

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA



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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 2019 and 2020 Compliance Years.

Rulemaking 17-09-020  
(Filed September 28, 2017)

COMMENTS OF THE CALIFORNIA LARGE ENERGY CONSUMERS ASSOCIATION  
ON RESOURCE ADEQUACY TRACK 3 PROPOSALS

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These comments are submitted pursuant to the Amended Scoping Memo and Ruling of Assigned Commissioner Liane Randolph dated January 29, 2019 (the Ruling) clarifying the scope of issues to be addressed in Track 3 and setting forth the Track 3 schedule for the proceeding.

Accordingly, the California Large Energy Consumers Association (CLECA)<sup>1</sup> hereby submits comments on the proposals of Energy Division and a few other parties.

**I. INTRODUCTION**

CLECA's interest in the Resource Adequacy (RA) proceeding results from its members' concern about high rates as well as electric service reliability. A critical issue in this proceeding is how cost and reliability are best balanced. Since industrial customers compete in out-of-state and international markets, they cannot just pass cost increases, including higher electricity costs, along to their customers. Thus, the level of electricity rates is extremely important to the viability

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<sup>1</sup> CLECA is an ad hoc organization of large, high load factor industrial electric customers of Southern California Edison Company and Pacific Gas and Electric Company. CLECA has actively participated in Commission proceedings for decades.

of industrial businesses in California. Electric rates are also important to the State's climate goals, because keeping the production of cement, steel, minerals, industrial gases, and beverages in California enables their manufacture where the energy is cleaner and avoids additional emissions associated with transportation from out-of-state facilities. Since California is concerned about greenhouse gas leakage in the electric energy sector in meeting its climate change policy, it should also be concerned about leakage from critical industries moving outside California. The following sections outline changes and recommendations to achieve reliability in a cost- effective manner.

## II. SUMMARY OF RECOMMENDATIONS

CLECA makes the following recommendations:

- Energy Division's proposals for changes in load forecasting, increasing the price for a waiver trigger, and removal of the Path 16 constraint should be adopted.
- Load Forecasting Issues
  - A multi-year load forecast should be established to take into account load migration.
  - Historical customer load data for forecasts must maintain customer confidentiality.
- PG&E's proposal to set RA requirements based upon gross load should be evaluated in a future workshop as this will better recognize the impact of customer provided resources.
- Cost-causation principle for allocation of flexible RA requirements should be established which would use contribution to flexibility need instead of pro-rata share of load which creates inequity.
- SCE's proposal for determining RA capacity for the Demand Response Auction Mechanism has merit. It would allow the DR provider to choose between using the load impact protocols or provide their own forecast and be subject to financial consequences if they fail to deliver.

- There is too much uncertainty over load migration and the possible creation of a central buyer to extend multi-year procurement to system and flexible RA.
- Recommendations on Effective Load Carrying Capability issues:
  - Energy Division’s proposal for calculating the ELCC of storage should not be implemented at this time.
  - Energy Division’s method of “surfacing” of Loss of Load Events raises a number of questions and concerns.
  - WPTF’s recommendation to create monthly PRM from the Energy Division’s ELCC analysis should be rejected as it would be based upon an artificial system and would be a significant change in how reliability is achieved.
- Sunrun’s recommendation that for projects coupling solar with storage, the diversity benefit of storage should be allocated to the corresponding solar resource should be adopted.
- SCE’s recommendations for using the ELCC methodology to calculate Net Qualifying Capacity of renewable resources combined with battery storage should be explored further.

### III. COMMENTS

#### A. CLECA SUPPORTS ENERGY DIVISION’S PROPOSALS ON LOAD FORECASTING, INCREASE IN THE PRICE FOR A WAIVER TRIGGER, AND REMOVAL OF THE PATH 26 CONSTRAINT

The Energy Division submitted three proposals regarding the load forecast used for Resource Adequacy (RA), removal of the Path 26 constraint, and an increase in the trigger price for a waiver from the obligation to procure local RA capacity.

The Energy Division proposal, in conjunction with the California Energy Commission’s (CEC’s) input, for a new load forecast methodology properly recognizes that energy sales are moving from the investor owned utilities (IOUs) to Community Choice Aggregators (CCAs). The new process will create a binding notice of intent in April, with a final revision by May 15 that will provide the basis for the forecast of expected customers and load for load serving entities (LSEs)

the following year. This should reduce the incidence of changes in implementation plans that have occurred in the past and have resulted in some LSEs under-procuring RA and others over-procuring.

