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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 OFFICE OF RATEPAYER ADVOCATES ON FEBRUARY 9, 2015 RESOURCE ADEQUACY WORKSHOP

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I. INTRODUCTION

Pursuant to the January 6, 2015 "Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge" (Scoping Memo and Ruling), and the February 25, 2015 "Revised Administrative Law Judge's Ruling Adding Workshop Documents to the Record and Modifying Reply Comment Date" (ALJ Workshop Ruling), the Office of Ratepayer Advocates (ORA) submits the following comments on the February 9, 2015 Resource Adequacy (RA) Workshop proposals and presentations.

Prior to the workshop, the Commission's Energy Division submitted proposals for stakeholder consideration on January 6, 2015. ORA, along with other stakeholders, addressed the Energy Division proposals in comments filed on January 30, 2015.[1] The following comments include some additional comments on the Energy Division proposals, and also address other parties' proposals and workshop presentations.

ORA recommends that the Commission:

- Adopt Energy Division's proposal to modify the Qualifying Capacity (QC) Calculation Manual to distinguish between solar photovoltaic (PV) and solar thermal resources if modified to allow stakeholder input.
- Adopt Energy Division's proposal to eliminate the usage of meter data prior to the Commercial Operation Date (COD) of an intermittent facility when calculating a facility's QC.
- Adopt Option 2 of Energy Division's proposal regarding the use of proxy data for hours impacted by outage, but also exclude proxy data creation for both outages which do not affect generation and for facilities where energy output is overly erratic or fluctuates disproportionately.
- Adopt Energy Division's proposal to use the avoided line loss factors from the most recent Long-Term Procurement Plan (LTPP) Assumptions and

[1] See Comments of the Office of Ratepayer Advocates on Energy Proposals ("ORA Comments"), January 30, 2015.

Scenarios for calculating avoided transmission and distribution line losses for demand response (DR) resources in the RA proceeding.

- Adopt Pacific Gas and Electric Company's (PG&E) proposal to modify the flexible RA counting rules for energy storage resources to include the full range of resources so long as the transition time is less than 45 minutes.
- Adopt PG&E's proposal to modify RA rules which can lower QC values when resources can provide additional operational flexibility.
- Adopt PG&E's proposal to modify RA rules to align with the California Independent System Operator's (CAISO) methodology for allocating Local Regulatory Authority (LRA) flexible resource allocation.
- Reject the CAISO's proposal to cap load serving entity (LSE) local capacity requirements at the system capacity level in monthly and annual showings.
- Further consider Southern California Edison Company's (SCE) proposal to eliminate the Net Qualifying Capacity (NQC) qualification as a threshold for Effective Flexible Capacity (EFC) qualification.
- Further consider SCE's proposal to establish a two-hour maximum cumulative capacity (MCC) bucket.
- Reject Marin Clean Energy's (MCE) proposals related to the cost allocation mechanism (CAM) as out of scope for the proceeding.
- Adopt San Diego Gas & Electric Company's (SDG&E) proposal for unbundling resources.

II. DISCUSSION

A. The Commission should adopt Energy Division's proposal to modify the QC Calculation Manual to distinguish between solar PV and solar thermal resources if modified to allow stakeholder input.

For reasons detailed in ORA's January 30, 2015, comments,[2] Energy Division's proposal to revise the QC Calculation Manual to create separate technology factors for solar PV and solar thermal has merit and should be adopted if modified to allow stakeholder input. There are significant differences in operational characteristics between solar PV and solar thermal resources which are not addressed in the current QC Calculation Manual. However, the Energy Division proposal provides no details on the proposed new technology factors. For example, it would be helpful for Energy Division staff to present the information demonstrating the different operating characteristics of the two types of solar facilities and to propose specific calculations for each technology factor. ORA concurs that separate technology factors should apply to solar PV and solar thermal; however, stakeholders should have the opportunity to comment on the development of the calculations for those factors prior to their adoption.

B. The Commission should adopt Energy Division's proposal to eliminate the usage of meter data prior to the COD of an intermittent facility when calculating a facility's QC.

For reasons detailed in ORA's January 30, 2015 Comments,[3] ORA agrees with Energy Division's proposal to eliminate the use of meter data collected prior to the COD of an intermittent facility when calculating the facility's QC since this data is not an accurate measure of a facility's true operating QC.

[2] ORA Comments, January 30, 2015, p. 1.

[3] ORA Comments, January 30, 2015, p. 2.

