

Comments of the Bonneville Power Administration
2018-2019 Transmission Planning Process

Submitted by	Company or Entity	Date Submitted
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The Bonneville Power Administration (BPA) is providing the following comments on the 2018-2019 Transmission Planning Process (TPP) to assist with the California Independent System Operator (CAISO) in its response to the California Energy Commission and California Public Utility Commission request for sensitivity case studies related to transfers between the Pacific Northwest and California. BPA appreciates the CAISO's recognition that studies relating to the needs and technical requirements on BPA's system require BPA's participation. As such BPA and CAISO collaborated on the intertie studies for the 2018-2019 TPP, and, as a general matter, BPA continues to encourage the ongoing collaborative efforts between the regions.

The BPA comments listed below are intended to provide additional clarity to those materials presented by CAISO in late November 2018 - *Informational Study: Increased Capabilities for Transfers of Low Carbon Electricity between the Pacific Northwest and California, dated November 26, 2018.*

COI N-S Capacity Increase from 4,800 MW

The Northwest AC Intertie (NW AC Intertie) is owned by BPA, PacifiCorp, and Portland General Electric, with BPA as the operating agent. In addition to the asset owners, other Northwest utilities have capacity ownership rights on BPA's portion of the NW AC Intertie. To the extent that TPP identifies changes to any operations on the Northwest AC Intertie, such changes must be led by the operating agent and the other facility owners.

BPA supports the potential California Oregon Intertie (COI) N-S capacity increase from its current capacity rating of 4800 MW to 5100 MW, under favorable system conditions. As discussed during the study phase, the 300 MW increase in capacity can be achievable under a single contingency or non-simultaneous system conditions. This capacity increase is possible as the result of the recent changes in NERC standards, and because WECC relaxed some of the performance requirements. Since this new capacity can be achievable under favorable system conditions (*i.e.*, all lines in service and certain generation pattern), it can only be made available for scheduling on a non-firm basis. It cannot be sold as firm transmission service by the transmission providers. In addition, a new line rating would be necessary when and if all of the intertie facility owners agree to undertake the next steps. Further, the allocation process for addressing the additional non-firm capacity as well as an implementation procedure will require coordination among the NW AC Intertie owners and CAISO.

Dynamic Transfer Capability on COI

This past summer, BPA increased the Dynamic Transfer Capability (DTC) on the NW AC Intertie from 400 MW to 600 MW. As of December 1, 2018, BPA also removed the DTC Voltage Stability Limit (freezing/crimping) on the NW AC Intertie. The removal of the limitations was a direct result of the WECC Remedial Action Scheme Reliability Subcommittee's approval on the BPA's Synchrophasor Remedial Action Scheme as a Wide Area Protection. It is important to note that a DTC study above the 600 MW was not part of the scope for the current 2018-2019 TPP informational study. Thus, a separate DTC study would be needed in the future to see what it takes to increase the DTC beyond the current 600 MW limit.

Further, as stated above, changes to the NW AC Intertie requires close coordination with the other owners.

Intra-hour scheduling on PDCI

The northern portion of the PDCI is owned by BPA, and the southern portion of the PDCI is owned by Los Angeles Department of Water & Power (LADWP), Southern California Edison, the City of Pasadena, the City of Glendale, and the City of Burbank. BPA is the operating agent on the northern portion, and LADWP is the operating agent on the southern portion. Changes to any operations on the PDCI must be led by operating agents of the PDCI and the other owners of the facilities.

Currently all energy schedules on the PDCI are done manually. BPA and LADWP make hourly phone calls for scheduling and balancing authority reconciliation functions. Because of the manual process, energy schedules on the PDCI must be in hourly increments. The intra-hour scheduling on the PDCI is one of BPA's grid modernization projects, and BPA plans to begin working on the project starting in early 2019. BPA estimates that the project schedule from the scoping phase to the implementation could take up to two years. Close coordination between BPA and LADWP, as well as the other asset owners, would be needed in order to scope system requirements and develop an implementation plan including a timeline for the final project.

Assigning Resource Adequacy Value to Firm Zero-Carbon Imports

The November 26, 2018 presentation does not appear to fully address the questions asked by the CEC and CPUC about California and Northwest diversity opportunities. The limits on operational practices identified in the November 26 presentation may be more resolvable than described. The November 26 presentation also describes coincidental deliveries of Northwest zero-carbon hydro that could be more advantageously shaped by market design. These capabilities have become even more significant this year with the passage of Senate Bill 100 and the ongoing legislative deliberations in Oregon and Washington.

The February 15, 2018 letter from Chair Weisenmiller and President Picker describes their broader interest in changing the dynamics of surplus renewable sales during certain hours and periods of the year. With respect to such broader policy implications the assumptions and restrictions in the November 26 presentation may be too narrow and dispositive. BPA remains committed to work with the CAISO to continue to explore the potential for long-term, firm deliveries of carbon-free resources to California customers.

A tradition of long-term, firm deliveries of surplus energy exchanged between the regions grew out of the building of the Southern Interties. The continued viability of the interties rests upon recognition of the commercial and planning value of these critical elements of transmission infrastructure in the West working to complement each other. To BPA, this includes recognition of the commercial rights to flow on the 8,020 MW of interties. These rights are governed by purchases made by willing buyers and sellers, including those willing buyers and sellers of annual, monthly and flexible resource adequacy products from Pacific Northwest hydro resources. BPA and other owners of Pacific Northwest hydro currently are incented to sell carbon-free energy into California because of the favorable short-term energy price dynamic, rather than the long-term planning value collectively conferred by the owners or the favorable value proposition of an accommodative policy framework for selling long-term, carbon-free resource adequacy products deliverable to California entities. This and other processes should contemplate the implications of changes to the short-term incentive for selling carbon-free energy to California wrought by possible public policy changes in the Pacific Northwest and by possible enhancements to the CAISO's

Maximum Import Capability (MIC) allocation framework rather than assuming that the status quo will continue in perpetuity. Solidifying our collective long-term planning and commercial foundation is paramount to further improvements on intertie facilities and infrastructure investments.

Thank you for the opportunity to comment, and please feel free to contact me or Ravi Aggarwal at 360-619- 6056, rkaggarwal@bpa.gov if we can provide additional information.

Sincerely,

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