

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Integrate  
and Refine Procurement Policies and  
Consider Long-Term Procurement Plans.

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Rulemaking 13-12-010  
(Filed December 19, 2013)

**REPLY COMMENTS OF THE CALIFORNIA WIND ENERGY ASSOCIATION  
ON REPORT OF SOUTHERN CALIFORNIA EDISON COMPANY ON INTEGRATION  
COST STUDY FOR 33% RENEWABLES PORTFOLIO STANDARD**

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*On behalf of the California Wind  
Energy Association*

July 6, 2015

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Pursuant to the March 27, 2015, Ruling of Administrative Law Judge Gamson directing Southern California Edison Company (“SCE”) to perform production cost simulation studies for the interim variable integration cost adder (“Ruling”) and providing for public comment and Judge Gamson’s June 15, 2015, ruling granting a request to extend the comment schedule, and in response to the parties’ June 26, 2015, opening comments on SCE’s May 29, 2015, report on the integration cost study (“SCE Report”),<sup>1</sup> the California Wind Energy Association (“CalWEA”) provides these reply comments.

**1. Potential Underestimation of Variable Costs**

In their opening comments, several parties commented, as CalWEA did, that the cost estimates for ancillary services require further investigation and correction before the integration cost adder results can be considered to be credible.

First, the discrepancy between the results of the load-following down and load-following up requirements calculated in the E3 and CAISO studies, and the unexplained decision to use one set of results over the other, were highlighted by several parties in addition to CalWEA.<sup>2</sup>

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<sup>1</sup> In its comments (at p. 1), SCE notes that, while SCE facilitated the creation of the Report, the contents of the Report reflect the views of the CPUC’s Energy Division and the E3 consulting firm.

<sup>2</sup> We agree with the suggestion by Ormat (at p. 2) that the Commission and the CAISO seek to reduce the number of different methods and models deployed across the different proceedings, such as the methodology for calculating hourly regulation and load-following requirements, and to improve the transparency of that modeling.

SDG&E notes (p. 5-6) that the results are “quite different, in both the overall level and the trends.” PG&E quantifies the significant discrepancy in its Figures 1 and 2. CalWEA agrees with PG&E (p. 4) and the CAISO (p. 7) that, intuitively, one would expect that adding solar resources in Case 6 would increase the level of regulation-up services as compared to Case 2; however, for the purpose of performing its studies, E3, for unknown reasons, assumed no need for regulation-up services when 1,000 MW of solar PV generation was added. Therefore, before these cost figures are accepted for use as the integration cost adder, there should be further investigation regarding the actual level of regulation and load following services that would be needed for Cases 4 and 6.

Second, SDG&E (at p. 5) and Calpine (at p. 3) share CalWEA’s concern that the integration cost estimates in the SCE Report do not include any fixed costs associated with the procurement of existing flexible capacity.<sup>3</sup> As CalWEA stated in its opening comments (p. 3), the SCE Report does not explain how the costs of the capacity associated with the actual procurement of regulation and sub-hourly load following have been accounted for.

## **2. Curtailment Costs Should Be Addressed in LCBF evaluations**

We agree with Calpine (at p. 3) and CAISO (at p. 7) that curtailment costs (for all types of renewable resources, not just wind and solar) should be fully accounted for in the least-cost, best-fit (LCBF) process. We note that the issue was raised (at p. 16) in Commissioner Peterman’s May 28, 2015, ruling on the 2015 RPS Procurement Plans, and we expect the issue to be addressed in that forum. However, the issue may require more extensive discussion and analysis than can be accommodated in comments and reply comments on the procurement plans. Energy Division should consider holding a workshop to discuss the utilities’ planned approaches for addressing the valuation of curtailment costs in their LCBF methodologies for the 2015 RFO cycle.

## **3. Integration Costs of Baseload Resources**

We agree with SDG&E (at p. 4) that the SCE Report should clearly state that the variable integration costs of baseload renewables (biomass/biogas and geothermal) are unaddressed by

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<sup>3</sup> We understand that the cost of new capacity should not be included in the variable cost component of the IC adder; however, the cost of procuring existing capacity should be included.

the current analysis, and that the absence of a variable integration cost adder in the LCBF (or the RPS Calculator) analysis does not signify that the cost is zero. The integration costs of these resources should be evaluated in future studies.

#### **4. Mix of Solar Technology Types Assumed**

We agree with SCE (at p. 3) that the mix of technology types assumed should reflect actual market experience when that mix will significantly affect the estimate of integration costs, which SCE shows in its Figure II-2 is likely to be the case between fixed-tilt and tracking solar technologies.

#### **5. Cycling Costs**

SCE (at p. 5), PG&E (at p. 4), and SDG&E (at p. 3) point out that cycling costs are not accounted for in the integration cost study results reported in the SCE Report. We agree that these costs could be significant (as shown by PG&E in its Table 1), and that it is reasonable to analyze them as a part of the present study and future studies.

#### **6. Mitigating Integration Costs**

While not directly related to the issue at hand, it is worth noting that changes in grid operations and system resources will influence the integration cost adder. As CEERT noted (at p. 5), if CAISO practice were changed to move the Residual Unit Commitment process closer to real time, integration costs would fall due to a reduction in forecast errors. Similar benefits could be gained if current practices that keep thermal units operating at arbitrary minimum levels on an individual or regional basis were revisited. The Commission should promote such system efficiencies, and when they are accomplished, the effects should be reflected in future estimates of integration costs.

Respectfully submitted,



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