

## DOCKETED

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*Comment Received From: Jason Smith*

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**TransCanyon's Comments - RETI 2.0**

*Additional submitted attachment is included below.*



March 30, 2016

RETI 2.0 Plenary Group  
California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814-5512

Re: Renewable Energy Transmission Initiative (“RETI”) 2.0

RETI 2.0 Plenary Group:

TransCanyon, LLC (“TransCanyon”) appreciates the opportunity to provide comments on specific questions posed during the March 16 Plenary Group meeting. TransCanyon provides these comments on the following questions.

## **Renewable Energy Zones**

### **1. What renewable energy zones in California and across the West may be of most interest to California utilities and developers by the 2030 timeframe?**

As a starting point, TransCanyon would suggest that the RETI 2.0 analysis focus on California’s Competitive Renewable Energy Zones (CREZs) identified in the results of the latest version of the RPS calculator, along with New Mexico and Wyoming wind resources. TransCanyon also supports ongoing efforts to further refine the assumptions in the RPS calculator as a means to produce the best results.

## **Costs**

### **2. What is the latest data regarding the costs of various renewable technologies in different resource zones?**

There are a number of public sources for the costs of renewable technologies. In terms of public information, a good source is the the Lawrence Berkeley National Laboratory (LBNL), which updates its costs of renewable technologies about every year.

Aside from LBNL, the RPS calculator updates are the other primary public source of costs that gets refreshed every year to year and a half.

TransCanyon would recommend comparing these two sources of cost information with aggregated data for actual Power Purchase Agreements (PPA) that have been executed.

Filtering out older PPAs and PPAs that have been executed but for which construction has not yet started, should give a current sense of PPA price levels that are financeable.

**3. Has new technology or more efficient practices changed costs dramatically**

With continued innovation, and as resources are brought up to scale, TransCanyon expects that the costs of renewable technologies will continue to decline, with solar declining more quickly than wind. Having said that, TransCanyon believes that the reduction in energy storage costs would need to be significant in order for this technology to become economically viable. TransCanyon also supports the intent of RETI to consider the costs of transmission solutions to transport these resources to load centers as one factor in evaluating the economics of these resources on a relative basis.

**4. What costs may foreseeably change significantly?**

See response to Question #3.

**Resource Values**

**5. What is the latest data or analysis regarding the values (energy, capacity, flexibility, ancillary, etc.) that various renewable technologies in different resource zones can provide to the utility or to markets?**

TransCanyon believes that the value ascribed to various renewable technologies is largely utility dependent. In order to get a view on how each utility values these technologies, TransCanyon would suggest that the RETI 2.0 process refer to the utility or Load Serving Entity Integrated Resource Plans. Each utility will likely derive specific value or benefits from the technologies and the attributes mentioned above, depending on the unique characteristics of its system.

**6. Has new technology or more efficient practices changed the values that resources can provide to the grid dramatically?**

Please see TransCanyon's response to Question #5.

**7. What values may change significantly?**

See TransCanyon's response to Question #5.

### **Utility Interest**

**8. How do utility resource planners plan to supply electricity in 2030 that is at least 50% renewable, 40% lower in GHG, while also safe, reliable and as low cost as possible?**

TransCanyon suggests looking at utilities' interconnection queues as a forward looking indicator of where developers and utilities are likely to develop cost effective resources. To the extent that the information is publicly available, TransCanyon also suggests looking at recently executed PPAs as a source of information on the location and types and resources that are being developed.

By looking at utilities' interconnection queues and recently executed PPAs, RETI 2.0 will be able to glean valuable information on the types of cost effective resources that utilities are developing and/or procuring to comply with states' renewable and environmental mandates.

**9. What types of resources do they expect will be needed by their company to meet their mandates?**

On this question, TransCanyon defers to the utility and load serving participants in the RETI process.

### **Commercial Interests**

**10. How do commercial renewable interests see the greatest opportunity for responsible development?**

In terms of determining where the greatest opportunity for responsible renewable development lies, TransCanyon believes that RETI should consider not just resource quality, but also transmission costs associated with getting those resources to load pockets. There has been significant interest in the last couple of years in solar development in the San Joaquin Valley. There has also been substantial interest in developing high capacity wind resources in the Rocky Mountain area. As we think about developing these high capacity resources in the most efficient manner, thought should also be given to developing cost effective transmission solutions to transport these high quality renewable resources to load centers.

**11. Where are they most interested in offering projects?**

See TransCanyon's response to Question #10.

TransCanyon appreciates the opportunity to submit these comments and looks forward to continued participation and engagement in this effort.

Sincerely,

A handwritten signature in blue ink, appearing to be 'J. Smith', with a stylized, cursive flourish.

Jason R. Smith

*TransCanyon, a joint venture between Berkshire Hathaway Energy's subsidiary, BHE U.S. Transmission and Pinnacle West Capital Corporation's subsidiary, Bright Canyon Energy, is an independent developer of electric transmission infrastructure for the western United States.*