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TransWest Express Comments to RETI 2.0 TTIG (15-RETI-02)

Additional submitted attachment is included below.

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VIA ELECTRONIC DELIVERY

February 5, 2016

Docket Unit
California Energy Commission
Docket No. 15-RETI-02
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
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RE: Response to 1/22/16 questions for stakeholders

Dear Transmission Technical Input Group:

TransWest Express LLC (TransWest) appreciates the opportunity to provide data to the Renewable Energy Transmission Initiative (RETI) 2.0 Transmission Technical Input Group (TTIG), following the presentation we delivered to TTIG on January 22, 2016. This letter complements information that TransWest provided to RETI's Environmental and Land Use Technical Group in December 2015. TransWest is an independent transmission developer that is focused on permitting and developing the TransWest Express Transmission Project (TWE Project) to benefit utilities and their customers in California and the Desert Southwest. More details about the TWE Project and responses to the stakeholder questions follow.

Relevant technical information
The TWE Project is an inter-regional, bi-directional transmission solution extending 730 miles between the Desert Southwest region and the Rocky Mountain region. Proposed as a 600 kilovolt (kV) direct current (DC) transmission design, the TWE Project will be built in two phases. Initially, the TWE Project will operate at 1,500 MW; the second phase will upgrade the line to operate at 3,000 MW.

The TWE Project's southern terminal will be interconnected to existing 500 kV substations located near the Nevada-California border, which are owned and operated by the California Independent System Operator Corporation (CAISO), CAISO Participating Transmission Owners, the Los Angeles Department of Water and Power, and others. The northern terminal will be connected to the existing 230 kV and the planned 500 kV Gateway Projects, which are owned, operated and planned by PacifiCorp.

TransWest is maximizing the design and development flexibility of the TWE Project so it can be refined relatively easily to meet the evolving market demands. The TWE Project is being permitted with a potential third terminal location near Delta, Utah, which would allow the TWE Project to connect to the Utah grid and the Intermountain DC Intertie. The line is being permitted to allow for the use of 500 kV alternating current (AC) technology instead of DC technology. The TWE Project will be fully integrated with the AC system in Nevada and Wyoming and will serve as an expansion

of the bulk power system network. The project's commercial model is flexible as the funding mechanism could allow for traditional network service, point-to-point service or other commercial models.

Relevant development information
The TWE Project is well-advanced in the federal permitting process, which is necessary for all transmission projects involving federally managed land in the Western Interconnection. Its advanced permitting status helps to demonstrate the project's strong technical and environmental viability.

The U.S. Department of Energy's Western Area Power Administration (Western) currently is participating in the TWE Project through its Transmission Infrastructure Program pursuant to a Development Agreement between TransWest and Western executed in September 2011. Western's Transmission Infrastructure Program is specifically focused on developing transmission projects that facilitate the delivery to market of power generated by renewable energy resources.

As a result, Western and the Bureau of Land Management, Department of the Interior (BLM) jointly prepared an Environmental Impact Statement (EIS) for the TWE Project in compliance with the National Environmental Policy Act (NEPA). The Final EIS was published May 1, 2015, and the respective Records of Decision are scheduled for late March 2016.

State and local permit reviews typically rely on the federal NEPA analysis to inform their analysis and are conducted after the process is completed. Nevada requires a Utility Environmental Protection Act Permit Application to be filed within 30 days of the Final EIS being published. TransWest received a conditional permit from Nevada in September 2015. TransWest plans to file a Wyoming Industrial Development Information and Siting Act Permit Application after the federal Records of Decision are issued. State permits are not required for the TWE Project in Utah or Colorado. County-level permitting activity also will commence after the Records of Decision are issued. For more information on the permitting status of the TWE Project, please refer to the December 7, 2015, comment letter from TransWest to the RETI 2.0 Environmental and Land Use Technical Group.

