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TransWest Express' Comments on Draft RETI 2.0 Plenary Group Report

Additional submitted attachment is included below.

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VIA ELECTRONIC DELIVERY

January 10, 2017

Docket Unit
California Energy Commission
Docket No. 15-RETI-02
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
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RE: Comments on Draft RETI 2.0 Plenary Report released 12/16/2016

Dear Mr. Turner:

TransWest Express LLC (TransWest) appreciates the opportunity to provide comments to the Renewable Energy Transmission Initiative (RETI) 2.0 Plenary Group in response to the questions posed during the January 3, 2016, Plenary Group Workshop.

TransWest also commends the Plenary Group's work to collect and synthesize information from diverse sources into one report. The document provides a comprehensive assessment of the transmission and environmental implications and options that California should consider in regulatory planning reviews to meet its ambitious environmental and energy goals. The breadth and quality of information within the RETI 2.0 draft Plenary Report, coupled with the wide range of cost-effective resource and transmission options outlined in the report, demonstrate the success California has had over the past decade in developing a robust regional clean energy market. We offer the following comments to further improve the Plenary Report in keeping with the RETI 2.0 goals and objectives.

Goals and Resource Conclusions

Renewable energy needs:

1. **The Plenary Report presents a range of renewable need based on meeting 50% RPS under IEPR- and PATHWAYS-based demand projections. Are there other demand projections outside this range that should be cited?**

   Yes. The Plenary report also should cite the California Air Resources Board's ongoing Climate Change Program 2030 Scoping Plan initiative. This initiative is considering GHG reduction targets specific to the electric industry, and these targets may be outside, or above,

the range of demand projections cited within the draft Plenary Report. The results of the 2030 Scoping Plan are intended to inform directly the renewable demand projections within the Integrated Resource Plan proceeding(s). For example, some alternatives being considered include RPS levels beyond 60% by 2030.

2. Is there a time dimension to when additional renewables are needed (e.g. existing contracts to mid-2020s) that should be noted?

Yes. The SB350 RPS includes interim targets of 40% RPS by 2024 and 45% RPS by 2027, in addition to the 50% RPS level by 2030. These step targets are similar to the interim targets included in the present 33% RPS by 2020 program, which have helped the program succeed by encouraging a steady transition over a decade towards higher renewable penetration levels. To the extent the 2030 projected demand or goal for renewables increases, it may be prudent to also increase these interim targets to recognize the implementation challenges in achieving a higher level of renewable penetration. The 2024 target is only eight years out, which is a relatively short time frame to address all of the regulatory and commercial obligations to plan and execute substantial infrastructure projects and the operational changes needed to reach penetration levels beyond the 33% renewable levels. The time dimension considerations associated with the execution challenges in reaching the 33% renewable level, particularly in transmission development where delays in several projects have led to a slower than projected use of transmission capacity than initially planned, should be noted in the Plenary Report.

The draft Plenary Report includes recommendations to consider scenarios that include developing and constructing large-scale regional transmission and renewable generation projects. The scale of these projects includes hundreds of miles of transmission construction and thousands of megawatts of capacity. These projects don't simply come online at full scale in a single year, as demonstrated by the available capacity numbers in the draft Plenary Report for areas that had recently been accessed by large-scale transmission development this past decade. TransWest estimates that it would take approximately 10 years to construct and bring fully on line the capacity of just one of these large-scale transmission and wind resource infrastructure projects. This timeline does not include the development activities associated with permitting, regional investment planning and commercial transactions required to secure financing. To the extent the 2024 target window provides an initial milestone timeframe for first bringing online incremental renewable resources associated with these large-scale infrastructure projects, the following six years could be used to fully load up this capacity and then transition to these higher penetration levels. As outlined in the draft Plenary Report, just one of these large-scale infrastructure developments will not be enough to meet the demand projections, suggesting that multiple projects in areas that are already accessible by transmission infrastructure, and other projects that require transmission infrastructure developments, will need to be planned, constructed and integrated over the next 14 years.

