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November 14, 2006

MEMORANDUM

TO: Council Members

FROM: John Fazio, Senior System Analyst

SUBJECT: Decision on adoption of resource adequacy implementation paper

The Council's November agenda includes a 15-minute time period for discussion of and a decision to adopt the draft resource adequacy implementation plan presented in Council document number 2006-17. The Council packet includes:

- A decision memo (including a summary of comments and response)
- A copy of the implementation paper
- A copy of comments received

The power committee is scheduled to discuss this issue earlier in the day.

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November 1, 2006

DECISION MEMORANDUM

TO: Council Members

FROM: Terry Morlan, Director, Power Planning Division
Wally Gibson, Manager, System Analysis and Generation
John Fazio, Senior System Analyst

SUBJECT: Decision on Adoption of Resource Adequacy Implementation Paper

PROPOSED ACTION: Adopt the proposed implementation plan for the Northwest resource adequacy standard as described in Council document number 2006-17 (attached).

SIGNIFICANCE:

- Recent adoption of the energy bill gives the Federal Energy Regulatory Commission (FERC) authority to assess the adequacy of the nation's power supplies. We expect that the Western Electricity Coordinating Council (WECC) will be designated to assess the adequacy of the western power supply. We intend this proposed standard for the Pacific Northwest to be integrated into WECC's efforts. A workable implementation plan is necessary to ensure that the standards are met.
- The Bonneville Power Administration (BPA) has been a joint sponsor of the Resource Adequacy Forum and intends to incorporate the standard in its Regional Dialogue and the ensuing contracts.
- The establishment of a regional resource adequacy standard will provide a consistent context to utilities, regulatory commissions and public utility boards in their assessment of individual utility resource plans.

BUDGETARY/ECONOMIC IMPACTS:

- The Council's budget will not be affected by this decision. At this time, there is no indication that additional funds would be needed for contracting work or for advisory committee member travel expenses.
- The regional economic benefits of establishing a workable implementation plan to assure that Northwest resource adequacy standard will be met could be significant. Historically, the region has experienced periods of surplus and deficit energy supplies.

Neither situation is desirable from an economic point of view. The implementation of an adequacy standard will help minimize the number of times the region finds itself in a costly situation of too little or too much energy supply.

BACKGROUND:

Recent events such as the Western energy crisis of 2001, which led to both curtailments in California and to West-wide price spikes, have forced utilities and regulators to rethink their approach to planning and operating the power system. In that year, the Northwest experienced its second-lowest water year (based on historical records since 1929). Also, few new resources were developed during the late 1990s, leading to areas of resource deficiency throughout the West. Combined with a flawed electricity market design in California and apparent market manipulation, these factors led to the undesirable events of 2001. The Northwest is still recovering from the economic recession following that crisis.

The crisis demonstrated that the public has little tolerance for high and volatile market prices over a prolonged period. It also became clear that the financial community will not lend money for power-plant construction unless developers have power contracts in hand and/or utilities have included the costs of those contracts in their rates.

In an environment where an increasing number of parties will be taking on the responsibility for acquiring resources to serve regional load, a resource adequacy standard is key to ensuring overall regional sufficiency of resources to meet load at reasonable costs. The Pacific Northwest is unique, not only in the predominately hydroelectric nature of its resources, but also in the ratio of public utilities to investor-owned utilities (IOUs). Resource adequacy is more difficult to achieve in the Northwest for the following reasons:

- The ability to rely on wholesale electricity markets and surplus hydroelectric generation (in most years) can mask a condition of resource deficiency.
- The capital risk of constructing new resources in a market with substantially varying supply levels from year to year may be deemed too great for many developers.
- There is a continuing lack of clarity about the responsibility for resource acquisition among public utilities, BPA and independent power producers.

One way to alleviate the problem is to develop a regional resource adequacy standard and implementation framework. Such a standard would help utilities and their regulators gauge whether they have enough resources to meet their loads under a regionally accepted measure of generation sufficiency. A framework for implementing the standard would lay the foundation for those entities to plan for and acquire sufficient resources to meet load.