C. The Commission should adopt Option 2 of Energy Division's proposal regarding the use of proxy data for hours impacted by outage, but should also exclude proxy data creation for both outages which do not affect generation and for facilities where energy output is overly erratic or fluctuates disproportionately.

Energy Division proposes to change the current method of accounting for forced outages in one of two ways: 1) using the entire three-year data set regardless of a generator's outage history ("Option 1"), or 2) generating proxy data for forced outage periods only when a facility experiences less than six months of forced outages over the three-year calculation period; otherwise, if there is an outage of more than six months during the three years of performance in the dataset, using the entire data set regardless of outages ("Option 2").[4]

For the reasons stated in ORA's January 30, 2015 Comments,[5] ORA supports excluding proxy data creation for facilities with cumulative outages exceeding 6 months (Option 2) since such proxy data may be misleading. However, ORA recommends modifying Option 2 to also exclude proxy data creation for (1) potential outage codes which do not affect the energy output of a facility, or (2) when a facility generates energy in an overly erratic manner, or (3) for facilities where energy generation fluctuates disproportionately.

D. The Commission should adopt Energy Division's Proposal to use the Avoided Line Loss Factors from the Most Recent LTPP Assumptions and Scenarios for Calculating Avoided Transmission and Distribution Line Losses for DR Resources in the RA Proceeding.

As detailed in ORA's January 30, 2015 Comments,[6] ORA supports Energy Division's proposal to use current LTPP Assumptions and Scenarios in order to ensure

[4] Energy Division Staff Proposals Regarding Resource Adequacy (RA) Program Refinements, January 6, 2015, pp. 6-8.

[5] ORA Comments, January 30, 2015, pp. 3-4.

[6] ORA Comments, January 30, 2015, pp. 4-5.

consistency with the LTPP planning assumptions, increase stakeholder transparency, and relieve the administration burden on Energy Division staff.

E. The Commission should adopt PG&E's proposal to modify the flexible RA counting rules for energy storage resources to include the full range of charge and discharge, so long as the resource's transition time between the two states is less than 45 minutes.

Under current flexible capacity counting rules for energy storage, resources with a transition time between discharge and charge states do not receive EFC value for their ability to charge.[7] Resources with no transition time between discharge and charge states receive credit toward EFC for both discharging and charging.[8] PG&E proposes to modify the flexible counting rules to allow resources with transition times of up to 45 minutes to receive EFC credit for both discharging and charging.[9]

ORA agrees that PG&E's proposal will result in a fair evaluation of all existing storage resources and may reduce ratepayer costs by granting additional EFC credit for energy storage resources. At the workshop, the CAISO recommended waiting one year to adopt this proposal in order to gain more experience in dispatching resources with transition times between charging and discharging. The Commission should reject the CAISO's recommendation for delay. The CAISO is already dispatching energy storage resources with transition times to support the grid, so these resources should receive credit for the benefits they are providing starting in 2016.

F. The Commission should adopt PG&E's proposal to modify RA rules which can lower QC values when resources provide additional operational flexibility.

The current counting rules for system and local capacity are based on historical resource output. Under this approach, some resources which seek to provide additional

[7] D.14-06-050, p. B-20.

[8] D.14-06-050, pp. B-17 through B-20.

[9] Proposals and Comments of Pacific Gas and Electric Company("PG&E Proposals and Comments") in Response to the December 12, 2014 Administrative Law Judge's Ruling, January 16, 2015, pp. 2-11.

flexible capacity may, in order to assist grid operations, experience scheduling instructions in the CAISO markets that reduce the output of those resources. Accordingly, resources are disincentivized from operating as flexible resources because operating with reduced hours lowers their future QC value. PG&E proposes that resources receive a QC value equal to the resource's Pmax rather than the historical output currently required by the QC Calculation Manual.[10]

ORA supports PG&E's proposal. Removal of a resource's disincentive to contract as a flexible resource should result in more flexible capacity available to the market and will thereby encourage lower flexible capacity prices. Lower flexible capacity prices may reduce ratepayer costs.

G. The Commission should modify its methodology for allocating LSE flexible capacity requirements to coincide with the CAISO flexible capacity allocation methodology.

The current RA methodology used to allocate flexible capacity requirements to Commission jurisdictional LSEs is based on load ratio share and does not consider an LSE's contribution to flexible capacity need. Last year, draft language to apply causation principles was under development concurrently by Energy Division in the RA proceeding and by the CAISO in its Flexible Resource Adequacy Criteria and Must Offer Obligation (FRACMOO) tariff initiative.[11] Energy Division recommended that the CAISO's draft FRACMOO tariff methodology be modified to consider additional factors in the application of causation methodology.[12] The June 2014 RA decision elected to continue application of the load ratio share methodology for flexible capacity requirement

[10] PG&E Proposals and Comments, January 16, 2015, pp. 15-16.

