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

Order Instituting Rulemaking to Oversee the Resource Adequacy Program, Consider Program Refinements, and Establish Annual Local and Flexible Procurement Obligations for the 2019 and 2020 Compliance Years.

R.17-09-020
(Filed September 28, 2017)

**COMMENTS OF PACIFIC GAS AND ELECTRIC COMPANY (U 39 E) ON
TRACK 3 PROPOSALS AND WORKSHOPS AND
ENERGY DIVISION'S
EFFECTIVE LOAD CARRYING CAPACITY PROPOSAL**

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I. INTRODUCTION

Pursuant to the schedule set forth in (1) the *Amended Scoping Memo and Ruling of Assigned Commissioner*, dated January 29, 2019, as amended by the *E-Mail Ruling Extending Track 3 Proposal Deadline* of Administrative Law Judge Debbie Chiv, dated February 22, 2019, and (2) the *Administrative Law Judge's Ruling on Effective Load Carrying Capacity*, dated December 4, 2018, as supplemented by the *E-Mail Ruling Suspending Comment Schedule on ELCC issues*, dated January 2, 2019, and the *Administrative Law Judge's Ruling on Effective Load Carrying Capacity*, dated February 13, 2019 ("February ELCC Ruling"), and in accordance with the Rules of Practice and Procedure of the California Public Utilities Commission ("Commission"), Pacific Gas and Electric Company ("PG&E") respectfully submits these opening comments ("Opening Comments") on the Track 3 proposals submitted by parties on March 4, 2019 and discussed during the workshops held on March 12-13, 2019 (the "Workshops"), as well as the updated and corrected Energy Division ("ED") proposal re: effective load carrying capacity ("ELCC") attached to the February ELCC Ruling ("ELCC Proposal").

PG&E continues to request that the Commission adopt the eight proposals offered by PG&E¹ to minimize the inequities currently existing and enhance certain aspects within the resource adequacy (“RA”) program framework. Based on the proposals provided by the parties and the discussion at the Workshops, PG&E also recommends that the Commission:

- adopt qualifying capacity (“QC”) counting rules for use-limited resources that reflect the relevant resources’ availability;
- update components of the local RA penalty and waiver process for load serving entities (“LSEs”);
- eliminate the Path 26 constraint;
- adopt PG&E’s proposals as set forth herein related to load forecasting methodology;
- establish a working group to further develop a QC methodology for combined resources;
- adopt PG&E’s proposals as set forth herein related to demand response;
- not adopt flexible RA requirement modification proposals;
- adopt proposals for setting local RA requirements; and
- reject the California Community Choice Association (“CalCCA”) proposal regarding adoption of a short-term framework for RA sales.

With respect to refinement of the ELCC method for calculating the QC value of wind and solar resources, PG&E urges the Commission to provide further detail and visibility into the analysis surrounding the ELCC Proposal and convene a workshop to discuss.

These Opening Comments do not exhaustively address all of the Track 3 proposals made by other parties. PG&E may comment on other proposals or respond to arguments made by other parties at a later stage of this proceeding, as appropriate.

¹ *Track 3 Proposals of Pacific Gas and Electric Company (U 39 E)*, dated March 4, 2019 (“PG&E Track 3 Proposals”).

II. DISCUSSION

A. Comments on Track 3 Proposals and Workshops

In their Track 3 proposals, parties addressed topics ranging from load forecasting, to RA penalty waivers, to QC methodologies, to the particulars of system and local RA requirements and allocations. As mentioned above, these Opening Comments address a number, but not all, of the proposals, and PG&E reserves the right to comment on other proposals as appropriate in future pleadings. Further, based on its review of party proposals and discussions at the Workshops, PG&E believes the Commission's RA paradigm, when considered in the context of the RA must-offer-obligations and assessment criteria set forth in the California Independent System Operator Corporation's ("CAISO") tariff, needs to be adjusted to rationalize RA ratings and compliance requirements placed on LSEs and generators as discussed below.

1. **The Commission Should Adopt QC Counting Rules for Use-Limited Resources That Reflect the Relevant Resources' Availability to the CAISO Market**

As discussed by PG&E at the Workshops, the current methodology for calculating a use-limited resource's QC is problematic because it does not reflect the capacity that will reliably be made available to the market. Specifically, while the existing QC methodology may provide a reasonable estimate of what a resource could provide for a short duration contingency event (e.g., the events modeled in the CAISO local capacity technical study used to set local RA requirements), many use-limited resources cannot meet the bidding obligations (through self-schedules and/or economic bids) or avoid incentive penalties at the net QC ("NQC") levels used in the CAISO's studies.²

At the Workshops, PG&E suggested an exceedance or similar methodology to better estimate these resources' available capacity, but several parties highlighted difficulties with such an approach. First, developing a single methodology for a diverse set of resources with use-limitations that may be distinct or unpredictable is not be feasible. Second, forecasting output for

