

## **Comments to WECC in response to the Planning Coordination Committee's *Initial Resource Adequacy Metric & Target Approval Item***

The Bonneville Power Administration (BPA) commends the work of WECC's Loads and Resources Subcommittee (LRS) in making incremental improvements to WECC's annual Power Supply Assessment (PSA) and in developing a preliminary methodology to establish initial targets for capacity reserve margins for the sub-areas within the Western Interconnection. BPA supports these steps toward establishing a resource adequacy assessment framework in WECC.

In the last two years, the Pacific Northwest (PNW) Region<sup>1</sup> has made significant progress in developing consensus-based metrics and targets by which to assess PNW regional resource adequacy. The Pacific Northwest Resource Adequacy Forum (Forum) developed and the Northwest Power and Conservation Council (Council) adopted both an energy adequacy standard and a pilot capacity adequacy standard in 2006 with the expectation that a final capacity adequacy standard will be developed by the Forum by September 2007 and subsequently adopted by the Council. The adopted standards are found on the Council's website at the following link:

<http://www.nwcouncil.org/energy/resource/Default.asp>

Although the WECC and PNW capacity metrics may appear similar because the components of both metrics are in the form of building blocks, the numerical targets for summer and winter contained in the pilot PNW capacity adequacy standard are actually derived from Loss of Load Probability (LOLP) analyses performed by the Council. Thus, the building blocks are simply a useful way to describe the relative magnitude of planning reserves to cover operating reserves, longer duration forced outage events and increased loads due to adverse temperature events. Another significant difference between the two metrics is the duration for which capacity adequacy is measured. WECC uses a one hour peak metric to assess adequacy. Because of the hydro-dominated nature of the PNW's resource mix, a one hour capacity metric cannot fully assess the adequacy of resources to reliably meet loads in the PNW. Instead the PNW has established a sustained peaking capacity metric, which assesses the ability of the region's resources to reliably meet sustained loads over a defined number of hours for consecutive days. The PNW is currently evaluating a 50-hour (ten hours per day for five days) sustained peaking capacity metric.

BPA understands that WECC's current resource adequacy assessment tool can only be used to assess a one hour capacity metric. Given the limitations imposed by the lack of modeling capability, the building block approach to deriving capacity adequacy targets for the various sub-areas in the Western Interconnection appears reasonable.

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<sup>1</sup> The Pacific Northwest is defined as the states of Washington, Oregon, Idaho and the western portion of Montana

Although BPA supports the proposed resource adequacy capacity building block metric as an initial capacity adequacy assessment mechanism, BPA cautions that the use of a one hour capacity metric cannot be used to accurately assess resource adequacy in the PNW. As has been the case in past PSAs, a footnote recognizing this limitation will continue to be needed. In addition, LRS representatives from the PNW will again provide an appendix with a sub-regional resource adequacy assessment. Given the limitations imposed by the current modeling approach, BPA recommends that LRS accelerate its efforts to select/develop a better model for assessing resource adequacy to allow for improved assessments prior to 2010, which is shown as a possible completion year in the work plan contained in the LRS report.

As the LRS continues its work toward developing a resource adequacy framework, as outlined in the work plan, following are BPA's recommendations to eventually assure WECC the ability to accurately assess the resource adequacy of all of the sub-areas in the Western Interconnection:

- BPA encourages the LRS to fully follow through with implementing a key consensus recommendation of the WECC Resource Adequacy Work Group<sup>2</sup>, i.e. "WECC should assess the capacity and energy adequacy of the overall WI and sub-areas within the WI." To do so, the LRS will need a different assessment tool, which is already contemplated in the LRS work plan.
- As is advocated in the Council-adopted energy and pilot capacity adequacy standards, BPA recommends that WECC use these adopted metrics and targets to assess the resource adequacy of the PNW, in the long-term. With a new assessment tool, WECC could assess the energy and capacity adequacy of the PNW separately, or in an integrated manner using a probabilistic metric and target. The integrated approach is preferred given that the LOLP analysis is the foundational analysis for both the energy and pilot capacity adequacy standards in the PNW.

Thank you for the opportunity to comment on the proposed methodology for establishing initial metrics and targets by which to assess resource adequacy in the Western Interconnection.

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<sup>2</sup> The Resource Adequacy Work Group, a predecessor task force to the LRS, developed a number of consensus recommendations, which were to guide the LRS in developing resource adequacy guidelines as outlined in the proposal to re-establish the LRS, which the PCC approved in June 2005.