

PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco CA 94102-3298



Pacific Gas & Electric Company
ELC (Corp ID 39)
Status of Advice Letter 6816E
As of April 2, 2024

Subject: Advice Letter Complying with Resolution E-5211 and Decision 20-09-035 Ordering Paragraph 16

Division Assigned: Energy

Date Filed: 01-09-2023

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Authorizing Documents: E-5211

Disposition:	Signed
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Resolution Required: Yes

Resolution Number: E-5296

Commission Meeting Date: 03-21-2024

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PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
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To: Energy Company Filing Advice Letter

From: Energy Division PAL Coordinator

Subject: Your Advice Letter Filing

The Energy Division of the California Public Utilities Commission has processed your recent Advice Letter (AL) filing and is returning an AL status certificate for your records.

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Energy Division's Tariff Unit by e-mail to
edtariffunit@cpuc.ca.gov

January 9, 2023

Advice 4941-E
(Southern California Edison Company ID U 338 E)

Advice 6816-E
(Pacific Gas and Electric Company ID U 39 E)

Advice 4138-E
(San Diego Gas and Electric Company ID U 902 E)

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA
ENERGY DIVISION

SUBJECT: Advice Letter Complying with Resolution E-5211 and Decision
20-09-035 Ordering Paragraph 16

PURPOSE

Southern California Edison Company (SCE), on behalf of Pacific Gas and Electric Company (PG&E) and San Diego Gas & Electric Company (SDG&E) (collectively, the Utilities), hereby submits this Advice Letter (AL) to comply with Ordering Paragraphs (OPs) 2 and 3 of Resolution E-5211 (the Resolution) and to meet the requirements of OP 16 (and OP 15 as referenced in OP 16) of Decision (D.)20-09-035 (the Decision).¹ Via this Advice Letter, the Utilities request California Public Utilities Commission (CPUC or Commission) approval to implement the Issue 9 counter proposal adopted in OPs 15 and 16 of the Decision as further discussed below.

BACKGROUND

The Commission initiated Order Instituting Rulemaking (R.)17-07-007 on July 13, 2017 to consider a variety of refinements to the interconnection of distributed energy resources (DER) under the Utilities' Electric Tariff Rule 21 and the equivalent tariff rules

¹ *Decision Adopting Recommendations from Working Groups Two, Three, And Subgroup, issued September 30, 2020.*

of the small and multi-jurisdictional electric utilities.²

As part of R.17-07-007, the Utilities and stakeholders participated in four working groups, including Working Group Two in which issues associated with incorporating Integration Capacity Analysis (ICA) into Rule 21 were discussed. On September 30, 2020, the Commission issued the Decision, which directed the Utilities to submit a Tier 3 AL no later than 120 days from the issuance the Decision providing the specifics of whether and how reductions to a customer's Limited Generation Profile (LGP) are determined. The AL was also required to include a description of how the Utilities would implement OP 15. The final resolution of the AL was to be implemented simultaneously with the counter proposal for Issue 9. The counter proposal was adopted via OP 15.³

On January 28, 2021, the Utilities submitted Tier 3 ALs – PG&E AL 6058-E, SCE AL 4404-E, and SDG&E AL 3678-E – to comply with OP 16 of the Decision.

On October 10, 2022, the Commission issued the Resolution, which rejected PG&E AL 6058-E, SCE AL 4404-E, and SDG&E AL 3678-E. The Resolution found that the ALs lacked specificity and failed to meet the requirements of all three elements articulated in OP 16 (and OP 15 as referenced in OP 16) of the Decision. Specifically, the Resolution

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- ² The Rule 21 tariff describes the interconnection, operating, and metering requirements for certain generating and storage facilities seeking to connect to the electric distribution system. Rule 21 is the mechanism by which customers may connect these generating or storage facilities while protecting the safety and reliability of the distribution and transmission systems at the local and system levels. See R.17-07-007 at 2.
- ³ For reference, OP 15 of D.20-09-035 states: “The counter proposal from Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company (Utilities) to resolve Issue 9 is adopted with modification. Within 90 days of the issuance of this decision, Utilities shall commence discussions with the Smart Inverter Working Group focused on implementing the proposal. Within six months of issuance of this decision, Utilities shall submit a Tier 3 Advice Letter providing recommendations (as applicable) regarding the standard review, certification requirements, and interconnection processes necessary for implementation of the proposal. Within 60 days of adoption of a certification scheme for the Limited Generation Profile, Utilities shall modify the Rule 21 Interconnection Application Process to allow a distributed energy resources customer to include a Limited Generation Profile with their application, require the customer to enable generation profile limiting functionality, and allow Utilities opportunity to alter the profile if safety and reliability concerns warrant it. Retroactive alterations to generation profiles shall not reduce generation to below a pre-defined static level, i.e., the lowest Integrated Capacity Analysis – Static Grid typical profile value identified at the time of the Interconnection Application. As part of the proposal, Utilities shall: i) allow customers to utilize a smart inverter's ability to increase its output on a monthly basis; and ii) use a 10 percent buffer, which shall be revisited. No later than 18 months after the implementation of this proposal, Utilities shall submit a Tier 3 Advice Letter providing data obtained from Proposals 8b and 8c, adopted below, assessing the effectiveness of the use of the Integration Capacity Analysis values within the interconnection process and addressing whether the Commission should continue use of the 10 percent buffer or adjust it, based on the data.”

indicates that the ALs lacked specificity on whether and how reductions to a customer's LGP are determined and failed to include a description of how the Large IOUs will implement OP 15. The Resolution found that the ALs did not supply specific information on the circumstances under which reduction of an LGP will occur, or how reductions to a customer's LGP are determined, as ordered per OP 16, and did not expressly state that export values may only be lowered to the pre-defined ICA-SG level identified at the time of interconnection, as ordered per OP 15.