Renewable resource potential:

3. **Broad conclusions regarding the cost and value of renewable resources are noted. Are the conclusions accurate? Are more specific conclusions warranted? Are important renewable resource conclusions missing?**

   The Plenary Report should include the conclusion that the cost of high-quality, out-of-state wind resources plus the needed transmission infrastructure investment is cost-competitive with low-cost utility scale California resources. This conclusion is supported by several of the studies already cited within the draft Plenary Report (e.g. SDG&E 3/16/16 presentation, RPS Calculator, LCGS, E3's 2014 Higher RPS study) as well as other studies and that should be cited (see below). This finding provides the foundation for later recommendations included within the draft Plenary Report.

   Another conclusion, or finding, to include within the renewable resource potential cost section is the potential opportunity associated with the federal tax credit programs. The application of these credits can potentially have a significant impact in lowering the cost of eligible renewable resources, ultimately benefiting California consumers. To the extent these federal programs are winding down during the initial planning horizon, early action may provide an opportunity to lower overall costs if eligible resources are targeted earlier. California consumers benefited significantly from similar federal programs as targeted and executed in the initial RETI effort. These legacy programs should be referenced as a potential opportunity within the RETI 2.0 Plenary Report.

Diverse and Balanced Portfolio:

4. **The report describes recent studies of optimal portfolios. Does the report draw accurate conclusions from these reports? Are important reports missing?**

   With the exception of the points provided above, the draft Plenary Report draws accurate conclusions from the recent reports. The recommended conclusion with respect to the cost-competiveness of high-quality wind resources plus required transmission infrastructure is supported by the following important recent studies that also should be cited within the Plenary Report. These include the California - Wyoming Grid Integration Study[1] completed by the National Renewable Energy Laboratory (NREL) in 2014, the Regional Coordination in the West: Benefits of PacifiCorp and California ISO Integration[2] report completed by Energy+Environmental Economics (E3) in 2015, and the Senate Bill 350 Study, The Impacts of a Regional ISO-Operated Power Market on California[3] prepared for the California ISO in 2016. In addition to these reports, a more recent report from PA Consulting looked

[1] http://www.nrel.gov/docs/fy14osti/61192.pdf
[2] http://www.caiso.com/Documents/StudyBenefits-PacifiCorp-ISOIntegration.pdf
[3] http://www.caiso.com/informed/Pages/RegionalEnergyMarket.aspx

specifically at a Regional Transmission Expansion Assessment[4] and incorporated findings from these other studies. It examined the potential opportunity from the existing federal tax programs and the various proposed transmission infrastructure projects for California to access high-quality Wyoming wind resources.

5. **The report discusses different metrics of portfolio balance. Are these accurate, and are important metrics missing?**

   The metrics discussed in the draft Plenary Report accurately provide an appropriate measure of the operational challenges associated with high penetration levels of renewables, and, more important, the high penetration levels of solar resources. These metrics are appropriate to characterize portfolio balance.

6. **Are the conclusions regarding different resources' effects on balanced portfolios accurate? Are other conclusions warranted? How should these conclusions affect RETI 2.0 recommendations?**

   Yes, the conclusions regarding different resources' effects on balanced portfolios are accurate.

Transmission Area Focus Area Conclusions

Input Group Reports:

7. **Stakeholders are encouraged to examine the reports from TTIG, ELUTG, and WOPR. Is there a more effective way to summarize or refer to the reports in the Plenary Report than through the information in the TAFA summaries and Appendix A?**

   The draft Plenary Report and Appendix A does a very good job of effectively summarizing a significant amount of information, and the authors should be commended for this initial effort. There may be more effective ways to summarize the information; however, time may be better spent on other aspects of finalizing the Plenary Report.

8. **Are the conclusions drawn from the reports the right ones? Are there conclusions that are missing?**

   The conclusions within the first section and the second section should be combined to draw overall conclusions from two perspectives: 1) the opportunity to use existing infrastructure for certain resources, and 2) the opportunity to develop transmission to access regional cost-competitive diverse resources. The focus on the use and/or potential need for transmission infrastructure development provides important insights into the relative timing for various actions.

[4] http://www.paconsulting.com/our-thinking/regional-transmission-expansion-assessment/

For example, the final report may wish to combine the conclusion that low-cost, utility scale solar PV is cost-competitive across much of California with the TAFA analysis that identified approximately 10,000 MW of FCDS capacity and another 10,000 MW of EO delivery status capacity. This would suggest that solar resources in these transmission-served areas should be prioritized over areas that require new transmission infrastructure to access similar resources. Given the magnitude of available capacity and the cost-competiveness of the PV solar resources, new transmission infrastructure may not be needed to access this resource technology for some time.