[11] Federal Energy Regulatory Commission, Order on Tariff Revisions, FERC Docket No. ER14-2574, October 16, 2014.

[12] Staff Proposal on the Implementation of the Flexible Capacity Procurement Framework, February 10, 2014, pp. 4-5.

allocations; however, the Commission noted that this issue would be reconsidered in the subsequent RA proceeding.[13]

The CAISO adopted a flexible capacity allocation methodology in its final FRACMOO tariff last year. This methodology calculates LSE specific contribution to flexible capacity need based on the contribution of intermittency in the grid from wind and solar resources. PG&E proposes that the Commission adopt the CAISO FRAMCOO tariff flexible capacity allocation methodology as the basis for flexible capacity requirement allocation in the Commission's RA program.[14]

ORA supports the application of cost causation principles in the RA program's allocation of flexible capacity requirements for LSEs. Flexible capacity need is created by intermittent resources such as wind and solar. It is therefore appropriate to assign flexible capacity requirements and the associated costs to LSEs in proportion to their contribution to the need. The Commission should use the CAISO FRACMOO tariff flexible capacity allocation methodology as a starting point and continue to refine the methodology in subsequent RA proceedings. For example, consideration should be given to last year's recommendations by the Energy Division that a flexible capacity allocation methodology should account for inflexible base load capacity and consider some form of socialization of renewable integration costs.[15] For the 2016 RA year, adoption of the methodology defined in the CAISO FRACMOO tariff is a reasonable first step in creating an allocation based on causation.

H. The Commission should reject the CAISO proposal to cap LSE local capacity requirements at the system capacity level in monthly and annual showings.

Current RA requirements create independent system and local requirements for each LSE. LSE system capacity requirements provide for total grid capacity need to

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[13] D.14-06-050, Conclusions of Law 6, p. 66.

[14] PG&E Proposals and Comments, January 16, 1015, pp. 17-18.

[15] Staff Proposal on the Implementation of the Flexible Capacity Procurement Framework, February 10, 2014, pp. 4-5.

meet peak demand in the summer months of May through September. LSE local capacity requirements were created to maintain grid reliability in locally constricted areas. System and local reliability concerns necessitated separate and independent requirements imposed on LSEs based on their proportional load in the overall system and in local areas.

The CAISO proposal would grant an exception to the current LSE local capacity requirements by proposing to cap an LSE's local capacity requirement at that LSE's system requirement.[16] This proposal is consistent with language in the CAISO's Reliability Services Draft Final Proposal.[17] The Reliability Services Draft Final Proposal states: "There is no reliability reason why the ISO should require additional local capacity beyond the peak demand and reserve margin requirements."[18]

The CAISO proposal runs counter to a major premise of the RA program. The proposed exemption would only apply to a limited number of LSEs – those with local requirements in excess of system requirements. Under Public Utilities (PU) Code 380(e), the Commission requires that "each load serving entity shall be subject to the same requirements for resource adequacy…." However, the CAISO proposal would allow for unequal treatment of LSEs. The CAISO contends that there would be no harm to reliability when granting some LSEs a reduction of their local capacity requirements during some months. If reliability is not harmed when some LSEs reduce their local capacity by capping it at their system capacity requirement, then consideration should be given to allow all LSEs to reduce local capacity to a level consistent with reliability needs. The benefits of lowered local capacity requirements should not apply to only a limited number of LSEs, but to all LSEs.

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[16] Comments and Proposal of the California Independent System Operator Corporation, January 16, 2015, pp. 12-14.

[17] CAISO Reliability Services Draft Final Proposal, January 22, 2015, pp. 78-79.

[18] CAISO Reliability Services Draft Final Proposal, January 22, 2015. p. 79.

ORA recommends that the Commission reject the CAISO proposal to cap LSE local capacity requirements at the LSE's system capacity level.