The Utilities were ordered to participate in a minimum of two full-day workshops to confer with stakeholders on topics identified in the Resolution as needing discussion. Within 90 days of issuance of the Resolution, and after the workshops, the Large IOUs were ordered to file new Tier 3 ALs that meet the requirements of OP 16 of the Decision and address the topics identified in the Resolution.

DISCUSSION

Compliance with OP 2 of the Resolution

OP 2 of the Resolution states:

Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company are ordered to participate in at least two workshops to discuss all material articulated in the Discussion section of this Resolution. Workshops are to commence no later than 40 days after issuance of this Resolution. The Large IOUs are expected to address topics identified by Energy Division as needing discussion and prepare relevant presentations. The Large IOUs shall issue presentations ahead of the workshops to allow parties to prepare for the workshops. Deadlines for circulating the agenda and presentations shall be coordinated with Energy Division. Agenda items may also be discussed through the [Smart Inverter Working Group] ahead of the scheduled workshops and the IOUs are ordered to attend and participate in these discussions.

Pursuant to OP 2 of the Resolution, the Utilities participated in three workshops held on November 7, November 29, and December 16, 2022 and discussed materials and topics identified by the Resolution and the Energy Division. As required by the Resolution, presentations were issued ahead of each workshop.⁴ A complete record of the workshop discussions can be found on the "Limited Generation Profiles" website, maintained by the Energy Division.⁵

In addition to the three LGP workshops, the Utilities were directed by Energy Division to present at two Smart Inverter Working Group (SIWG) meetings on October 27, 2022, and November 29, 2022. The presentations included a refresher on ICA modeling, responses

⁴ Resolution, p. 9.

⁵ See <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/infrastructure/rule-21-interconnection/limited-generation-profiles>.

to stakeholders' questions on ICA, and an overview of Rule 21 screens that would need to be updated for the implementation of LGP. The agenda and presentation slides can be found on the "Limited Generation Profiles" website maintained by the Energy Division.

Compliance with OP 3 of the Resolution

OP 3 of the Resolution states:

Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company are ordered to submit subsequent Tier 3 Advice Letters, within 90 days, after issuance of this Resolution. The Advice Letters should contain all material articulated in the Discussion section of this Resolution and shall meet all the requirements of Ordering Paragraph 16 (and OP 15 as referenced in OP 16) of D.20-09-035.

OP 16 of the Decision required the Utilities to submit a Tier 3 Advice Letter providing the specifics of whether and how reductions to a customer's Limited Generation Profile are determined and a description of how the Utilities will implement OP 15.

Before providing the specifics of whether and how reductions to a customer's LGP are determined, the Utilities are providing two positions that govern the specifics. First, it is the Utilities' position that the Decision does not limit the duration for which Utilities can curtail LGP projects to the lowest ICA-SG value in effect at the time of interconnection. Second, for purposes of curtailment under emergency conditions, Utilities will treat LGP and non-LGP resources comparably.

(1) Circumstances that Lead to a Reduction of Export ("Whether")

The Resolution clarifies that "whether" means "the circumstances that lead to a reduction of export (e.g., a 'yes or no' response to a specific scenario or question)."⁶ The Resolution further provides that the Utilities shall "delineate two sets of categories for circumstances that lead to curtailment of export power" in this AL: (1) circumstances already applicable to generating facilities, and (2) circumstances that would normally be applicable to existing facilities but have specific considerations that are only applicable under the LPG option. For the latter category, the Resolution provides that the Utilities shall "detail the cause for why disparate treatment for LGP option systems may be necessary."⁷

Below, the Utilities identify circumstances that could lead to curtailment of LGP exports within the two categories as set forth in the Resolution. As set forth in the Resolution, the Utilities will not request curtailment of LGP exports in excess of the amount required to preserve safety and reliability. Any reductions will be justified by the Utilities when providing notices to customers with LGP generating facilities.⁸

⁶ Resolution, p. 11.

⁷ *Id.*, p. 19.

⁸ *Id.*, pp. 22-23.

Circumstances already applicable to generating facilities:

As the Resolution emphasizes, the Utilities have an ongoing obligation to operate their facilities in a safe and reliable manner.⁹ The Utilities must therefore have the ability—as necessary to ensure safe and reliable operation of the grid—to secure the reduction of exports from customers with generating facilities, to remotely disconnect the generator or customer where such capability exists, or to deenergize an entire circuit or portions of a circuit where the capability to remotely disconnect the generator or customer does not exist. This ability applies to all customers with connected generating facilities regardless of whether they have elected the LGP option.

