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Testimony on H.R.. 6247 “Saving Our Dams and new Hydropower Development and Jobs Act of 2012

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Chairman Hastings and members of the House Natural Resources Committee, I thank you for the opportunity to testify and present comments on this legislation and about hydropower in general in the Pacific Northwest and specifically Idaho. I am one of two Idaho members of the Northwest Power and Conservation Council and current chairman of the Council’s Power Committee. These remarks will represent generally known facts of the hydropower system and river operations specific to Idaho and have not been reviewed by the full Council.

The hydropower system in Idaho includes the major Snake River headwater facilities at Jackson Lake in Wyoming and Palisades (Bureau of Reclamation) in Idaho. The large regulating Reservoir of American Falls in Southern Idaho and then downstream through several other “run of the river” projects to the Hell’s Canyon Projects (Brownlee, Oxbow, and Hells Canyon) all operated by Idaho Power Company. The Snake then flows through the Four Lower Snake River Dams to merge with the Columbia River. There are numerous other smaller dams and diversions from these headwaters to the Lower Snake River Dams. In addition, Dworshak Dam (US Army Corps of Engineers) on the North Fork of the Clearwater River at Orofino is another major facility in Idaho. Northern Idaho also contains several dams and the river system is greatly influenced by the large Libby Dam in Montana as well as several smaller dams in that state.

This dynamic network of hydropower facilities provides hydroelectric power at low prices and does so with a number of additional benefits. I would like to provide you with some of the benefits of hydropower:

Renewable: Most of the renewable energy in the United States comes from hydropower (96%). Hydropower facilities harness the energy of falling and flowing water to generate electricity. This water is continually being replenished. As a matter of fact, hydropower is the best of renewable resources today, even if some agencies and states won’t provide the credit deserved. It not only provides energy, it provides capacity. Wind doesn’t get close and provides about as many problems as it solves because it is intermittent and provides minimal capacity.

Clean: The fuel for this power generation is water and has no air contaminate discharge, no CO2 or particulate matter.

Reliable: This generation is flexible and can provide power to meet changing demands for electricity. It can produce very little when there is no demand (at night) to maximum output during hot or cold times or during heavy loads and can do so in a very short time period. The fuel source is reliable on an as needed basis, can be stored for short periods of time to meet peak demands, and is available to all other down-stream hydropower generators.

Efficient: Hydropower turbines today generate to about 90% of the energy available much more efficient than other forms of electrical generation.

Flexible / Stable: The hydropower system can respond quickly to changes in demand which is essential to maintaining the reliability of the electrical grid. This issue is becoming more critical with the addition of wind, an intermittent resource that needs ever more integration to get it on the power system and maintain operational reliability.

Secure: The fuel source is the domestic water/river system of the region and not dependent upon foreign suppliers, cost fluctuations, or transportation issues.

Cost Effective: The hydropower system has low operating costs and a long power plant life. Original life of 30-50 years can be extended and remain in service for twice that long.

Low Risk: There are no fuel cost risks. Historical water records provide sideboards for water availability that is confirmed or adjusted based upon snow pack and water content of snow pack as it accumulates and well before it enters the system as run-off.

Stored energy: Energy can be stored in many projects in the reservoir pools and used for generation as needed.

Waste: There is no waste stream.

Start Capability: The facilities can start quickly and ramp up quickly compared to other generating resources which can take hours/days/weeks to begin generating electricity.

Employment: The Operation and Maintenance of the hydropower system is minimal but provides employment opportunities and future development will provide additional employment opportunities for those in the local area. Not only in construction but also in engineering, planning, licensing, permitting, and other aspects of project implementation. Operation and Maintenance costs are predictable and stable.

The above represents some of the more direct benefits of hydropower and the hydropower system, especially when compared to other types of generating resources. However, there are additional benefits that are equally important even if indirect.

The hydropower system provides flood protection. All facilities in the Northwest and Idaho were constructed for two major purposes, power generation and flood control. Without some controls, the river system would overwhelm communities and properties. Flood control was not to provide entire river management but to take the peak run-off events to some moderate level. This not only prevented severe damage but provided some degree of assurance for those who benefited from the power, communities, and a transportation system. Without Libby Dam flood protection this last spring, the community of Bonners Ferry Idaho would have experienced major flood damage.

In Idaho, especially the Southern Snake River Plain, agricultural irrigation was also a major benefit from the construction of hydropower facilities. The water provided a growing season in an arid high desert and agricultural produce became a major economic main stay for Idaho. With this commodity production came families, communities and economic prosperity opportunities.

This hydropower development changed the fish and wildlife opportunities from a flash flooding river environment to a more controlled pool and ripple environment. Those hydropower projects provided mitigation for fish and wildlife impacts and have continued to improve habitat for fish and wildlife and provide for additional recreational opportunities in excess of the original environs. Water flows can be shaped to enhance a fishery. Each year with additional information, the Northwest makes improvements to fish passage, by-pass, and all main-stem passage at the hydropower facilities. Transportation has also improved over the years as better data enlightens the operations.

Also the water of this system can be used from domestic, municipal, and industrial water supplies.

The Columbia and Lower Snake River Dams and the lock system created the opportunity for an inland port at Lewistown Idaho. There was upstream passage without these eight facilities but it was very limited in size of vessel and time of year. This is an important benefit for Idaho and the transportation of our produce to markets.

The operations of the Montana facilities have impacts upon the resources of Idaho. White Sturgeon and other resident aquatic species, flood control, river management decisions in Northern Idaho all hinge on the ability to coordinate reservoir and river operations with Montana.

The hydropower system of Idaho generates electricity the same as the downstream states of Oregon and Washington, however, there are different river operations that need be given due consideration. The snow pack in Idaho contributes to river flows at a different rate and time. The major run-off or peak freshet is generally between the middle of May and the middle of June. There won't be high flows and the reservoirs won't be full until about that time. Man may want to change it but Mother Nature just doesn't let the snow melt until that time of year. Idaho then tries to accommodate the Biological Opinion for Salmon by providing additional water from Idaho when it is available from those that own the water rights. That water is provided downstream upon reasonable requests. Water from Idaho is also provided from Dworshak Dam for the Biological Opinion.

While the nation's benefit of hydropower is only about 7%, Idaho receives 80% of the in state electrical power generation from hydropower generation. Idaho has the third lowest electrical rate as a result of hydropower. Will the rates in Idaho and the Pacific Northwest increase? Yes, as the costs of Biological Opinions, FERC relicensing, regulatory requirements, mitigation, and higher cost of intermittent resources (wind and to some degree solar) continue to increase and force additional operations expenses, the rates and bills of consumers will go up.

This legislation would provide an excellent opportunity for breathing room at status quo operations until technological improvements provide for a more efficient coordinated power system. In Idaho and the Northwest, the hydropower system will remain the base upon which we build. It is a powerful renewable resource without the downsides of wind and solar. It has proven to be reliable. It is economical. It is efficient. It is the best energy source we have in Idaho and the Northwest. Try not to mess it up.