² The NQC, as opposed to the QC, is used as an input into the CAISO local capacity technical study. The NQC is the QC of a resource adjusted based on a deliverability study by the CAISO. PG&E's proposal is to change the QC methodology, which would indirectly impact NQC values.

use-limited resources in the year-ahead timeframe is complex and risks either over or under estimating availability. In response to these concerns, PG&E has updated its proposal for revising the QC methodology for use-limited resources as outlined below.

a. Methodology for Hydroelectric Resources

For hydroelectric resources subject to Commission’s least cost dispatch (“LCD”) review, PG&E proposes two changes, which are described in more detail later in this section:

1. In the year-ahead RA timeframe, the monthly QC for each hydroelectric resource should be based on resource-specific modeling (e.g., production cost model or similar) produced by the resource’s scheduling coordinator and adjusted based on operator and/or scheduler expertise; and
2. For month-ahead RA showings, the QC used for compliance showings (“Compliance QC”) should remain unchanged from the QC provided in the year-ahead RA showing, but the monthly QC used to set CAISO RA obligations and performance assessment (“Operational QC”) should be subject to either an increase or decrease *within the RA compliance year* based on new information (e.g. hydro forecasts, storage levels, etc.).

Both the year-ahead QC and monthly Operational QC values would be consistent with the use-limitation plans provided to CAISO for each resource.

Hydroelectric resources require a resource-specific QC calculation that is adjusted based on operator and/or scheduler expertise because each hydroelectric resource has distinct and unpredictable limitations that cannot be captured by a single, standard methodology such as an exceedance methodology or the existing methodology. Examples of the types of limitations that an accurate QC methodology must reflect include the following:

- Flow Restrictions. Limitations on hydroelectric resources for which the scheduling coordinator lacks complete control over stream flow due to water rights, regulatory requirements (e.g., flow requirements for fish, reservoir level requirements for recreation, etc.), or upstream outages; and
- Design Limitations. Limitations on hydroelectric resources with minimal or no storage capacity or limitations that prevent the resource from increasing or decreasing output (e.g., spill considerations), making the resources dependent on highly variable hydrological conditions and upstream limitations.

An Operational QC is necessary to both ensure reliability and maximize resource value. Hydrological conditions and outages affecting a resource or powerhouse often vary widely from year-ahead forecasts or, in the case of outages, may not be predictable. If a resource or powerhouse is not capable of producing at the level expected in the year-ahead due to precipitation below expectation or unforeseen outages, an intra-year update to the QC will provide the Commission and CAISO with an accurate estimate of expected resource generation. The Operational QC should be distinct, however, from the Compliance QC because the resources would still be available to ensure system and local reliability, subject to operational constraints, to the CAISO in the event of a contingency (e.g., through exceptional dispatch) and because the resource is subject to Commission's LCD review.

b. Methodology for Fossil Resources

As referenced by PG&E at the Workshops, the current methodological issues described above with respect to hydroelectric resources also apply to other resources with use-limitations, such as fossil resources. Therefore, similar to the proposal outlined above for hydroelectric

resources, PG&E proposes the following for use-limited fossil resources subject to Commission's LCD review:

1. In the year-ahead RA timeframe, the QC for use-limited dispatchable fossil resources should be set at the resource's PMax (the current methodology); and
2. For month-ahead RA showings, the Compliance QC should remain unchanged from the QC provided in the year-ahead RA showing, but the Operational QC should be subject to decrease *within the RA compliance year* based on CAISO dispatches to date, resource-specific modeling produced by the resource's scheduling coordinator, and adjustments based on operator and/or scheduler expertise.

Both the year-ahead QC and monthly Operational QC values would be consistent with the use-limitation plans provided to CAISO for each resource.

Fossil resources can be subject to use-limitations regarding how many times the resource may start-up daily, annually, or on a rolling monthly basis. In some months (e.g., low load months), start-up limited resources should not be obligated to bid at their full Compliance QC to allow conservation of start-ups for the months when the resource is most needed to provide system and local reliability (e.g., peak summer months, or winter months in the Humboldt local capacity area).³ However, even in the absence of bidding obligations at their Compliance QC, use-limited fossil resources that have not exhausted their start-up limitations are available to CAISO to respond at their full capacity (e.g., via exceptional dispatch). This proposal allows use-limited fossil resources to conserve their limited starts for the times when they are most needed by CAISO while simultaneously providing appropriate RA credit for their ability to generate at their full capacity when necessary.

³ CAISO's Commitment Cost Enhancements ("CCE") initiative, when implemented, will allow for use-limited fossil resources to reflect their opportunity costs in their bids to manage limited start-ups. CCE may resolve this issue in which case it will not be necessary for a scheduling coordinator to submit a separate operational QC. However, this initiative has not yet been implemented, and it is unclear at this time whether it will be fully effective in managing resource start-ups.

c. Overlap with Methodology for Determining Local Capacity Needs

Currently, PG&E believes there is a disconnect between local RA requirements and the bidding obligations for RA resources. Specifically, local RA requirements are determined based on limited-duration contingencies during a 1-in-10 peak load month in the year, but the resources procured to provide local RA and submitted in Commission and CAISO compliance showings to meet the local RA requirements then have bidding obligations at their full NQC during all hours of the year and performance assessment based on their full NQC. PG&E believes that the bidding obligations and performance assessments may not need to be this onerous to ensure local reliability, particularly if CAISO is able to exceptionally dispatch resources.

