

BC Sustainable Energy Association  
 Bonneville Environmental Foundation  
 Central Area Motivation Program  
 Citizens Utility Alliance  
 Citizens Utility Board of Oregon  
 City of Ashland  
 Clackamas County Weatherization  
 Climate Solutions  
 The Climate Trust  
 Community Action Directors of Oregon  
 Community Action Partnership Assoc. of Idaho  
 David Suzuki Foundation  
 Earth and Spirit Council  
 Earth Ministry  
 Ecological Design Center  
 eFormative Options, LLC  
 Emerald People's Utility District  
 Energy Trust of Oregon, Inc.  
 Eugene Water and Electric Board  
 Friends of the Earth  
 Golden Eagle Audubon Society  
 Horizon Wind Energy  
 Housing and Comm. Services Agency of Lane Co.  
 Housing Authority of Skagit County  
 Human Resources Council, District XI  
 Idaho Conservation League  
 Idaho Rivers United  
 Idaho Rural Council  
 Idaho Wildlife Federation  
 Interfaith Network for Earth Concerns  
 Kootenai Environmental Alliance  
 League of Utilities and Social Service Agencies  
 League of Women Voters - ID, OR & WA  
 Metrocenter YMCA  
 Missoula Urban Demonstration Project  
 Montana Environmental Information Center  
 Montana Public Interest Research Group  
 Montana River Action  
 Montana Trout Unlimited  
 The Mountaineers  
 Multnomah County Weatherization  
 National Center for Appropriate Technology  
 Natural Resources Defense Council  
 New Buildings Institute  
 Northwest Energy Efficiency Council  
 Northwest Resource Information Center  
 Northwest Solar Center  
 NW Sustainable Energy for Econ. Development  
 NW Natural  
 Olympic Community Action Programs  
 Opportunities Industrialization Center of WA  
 Opportunity Council  
 Oregon Action  
 Oregon Energy Coordinators Association  
 Oregon Energy Partnership  
 Oregon Environmental Council  
 Oregon HEAT  
 Oregon State Public Interest Research Group  
 Pacific Energy Innovation Association  
 Pacific NW Regional Council of Carpenters  
 Pacific Rivers Council  
 Portland Energy Conservation Inc.  
 Portland General Electric  
 PPM Energy  
 Puget Sound Alliance for Retired Americans  
 Puget Sound Energy  
 Renewable Northwest Project  
 Rocky Mountain Institute  
 Salmon for All  
 Save Our Wild Salmon Coalition  
 S.A.V.E. Foundation  
 Seattle Audubon Society  
 Seattle City Light  
 Sierra Club  
 Sierra Club of British Columbia  
 Snake River Alliance  
 Solar Energy Association of Oregon  
 Solar Washington  
 South Central Community Action Partnership, Inc  
 Southeast Idaho Community Action Agency  
 Southern Alliance for Clean Energy  
 Spokane Neighborhood Action Programs  
 Student Advocates for Valuing the Environment  
 Tahoma Audubon Society  
 Trout Unlimited  
 Union Of Concerned Scientists  
 United Steelworkers of America, District 11  
 U.S. Green Building Council - ID Chapter  
 WA CTED - Housing Division  
 Washington Citizen Action  
 Washington Environmental Council  
 Washington Public Interest Research Group  
 WA State Assoc. of Community Action Agencies  
 WSU - The Energy Project & Energy Program  
 Working for Equality And Economic Liberation

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Mark Walker  
 Director of Public Affairs  
 Northwest Power and Conservation Council  
 851 SW Sixth Ave., Suite 1100  
 Portland, OR 97204-1348

## Comments of the NW Energy Coalition and Climate Solutions on the “Carbon Dioxide Footprint of the Northwest Power System”

The NW Energy Coalition and Climate Solutions are taking this opportunity to comment on the Council’s paper entitled, “Carbon Dioxide Footprint of the Northwest Power System.” We believe the paper is an historic statement whose message deserves much wider publicity than it has yet received. The Council demonstrated true leadership by refusing to sugarcoat the challenge the region faces in achieving the necessary national and regional CO<sub>2</sub> emissions reductions that scientists believe are needed to avoid catastrophic global warming impacts.

We hope that the final revised version is distributed widely and given the publicity it deserves. Many in the region believe that our region’s excellent conservation record coupled with the passage of Renewable Energy/Portfolio Standards would be effective in meeting emission reduction goals. It is of the utmost importance that the findings of the paper be clearly outlined to the media, utilities and other decision-makers in the region.

The paper clearly shows that the challenge of avoiding serious global warming impacts is great—certainly greater than most people imagine. While the paper investigates various scenarios that affect emission levels, the bottom line should be emphasized even more:

*The effects of these scenarios, positive or negative, on CO<sub>2</sub> production are the equivalent of only **one or two coal-fired plants**, whereas the forecast regional CO<sub>2</sub> production for 2024 in the Fifth Power Plan case exceeds 1990 levels by an amount equivalent to **nine typical coal-fired plants**. (p. 3, emphasis added.)*

We applaud the Council for laying out this message; now it must make sure that message is heard. And that solutions and strategies for emissions reductions are developed and fully implemented. The Council must play a leading role in mobilizing action in light of this paper and not allowing the region to shy away from the challenges we face. We have many of the solutions at our disposal, taking proactive steps to implement those solutions sooner rather than later is vital.

