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Comments of TransWest Express LLC on
February 21, 2019 Draft of California ISO 2019-2020 Transmission
Planning Process Unified Planning Assumptions and Study Plan

Introduction

TransWest Express LLC (“TransWest”) appreciates the opportunity to comment on the Draft 2019-2020 Transmission Planning Process (“TPP”) Unified Planning Assumptions and Study Plan (“Draft Study Plan”) prepared by the California Independent System Operator (“ISO”). TransWest’s comments are focused on Section 4, Policy Driven RPS Transmission Plan Analysis.

The Draft Study Plan references the California Public Utility Commission (“CPUC”) Energy Division’s proposed two Policy-Driven Sensitivity cases (Case B and Case C) first presented in the January 11, 2019 Administrative Law Judge Ruling (“ALJ Ruling”)¹ in the Integrated Resource Planning Proceeding (“IRP Proceeding”). Numerous parties in the IRP Proceeding, including the ISO² and TransWest³, provided comments in support of the staff’s recommendation to transmit these two Policy-Driven Sensitivity scenarios to the CAISO for further analysis in the 2019-2020 TPP. TransWest’s comments are based on the updated Case B and Case C portfolios⁴ as Policy-Driven Sensitivity scenarios for inclusion in the 2019-2020 TPP.

¹ CPUC Rulemaking 16-02-007 Administrative Law Judge Ruling Seeking Comment on Proposed Preferred System Portfolio and Transmission Planning Process Recommendations, January 11, 2019

<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M258/K123/258123000.PDF>

² <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M268/K726/268726989.PDF>

³ <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M265/K165/265165528.PDF>

⁴ CPUC, Policy-Driven Sensitivity Cases, February 2019,

<http://www.cpuc.ca.gov/General.aspx?id=6442460548>

Background

Numerous studies have outlined the net benefits to the California electricity sector through investment in transmission projects to provide access to the high quality Wyoming wind resources. The most recent analysis from the ALJ Ruling included 4.2 GW of Wyoming and New Mexico wind resources and transmission placed in service by 2026. The analysis found on a preliminary basis a net benefit of \$300M/year compared to a scenario that did not include these resources and transmission investments. The CPUC calculated the net benefits associated with the Case C portfolio are on the order of \$300M/year compared over the alternative (Case B) portfolio. While these preliminary benefits are significant, additional analysis is needed to ensure the net benefits can truly be realized and possibly increased by optimizing the transmission solution(s).

2016 – 2017 TPP 50% RPS Special Study

The ISO completed important analysis in the 2016-2017 TPP as part of a 50% RPS Special Study (“Special Study”) on the transmission needs and potential solutions for a similar 4.2 GW Wyoming and New Mexico wind resource deployments. The key findings related to the Wyoming resource areas from the Special Study included:

- a.) the determination that the existing ISO system could accommodate deliveries at the recognized interfaces with the existing system⁵,
- b.) there is a severe lack of available transmission capacity between the existing ISO system and the wind resource areas,
- c.) there are three proposed Interregional Transmission Projects (ITPs) that could provide the needed capacity for all or part of the distance between the Wyoming resource areas and the existing ISO system,
- d.) the 730 mile proposed TransWest Express Transmission Project (TWE Project”) could provide the needed transmission capacity between the existing ISO system and the Wyoming wind resource area, and
- e.) both the proposed SWIP-North and Cross Tie Projects would require capacity on an existing transmission project (SWIP-South also referred to as the ON Line) and capacity on the proposed Gateway West and Gateway South Projects to provide the needed capacity between the existing ISO system and the Wyoming wind resource area.⁶

While the Special Study had its limitations, the basic findings noted above are not likely to change with additional analysis.