The only concern CLECA has is the proposed definition of the term “load migration” as “load effects that are tied directly to customer counts and that an LSE cannot reasonably predict or control, such as opt-out rates or new service requests”.<sup>2</sup> The term load migration is most often use to describe the load that moves from the IOU to a CCA or to direct access, and it is not a term to describe a type of load forecast error. We recommend using another term for this unexpected load change between the initial and final forecasts.

The Energy Division has documented that the use of waivers for acquiring local RA has increased and that the supply of local RA is tightening. As a result, it proposes to use \$51/kW-year capacity price as the trigger price. This increase is reasonable, especially given the pending retirement of once-through cooling thermal units.

Energy Division provided analysis that the Path 26 constraint will not bind in most conditions. Southern California Edison (SCE) also provides supporting information for the removal of the Path 26 constraint.<sup>3</sup> We find these proposals to remove the path 26 constraint requirement to be reasonable and supported by the data.

For the above reasons, CLECA supports these proposals by the Energy Division.

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<sup>2</sup> CPUC Energy Division, Proposals for Proceeding 17-09-020: Order Instituting Rulemaking to Oversee the Resource Adequacy Program, Consider Program Refinements, and Establish Annual Local and Flexible Procurement Obligations for the 2019 and 2020 Compliance Years. March 4, 2019, At 15.

<sup>3</sup> SCE, RA Track 3 Proposals. March 4, 2019. At 10-13.

## B. LOAD FORECASTING ISSUES

1. A Multi-Year Load Forecast Should be Established to Take into Account Load Migration.<sup>4</sup>

Pacific Gas and Electric (PG&E) noted in its Track 3 proposal that the recent Commission RA decision (D. 19-02-022) established the three-year local RA requirement based upon the first-year load forecast from the CEC.<sup>5</sup> Given that CCAs are expected to continue to grow, this will result in the investor-owned utilities (IOUs) procuring local RA for 100 % and 50% of customers that are expected to depart, respectively, in years two and three.<sup>6</sup> Therefore, if the IOUs experience load migration in year 2, they would have already procured RA to serve 100% of that departing customer load and 50% of that departing load for the final compliance year, even though it was known prior to year 1 these customers would depart. This is contradictory to the message in the Power Charge Indifference Amount proceeding that the CCAs want the IOUs to adjust their portfolio to reflect CCA plans. Indeed, the Commission has ordered a workshop on this topic.<sup>7</sup> We agree with PG&E that this problem needs to be resolved.

PG&E proposes that:

“LSEs be required to submit their three-year load forecast as part of the August mandatory load forecasting update for the 2020-2022 local RA requirements only. On a going forward basis, if needed, LSEs should be required to submit their multi-year load forecasts in the month of April as part of the existing RA timeline and serve only the load they have planned for.”<sup>8</sup>

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<sup>4</sup> CLECA uses the term load migration as the customers and their associated load that moves between LSE, and not as described by the Energy Division as unknown load amounts.

<sup>5</sup> CPUC Decision 19-02-022, p. 28.

<sup>6</sup> CPUC Decision 19-02-022 at p. 27 adopted 100% for years 1 and 2, and 50% for year 3.

<sup>7</sup> CPUC, Scoping Memo of Commissioner Picker in Order Instituting Rulemaking to Review, Revise, and Consider Alternatives to the Power Charge Indifference Adjustment, R.17-06-026. February 1, 2019.

<sup>8</sup> PG&E, RA Proposal for Track 3, March 4, 2018 at page 6.

Since procurement of local RA for years 2 and 3 is an annual compliance obligation, it would not require a more complicated monthly forecast. By setting the multi-year local RA requirement based upon a multi-year forecast that takes into account load migration, the LSEs will procure a more appropriate amount of resources to serve their expected customer base. This will resolve unnecessary cost shifts among LSEs. CLECA recommends that the Energy Division and CEC work together to incorporate years 2 & 3 into the load forecast so it can be used for procuring multi-year local RA.

