

Conditional Firm Service (CFS) Study Methodology

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TSR Evaluation for CFS

- TSRs with signed/funded study agreements requesting CFS will be studied consistent with request (System Conditions and/or Number of Hours)
- BPA will determine existing main grid, sub grid, and/or third-party issues that prevent CFS offers

Determination of Ability to Offer CFS Reliably on BPA Paths

- Unless study findings determine an inability to offer CFS on a path due to a reliability issue, BPA will offer CFS on main grid path(s)
- A number of analyses will be utilized to examine ability to offer CFS reliably:
 - Powerflow study results
 - Subgrid engineering/operational considerations
 - Historical curtailment data
 - Production Cost Modeling study findings
 - Predicted number of hours of CFS curtailment that would be required
 - Operational experience/known limitations

Defining System Conditions and Number of Hours

- System Conditions will initially be defined as “when real time operating limits require curtailments on X path(s) to maintain reliability”, applied to all paths for which long-term firm capability is not available
- Number of Hours will reflect the projected quantification of the maximum number of hours the CFS reservation can be conditionally curtailed on an annual basis. The number of hours applies to the reservation, not the conditional path(s)

Study Methods for Determining Conditional Curtailment

- Needs Assessment powerflow cases will be used to identify the main grid paths that would be conditional and will define the baseline for the System Conditions and Number of Hours
- Historical Analysis will provide insight into the potential hours and conditions under which congestion may occur
 - Past performance is not a perfect predictor of future performance
 - BPA expects to include a “buffer” factor to reflect potential variability in projected system conditions
- Production Cost Modeling may be used to inform and define projected hours of potential congestion