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VIA EMAIL

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RE: Comments on Issue Paper re Methodology for Determining Quantifiable Environmental Costs and Benefits

Renewable Northwest appreciates the opportunity to comment on the Northwest Power and Conservation Council's ("Council") issue paper regarding the "Methodology for Determining Quantifiable Environmental Costs and Benefits" ("Methodology Paper").

I. Residual Environmental Effects Beyond Regulatory Controls

The Methodology Paper asks whether and how to quantify the costs of residual environmental effects of a resource after compliance with environmental regulations. We address both questions (1a and 1b) here.

We accept that the Council must have authoritative, broadly accepted cost estimates in order to quantify residual environmental effects as resource costs. For most discrete environmental impacts, such estimates simply do not exist; we accept that for these effects, the Council must rely on the cost of compliance with existing environmental regulations. However, since the Sixth Plan, there has been one significant development that will enable the Council to better capture residual environmental effects in resource costs—the social cost of carbon.[1]

The federal social cost of carbon gives the Council an authoritative, broadly accepted method to incorporate the real environmental cost of carbon emissions into the base case of its quantitative analysis. Using the social cost of carbon will enable the Council to capture known residual environmental effects that are not likely to be captured in the early iterations of carbon regulation.

Using the social cost of carbon as a foundation, the Council will be able to capture another residual environmental effect that can and should be built into the Seventh Plan's resource cost assumptions—methane leakage from gas extraction and transportation. Using a conservative estimate of leakage percentage per MMBtu, calculating the carbon dioxide equivalent, and applying the social cost of carbon will give the Council's analysis a fuller picture of the climate impacts of natural gas generation.

[1] *See, e.g., Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866,* Table A1, Interagency Working Group on Social Cost of Carbon, November 2013.

II. Environmental Effects of Resources Not Yet Subject to Regulatory Control

The Methodology Paper asks whether and how to quantify the costs of compliance with the Environmental Protection Agency's ("EPA") proposed regulations under Sections 111(b) and (d) of the Clean Air Act, or whether the Council should use another approach to developing environmental cost estimates for carbon-emitting resources.

In general, we recommend that the Council take a two-pronged approach to modeling carbon regulation. First, as described above, we recommend that the Council apply the federal social cost of carbon to new generation and the economic dispatch of existing generating units. This is the simplest way for the Council's base case to consistently capture environmental costs of the existing fleet and new generation. Second, we recommend that the Council work with stakeholders to develop several regional resource strategies that would bring the existing regional fleet into compliance with EPA's 111(d) proposal. Such an approach would help the region gather information about the relative advantages and disadvantages of different approaches to complying with the regulation.

Regardless of how it approaches EPA's carbon regulation proposals, using the social cost of carbon in the base case is necessary to adequately capture the climate impacts of electricity system decisions. While EPA's regulations are a very important step in the right direction, the cost of complying with the Clean Power Plan does not give the region adequate information about the environmental costs of continued or new emissions of carbon dioxide.

With respect to questions 2a and 2b in the Methodology Paper, the carbon intensity limits reflected in EPA's proposed regulations for new power plants under Section 111(b) of the Clean Air Act should certainly be a cap for new generation considered in the Council's plan. To capture environmental effects, however, the Section 111(b) proposal cannot be the only carbon cost considered for new generation. The limits in 111(b) of 1,000/lbs per MWh will not be exceeded by any modern, efficient natural gas plant. Moreover, the 111(b) proposal does not cover plants designed to operate as peakers. Carbon emissions from new generation need to be captured by applying the social cost of carbon, not solely by the EPA's proposal under Section 111(b).

With respect to questions 2c and 2d in the Methodology Paper, the Council should experiment with regional resource strategies for 111(d) compliance in its modeling, though this should not be the primary way of capturing the environmental costs of dispatching the existing fleet. We recommend that the Council solicit resource strategies from regional stakeholders, and develop two to four alternatives designed to help inform development of state implementation plans.

Important questions that Council modeling of alternative scenarios can help answer include: (1) state-by-state vs. regional compliance, with the Council's modeling presenting the regional alternative; (2) relative proportion of coal retirement, gas redispatch, new energy efficiency and renewables; and (3) the role of new gas in long-term 111(d) compliance and carbon performance.

The Council should focus on its core competency—regional modeling—and assume that states will have flexibility to work together if regional 111(d) scenarios demonstrate cost and efficiency advantages over state-by-state approaches. EPA is expected to produce a safe harbor method for converting rate-based targets to mass-based targets, which would make it easier for the Council to model 111(d) on a regional mass basis.

Without complete certainty about baseline calculation, interstate crediting of energy efficiency and renewable energy, and future revisions to the 111(d) targets that may capture new gas, it will be difficult for the Council to reach definitive conclusions about compliance. If the Council includes the social cost of carbon in its base case and runs additional sensitivities involving 111(d) compliance scenarios, the Council may be able to wait to finalize 111(d) modeling until June 2015, when greater certainty will exist on the most important outstanding questions.

III. Environmental Effects of New Renewable Resources

The Methodology Paper asks whether and how to identify and quantify the environmental effects of renewable resources (questions 4a and 4b), as well as whether the Council should lead a region-wide effort to assess the suitability of sites for energy projects and examine project impacts to fish and wildlife (questions 4c and 4d).

With respect to questions 4a and 4b, development of new renewable resources requires compliance with environmental regulations designed to protect wildlife and natural resources. The cost of complying with those regulations is already incorporated into resource development costs. It would be incorrect for the Council to presume that new renewable resources are not subject to environmental regulations, or that the Council needs to somehow calculate and add on the cost of compliance with environmental regulations not already captured in resource development costs. The cost of actions that resource developers take to avoid, minimize, and mitigate effects on protected species and landscapes—as required by federal and state regulatory programs—are already reflected in resource development costs.

With respect to questions 4c and 4d, the Council should not expand its role to duplicate the efforts of natural resource conservation agencies. Federal, state, and local permitting and fish and wildlife agencies already assess particular sites' suitability for renewable resource development. Several of those have or will also assess priority renewable resource development zones and design conservation programs for protected species and landscapes. For the Council to assume a primary resource siting and land evaluation role would duplicate efforts, step outside the Council's core competencies, and

require major funding and staffing increases.

Instead of leading the effort, the Council could explore a non-duplicative, supprotive role. The Council could gather primary assessments made by state, local, and other federal agencies and perform a qualitative evaluation of those assessments in each Power Plan. A regional review of gaps and opportunities in landscape priority planning and a high-level review of what collective efforts have been found to be the most and least favorable regions for new development from a natural resource perspective could be a helpful complement to the Power Plan. Unlike most natural resource and permitting agencies, the Council would be able to connect the findings of siting studies with the needs of the power system and the capabilities of different resources to meet those needs. In particular, this assessment could enable the Council to speak to the benefits of geographically diverse renewable resources from both a power system and a conservation perspective.

IV. Conclusion

Thank you for the opportunity to comment on the Methodology Paper. We are happy to answer questions about our comments and look forward to participating in future discussions regarding the development of the Seventh Plan.

Sincerely,

/s/ Megan Decker, Chief Counsel, Renewable Northwest
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