

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

**COMMENTS OF THE PUBLIC ADVOCATES OFFICE
ON RESOURCE ADEQUACY TRACK 3 PROPOSALS AND ENERGY DIVISION'S
EFFECTIVE LOAD CARRYING CAPABILITY PROPOSAL**

XIAN MING (CINDY) LI
PATRICK CUNNINGHAM
Analysts for the
Public Advocates Office
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Telephone: (415) 703-1993
E-mail: Patrick.Cunningham@cpuc.ca.gov

DIANA L. LEE
MATT MILEY
Attorneys for the
Public Advocates Office
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Telephone: (415) 703-3066
E-mail: Matt.Miley@cpuc.ca.gov

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I. INTRODUCTION

Pursuant to the January 29, 2019, *Amended Scoping Memo and Ruling of Assigned Commissioner* and the February 13, 2019 *Administrative Law Judge's Ruling on Effective Load Carrying Capacity[ELCC]*, the Public Advocates Office at the California Public Utilities Commission (Cal Advocates) submits these comments on the *Energy Division's Monthly ELCC Proposal for the 2020 RA Proceeding* (ELCC Proposal) and the Track 3 proposals submitted by parties on March 4, 2019, and discussed at the March 12 and 13, 2019 workshops.

The ELCC Proposal, as revised on February 5, 2019, updates the ELCC values used for calculating the reliability of wind and solar resources and introduces energy storage as an ELCC resource. If approved by the California Public Utilities Commission (Commission), these changes would be implemented in 2019 for use in 2020 and later Resource Adequacy (RA) compliance years.¹ Numerous parties submitted Track 3 proposals on issues including load migration, RA schedule requirements, load forecasting, changes to RA procurement methods, adjustments to RA waiver processes, resource counting, and other general RA issues. These issues are in addition to centralized procurement issues, which will be developed through working groups in the course of Track 3 of Rulemaking (R.) 17-09-020.

II. SUMMARY OF RECOMMENDATIONS

- Energy Division's definition of the term "Load Migration" is overly broad;
- Proposals for Investor-owned Utility (IOU) and Load Serving Entity (LSE) requirements to meet and confer should be adopted after clarification;
- A one-year ahead Binding Notice of Intent should be adopted after clarification and development;
- Creating a multi-year load forecast should be considered in Track 3;
- System and flexible RA requirements should not be subject to multi-year procurement;
- California Community Choice Association's (CalCCA) excess RA sales framework proposal should not be adopted;
- Energy Division's proposal to update the local RA waiver price should not be adopted without also updating the local RA penalty price;
- Local RA waiver requests should be subject to tier-2 advice letter filings;
- San Diego Gas & Electric Company's (SDG&E) RA waiver price monthly rate proposal should be modified;

¹ Energy Division ELCC Proposal Slides, February 5, 2019, p. 2.

- Path 26 constraints should be removed;
- Energy Division should facilitate a working group to develop Behind-the-Meter (BTM) Solar assumptions for ELCC;
- Energy Division should provide more information on ELCC modeling assumptions; and
- Energy Division should allow inclusion of technological and geographic considerations for ELCC.

III. DISCUSSION

A. The Definition of Load Migration is overly broad

Energy Division proposes to define load migration as, “load effects that are tied directly to customer counts and that a Load Serving Entity (LSE) cannot reasonably predict or control....”² This definition does not include predictable shifts in customer counts between LSEs, such as planned year-ahead growth expressed in implementation plans.³ Although load migration has not yet been defined in this proceeding, the term is commonly used by the Commission and various stakeholders to describe the general movement of customers between LSEs.⁴ The Public Advocates Office recommends that Energy Division adjust its proposal to use a term other than “Load Migration” to avoid confusion in this proceeding and other state-wide regulatory proceedings and California Independent System Operator (CAISO) initiatives concerned with the topic of customer movement between LSEs. A term that specifically targets the unpredictable customer movement between LSEs that Energy Division intends to define, such as “Load Migration Forecasting Error” or another term, would reduce potential confusion.

² Energy Division Proposals for R.17-09-020, March 4, 2019 (Energy Division Proposal), p. 15.