## 2. Customer Confidentiality of Load Data Must be Maintained.

The Energy Division's Proposal is for each LSE to provide the CEC historical load information of customers it has served and plans to serve, in addition to a corresponding load forecast. An LSE may serve only one large industrial customer, so providing such information, even if aggregated by customer class, would reveal confidential customer information. It is for this reason that the Commission adopted the standard that there must be at least 15 agricultural, commercial, or industrial customers in a group with no customer's load representing more than 15% of the total, before their load data may be made available.<sup>9</sup> CLECA requests the Commission reaffirm that the CPUC and CEC will treat customer load data, even when aggregated by customer class, as confidential data subject to this standard.

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<sup>9</sup> D. 14-05-016 at 118.



**C. PG&E'S PROPOSAL TO SET RA REQUIREMENTS BASED UPON GROSS LOAD SHOULD BE EVALUATED IN A FUTURE WORKSHOP**

PG&E presents a proposal to define the RA requirements based upon gross load, or end-use consumption of power, instead of the current approach of load measured at the meter.<sup>10</sup> With the gross load approach, the LSE would have to document all behind the meter (BTM) resources in addition to the grid-located resources that will meet the gross load. There is merit to this approach as it will better quantify and identify the customer-provided BTM resources that are being used to service total load consumption. This issue of BTM resources will become more complex with the addition of BTM storage. The LSE is expected to provide back-up service for the outage of BTM resources. However, that reliability issue is not currently being accounted for in the RA process, as the planning reserve margin is applied to load at the meter. In essence, BTM resources are being considered as 100% reliable, which is unlikely to be the case. CLECA recommends the PG&E proposal be discussed at a future workshop.

**D. CLECA SUPPORTS USE OF A COST-CAUSATION PRINCIPLE FOR ALLOCATION OF FLEXIBLE RA REQUIREMENTS.**

The California Wind Energy Association (CalWEA) submitted a proposal that the flexible RA requirement be allocated based upon a load-serving entity's individual contribution to the net load ramps. CLECA has supported such a proposal in the past and continues to do so as it is based upon a cost-causation principle.<sup>11</sup> The current pro-rata load share allocation for flexible capacity is counter to cost-causation principles. Given that load serving entities have different load shapes and varied penetration of behind the meter solar resources, in addition to varied

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<sup>10</sup> PG&E, RA Proposal for Track 3, March 4, 2018 at pages 2-3.

<sup>11</sup> CLECA, [Comments on the Final Phase 3 Proposals Filed February 24, 2017](#), March 17, 2017. R.14-10-010. Page 14.

amounts of intermittent renewable resources in their portfolios, the contribution to flexibility need is likely to differ among these entities. For example, a load serving entity with a flat net-load shape that does not contribute to flexibility need, would get an unfair allocation of the cost of flexibility requirements under the load ratio share approach.

The Commission indicated its support of this proposal in a prior RA decision (D. 16-06-045), stating: “we see the goal of aligning costs for flexible RA with cost causation, measured by contribution to net load ramp as a logical approach, but we are not convinced that this proposal achieves its stated goal in practice.”<sup>12</sup> Furthermore, it encouraged Energy Division to consider relevant proposals. The Commission cited concerns from other parties that objected to a cost-causation allocation, but these parties have failed for several years to present any proposal that would resolve these concerns. It appears the Commission had some doubt regarding some objections to the use of an allocation based on contribution to ramp, stating:

Nevertheless, we question the CCA Parties’ argument that this proposal is counter to California’s goals for renewables; we believe the opposite is true. In particular, we note that several of the benefits described by the legislature as justifications for the RPS program are best supported by incentives to minimize renewable integration costs such as additional flexibility needs. This policy provides an incentive to minimize flexibility needs and is consistent with the goals of the RPS statutes.<sup>13</sup>

Since CCAs are rapidly expanding and many of them are advertising accelerated renewable procurement options, it is time to align the cost allocation with cost causation so that the impact of their resource portfolios on the overall flexibility requirement is not ignored.

For the above reasons, we support adoption of CalWEA’s proposal in Track 3.

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<sup>12</sup> CPUC D.16-06-045 at 47.

<sup>13</sup> CPUC D.16-06-045 at 47-48.

