



California Wind Energy Association

May 6, 2016

California Energy Commission
Docket Unit, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

RE: Docket No. 15-RETI-02 -- Comments of the California Wind Energy Association following the May 2, 2016, Renewable Energy Transmission Initiative 2.0 Joint Agency Workshop

The California Wind Energy Association (“CalWEA”) offers the following comments to commit to writing and elaborate upon the comments voiced at the May 2, 2016, Renewable Energy Transmission Initiative 2.0 (“RETI 2.0”) Joint Agency Workshop.

1. California’s Remaining Wind Potential, Including Repowering, is Limited

Due to a variety of land-use restrictions that have been imposed in the last few years by federal, state and local governments, the remaining wind energy development potential in California is very limited. CalWEA estimates the maximum in-state development potential in the 2030 timeframe to be 2,000 MW at best. (For details, see the CalWEA [presentation](#) made at the RETI 2.0 March 16, 2016, workshop.) CalWEA does not expect to see any development in lower-quality wind resource areas, such as in the Sacramento River Valley, as long as higher-quality wind resources can be accessed in the Western region outside of California.

With regard to repowering the 1980s-vintage projects in California, CalWEA estimates that at least 700 MW remains to be repowered, and possibly around 1,000 MW. This repowering cannot be assured, however, given current market circumstances and the small sizes of most projects. Further information on this topic can be found in this CalWEA [presentation](#) made at a January 2016 Energy Commission workshop.

2. RETI 2.0 Should Focus on the Abundant Available Transmission Capacity, Both Inside California and Regionally

CAISO Executive Director of Infrastructure Development, Neil Millar, once again presented at this workshop the fact that the CAISO grid has plenty (over 22,000 MW) of available

transmission capacity for in-state, energy-only renewable resources (involving very little curtailment) – as well as several thousand megawatts of full capacity deliverability (FCD) for some of those same resources. At the workshop, Mr. Millar stated that the “critical question” is whether California wants to obtain capacity value from renewables.

In response to this question, we note that the CPUC initiated the evaluation of transmission capacity for energy-only resources for several reasons, including the high cost of FCD transmission upgrades as compared to the relatively low capacity value of the lowest-cost renewable resources (particularly solar resources at high penetration levels, as illustrated on slide 10 of Brian Turner’s Resource Values Summary at the workshop). As we noted in our April 18, 2016 comments in this process, the CPUC’s RPS Calculator now includes the capability, in producing RPS portfolios for transmission planning purposes, to evaluate whether or not it would be cost-effective to build more transmission to access additional renewable energy in each area. From the analyses conducted to date, it is apparent that FCD resources will not be selected unless FCD capacity is already available.¹

With regard to out-of-state transmission capacity available for importing renewable energy, Mr. Millar presented graphics showing considerable congestion in the WECC, as well as several proposals for new transmission lines in the WECC. This view seems to overlook the capacity that will become available with the planned coal retirements across the West. Specifically, the CAISO and RETI 2.0 should consider, and further evaluate, a WECC case study that was performed which shows that:

- the retirement of over 6,000 MW of coal units that are already scheduled to occur by 2024 will enable approximately 3,500 MW of out-of-state wind resources and 1,800 MW of out-of-state solar resources to be accessed through dynamic transfer (DT) arrangements with the CAISO (or via an expanded CAISO) without any transmission upgrades, and
- the retirement of 16,000 MW of coal capacity (about half that now operating) would enable 9,600 MW of wind and 4,800 MW of solar to be dynamically scheduled with very modest transmission upgrades.

For more details, see CalWEA’s [April 28, 2016, comments](#) following the April 18, 2016, RETI 2.0 Plenary Group Meeting.

¹ See, e.g., E3’s “Update on the 2015 Special Study” for the CPUC (June 29, 2015). Available at: http://www.cpuc.ca.gov/RPS_Calculator/.

3. Exports Also Do Not Require Transmission Upgrades

CalWEA has observed that there appears to be some confusion about whether energy exports are physically constrained. We therefore appreciated CAISO CEO Berberich's clarification at the workshop that there is no physical constraint to exporting potential excess energy from California to other states. The issues that would need to be overcome is the ability and desire of other states to back down their own generation in order to accept that excess energy and the advisability of exporting renewable energy to neighboring BAs at near-zero prices.

In conclusion, CalWEA underscores the good news – which is that the existing transmission capacity available to California for meeting its 2030 RPS target provides plenty of “breathing room” for planning any additional limited transmission capacity that may be required.

Sincerely,

A handwritten signature in black ink that reads "Nancy Rader". The signature is written in a cursive, flowing style.

Nancy Rader
Executive Director