



555 Seventeenth Street
Suite 2400
Denver, CO 80202
Tel 303.298.1000
Fax 303.299.1356

July 5, 2016

Comments of TransWest Express LLC on
Topics Discussed during the CPUC and ISO June 20, 2016 Telephone Call to discuss
the California ISO 2016-2017 Transmission
Planning Process, 50% RPS Special Study

Introduction

TransWest Express LLC (TransWest) appreciates the efforts of the CPUC and the California ISO in getting the 2016-2017 Transmission Planning Process (TPP) 50% RPS Special Study organized and sharing the objectives, scope and methodology with the stakeholders. We also appreciate the opportunity to provide these comments for consideration in augmenting and completing this very important study.

The study, although for information purposes only, is very important because it will help inform various agencies and market participants about the potential solutions to the integration challenges associated with supplying over half of California's electric energy needs with renewable resources. The study is also important due to the compressed timeframe to reach the incremental 40% target in 2024, 45% in 2027 and the 50% RPS in 2030. The 40% target is well within the 10-year 2016-2017 TPP planning horizon. Transmission solutions, especially long-distance lines, take many years to develop and place in service, hence the 10-Year planning horizon. The adoption of Senate Bill 350 (SB350) with its 50% RPS mandate in late 2015 has required the CPUC and the ISO to conduct a three annual TPP cycle prior to approval of any transmission solutions to meet the SB350 Policy Transmission needs. In the 2015-2016 TPP the 50% RPS special study provided useful information to improve the information the CPUC needs to inform their policy decisions. The 2016-2017 study needs to take this analysis further and tee up the required information for the CPUC and ISO to consider in their respective 2017-2018 Needs Assessments for the 2018 to 2028 planning horizon. In addition, Market Participants, particularly load serving entities with RPS obligations, will need to have the information from this study to inform their procurement and integrated resource planning activities.

Regional Expansion

TransWest notes that SB350 also included provisions for the regional expansion of the ISO. Since passage in late 2015 an enormous amount of work and effort has gone into this initiative. TransWest supports the regional expansion and suggest that the provisions of an expanded ISO in to the PacifiCorp regions be incorporated into the 2016-2017 TPP 50% RPS Special Study. The Special Study should look at both solutions that provide direct access between OOS resource areas and California load as well as solutions that only require access between the OOS resource areas and non-Californian load centers within the expanded market regions. Given the amount of resources dedicated to regional expansion initiative since the passage of SB350, the TPP Special Study should consider an expanded region as a possibility. The ability to approve any Policy Transmission following the 2017-2018 TPP Needs Assessment will need to be informed on how that transmission investment may be impacted by the regional expansion. Once again, agencies and load serving entities could use this information to better plan and implement investment and transaction activities to reach their respective policy obligations.

SB 350 Implementation Timeline

TransWest appreciates the timelines provided by the CPUC and the ISO to outline the sub-tasks within the Special Study. We agree the key objective of the study is to update the RPS Calculator with information on transmission to help inform the 2017 Assumptions and Scenarios for the TPP and Long Term Procurement Planning (LTPP). TransWest has developed the attached timeline based on our understanding of the ongoing processes in California and regionally that are looking at transmission solutions to meet the increasing RPS needs of California and the region. The arrows between the processes show the key data flows between the processes. The duration from the completion of the Special Studies in February 2017 to the start of the 2017-2018 TPP provides the CPUC and ISO very little time to use the information and for the public to review and comment on the data before it is used. TransWest would like to suggest that the ISO reconsider its methodology for the Special Study so that critical and less analytically demanding information be provided prior to February 2017. We outline these suggestions on methodology below.

The Integrated Resource Plan (IRP) process required by SB350 will not be in place to inform the 2017-2018 TPP, although output from the 50% special study and from subsequent TPPs will likely be required to inform the development of IRPs. RETI 2.0 will be completed in time to help inform the 50% RPS TPP and LTPP in 2017.

Special Study Portfolios

TransWest is not certain why the ISO felt the need to request alternative portfolios from the CPUC to conduct the 50% RPS. We see some improvements over the portfolios provided in the 2016 Assumptions and Scenarios and we have some questions to better understand the reason for the alternative set of portfolios. As long as these portfolios will serve to improve the RPS Calculator with the transmission information that needs to be reviewed and revised for the most

likely resource areas to be viewed as high potential areas to meet the 50% RPS requirements. We assume this confirmation has already taken place between the CPUC and ISO.