³ LSEs are required to submit Implementation Plans to the Commission to track new or expansion of service to customers. See Resolution E-4907, available at: <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M200/K492/200492306.docx>.

⁴ For example, the CPUC Blog described the growth of Community Choice Aggregators as causing “rapid load migration” which includes planned-for expansion of service as well as the unpredictable load effects which Energy Division’s proposal appears to target. See: <http://www.cpuc.ca.gov/cpucblog.aspx?id=6442455641&blogid=1551>.

For another example, SCE has also described the predictable movement of customers through Compliance Filings (a part of Resolution E-4907) as a load migration issue. See: <http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442456653>.

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B. Load Forecasting

1. Energy Division's Proposal for IOU and LSE Requirements to Meet and Confer Should be Adopted after Clarification

The Public Advocates Office supports, with modifications, Energy Division's proposal to require, "that each IOU meet separately with each non-IOU LSE in its service territory during the annual ERRA [Energy Resource Recovery Account] process (before December 31) to discuss expected monthly migration from IOUs to non-IOU LSEs during the year following the coming year."⁵ This proposal should be modified to clarify that this coordination should occur during the pendency of each IOU's ERRA Forecast proceeding in which the IOUs forecast their load for the following year. This clarification would avoid any potential confusion with the IOUs' ERRA Compliance applications, which look backwards at the previous year. The two processes are distinctly separate proceedings for each IOU.

Energy Division's proposal should also be modified to account for the ERRA Forecast's schedule. The IOUs file their ERRA Forecast applications between April and June and file a major update between November 1 and 15.⁶ This "November Update" enables the IOUs to update a number of its forecasts, including expected load for the next year, to decrease forecast inaccuracies.⁷ The November Update filings are subject to an extremely compressed review schedule so that the Commission can approve the applications before the end of the year to allow inclusion of the forecast costs in rates beginning in January.⁸ Any meeting between an IOU and an LSE to adjust load forecasts must take place prior to the IOU's November Update filings in order for changes to be accounted for in the ERRA Forecast application for the following year.

CalCCA recommends that LSEs meet and confer with IOUs concerning load forecasts for the following year before the CEC load forecast is due in April of each year.⁹ This would provide the IOUs time to adjust the load forecasts for both the CEC filings and the ERRA

⁵ Energy Division Proposal, p. 17.

⁶ See D.14-10-033, p. 31, available at: <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M124/K137/124137991.PDF>.

⁷ This update is required by D.14-10-033, p. 31.

⁸ For example, see the Scoping Memo and Ruling for SCE's 2019 ERRA Forecast, A.18-05-003, pp. 3-4.

⁹ California Community Choice Association's Track 3 Proposal, March 4, 2019 (CalCCA Proposal), pp. 3-4.

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Forecast applications, and would allow sufficient time for additional meetings to adjust forecasts between the initial ERRA Forecast applications and the November Update.¹⁰

Adjusting the timing of Energy Division's meet and confer proposal to ensure load migration discussions occur and conclude before the November Updates would allow any adjustments to be implemented within the schedule of the ERRA Forecast proceedings. This would allow for timely and feasible adjustments to increase the accuracy of IOU rate recovery and LSE load forecasts for the next year.

2. Energy Division's Binding Notice of Intent proposal Should be Adopted After Clarification and Development

Energy Division proposes that each LSE's April load forecast should become a Binding Notice of Intent (BNI) that would lock in the following-year RA requirements for each LSE.¹¹ The Public Advocates Office supports this proposal. A load forecast BNI would incentivize early planning for LSE growth and help ensure equitable RA capacity procurement for the next year. This proposal would also aid the planning process of residual central procurement if such a structure is developed in Track 3 of this proceeding.

The Public Advocates Office also supports this proposal's design to limit the BNI to the year-ahead forecast. The multiyear RA requirement adopted by Decision (D.) 19-02-022 (the Track 2 RA decision) requires LSEs to procure 100 percent of their local RA requirements for the first and second years-ahead and 50 percent of their local RA requirement for the third year-ahead.¹² If a BNI included years beyond the first year-ahead, LSEs would find it more difficult to adjust to forecast errors and to make changes to their own implementation plans.