**E. SCE'S PROPOSAL FOR DETERMINING RA CAPACITY FOR THE DEMAND RESPONSE AUCTION MECHANISM HAS MERIT AND SHOULD BE EXPLORED.**

The determination of qualifying capacity for DR resources provided under the Demand Response Auction Mechanism (DRAM) has been an ongoing issue. The current method of using contract capacity as qualifying capacity (QC) was adopted as a temporary measure<sup>14</sup> and has proven to be unverifiable as a measure of actual performance and therefore RA value.<sup>15</sup> DRAM should be held to a more rigorous standard. SCE proposes that a DRAM provider be given two options:<sup>16</sup>

1. Use of a generic QC value from a similar program that is already using the Load Impact Protocols (LIP) until the resource's performance can be measured using its own QC based on the LIP.<sup>17</sup>
2. Provision by the DRAM provider of a QC value with back end controls of financial consequences for providing an unrealistic QC value.

In either option, there would need to be data from either actual program calls or unannounced tests. That is the only way data can be made available to either develop the resource's own QC using the LIP<sup>18</sup> or to evaluate if a financial consequence is warranted.<sup>19</sup> CLECA supports further consideration and development of SCE's DRAM proposal.

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<sup>14</sup> D. 16-06-045 at 41. The use of contract capacity was only for the years 2017-2019.

<sup>15</sup> CPUC Energy Division, Evaluation of Demand Response Auction Mechanism, Final Report, January 4, 2019.

<sup>16</sup> SCE, Proposal for Track 3 RA, Page 8-9.

<sup>17</sup> For example, a DRAM program using upon air-conditioning cycling could use an IOU's LIP for these programs or perhaps weighted averages from different customer mixes.

<sup>18</sup> CLECA recognizes that there is no consensus on the use of the LIP for DRAM resources; CLECA is suggesting that this proposal be developed further, not adopted now as is.

<sup>19</sup> SCE does not offer a definition of a financial consequence, but CLECA assumes this would be a penalty or claw-back of the DR provider's capacity payments.

**F. THERE IS TOO MUCH UNCERTAINTY OVER LSE LOAD MIGRATION TO ADOPT A MULTI-YEAR SYSTEM AND/OR FLEXIBLE RA REQUIREMENT.**

The Western Power Trading Forum (WPTF), The Independent Energy Producers (IEP), and Middle River Power LLC. each propose that the multi-year local RA requirement be expanded to include System and Flexible RA.<sup>20</sup> Both IEP and Middle River mention the retirement of thermal once through cooling units and (in 2024-2025) the Diablo Canyon nuclear generating station as reason to implement a multi-year RA requirement. The commitment to investment in long-life generation assets to replace retirements is unlikely to occur as a result of an obligation to sign a 1- or 3-year contract to meet RA accounting obligations. The investment in long-life assets is far more likely to be the result of LSEs deciding to commit to making a long-term obligation based upon their expected long-term need. A 1- or 3-year showing for RA is unlikely to influence a long-term decision. The only proceeding reviewing a longer time horizon is in the Integrated Resource Plan (IRP) case, R. 16-02-007, wherein LSEs must show that they can meet their future load requirements and the state's renewable energy and greenhouse gas reduction goals. Creating a multi-year system or local RA procurement requirement is also subject to the concerns already raised regarding the continuing load migration from IOUs to CCAs and Direct Access. As described previously, the Commission set the multi-year local RA requirement based upon the year 1 forecast. Extending the multi-year requirement to System and Flexible RA would result in the obligation for IOUs procuring capacity for customers that are expected to depart. This is contrary to the vision outlined in the PCIA proceeding. Further complicating the matter is the ongoing consideration of the possible creation of a central procurement agent. For the

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<sup>20</sup> WPTF, Proposals for Track 3 RA, page 5. IEP, Proposals for Track 3 RA, page 2-3. Middle River, Proposals for Track 3 RA, page 4-7.

above reasons, CLECA recommends the Commission reject expanding the multi-year requirement to System and Flexible RA.

#### **G. EFFECTIVE LOAD CARRYING CAPACITY (ELCC)**

##### **1. Energy Division's Proposal For Calculating The ELCC Of Storage Is Not Ready For Implementation**

In its presentation and workshop in December 2018,<sup>21</sup> Energy Division explained its calculation of ELCC for renewable resources. Merely calculating the ELCC of each resource such as wind and solar, as was previously done, was not sufficient, Energy Division stated, because resources complemented one another on the grid. For example, solar could offset the occurrence of Loss of Load Expectation (LOLE) during the day while wind could offset it in the evening.