The proposals described above would help to address the issue with these local RA resources' bidding obligations, but do not address setting the local RA requirement.⁴ The methodology would likely reduce total NQC capacity in already-constrained local areas, but PG&E believes this does not necessarily create a reliability concern or increase backstop procurement since the CAISO's local capacity area studies are for a much shorter interval and those resources would be available for dispatch in the event of a contingency.

Therefore, in addition to adopting the proposals described above, PG&E recommends that the Commission establish a working group to examine the relationship between local RA requirements and RA resource obligations, including how local RA requirements are determined, how RA performance is assessed, and how local RA backstop procurement occurs.⁵ The working group should be established to ensure any enhancements to the methodologies or studies can be implemented for the 2021-2023 multi-year local RA requirements.

⁴ PG&E has also proposed a methodology to develop seasonal local RA requirements in this proceeding (and reiterated in these comments). Seasonal local RA requirements represent an important first step to revising how local RA requirements are set, but the proposal stops short of the more holistic assessment of the local RA program that PG&E recommends.

⁵ For example, CAISO's ongoing Resource Adequacy Enhancements initiative addresses the RA program broadly and should be coordinated with the changes to QC methodology contemplated in this proceeding.

2. The Commission Should Update Components of the Local RA Penalty and Waiver Process for Load Serving Entities

In Decision 19-02-022, the Commission indicated that it would expand the local penalty and waiver process from a one-year basis to apply to the three-year forward requirement for LSEs.⁶ Parties to this proceeding, including Southern California Edison Company (“SCE”), San Diego Gas and Electric Company (“SDG&E”), and PG&E, as well as ED, made proposals to further enhance the waiver process in support of the multi-year local RA requirements. This Section II.A.2 provides PG&E’s responses to parties’ proposals on the waiver process.

a. Updates to the Local RA Waiver Price in Reference to the Annual RA Reports

PG&E agrees with ED’s determination that the local waiver trigger price requires an update to reflect current market conditions for local RA capacity.⁷ While PG&E generally supports the proposal set forth by ED, PG&E requests the Commission use the “Subtotal: 85th Percentile (\$kW-Month)” price, rather than the “SP-26: 85th Percentile (\$kW-Month)” price proposed by ED, because local RA capacity prices in SP-26 could significantly differ from local RA capacity prices in NP-26 and, thus, may not reflect the overall conditions for local RA capacity in California. For example, in the Commission’s 2012 Annual RA Report⁸ and 2013/2014 Annual RA Report,⁹ local RA capacity prices in SP-26 were \$9.84/kW-Month and \$8.47/kW-Month, respectively.¹⁰ Although the local waiver trigger price is only one component of the various conditions that must be met to make a determination that an LSE could not reasonably meet its local RA obligations, the use of local RA capacity prices in SP-26 as the basis for the local waiver trigger price is not

⁶ Decision (“D.”) 19-02-022, p. 29, 40, Conclusion of Law 8, Ordering Paragraph (“OP”) 13.

⁷ *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*, dated March 4, 2019 (“Energy Division Proposal”), p. 24.

⁸ *2012 Resource Adequacy Report Produced by the Staff of the California Public Utilities Commission*, dated April 2014 (“2012 Annual RA Report”), available at <http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6324> (last visited March 22, 2019).

⁹ *The 2013 - 2014 Resource Adequacy Report*, dated August 2015 (“2013/2014 Annual RA Report”), available at <http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6325> (last visited March 22, 2019).

¹⁰ 2012 Annual RA Report, p. 24; 2013/2014 Annual RA Report, p. 24.

appropriate because it does not necessarily reflect overall market conditions. To ensure the local waiver trigger price remains aligned with current market conditions, PG&E further proposes that the Commission adopt the local waiver trigger price by reference to the annual RA report.

Separately from updating the local waiver trigger price as proposed by ED, SDG&E proposed that for capacity offers that provide only partial-year delivery terms, an LSE would insert the monthly weighted average price of the relevant local capacity area from the most recent annual RA report for the months of the delivery year not offered by the seller to create an “equivalent” full year capacity cost to compare against the local waiver trigger price.¹¹ PG&E acknowledges that the local waiver trigger price is based on an assumption that LSEs purchase an annual strip of local RA capacity. Because this may not always be the case, PG&E supports the proposal by SDG&E to create an “equivalent” full year capacity cost; however, PG&E proposes that prices similar to those found in Table 9 “RA Capacity Prices by Month, 2017-2021”¹² from the 2017 Annual RA Report be used, provided the prices are by local capacity area, rather than the “monthly weighted average price” as proposed by SDG&E. Given that RA capacity prices tend to vary over the course of the year, specifically during summer and non-summer months, PG&E is concerned that a monthly weighted average price that is uniformly applied may under- or over- represent the LSE’s demonstration of an “equivalent” full year capacity cost as compared against the local waiver trigger price.