3. Creating a Multi-Year Load Forecast Should be Considered in Track 3

Pacific Gas and Electric Company (PG&E) proposes that LSEs develop load forecasts for each of the three forward years and that those forecasts be used in determining the local RA

¹⁰ CalCCA recommends that load issues should be resolved before June in order to inform the Commission's July RA requirement allocation which provides ample time for the IOUs to make any necessary updates to their ERRA Forecast prior to the November Update. CalCCA Proposal, p. 4.

¹¹ Energy Division Proposal, pp. 16-17.

¹² D.19-02-022, pp. 25-27.

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requirements for each of those three forward years.¹³ This would alter the instruction of D.19-02-022 which allocates the RA requirement of year two as 100% of the year one¹⁴ requirement and year three as 50% of the year one rather than basing requirements off of specific forecasts for those years as PG&E proposes.¹⁵

The Public Advocates Office supports including consideration of customer migration between LSEs in the multiyear RA framework, such as with Energy Division's proposal that LSEs meet and confer during the IOU's ERRRA Forecast proceedings.¹⁶ We agree with PG&E's conclusion that the current structure is likely to result in cost shifting and inequities since LSEs must procure 100% of their Local RA forecast two years ahead, but that local RA forecast does not currently account for load shifts that may occur if other LSEs grow or decrease due to customer migration.¹⁷ However, the implementation of this proposal should undergo further stakeholder consideration. Namely, Community Choice Aggregators (CCAs) and Direct Access LSEs may be unable to forecast their growth plans two or three years ahead. Resolution E-4907 and the Integrated Resource Plan (IRP) process currently only require such planning for the next-year ahead.

¹³ Track 3 Proposals of PG&E, March 4, 2019 (PG&E Proposal), p. 6.

¹⁴ "Year One" meaning the next-year from current. "Year One" would be 2020 for procurement conducted in 2019 to meet 2020 RA requirements.

¹⁵ D.19-02-022, p. 28.

¹⁶ Energy Division Proposal, p. 17.

¹⁷ PG&E Proposal, p. 6.

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C. RA Requirements

1. The Commission should not adopt Multi-year Procurement requirements for System and Flexible RA at this time

Three stakeholders propose¹⁸ requiring multi-year procurement of system and flexible RA, similar to D.19-02-022's adoption of a multi-year procurement requirement for local RA.¹⁹ However, D.19-02-022 acknowledges that while, "there may be potential benefits to expanding multi-year requirements to system and flexible RA" it is premature to adopt such requirements before an evaluation of the multi-year local RA program and that currently observed RA procurement issues were focused in local RA issues.²⁰

The Public Advocates Office concurs with the Commission's conclusion in D.19-02-022, as well as other stakeholders' positions,²¹ that there is no critical system or flexible RA need at this time that warrants the implementation of a multi-year requirement for system and flexible RA. Expanding multi-year RA requirements to system and flexible requirements would increase multiyear procurement by approximately 193%.²² Since system RA requirements change each year and the CAISO intends to modify flexible RA requirements and design through a set of ongoing initiatives,²³ requiring additional multi-year procurement may result in resources that no longer meet reliability needs in the future.²⁴ Adopting multi-year requirements for system

¹⁸ The Independent Energy Producers Association (IEPA) cites a critical need for RA capacity due to resource retirements and a need to send appropriate market signals (IEPA Track 3 Resource Adequacy Proposal, pp. 2-3). Middle River Power, LLC (MRP) states that efficiency and incentives needed for a stable RA program, along with market signals and maintenance of critical natural gas generation, would be provided by multi-year system and flexible RA requirements (MRP Resource Adequacy Track 3 Proposals, pp. 4-11). The Western Power Trading Forum (WPTF) requests the Commission continue to consider multi-year system and flexible RA requirements, especially if flexible RA is unbundled from system RA in Track 3 (WPTF Track 3 Proposals, p. 5).

¹⁹ D.19-02-022, Ordering Paragraphs 2 and 8.

²⁰ D.19-02-022, pp. 33-34.