Accordingly, Energy Division proposed calculating the individual ELCC of each class of renewable resources, namely, wind and solar, along with storage resources including batteries and pumped hydro.

Under this methodology, the following steps are performed:

1. Monthly LOLEs are created on the system by removing generation resources, until the LOLE in each month is within a range of 0.02 and 0.03 LOLE. This is labeled as the "calibrated" LOLE grid.
2. MWs of perfect capacity are substituted for each resource class, namely, wind, solar, and storage, to compute the ELCC of each individual resource.
3. The perfect capacity needed to substitute for all the three resources combined is calculated, which constitutes the portfolio ELCC.
4. The diversity benefit then is the difference between the total MWs added for the portfolio (all three resources together) and the MWs added for each individual

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<sup>21</sup> R. 17-09-020, Attachment A, Administrative Law Judge's Ruling on Effective Load Carrying Capacity, issued December 4, 2018, and workshop held on December 13, 2018.

resource class.

In its earlier proposal, Energy Division had proposed allocating the diversity benefit to each renewable resource class based on a ratio of the MWs added for the individual resource to the sum of the resources added for the three resource classes combined.<sup>22</sup>

However, at the December 13 workshop, parties voiced concerns regarding Energy Division's proposed methodology. The main focus of parties' comments seemed to be the values for the ELCC of storage, which, for some months, yielded results greater than 100%.<sup>23</sup>

In response to parties' concerns, Energy Division has modified its proposed ELCC methodology.<sup>24</sup> The latest proposal does not allocate the diversity adjustment to all three resources, including storage. Instead, Energy Division proposes to cap the ELCC of storage at 100% while allocating the diversity benefit to solar alone.

Energy Division explained its rationale during a recent workshop.<sup>25</sup> In its modeling, charging storage absorbed excess generation from solar during the day and discharged it during the evening peak. The hourly solar generation profiles produced by the SERVIM model for a mid-March weekday, along with the charging profiles for storage, Energy Division alleged, demonstrated that excess generation from solar directly corresponded with charging activity for storage.

According to Energy Division, its calculations of Expected Unserved Energy (EUE) also supported these results. Removing solar and replacing it with perfect capacity shifted the hours

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<sup>22</sup> Energy Division Monthly ELCC Proposal for 2020 RA Proceeding, Revised November 27, 2018, at 6.

<sup>23</sup> Ibid at 9.

<sup>24</sup> R. 17-09-020, Attachment to Administrative Law Judge's Ruling on Effective Load Carrying Capacity, February 13, 2019.

<sup>25</sup> R. 17-09-020, Resource Adequacy Workshop Presentation, March 12 and 13, 2019, at 10.

of loss of load to earlier in the day, an expected outcome. Removing storage and replacing it with perfect capacity also resulted in a significant reduction in EUE compared to the reduction in EUE caused by either solar or wind. Energy Division's takeaway from these results was that a MW of storage had a higher ability to prevent unserved energy than either wind or solar. CLECA finds Energy Division results on EUE analysis reassuring.

We believe that the EUE studies might prove to be of particular importance in analyzing the impact of storage on the grid. In the Integrated Resource Planning (IRP) proceeding, Energy Division is planning to study reliability impacts of anticipated replacement of thermal capacity with limited-duration storage, renewables, and other energy-limited resources. In addition to studying the system LOLE, the Commission is also planning to check the system for energy sufficiency in that proceeding.<sup>26</sup> Specifically, the Commission has stated that it will use the RESOLVE model to verify that the system has enough energy to sustain multi-hour to multi-day periods of low renewable production, and that additional constraints will have to be added to the model besides the RA/peak demand constraint.<sup>27</sup>

It is not clear if Energy Division plans to use its SERVIM model to conduct similar analyses of storage in more detail in the RA proceeding.

CLECA also wonders if Energy Division's use of energy sufficiency or EUE as a reliability criterion serves as a proxy for assessing the flexibility benefits of storage. The SERVIM model is unable to simulate the impact of various resources on ramping or flexible capacity needs. Moreover, the Commission's as well as the California Independent System Operator (CAISO)'s

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<sup>26</sup> R. 16-02-007, Attachment B to the Administrative Law Judge's Ruling Seeking Comment on Proposed Scenarios for 2019-2020 Reference System Portfolio, at 27.

