

**Renewable
Northwest
Project**

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Renewable Northwest Project

January 25, 2008

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Mark Walker
Director of Public Affairs
Northwest Power & Conservation Council
851 SW 6th Avenue, Suite 1100
Portland, Oregon 97204-1348

Dear Mr. Walker,

The Renewable Northwest Project (RNP) appreciates the opportunity to comment on the Northwest Power and Conservation Council's ("Council") issue paper regarding the Sixth Power Plan (Council Document 2007-22). RNP strongly supports the identification of global warming and carbon dioxide emissions as the primary concern of this sixth Power and Conservation Plan. With the Council's leadership, the Pacific Northwest can decrease carbon dioxide emissions in a cost effective manner.

RNP offers the following comments to guide the assumptions and analysis underlying the formation of the Sixth Power and Conservation Plan.

"Climate change issues and policies"

- The Sixth Power and Conservation Plan should cite the best available science on the issues of climate change, human responsibility, and the urgent need for action. The 4th Assessment Report by the Intergovernmental Panel on Climate Change states: "Warming of the climate system is unequivocal," and "the understanding of anthropogenic warming and cooling influences on climate since the Third Assessment Report lead to a *very high confidence* [at least a 9 out of 10 chance of being correct] that the global average net effect of human activities since 1750 has been one of warming..."
- The Issue Paper characterizes renewable portfolio standards (RPS) solely as climate change policies. The RPS policies generate many benefits for the region, including local economic benefits, a broad range of environmental benefits, decreased fuel risk exposure, and decreased carbon risk exposure. The RPS's alone do not ensure that the total level of carbon emissions in the region will decline from current levels and should be treated as the lower bound of actions necessary to address climate change.

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- The Issue Paper narrowly focuses on the cost-effective reduction of the carbon dioxide footprint of the Northwest and the difficulty the region faces in meeting this challenge. While it is important to understand the relative cost-effectiveness of greenhouse gas reduction measures, the Sixth Power and Conservation Plan should also consider, at least qualitatively, the costs of unabated climate change. This perspective will provide the region with a more accurate picture of the costs and benefits surrounding the energy decisions we face.
- In analyzing the effect of integrating variable renewable resources on other uses of the federal hydro system, the Plan should similarly consider how the operations and regional distributions of power from the federal hydro system impacts the region's ability to integrate renewable resources.
- It is of paramount importance that the Council considers more than the science and technology surrounding greenhouse gas reductions. In facing a planetary scale problem it is appropriate to look at organic institutional impediments to achieving significant greenhouse gas reductions that will be necessary to avoid global climate crisis. The region has a long and rich history of using renewable resources (hydro power) to displace thermal units for economic gain, but with an attendant reduction in combustion emissions. The effectiveness of using hydropower to reduce greenhouse gases would roughly double if the priority for thermal displacement shifted from displacing high variable cost natural gas plants, to lower variable cost coal plants. RNP urges the Council to consider what economic or regulatory changes would be most effective in bringing about such changes.
- The Issue Paper correctly observes the potential challenges of integrating ever-increasing amounts of wind into the power system, however the levels in other parts of the world are in some cases far greater. RNP urges the Council to learn from, and report on other regions with greater experience integrating wind.

“Meeting Loads on an Annual, Daily, Hourly and Intra-Hourly Basis”

- The use of the word “intermittent” to refer to wind generation has an unfortunate connotation that suggests something that has momentary lapses. Wind output is variable, dynamic, and somewhat less predictable than generation from other resources. Charlie Smith specifically addresses this in "What Does 20% Look Like", IEEE Power and Energy, vol. 5 no 6: "To most people, the term intermittent means a random sort of unpredictable on-off behavior. This term is usually used in a negative sense. The understanding conveyed is that the output of the plant goes from no-load to full-load conditions, or vice versa... we are making a transition away from the term intermittent to variable output, which describes much more accurately the nature of the quantity with which we are dealing." It is worth keeping in mind that the annual energy variability and uncertainty of

the regional hydro system is significantly greater than most individual wind projects.

- It is unclear whether resources brought on line to meet growing capacity needs will be unable to keep pace with the greater need for flexibility brought by wind projects. The point at which there is more wind on the system than can be accommodated by other resources on the system is an interesting question worth examining, but it is not correct to begin with the assumption that it is inevitable. Again, experiences in Texas, California, and Spain, Germany, and Denmark should help in that regard.

“Transmission Constraints and impacts on electricity markets and resource development”

- RNP believes that the Council should get more involved in the regional and sub-regional planning of new transmission lines. As the Council identifies the least cost and policy compliant resources, the Council should take action to ensure that transmission planners and providers are accessing similar resource mixes. The use of renewable energy zones is a proven policy for focusing transmission investments.

The Council’s Plans have always provided useful guidance to the region on difficult conservation and energy policy issues. To ensure that the Council’s recommendations are carried out, the Council should develop specific action plans and devote staff to outreach and implementation.

RNP appreciates the opportunity to comment at this early scoping stage of the Six Power and Conservation Plan. We look forward to working with the Council on the challenges ahead.

Sincerely,



Rachel Shimshak
Director, Renewable Northwest Project