

**PNW Resource Adequacy Steering Committee Meeting  
November 30, 2005**

Introductory remarks were made by Tom Karier and Paul Norman. Tom asked us to think about why we are doing this. He suggested that one reason is the development of a resource adequacy assessment methodology for the Northwest that can feed into the WECC effort to improve west-wide Power Supply Assessments. The distinction between physically and economically based targets was discussed briefly. No final decision was made; however, this is the Steering Committee's opportunity to guide the Technical Committee and make sure they are on track. Paul added that this work is important for the Regional Dialogue. We are a little behind schedule for that process, but he feels good about the progress the group is making. He stated we are on a good path to establishing a resource adequacy framework. Paul reiterated that it is BPA's preference to ensure resource adequacy through this process rather than in the new Power Sales Contracts.

**Decisions by the Steering Committee and action items for the Technical Committee appear as bolded items in these notes.**

Mary Johannis reviewed the four principles previously agreed to by the Steering Committee. In connection with Principle 1, she stated that the Technical Committee is looking at two metrics and targets (energy and capacity). Steve Weiss emphasized that there appears to be consensus on the energy metric, i.e. the way to measure energy adequacy, but he believes the group still needs to discuss and answer some important questions before selecting a target that denotes energy adequacy.

**Technical Committee Summary:**

The goal of the November 18 Technical Committee Meeting was to reach agreement on the energy metric and initial target to recommend to the Steering Committee. Although the Technical Committee still has a lot of work to do such as continuing to benchmark the LOLP model and updating the analysis of out-of-region surplus capacity, the participants at the November 18 meeting felt comfortable recommending an energy metric in the form of an annual load resource balance with a target of zero using hydro energy under critical water and adding an explicit amount of reliable out-of-region importable energy (i.e. spot market energy). The spot market availability of 1500 aMW is intended to be a placeholder that helps define the target. It is expected that this placeholder number will change as the analysis is refined.

The Technical Committee did not want to use the hydro condition as the parameter that changes with refinements to the analysis. Rather the preference was to use critical hydro and to add a line item to explicitly show import availability.

Dick Adams discussed the need to decide how to treat the Independent Power Producers (IPPs). Without firm contracts to utilities, these resources have the ability to provide “nonfirm” resources to the Pacific Northwest. Stefan Brown suggested and the group agreed that a new line item should be added to the L/R balance to explicitly show the contribution of in-region non-firm IPP resources.

Steve questioned what happens if the standard is eventually translated to individual utilities? How much IPP generation or out-of-region spot market do they count? Paul suggested that right now the committee focus on the regional metrics and targets.

Tom asked, how do you discount the IPP generation to reflect the non-firm nature of this generation? The inclusion of IPP generation may also depend on whether you are looking at physical or economic targets. Price spikes can originate when the supply is short and the only remaining source is the IPPs or out-of-region supplies. Howard Schwartz suggested we should monitor the IPP generation, and periodically update the contribution of IPP generation to the L/R balance. As they contract more of their output to either in-region, or out-of-region customers, or if they go out of business (or grow) we should adjust our calculation in the L/R balance.

**The Steering Committee approved the energy metric recommended by the Technical Committee, which included the explicit addition of out-of-region “reliable” non-firm energy, and added the following line item to the resource side—net in-region IPP uncontracted energy.**

It was clarified that energy associated with out-of-region firm contracts and in-region firm contracts from IPPs should be handled in the same way as other in-region resources, i.e. included under the specific resource category to which the contractual resource belongs, if the contract is resource-specific. If in-region resources are firmly contracted out-of-region, only the net resource available or contracted for in-region needs should be shown. Any demand-side management (DSM) energy resources are to be subtracted from load.

Steve suggested that DSM in the form of dynamic demand response might be counted on the resource side for capacity evaluations.

Tom noted that this metric will be used to assess whether we need to take some sort of resource actions a number of years out. It is a re-definition of the old L/R balance and should be so noted. He also stated this form of the L/R balance is linked to an LOLP analysis with a 5% target, which the Council currently uses for short-term assessments of reliability; for long-term plans, e.g. the Fifth Power Plan, the Council uses a near 0% (economic) target. Both Stefan and Steve Fischer spoke up in opposition to such an economic target, pointing out that the elimination of price spikes might serve to eliminate competition by IPPs, who depend on price spikes to be profitable, or, at least, to break even. Tom responded that an economic target does not eliminate price spikes, it just reduces the likelihood of high cost years.

Mary presented options for possible capacity metrics and targets developed by BPA staff using analysis done for the Federal hydro power system. These options included various approaches to calculating sustainable hydro capacity. She noted that the Technical Committee had concluded that Option 3, operational hydro capacity, is not a good candidate for defining hydro capacity in a resource adequacy assessment because it does not depict the maximum sustainable capacity available -- rather just capacity needed to meet BPA's loads under normal conditions. The shortcoming of all three options is that they require complex models to evaluate sustainable hydro capacity. The Technical Committee is looking for a simple method to assess the capacity metric (i.e. like a L/R balance, again perhaps linked to a more complex model).

The Technical Committee did not come to a conclusion with regard to a capacity metric, but felt it could defer selection of the capacity metric and target because the region is more likely to trigger the energy target before it triggers the capacity target given the fuel-limited nature of hydro generation. Additional work in this area is ongoing.

