

factsheet

March 2007

The costs of breaching the four lower Snake River dams

A coalition of environmental and sport fishing groups recently released their analysis of breaching the four lower Snake River dams. The authors of “Revenue Stream” did not seek input from BPA or other federal agencies responsible for operating the dams and recovering salmon.

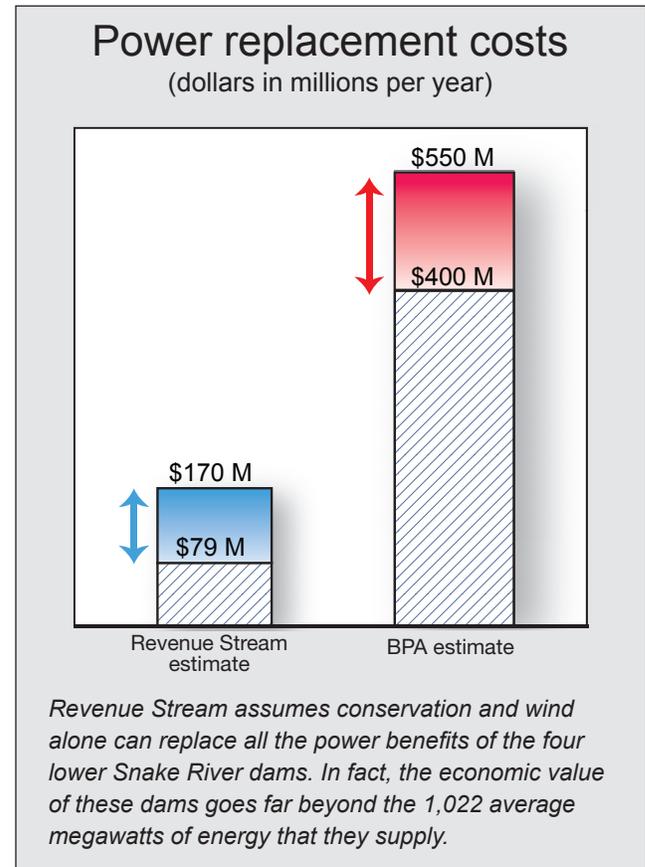
We believe their analysis and conclusions do not reflect the full economic value of the power from the lower Snake River dams.

Revenue Stream concludes that ratepayers and taxpayers would be economically better off if the dams were breached. Revenue Stream’s conclusion is reversed by simply replacing their power analysis with more accurate numbers.

“BPA used the assumptions in the Council’s Fifth Power Plan to calculate the full economic value of the power from the lower Snake River dams.”

Leaving everything else in the Revenue Stream analysis the same, BPA substituted numbers that more accurately reflect the benefits of the power to the region. The new analysis results in an economic loss from breaching the four lower Snake River dams of \$1.5 billion to \$3.8 billion over 10 years.

An independent economic analysis recently reinforced BPA’s conclusions. The Northwest Power and Conservation Council’s Independent Economic Analysis Board said in a February 2007 report, “... the Revenue Stream report underestimates



hydropower replacement costs by enough to invalidate their main result that the region could save money by removing the dams.”

Here is what BPA found:

1) It will cost BPA’s ratepayers \$400 million to \$550 million a year to replace all the power capabilities lost through breaching the lower Snake River dams.



Revenue Stream doesn't accurately comprehend the energy and capacity benefits of these dams. The benefits of the lower Snake River dams go far beyond the 1,022 average megawatts that they generate annually – enough electricity to power a city about the size of Seattle.

The lower Snake River dams also supply almost 3,500 MW of capacity. Capacity is the ability of a power plant to deliver power quickly to meet peak energy requirements and to follow moment-to-moment changes in loads.

Capacity is critical to a reliable power system. The power system must have adequate capacity in reserve, able to be called on at all times in order to respond to emergency conditions. During the recent (January 2007) cold snap, the region relied heavily on the lower Snake River dams during several individual hours of peak demand.

