Proposed Changes to COI DTCProposed Changes to COI DTC

Draft Business Practice Change

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New COI DTC Studies

- In 2013, BPA and others identified the need to perform a new regional COI DTC study to account for changes in COI topology and other changes in operation since the last COI study nearly a decade ago.
- That study was initiated last spring as a regional effort managed by ColumbiaGrid and completed in February 2015.
- The study results apply to the entire capability of the northern portion of the COI, not just BPA's share.
  - BPA is the Path Operator for the northern portion of the COI.
- The study and its proposals only pertain to dynamic transfers on the COI. They do not address dynamic transfers on BPA's network.

Results

- The study results indicate that the existing COI DTC limits should be changed from the current limits of 200 MW during heavy load hours and 550 MW during light load hours.
  - Though the light load limit was at 550 MW, the COI has not experienced that level dynamic flow.
- The new limit is 400 MW during all hours.
- The recommended changes were coordinated through the ColumbiaGrid-led planning group

Need to Address “high flow conditions”

- However, additional studies performed by BPA, and vetted through the ColumbiaGrid-led group, indicate that COI DTC should be further limited under high COI flow conditions because COI voltage becomes more sensitive to changes in flows when flows are high.
- BPA’s studies indicate that COI DTC should be limited further as COI flows approach COI SOL.
- The limitation needs to be addressed whether or not BPA changes COI DTC limits from current limits.

Additional Controls

- When high COI flows occur, BPA must freeze the real-time dynamic upper limit to their current output until COI flows decrease.
- Thus, if a dynamic transfer were at 50 MW when high flow conditions occur, that dynamic transfer could continue delivery at 50 MW, but could not increase deliveries above 50 MW—even if it had been allocated to, say, 75 MW of COI DTC.
- Should the dynamic transfer delivery rate decrease from 50 MW, to say, 40 MW, the DTC limit for that dynamic transfer would decrease accordingly to 40 MW until COI flows are no longer in a high flow condition.
- BPA would enact this control for all dynamic transfers on the COI.
- The control does not include any tag curtailments.
  - Though curtailments or other congestion management may also occur during the same interval.

Need for Further Work

- Further work needs to be done to evaluate whether this is an issue for all COI SOLs and system conditions.
- Further work needs to be done to evaluate potential commercial implications.
- Historically, over the past three years, COI flows have been within 400 MW of 4800 about 2% of hours.
- COI flows have been within 400 MW of SOL about 20% of hours.
- BPA expects to complete additional evaluation by Oct 1, 2015

Automation

- BPA expects to develop automatic controls to limit dynamic transfers under high flow conditions.
- However, until these automatic controls are developed, BPA will continue to rely on manual controls.

Monitoring of Commercial Impacts

- BPA will also monitor the commercial impacts of further limiting dynamic transfer during high flow conditions.
- BPA expects to report to stakeholders on the results of monitoring commercial impacts in 2016.
- BPA would like customer feedback on the potential impacts of the proposed changes, including real-time controls.
  - Specifically, BPA would be interested in any thresholds for when the frequency, magnitude, and timing of the real-time controls being triggered would have significant commercial impact

Next Steps

- BPA will change its “Dynamic Transfer, Scheduling and Operating Business Practice” to reflect the change in COI DTC limits.
  - BPA expects to implement the new limits by Oct 1, 2015.
- BPA does not include real-time operational control practices in business practices other than to note that BPA reserves the right to limit dynamic transfers to protect reliability or to prevent other adverse conditions.
  - Thus, the control mechanisms described above are not part of BPA’s dynamic transfer business practices.
- BPA will continue to coordinate with regional parties to address how to implement study results.

Questions?