²¹ The same Decision summarizes the comments of PG&E, the Alliance of Retail Energy Markets (AReM), and SCE at D.19-02-022, p. 33.

²² System RA Requirements for 2017 ranged from 30,422 MW to 47,484 MW. The Total Local Capacity Requirement in 2017 was 24,549MW. $47,484 \text{ MW} / 24,549 \text{ MW} = 193\%$. Commission 2017 RA Report, pp. 16,18.

²³ The on-hold flexible Resource Adequacy Criteria and Must Offer Obligation Phase 2 (FRACMOO2) and active Day-Ahead Market Enhancements and RA Enhancements CAISO initiatives are responsible for a potential re-design of flexible RA.

²⁴ Changes to the system RA requirement may include developments of new transmission projects

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and flexible RA at this time fails to address any critical needs and could significantly impact ratepayer costs through unnecessary procurement.

D. CalCCA's RA Sales Framework Proposal Should not be Adopted

CalCCA proposes that the Commission consider an RA sales framework to require IOUs to offer any surplus RA capacity they hold to the market for transactions up to five-years in the future.²⁵

The Commission should not adopt this proposal. CalCCA claims that the IOUs hold, “a significant percentage of the RA capacity needed to ensure grid reliability in their service territories.”²⁶ The IOUs are required, as part of their Bundled Procurement Plans, to ensure that they possess enough RA capacity to meet their RA requirements, thereby ensuring grid reliability in their respective territories. This capacity procurement and maintenance of resource ownership or contracts by IOUs is reviewed by the Commission, the Public Advocates Office, and other stakeholders before being approved or denied by the Commission.²⁷ The current process requires IOU procurement in a manner that mitigates overprocurement and allows for the sales of owned or contracted capacity and portfolio optimization when excess capacity is held.²⁸ To the extent that the IOUs hold excess RA capacity, they are expected to, and do, issue solicitations to other LSEs offering such excess capacity for sale.

through CAISO's Transmission Planning Process. See: California ISO, 2018-2019 Transmission Planning Process Unified Planning Assumptions and Study Plan, March 30, 2018, available at: <http://www.caiso.com/Documents/Final2018-2019StudyPlan.pdf>.

²⁵ CalCCA's Track 3 Proposal, pp. 4-8.

²⁶ CalCCA Track 3 Proposal, p. 5.

²⁷ All stakeholders may review and protest procurement in the ERRA applications, Quarterly Compliance Report filings, and resource-specific application and advice letter filings.

²⁸ Each IOU's Bundled Procurement Plan sets forth regulatory requirements, guidelines, and principles for procurement including a review process. The ERRA Compliance process is also an annual review platform of IOU contract administration which considers portfolio optimization.

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E. Penalties and Waivers

1. Energy Division's Proposal to Update Local RA Waiver Price and Add Advice Letter Requirements

Energy Division introduces a number of proposals to update and clarify the RA waiver process.

The Public Advocates Office supports the adoption of a Tier 2 advice letter process to address LSE requests for RA waivers.²⁹ This will allow stakeholders to understand which local RA areas experience capacity scarcity and will send market signals for transmission upgrade proposals and the development of new RA resources.

Energy Division also seeks to change the local RA waiver price from \$40/kW-year to \$51/kW-year.³⁰ The Commission has stated that the “intent of creating a local waiver mechanism was to protect against market power in locally constrained areas where generators could potentially charge very high capacity prices to LSEs because they had an RA obligation in the local area and would otherwise face RA penalties.”³¹ Energy Division now proposes an increase to the local RA waiver price “in response to the tightening of the Local RA market and increased dependence of LSEs on the local waiver process.”³² The Public Advocates Office notes that an increase in the waiver price, in light of a tightening of the local RA market, is likely to result in higher costs for ratepayers as generators can exercise market power and charge higher capacity prices in locally constrained areas. It is not clear how increasing the waiver price will mitigate market power concerns. Instead, with respect to market power concerns, we reiterate our recommendations that the

Commission should evaluate the potential for generators to exercise market power in local and sub-local areas in the IRP proceeding. The Commission should proactively plan for and address [the] Public Advocates Office's concern regarding dependence on specific resources for reliability in local areas.... The Commission should analyze how new resource development and potential existing resource retirement will impact local and sub-area reliability needs in order to identify potential

²⁹ Energy Division Proposal, p. 25.

