BPA Response to Tacoma Rate Case Issues

June 9, 2014

Background: BPA received the following questions from Tacoma Power via Tech Forum on May 1, 2014. Staff from BPA and Tacoma met on May 9, 2014 to further discuss and clarify the questions raised by Tacoma.

Below are BPA's initial responses to Tacoma Power's questions:

1) ***NOS studies*** *- Is there any way to determine (or estimate) the total of NT and reservation based (PTP/IR/FPT) usage in NOS studies? If so, what are the amounts for such classes in the most recent NOS studies? How are the class amounts determined? Can you determine or estimate the total contract reservation amounts for the PTP/IR/FPT class in such studies, and if so, what are they?*

2) ***Other Studies*** *- Are there any other studies or processes that allow for the determination or estimation of the amount of NT versus reservation based (PTP/IR/FPT) usage to understand their relative proportions and their contribution to peak loading or any other metric (i.e. ATC)? If so what are the amounts and proportions of such NT and reservation based usage in such studies. What is the total contract reservation amounts for the PTP/IR/FPT classes in such studies?*

Response:

Methodology

The NOS cluster study referred to in question 1 and the ATC basecase referred to in question 2 use similar assumptions to model the use of BPA's system. The NOS basecase is performed based on a 5 to 6 year look ahead; for example, the 2013 NOS considered the 2018 timeframe. The ATC Basecase is a two-year look ahead; for example the 2013 ATC basecase considered the 2015 timeframe.

Load is modeled the same way in both ATC and NOS basecases:

- The source load forecast – which explicitly includes NT obligation – is the same for the ATC and NOS Basecases.
- For the BPA system, BPA develops the load forecast for most of BPA's customers (some customers do provide their own information)
    - BPA uses the load forecast to determine the generation requirements *to serve the NT load only*.
    - BPA also uses the load forecast *for all BPA customers* in basecases for both ATC and NOS. Upon inclusion into basecases, BPA makes no distinction between the types of service – the basecases only use the actual MW (and MVAR) in the forecast (without regard for type of service).
- For the non-BPA system within the Northwest, entities (such as Pacificorp, Puget Sound Energy, etc.) develop their own load forecasts and supply them to the Western Electricity Coordinating Council (WECC) for inclusion in WECC study basecases.

BPA uses the load forecasts submitted for use in WECC basecases by those entities in the ATC and NOS basecases.

Generation for NT is modeled differently in each case:

- ATC Basecases: BPA includes the generation for Designated Resources for NT customers (with the exception of Avista and Pacificorp, whose resources are determined directly from their Designated Resources). The dispatch is based upon a "recipe" that first applies the full amount of Designated Non-Federal DNRs and adds MWs from the FCRPS to meet the customer's full load in the load forecast. The aggregated amount (for all NT customers) is added to the PTP and GF obligation to provide the full dispatch for the FCRPS. The portion of FCRPS dispatched for NT service plus the dispatch of Non-Fed DNRs provide a load-resource balance that matches the load forecast for all NT customers.

- NOS Basecases: The FCRPS generation dispatch for the NOS basecases is based upon the 95th percentile output (by season) for each of the Big 10 FCRPS resources. The actual 95th percentile MW are applied to the case. The FCRPS dispatch used in the NOS basecases is not tied explicitly to the contractual obligations for NT, PTP, or GF service. The FCRPS dispatch (plus Non-Fed Designated Network Resources s) does, however, cover the full NT load (and therefore the full NT requirement).

Both the ATC and NOS basecases do consider BPA's full NT obligations (the NOS study period looks at a timeframe farther ahead in time). The load forecast is the source for determining the amount of NT obligation used in the basecases.

Proportion of Use By Product

As part of this response, BPA is releasing information prepared by the BPA Reservation Desk that summarizes the proportion of demand modeled by product. This information is summarized in the Model Assumptions workbook posted as part of the materials for the June 11, 2014 Transmission rates workshop. The "Service Type Distribution" tab shows the forecast percent of total system demand modeled for each product by month. The "Service Type Demand" shows the forecast demand for each month of the study period by product. The "Summary" tab includes the data source for both charts. This is information was used in the 2013 NOS and 2013 ATC basecase studies.

Note: this information is used in the basecase for both analyses. Additional sensitivities are run using alternate assumptions for generation and load.

Additional Information

Additional information on the planning study process:

- BPA discussed its planning practices in detail in the BP-14 rate case. Please see BP-14 Direct Testimony (BP-14-E-BPA-30), Rebuttal Testimony (BP-14-E-BPA-45), and BPA's Record of Decision (section 4.3.1). If after reviewing there are specific questions, BPA would be happy to have more discussion.
- Contract Accounting Methodology – used in ATC basecase

- Powerflow Basecase Methodology – used in NOS basecase and ATC basecase
- 2013 NOS Cluster Study Meeting Materials

3) ***Historical Usage*** *- What is the historical usage of NT and reservation based (PTP/IR/FPT) services on the Network segment (ideally over the most recent 5 years)? For "reservation based usage" in this question we mean E-tags, or the like, including resale and redirect of PTP/IR/FPT service scheduled by/or from the original contract holder's rights (number to exclude subsequent redirects/resales). What is the total amount of the reserved contract demand associated with the "reservation based usage" for the historical time periods (i.e. the average of reserved amounts over each period)? We intend the information be provided in aggregate by class; not customer specific information.*

4) ***BP-14 Data Update*** *- Please update the information provided on historical Network usage and reservation amounts, at least through FY13, that was provided during the BP-14 pre-rate case workshops.*

Response: BPA staff has scoped its ability to provide usage data to respond to sections 3 and 4 of your request. There are three specific sets of data staff have identified as being helpful in response to your query:

1) Reservations
    a. BPA will work to pull demand associated with long term PTP/IR/FPT reservations for the past 5 years. This information will be aggregated to show reservations related to each type of service.
2) Customer Peak Monthly Usage
    a. BPA will identify each customer's peak monthly usage for each month over the past 3 years. This information will be provided aggregated into totals by product.
3) Usage During Monthly System Peak (TTSL)
    a. BPA will identify each customer's peak monthly usage for each month over the past 3 years. This information will be provided aggregated into totals by product.

BPA will provide the first two data sets in three weeks. Further research is needed to scope the third data set.

5) ***Network Capacity and Outages*** *- We would like to get useful historical data on Network total capacity (if there is such a thing), use and outages across the year (by month). For instance we are seeking data that could be graphically represented showing total Network monthly capacity, monthly TTSL peak, and planned and unplanned outages (graphically represented as a reduction to capacity) on the hour of the monthly TTSL peak.*

Response: BPA's Network is a complex system, and each Point of Receipt (POR)/Point of Delivery (POD) path will affect the system differently. There is no way to estimate a total Network capacity at any given time. Additionally, planned outages are posted on OASIS (this information will be available for Tacoma Power), but that information is not associated with specific MWs impacted by an outage.

It may be possible to determine how an outage impacts MW capacity on a specific flowgate, but this does not directly translate to how many MWs using BPA's systems are

affected. For example, a 20 MW reduction over a flowgate could result in reduction of 100 MW of demand if that demand has a PUF (Path Utilization Factor) on that flowgate of 0.2 (or 20%). After discussions between staff and Tacoma Power, BPA is not able to identify information that will help with this question.