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Comments of TransWest Express LLC on  
February 17, 2015 Draft of California ISO 2015-2016 Transmission  
Planning Process Unified Planning Assumptions and Study Plan  
and  
2015-2016 TPP Study Plan, Economic Planning Study Request

**Introduction**

TransWest Express LLC (TransWest) appreciates the opportunity to comment on the Draft 2015-2016 Transmission Planning Process (TPP) Unified Planning Assumptions and Study Plan (Draft Study Plan) prepared by the California Independent System Operator (ISO).

TransWest has requested the ISO in past TPP cycles to perform an economic analysis to consider the potential benefits of a new inter-regional transmission solution that would provide California consumers with access to Wyoming wind resources. Last Year TransWest furnished the ISO an In last year's request, TransWest provided the ISO forwarded an Economic Planning Study<sup>1</sup> (CA/WT Study) performed by the National Renewable Energy Laboratory (NREL) that found significant economic benefits to consumers by accessing Wyoming wind resources through a new 730-mile, 3,000 MW high voltage direct current (HVDC) transmission solution.

The ISO responded to last year's request directing TransWest to participate in the California Public Utilities Commission's portfolio development process. TransWest has participated in the CPUC's proceeding contemplating revisions to the RPS Calculator (CPUC Proceeding No. R-11-05-005) and has identified several shortcomings in the transmission data included within the RPS Calculator. TransWest applauds the CAISO in identifying the need for Special Studies to inform the CPUC process. However, we believe the study description in the Draft Study Plan is too narrowly focused on a single planning criteria and falls far short of what is needed to enhance the CPUC's process. Within these comments on the Draft Study Plan, TransWest re-

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<sup>1</sup> National Renewable Energy Laboratory , *California-Wyoming Grid Integration Study Phase 1—Economic Analysis*, March 2014, available at: <http://www.nrel.gov/docs/fy14osti/61192.pdf>

states comments made to the CPUC on the required revisions to the RPS Calculator with respect to transmission data, outlines the required process enhancements to the CPUC and ISO planning processes for higher penetrations of renewable resources, and restates its request for the ISO to perform an Economic Planning Study as part of its Special Studies in the 2015-2016 Transmission Planning Process.

### **Transmission Data Used within the CPUC Portfolio Development Process**

The CPUC's RPS Calculator which is used to inform the portfolio development process includes information on transmission projects and related transmission costs for a large number of potential resource areas. The CPUC relies on the ISO and other entities to populate the RPS calculator with accurate transmission data. The CPUC is in the process of revising the RPS Calculator to help inform renewable portfolios that exceed the current 33% level. Version 6.0 of the RPS Calculator was provided to parties for review and comment in October 2014.

The CPUC's staff proposal outlines that the transmission data in Version 6.0 of the RPS Calculator is from 2010. The CPUC proposed a methodology to update the transmission data through coordination with the ISO<sup>2</sup>. It is not clear whether the ISO has incorporated the methodology outlined by the CPUC to update transmission costs either through the formal TPP as Special Studies, or through another process. It would be helpful for stakeholders to have some visibility of the process the ISO uses to update the transmission data in the RPS Calculator.

TransWest<sup>3</sup> and several other parties<sup>4</sup> provided comments to the CPUC on errors in the transmission data in version 6.0 of the RPS Calculator and interest in understanding how the ISO will update the information. This could be a time consuming effort depending on the amount of transmission data needed and may be a significant resource commitment by the ISO.

