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 Procurement Obligations.	)	Rulemaking 11-10-023

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION REPLY COMMENTS ON PHASE 3 WORKSHOP ISSUES

The California Independent System Operator Corporation ("ISO") respectfully submits reply comments on the proposals of the California Public Utilities Commission ("CPUC" or "Commission") Energy Division to modify the resource adequacy program, as presented and discussed at the workshop held on January 27, 2014.[1]

In its initial comments, the ISO encouraged the Energy Division to further consider and develop 1) the proposal on the Effective Load Carrying Capability And Qualifying Capacity Calculation Methodology For Wind And Solar Resources, and 2) the proposal on the Qualifying Capacity and Effective Flexible Capacity Calculation Methodologies For Energy Storage And Supply-Side Demand Response Resources. The ISO identified several aspects of the proposals where clarification or additional information would be beneficial and where improvements could be made to reach a more optimal methodology.

In these reply comments, the ISO urges the Energy Division to continue work on

[1] The ISO submits these comments in accordance with the Phase 3 Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge ("Scoping Memo") dated August 2, 2013, and the extension of time for filing comments discussed at the workshop and granted by the Administrative Law Judge on February 4, 2014,

the effective load carrying capability ("ELCC") proposal before it is implemented, and to consider implementing the proposal in measured steps over a multi-year period. These reply comments also address demand response issues raised by other parties, and discuss the following ISO positions: 1) the CPUC and ISO data reporting requirements for demand response are aligned; 2) demand response customers should not choose the test window; 3) the proposed decision on bifurcation in the demand response rulemaking, if adopted, would resolve demand response issues that have been raised in this proceeding; and 4) the must offer obligation for supply-side demand response does not conflict with direct participation.

I. EFFECTIVE LOAD CARRYING CAPABILITY AND QUALIFYING CAPACITY CALCULATION METHODOLOGIES FOR WIND AND SOLAR RESOURCES

A. The ELCC Proposal Should Be Further Developed

In addition to the ISO, a number of parties submitted comments emphasizing the need for additional information and/or further analysis to understand the Energy Division's ELCC proposal for wind and solar resources.[2] Southern California Edison Company ("SCE") makes this point clearly in its comments:

> To this end, SCE's major recommendation is that the Energy Division provides greater transparency regarding the information used in computing ELCC, methodology and analytical approach. Without greater access to such information, it is difficult for stakeholders to understand the Energy Division's implementation of its ELCC calculation and provide meaningful input on the proposal.[3]

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[2] See, e.g., Comments of Pacific Gas and Electric Company (U 39 E) on the Energy Division's Resource Adequacy Proposals Issued on January 16, 2014 and Discussed at the January 27, 2014 Workshop, pp. 3-5; Post-Workshop Comments of the Utility Reform Network, p. 2; Comments of the Large-Scale Solar Association and the Solar Energy Industries Association on the Staff Proposal on Effective Load Carrying Capacity and Qualifying Capacity Calculation Methodology for Wind and Solar Resources, pp. 1-2; Comments of the Green Power Institute on Workshops and Energy Division Proposals, pp. 1-2; and Comments of the California Energy Storage Alliance on Assigned Administrative Law Judge's Ruling and Energy Division Proposals, pp. 2-3.

[3] Southern California Edison Company's (U 338-E) Post-Workshop Comments, p. 2.

...
Our concern relates to the general lack of transparency with the staff methodology, which makes it difficult for SCE to understand and provide constructive input on Staff's implementation of its ELCC calculation.[4]

The ELCC methodology is complex, and use of appropriate assumptions is critical. It is extremely important that the Energy Division take the time needed to develop a sound and workable proposal, and to do so in a transparent manner, in order to provide the parties an adequate opportunity to evaluate and provide meaningful input on what is being presented. The ISO agrees with SCE's comments and encourages the Energy Division to make its proposal more transparent and seek additional input from the parties before instituting this new resource adequacy qualifying capacity counting methodology.

The ISO suggests that the Energy Division should also consider whether the ELCC methodology should be implemented in gradual steps. The ISO believes that the general approach Pacific Gas and Electric Company ("PG&E") outlined in its comments for the transition merits consideration. PG&E proposes a gradual, multi-year transition from the exceedance methodology to ELCC.[5] As part of this transition, the Energy Division could assess the reasonableness of the ELCC methodology by comparing the ELCC derived qualified capacity values against the qualified capacity values produced using the existing exceedance method.

B. A "Load Addition" ELCC Method Should Be Considered To Test The Reasonableness Of The Results of the "Perfect Generator" Method

The Energy Division proposal outlines three primary approaches to calculating ELCC. The ISO does not oppose the "perfect generator" option that staff has selected.

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[4] Id. at 4.

[5] PG&E comments, pp. 3-5.

