

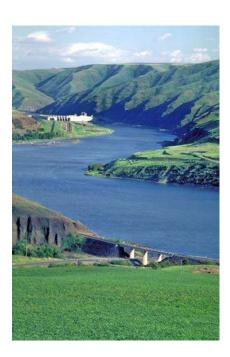
Snake River Dams: Valuable Assets

The four federal dams on the Snake River are part of the foundation to the Northwest's electric power system. They are also crucial to flood control, river transportation, irrigation and agriculture, recreation, trade and job benefits. They are simply irreplaceable.

Although these dams provide myriad benefits to the region, they are a flashpoint for environmental activists who continue to lobby and litigate for destroying them. The dam opponents argue it would enhance salmon runs and increase fishing opportunities, and they contend energy from the dams could be replaced with wind power or conservation. Their views are extremely myopic, and here are some examples of why:

Power of the Snake River Dams

- Together, the Snake River dams supply 12 percent of all the energy produced on average by the entire federal hydro system and 5 percent of the Northwest's total hydro energy.
- Enough energy to serve a city about the size of Seattle is generated by the Snake River dams.
- The Snake River dams help in dealing with power emergencies because they can provide over 2,650 megawatts over a period of 10 hours per day for five consecutive days.
- The Snake River dams generate almost as much energy each year as the Bonneville Power Administration's conservation programs have saved in 27 years.
- It would take two nuclear, three coal-fired, or six gas-fired power plants to replace the average annual power produced by the Snake dams, energy conservation and intermittent resources like wind can't replace them.



Key to System Reliability

Because of their location, the Snake dams provide voltage stability on a long transmission
path between western Montana and eastern Washington. Without these dams, the carrying
capability of certain major transmission lines would have to be reduced.

Partner to Wind Power

 Dam operators can start, stop, increase, or decrease hydro generation by hundreds of megawatts in seconds to minutes.

- To maintain reliability, and meet customer's energy needs, hydro generation can be used to back up wind or solar when the wind isn't blowing and the sun isn't shining.
- Without the flexibility and operating reserves that these dams supply, BPA would lose a significant amount of its ability to deliver and integrate wind energy to the power system.

Carbon Footprint Minimized

- The Snake River dams help minimize the region's energy carbon footprint, which in the Northwest is nearly half that of the rest of the country due to clean, renewable hydro.
- According to the Northwest Power and Conservation Council without the Snake River 3 million tons of CO2 would be added into the air each year.
- Carbon emissions also would increase because trucks and rail cars would have to replace the barge and shipping traffic that currently moves on the river. Barging keeps 700,000 trucks off northwest highways and reduces carbon emissions.

Removal Costly and Benefits Uncertain

- According to the Northwest Power and Conservation Council's analysis, removing the Snake River dams would increase power system costs by over \$530 million dollars by 2020.
- Bonneville Power Administration wholesale rates to northwest utilities would increase by 24 to 29 percent which translates into about a 12 to 15 percent hike in families and businesses electric bills.
- Over \$1 billion would be needed to study and carry out Snake dam destruction. Millions more would be needed to compensate for the impacts of lost river trade, flood control, and irrigation.
- Only four species of salmon listed for protection under the Endangered Species Act are affected by the Snake dams and survival through the dams for young salmon heading downstream are high at 96 percent or better at each dam.

The Northwest has already spent over \$14 billion since the late1970's to balance the needs of salmon, steelhead, and other fish and wildlife with the operation of dams and reservoirs on the Columbia and Snake Rivers. Our efforts are working as evidenced by robust salmon returns for most species this decade and show that salmon and dams can coexist.

Northwest RiverPartners is an alliance of farmers, utilities, ports and businesses that promote the economic and environmental benefits of the Columbia and Snake Rivers and salmon recovery policies based on sound science.

<u>www.nwriverpartners.org</u> October 2014