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<sup>2</sup> CPUC Energy Division's Staff Proposal on the RPS Calculator, October 10, 2014 See Development of Additional Transmission Costs for Version 6.1, page 21,

<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M119/K145/119145136.PDF>

<sup>3</sup> Comments of TransWest Express LLC on Energy Division Staff Proposal on the RPS Calculator, December 3, 2014, see comments to Question 13 and 16,

<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M143/K306/143306964.PDF>

<sup>4</sup> See RPS Calculator Comments from Pacific Gas & Electric, December 3, 2014

<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M143/K306/143306964.PDF>, San Diego Gas & Electric, December 3, 2014 <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M143/K311/143311248.PDF> and City and County of San Francisco, December 3, 2014,

<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M143/K396/143396169.PDF>

## **2015-2016 Special Studies**

### **Transmission Planning for Energy-Only Resources**

TransWest applauds ISO and CPUC for opening up an important discussion about a planning process that will result in a reliable and cost-effective transmission grid in a future where the resource capacity value of new intermittent resources is likely to be less than the cost of new transmission investments necessary to provide full capacity delivery service (FCDS). This has likely been the case for wind resources with a relatively low capacity value in the past. And this will likely be the case for solar PV resources in the future based on a growing body of work demonstrating the rapidly declining capacity value of solar PV as RPS levels increase above 33%.

The Special Study called for in Section 6.1 of the Study Plan is only a very modest first step in developing planning procedures for energy-only resources. The transmission congestion and associated resulting resource curtailment that will result from the Special Study will provide part of the information needed to implement effective planning for energy-only resources. However, it is also necessary to develop a process for testing the economic merit of adding transmission to reduce congestion and curtailments. The curtailment associated with the lack of transmission will need to consider whether the resources would be curtailed for other portfolio-based reasons such as over-generation. The ISO will need to track the incremental curtailments associated with lack of transmission capacity

This will require multiple production cost model (PCM) runs with various transmission improvements and the application of an economic screening tool. TransWest recommends the ISO utilize its Transmission Economic Assessment Methodology (TEAM) to assess the associated benefits and costs of incremental transmission to relieve this congestion. TransWest recommends that CAISO begin immediately to develop the specifics of a process to assess the cost-effectiveness of new transmission investments for energy-only resources with appropriate stakeholder involvement. The development of this process ahead of conducting actual study work will lead to the most productive use of limited study resources.

### **Additional information needed from the 2015-2016 Special Studies**

The CPUC has identified a number of in state resource areas that require additional transmission costs. The 2015-2016 Draft Study Plan should be updated to provide clarity on whether the 50% Renewable Energy Goal for 20130 Special Study would be used to develop this transmission information to be used by the CPUC.

## **TransWest's Study Request relevance to ISO Special Study**

TransWest's Economic Planning Study Request should be included within the ISO's 50% Renewable Energy Goals for 2030 Special Study. Version 6.0 of the RPS Calculator includes transmission data for the Wyoming wind resource area that assumes the resources would request full Resource Adequacy deliverability. The CA/WY Study included consideration of the Wyoming resources as energy-only resources and included production cost modeling analysis that examined whether the resources would need to be curtailed due to a lack of transmission upgrades on the existing ISO system down-stream from the Eldorado Valley. The ISO should review this analysis and conduct their own analysis to determine whether downstream upgrades would be economically justified to offset potential curtailments.

### **Study Request**

TransWest requests the ISO to review, consider and improve upon the California – Wyoming Grid Integration Study, Phase 1-Economic Analysis study conducted by NREL as an Economic Planning Study in the final 2015-2016 TPP Study Plan, 50% Renewable Energy Goal for 2030 Special Study. TransWest requests the ISO to analyze the potential network transmission facilities intended to access the out-of-state Energy Resource Area (ERA) in south-central Wyoming.

TransWest is making this request for an information-only Special Study to inform the future revisions to the CPUC's RPS Calculator.

### **CA/WY Study Details**

The CA/WY Study examined both a 33% by 2020 RPS scenario and a 35% by 2020 RPS scenario and found very little material difference in the economic assessment between the two scenarios. TransWest's Study request involves a 50% by 2030 RPS scenario, which will require an update of the expected California portfolio. The NREL study utilized the LTPP RPS Calculator to develop these California portfolios including both resources and transmission projects used as the base case in the economic assessment.

## **Contact Information**

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