b. Updates to the Standards for Load Serving Entities’ Demonstration

As mentioned in the PG&E Track 3 Proposals, the penalty waiver qualifying conditions for demonstrating that an LSE could not reasonably meet its local RA obligations are not based on an LSE’s participation in prospective sellers’ solicitations of local RA capacity.¹³ Specifically, Decision 06-06-064 set forth the following qualifying conditions for penalty waivers:

¹¹ *San Diego Gas & Electric Company (U 902 E) Track 3 Proposal*, dated March 4, 2019, p. 4.

¹² The 2017 Resource Adequacy Report, dated August 2018 (“2017 Annual RA Report”), available at <http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442458520> (last visited March 22, 2019), p. 29.

¹³ PG&E Track 3 Proposals, p. 8.

- (1) a demonstration that the LSE reasonably and in good faith solicited bids for its RAR capacity needs along with accompanying information about the terms and conditions of the Request for Offer or other form of solicitation,
and
- (2) a demonstration that despite having actively pursued all commercially reasonable efforts to acquire the resources needed to meet the LSE's local procurement obligation, it either
 - (a) received no bids,
or
 - (b) received no bids for an unbundled RA capacity contract of under \$40 per kW-year or for a bundled capacity and energy product of under \$73 per kW-year,
or
 - (c) received bids below these thresholds but such bids included what the LSE believes are unreasonable terms and/or conditions, in which case the waiver request must demonstrate why such terms and/or conditions are unreasonable.¹⁴

PG&E reiterates its proposal for the Commission to expand the conditions for a waiver to include participation in sellers' solicitations, with a similar requirement that any LSE seeking a waiver participated in good faith in sellers' solicitations to sell RA capacity and confirmation of bid prices and volumes and rejections from sellers as to those bid prices and volumes. PG&E requests that the Commission add the following third qualifying condition to the conditions set forth in Decision 06-06-064:

- “(3) a demonstration that the LSE reasonably and in good faith provided bids in sellers' solicitations to sell capacity that would meet its RAR capacity needs along with

¹⁴ D.06-06-064, p. 73.

accompanying information about the terms and conditions of solicitation, the level of its bid, and rejection notice from the selling party that the bid was not accepted.”

3. The Commission Should Adopt ED and SCE’s Proposal to Eliminate the Path 26 Constraint

Path 26, as defined by the Western Electricity Coordinating Council, is comprised of three 500 kilovolt lines that connect PG&E’s system at Midway to the SCE system at Vincent.¹⁵ The path has an accepted north-to-south rating of 4,000 megawatts (“MWs”) and an existing south-to-north rating of 3,000 MWs.¹⁶

Under the current RA program, as adopted in Decision 07-06-029, LSEs are required to balance their loads and procured resources to provide the CAISO with enough RA resources north of Path 26 (between Midway and Vincent substations) and south of Path 26 to meet load while at the same time observing the transfer limits in both directions.¹⁷

PG&E supports proposals by ED and SCE to remove the Path 26 constraint, and supports CAISO’s intent, as expressed during the Workshops, to monitor the Path 26 limits on an ongoing basis.

4. The Commission Should Adopt the Proposals of PG&E Regarding the Load Forecasting Process Outlined Herein

PG&E appreciates the Commission’s efforts to improve the RA forecast process by increasing consistency and transparency including through proposals to drive more rigorous, data-driven planning across all LSEs and requiring a Binding Notice of Intent for RA. PG&E notes that the most critical update to load forecasting for the RA process is the immediate adoption of a multi-year load forecast to facilitate the Commission’s recently adopted 3-year forward local RA requirements and that the adoption of a multi-year load forecast not be

¹⁵ *WSCC Path 26 Midway-Vincent Rating Increase Study Plan (Short - Term Plan)*, available at <http://www.caiso.com/Documents/2001121316394010577.pdf> (last visited March 22, 2019).

¹⁶ Marshall, Lynn, Marc Pryor, David Vidaver. 2011. *Expected Path 26 Power Flows Under High Load Conditions*. California Energy Commission. Electricity Supply Analysis Division. CEC-200-2011-003-SD, available at <https://www.energy.ca.gov/2011publications/CEC-200-2011-003/CEC-200-2011-003-SD.pdf> (last visited March 22, 2019), p. 1.