I. It is premature to adopt SCE's proposal to eliminate the NQC qualification as a threshold for EFC qualification.

SCE proposes that the Commission eliminate NQC qualification as a requirement for a resource's eligibility for EFC qualification.[19] NQC and EFC address different grid reliability needs. The NQC qualifying requirements satisfy the CAISO's criteria for meeting peak load needs, which generally occur midday in summer months. The EFC criteria is designed to meet daily ramping needs in the morning and evening hours when intermittent resources create flexible operational needs. To qualify for NQC values, a resource must operate for at least four consecutive hours. However, an EFC value is based on a resource's ability to ramp under CAISO dispatch for only three hours. SCE suggests that it may be optimal to configure certain energy storage and DR resources to meet the three hour EFC ramping requirements but not the four hour peak load NQC requirements.[20] Separating EFC requirements from the NQC requirements would potentially allow for some resources to provide flexible capacity while not meeting requirements to provide peak power. This change could result in more resources qualifying to provide flexible capacity and allowing investor-owned utilities to procure EFC products to meet ramping needs in a more cost-effective manner.[21] However, SCE notes that the EFC requirements would have to be modified to make these new EFC resources deliverable.[22]

ORA generally supports the elimination of the NQC requirement for EFC qualification and looks forward to the development of this idea in future RA proceedings

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[19] Response of Southern California Edison Company (U 338-E) to Administrative Law Judge's Ruling Seeking Party Comments and Proposals ("SCE Comments"), Jan. 16, 2015, p. 1.

[20] SCE Comments, January 16, 2015, p. 1.

[21] SCE Comments, January 16, 2015, p. 2.

[22] SCE Comments, January 16, 2015, p. 2. Also, "deliverable" means that a resource may be dispatched by the CAISO.

where it can be further analyzed by stakeholders. ORA agrees that the reliability concerns created by ramping needs are separate and distinct from reliability needs created by peak load conditions. As such, it may not be advantageous to tie resource requirements for meeting ramping needs to requirements for meeting peak load needs. Currently, there is not sufficient data or analysis to recommend adoption of the proposal in this year's RA proceeding. As the grid needs continue to rapidly evolve, this issue should be further contemplated in next year's RA proceeding.

J. It is premature to adopt SCE's proposal to add a new MCC bucket category to the RA program.

SCE proposes to add a new MCC bucket category for products which are only able to provide energy for two hour blocks ("Two-Hour Bucket").[23] SCE suggests that the Two-Hour Bucket would allow new technology types like energy storage and DR to qualify for capacity but warns that the Two-Hour Bucket resources have limited utility, as overreliance on Two-Hour Bucket resources may create reliability concerns.[24] SCE suggests calculating the maximum quantity of a Two-Hour Bucket using a load duration curve, whereby the Two-Hour Bucket limit is determined by the "MW difference between the peak load hour and the hourly limit in question."[25] The "peak load hour" refers to the hour with the highest load of the year in the CAISO's gross load forecast. The "hourly limit in question" refers to the CAISO gross load forecast two hours subsequent to the "peak load hour."[26]

The current MCC buckets are categorized by total availability per month rather than by minimum dispatch time.[27] MCC Buckets include the following:

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[23] SCE Comments, January 16, 2015, p. 3.

[24] SCE Comments, January 16, 2015, p. 3.

[25] ALJ Workshop Ruling, Attachment, SCE Proposal to Add a Two-Hour Maximum Cumulative Capacity Bucket ("SCE Workshop Presentation"), February 9, 2015, slide 3.

[26] SCE Workshop Presentation, slide 3.

[27] SCE Workshop Presentation, slide 2.

- DR – must be available at least 24 hours /month
- Category 1 – must be available for at least the hours listed by the CPUC within the RA workshop report
- Category 2 – must be available at least 160 hours/month
- Category 3 – must be available at least 384 hours/month
- Category 4 – must be available in all hours

All current MCC Buckets must be dispatched for a minimum of four hours.

SCE's proposal has merit and further discussion of the Two-Hour Bucket would be useful. A Two-Hour Bucket product may be able to bring capacity to the market more cost-effectively by allowing additional resources, such as certain DR and energy storage technologies, to provide capacity.

It is important to consider the primary purpose for implementing the Two-Hour Bucket product. As discussed above, system reliability needs are increasingly stratified between peak load and ramping needs, with ramping needs taking on an increasingly important role as California seeks to meet a 50% renewables procurement future. Therefore, if a Two-Hour Bucket product is aimed at meeting ramping needs, then its limit should not be tied to annual peak load but rather to an average ramping requirement. Additionally, if the need is to fill a ramping requirement, then a three-hour dispatch requirement may be better suited to meet reliability needs (i.e., a "Three-Hour Bucket"). A Three-Hour Bucket also aligns with SCE's proposal to eliminate the NQC requirement for EFC qualification, as discussed above.