However, the ISO submits that the Energy Division should cross-check results from its preferred "perfect generator" method against the incremental "load addition" ELCC method that staff considered, but rejected. Under this method, the model would assess how much load must be added to cancel out the reliability improvement resulting from adding a certain resource type. SCE's comments discussed why such a test would be appropriate:

> SCE is concerned that this [the perfect generator only] approach may be problematic for months with no observed LOLE. In this scenario, the ELCC/QC Staff Proposal would require removing resources in the system until a baseline LOLE is established, which would change the portfolio characteristics in the model. Adding load would avoid this issue by ensuring that the modeling elements added and subtracted from the system to test ELCC are equivalent.[6]

The ISO agrees with SCE's comments and encourages the Energy Division to investigate the benefits of incorporating a "load addition" ELCC method to test the reasonableness of the "perfect generator" method. Theoretically, there should be little difference in applying either the "perfect generator" or the "load addition" method in terms of the resulting ELCC values. If running both methods yields similar results, then the reasonableness test would validate the proposed methods. If running both methods produces dramatic differences, the result could indicate that there's a shortcoming in the "perfect generator" model.

II. QUALIFYING CAPACITY AND EFFECTIVE FLEXIBLE CAPACITY CALCULATION METHODOLOGIES FOR ENERGY STORAGE AND SUPPLY-SIDE DEMAND RESPONSE RESOURCES

A. The CPUC And ISO Data Reporting Requirements For Demand Response Are Aligned

The comments of the California Large Energy Consumers Association ("CLECA")

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[6] SCE Comments, p. 9.

mischaracterize the ISO's demand response data reporting requirements and claim, mistakenly, that they require submission of data for individual loads, which is costly and a barrier to demand response participation in the ISO markets. CLECA supports allowing aggregate performance data from individual loads:

> Is the proposal is [sic] designed to allow an entity, like a DR provider, to provide aggregate performance data without data from the individual loads? If so, this would eliminate a major cost for implementing the DR and thus a deterrent to its participation in the ISO markets. CLECA would support such a proposal. The ISO stakeholder process for considering metering and telemetry requirements for DR has not been completed and current requirements are indeed onerous.

Contrary to CLECA's comments, since 2010 the ISO has allowed proxy demand resources to provide aggregated performance data, *i.e.* meter data. ISO Tariff Section 10.3.2.1 states that:

> Each Scheduling Coordinator for a Demand Response Provider shall aggregate the Settlement Quality Meter Data of the underlying Proxy Demand Resource to the level of the registration configuration of the Proxy Demand Resource in the Demand Response System. (emphasis added)

The ISO's requirements are aligned with the process outlined in Energy Division's proposal, that performance data may be provided at a single aggregation point, i.e. a demand response resource, and need not report individual element performance. The ISO supports the aggregation of meter data by demand response resource without having to submit meter data for each of the individual underlying loads that make up the aggregate demand response resource. Thus, there is no barrier as CLECA claims and, importantly, there is alignment between the ISO tariff and CPUC proposed process.

B. Demand Response Customers Should Not Choose the Test Window

The Energy Division proposal would require that demand response resources be tested annually in a month they designate and during a test window set by the ISO to demonstrate initial and continuing performance capability. EnerNOC suggests that demand response customers not be required to stand-by for an entire month and be permitted instead to select their own test window. Specifically, EnerNOC states that:

> EnerNOC agrees that resources should be dispatched or tested annually under expected dispatch conditions, and paid as if the test was a regular dispatch. Expected dispatch conditions can be open to interpretation. However, the requirement to have a resource at a constant state of readiness for a test over the course of a month is too long. Part of EnerNOC's services to its customers is to provide information on the likelihood the resource will be dispatched, to prepare its customers to be ready and able to perform at its best. Resources perform best when the customers have a reasonable expectation of when the resource is going to be dispatched so that they are prepared. EnerNOC maintains a steady level of communication to its customers over system conditions and pricing and indicates when a resource is likely or unlikely. Catching customers unaware of DR dispatches creates customer confusion, dissatisfaction and poor performance. In that way, the test does not simulate conditions comparable to an actual dispatch, because an actual dispatch would carry with it some advance notification from EnerNOC to the customers. (emphasis added).[7]

The ISO has concerns about the CPUC adopting EnerNOC's position that demand response providers be able to choose their test window in every instance, particularly in the case of certain supply-side demand resources that qualify as resource adequacy capacity and that are used exclusively for emergency response purposes. Announced testing is not realistic for testing resources that are paid for and relied upon for their response capability in an emergency situation. Emergency situations often occur without warning; thus, demand resources that are used for this purpose should be

[7] Comments of EnerNOC, Inc., on Energy Division Resource Adequacy Qualifying Capacity and Effective Flexible Capacity Proposals, p. 8.

tested with the standard minimum notice the underlying program requires, generally 15 to 30 minute notice. The ISO Tariff allows unannounced tests on all resource types to assess their emergency response capability. Examples of those provisions are:

