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October 1, 2013

MEMORANDUM

TO: Power Committee

FROM: John Shurts

SUBJECT: How to account for and consider the “environmental benefits” in the Council’s power planning -- and other broad issues with regard to “determining quantifiable environmental costs and benefits” and giving due consideration to “environmental quality” in the Seventh Power Plan

The previous agenda item -- the study of the health benefits of wood smoke reductions that result from energy efficiency actions that lead people to burn less wood -- highlights a broader set of issues the Council will have to grapple with in the Seventh Power Plan. This includes in particular how to consider and account for the “environmental costs and benefits” of different resource choices. Staff will lead a discussion of this topic with the Power Committee, as the first of a number of conversations about how to comply in the Seventh Plan with the Northwest Power Act requirements on “environmental costs and benefits” and “environmental quality.”

The starting point is this: One requirement of the Power Act, in Section 4(e)(3)(C), is that the Council include in the power plan a “methodology for determining quantifiable environmental costs and benefits.” By its own terms this methodology is relevant to the work the Council must do to estimate the direct costs of different resources to determine which are “cost-effective” for adding to the region’s power system. *See* Section 3(4) of the Act defining “cost-effective.” The Council also has an obligation, via Section 4(e)(2)(A), to develop the resource strategy for the power plan while giving “due consideration” to “environmental quality.” Relevant excerpts from the Act are attached.

One of a number of important tasks going into the Seventh Power Plan will be the need to revisit how the Council complies with these provisions of the Act: What should be the Council’s methodology for determining a resource’s quantifiable environmental costs and benefits? What does it mean to give due consideration to “environmental quality” as an obligation distinct from the task of estimating the quantifiable environmental costs and benefits of the resources in the cost-effectiveness comparison?

Over the next few months the staff will work closely with the Power Committee and the full Council to explore what the legal framework requires, allows and does not allow in this regard. This will include evaluating how the Council has complied with these provisions in past power plans; and what reasons there may be, if any, for revising our approach, including the effects of new methods and information. The words in the Power Act take the Council only so far; they allow for and even require in certain cases that the Council exercise its judgment and expertise in deciding how to proceed. For just one example, the Council must make a decision, based on current information, as to what degree environmental costs and benefits can be “quantified” vs. costs and benefits that conceptually exist but cannot be quantified. Or for another example, the Council has to decide which environmental costs and benefits can be “directly attributable” to a resource vs. others that are too attenuated to be included. These decisions are set up by, but not determined by, the statutory provisions.

There are many elements to these considerations. In a future Power Committee meeting we will work systematically through all the elements. For this meeting we want to focus briefly on just one: the role of “environmental benefits.” The Council’s efforts in the past have focused largely on how to quantify the environmental “costs” of potential new resources -- the environmental “costs” that result from the air emissions of a new coal-fired power plant, for example. The costs that resource developers and operators have to bear to comply with regulations intended to reduce emissions and wastes have become the major category of the environmental cost analysis of new resources. But what about the “environmental benefits” aspect of the provision? What does that mean, and how to take it into account? Can and should the Council quantify the “environmental benefits” of a *new* resource (say, an energy conservation measure or a renewable or gas-fired generating resource) that can be used to displace *existing* activities that impose environmental costs on society (say, the burning of wood leading to wood smoke with health risks, or the particulate emissions from a coal-fired power plant)? And then include the quantified “benefits” in the system cost estimate of the new resource?

The Council has rarely if ever factored into the total cost estimate of a resource a quantified estimate of the environmental “benefits” of that resource, although conceptually the statute tells the Council to quantify the environmental benefits as well as the costs, if it can. Part of the problem in the past has been the lack of good information and methods for estimating benefits. That may or may not be different now. And whether benefits can be “quantified” is not the only question -- what benefits qualify as “environmental” benefits is another; what environmental benefits are “directly attributable” to a resource is yet another. There are still others. Also, even if environmental benefits cannot be adequately quantified or directly attributed to a resource, how should the Council use information about environmental benefits in satisfying the general obligation to give “due consideration” to “environmental quality” in crafting a resource scheme?

How to factor in environmental “benefits” is not an easy question, but cannot be ignored. And to reiterate, it is just one of the issues to grapple with on the way to the Council decisions on the Seventh Plan’s methodology for determining environmental costs and benefits; on whether and how to include environmental costs and benefits in the resource cost comparison; and on how in the Seventh Plan the Council will give due consideration to environmental quality. The purpose of the Committee discussion in Helena is just to highlight these implications, so the Council and the regional participants in the power plan process understand the issues and stakes involved.

Relevant excerpts from the Northwest Power Act

4(e)(2) The plan shall set forth a *general scheme for implementing conservation measures and developing resources* pursuant to section 6 of this Act to reduce or meet the Administrator's obligations with *due consideration* by the Council for (A) *environmental quality*, (B) compatibility with the existing regional power system, (C) *protection, mitigation, and enhancement of fish and wildlife and related spawning grounds and habitat, including sufficient quantities and qualities of flows for successful migration, survival, and propagation of anadromous fish*, and (D) other criteria which may be set forth in the plan.

4(e)(3) To accomplish the priorities established by this subsection, the plan shall include the following elements which shall be set forth in such detail as the Council determines to be appropriate:

(C) *a methodology for determining quantifiable environmental costs and benefits under section 3(4)*

3(4)

(A) "*Cost-effective*", when applied to any measure or resource referred to in this Act, means that such measure or resource must be forecast--

(i) to be reliable and available within the time it is needed, and

(ii) to meet or reduce the electric power demand, as determined by the Council or the Administrator, as appropriate, of the consumers of the customers at an estimated *incremental system cost* no greater than that of the least-cost similarly reliable and available alternative measure or resource, or any combination thereof.

(B) For purposes of this paragraph, the term "*system cost*" means an *estimate of all direct costs of a measure or resource over its effective life*, including, if applicable, the cost of distribution and transmission to the consumer and, among other factors, *waste disposal costs, end-of-cycle costs*, and fuel costs (including projected increases), *and such quantifiable environmental costs and benefits as the Administrator determines, on the basis of a methodology developed by the Council as part of the plan, or in the absence of the plan by the Administrator, are directly attributable to such measure or resource.*