

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

Order Instituting Rulemaking to Oversee  
the Resource Adequacy Program,  
Consider Program Refinements, and  
Establish Annual Local and Flexible  
Procurement Obligations for the 2016  
and 2017 Compliance Years

Rulemaking 14-10-010  
(Filed October 16, 2014)

**COMMENTS OF THE  
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION  
ON ENERGY DIVISION PROPOSALS**

In accordance with the Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge (January 6, 2015), the California Independent System Operator Corporation (“CAISO”) respectfully submits its comments on the Energy Division staff’s proposed refinements to the resource adequacy program submitted in this proceeding on January 6, 2015.<sup>1</sup>

**I. SUMMARY**

The Energy Division staff proposal focuses on the calculation of qualifying capacity (“QC”) values for two types of resource adequacy resources -- variable energy resources and demand response resources. The proposal recommends: modifying the calculation of QC values for solar facilities to differentiate between solar photovoltaic (“PV”) and solar thermal resources; eliminating test data for those resources where the CPUC relies on historic data for the calculation of QC; and calculating avoided transmission and distribution line losses for demand response

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<sup>1</sup> Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge, R14-10-010 (January 6, 2015), pp. 4-5 (“January 6 Scoping Memo”).

resources using the assumptions and scenarios adopted in the long-term planning proceeding. The CAISO supports the proposed changes to each of these items, with a small refinement to the suggested use of technology factors instead of test data to determine the QC for new resources.

The Energy Division staff also proposes to change the way it accounts for outages in the QC calculation for variable energy resources, and seeks parties' comments on two options for the change. The CAISO supports Option 1 in the proposal, which would eliminate the use of proxy data and calculate the QC value for variable energy resources using the resource's actual data for the entire dataset regardless of outage history.

## **II. COMMENTS**

### **A. Qualifying Capacity Calculations for Variable Energy Resources**

#### **1. Differentiate Between Solar Photovoltaic and Solar Thermal Generators**

The Energy Division staff has reviewed the current practice of grouping solar PV resources and solar thermal resources together to develop a single set of technology factors for use in setting the qualifying capacity value for solar facilities with less than three years of operating history. The Energy Division staff has found that combining the solar facilities into one group blurs dissimilarities in the performance patterns of solar facilities with different technologies. In order to more accurately determine the qualifying capacity value for solar facilities, Energy Division staff proposes that the Commission require two sets of technology factors, one for solar photovoltaic resources and one for solar thermal resources.

The CAISO supports this differentiation. The Energy Division staff proposal to develop separate technology factors for solar resources based on their technology type should improve the accuracy of the QC values calculated under the counting rules. As actual operating data becomes increasingly available for solar facilities, operational and performance differences between solar PV resources and solar thermal resources can be better assessed. The CAISO encourages the Energy Division staff to develop the technology factors in conjunction with its new effective load carrying capacity methodology, as suggested in the Energy Division staff proposal.

## **2. Eliminate Test Data from QC Calculation for New Resources**

The CPUC determination of the QC value for new resources includes test data, which represents the actual energy produced by the resource before it achieves commercial operation. The Energy Division staff is concerned that the use of the test data distorts the resource adequacy capability for those resources where the CPUC relies on historic data for QC calculations because the data may result from partial operation of the resource or testing of only one stage in a multi-staged facility before it reaches commercial operation. For the 2015 resource adequacy year, Energy Division staff excluded test data from its calculation of the QC for wind and solar resources, and instead used technology factors each month until the facility became commercially operable. Energy Division staff requests that the Commission approve that approach and amend the resource adequacy provisions to require the use of technology factors for new wind and solar facilities up to commercial operation and then use meter data beginning on the commercial

operation date.

The Energy Division staff proposal correctly portrays the pitfalls of using test data to determine the QC for new wind and solar resources. The actual operation of the resource should more closely align with the technology factors than with the test data. Accordingly, the CAISO supports the use of technology-specific factors for the initial QC of new wind and solar resources.

However, for resources that come on line in stages, such as some wind and solar facilities, the CAISO believes that meter data should replace the technology factors as portions of the facilities achieve commercial operation. This would better reflect the actual performance of the resource in the QC value than using technology-specific averages that are based on the entire fleet of generating facilities in commercial operation. Therefore, the CAISO recommends calculating the QC for new variable energy resources using the weighted average of the applicable technology factors and then replacing the technology factors with actual meter data as it becomes available for completed stages of the project.

### **3. Use Proxy Data for Hours Impacted by Outage**

Under its current resource adequacy provisions, the CPUC determines the QC value of variable energy resources based on three years of historical generation data, as adjusted to replace any forced or planned outages in the data with proxy performance values. This approach was developed so that a resource would not be double-penalized for the same outage – once through non-availability charges for a forced outage under the CAISO's standard capacity product and again through a reduction to the resource's QC value calculated by the CPUC.

The Energy Division staff has expressed concerns about this approach in instances where replacing lengthy outages with proxy performance values eliminated a large part of the resource's performance history or produced other anomalous results. Energy Division staff proposes to modify the proxy outage rules and has requested parties to comment on two options to calculate the QC values for a variable energy facility:

- Option 1 -- Use the resource's historical data regardless of outages; or
- Option 2 -- If the resource is impacted by outage for more than six months during the 3-year period, use the resource's historical data regardless of outages; and if impacted for six months or less, replace the outages with proxy performance values.

The CAISO supports Option 1. This option would change the basis for setting the QC to the actual resource performance, which the CAISO submits is the more appropriate and representative measure of a resource's resource adequacy capability. Further, it should incent resources to complete outages in a timely manner so the resource is available to provide the resource adequacy service for which it was procured.

In addition, it will no longer be necessary to use proxy data to avoid a double penalty for an outage. The CAISO, in the reliability services stakeholder initiative, has proposed to exempt variable energy resources, like wind and solar, from the new availability incentive mechanism. Accordingly, the variable energy resources will not be subject to non-availability charges under the CAISO's new availability mechanism, and the concern about a double penalty through a QC reduction and

CAISO non-availability charge will be eliminated. The CAISO will coordinate with the CPUC to align the implementation of this proposed change with the ISO's implementation of the new availability incentive mechanism.

**B. Avoided Line Losses Attributable to Demand Response Resources**

The current CPUC resource adequacy provisions gross-up the QC value for demand response resources to account for the transmission and distribution line losses that are avoided because the resources are supplied at the customer meter level. The provisions require that the avoided line losses be calculated using three percent for transmission line losses and the most recent available data submitted by each investor owned utility in a general rate case for distribution losses. The Energy Division staff proposes instead to use the avoided line losses factors in the most recently adopted assumptions and scenarios in the long-term planning proceeding.

The CAISO supports the Energy Division staff proposal. The CPUC, California Energy Commission, and CAISO have worked collaboratively to align planning assumptions in many forums, including the transmission planning, long-term procurement plan, and integrated energy policy report processes. Adopting line loss assumptions from the long-term planning proceeding would be consistent with these efforts and provide a clearer assessment of the QC values for demand response resources.

### III. CONCLUSION

For the foregoing reasons, the CAISO respectfully requests that the CPUC issue a decision consistent with the CAISO's comments.

Respectfully submitted,

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