Steve Fisher stated that the better job we do at calculating an accurate sustained peaking capability the less we have to rely on an "arbitrary" reserve margin. Jerry Thale emphasized the need to clearly define how the "capacity" is calculated so that individual utilities will be consistent in their assessments. Mary stated that Avista has done some sustainable calculations using spreadsheet methods; **BPA intends to see if it can use this methodology to develop reasonable sustainable hydro capacity numbers for the Federal hydro system consistent with the results of some of its hourly models. It was suggested that this method look at the cold snap of February 1989 to see if it produced reasonable results.**

A related topic is over how many hours to plan the sustainable capacity. Jerry suggested **the Technical Committee look at 50-hour and 30-hour and “super peak” periods to see what period is the most critical and the most likely to define the need for new generation infrastructure based on the need for additional machine capability.**

### **Reporting Process to supply data for Resource Adequacy Assessments:**

Mary made a presentation on the current WECC reporting process, which has some shortfalls. Some of the data may be suspect due to inconsistencies in the standards for reporting. Also, who reports is an issue and may change as the new energy legislation is implemented. In short, there are a lot of pitfalls in the current process.

WECC has created a new L&R subcommittee in part to address this issue. The Power Pool (NWPP) will be taking on the responsibility for collecting data, possibly from the LSEs. One of the subcommittee’s work items is to look at having the LSEs report directly to WECC. The WECC effort may be moving toward LSEs reporting L&R data, as opposed to control areas.

Steve Fisher asked, how do we pick up loads met outside of LSEs? Mary responded that the NERC functional model includes selling and purchasing entities, which could be asked to report separately on loads and resources outside of LSE responsibility. Under the new energy legislation, all owners, operators and users of the bulk power system are subject to FERC jurisdiction for purposes of reliability. NERC standards, which include reporting requirements, are under development. So it could be that, in the future, these loads will be subject to a reporting requirement.

Dick asked about capacity reporting to WECC and for our needs? Will WECC ask for single hour while we do sustained? Mary responded that the definition of hydro capacity is on the L&R Subcommittee’s work plan. It may very well match the definition the PNW develops, at least, for the NW sub-area of the Western Interconnection. Steve Fisher mentioned that California did spend a great amount of time looking at sustained peak capability.

**Action item for the Technical Committee is to look at capacity assessment in other regions and how they might compare to what we do and need.**

A discussion regarding the current WECC Loads and Resources Reporting Process ensued. The L&R Subcommittee is moving toward changing the

data reporting process—both in terms of clarifying reporting items and eventually in terms of asking for additional information that would allow energy assessments to be performed. Currently, the L&R data reporting requirements are not sufficient to meet the data needs for PNW energy assessments.

The group discussed the following goals for a reporting process:

- Efficiency
- Streamlined
- Accuracy
- Provisions for confidentiality

Dick explained that about 10 years ago, there used to be joint data collection effort. **An action item is for the PNUCC, BPA and NWPCC to meet with NWPP to discuss the possibility of reinstating such a joint reporting effort.** PNUCC does a data request every year. Their analysis looks ten years out and they publish 5 years out. PNUCC gets data from utilities and from BPA. PNUCC gets data by utility but publishes in aggregate in order to address confidentiality concerns.

Tom asked what data do we need? **An Action item for the Technical Committee is to determine what data we need, what data and processes are readily available and what we need to do to fill in the gaps.**

A number of issues were raised with respect to individual utilities reporting on a regional energy metric and target. How would you “allocate” the non-firm line items (out-of-region spot market and non-firm with-in region IPPs) to individual utilities when reporting loads and resources data? Dick asked how do you tie down resources with contracts (so we don’t double count or miss any resources). If the contract is a “system” contract, i.e. not identified with any specific resource, how are we sure that we are not double counting?

Schedule C does not specify a particular resource for energy delivery. Some feel this is more firm than a schedule B because under that schedule, which ties the contract to a specific resource, if that resource goes down, it’s not sure whether the obligation to serve is still there. This is a non-trivial issue, i.e. it may be very hard to sort this out. This is another issue for the tech committee to deal with.

Paul suggested that we should specify the data requirements for a regional standard. Let's deal with individual utility issues later on, if necessary.

One of the questions on the resource side is how firm is a resource in the planning stage? At what point do you count it as a "real" resource? Tom suggested **the Technical Committee develop a definition of resources, perhaps consistent with WECC's definitions for committed and uncommitted resources. The Technical Committee should also address how to deal with Schedule C contracts.** Scott Spettel indicated he would be willing to help with this effort.

Steve Weiss suggested that going out 5 or 10 years may not be meaningful for this process. The horizon should be 2 to 3 years—this is enough time for a utility to acquire a resource (be it a physical resource or a contract). However, if they choose a coal plant, then the planning timeline is longer. Dick suggested that perhaps we need a target that changes over time and a definition of resources that becomes more firm in the near-term. Two years is about as far out as we can get for "committed" resources. **The Technical Committee needs to address the time horizon issues.**

**John Fazio indicated he would write an Email to the Technical Committee showing work items and leads to see if the Technical Committee has sufficient resources to perform all the work.** Both Paul and Tom emphasized that the Steering Committee needs to understand sooner rather than later if the Technical Committee can complete all the critical tasks before the next meeting in January.

The next meeting of the Steering Committee is scheduled for January 24 at Council offices, 10-3.