<sup>27</sup> Ibid, at 29, 28.

work on flexible RA has stalled for some time. As a result, the reliability assessment of storage is perhaps inadequate. Storage provides value in fulfilling the flexible capacity needs created by high levels of solar production during the day. Since Energy Division is not currently modeling this effect, it is possible that the flexibility benefits of storage are undervalued rather than overvalued.

Some aspects of Energy Division's modeling of storage are also of concern to CLECA. Since the results of modeling of only one spring day have been provided, it is difficult to understand the diversity benefits of storage. It would be helpful if Energy Division provided results of modeling of a peak day in August, for example, so that parties would be able to understand if all of the solar generation is used by the system and no curtailment occurs. Or, as more solar resources are added to the system, is there excess capacity available to charge storage during the summer peak periods?

On the other hand, if storage is currently being offered in the marketplace mainly to provide local reliability and not for daily cycling as modeled by Energy Division, the results would be different.<sup>28</sup> It is important to model storage realistically, in the way its providers are currently using it as well as in the way they plan to use it on the system in the near future. For this reason, it would be helpful to have the results of Energy Division's modeling of storage for different months of the year.

If California is to realize the legislative mandate imposed by Senate Bill 100, which

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<sup>28</sup> At the March 18, 2019 Energy Storage and Distributed Energy Resources (ESDER) 4 stakeholder meeting at the California Independent System Operator (CAISO), storage representatives indicated that they wanted to limit cycling of resources bid into the CAISO market, which would appear to reduce the potential diversity value of storage.



requires the State to make 100% use of zero-carbon electricity by 2045, a synergistic rollout of storage combined with renewable resources will be key. The importance of an accurate assessment of such resource combinations cannot therefore be overstated.

CLECA is troubled by several parties' suggestions that the diversity benefit of storage should be allocated to all the resources which happen to be on the grid when storage is charging, including fossil units. CLECA disagrees. The concept behind diversity benefit is that resources with production during different hours of the day such as solar and wind can complement one another. Storage can charge when there is abundant renewable energy and provide it to the grid when renewable resources are not available. Fossil units are available at all times unless they are use-limited or on planned or forced outage and their NQC and EFC reflect that availability.

Additionally, this proposal does not comport with the State's preference for use of GHG-free resources to serve load as much as possible.

The other issue CLECA is concerned about is Energy Division's use of its "calibration" methodology in the base case. Our concerns with the "calibration" method are discussed more fully below.

The Commission has posed a number of questions for parties with regard to the modeling of storage. When the ELCC value of storage exceeds 100%, for example, should the excess be allocated to wind and solar, and if so, how? Should diversity benefit be computed and if so, how?<sup>29</sup>

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<sup>29</sup> R. 17-09-020, Resource Adequacy Workshop Presentation, March 12 and 13, 2019, at 9.

In light of the concerns outlined above, CLECA believes that it is premature to answer these questions. While some progress has been made in the modeling of storage for the calculation of ELCC, more work needs to be done. CLECA recommends that the Commission's methodology for modeling of storage and its diversity as well as flexibility benefits be further discussed and refined before any such changes are implemented.

CalCCA argues for clear and stable ELCC values so that LSEs can enter into power purchase agreements without the risk of fluctuating values of their resources. This is a legitimate concern. We recommend that the Commission provide greater clarity in explaining its ELCC calculations and use caution in making changes.

## 2. Energy Division's Method Of "Surfacing" Loss Of Load Events Raises A Number Of Questions And Concerns

As stated above, CLECA is concerned about Energy Division's method of "surfacing" LOLEs in the SERVIM model. Energy Division's first step in its calculation of ELCC consists of artificially removing resources from the grid to create monthly LOLEs between .02 and .03. Energy Division labels this the "calibration" approach.

When Energy Division first began its project of computing ELCC values for solar and wind as mandated by Senate Bill 2 (1X), it discovered that non-zero LOLEs in all months could not occur on the system because the State's electric grid had over-capacity. Energy Division therefore adopted the modeling convention of removing resources from the system until LOLEs would occur in every month instead of just the months of May through October.

CLECA is concerned that since viable resources currently being used on the system are removed for modeling purposes under the "calibration" approach, the hourly load profiles

generated by SERVVM may not reflect reality.