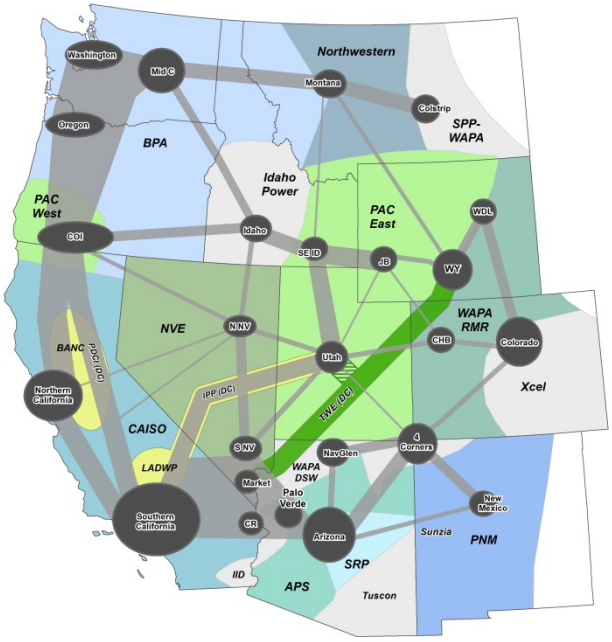
TransWest has initiated the WECC Path Rating Process and is pursuing the necessary transmission interconnection and system impact studies. TransWest kicked off the Path Rating process in 2010, and the TWE Project is in Phase 2 of the process. TransWest revised its Study Plan in 2015 to seek an initial 1,500 MW north to south Path Rating. In addition, TransWest is conducting the system impact studies for the southern interconnections, while PacifiCorp will conduct these studies for the northern interconnection in Wyoming.

Supporting/improving renewable integration in California and across the West
The TWE Project's DC technology can provide for the cost-effective, efficient and bi-directional transfer of renewable power between Wyoming and the Desert Southwest. Wyoming has the best onshore wind resources in the nation, and the TWE Project will provide a critical link between these renewable resources and California's markets. With 3,000 MW of transmission capacity, the TWE Project will be capable of providing California with access to 12,000 gigawatt-hours (GWh) per year of Wyoming's high-quality and low-cost wind energy resources, while at the same time providing export capacity for California's solar resources during over-generation events.

Type of information needed to inform the RETI 2.0 process
As outlined at the January 22 meeting, RETI 2.0 will benefit from reviewing simplified transmission capacity information to consider potential regional transmission/resource combinations. For example,

Tinkertoy-style “pipe diagrams” can be used to show load and generation nodes and how they are linked with existing transmission capacity. Having the “hubs” and “spokes” scaled in relative megawatt size makes it easy to see where optimized transmission opportunities could be located.

Currently, a pipe diagram of the Western Interconnection shows that the bulk of the existing transmission capacity, shown in gray, is built along the coast in a “C.” It also shows there is limited capacity, i.e. less than 1,000 MW, between the California/Desert Southwest and the inter-mountain regions. Limited capacity means there is limited access to both diverse renewable resources and to diverse load areas. However, adding a 3,000 MW DC line like the TWE Project, shown in green, directly between those regions would quadruple transmission capacity.



Other information and sources of information TTIG should consider

The Western Electricity Coordinating Council (WECC) maintains a database of planned projects online at https://www.wecc.biz/TransmissionExpansionPlanning/Pages/Project-Information-Portal2.aspx. The website includes extensive detail about each planned project including its purpose, technical details, planning and modeling status, location, cost and related information. The sub-regional planning groups also keep databases of different transmission projects. The information available from these organizations can be compiled to identify the amount of potential energy from these projects. The TTIG should also use the transmission planning level cost estimates used by WECC (and the CPUC), which have already been approved through stakeholder processes. These are at https://www.wecc.biz/Reliability/2014_TEPPC_Transmission_CapCost_Report_B+V.pdf .

Thank you for your consideration of these comments.

Sincerely,

TRANSWEST EXPRESS LLC

/s/David F. Smith

David F. Smith
Director, Engineering and Operations