The circumstances under which curtailment of exports or disconnection of generating facilities may be required are varied and have a range of lead times. Such circumstances include emergency conditions with little or no advance knowledge (e.g., car hits pole, transformer failure, underground line fault) and planned outages where some amount of advance knowledge exists.¹⁰ For planned outages, the point in time at which the outage is determined to be necessary, and the expected duration of the outage, vary widely and depend on the specific condition requiring mitigation (e.g., a planned outage to locate and repair an underground fault would likely have very little lead time and could take multiple days to complete; a planned outage to replace a substation transformer might be known months in advance of the outage). Lead times will vary based on factors such as safety considerations, weather, the type of repair, other scheduled projects, and the availability of qualified maintenance personnel.

Because the circumstances that trigger abnormal conditions are numerous and largely unpredictable, the Utilities maintain that they must have the latitude to respond, in accordance with good utility practice, as they determine best suits the particular situation and without regard to whether the owner of the generating facility has elected the LGP option.

Circumstances that have specific considerations for LGP facilities:

⁹ “We clarify that nothing in the Decision changes the fundamental obligation of the Large IOUs to continue operation of the grid in a safe and reliable manner during extra-ordinary circumstances or impedes the IOU’s existing right to impose temporary reductions to a customer’s export power for safety and reliability reasons during these circumstances.” Resolution, p. 22.

¹⁰ Planned outages include intentional outages taken due to emergency events or unsafe operating conditions and planned outages scheduled for routine maintenance, repairs, or modifications to Distribution Provider’s Distribution or Transmission System.

Outside of emergency and planned outages, there are circumstances in which exports by a customer with an LGP generating facility could be temporarily or permanently reduced to the minimum ICA-SG in effect at the time of interconnection to maintain the safety and reliability of the circuit to which it is connected. These circumstances include unexpected business wind-downs and/or the unanticipated addition of energy efficiency or other load management technologies that reduce metered load (and therefore hosting capacity) on the circuit to which an LGP generating facility is connected.

The Commission has given the Utilities the right to reduce exports from a customer with an LGP generator to the lowest value of the ICA-SG profile if required to maintain safety and reliability while avoiding circuit upgrades. Specifically, the Commission adopted “the element that the utility may need to reduce generation to ensure safe and reliable service without grid updates.”¹¹ The Resolution clarifies that this element only applies “during future grid conditions,” such as when load reduction on the circuit has caused the ICA-SG values at the location of the LGP generating facility to be lower than the LGP values approved in the Interconnection Agreement.¹² Providing the Utilities with this right is consistent with the objective of minimizing ratepayer costs.¹³

In the event the utility determines that the customer’s LGP generating facility does not operate as approved, such as exporting at a higher output than allowed in the interconnection agreement or operating in an unsafe manner, the Utilities have the right to reduce the export to the maximum accepted level or shut the generating facility down until the issue is resolved. While the Utilities currently have the ability to interrupt or reduce deliveries or disconnect a non-LGP generating facility in these circumstances,¹⁴ there are special considerations for LGP facilities given that they will be required to operate in accordance with the LGP set forth in the interconnection agreement.

¹¹ Decision, p. 59.

¹² Resolution, pp. 22-23.

¹³ The Resolution states that “if another entity takes future action that reduces hosting capacity for those using the LGP-option, the other entity is the one causing the issue and should ultimately be responsible for the cost of curing the lack of hosting capacity.” Resolution, p. 21. This statement implies that customers on a circuit that reduce their metered consumption could be held liable for the cost of circuit upgrades. The Utilities believe this is a fundamental policy determination that requires further deliberation, and, in any event, is beyond the scope of the Resolution.

¹⁴ See, e.g., SCE’s Electric Form 14-731, Section 4.2 (b) (providing that SCE may elect to terminate an Interconnection Agreement if “Producer fails to take all corrective actions specified in SCE’s Notice that Producer’s Generating Facility is out of compliance with the terms of this Agreement within the time frame set forth in such Notice”); SCE’s Electric Form 14-925, Section 9.7.2 (providing that Distribution Provider may require Interconnection Customer to interrupt or reduce deliveries of electricity if “such delivery of electricity could adversely affect Distribution Provider’s ability to perform such activities as are necessary to safely and reliably operate and maintain the Distribution System and Transmission System”).

(2) The Procedure to Determine the Reduction of Export Power (“How”)

The Resolution provides that “how” means “the procedure to determine the level of reduction of export power (e.g., a process to determine an updated LGP and what changes are required to interconnection agreements or the grid).”¹⁵ For circumstances where unexpected load reduction results in LGP exports and/or non-LGP generating facility output contributing to safety or reliability concerns,¹⁶ the following procedure will be followed:

1. If the system condition warrants urgent action, the Utility will take initial actions in accordance with good utility practice. These actions may include, but are not limited to, the following:
 - a. Adjusting equipment settings, e.g., voltage/Load Tap Changer (LTC) regulator.
 - b. Directing a reduction in LGP exports and non-LGP exports or disconnecting LGP and non-LGP generation (either by direction or through remote control if available).
 - c. Reconfiguring the circuit on a temporary basis.
2. Following any urgent actions, the Utilities will undertake an initial assessment to determine whether low-cost mitigation measures can be implemented to restore some or all of the LGP exports and output of non-LGP generating facilities.¹⁷ Low-cost mitigation measures may include the following:
 - a. Reconfiguring circuits on a permanent basis.
 - b. Installing or relocating low-cost voltage regulating equipment.
 - c. Adjusting existing equipment settings.
 - d. Enabling or disabling existing capacitor banks.
 - e. If determined to be viable, utilizing Smart Inverter capabilities to adjust generating facility volt/var and volt/watt functions.¹⁸

The list above is non-exhaustive given that the availability and feasibility of low-cost mitigation measures are highly dependent on the specific circumstances giving rise to the reduction in LGP exports and the output of non-LGP generating facilities.