In its Fifth Power Plan, the Council recognized the importance of developing a resource adequacy standard and implementation framework. Action items ADQ-1 and ADQ-2 in the plan call for the establishment of resource information-gathering protocols and for the development of a resource adequacy standard for the Pacific Northwest. To achieve these goals, the Council and BPA instigated the Pacific Northwest Resource Adequacy Forum (Forum), with the intention that this group would develop a resource adequacy standard for the northwest.

ANALYSIS:

The Resource Adequacy Forum has been working on this task for the better part of a year. Analysis and documents, including meeting notes, are posted on the Council's web site at <http://www.nwcouncil.org/energy/resource/Default.asp>. The Forum is comprised of a technical work group and a policy steering committee.

The proposed standard consists of a metric (something that can be measured) and a target (an acceptable value for that metric) for both energy and capacity capabilities of the system. The standard is designed to be transparent and simple to understand but linked to a more detailed and sophisticated analysis of the power system. In May of this year, the Council adopted an energy standard for the Northwest. Currently, the Council is soliciting comments on a proposed capacity standard.

While the Resource Adequacy Forum and the Council have made great progress toward developing an adequacy standard for the Northwest, the region will not benefit from it unless a workable implementation plan is developed and agreed to. The proposed implementation plan is designed to work on a volunteer basis. The plan is made up of four phases; 1) data reporting and collection, 2) computation of the energy and capacity metrics for the power supply three and five years out, 3) assessment of the status of the power supply relative to the adequacy targets and 4) report the status and, if inadequate, instigate discussions among appropriate parties to remedy the situation.

ALTERNATIVES:

- One alternative is to not adopt an implementation plan for the Northwest resource adequacy standard. Under this alternative, there would be no clear set of actions to be taken should the power supply become inadequate. It would leave the responsibility to individual utilities to take actions and there would be no guarantee that the aggregate actions of all utilities would be the most appropriate for the region. Under this alternative, the region would be more likely to face periods of over- or under-building for the needs of Northwest consumers.
- A second alternative is to rely on the WECC to develop an implementation plan for its West-wide adequacy standard. The drawback to this alternative is that WECC has little or no expertise in planning for systems that are energy-limited (as opposed to capacity-limited regions such as California). It is not clear whether any WECC implementation plan would adequately address Northwest needs.
- A third alternative is to delay the adoption of an implementation plan. It may appear to be prudent to delay this process (because the region currently has a large resource surplus), however, delaying this decision would prevent the Northwest from contributing to the WECC process of developing a west-wide implementation plan. It would be wiser for the region to have a workable implementation plan for the Northwest incorporated into WECC's west-wide plan as opposed to having our own separate plan.

ATTACHMENTS:

This decision memo includes two attachments.

The first attachment is the proposed implementation plan. This recommendation was developed by the Pacific Northwest Resource Adequacy Forum and was unanimously agreed to by its steering committee.

The second attachment contains comments received by the Northwest Energy Coalition (the only comments received). In summary, the Coalition believes that the implementation plan is too weak and will not ensure that the region will maintain an adequate power supply. The Coalition made three recommendations.

- 1.** A discussion of the real costs of maintaining this standard—and failing to meet this standard—should be added to the document, preferably with some numerical analysis and estimates.
- 2.** The Council should re-title this paper a “Reporting and Early Warning Mechanism.” The implementation plan should be sent back to the Forum with instructions to make it stronger.
- 3.** Bonneville should evaluate in aggregate whether it and its utilities are meeting the adequacy standard. If not, BPA should be the backstop and acquire resources to meet the standard. Costs of the backstop acquisition would be allocated to the utilities that are short.

The issues presented in the Coalition’s comments were discussed at length during the Resource Adequacy Forum’s Steering committee meetings. An assessment of the costs of maintaining an adequacy standard are important and will be made but do not need to be included in the implementation plan.

It is true that this voluntary implementation plan may be weak and thus can be characterized as only being an “early warning mechanism,” however, it was the best the committee could do given the diversity of its members. The committee would not have agreed to any implementation plan that included specific actions for individual utilities. It is yet unclear how the WECC will deal with implementation. It is possible that its implementation plan will contain stronger incentives for utilities to take appropriate actions.

With regard to the Coalition’s third recommendation, Bonneville is currently examining its status with respect to the proposed regional standard. Whether it should be the backstop in situations when its customers fail to provide their own sufficient resources is unclear and needs further assessment.