



Current Reflections

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Hydropower Keeps Northwest Carbon Footprint Small

The Northwest Power and Conservation Council's draft issue paper on the carbon dioxide (CO₂) footprint of the Northwest power system offers the region interesting new data. In our view, the analysis reinforces the message at the heart of RiverPartners' Green Dams, Blue Skies campaign: the region's hydropower system is a clean, renewable resource, and without it the region would see a significant upsurge in CO₂ emissions, a gas believed to be a major contributor to global climate change.



The Northwest Power and Conservation Council's staff recently analyzed the overall CO₂ production of the Northwest's power system. A draft paper on the findings was released for comment earlier this month. The analysis is an extension of work the Council staff did in 2006 to determine the CO₂ benefits of conservation measures and wind development called for in the Fifth Power Plan. The findings of this latest analysis bear repeating:

- Due in large part to hydroelectricity generation, the rate of CO₂ production in the Pacific Northwest is about half the rate of production in the rest of the West.
- Even if the aggressive development of new energy conservation and wind power in the Council's plan is implemented, the region's CO₂ production is predicted to increase 20 percent over current levels by 2024.

The analysis evaluates the effects of several scenarios on CO₂ production. One of those scenarios is breaching the four lower Snake River dams. According to the draft paper, the lower Snake River dams produce about 1,020 average megawatts of carbon-free energy and 2,650 megawatts of sustained peaking capacity.

The staff is careful to point out that the CO₂ impacts of losing the Snake River generation depends on the nature of replacement resources. The analysis concludes that the most likely replacement would be combined-cycle natural gas-fired plants.

With regard to whether wind and conservation resources could be substituted for generation at the dams, the staff said "tying the increased development to conservation and renewables to dam breaching is misleading. If additional conservation and renewables are available and desirable, they should be pursued as part of a regional strategy to reduce CO₂ emissions."

Without the dams, the average CO₂ production increases by 5.4 million tons every year in the West, according to the analysis.

In addition, the analysis considers the effects of the court-ordered summer spill of water at lower Snake and Columbia River dams. The loss of 910 average megawatts of hydropower generation due to spill, when very few fish are in the river, adds 5.2 million tons of CO₂ to the atmosphere every year.

The Council staff looked at the region's CO₂ production from 1990 to 2005 and found it had increased by about 34 percent. The analysts cited economic growth, the addition of fossil-fueled electricity generation, lost hydropower production and retirement of the Trojan nuclear plant as reasons for the increase.

Policies under consideration at the state and national level could call for reductions in CO₂ emissions in the future. The staff's analysis found that it will be difficult for the region to maintain or reduce CO₂ emissions from 2005 levels even with all of the hydro resources intact.

We urge you to read the Council's draft issue paper, which is posted on their website at <http://www.nwcouncil.org/library/2007/2007-15.pdf>. There is also a comprehensive article in the Columbia Basin Bulletin, a weekly publication that follows fish and wildlife news, at <http://www.cbbulletin.com/Free/237247.aspx>.

Draw your own conclusions, but we think the message is clear. There are many excellent reasons to be proud of the Northwest's hydro heritage of fostering economic prosperity and providing reliable, affordable electricity to families and businesses. The critical role it plays in keeping CO₂ production low in the Northwest now, and in the future, is just another attribute to add to the list.

Northwest RiverPartners is a partnership of farmers, electric utilities and large and small businesses in the Pacific Northwest, joined together to ensure that the Columbia and Snake rivers remain living, working rivers. It was founded on the belief that these rivers are the Northwest's greatest natural resource providing residents with clean, affordable and renewable electricity, flood control, irrigation for our farm lands, healthy fish and wildlife, maritime trade, and a multitude of recreational opportunities. For more information, please visit www.nwriverpartners.org.