¹⁷ D.07-06-029, pp. 16-19.

contingent on the adoption of or implementation of any other improvements to the load forecasting process.

a. All LSEs Should Be Required to Submit Three-Year Forecasts

In Decision 19-02-022, the Commission adopted multi-year local RA requirements and indicated that it will allocate local RA requirements based on a single year's load forecast for multiple forward years.¹⁸ That is, the local RA requirements for Year 2 and Year 3 would be based on the forecasted load share ratio for Year 1. PG&E believes that this approach is ineffective and likely to result in (1) cost shifting, (2) inequities in RA obligations that occur as load shifts from IOUs such as PG&E to CCAs and energy service providers, and (3) potential over-procurement. The recently issued R.19-03-009, in which the Commission shall "...authorize the increase in the allowable amount of GWh and apportion the increase to each service territory..." for direct access (DA) expansion,¹⁹ is likely to exacerbate inequities in RA obligations. As a result, PG&E reiterates its proposal that the Commission adopt a multi-year load forecast to be submitted by all Commission-jurisdictional LSEs and used in determining the local RA requirements for each of the three forward years. Based on the timing and schedule of Track 3 in this proceeding, PG&E proposed 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 as part of the existing and/or proposed revisions to the RA load forecasting process by ED. Given the anticipated load shifting landscape of the near future, with multiple LSEs expanding their service, the introduction of a multi-year load forecast to capture load migration among LSEs is a critical component to minimize inequitable RA procurement obligations between an IOU and a new or expanding CCA.

¹⁸ D.19-02-022, OPs 2 and 12.

¹⁹ Rulemaking 19-03-009, *Order Instituting Rulemaking to Implement Senate Bill 237 Regarding Direct Access and to Consider Changes to Existing Direct Access Procedures*, dated March 14, 2019 ("R.19-03-009"), p. 7.

Regarding the ED proposals on load forecasting, as community choice aggregators (“CCAs”) have rapidly proliferated and expanded services, it has become more important to the RA planning process that IOUs, CCAs, and the Commission provide accurate and timely forecasts that can easily be reconciled. Consistency of data sets, transparency into assumptions and methodologies used to forecast load departure, and realistic and stable implementation plans improve forecast accuracy. Accuracy cannot be achieved, however, if CCAs do not provide realistic and binding implementation schedules for load departure or have mechanisms in place to “lock in” their forecast load to be served and the actual load served, such as a requirement to submit a Binding Notice of Intent. The proposed measures should help to improve the foundation for future planning.

b. The Commission Should Revise the Implementation Timeline for 2019

PG&E supports the majority of the ED proposals regarding load forecasting. However, given the planned timing of the Track 3 decision, ED and the California Energy Commission (“CEC”) should allow the IOUs additional lead time to meet the data provision requirements in 2019 given the proposed date of March 1 has already passed. As such, PG&E recommends the Commission create an initial transition timeline in 2019 so that all parties are aligned on expectations and responsibilities. PG&E reiterates that the data provision requirements should not preclude LSEs from submitting a multi-year load forecast to set the local RA requirements as proposed by PG&E.

In addition to the above general recommendation, PG&E recommends the following specific clarifications / modifications to the ED proposals.

c. The Commission Should Clarify that IOUs May Need to Modify their August Filings Based on Revisions to CCA Implementation Plans

In describing the “Best Estimate” approach to load migration forecasting, ED suggests that an LSE’s initial April filing should account for all data, assumptions and criteria that an LSE

can reasonably predict including implementation plans.²⁰ Further, ED proposes that because the LSE can reasonably predict or control implementation plans, the plans should not change between the initial (April) and final (August) year ahead load forecasts.²¹

The ability of the IOUs to accurately forecast load is based, in part, on newly formed or expanded CCA's timely provision of accurate and actionable implementation plans. So, while an IOU's initial year-ahead load forecasts should rightfully account for all data, assumptions and criteria that it can predict or control, it may be necessary for an IOU to account for inaccurate or shifting implementation plans for newly formed CCAs in their August updates. To this end, the Commission should require LSEs to submit a multi-year load forecast to set the local RA requirements beginning with the 2020-2022 RA compliance years and clarify that IOUs may need to modify their August filings based on revisions to CCA implementation plans to the extent that new information becomes available. As mentioned during the Workshops, clarification of the term "load migration" may help to address the above concern.

d. The Commission and the CEC Should Not Hold IOUs Accountable for the Accuracy of the CCA Forecasts

ED proposes that beginning with the 2020 year-ahead forecast process, IOUs should disaggregate their monthly peak forecasts for CCAs by individual CCA.²² After a plausibility review, the CEC would allocate any shortfall pairwise between the IOU and the CCA, rather than *pro rata* across all LSEs.²³

PG&E suggests that the IOU forecasts for individual CCA loads, to the extent required, provide a useful point of reference to triangulate and reconcile differences between CCA, CEC and IOU forecasts. But, the CEC should not hold IOUs accountable for the accuracy of the individual CCA's forecasts. Rather, PG&E believes that the Commission should hold the individual CCA or DA provider accountable by adopting mechanisms, such as a requirement to

²⁰ Energy Division Proposal, p. 16.

²¹ *Ibid.*

²² *Id.*, p. 14.