³⁰ Energy Division Proposal, p. 24.

³¹ D.11-06-022, p. 35.

³² Energy Division Proposal, p. 24.

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market power and reliability issues and provide guidance to target procurement in those specific areas.³³

Furthermore,

The Public Advocates Office supports greater coordination with the CAISO to identify specific reliability constraints and needs for local and sub-local areas to ensure that IRP procurement of new resources driven by California's GHG reduction goals also meets reliability requirements and mitigates market power concerns. Aligning the Commission's reliability analysis with the CAISO's analysis of local and sub-local areas will provide information to guide targeted procurement and allow for orderly resource retirement and minimizing market power, leading to lower ratepayer cost.³⁴

If the Commission decides to adopt Energy Division's proposal to increase the waiver price, it should also increase the local RA penalty price paid by LSEs for not meeting local RA requirements.³⁵ The current local RA penalty price is 3.33/kW-month, which is the equivalent of the current \$40/kW-year local RA waiver price. Therefore, if the Commission decides to increase the local RA waiver price to \$51/kW-year, it should also increase the local RA penalty price to the equivalent price of \$4.25/kW-month. If the waiver price is set higher than the penalty price, and an LSE can only meet its RA obligation at a price that is higher than the penalty price but lower than the waiver price, meaning it can't request a waiver, that LSE could theoretically elect to pay the penalty price since it is lower than the price of meeting its RA requirements. For example, assume an LSE can only meet its RA requirement by accepting a bid at a price of \$45/kW-year. That price is below the waiver price of \$51/kW-year but above the penalty price of \$40/kW-year. Since it would be cheaper to pay the penalty price instead of the RA bid price, and the LSE does not qualify to request a waiver since the bid is below the waiver price, the LSE could potentially decline the bid and just pay the penalty price. Such a situation would threaten grid reliability and could lead to a backstop of RA capacity and higher associated costs.

³³ R.16-02-007: *Comments of the Public Advocates Office Responding to the Administrative Law Judge's Ruling Seeking Comments on Proposed Scenarios for 2019-2020 Reference System Portfolio*, March 5, 2019, p. 21.

³⁴ *Id.*, p. 22.

³⁵ This rate is paid when the violation exists for five or more business days.

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2. SDG&E's RA Waiver Monthly Rate Proposal Should be Modified

SDG&E proposes that the Commission adopt a mechanism to generate monthly local RA waiver prices.³⁶ SDG&E argues that since the Commission did not establish a monthly waiver price, it is challenging to determine the reasonableness of monthly RA offers.³⁷ SDG&E proposes that an "LSE would insert the monthly weighted average price of the relevant Local area from the most recent CPUC RA report for the months of the delivery year not offered by the seller."³⁸

SDG&E's proposal has merit but should be modified before being adopted. The monthly weighted average price of the local area would be an annual figure divided by twelve to derive a monthly rate. This approach would create a single monthly rate for each month of the year. Since RA capacity is valued differently for each month of the year, especially in summer months, it would be inappropriate to use a single rate for each month as a placeholder. The weighted average monthly rate for the particular local RA area should be used instead.³⁹

SDG&E and other market participants do not have insight into the weighted average monthly rate of local RA contracts since the information is not publicly disclosed. The Energy Division need not make the monthly rate of each local area public, but should consider the weighted average monthly rates within a local area for each month a contract offer is not providing RA, when determining whether waiver requests for capacity offers that provide only partial-year delivery terms are reasonable.⁴⁰ For the months in which the contract would provide RA, the actual contract rate would be used. The equivalent annual rate could then be calculated and compared to the annual local waiver price as SDG&E proposes.

Since LSEs do not have insight to the monthly weighted average rate of contracts, they may not be certain if they qualify for a waiver for a partial-year offer. However, the local waiver

³⁶ SDG&E Track 3 Proposal, pp. 2-5.

³⁷ SDG&E Track 3 Proposal, pp. 3-4.