> **Section 7.7.5 Emergency Guidelines**
> All Market Participants shall respond to CAISO Dispatch Instructions with an immediate response during System Emergencies.
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> **Section 7.7.6 Periodic Tests Of Emergency Procedures**
> The CAISO shall develop and administer periodic unannounced tests of System Emergency procedures. Such tests shall be designed to ensure that the CAISO Market Participants are capable of promptly and efficiently responding to imminent or actual System Emergencies.
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> **Section 8.9 Verification, Compliance Testing, And Auditing**
> Availability of contracted and Self-Provided Ancillary Services shall be verified by the CAISO by unannounced testing of resources, by auditing of response to CAISO Dispatch Instructions, and by analysis of the appropriate Meter Data, or Interchange Schedules. The CAISO may test the capability of any resource providing Ancillary Services. Participating Generators, owners or operators of Participating Loads, Scheduling Coordinators representing owners or operators of Proxy Demand Resources, operators of System Units

Consistent with the intent of these provisions, the ISO does not support EnerNOC's position to allow customers to choose their testing windows, particularly when considering emergency response resources.

C. If Adopted, The Proposed Decision On Bifurcation In The Demand Response Rulemaking Would Resolve Issues Raised In This Proceeding

EnerNOC's comments in this proceeding questioned the ability of the Energy Division proposal to take certain positions prior to the Commission issuing a decision in the demand response rulemaking proceeding, R.13-09-011. For instance, EnerNOC's comments state:

> While it is important to determine the characteristics that DR resources that participate in the wholesale market must possess in order to qualify for RA, it is premature to assume that the Commission will adopt the

> proposed "bifurcation" between retail and wholesale DR programs, as expressed in R.13-09-011. First, no Proposed Decision on that topic has been issued. Second, there were significant comments and concerns expressed about the implementation of bifurcation in that docket.
> ...
> But, beyond nomenclature, the Staff Proposal, wherein all DR resources that participate in the wholesale market are thereby supply-side resources and qualify for RA and all others that do not participate in the wholesale market do not qualify for RA, is a significant departure from current practice and should not be incorporated as fact in the draft. [8]

After EnerNOC submitted its comments, the CPUC issued the proposed decision on the foundational issue of bifurcation in the demand response rulemaking. The policy direction articulated in the proposed decision impacts several of EnerNOC's positions. The proposed decision takes a clear position that demand response must fall into one of two classifications. Specifically, the proposed decision would:

1. Adopt the bifurcation of current demand response programs into load modifier and supply resource categories,

2. Define load modifiers as resources that reshape or reduce the net load curve.

3. Define supply resources as resources that can be scheduled and dispatched into the California Independent System Operators energy markets, when and where needed. [9]

These policy determinations in the proposed decision, if adopted, would have an important impact on demand response programs for resource adequacy qualification purposes. They would largely resolve the issues that EnerNOC raises in its comments and provide clarity on the treatment of demand response on a going-forward basis. Encouragingly, the policy determinations in demand response rulemaking significantly

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[8] Id., p. 3.

[9] Decision Addressing Foundational Issue Of The Bifurcation Of Demand Response Programs, Docket R.13-09-011 (February 21, 2014).

align with the Energy Division proposal in this proceeding regarding the counting of demand response as resource adequacy capacity. The Commission should weigh EnerNOC's positions in light of this recent proposed decision, or the final decision in that rulemaking if it is issued before the decision in this proceeding.

D. The Must Offer Obligation For Supply-Side Demand Response Does Not Conflict With Direct Participation

The Office of Ratepayer Advocates ("ORA") is concerned that demand response may not be able to bid into the ISO market because purportedly the net benefits test price threshold is too high and there is a conflict with the direct participation rules. As explained in ORA's comments:

> ORA is concerned that the requirement to offer supply side DR under MOO may conflict with the direct participation rules established under D.12-11-025. Under the direct participation rules adopted in that decision, all DR bids (whether by utilities or third-party DR aggregators) into CAISO markets must be above (greater than) the monthly Net Benefit Test (NBT) prices published by CAISO as required by Federal Energy Regulatory Commission (FERC) Order 745.15 If the NBTs are higher than economic bid prices and because of that DR cannot be bid into CAISO markets, it is not clear if such DR can meet the CAISO participation requirement under MOO for RA. This issue does not appear to be considered in either in the RA proceeding or the DR proceeding at this Commission.[10]

The ISO does not share ORA's concern that demand response may not be able to bid into the ISO markets. The net benefits price threshold is lower than what is likely a typical strike price for demand response provided energy. In 2013, the net benefits price threshold was typically in the $40/MW to $50/MW range. It has only been as high as $80/MW in one month.[11] Given anecdotal evidence about the value of demand

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[10] Comments of the Office of Ratepayer Advocates on Workshops and Energy Division Proposals, p. 7.

[11] Net Benefits Test Price Threshold information is posted on the ISO website at: http://www.caiso.com/informed/Pages/StakeholderProcesses/DemandResponseNetBenefitsTest.aspx

response energy, the ISO does not believe that this issue ORA raises is a concern or a priority issue.

III. Conclusion

For the foregoing reasons, the ISO respectfully requests that the CPUC issue an order consistent with the ISO's comments.

Respectfully submitted,

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Date: March 3, 2014