On the other hand, high-quality wind resources in Wyoming and New Mexico plus the required new transmission infrastructure have been found to be cost-competitive with California resources. Therefore, the focus of transmission investment consideration should be placed on these large-scale, long-term projects. Both of these conclusions also have potential impacts with the potential opportunity for California consumers to benefit from the waning federal tax credit programs by 1) concentrating on solar development in areas with available capacity and 2) concentrating on out-of-state resource areas and transmission projects that can capture these federal tax credits.

TAFA conclusion summaries:

9. **Are the in-state TAFA data maps (located in Appendix A) useful and accurate?**

   Yes.

10. **Are the conclusion statements regarding resource potential and environmental, land use, and transmission implications accurate? Are important conclusions missing?**

    The advanced permitting status of resource areas and/or transmission projects should be noted. Power Company of Wyoming LLC and other entities provided information on the advanced permitting status of projects during the RETI 2.0 data collection process as requested.

Proposed Western Transmission Summary:

11. **Are the conclusions regarding western renewable resources, resource changes, export opportunities, and existing transmission accurate and useful? Are there important conclusions missing?**

    Yes, the conclusions are useful and accurate in the draft Plenary Report.

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12. Are the metrics for comparing projects or combinations (MW capacity, cost per MW of capacity, contingent on existing system, import/export opportunities) useful? What other metrics from the WOPR report are most useful for high-level comparison?

The metrics for comparing projects are useful at this very high level of comparison. Other potential metrics to include is the mileage of the various projects.

Draft Conclusions and Recommendations

Potential constraints and conceptual mitigations:

13. Are the summary descriptions of potential transmission constraints accurate?

Yes.

14. Are the conceptual mitigation options described accurately? What land use or environmental planning data (or data gaps) are relevant to the potential transmission mitigations?

Yes, the conceptual options are described accurately. However, these transmission options should not be referred to as "mitigations," as this implies some type of unwarranted impact that needs to be somehow mitigated. Instead, these options should be considered as potential solutions that should be considered for investment through network expansion. "Mitigation" implies that the option is required, which is hardly the case with network expansion to access a broader market viewed as an investment opportunity to lower overall costs.

15. Are there additional transmission mitigation options that should be referenced?

No, the options referenced are adequate for this Plenary Report.

Scenarios to inform resource and transmission planning:

16. Are the proposed conceptual scenarios tractable and would they be useful to study? What other conceptual scenarios (within RETI scope) would be useful to study? Which portfolio elements within scenarios would be most useful?

The proposed conceptual scenarios would be useful to study within the IRPs, the ISO TPP and the WestConnect planning process. All of these groups have initiated work on scenarios very similar to those proposed in the draft Plenary Report. They should be encouraged to proactively address any institutional or technical barriers to completing studies and providing their respective authorities with information and recommendations on any potential transmission investments. This will ensure California can be best positioned to meet its environmental and energy goals.

17. Would the Multi-LSE RFI proposal be a useful and productive exercise?

No, this exercise would not be useful or productive for LSEs, developers or the agencies. The rationale for this recommendation is materially flawed and does not adequately consider the existing institutions and processes established to plan and consider network transmission investment opportunities on behalf of consumers. The premise of this recommended exercise is that the lack of credible data from developers to LSEs is somehow thwarting the process and that an RFI would provide commercial data to unlock these processes.

TransWest provided comments during the Western Outreach Project that additional processes or exercises are not necessary. Stakeholders and agencies should focus on the existing processes and the existing institutions with transmission planning responsibility. The CPUC Energy Division staff has been engaging proactively with developers and LSEs to develop the appropriate type of resource and transmission planning. The regional transmission planning groups, including the California Independent System Operator, WestConnect and the WestConnect California utilities, are conducting regional planning processes and coordinating their efforts on an interregional basis. To the extent these groups need additional resources or data, they have ample opportunity to make appropriate requests to ensure they can develop and provide important information and recommendations on potential transmission expansion investments.

Thank you for your consideration of these comments.

Sincerely,

TRANSWEST EXPRESS LLC

/s/David F. Smith

David F. Smith
Director, Engineering and Operations