³⁸ SDG&E Track 3 Proposal, p. 4.

³⁹ This rate would be calculated in the same way the Commission's annual RA report calculates the weighted average annual rates for local RA contracts, but on a monthly basis.

⁴⁰ The local area should include aggregation of any local sub-areas, rather than considering only the sub-area the contract may serve. This would allow for the consideration of more data points for contract rates within the whole local area.

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process is intended as an evaluation rather than a guarantee to waive requirements if conditions are met.⁴¹ LSEs should be able to use their own judgment and the data available to them through their solicitations and the Commission's RA reports in their evaluation of whether a waiver request is likely to be successful.

F. Local and Regional Requirements

1. Path 26 Constraints Should be Removed

Energy Division and Southern California Edison (SCE) propose to remove Path 26 constraints that have been in-place since 2008.⁴² The Path 26 constraint is a zonal system capacity requirement set by the Commission for which LSEs must trade power flow rights to access power across the constraint from their service areas.⁴³ Energy Division's proposal describes continuous stakeholder requests to remove the Path 26 constraint, coordination with CAISO, a working group discussion, and subsequent analyses since 2017.⁴⁴ Energy Division has concluded that the Path 26 allocation to all LSEs has not been fully utilized and it would be unlikely that limits may ever be reached.⁴⁵

The Public Advocates Office supports the removal of Path 26 limitations. Removal of these limits would eliminate the need for LSEs to procure Path 26 use-rights from other LSEs and would expand the pool of resources available for procurement by LSEs. Removing the Path 26 constraints would also help LSEs procure low-cost system RA across the state, aiding the procurement of sufficient system RA capacity to maintain grid reliability.

Path 26 limitations should continue to be monitored by the CPUC if the limits are removed. The Public Advocates Office supports Energy Division's commitment to review the potential for procurement activity in each year to violate Path 26 constraints.

⁴¹ "An LSE's waiver request that meets these requirements (of rates and other conditions) is a necessary but not a sufficient condition for the grant of such a waiver." D.06-06-064, p. 73.

⁴² SCE Proposal, pp. 10-13; Energy Division, pp. 27-34.

⁴³ Energy Division Proposal, p. 27.

⁴⁴ Energy Division Proposal, pp. 27-36.

⁴⁵ Energy Division Proposal, p. 27.

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G. ELCC

1. Energy Division Should Facilitate a Working Group to Discuss BTM Solar Assumptions

Energy Division's ELCC modeling used to generate values for 2018 and 2019 "backed out" BTM solar and then prorated a portion of BTM solar capacity over the marginal increase of supply-side solar; ELCC values were increased slightly since BTM solar was discounted from the values.⁴⁶ Energy Division's current ELCC proposal treats BTM solar as a demand modifier.⁴⁷ The change in ELCC values caused by altering the treatment of BTM solar in Energy Division's current model is unclear.⁴⁸ It is also unclear why Energy Division recommends treating BTM solar as a demand modifier for RA purposes instead of as a supply-side resource, as BTM solar is currently treated in the IRP process⁴⁹ and how BTM solar would be treated under the method proposed by Energy Division to be used for Renewable Portfolio Standard (RPS) modeling.⁵⁰

The Public Advocates Office recommends that Energy Division convene a stakeholder working group to discuss the best approach for integrating BTM solar in the ELCC model for computing the RA capacity values of solar, wind, and possibly storage resources. The decision to treat BTM solar as either a demand-side or supply-side resource may significantly impact ELCC values depending on the method selected. A working group would provide information to assist in selecting the most appropriate approach to BTM solar. A robust approach for integrating BTM solar in the ELCC model is necessary as BTM solar is projected to grow significantly and contribute to lowering the ELCC reliability value of solar resources that grant an RA value.⁵¹

⁴⁶ This process is described in the decision that adopted ELCC for 2018: D.17-06-027, Appendix A, p. A5.

⁴⁷ Energy Division ELCC Proposal Slides, February 5, 2019 (ELCC Proposal Slides), p. 9.

⁴⁸ A demand-modifying resource typically reduces total electricity demand that has to be served by the electricity grid. The ELCC values for solar, wind, and storage are then derived by seeing how capable those resources are at meeting reliability needs for the remaining demand.