CLECA has previously voiced its concerns regarding this artificial modeling convention<sup>30</sup>, stating, “It is not clear how this artificial simulation of the system skews the model results. The CAISO, in its opening comments, also requested an explanation of the capacity removed and the reasons for its removal.”

The use of this methodology of “surfacing” the LOLEs for the express purpose of computing the ELCC values for wind and solar which could not otherwise be calculated has continued, despite these concerns. However, this methodology should NOT be used for other purposes, such as in the Integrated Resource Planning proceeding. The IRP is looking at new resource additions, as well as the treatment of storage, and this involves a higher level of complexity.

During the December 13 workshop, Energy Division explained that age was the basis on which capacity was removed in its “calibration.” Energy Division also elaborated that the Helms pumped storage facility was removed based on this criterion before modeling solar, wind, and storage resources for ELCC. Energy Division confirmed this during a second workshop on March 13, 2019.

CLECA is perplexed by Energy Division’s explanation. Did Energy Division remove older hydro resources just because they were old even though they were still economically viable? The omission of Helms from Energy Division’s model seems particularly problematic given that

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<sup>30</sup> Comments of the California Large Energy Consumers Association on Revised Proposals for 2017 Resource Adequacy, filed April 1, 2016, at 6.

after removing Helms, the SERVVM model computes ELCC of future, albeit approved, storage projects.

Moreover, during the spring months when the system has excess capacity due to high levels of solar generation, Energy Division has to remove viable resources to force LOLEs to appear. This is especially problematic if the ELCC results are being used to value new capacity additions during the spring months. CLECA wonders if it is time to reexamine the LOLE “surfacing” methodology, which, as stated above, is an artificial modeling convention.

3. WPTF’s Recommendation To Calculate Monthly Planning Reserve Margins Should Be Rejected.

The WPTF recommends that monthly Planning Reserve Margins (PRM) be developed from the work already done by the Energy Division in its ELCC analysis.<sup>31</sup> WPTF seems to suggest that this could be done by using the ‘calibration’ results from the SERVVM model results which involves artificially removing resources from the grid. CLECA disagrees as there are two problems associated with this proposal. First, the Energy Division used a rather arbitrary method to select the removal of resources to develop the monthly ELCC, which included the removal of the Helms Pumped Storage unit just because it is an old unit. With the identified need for storage on the system to reduce renewable curtailment, this does not seem appropriate. As a result, the results from calibration results may not reflect reality. Second, the movement from an annual PRM to monthly PRMs is a major change to the reliability planning process that needs thorough vetting and validation. In addition, the entire issue of the PRM in the context of forced outages has just come under consideration at the California independent System Operator in

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<sup>31</sup> WPTF, Proposals for Track 3 RA, page 4-5

their Resource Adequacy Enhancement initiative. For all the above reasons, CLECA recommends the Commission not consider any changes to the PRM in Track 3.

#### **H. OTHER PARTIES' PROPOSALS**

Sunrun recommends that the Commission should ensure that its ELCC modeling allows developers to directly combine solar with storage, be it in front of or behind the meter. In such a case of a coupling of solar with storage, Sunrun recommends that the diversity benefit of such coupling should go to the specific resources involved and not be spread across all the resources on the system.

CLECA sympathizes with Sunrun's concern about how to address solar combined with storage, but its proposed solution is at best premature. As discussed above, we believe that the modeling of storage needs to be developed and refined further. However, as recommended above, we find merit in the concept that when a provider offers a hybrid resource such as storage explicitly coupled with solar, its diversity benefit should go to that hybrid resource. Otherwise, LSEs will have no incentive to offer such resources.

SCE recommends using the ELCC methodology for renewable resources which are combined with a battery to calculate the Net Qualifying Capacity (NQC) of such resources. SCE constructs various scenarios for calculating the NQC of such coupled resources, for example solar combined with battery storage or demand response combined with storage. CLECA does not fully comprehend SCE's proposals; such proposals need to be fully flushed out before any ELCC calculation for storage or storage coupled with renewable resources is adopted by the Commission.

IV. CONCLUSION

We appreciate the opportunity to provide these comments.

Respectfully submitted,

A handwritten signature in blue ink that reads "Nora Sheriff". The signature is written in a cursive, flowing style.

Nora Sheriff  
Counsel to California Large Energy  
Consumers Association

March 22, 2019