

Resource Adequacy Technical Committee Meeting

May 31, 2006 – 9:30 a.m. to 3:00 p.m.

Notes

I Introductions and Review of the Agenda

Meeting Attendees: John Fazio, Mary Johannis, Aliza Seelig, Wally Gibson, Stefan Brown, Bill Drummond, Rob Diffely, Tom Haymaker, Chris Robertson, Pete Peterson, Eric King, Rod Noteboom, Don Tinker, Becky King, John Prescott, Nicolas Garcia and Dick Adams. Clint Kalich and Dave Levee tried to join the meeting by phone; unfortunately, technical difficulties precluded the use of a conference phone.

No changes were made to the agenda.

II Federal Sustained Hydro Peaking Capacity

Mary Johannis and Eric King presented an overview and the results of the Columbia River Sustained Hydro Capacity Study. It was stressed that this study corresponds to an emergency operation, which would need to be sanctioned by the Technical Management Team, which is the forum for fishery decisions. Emergency operations include increasing draft at Grand Coulee from 1.5 ft/day to 2 ft/day, drafting below fish curves and assuming additional discharge from Canadian projects.

The question for the group is---Should sustained peaking hydro capacity assume this type of emergency operations as part of its definition? Bill Drummond asked how much less capacity is available from the FCRPS, if the emergency protocols are not sanctioned? Eric indicated he will run another study to answer this question. The Mid-C and other participants thanked Eric for his modeling work.

III Other Sustained Hydro Peaking Capacity Data

John Fazio compared the Top-Down and Bottom-Up analyses of sustained hydro peaking capability. John received hydro numbers from 7 of the 9 hydro utilities in the Region, so the analysis is still incomplete. Even though the Bottom-Up analysis is incomplete, it still results in almost 6,000 MW more capacity than the Top-Down approach. Much of this difference is probably due to the different in capacities associated with normal versus emergency operations.

IV Discussion of Sustained Peaking Capacity Targets

John discussed the desirability to develop a capacity standard with a similar methodology as the energy standard, i.e. the capacity target could be linked to a Loss-of-Load Probability analysis, which focuses on capacity events. He suggested we do monthly analyses of sustained capacity available to meet sustained peak loads to understand, which months are the most constrained from a capacity standpoint.

John reviewed the components of the capacity metric, i.e. the reserve planning margin. The magnitude of the margin is dictated by the need to have contingency reserves, to have a buffer for adverse loads and for outages beyond the first hour outage covered by contingency reserves. For what kind of weather event should the capacity target be planned? Wally Gibson introduced the idea of a design cold snap for resource adequacy—perhaps a one in 25 year event. Nicolas Garcia stated that individual utilities generally select the type of event for which they plan based on their analyses of risk. Mary suggested that a regional standard might not be as stringent as some individual utility standards; however, individual utilities could develop contingency plans to address situations worse than the design event.

There was a discussion regarding the correlation of the probabilities of forced outages, adverse weather—i.e. the components of the reserve margin. Dick Adams asked what type of water condition occurred during February, 1989. Is there a correlation between low water and cold weather?

John showed that for a situation where resources are just sufficient to meet the energy standard, capacity reserves are calculated to be 33% for the 10 hour over 5 day duration. This may be more capacity than is needed to just address capacity problems. So, John suggested the group look at how capacity events might be defined and select a capacity margin based on an LOLP analysis of 5% and the selected definition of capacity event. He reviewed various definitions of capacity events and the associated LOLP. The definition dictates the resulting LOLP. What is the correct definition of capacity event? Defining a capacity event as a one hour event is perhaps assigning more precision to GENESYS than the program is capable of simulating. Dick asked whether water can be shifted between weeks in the model? John responded that water can be shifted between weeks, but not between months. A flexibility account is included in GENESYS. John encouraged the group to think about how to define the capacity event as a first step to selecting an appropriate capacity target.

Wally suggested that a single threshold for GENESYS, which is lower than the current one, could be selected if GENESYS could be tweaked to more precisely model the hydro system. For example, the emergency operations during an extreme cold snap could be modeled, which would add on the order of 5,000 to 6,000 MW more capacity to the system for the extreme weather or other emergency situations. A lower threshold might make the definition of capacity events clearer.

The group discussed apprising the Steering Committee of the policy issues identified during our discussions of the capacity metric and target and asking for guidance, if we have enough information to allow for an informed decision.

V Data Reporting Protocols

A Description of the Current Northwest Regional Forecast (NRF) Data Reporting Protocol

Dick Adams described the NRF data collection process. The data collection process starts in October; the NRF is completed in May. Data is collected for 10 years, but only shown for 5

years. Stefan Brown asked if Dick scrubs the data to ensure common assumptions regarding expected load forecasts. Dick indicated that the data is accepted “as is” because the utility is assumed to have the best understanding of the load growth and resources in their own service territory. BPA is the only utility, which provides a factor to adjust the load forecast to a coincident peak value (for the BPA control area?—Mary will check with Tim Misley if coincident peak is for control area or the entire BPA customer footprint). Conservation and demand-side management are currently reflected as in the load forecasts and are not separately identified as demand-side management resources.

Dick stated that the hydro regulation of the Region’s hydro resources is done by the Corps of Engineers. The contractual amount of hydro and thermal resources is included for each utility; the NRF only depicts the results in aggregate by type of resource. The NRF is trying to improve its data and methodology in the areas of the Independent Power Producer generation, the definition of future resources and non-utility loads.

Traditionally, the NRF has shown energy and January peak for the Region. This year, only energy from the Region’s resources was tabulated.

B Possible changes to the Protocol for Adequacy Assessment

Possible changes to the NRF reporting and assessment process might include common protocols for counting capacity (wind, hydro, contracts, etc), time horizon for assessment—perhaps the time horizon for assessment needs to be longer than five years and the explicit depiction of demand-response and/or conservation resources. **Action item:** Mary will develop a proposal for changing the NRF reporting and assessment process to make it compatible with the regional resource adequacy assessment process.

VI Summary of the Implementation Process Discussion

Wally summarized the current status of the implementation approach, which relies on transparency of assessment three years out and the threat of high market prices to ensure regional resource adequacy. There was a discussion regarding how to “shine the spotlight” on utilities, which might be relying disproportionately on the market, in situations when it appears the Region will become resources deficit in the next three years. The discussion suggested that meetings of regional utilities need to take place to understand utilities’ strategies in meeting their future load before the spotlight is shone on any individual utility.

VII Discussion of “Economic” Adequacy Targets

John presented the Council’s approach to developing the resource scenario in the Fifth Power Plan. The Council’s strategy was to minimize both risk and cost along the efficient frontier. The Council’s goal was to “keep the lights on” and minimize the risk of high cost futures. An economic target could be defined using this approach. A comparison of the magnitude of resources associated with the physical resource adequacy energy standard adopted by the Council on May 10 and the magnitude of resources associated with an economic standard

assumed to be defined similar to the Council's approach in the Fifth Power Plan is about 3,000 MW.

VIII Next Meeting: The next meeting will be held at the Council's offices on July 6, 2006 from 9:30 a.m. to 3:00 p.m.