The Special Study portfolios include CA-only and WECC-wide portfolios. This differs from the product content category requirements in SB350 and the 2016 Assumptions, Scenarios and portfolios that were all based on WECC-wide renewable resources with sufficient transmission to schedule delivery to the ISO system. It is not clear why CA-only portfolios were requested by the ISO. Transmission considerations for any areas that show up only in the CA-only portfolios should have a lower priority than the other areas.

The Out-of-State (OOS) portfolios make reference to a “set aside” amount of resources in Wyoming and New Mexico. The term “set aside” implies that these resources had to be specially treated, set aside, to appear within the portfolio outcome. We understand this is most likely the case with the RPS Calculator. However, we point out that the metrics for these OOS portfolios with these “set asides” are all better than the CA-only portfolios. These resources may not be selected by the RPS Calculator without setting them aside. However, this should be more an indication of the limitation on the RPS Calculator and not the resources.

It isn't clear how the 2,000 MW figure was selected for these two resource areas. The typical rating of new 500 kV AC line solutions are approximately 1,500 MW and for new DC line solutions can range from 1,500 MW to 3,000 MW or more. Since 4,000 MW of OOS resources provided better economics it may make sense to extrapolate that even more OOS resources would improve the metrics more. The ISO's SB350 study assumes 6,000 MW of OOS resources and the 2016 Assumptions and Scenarios document includes a scenario with 3,000 MW of Wyoming wind. The 2015-2016 TPP 50% Special Study found over 2,000 MW of capacity at the assumed entry points for these OOS resources. TransWest believes different ranges of OOS resources from Wyoming and New Mexico will make sense to analyze in the 50% special study.

TransWest appreciates that the ISO and CPUC have provided portfolios for all cases that produce the same level of non-curtailed renewable energy. This was a deficiency in the 2016 Assumptions and Scenarios that was not accounted for in the metrics.

Study Scope and Methodologies

The Study scope should include a review and revision if required of the existing and potential new transmission capacity values to the highly likely resource areas. This seems to be the main focus of the scope. In addition, the capital cost estimates to realize the new transmission capacity levels should be reviewed and revised along with other basic information required in the RPS calculator for miles, voltage level, etc.

With respect to the potential transmission solutions to meet the needs of the potential wind resources in Wyoming and New Mexico, RETI 2.0 has already catalogued a wide range of

potential solutions. Some of these solutions and a couple of new ones since the RETI 2.0 review in late 2015 have submitted Interregional Transmission Project submittals to the ISO and other regions. In addition, many of these projects (e.g. Gateway, SunZia, Southline have completed Phase 2 and TransWest and SWIP-N are in Phase 2) have already undergone intensive reliability review within the Path Rating Process with involvement by the ISO. A secondary review of these study plans and reports should help provide a general overview of the reliability assessment for these projects without the need to conduct production cost modeling and reliability studies. The ISO should develop a comprehensive list of these potential solutions along with key project details. WECC and West Connect have similar databases that can be used to inform this listing. There may be data the ISO needs to review to confirm or revise, however this work could be completed faster than PCM and reliability studies themselves. Once this information is compiled, the scope of the PCM and reliability studies to fill in the gaps will be less than starting from scratch. In addition the PCM and reliability assessments can be performed on a more refined level in the 2017-2018 Needs Assessment.

The information from this listing will be helpful as well to inform the generic project information updated in the RPS Calculator as well as needed market information for LSEs. Out-of-state resources, especially ones located in remote areas in Wyoming and New Mexico that require transmission additions cannot file Generator Interconnection Requests with the ISO. Therefore market participants do not have a way to request or to understand the impacts of such a request on the evaluated cost for the resources without the ISO reviewing these within the Special Study. It is quite possible that the RETI 2.0 TTIG and/or the Western Interstate Electric Board will develop such a listing. However the constraints on that process and resources at hand will require the ISO's review and confirmation on the key data.

Once again we appreciate the CPUC and ISO efforts on the Special Study to help inform the SB350 requirements and we look forward to continuing to work with you on this very important study.

Contact Information

Any questions or responses to these comments should be directed to:

David Smith
Director, Engineering & Operations
TransWest Express LLC
555 17th Street, Suite 2400
Denver, Colorado 80202
(303) 299-1545
david.smith@tac-denver.com

California/Regional Resource and Transmission Planning Timeframes

5-Jul-16

