Northwest Power and Conservation Council

February 20, 2007

MEMORANDUM

TO: Power Committee

FROM: John Fazio, Senior System Analyst

SUBJECT: Status report on providing adequacy guidelines to utilities

One of the overarching goals of the Resource Adequacy Forum is to develop resource planning guidelines that would assure the region of an adequate power supply through the planning horizon. The Forum has successfully completed the task of developing an energy standard and a pilot capacity standard for the region, which were adopted by the Council in 2006.

The next task is to develop a way in which these standards can be used by resource planners at the utility level. The Forum's steering committee set out to "develop non-binding guidelines for translating regional to individual utility metrics and targets, which would 1) allow individual utilities to assess whether their systems are adequate and 2) assist utilities, Public Utility Commissions and local boards in their resource planning processes."

However, the steering committee also recognized the autonomy of utilities and commissions by agreeing early on to a principle, which states that adequacy standards should not "trample on the jurisdiction of states or prerogatives of individual utilities in planning and acquiring resources to meet load."

Some have argued that the Forum (and Council) should only develop regional standards, to be used to assess whether the region as a whole is adequate. Under this option, it would be up to individual utilities to assess their own systems and to demonstrate to their utility commissions or boards that they are adequate. Others have argued for an analytical "translation" of the regional standards into useable metrics and targets for individual utilities. Under this option, utilities would have specific energy and capacity targets to achieve. While there are several options for developing these translations, each is burdened by technical difficulties. The technical committee continues its task to develop options for this approach. This question will be debated at the next steering committee meeting (to be scheduled late in March).

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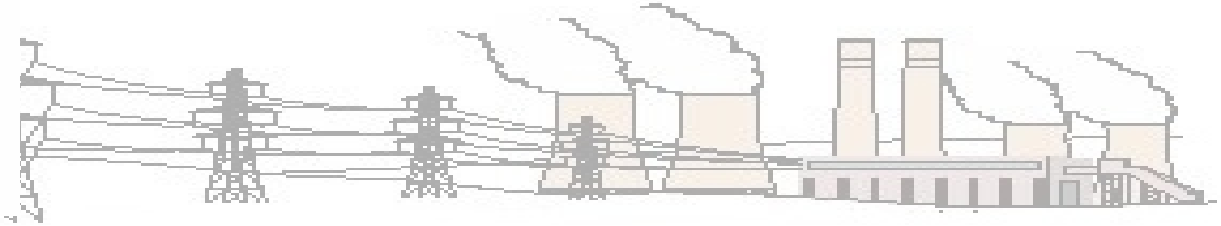

Power Committee Meeting
Boise, Idaho
March 13, 2007

Using the Regional Adequacy Standard to Develop Guidelines for Individual Utilities

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Objectives

- Develop non-binding guidelines to aid individual utilities in their resource planning processes
- Must not “trample on the jurisdiction of states or prerogatives of individual utilities in planning and acquiring resources to meet load”

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Options

1. Develop a set of principles to aid in translating the regional standard into useful utility-level metrics and targets.
2. Publish regional numbers and let individual utilities develop guidelines on their own.

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Developing a Set of Principles

- Must take account of a utility's dependence on
  - Hydro generation
  - Spot market purchases
  - Other non-firm resources
- Could lead to different metrics and targets for different utilities

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Planning for Energy Needs

- Primarily for hydro based utilities
- Sufficient resources to
  - Meet average annual demand
  - Under adverse hydro conditions
- Resulting in no more than a 5% LOLP

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Planning for Capacity Needs

- Primarily for thermal based utilities
- Sufficient resources to
  - Maintain operating reserves
  - Meet peak load deviations for a 1-in-20 year temperature event
  - Cover unexpected loss of generation
- Resulting in no more than a 5% LOLP

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Principles for Energy Planning

- Average annual firm resource generation
- Plus average hydro flexibility generation (that can be relied on)
- Plus average spot-market generation (that can be relied on)
- Plus average non-firm generation (that can be relied on)
- Should be at least as much as the average annual load

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Principles for Capacity Planning

- Firm resource sustained-peaking capability
- Plus reliable hydro flexibility peaking capability
- Plus reliable spot-market peaking capability
- Plus reliable non-firm peaking capability

- Should be equal to the normal weather sustained peak duration load plus
  - Operating reserves
  - Reserves to cover a 1-in-20 year temperature event
  - Reserves to cover other contingencies