## Additional Recommendations

1. Emissions should be put into context. The paper implicitly uses 1990 emission levels as a baseline “target.” However, it should be made clear that several western states have adopted much stricter targets. And most scientists state that emission reductions of *70-80% below 1990 emission levels* will be needed to stabilize the climate to avoid severe and possibly catastrophic consequences. Focusing on 1990 levels gives a false impression of the challenge we face. At the least, Table 1 should include a row or rows that have estimates of these other targets, so that the reader can understand how far we must go.
2. Coal plants must be retired. Although the text on p. 9 states that, “serious efforts to reduce or even stabilize CO2 production beyond 2005 levels will likely require replacing existing coal-fired power plants with low CO2-emitting resources,” there is no analysis of this scenario. We suggest that such a scenario (or scenarios) that meet the above emission goals—or even just reaching 1990 levels—be illustrated, including one that retires all existing coal plants. Would that be enough to meet these targets?

A related detail: slide #11 in the presentation accompanying the paper assumes that no coal plants are retired by 2030. That would mean Centralia would be 60 years old. Is that a reasonable assumption?

3. Increased conservation scenario not analyzed. Although a “low conservation” scenario is described, there is no similar analysis of a high conservation strategy. This lack gives the impression that nothing more can be done. While the Council’s 5th Plan calls for acquiring all cost-effective conservation, that limit uses a very low \$7/ton CO2 adder. It’s becoming clearer that an adder closer to \$40/ton is a more likely level generated by recent legislative proposals. (There is a recent MIT study that evaluates the different federal bills and the levels of CO2 adder that is equivalent to the caps and targets they contain. The study indicates levels for some proposals that exceed \$100/ton.) \$40/ton is also approximately the “trigger level” that causes a conventional coal-fired plant to no longer be economic to build. \$40/ton translates into at least 2 cents/kwh added to the price of power from a CCCT and almost 4 cents/kwh to a coal plant. These more realistic CO2 adders would increase the amount of cost-effective conservation available and probably the achievable potential as well (due to the price incentive). It is important to examine this type of high conservation scenario on emissions levels.

Another result from using a more reasonable carbon adder would most likely be to change the dispatch and the expansion choices in the model, resulting in less coal-fired generation. The difference will probably be significant.

4. Source-based and load-based emission levels are mixed together. We understand the data difficulties inherent in such a study, but must point out one problem. The information does not always seem consistent in how it treats imports and exports, and their accompanying emissions. We’re not sure whether getting more exact would change the results much, but believe the Council should evaluate the impacts.
5. Figure 1 is difficult to understand. While not a substantive suggestion, we suggest that Figure 1 be reworked. It’s very confusing—there must be a clearer way of displaying these results. Also, it seems to imply that we could or would have both decreased spill, and dam removal, at the same time. Obviously, if the lower Snake dams are removed, they won’t be spilling, and future spill requirements at lower Columbia dams without the lower Snake dams in place are unclear at this point. Each factor

should be displayed separately. Also, putting WECC results on the same graph isn't needed—it just adds to the confusion since the vertical scale is different.

## **Salmon Impact Scenarios**

Unfortunately, the Council undercut the power of its message by including two poorly thought out recommendations - one that has tremendous impacts on salmon and one that does not reflect a likely scenario.

It is not clear how the Council could develop a scenario where summer spill is eliminated. Trading off one environmental disaster for another is not the type of policy leadership we expect from the Council. There is no evidence that the region is on a path to eliminate summer spill nor is it an appropriate emissions reduction strategy given the treaty and other legal obligations to protect endangered salmon. Instead, a more thorough examination of efficiency improvements at existing hydroprojects could lead to significant emissions reductions without sacrificing salmon restoration efforts.

Assuming the power replacement from removing the four Lower Snake River dams with natural gas-fired combustion turbines is a very unlikely scenario. This strategy that has never even been suggested by fish advocates. The paper makes a very unlikely assumption regarding the dam-removal scenario. It seems to assume that the dams simply disappear, followed by the power system responding by accelerating the actions in the 5<sup>th</sup> Plan, i.e., acquiring gas-fired combustion turbines.

For the dams to be removed, the federal government will have to authorize it through congressional action. That action will not realistically take place without support from tribes and environmental organizations. And that support will not be given to a scheme to replace the dams with fossil fuels (nor one that saddles NW ratepayers with the entire cost). Instead Congress will be asked to provide funding for either direct replacement with efficiency and renewables, indirect replacement with efficiency in other sectors such as transportation or gas use, etc.

We recommend the following regarding the section discussing the lower Snake projects, if it is not removed entirely. First, it should be introduced more thoroughly and an explanation given regarding why it is included at all. Second, the amount of emissions resulting from actions regarding the dams should be put into proper proportion in the context of the overall CO2 reduction challenge. Finally, and most important, the gas-replacement strategy should be removed. Since no one who has advocated removing the dams favors a gas-replacement strategy without CO2 mitigation, including it simply creates a red herring to be used as fodder in the salmon debate. The Council should not allow that dispute to overshadow the serious CO2 reduction challenge the paper so clearly describes.

Thank you for this opportunity to provide comment.

Submitted by,  
Steven Weiss  
Sr. Policy Associate  
NW Energy Coalition  
steve@nwenergy.org