⁵ CAISO 2016-2017 CAISO Transmission Plan, Section 6.4, March 2017

http://www.caiso.com/Documents/Board-Approved_2016-2017TransmissionPlan.pdf

⁶ CAISO 2016-2017 Transmission Planning Process Interregional Transmission Project (ITP) Evaluation and 50% RPS Out-of-State Portfolio Assessment, January 2018

<http://www.caiso.com/Documents/InterregionalTransmissionProjectITPEvaluationand50RPSOut-of-StatePortfolioAssessment.pdf>

2018 – 2019 TPP Interregional Transmission Coordination

The ISO concluded early in the 2018-2019 TPP cycle that the three ITPs analyzed in the Special Study to access the Wyoming resource area would not meet the ISO's needs or potential needs⁷. The ISO provided the following rationale within the June 2018 TWE Project and SWIP-North Project ITP Evaluation Process Plans:

*California renewable procurement portfolios provided by the California Public Utilities Commission for reliability and "informational" policy analysis **for the 2018-2019 transmission planning cycle** provide direction that all renewable procurement to achieve the 50% RPS goal to be considered by the California ISO's planning process be obtained from within California⁸. (Emphasis added.)*

Specific Transmission Needs In 2018 – 2019 TPP Policy-Sensitivity Scenarios

TransWest's comment's in response to the ALJ Ruling identified three specific resource areas that the IRP Policy-driven sensitivity analysis determined there was a (conditional) need for new transmission solutions. The following resource areas would require new transmission solutions⁹:

1. Add 930 MW or more of resources from the Greater Carrizo resource area with a 2027 in-service date, Case B;
2. Add 2,000 MW (to 3,000 MW) of resources from the Wyoming wind resource area with an initial 2023 in-service date, Case C (and Case D);
3. Add 2,250 MW (to 4,000 MW) of resources from the New Mexico wind resource area with an initial 2023 in-service date, Case C (and Case D)

⁷ CAISO draft 2018-2019 Transmission Plan, Chapter 5 , February 2019

http://www.caiso.com/Documents/Draft2018-2019_Transmission_Plan-Feb42019.pdf

⁸ CAISO, NTTG, WestConnect ITP Evaluation Process Plan, TransWest Express DC Project, page 4, June 2018

http://www.caiso.com/Documents/TransWest_Express_DC_Project_Interregional_Transmission_Project_Evaluation_Plan.pdf

CAISO, NTTG, WestConnect ITP Evaluation Process Plan, SWIP-North, page 5, June 2018

http://www.caiso.com/Documents/Southwest_Intertie_Project-North_Interregional_Transmission_Project_Evaluation_Plan_Updated.pdf

⁹ The in-service dates are based on the RESOLVE in-service dates for the full amount of resources from these areas. Large scale transmission expansion projects typically need to be placed in-service a few years in advance of bringing on the full amount of wind resources. The dates listed above are based on the year after the last planning year to provide time for the resources and market to integrate the resources. The Tehachapi Project is a good example of this typical type of transmission and resource deployment schedule over a period of years once initial components are first placed in-service

Identification of Category 2 Transmission Solutions in the 2019-2020 TPP

Transmission planning generally involves both the assessment of needs and the evaluation of transmission (or non-transmission) solutions to meet those needs. The Draft Study Plan should be revised to include a description of the TPP Phase 2 process to evaluate and identify Policy-Driven Category 2 transmission solutions. Section 24.4.6.6 (Policy-Driven Transmission Solutions) of the ISO Open Access Transmission Tariff (“OATT”) outlines that “the CAISO shall evaluate transmission solutions needed to meet state ... policy requirements or directives as specified in the Study Plan”. The OATT also requires the ISO to “identify such policy-driven transmission solutions that that efficiently and effectively meet applicable policies under alternative resource location and integration assumptions and scenarios, while mitigating the risk of stranded investment.”

These planning steps are critical for both Category 1 and Category 2 transmission solutions. The CPUC’s transmittal of Policy-Driven Sensitivity scenarios for the 2019-2018 TPP should result in the identification of the Category 2 (information-only) transmission solution to meet the (conditional) needs determined through analysis of the portfolios. Once identified, these Category 2 solutions can be further refined and the broader resource needs evaluated to potentially be considered as Category 1 solutions. Section 24.4.6.6 of the OATT outlines a number of criteria the ISO needs to consider to re-classify a Category 2 solution as a Category 1 solution. The CPUC and other stakeholders have a role in supporting the ISO either positively or negatively on many of these criteria. The identification of a Category 2 transmission solution would help all stakeholders in supporting the ISO in their consideration of these criteria.