¹⁵ Resolution, p. 11.

¹⁶ Note, the cause of the violation will typically be identified after the event.

¹⁷ The Resolution states that the Utilities “should define and discuss what low-cost and common mitigations are available (and if the mitigations include grid upgrades) to avoid curtailment and under what circumstances they could be applied.” Resolution, p. 20.

¹⁸ The implementation of this option depends on the inverter functionalities on the circuit, the utility’s ability to communicate changes, and applicable tariff provisions, and would require coordination with the owners of the generators.

Low-cost mitigation will be implemented in accordance with existing utility practices. As soon as practicable following the completion of the initial assessment, customers with LGP generating facilities and customers with non-LGP generating facilities will be provided a non-binding estimate of when exports and generation output will be restored. Given that these reductions are temporary, and because the generator interconnection agreements already permit the Utility to secure the reduction or disconnection of generation in emergencies, no changes to the interconnection agreements will be made.

3. If, after considering any identified “low cost” mitigation measures, the Utility determines that there is a continuing need to reduce an LGP customer’s exports, the Utility will undertake a study to establish the updated LGP. The study will incorporate the system conditions and the new loading profiles and determine the export levels at which safety and reliability concerns are addressed.

In the event the study indicates that reductions *below* the lowest ICA-SG level as set forth in the LGP customer’s generator interconnection agreement would be required to address safety and reliability concerns, the Utility will identify upgrades that will restore the updated LGP to at least the lowest ICA-SG level as set forth in the LGP customer’s generator interconnection agreement. The Utility will install those upgrades in accordance with its standard practices and timelines for design, permitting, and construction.¹⁹ The Utility will provide the LGP customer with a non-binding estimate of when those upgrades will be in-service. Reductions below the lowest ICA-SG value may be necessary as an emergency action pending completion of the upgrades. Once the upgrades are operational, the Utility will provide the LGP customer with a new LGP reflecting the hosting capacity made available by the upgrades. Such profile will be composed of an LGP profile where (i) the lowest values are not less than the minimum ICA-SG value set forth in the customer’s generator interconnection agreement, nor (ii) greater than the LGP accepted at time of interconnection. If the upgrade allows the project to export at or above the lowest ICA-SG value, but not at the values set forth in the interconnection agreement, the customer will have the option to pay for any additional upgrades required to restore the LGP.

In the event the study indicates that reductions of exports are needed to a level *not below* the lowest ICA-SG level, the Utility will notify the LGP customer in writing as soon as practicable following the study completion that there is a continuing need for a reduction of the LGP customer’s exports to the grid. The writing will include the updated LGP and the date on which the updated LGP is effective. During this step, the customer can choose to pay for upgrades required to restore the LGP exports to the level accepted in the interconnection agreement.

¹⁹ The Utilities do not believe any further Commission action is required for the Utilities to pursue such upgrades or recover the costs of these upgrades from ratepayers.

(3) How the Utilities Will Implement OP 15

As required by OP 15, the Utilities met with the SIWG several times between December 2020 and March 2021 and discussed the implementation of the Issue 9 counter proposal.

As required by OP 15, on March 30, 2021, utilities submitted Tier 3 ALs—PG&E AL 6141-E, SCE AL 4455-E, and SDG&E AL 3721-E, which detailed how the Utilities plan to implement OP 15.

Resolution E-5230, issued by the Commission, approves in part, modifies, and seeks clarity on the utilities' Advice Letters. Resolution E-5230 requires further workshops. Those workshops must be completed in order to finalize all of the implementation details of OP 15. Complete implementation of OP 15 is therefore subject to future advice letters and subsequent Commission approval.

(4) Workshop Areas of Consensus and Non-Consensus

The Resolution requires this AL to specify “which items have reached consensus within the workshop participants and which items have not reached consensus.”²⁰ Below, the Utilities provide their understanding of which items reached consensus and which did not.

Consensus:

- (1) The Utilities may curtail LGP exports in an emergency;
- (2) The Utilities may curtail LGP exports for planned outages that lead to abnormal grid conditions;
- (3) The Decision allows the Utilities to curtail exports to ensure the safety and reliability of Utility facilities.

Non-consensus:

- (1) Whether the Utilities may permanently curtail LGP exports to the lowest ICA-SG value based on future grid conditions for system safety and reliability;
- (2) Whether Utility ratepayers should be responsible for the cost of building upgrades to restore LGP generating facilities back to the levels accepted in the interconnection agreement.²¹

²⁰ Resolution, p. 9.