²³ *Ibid.*

submit a Binding Notice of Intent, that “locks in” the CCAs’ or DA providers’ forecast load to be served and the actual load served.

It would be helpful in reconciling forecasts for the CEC to collect the related assumptions from the LSEs and to document its own assumptions, and then systematically assess the source of disconnects. Forecast differences may be driven by many sources including: implementation plan assumptions, opt out rates, load growth assumptions, weather normalization techniques, load data and forecast model methodology.

e. The Commission and the CEC Should Clarify How the CEC Would Allocate a Shortfall Between Two LSEs

Downstream of providing the forecast documentation, the CEC applies forecast adjustments. The Commission proposes that the CEC will modify the current *pro rata* allocation process to allocate differences in forecast RA needs in a “pair-wise” manner to those LSEs who have the opportunity to serve the load.²⁴ It is unclear how the CEC would allocate a shortfall between LSEs. PG&E recommends that the Commission further clarify the process used to perform the “pair-wise” allocation (e.g., a decision tree) to set clear expectations with stakeholders, especially if the shortfall could be among multiple LSEs.

f. The Commission and the CEC Should Clarify the Approach the CEC Would Use to Allocate the Load Modifying Resources to Specific LSEs

In producing the IOU/CCA forecasts, it is unclear what approach the CEC would use to allocate the load modifying resources to specific LSEs. Given the rapid adoption rate and potential for some load modifying resources to be concentrated geographically (e.g., electric vehicles), it would be beneficial to parties for the Commission to provide clarity around its method for allocating load modifiers to LSEs. PG&E believes the Commission should address this in the CEC’s Demand Analysis Working Group process.

²⁴ *Id.*, p. 18.

g. The Commission Should Not Adopt CalCCA’s Proposal to Lock-In RA Allocations By July

CalCCA proposes that all issues among the LSEs and CEC should be resolved before June to inform the Commission’s July allocation and that there should be no further update by LSEs beyond this point.²⁵ PG&E recommends that the Commission reject CalCCA’s proposal to lock-in RA allocations by July, as the August filing is critical to capturing any interim changes that may occur due to data, assumptions and criteria that an IOU cannot reasonably predict or control.

5. The Commission Should Establish a Working Group to Further Develop a Qualifying Capacity Methodology for Combined Resources (e.g. Hybrid and Plus Storage) and Distributed Energy Resources

PG&E appreciates that the Commission is considering developing QC values for combined resources. While PG&E believes that SCE’s proposals on QC methodologies for combined resources are a reasonable step forward, PG&E recommends further analysis be performed in a working group to further vet the methodologies. To this end, PG&E recommends the Commission establish a working group to further develop QC methodologies for combined resources (e.g. hybrid and plus storage).

6. The Commission Should Adopt the Proposals of PG&E Regarding Demand Response Outlined Herein

a. The RA Value, or Qualifying Capacity, of Demand Response Auction Mechanism Resources Should be Based on Observable and Verifiable Data

The Demand Response Auction Mechanism (“DRAM”) pilot has allowed a lenient, permissive design methodology with the use of the contracted capacity as the basis for the QC. The current methodology of determining the QC for third-party demand response provider (“DRP”) resources is: (1) inherently flawed for resource planning purposes; (2) intended to be an interim methodology approved through 2019 because it was believed that penalties under the CAISO tariff (including the RA Availability Incentive Mechanism (“RAAIM”) and contract

²⁵ *California Community Choice Association’s Track 3 Proposal*, dated March 4, 2019 (“CalCCA Proposal”), p. 4.

provisions are adequate incentives for DRPs to correctly state the QC of their resources, which ED's final evaluation report contradicts;²⁶ (3) inconsistent with the standards by which the IOUs are being held;²⁷ and (4) creating an unlevel playing field between IOU demand response ("DR") resources and third-party DRP resources. For those reasons, PG&E proposed that, consistent with all other resources (including IOU DR resources), the QC for third-party DRP resources be based on observable and verifiable event performance data.

PG&E supports both proposals from SCE on the topic.²⁸ PG&E suggests using Method #2 as a bridge to Method #1. Method #2 uses testing to determine a QC with penalties; the resource's contracted capacity would be subject to a demonstration of the capacity in the CAISO's market via market dispatch test and face financial consequences (e.g., proportion of contracted price based on shortfall quantity) to ensure and incentive a realistic capacity forecast. This could be a pathway to develop a record of performance data to then move to Method #1 to use the load impact protocols, as is the standard and Commission-approved practice for IOU DR programs.