The Policy-Driven Sensitivity Case C scenario includes a portfolio with 2,000 MW of Wyoming wind and 2,250 MW of New Mexico wind placed in service by 2026. The CPUC has determined that development of these wind resource areas would require the construction of one or more major multi-state transmission projects, involving hundreds of miles of construction. The construction of such transmission projects and the construction and integration of this scale of wind energy resources will take four to five years.

Backing up the schedule from the 2026 in-service date would require the construction of the transmission to start by 2021. This would require CAISO Board approval of the Category 1 Transmission Solution(s) following the 2020-2021 TPP. Attached to these comments is a Gantt chart schedule outlining the various steps required to realize the Case C scenario. If approval of one or more transmission solutions following the 2020-2021 TPP is required to meet this schedule, it would be prudent to identify the Category 2 transmission in the 2018-2019 TPP.

This would allow for thoughtful and well informed consideration of the following items throughout 2020:

- a. stakeholder review and feedback,
- b. transmission solution refinement (e.g. staging etc.),
- c. LSE IRP and procurement planning and potential execution of PPAs
- d. consideration of alternative transmission models (e.g. capacity/cost allocation with non-ISO transmission owners, etc.), and
- e. consideration of alternative resource areas (if not feasible or cost effective),

Potential Transmission Solutions

There are a limited number of proposed transmission projects that could be placed in service to meet the 2026 timeline. The 2016 RETI 2.0 Final Report identified six advanced development projects, four that could provide additional transmission capacity to access Wyoming wind resource areas and two that are focused on New Mexico resources. The TWE Project, SWIP-North Project, Gateway South Project and Gateway West Project are the four projects associated with the Wyoming resource area. Both the TWE Project and SWIP-North Projects have been submitted to the ISO, the Northern Tier Transmission Group (“NTTG”) and West Connect as Interregional Transmission Project (“ITP”) proposals.

As outlined previously, the ISO did not evaluate the TWE or SWIP-North Projects in the 2018-2019 TPP. The 2019-2020 TPP Policy-Driven Sensitivity Case C scenario will allow the ISO to proceed with the evaluation of these Projects in the 2019-2020 TPP.

Interregional Coordination

NTTG performed analysis of the TWE and SWIP-North Projects in their 2018-2019 planning cycle. The NTTG 2018-2019 Draft Regional Transmission Plan¹⁰ (“NTTG Draft Plan”) outlines that none of the ITPs meet NTTG’s Regional Needs. Therefore, capacity and cost sharing between NTTG and the ISO on these ITPs is not likely. NTTG’s 2018 analysis included various combinations of the Gateway Projects and the ITPs, using power system models that include bus bar allocations and accurate connectivity between the various projects, the existing system and the wind resource developments. The ISO should use this information to inform the 2019-2020 TPP.

¹⁰ https://www.nttg.biz/site/index.php?option=com_docman&view=download&alias=3156-nttg-2018-2019-draft-regional-transmission-plan-redlined-02-06-2019&category_slug=planning-committee-meeting-material-02-13-2019&Itemid=31

WestConnect has yet to identify Regional Needs in any of their planning cycles. It is not likely that capacity or cost allocation between the ISO and WestConnect will be facilitated through WestConnect.

The ISO may want to consider the plans of an in-state neighbor, the Los Angeles Department of Water and Power (“LADWP”), and how these plans may support the potential transmission solutions to access the Wyoming wind resources. TransWest submitted an alternative TWE AC and DC Project configuration during the 2018-2019 ITP submittal period to the ISO, NTTG, and WestConnect. This alternative configuration of the TWE Project is designed to utilize capacity on the existing 2,400 MW Intermountain Power Project’s Southern Transmission System. The TWE AC and DC Project would be the lowest cost transmission solution to meet a portion of the combined needs of the ISO and the LADWP.

Alternatively, the CAISO may want to first consider the 730 mile TWE DC Project configuration in the 2019-2020 TPP as a Regional Solution. This would be the lowest cost Regional transmission solution to access Wyoming wind.

TransWest appreciates the opportunity to provide these comments. We look forward to working with the ISO Planning staff and others to provide information on the TWE Project to support the ISO in the 2019 – 2020 TPP.

California Integrated Resource Planning and Transmission Planning Timeframe

3/14/2019

