

Transmission Agency of Northern California
Comments on Study Scope for Increased Capabilities for Transfers of Low
Carbon Electricity Between the Pacific Northwest and California
April 25, 2018

The Transmission Agency of Northern California (“TANC”) appreciates the opportunity to provide input on the California ISO’s (“CAISO”) informational study evaluating “Increased Capabilities for Transfers of Low Carbon Electricity Between the Pacific Northwest and California” (“Informational Study”). The Informational Study will be conducted as part of CAISO’s 2018-2019 Transmission Planning Process (“TPP”).

The comments below reflect TANC’s review of CAISO’s study scope document (“Study Scope”, dated April 12, 2018) and information provided on CAISO’s stakeholder call and associated material (“Stakeholder Slides”, dated April 18, 2018). CAISO is scheduled to issue a final scoping document (“Final Scoping Document”) on May 5, 2018.

TANC’s General Requests and Observations

1. **Stakeholder Access to Base Case Data:** Stakeholders need to have the ability to review the data inputs included in the base case modeling scenarios for both the Production Cost Models (“PCM”) and the Power Flow analyses. TANC requests that the Final Scoping Document provides clear instructions on how stakeholders can (1) obtain the underlying base case data sets and (2) provide comments or corrections to CAISO.
2. **Clarifying Production Cost and Power Flow Analyses:** TANC understands that the Informational Study will utilize both PCM and Power Flow analyses as part of its evaluation. The Study Scope and Stakeholder Slides do not clearly delineate the studies and data that will be used in (1) the PCM analyses and (2) the Power Flow analyses. TANC requests CAISO’s Final Scoping Document clearly explain the inputs and modeling assumptions in each analysis.
3. **Operating Procedures and COI Northern CA Hydro Nomogram:** The Study Scope notes that Path 66 will be modeled to the applicable seasonal nomogram (Section 3.7, Table 3, footnote 11), and incorporating existing Operating Procedures (Section 3.8) in the model. These modeling constraints might be appropriate for parts of the Informational Study, but would be problematic in reaching the objectives intended for the AC and DC capacity increase portion of the study. (Because the existing Operating Procedures and seasonal nomograms are in place to protect the limiting facilities on the system, the objectives towards identifying critical facilities and evaluating “key options to increase transfer ratings of the AC and DC Intertie” would be placed at a disadvantage.)

It is understood that the language in Section 3.7 and 3.8 was likely not intended for the AC and DC increase capacity study. For the sake of clarity however, TANC requests that

additional detail be added to these sections that specifies that Operating Procedures and seasonal nomograms related to the Northwest AC Intertie, COI and the PDCI will not be included in the Power Flow base cases and PCM's used in the AC and DC capacity increase study.

4. **Energy and Demand Forecasts Sensitivity:** The Study Scope notes that the Informational Study will use 2017/2018 IEPR inputs for Energy and Demand Forecasts (Section 3.5.1). TANC requests that the Informational Study also includes a sensitivity analysis using the IEPR's "High" case.¹
5. **Inputs for Conducting High North-to-South Flow Scenario:** The Study Scope does not indicate which seasonal CA load conditions and approximate hour that are to be modeled in the Power Flow base cases related to this analysis. As these studies are also related to the dynamic transfer capability study, it is unclear whether these studies will be performed for an early evening peak load hour when the PV generating resources within the state are no longer available (which likely does not correspond to the overall peak demand hour represented in the load forecast when PV resources are available). TANC requests that further detail be provided in the Study Scope pertaining to the system conditions modeled in the Power Flow cases as it pertains to seasonal loads, operating hour, and in-state renewable generation output. TANC also recommends that the CEC's "high" Energy and Demand Forecast is used for this analysis.
6. **Renewable Generation Scenario and Treatment of Pacific Northwest Wind Resources:** In Section 3.6.1 of the study scope, input is requested from the stakeholders for recommendations on the renewable generation assumptions to be used in the Informational Study. TANC agrees that the Default Scenario is the more appropriate scenario for this study and is most consistent with the CEC request letter. With an increase transfer capacity between the PNW and CA, however, additional power from wind facilities in the PNW could be imported into CA which would support initiatives towards reducing statewide GHG emissions. TANC requests that the PNW wind resources be included in the Resource Adequacy ("RA") study with the PNW hydro resources. With the additional accounting of the PNW wind resources, the analysis should more comprehensively evaluate how higher PNW import capabilities could assist CA reduce statewide GHG emissions.
7. **Updating Regions Around CAISO:** The Study Scope (Section 3.5.1) notes that "the latest generation, load and network topology of BPA and LADWP systems will also be used...". TANC requests that CAISO also use the latest information for other BA systems in CA

¹ Specifically, TANC recommends using the IEPR forecast with 1-5 Temperature; High Demand Baseline; Low AEEE; and Low AAPV. (See http://www.energy.ca.gov/2017_energypolicy/documents/, filename: TN222580_20180216T093956_LSE_and_BA_Tables_High_Baseline_Demand_Low_AAEEAAPV_Revised_CCA.xlsx)

and the Pacific Northwest because the generation, load and network topology in these areas impact the usage of COI.

8. **Historical COI Congestion and Modeling Enhancements:** TANC requests that CAISO explain in the Final Scoping Document whether the Informational Study will incorporate modeling enhancements to improve accuracy with historical system conditions, in particular congestion on the COI. As part of this explanation, TANC requests information on whether the Informational Study will incorporate additional constraints to reflect items such as intertie transfer capability and contractual limits on transmission flows.
9. **Near-Term Analyses:** The Study Scope (Section 3.10.1) discusses two scenarios for the near-term analysis; one focused on flows from North to South and the other on flows from South to North. Given the broad scope of the Information Study and potentially large amount of analytical work necessary to complete the analysis, TANC recommends that the Informational Study focuses on the North to South flows analysis for the Near-Term study. This would provide additional time to evaluate key options that might be used in the near-term which would address the reliability concerns caused by the expected displaced generation with the shutdown of the Aliso Canyon Natural Gas Storage facility. The importance of the North to South transfer capability in the near-term is echoed in the CEC/CPUC's letter requesting the Informational Study, where they note that "[i]t is time-critical that we act now to evaluate key options to increase transfer ratings of the AC and DC Intertie and assess what role these systems can play in displacing generation whose reliability is tied to Aliso Canyon."
10. **Clarifying Miscellaneous Items in Study Scope:**
 - a. The Study Scope (Section 4.1) uses the term "AC intertie increase philosophy" without any further details. TANC requests CAISO clarify or define the term "AC intertie increase philosophy."
 - b. Table 3 row 3 in the Study Scope, the Summer Peak Scenario is listed to also include a study with the PDCI transfers at -3,100 MW. Is this correct or was the intended scenario Winter Peak?