PG&E recognizes the DRAM proceeding is considering this same issue and agrees with CPower's verbal comments in the Workshops that we cannot have inconsistent rulings between the RA and DRAM proceedings. However, PG&E highlights that DRAM has been using contracted capacity for the last four delivery periods (e.g., the RFO's for the: 2016 DRAM, 2017 DRAM, 2018-2019 DRAM and the 2019 DRAM). The IOUs have concerns that the capacity value may not have the intent or ability to materialize and to prudently use ratepayer funds for

²⁶ This methodology was approved in D.16-06-045, pp. 41-42, which states that the exemption should be reviewed based on the findings of ED's final evaluation report, issued on January 4, 2019 in Application 17-01-012 et al, in the *Administrative Law Judge's Ruling Issuing Evaluation Report of the Demand Response Auction Mechanism Pilot, Noticing January 16, 2019 Workshop, and Denying Motion to Require Audit Reports in the Evaluation Report*. Specifically, the report states on p. 109: "During the DRAM pilot, CAISO RAIM penalties and replacement capacity requirements under the CPUC's RA program have not effectively incentivized performance." In addition, p. 78 states: "IOU DRAM contracts with DRPs did not include explicit, universal penalties for non-compliance with contract obligations, although there was some discretion available to IOUs to impose penalties in certain cases."

²⁷ The QC for IOU DR programs is based on Commission-approved load impact evaluation protocols that require the use of observed and verified past event performance data.

²⁸ *Southern California Edison Company's (E 338-E) Track 3 Proposals*, dated March 4, 2019, pp 8-9.

the DRAM, regardless of the decision proceeding. PG&E urges the Commission to provide a ruling on how the QC value can be assessed in a manner that is based on both observable and verifiable event performance data.

7. The Commission Should Reject Proposals Related to Flexible RA Requirements and Program Modifications

Several parties to this proceeding have proposed significant modifications to the flexible RA requirements and program, including: (1) the adoption of a planning reserve margin for flexible RA requirements, (2) additional flexible RA products, such as a fast flexible RA product, (3) changes to the flexible RA requirements to be based on more granular ramping needs, (4) flexible RA counting rules adjusted to be based on ramping capability over a shorter period of time and (5) recognizing the flexible RA attribute of a resource when a resource cannot provide system or local RA.

From PG&E's perspective it is not feasible to target adoption of these significant modifications to the flexible RA requirements and program for the 2020 RA compliance year while the CAISO continues to review the operational requirements to address deviations in the day-ahead market, real-time market and intra-hour market runs. There remains a wide divergence of ideas, and there does not appear to be consensus support in this proceeding regarding any specific approach at this time. PG&E encourages the Commission and CAISO to continue efforts in order to adopt a durable and holistic flexible RA framework.

8. The Commission Should Adopt Proposals for Setting Local RA Requirements

This Section II.A.8 reiterates PG&E's proposed modifications to setting the local RA requirements given the Commission's adoption of multi-year local RA requirements beginning with the 2020 RA compliance year.

a. Seasonal Local RA Requirements

In its Track 3 Proposals, PG&E proposed that seasonally varying local RA requirements be established beginning with the 2021 RA compliance year.²⁹ Specifically, PG&E proposed that local RA requirements be set based on the ratio of the local RA requirement to the forecasted peak demand during the forecasted peak month during the summer (May to September) and non-summer months (January to April and October to December) in each respective local capacity area.

The Commission's adoption of multi-year local RA requirements and the potential adoption of a central procurement structure for local RA in the fourth quarter of 2019 warrants the re-evaluation of setting the local RA requirements. PG&E's approach to setting local RA requirements on a summer and non-summer seasonal basis is a more cost-effective and efficient approach and its use should be applied in the multi-year local RA requirements and central procurement structures for local RA.

9. The Commission Should Reject CalCCA's Track 3 Proposal Regarding Adoption of a Short-Term Framework for RA Sales.

The Commission should reject the recommendation in the CalCCA Proposal related to adoption of a short-term framework for RA sales by the IOUs.³⁰ CalCCA specifically requests that the Commission (1) provide guidance on how IOUs should manage their excess RA capacity, including a requirement that IOUs offer to the market 100 percent of all RA in excess of the IOUs' forecast bundled load, plus a reasonable "buffer," (2) prescribe the IOUs' solicitation schedules to maximize the opportunity for other LSEs to meet compliance obligations, and (3) require the IOUs to post their excess RA capacity on an electronic bulletin board to facilitate bilateral transactions in the beginning of each year.³¹ Moreover, CalCCA asks that the Commission establish the RA confirmation template developed by a Western Systems Power Pool subcommittee as the confirmation template for all IOU RA sales.³²

²⁹ PG&E Track 3 Proposals, pp. 6-8.

³⁰ CalCCA Proposal, pp. 1-2, 4-8.

³¹ *Id.*, pp. 6-7.

³² *Id.*, pp. 7-8.

Each of these recommendations from the CalCCA Proposal should be rejected as procedurally improper. The recommendations should be rejected outright because they are outside the scope of Track 3 and inappropriate for consideration in the Commission’s RA proceeding. CalCCA’s recommendations are all focused on the specifics surrounding IOU procurement activity, rather than the subject matter of this proceeding (e.g. oversight of the RA program and establishment of procurement obligations).³³ CalCCA may believe that discussion of procurement activity is appropriate for other Commission proceedings, as discussed below, but it must acknowledge that the RA proceeding is not the proper venue for the Commission to issue IOU procurement-related guidelines.

