and Montana have relied heavily on hydroelectric power. There are 55 major and several minor hydroelectric projects on the Columbia, Snake, and Pend Oreille rivers and their tributaries. Twenty-nine of these projects are federal. The remaining are non-federal and include numerous Public Utility District (PUD) projects.

The Bonneville Power Administration (BPA) markets and distributes the power generation from the federal dams at cost-based-rates and receives no federal tax dollars for its operation. The Northwest ratepayers pay the costs of the BPA system. BPA supplies up to 45 percent of the electricity used in the Northwest, of which more than 80 percent is generated by clean, emissions-free hydropower. The Northwest exports hydroelectric power in the summer months derived from the melting snows of the north and imports electricity in the winter. The regions power supply totals 32,000 megawatts.

There are assumptions in some quarters that hydropower in the Northwest is tapped out. However, this is false. There are many undeveloped sites for hydropower generation where capacity can be tapped, for example, utilizing smaller turbine technology in tributary streams and by increasing the height of some of the present dams. Most of the hydroelectric dams of the Columbia Basin are non-storage dams that utilize the run of the river to generate electricity.

To transmit the electricity from its source to its user is a major part of the process. BPA owns, operates and maintains about 75 percent of the Northwest's high voltage transmission system. This includes interconnections and interregional transmission throughout the western grid system. The Columbia River Basin alone covers 260,000 square miles, an area roughly the size of France.

To ensure that benefits from the Columbia River hydropower system flow to the Northwest under federal law, BPA gives preference to Pacific Northwest utilities in power sales. BPA sells power outside the region, but only after the power has been offered within the region first and is surplus to regional needs.

In addition to being a reliable, affordable renewable energy source, a benefit of our hydro system is that it emits no greenhouse gases when it generates electricity.

According to the Northwest Power and Conservation Council, the average annual hydropower production in the Northwest is about 16,400 average megawatts, or almost 144,000,000 megawatt hours. If those same megawatt hours would have been generated by conventional coal plants, more than 153,000,000 tons per year of additional greenhouse gases would have been emitted. Hydro power is emissions free.

Another way of looking at this benefit is to consider what happens with carbon emissions when we have a low water year. For instance, in 2005, those emissions from the electric sector in the Northwest increased by 10,000,000 tons over average due to a below average water year. Because of that low water year, the region had to call on more thermal generators fired by fossil fuels to meet our needs. We need more water storage for future energy needs.

As you, the Members of Congress, engage in the dialogue about reducing greenhouse gas emissions, please remember that my state, indeed the country, is starting at a lower greenhouse gas emissions level than would have been without the Northwest's foresight to develop the hydroelectric generating system. We ask that you recognize this and other benefits of the hydro system and act to preserve, protect and enhance this very beneficial clean, renewable, domestic energy resource as you move forward with legislation to produce renewable energy, and energy security.

Thank you for this opportunity to appear before you today. I look forward to answering any questions you may have.