²¹ The Resolution included a section entitled “Low-Cost and Common Mitigation Alternatives.” That section stated that the “ability of LGP customers to dial back production to the grid hosting capacity is a convenient and expedient short-term fix, but this expediency alone is not justification for a permanent reduction of export power. As part of the discussions, the Large IOUs shall present on scenarios that trigger analysis using cost causation principle.” During the workshop the Utilities presented their position on cost responsibility for upgrades (see, e.g., the Utilities’ presentation for the third workshop). The Decision provides that

Proposed Tariff Changes

During the workshop process, the Energy Division asked the Utilities to propose tariff language to implement curtailment provisions for customers with LGP generating facilities. The Utilities provided the following draft tariff language and suggested that it could be added to Section D.9 of Rule 21:

9.1 – Curtailment Provisions for Limited Generation Profile Projects

For Generating Facilities approved to utilize Limited Generation Profiles, Producer acknowledges that future grid conditions could result in actual hosting capacity being below the published ICA-SG value identified at the time of the Interconnection Application and that Distribution Provider may need to reduce generation to ensure safe and reliable service. Accordingly, if necessary to maintain safe and reliable operation of Distribution Provider's Distribution or Transmission System, Distribution Provider may reduce the approved Limited Generation Profile level to the lowest ICA-SG value identified at the time of the Interconnection Application. This reduction could be temporary or permanent.

If the Distribution Provider must limit the operation of a Producer's Generating Facility to a level that is below the lowest ICA-SG value in effect at the time of the Interconnection Application to maintain safe and reliable operation of Distribution Provider's Distribution or Transmission System, then Distribution Provider shall implement measures – in accordance with Distribution Provider's practices for design and construction – to restore operation of Producer's Generating Facility to, at a minimum, the lowest ICA-SG value identified at the time of the Interconnection Application.

Stakeholder Alternative Proposals

During the LGP Workshop #3 on December 16, 2022, the Interstate Renewable Energy Council (IREC) made a request to prepare alternative proposals, which would be appended to the Utilities' AL. Per Energy Division direction, the referenced alternative proposal was provided to the Utilities on January 5, 2023 on behalf of IREC, the Public Advocates Office at the California Public Utilities Commission (Cal Advocates), the California Solar and Storage Association (CALSSA), and Applied Systems Engineering

retroactive alterations to LGPs shall not reduce generation to below a pre-defined static level. However, the Decision does not authorize the Utilities to recover from ratepayers the cost of upgrades required to maintain LGP exports at the levels accepted at time of interconnection if generation is not reduced below the pre-defined static level. While the Utilities presented on cost causation in accordance with the Resolution, the Commission has indicated that ratemaking is to be considered in Phase II. Resolution, p. 21

Inc. The alternative proposal is attached to this AL as Attachment A. The Utilities are attaching the alternative proposal to this AL per Energy Division's direction, and by doing so do not adopt or endorse its recommendations. The Utilities have not had sufficient time to review the alternative proposal in depth and, in this AL, do not provide a formal response to it. The Utilities understand they will have the opportunity to offer comments later in the AL process.

TIER DESIGNATION

Pursuant to OP 3 of Resolution E-5211, this advice letter is submitted with a Tier 3 designation.

EFFECTIVE DATE

This advice letter will become effective upon Commission approval.

NOTICE

Anyone wishing to protest this advice letter may do so only electronically. Protests must be received no later than 20 days after the date of this advice letter. Protests should be submitted to the CPUC Energy Division at:

E-mail: EDTariffUnit@cpuc.ca.gov

In addition, protests and all other correspondence regarding this advice letter should also be sent electronically to the attention of:

SCE: Connor Flanigan
Managing Director, State Regulatory Operations
Southern California Edison Company
E-mail: AdviceTariffManager@sce.com

and

Tara S. Kaushik
Managing Director, Regulatory Relations
c/o Karyn Gansecki
Southern California Edison Company
E-mail: Karyn.Gansecki@sce.com

PG&E: Sidney Bob Dietz II
Director, Regulatory Relations
c/o Megan Lawson

E-mail: PGETariffs@pge.com

SDG&E: Attn: Greg Anderson
Regulatory Tariff Manager
E-mail: GAnderson@sdge.com
SDGETariffs@sdge.com

There are no restrictions on who may submit a protest, but the protest shall set forth specifically the grounds upon which it is based and must be received by the deadline shown above.

In accordance with General Rule 4 of General Order (GO) 96-B, SCE is serving copies of this advice letter to the interested parties shown on the attached GO 96-B, R.19-09-009, and R.17-07-007 service lists. Address change requests to the GO 96-B service list should be directed by electronic mail to AdviceTariffManager@sce.com or at (626) 302-4747. For changes to all other service lists, please contact the Commission's Process Office at (415) 703-2021 or by electronic mail at Process_Office@cpuc.ca.gov.

To view other SCE advice letters submitted with the Commission, log on to SCE's web site at <https://www.sce.com/wps/portal/home/regulatory/advice-letters>.

For questions, please contact David Schiada at (909) 274-3627 or by electronic mail at David.Schiada@sce.com.