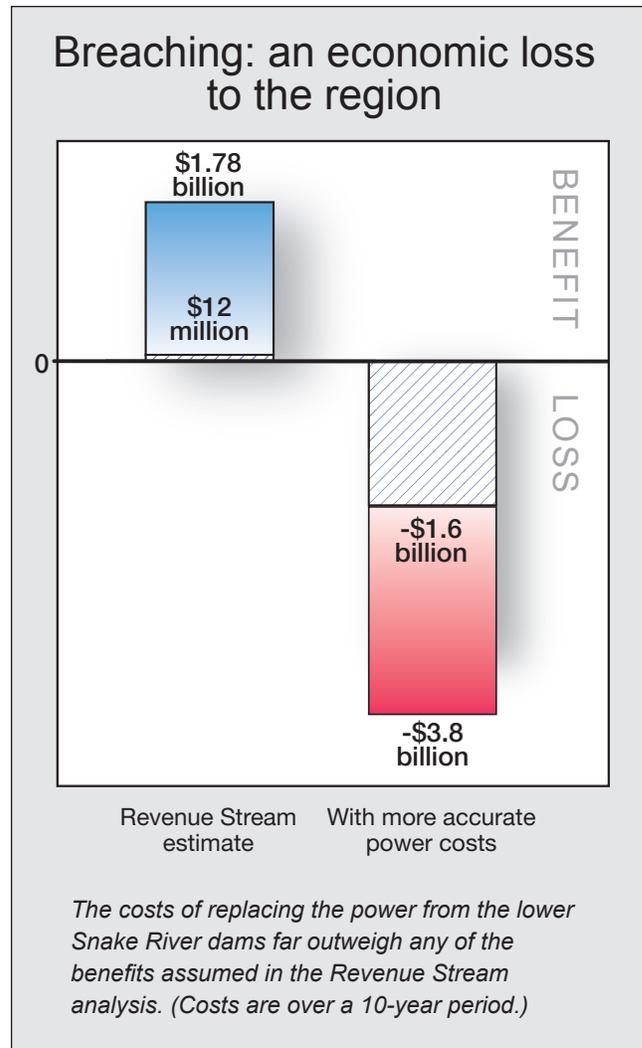
Capacity also provides the system flexibility needed to follow regional loads and to support the development of wind energy.

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2) Experts predict we will need more generation in the next 20 years.

The Northwest Power and Conservation Council was established by Congress and appointed by the governors of Montana, Idaho, Washington and Oregon. One of the Council’s responsibilities is to develop an electric power plan for the region that ensures an economic and reliable power supply.

The Council projects that even with the dams in place, the region’s power needs in the next 20 years cannot be met without adding substantial new generation. Losing the output of the lower Snake River dams would increase our need for new resources.



BPA used the assumptions in the Council’s Fifth Power Plan to calculate the full economic value of the power from the lower Snake River dams.

Even if substantial new cost-effective conservation and wind resources were identified – beyond what is already in the Council’s Fifth Power Plan – it would not alter BPA’s economic analysis.

The definitive study on dam breaching

In 2002, the U.S. Army Corps of Engineers released an environmental impact statement that evaluated dam breaching and three other alternatives to helping juvenile salmon get past the four lower Snake River dams.

The Corps EIS is an independent, peer-reviewed study of the transportation, power, recreation, agricultural and environmental effects of dam breaching. Revenue Stream is a compilation of numbers from several studies that used various methods of analysis.

This EIS remains the definitive evaluation of dam breaching; there are no others that are comparable in scope or authority.

The Corps EIS found that breaching the lower Snake River dams would cost Northwest ratepayers \$373 million and generate \$106 million annually in benefits and avoided costs (1998 dollars) over a 100-year period.

With the exception of power prices, which in the Pacific Northwest (at the Mid-Columbia hub) have increased from an average of around \$20 per megawatt-hour in fiscal year 1998 to around \$53 per MWh in fiscal year 2006, there is no significant new information that would change the EIS's conclusion.

What the EIS concluded about salmon

While Revenue Stream uses numbers from the EIS, it ignores its conclusion.

The EIS found that dam breaching by itself would not recover the fish, it would take the longest time to benefit listed fish compared to other alternatives and would be the most uncertain to implement.

Instead, the Corps' study concluded that aggressive fish mitigation efforts should continue with the dams in place. This is the approach that the federal agencies are pursuing, with structural improvements and hydro operations to help fish get safely past the dams and effective habitat and hatchery programs.

Today, juvenile salmon survival through all eight dams on the Columbia and Snake rivers is as high as it was when only four dams were in place.

Conclusion

Hydropower is the ultimate renewable resource – low cost and clean. It supplies about half of all the electricity we use in the Pacific Northwest. And the four lower Snake River dams provide peaking capacity, reliability and the backup for growing development of wind energy in our region.

Before the region decides to pursue further analysis of the economic value of these dams to the region, we should consider whether there is any significant new information that would inform this analysis. For more information, please visit BPA's Web site at www.bpa.gov.