Further, CalCCA should not be given the opportunity in this proceeding to re-litigate issues that are already being handled appropriately elsewhere. The RA sales framework issues raised in the CalCCA Proposal are already under discussion in PG&E’s Advice Letter 5473-E, which updates PG&E’s Bundled Procurement Plan (“BPP”) to include a new sales framework, among other things.³⁴ Longer-term procurement policy issues are also being addressed appropriately in the current Power Charge Indifference Adjustment (“PCIA”) proceeding (Rulemaking 17-06-026). While PG&E disagrees with the protest to Advice Letter 5473-E submitted by CalCCA on February 14, 2019, it is important to recognize that even CalCCA asserted in its protest that RA sales framework issues should be handled in the PCIA proceeding,³⁵ not the RA proceeding.

Rather than entertaining CalCCA’s out of scope proposal in Track 3 of this proceeding, the Commission should reject CalCCA’s proposal and re-direct CalCCA to the Advice Letter

³³ *Order Instituting Rulemaking*, issued October 4, 2017, pp. 1-2.

³⁴ *Advice Letter 5473-E: Updates to Pacific Gas and Electric Company’s Bundled Procurement Plan – Greenhouse Gas Procurement Plan (Appendix G); Congestion Revenue Rights (Appendix I); Procurement Review Group, Cost Allocation Mechanism Group, and Independent Evaluator Administration (Appendix M); and Sales Framework (New Appendix S)*, dated January 25, 2019.

³⁵ *CalCCA Protest to Pacific Gas and Electric Company Advice Letter 5473*, dated February 14, 2019, p. 1.

process for PG&E’s permissible BPP-related updates and to the PCIA proceeding for discussion of longer-term procurement policy issues.

B. Comments on Energy Division’s Effective Load Carrying Capacity Proposal

1. Energy Division Should Provide Greater Visibility and Insight into Its Analysis

a. Energy Division Should Answer Methodological Questions Regarding its Analysis

As several parties mentioned during the December 13, 2018 webinar, the ED should provide more detail on the specific ELCC methodology used in its analysis. PG&E agrees with other parties that this could be achieved by supplementing existing information with a more granular report that incorporates more detailed information. Information to be provided includes: 1) a list of existing resources, capacities, and location by month used in the study, 2) a list of the specific fossil generators that were removed and/or added back in each month to surface/maintain loss of load expectation (“LOLE”) and the underlying reason for removal, 3) transmission topography and constraints, and 4) other study details (e.g., dispatch mode to minimize reliability vs. price, etc.). Details should be sufficient such that another party can replicate the study and results. PG&E encourages ED also to make the Strategic Energy & Risk Valuation Model database and setup available to parties, as this would greatly help verification of the analysis.

PG&E also notes here that the removal of Helms pumped storage due solely to its age as indicated by ED in the Workshops should be reexamined. Removing this storage facility, which plays an integral role in maintaining system and local reliability, from the study could lead to an inaccurate estimation in the ELCC of battery storage.

b. Energy Division Should Provide Greater Access to its Data and Results

PG&E also encourages ED to make detailed results from the study easily available to parties for examination. Detailed results include the hourly dispatch and generation of resource

types and the associated hourly distribution of LOLE. Again, greater access would assist parties in verifying the analysis.

2. Energy Division’s Methodology for Calculating Monthly ELCCs does Not Reflect Reliability on the System

PG&E reiterates here, as in previous comments, that ED’s monthly construct of calculating ELCC is not robust and may lead to inaccurate reliability counting. Removing traditional fossil resources in the late winter/early spring timeframe results in an artificially “lean” system in these months, which does not exist in reality. To the contrary, most of these resources will be available to generate during such time. This monthly construct is being used to align with the current monthly RA counting rules, but arbitrarily forcing or “surfacing” a LOLE in months when the system capacity is robust does not represent reality and, as mentioned above, may be a reason that storage ELCCs in these months appear unusually high. In other words, storage resources are providing an artificially high reliability contribution to this manufactured scant system.

A more appropriate methodology would be to calculate ELCCs for solar, wind, and storage on an annual basis and allocate the corresponding annual ELCC across the months where loss of load does occur (e.g. the summer months). PG&E suggests calculating and reporting these annual ELCC values to supplement this analysis. The annual ELCC for storage will likely be more reasonable using this methodology, as it will better reflect reliability on the system, and will mitigate the need to allocate the diversity benefit of storage to any one individual technology, as ED currently proposes.

3. The Commission Should Hold a Workshop on the ELCC Proposal

The Commission should order a workshop on the ELCC Proposal for ED to discuss its methodology, the validity of its results, and all proposed adjustments to ELCC values outlined in these comments. Parties should also be permitted to present during the workshop and participate in discussions with ED regarding the foregoing. PG&E recommends that an ELCC-dedicated workshop be held during the last week of April 2019. While it is more likely to lead to a more