Southern California Edison Company

/s/ Connor Flanigan
Connor Flanigan

CF:ds:bvs
Enclosures

ATTACHMENT A

January 5, 2023

Via Electronic Mail Only

Re: Proposal for Resolution of Decision 20-09-035 ordering Paragraph 16 (pursuant to Resolution E-5211)

In Resolution E-5211 of October 6, 2022, the California Public Utilities Commission (Commission or CPUC) required Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) (collectively the IOUs) to include in their new Tier 3 advice letters a summary of the items upon which consensus has and has not been reached along with any alternate proposals.¹ On behalf of the Interstate Renewable Energy Council, Inc. (IREC), the Public Advocates Office at the California Public Utilities Commission (Cal Advocates), the California Solar and Storage Association (CALSSA), and Applied Systems Engineering Inc. (collectively “Parties”), we respectfully submit this alternate proposal for how to resolve whether and how reductions to a customer’s Limited Generation Profile (LGP) are determined pursuant to Decision 20-09-035 ordering Paragraph 16.

I. Background

In Decision (D.) 20-09-035 of September 4, 2020, Ordering Paragraph 15, the Commission required the IOUs to allow projects to implement an LGP and indicated it would “allow Utilities opportunity to alter the profile if safety and reliability concerns warrant it.”² The decision provided that the IOUs would not be permitted to “reduce generation to below a pre-defined static level, i.e., the lowest Integrated Capacity Analysis – Static Grid typical profile value identified at the time of the Interconnection Application.” Ordering Paragraph 16 required the IOUs to submit an advice letter

¹ Resolution E-5211 at 10, October 6, 2022.

² D.20-09-035, OP 15 at page 209, September 4, 2020.

“providing the specifics of whether and how reductions to a customer’s Limited Generation Profile” would be determined.³

However, instead of providing concrete information on “whether and how” a customer’s profile would be reduced, the IOUs’ January 2021 advice letters just listed “several initial factors” that could “contribute to a customer’s revised” LGP. These included:

- The IOUs’ need to reduce generation to ensure safe and reliable service without grid updates.
- Future grid conditions resulting in actual hosting capacity being below the published Integration Capacity Analysis-SG.
- A determination by the IOU that the system does not operate as approved. For example, there is no buffer or the actual buffer is determined to be less than 10%.

The factors above are subject to change based on the outcome of upcoming preplanned discussions on this topic.

This list is problematic in that it does not provide “defined” conditions for when a project’s profile would be reduced. As IREC identified in its protest, “customers need certainty regarding a project’s acceptable output to assess the financial viability of the project and secure financing. New Generating Facilities are only financeable when customers know with relative certainty the potential output of a project. If IOUs may unilaterally require output reductions for a project in undefined and unpredictable circumstances, investors will not finance that project. Investors require a clear definition [of] a project’s risk before funding development.”⁴ In Resolution E-5211 the Commission agreed that the advice letters lack specificity and directed the IOUs to file new advice letters, following a workshop process, that would more clearly define “whether and how” the LGP could be reduced, amongst other things.^{5, 6}

³ D.20-09-035 OP 16 at 210.

⁴ IREC Protest IREC’s Protest to San Diego Gas & Electric’s Advice Letter 3678-E, Pacific Gas & Electric’s Advice Letter 6508-E, and Southern California Edison’s Advice Letter 4404-E – Implementing Limited Generation Profiles Pursuant to Decision 20-09-035, at 2, Feb. 17, 2021.

⁵ Resolution E-5211 at 9 and 29-30 (OP 2).

⁶ Resolution E-5211 at 11 also defined what these terms should mean. (“We clarify that “whether” means the circumstances that lead to a reduction of export (e.g., a “yes or no”

During the workshop process, the IOUs settled on a two-part proposal. The first part allows for reductions to the LGP for emergency conditions or planned outages. The Parties are in agreement that this is already permitted by Rule 21 and, so long as LGP projects are treated consistently with other interconnected projects with respect to these provisions, we have no objections to this aspect of the IOUs' proposal. The second part of the proposal remains highly problematic. Per the slides presented by the IOUs at the third workshop, this second part would allow curtailment, down to the lowest ICA-SG, for an unlimited duration, if the “[o]utput of the LGP project or non LGP project is contributing to overload and/or voltage violation thereby resulting in reduction of hosting capacity on a given circuit/area where LGP project or non-LGP project is connected.”⁷ The triggering event for this would be when “Load disappears from a given circuit: [due to] business wind-down, Customers implement load management technologies, [and/or] Customers add BTM generation.”⁸

While this proposal is more concrete than the IOUs' previous proposal, this proposal is untenable and may effectively prevent the use of LGPs. As a result, through collaboration during the workshop process, the Parties have developed an alternate proposal for the Commission's consideration.

II. An Alternate Approach is Necessary to Enable Projects to Utilize Limited Generation Profiles

The motivation behind providing an alternate proposal is that there is good reason to believe that LGP projects can result in a more efficient and optimized use of existing distribution system capacity⁹ by allowing projects to export power to the grid during times of high net-load, while limiting export during periods when additional power is not

response to a specific scenario or question) and that “how” means the procedure to determine the level of reduction of export power (e.g., the process to determine an updated LGP and what changes are required to interconnection agreements or the grid).”).

⁷ Utility Slide 5 for Workshop 3.

