### Randy Hardy Comments on Detailed Design Document

### Lea / Rebecca,

As you requested, below are my specific comments on the Western RA Program (WRAP) Detailed Design document. Overall, this is an excellent description of the various components of WRAP and how they are intended to work together. They should provide a solid foundation for initiating WRAP with clear ability to expand and/or change key program features as we gain more experience with actual operation. My specific comment/suggestions are:

### (1) Governance – Section 1.3.1

You have received considerable feedback from public interest groups, independent power producers and State regulators on various issues involving program governance. I would focus on one particular issue raised by the State regulators in their September 10 call with the WRAP Steering Committee (SC): Section 1.3.1, the Resource Adequacy Participants Committee (RAPC), item 10 on page 30, states "If RAPC approves an action and such action is not appealed to the CORP BOD, the action is deemed to be approved by the CORP BOD ..."

I would agree with the State regulators that this provision should be changed to require affirmative approval of all RAPC recommended actions by the CORP BOD. Such an arrangement would ensure the BOD is actively involved in all WRAP activities and is not simply a rubber stamp for the RAPC. In practice, this change may not make a significant difference in WRAP operations and could be effectively accomplished by BOD use of a consent calendar (for items it considers routine which do not require any policy level consideration or debate by the BOD). However, public perception is likely to be political reality for the BOD, and the WRAP overall, so ensuring affirmative BOD approval of <u>all</u> RAPC actions is, in my view, an <u>essential component</u> of the Program's structure.

# (2) Potential Confusion on Determination of Each Participant's RA Capacity Requirement – Sections 2.3, 2.4.2, 2.10 and Section 2/Appendix A

It may be that my lack of direct involvement in the Detailed Design preparation has not enabled me to fully understand how the PO will determine each Participant's RA requirement, and that of the Program overall. That said, I found the descriptions of different methodologies in these sections to be fragmented and confusing. So let me describe how I interpreted the different sections.

(a) Section 2.3 – Load Forecasting and Forward Showing (FS) pp. 49-50

On page 49, the document says "PO will represent the forecasted coincident peak (CP) demand of the region by <u>modeling</u> each Participant's historical load output and aggregating all Participant loads into a regional load shape. The Participant's load forecasts will serve as the basis for the P50 load value for each applicable study horizon and binding season." Later on p. 50 the Document describes how the PO will collect and review Participant load forecasts and methodologies for consistency. Then it says "at

some point" the RAPC may recommend that the PO develop its own load forecast function (presumably as opposed to simply reviewing Participant load forecast submissions) to serve as "an independent load forecast for the purposes of validation".

(b) Section 2.4.2 -- Sale and Purchase Transactions

Although not directly related to Load forecast modeling, this section requires that firm capacity sales to parties outside the RA program footprint must be declared (by program Participants) and included as a capacity obligation on the Participant's FS portfolio submission (p. 59). This requirement is, in my view, the functional equivalent of a PO inventory of non-recallable exports for which each Participant is responsible. Please let me know if that is not the case, since this requirement is an essential component of the Program.

## (c) Section 2.10 – Modeling Process Timeline

This section discusses an RA model (run by the PO) "capable of supporting regular analyses and repeatable findings and will be transparent and auditable" by various parties. It then goes on to discuss how this RA model will be used: "Each year, the PA (?) will begin a new set of assessments ... for determining the PRM and QCC for program resources." (p. 85)

## (d) Appendix A, Section 2

-- Section A.1: "PO will calculate the PRM for the RA Program footprint annually for both the summer and winter binding seasons during the Annual Assessment process." (p. 87).

-- Section A.5 Final Modeling Output Results Sharing

"The final modeling output results will consist of an LOLP study report that: gives details of the study analysis; makes recommendations for a proposed PRM for the year two binding season; provides an advisory PRM for the year five Summer/Winter season." (p. 90).

<u>So my question is this:</u> how does the process in Section 2.3 relate to the PO driven modeling process described in Section 2.10 and Appendix A? Is Section 2.3 collection of individual Participant load forecasts and some initial generic (?) modeling just to determine an overall regional RA requirement? How does the PO modeling described in Section 2.10 and in Sections A.1 and A.5 relate to the statement on page 50 of Section 2.3 about the PO "at some point" developing (at RAPC direction) its own load forecasting function? What is the PO modeling (and for what purpose) and when is the PO simply relying on Participant load forecasts and FS submissions for firm capacity sales outside the footprint to determine individual and overall RA requirements (i.e. PRM and QCC)? I am certain this all works together in some (seamless?) fashion, but it is not apparent to the casual reader – especially given its description of various aspects of these load forecasting functions being spread out over several different sections of the Detailed Design document. Such fragmentation may be appropriate given Document organization considerations, but, if that is the case, you need some simplified description (somewhere in the Document) of how all these load forecasting pieces fit together.

## (3) Areas of Further Exploration – Section A2.3

Description of the main stress case (using "exceptionally high loads and a reduced hydro QCC resulting water year conditions similar to 2001") on page 110 is excellent. To provide readers with a somewhat more tangible weather example, I would, however, suggest adding a footnote after "exceptionally high loads" along the following lines:

"For example, the PO could use a current year proxy for the "Siberian Express" weather event which occurred in early February 1989, where Puget Sound area temperatures were at single digits for 4-5 days continuously and several hydro generators in northern British Columbia were frozen." This example would parallel the reference to 2001 water and help readers appreciate the magnitude of such a stress test. I believe it would counter any potential criticism that WRAP was not adequately accounting for extreme weather events.

Randy Hardy