

MEMORANDUM

TO: State-Provincial Steering Committee

FROM: Thomas Carr

DATE: June 30, 2010

RE: **Study Work Group and the 2020 Reference Case Generation Assumptions**

This memo provides a brief update on work within WECC's Transmission Expansion Planning Policy Committee (TEPPC) to develop generation assumptions for the 2020 Reference Case. The State Provincial Steering Committee (SPSC) previously submitted a study request to WECC that the Reference Case be based on utility integrated resource plans (IRPs) and related plans, and consistent with state and provincial policies.

The Studies Work Group and its Resource Team are gearing up for developing the generation assumptions for the 2020 Reference Case. Key generation assumptions must be provided to WECC staff by early August in order to start initial model runs in September. SPSC members may want to have their staff monitor upcoming meetings and conference calls in which proposed assumptions will be discussed during the month of July. Additionally, summaries of key generation assumptions will be distributed to SPSC members in mid-July and late-July for review and comment. A similar process will be developed for the design of the scenarios the SPSC requested WECC study.

The Studies Work Group develops generation assumptions based on renewable portfolio standard (RPS) requirements and utility resource plans. In brief, there are four key steps in the process.

1. **BA Load Assumptions Converted to State and Provincial Loads.** In order to derive the RPS energy requirements, we must first quantify the 2020 (energy) loads in states with RPS requirements. TEPPC models loads by Balancing Areas (BAs). The BA loads need to be translated to the loads by states and provinces. On a parallel track, the SPSC's DSM Work Group is working with WECC staff to verify that BA load forecasts are consistent with state and provincial DSM policies. If and when adjustments are made to the BA loads, these adjusted load forecasts will be incorporated into the analysis of 2020 RPS energy requirements. (The SPSC DSM Work Group and the WECC DSM Task Force are working on adjusted load forecasts.)
2. **Calculation of 2020 RPS Energy Requirements.** The Studies Work Group is reviewing the RPS requirements in the applicable 10 states (AZ, CA, CO, MT, NV, NM, OR, TX, UT and WA). The 2020 renewable energy target is derived for each state with a RPS requirement based on the state's 2020 load, the appropriate RPS rate, the applicable

entities (IOUs, coops, municipals, publics, and others), transmission losses, and other assumptions.

3. **Specifying the Renewable Portfolio for the Reference Case.** The Studies Work Group will be making assumptions about the renewable technology and location to be in place by 2020. Lawrence Berkeley National Laboratory (LBNL) is currently reviewing IRPs and utility plans. At the Resource Planners' Forum meeting on June 21-22, LBNL made a presentation about their IRP review and has solicited feedback from resource planners at 27 utilities in the West and requested responses by July 16. The Studies Work Group will look to the IRP analysis to guide renewable generation assumptions. Additionally, the Studies Work Group will look to the assumptions about California renewable energy generation based on current work by the California Public Utility Commission, the California Energy Commission, California's Renewable Energy Transmission Initiative (RETI), and the California Transmission Planning Group (CTPG).
4. **Ensuring a Loads and Resource Balance.** Given the specification of renewable energy to meet RPS requirements and IRP plans, the final step is to add sufficient conventional generation to ensure a load and resource balance in 2020. The intent is to add enough generation to meet loads but not to over build the system in an uneconomic manner. A number of issues arise in this analysis such as the appropriate planning margin, ensuring flexibility for variable generation, and accounting for retirements.

Next Steps

Given the important work planned for the 2020 Reference Case, below is a summary of upcoming meetings/calls and targeted dates for SPSC to review the work.

- **Resource Team** of the Studies Work Group will be holding weekly conference calls during July. The next call will be Thursday, July 8 at 1:00 pm PDT /2:00 pm MDT. Dates have not been set for the other calls. Conference phone number: 866.779.0775 and meeting number *1500493*. Web access at Genesys.com with the meeting number is 1500493. Contact me (tcarr@westgov.org) if you want to receive information that will be discussed on the call.
- **Studies Work Group** will hold its next meeting Monday, July 12 at 12:30 – 3:30 pm PDT / 1:30 – 4:30 pm MDT. Conference phone number is 866-642-1665 and the code 953613. Web access is <http://wecc.na3.acrobat.com/tasswg/>.
- WIEB staff will distribute to the SPSC a summary of the load and RPS energy assumptions (steps 1 and 2 above) in mid-July. In late July, WIEB staff will send the SPSC a summary of renewable generation assumptions (step 3 above). WIEB staff will also coordinate with WECC to set up a webinar in July on the generation assumptions.

- Next meeting of the **Technical Advisory Subcommittee (TAS)** is August 19 from 9:00 am to 4:00 pm MDT at the WECC offices in Salt Lake City. Click [here](#) for details. This meeting will review the recommendations of the Studies Work Group on 2020 generation assumptions.