If the Two-Hour Bucket covers general system reliability needs, the Commission may wish to consider aggregation of 2 Two-Hour Bucket resources to meet a four-hour dispatch window in lieu of creating a separate Two-Hour Bucket category. This approach would shift the burden of meeting the four hour dispatch requirement to bidders and would decrease the CAISO's burden of coordinating dispatch.

K. The Commission should reject MCE's proposals related to the CAM.

MCE's proposal[28] and RA workshop presentation[29] discusses issues of concern with the CAM and recommends that the RA proceeding take steps to reform CAM. Several of the issues raised by MCE are out of scope for the RA proceeding. For example, MCE's stated concerns that CAM is growing and that CAM fails to account for increased reliability from Community Choice Aggregators (CCA) procurement[30] are not issues within the scope of the RA proceeding.

As an interim reform to the CAM, MCE calls for unbundling of reliability and capacity costs in the RA proceeding. According to MCE, the unbundling of these costs would help solve an autonomy issue for CCAs. However, solving an autonomy issue for CCAs does not properly fall within the scope of the RA proceeding. Moreover, it is not clear that there are distinct reliability and capacity values of CAM resources. MCE does not provide a methodology to calculate reliability versus capacity values.

The MCE presentation at the RA workshop calls for consideration of CAM issues which fall outside the scope of the RA proceeding. Accordingly, the Commission should reject MCE's proposals.

L. The Commission should adopt SDG&E's proposal to unbundle flexible and generic capacity.

Current RA rules require that flexible capacity must be bundled with either system or local capacity and not sold separately.[31] It is possible that an LSE may contract with resources to meet system or local capacity requirements and end up with an excess of flexible capacity. Current rules do not allow for an LSE to buy or sell flexible capacity independent of system and local capacity.

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[28] See Comments and Proposal of Marin Clean Energy on Refinements to the Resource Adequacy Program for the 2016 and 2017 Compliance Years, January 16, 2015.

[29] See ALJ Workshop Ruling, Attachment, MCE Refinements to CAM-Related Reliability Cost and Capacity Allocation Process, ("MCE Workshop Presentation"), February 9, 2015.

[30] MCE Workshop Presentation, February 9, 2015, slide 4.

[31] D.13-06-024, Appendix A, p. 22.

SDG&E recommends altering the staff flexible capacity proposal to allow for the unbundling of generic capacity and flexible capacity attributes.[32] This proposal was introduced in last year's RA proceeding and was not adopted by the Commission in D.14-06-050. The Commission recognized that the proposal may provide additional opportunities for flexible capacity and foster procurement efficiencies.[33] However, in rejecting the proposal, the Commission expressed concern over unforeseen consequences such as difficulties tracking flexible and generic attributes. Nevertheless, the Commission called for reconsideration of this issue for the subsequent RA proceeding.[34]

Under the SDG&E proposal, the flexible attribute may be procured independently if a resource chooses to comply with both the generic and enhanced MOO obligations. SDG&E's proposal may reduce costs and should be adopted by the Commission. The most cost-effective procurement to meet flexible capacity requirements will typically involve the purchase of a bundled product with both generic and flexible capacity; however, there may be situations when independent buying and selling of only flexible capacity would benefit LSEs and consequently ratepayers. SDG&E's comments address other parties' primary concerns regarding SDG&E's unbundling proposal.[35] These concerns have not been substantiated and should not preclude flexible capacity from being sold and purchased independently. An LSE may have a small flexible need after it has fulfilled its generic procurement while another LSE may possess excess flexible capacity. The consideration of least cost procurement may lead to independent buying and selling of flexible capacity.

For these reasons, and reasons discussed in ORA's comments in last year's RA proceeding, ORA maintains its position in favor of the SDG&E proposal.[36]

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[32] Comments of San Diego Gas & Electric Company on Administrative Law Judge's Ruling Seeking Party Comments and Proposals ("SDG&E Comments"), January 16, 2015, pp. 4-12.

[33] D.14-06-050, p. 23.

[34] D.14-06-050, p. 23.

[35] SDG&E Comments, January 16, 2015, pp. 6-11.

[36] See Comments of the Office of Ratepayer Advocates on Resource Adequacy Workshop, April 18,

(continued on next page)

III. CONCLUSION

ORA respectfully requests that the Commission consider ORA's comments in adopting modifications to the RA program for RA requirements in 2016.

Respectfully submitted,

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