⁸ *Id.*

⁹ LGPs were developed in response to scoping issue 9, which asked: “What conditions of operations should the Commission adopt in interconnection applications and agreements to *allow distributed energy resources to perform within existing hosting capacity constraints and avoid triggering upgrades?*” (Emphasis added.) See R.17-07-007 Scoping Ruling, October 2, 2017.

needed. Optimally utilizing the distribution system while avoiding grid upgrades can reduce the total infrastructure cost (including generation, distribution, and transmission), which could benefit all stakeholders.¹⁰

If project developers can propose LGPs that correspond to the integration capacity analysis (ICA) profile, the developers can determine if it makes financial sense to develop additional capacity that may only be utilized during certain times of the day or months of the year. However, project financing requires a level of certainty of the additional income or bill savings provided by LGP, which in turn requires a level of certainty of the amount of additional exports allowed by the LGP. The IOUs' proposal eradicates that certainty by empowering the IOUs to unilaterally and permanently remove the additional export capacity due to factors outside of the applicant's control.

The potential LGP customer may be able to accommodate some level of risk if it is within well-defined boundaries. However, the IOUs' proposal currently exposes the customer to risk that at any point during the life of the project, the full value of the additional capacity could be entirely eliminated. Developers stated at the workshops that this risk would likely be unfinanceable.¹¹ It is also reasonable to assume that, in any case, financing this risk would increase the development costs. Perhaps more critically, however, there has been no meaningful data presented to demonstrate that it is necessary to expose LGP customers to this risk or that LGP interconnections pose greater risk than non-LGP interconnections.

For these reasons, during the workshop process the Parties sought to gather data on the relative and absolute risks to the electric grid posed by LGP projects, to support a more informed proposal for how to apportion the risks of curtailment, or upgrades, if load reductions on feeders were to occur. Unfortunately, the IOUs opposed any efforts to gather the necessary data and we were unable to reach consensus on that approach.¹² Absent data on the likelihood that LGP projects will be curtailed, the Parties have developed the following alternate proposal for the Commission's consideration.

¹⁰ Which stakeholders benefit and to what degree depends upon compensation, which is outside of the scope of this proceeding.

¹¹ See statements by TotalEnergies in the November 29, 2022 workshop recording.

¹² See statements by the IOUs in the December 16, 2022 workshop recording.

III. The Alternate Proposal

The Parties propose that the Commission authorize the utilization of LGP and that the IOUs address system safety and reliability after interconnection using the methods available to them under Rule 21 section D.9. This section of Rule 21 provides that IOUs may limit operation or require disconnection, with or without notice, “in the event of an Emergency, or to correct Unsafe Operating Conditions” and also in the case of routine maintenance, repairs or modifications. The IOUs should not be authorized to curtail LGP projects for extended or unlimited durations and should treat LGP projects the same as they treat any other interconnection when applying section D.9.

The Parties propose that, should circumstances arise where the distribution system requires modifications in order to address long-term system issues (i.e., violations of voltage thresholds, equipment ratings, etc.) that are triggered by changes in load, the IOUs shall treat the issue as it would were no LGP projects present: make any mitigations or system modifications necessary to resolve the issue and recover costs via its rate case.

However, unlike today, the IOUs should be required to track and provide documentation of all mitigations or system modifications that it believes are necessary due to reductions in load (regardless of whether an LGP project exists or not). By tracking this data, the Commission can revisit its policy regarding distribution upgrades caused by reductions in load with more information in the future. The documentation to be provided by each IOU shall include:

- How the IOU identified the need for mitigations or modifications. This shall include both a record of how the IOU first became aware of the problematic conditions on the system, as well as how it determined that condition arose due to a reduction in load (including data to support this conclusion). This data should be tracked and reported for all mitigations or modifications that the IOU determines are due to loss of load.
- The cost of the mitigation or modification.
- How long it took from identification of the condition to implementation of the mitigation or modification.
- Details on all the projects interconnected to the circuit at the time the condition arose, including their nameplate capacity, export capacity, and fuel type.
- Where one of these conditions arises, and there is an LGP project interconnected to the circuit, the IOU shall also document:
 - Whether curtailment of the LGP project down to the minimum ICA-SG would have avoided the need for the mitigation or modification and provide supporting data for that assertion.

- Information on the LGP project, including the project's fuel source (i.e., solar, solar+storage, etc.), nameplate capacity, production profile and whether it is a front of the meter or behind the meter installation.
- Whether any other projects have interconnected to the circuit subsequent to the LGP project(s) (and if so, details about those projects and whether any upgrades were completed to facilitate their interconnection).
- The load profile in existence at the time the LGP project applied for interconnection and the load profile at the time the condition requiring mitigation or modification was identified.

In addition to this data related to mitigations or modifications that may be necessary due to changes in load, the IOUs should be required to track the following general information about interconnections to assist with understanding the impacts of LGP projects.

- A summary of feeders by number of interconnections, including at least:
 - The number of feeders with LGP interconnections.
 - The number of feeders with non-LGP interconnections.
 - The number of feeders with both LGP interconnections and non-LGP interconnections.

The IOUs should be required to file the above identified information in this docket on a biennial basis beginning two years after LGP is incorporated into their Rule 21 tariffs. The IOUs have indicated that they expect these conditions to arise very rarely, thus the data tracking and reporting requirements should not be too onerous for the IOUs to implement.