⁴⁹ BTM's treatment in IRP assumptions: Proposed Inputs & Assumptions: 2019-2020 IRP, November 2018 p. A-47, available at: <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M245/K545/245545781.PDF>.

⁵⁰ Staff Proposal on ELCC, Time of Delivery Factors, and Project Viability, Attachment A, p. 4, available at: <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M226/K739/226739759.PDF>.

⁵¹ Energy Division modeled 2020 ELCC values assuming that 9,900 MW of BTM solar would be present
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2. Energy Division Should Provide More Information on ELCC Modeling Assumptions

Significant stakeholder discussion and development of ELCC proposals occurred from January 2016 to March 2017 to create the first ELCC methodology, which D.17-06-027 adopted on June 29, 2017. To facilitate that process, in 2015, Energy Division released a manual containing inputs and assumptions along with a potential ELCC methodology and its objectives.⁵² The Public Advocates Office recommends that Energy Division provide a revised manual containing a detailed description of the proposed changes in inputs, assumptions, and modeling methodologies to facilitate the development of a revised ELCC methodology. Published proposed assumptions would also make clear what present and future resources are included in the proposed and future ELCC models; Energy Division mentioned that recently approved energy storage projects are included in the model, but it is unclear if their full capacity is included for the full year of 2020.⁵³ A new or updated manual of inputs, assumptions, and modeling methodologies would also prepare stakeholders to construct informed comments for the current and future ELCC proposals and would facilitate useful discussion at working groups or workshops.

3. Energy Division Should Allow Inclusion of Technological and Geographic Considerations in the ELCC Model

The ELCC model should be refined to create distinct values for solar and wind resources using different technologies (i.e. thermal, fixed-panel and tilting-panel solar) and located in different regions across California.⁵⁴ Technological and geographical factors are considered by

which is more than double the quantity modeled for 2018. ELCC Proposal Slides, p. 9.

⁵² RA Probabilistic Reliability Modeling Input and Assumptions, July 8, 2015, available at: <http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6570>.

⁵³ In particular, PG&E energy storage projects near Moss Landing were approved and Energy Division noted during the webinar that they were included in the 2020 resource list. However, 10 MW will be online for the full length of 2020, 375 MW only for the month of December, and 182.5 MW will come online December 31, 2020. It is not clear if these full quantities are in the model for the full year; given their large volumes (567.5 MW of the 770 MW or batteries modeled), the projects can have major impacts on the ELCC values of energy storage and its diversity benefit.

⁵⁴ The Public Advocates Office has made this recommendation in the past, most recently in R.17-09-020. See *Comments of the Office of Ratepayer Advocates on Track 1 Proposals*, March 7, 2018, pp. 10-13.

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the Joint IOU ELCC model in-development in the RPS proceeding.⁵⁵ Although the objectives of ELCC in the RPS program are different than those of the RA program, a similar approach should be adopted in the calculation of ELCC values to determine the capacity value of resources suitable for RA.

These additional considerations would identify technologies and locations that result in relatively higher reliability values. Creating categories for technologies and locations would allow the Commission to assign capacity values to resources that correctly account for the reliability benefits provided by these resources. This refinement would also incentivize the creation of new resources or the re-powering of resources which are capable of providing higher reliability benefits than the assumed average resource class reliability benefits due to their specific location and technology. This would help inform future procurement of solar and wind resources and allow procurement of resources that provide the greatest value to ratepayers. The swift inclusion of these considerations would also benefit a central buyer's procurement decisions if that framework is adopted in the RA proceeding.

IV. CONCLUSION

The Public Advocates Office respectfully submits these comments to assist in the development of the Track 3 RA Proceeding.

Respectfully submitted,

/s/ MATT MILEY
MATT MILEY
Attorney

Public Advocates Office
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Telephone: (415) 703-3066
E-mail: Matt.Miley@cpuc.ca.gov

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⁵⁵ See Updates Joint IOU Proposal to use ELCC Methodology for RPS Procurement, Attachment 1, pp. 6-7, available at: <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M192/K869/192869027.PDF>.