Update on ATC Calculation Changes

Transmission Load Service Workshop

May 5, 2016

Load Levels

- *Status quo* – for those load forecasts BPA produces, 1-in-2 non-coincidental peak (NCP) load forecasts are used in:
  - Reliability Planning studies;
  - Long-term and short-term ETC studies; and
  - Cluster Studies.

- *No change is proposed at this time.*

Non-Federal Resources

- Wind will be modeled in long-term and short-term ATC Base Cases, as well as Cluster Studies, two ways:
  - Wind “off” replaced with balancing logic generation for wind delivered on PTP transmission, and replaced with FCRPS for wind serving NT load; and
  - Wind “on” at contract demand, capped by nameplate.
  - *The change from current Base Case modeling is expansion of the wind “off” scenario to include PTP contracts as well.*
- Non-wind will be modeled at contract demand, capped at lower of nameplate or historical peaks, which is consistent with current practices.

FCRPS

- Replace the existing single FCRPS dispatch assumption with three dispatches that separately stress the hydro system at the Upper Columbia projects, Lower Columbia projects, and Lower Snake projects (referred to as “stress by generation zone”).
  - Stress levels will be set at nameplate capacity reduced for forecasted FCRPS generator outages for all seasons and all stress cases except the Lower Snake project stress case in late summer (August).
  - Lower Snake projects in August will be modeled at the peak ten-year historical outflow with an adjustment to account for spill requirements being removed from the projects.

Balancing Logic

- A *pro rata* reduction of all resources, except the stressed FCRPS zone, will be used to achieve balance.

- *This is a change to the current practice of balancing long-term and short-term ATC Base Cases with hydro generation and balancing the Cluster Study with a merit order (i.e., most expensive resources are reduced first).*

Load Growth

- The regional average load growth rate will be applied to the Planning ETC values.
  - Rate will be determined by comparing the two-year and five-year WECC Base Cases.
  - This load growth rate will be recalculated at each long-term Base Case update.

  - *BPA plans to eliminate the Contract Accounting portion of the ATC calculations, which is the current process in which load growth is included.*

Encumbering NT Resource Forecasts

- BPA plans to continue use of the method implemented as part of the initial TLS transition: encumber capacity via PTDF calculations for the highest impact on each flowgate for all forecasted resources.

Existing Transmission Commitments (ETC) & Uncertainty Margin

- Several seasonal cases and/or scenarios will be produced for each long-term and short-term Base Case, each of which will calculate an ETC for each flowgate. *Update from maximum of 4 per season to 12 per season.*
- Rather than use of the highest value as ETC, BPA plans to:
  - use the lowest ETC value across the seasonal cases and scenarios; and
  - use the difference between highest and lowest ETC values across the seasonal cases and scenarios as an uncertainty margin.
- This margin will be released to the short-term non-firm market four-months prior to operations.
- BPA plans to develop a method and process to potentially release this capacity as firm in the short-term market when it is deemed not needed to serve existing firm commitments.

Timeline for ATC Changes

- May 2016: red-lined ATC Methodology documents posted for written comment period
- May – June 2016: updated ATC Methodology documents finalized
- July – September 2016: ATC process changes incorporated into long-term Base Case Update
- August – October 2016: ATC process changes incorporated into short-term Base Case update