Northwest Power and Conservation Council

April 2, 2009

MEMORANDUM

TO: Power Committee members

FROM: Terry Morlan, Director, Power Planning Division
John Fazio, Senior Power Systems Analyst

SUBJECT: Review Chapter 10 - Climate Change Policies

Climate change presents a daunting challenge for regional power planners. There are at least two ways in which climate can affect the power plan. First, warming trends would alter electricity demand and change precipitation patterns (and river flows). Second, policies enacted to reduce green house gases will affect future resource choices. There remains a great deal of uncertainty surrounding both of these issues. Chapter 10, which is still under development, describes the second of these issues, namely how current policies affect the plan's resource strategy and what future policies may help achieve reduction goals. A draft outline of this chapter is provided below. The first issue, relating to physical changes resulting from climate change is discussed in Appendix M.

I. **Background**: This section briefly describes greenhouse gases, with a focus on carbon dioxide emissions and its sources, both regionally and nationally.

II. **Methods of Reducing CO_2 Emissions**: This section describes actions that can be taken to reduce CO_2 emissions, which include; decreasing demand, choosing low-carbon resources, effectively managing the use of plug-in hybrid electric vehicles, sequestering carbon and perhaps using natural gas directly (currently being studied).

III. **Policies aimed at Emission Reduction:** This section describes policies that could be used to promote actions listed above to reduce emissions. These policies include cap and trade mechanisms, carbon tax initiatives, tax incentives and other credits. They may also include mandates such as renewable portfolio standards, fuel economy standards, contracting limitations or site limits on CO_2 production.

IV. **Current Policies and Goals:** This section provides a summary of current policies and the range of various emission reduction goals, ranging from stabilizing current emissions to goals outlined in the Western Climate Initiative and by the Intergovernmental Panel on Climate Change.

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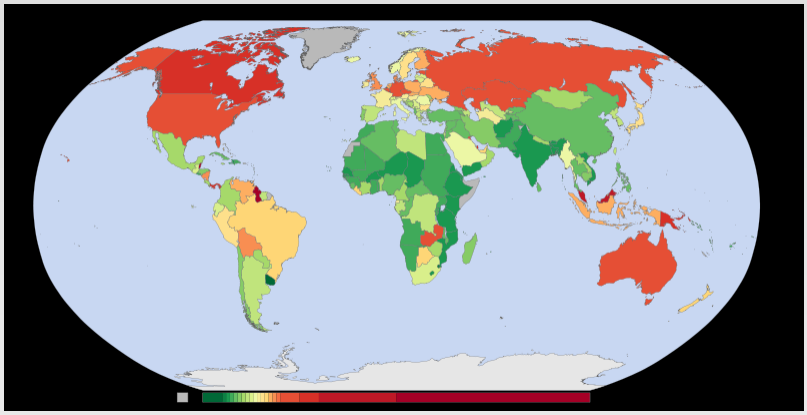
V. **Achieving CO_2 Reduction Goals:** This section describes actions needed to achieve the emission reduction goals listed above. The section is organized from near-term actions, which include greater use of conservation and demand response, to long-term actions, which include reducing high-carbon producing resources, addition of more renewable resources, carbon sequestration and smart grid technologies. (This section may also compare the costs and effects of alternative policies for reducing carbon emissions. The placement of this discussion has not yet been decided.)

VI. **Recommendations:** Once the analysis is complete, this section will make recommendations and present action items related to climate change policies.

Chapter 10
Climate Change Policies



Chapter 10 Outline

I. Background: Sources of green house gases, nationally and regionally, by sector.

II. Methods of Reducing CO_2 Emissions: Reduced load, low-carbon resources, plug-in hybrid electric vehicles, carbon sequestration and perhaps direct use of natural gas.

III. Policies aimed at Emission Reduction: Cap and trade, carbon tax initiatives, renewable resource tax incentives or credits. Also, renewable portfolio standards, fuel economy standards, contracting limitations or site limits on CO_2 production.

IV. Current Policies and Goals: Goals range from stabilizing emissions, those outlined in the Western Climate Initiative and by the Intergovernmental Panel on Climate Change.

V. Achieving CO_2 Reduction Goals: Near-term actions, which include greater use of conservation and demand response, to long-term actions, which include reducing high-carbon resources, addition of more renewable resources, carbon sequestration and smart grid technologies.

VI. Recommendations