In addition to biennial reporting, the IOUs should each track and tally the number of mitigations or modifications that it determines could have been avoided by curtailing an LGP project down to the lowest ICA-SG. Once any IOU has recorded ten such events, it shall file a notification, via Tier 1 advice letter within 90 days of the tenth event. The Tier 1 advice letter shall include all tracked data as delineated above, up to and including the triggering (tenth) project. The Commission shall then convene a series of workshops to evaluate the ratepayer costs associated with these mitigations or modifications and the cause of those mitigations or modifications. All parties to the proceeding shall have the opportunity to make recommendations to the Commission regarding whether policy changes should be made to how LGP projects are interconnected or how the costs associated with subsequent mitigations or modifications are managed. The Commission shall then decide what changes, if any, are appropriate.

If after 8 years of tracking and reporting, no IOU has identified ten or more of the mitigations or modifications described above, the reporting requirement shall be terminated and the trial period for the LGP considered complete. If, at that time, the Energy Division determines there is reason to continue the reporting, or otherwise conduct an evaluation of the trial period for the LGP, it shall be authorized to initiate workshops or other steps accordingly.

IV. The Commission Should Adopt the Alternate Proposal to Enable Collection of Data on Limited Generation Profile Projects, While Limiting Ratepayer Exposure to Upgrade Costs.

The alternate proposal was developed because LGP projects have the potential to provide greater power output during periods of peak demand while limiting the need for costly and otherwise unnecessary grid upgrades. This could provide a benefit to ratepayers by bringing otherwise uneconomical DERs online which could increase grid reliability (i.e., by mitigating rolling blackouts during system peak) and by creating a more economical system in general by more fully utilizing the distribution grid and DERs. The IOUs' proposal is likely to foreclose realization of those benefits by shifting an unreasonable amount of risk onto each LGP project. The Commission first began discussion of limited generation profiles in Working Group 2 which commenced in March of 2018. Proceeding with a proposal nearly five years later that a wide range of stakeholders believe is unlikely to result in any projects being built would be a significant lost opportunity.

The Parties' alternate proposal is instead designed to remedy this by allowing for a trial period wherein LGP projects would be allowed to proceed without significant risk of curtailment. During this trial period, the IOUs should carefully track data on instances where reductions in load trigger the need for mitigations or system modifications. Initially, as they do today under existing policy, the ratepayers would bear the costs for any system mitigations or modifications due to reductions in load after the interconnection agreement is signed. However, the proposal would limit the ratepayer exposure to these events by capping the number of times these mitigations or modifications could occur before re-evaluation.

This trial period would enable data to be gathered for each of these events which will then enable the Commission to develop a better method for defined risk sharing, based upon real-world data, that does not foreclose LGP development. It may be that these events either never occur, or occur so rarely that the ratepayer costs are minimal

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(relative to the ratepayer benefits of LGP), or are non-existent. If the costs are significant, the data collected will enable the Commission to better identify the circumstances driving these events and how to equitably allocate the risks, while still enabling more efficient utilization of distribution capacity.

The Parties appreciate the Commission's consideration of this proposal.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP



Sky C. Stanfield

1600978.5



ADVICE LETTER SUMMARY

ENERGY UTILITY



MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No.: Southern California Edison Company (U 338-E)

Utility type:

- ELC GAS WATER
 PLC HEAT

Contact Person: Darrah Morgan
 Phone #: (626) 302-2086
 E-mail: AdviceTariffManager@sce.com
 E-mail Disposition Notice to: AdviceTariffManager@sce.com

EXPLANATION OF UTILITY TYPE

ELC = Electric GAS = Gas WATER = Water
 PLC = Pipeline HEAT = Heat

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #: 4941-E

Tier Designation: 3

Subject of AL: Advice Letter Complying with Resolution E-5211 and Decision 20-09-035 Ordering Paragraph 16

Keywords (choose from CPUC listing): Compliance

AL Type: Monthly Quarterly Annual One-Time Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #: Decision 20-09-035 and E-5211

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL:

Summarize differences between the AL and the prior withdrawn or rejected AL:

Confidential treatment requested? Yes No

If yes, specification of confidential information:

Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/ access to confidential information:

Resolution required? Yes No

Requested effective date:

No. of tariff sheets: _0_

Estimated system annual revenue effect (%):

Estimated system average rate effect (%):

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: None

Service affected and changes proposed¹:

Pending advice letters that revise the same tariff sheets: None

¹Discuss in AL if more space is needed.

Protests and correspondence regarding this AL are to be sent via email and are due no later than 20 days after the date of this submittal, unless otherwise authorized by the Commission, and shall be sent to:

California Public Utilities Commission
Energy Division Tariff Unit Email:
EDTariffUnit@cpuc.ca.gov

Contact Name: Connor Flanigan
Title: Managing Director, State Regulatory Operations
Utility/Entity Name: Southern California Edison Company

Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email: AdviceTariffManager@sce.com

Contact Name: Tara S. Kaushik c/o Karyn Gansecki
Title: Managing Director, Regulatory Relations
Utility/Entity Name: Southern California Edison Company

Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email: karyn.gansecki@sce.com

CPUC
Energy Division Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102

Clear Form

ENERGY Advice Letter Keywords

Affiliate	Direct Access	Preliminary Statement
Agreements	Disconnect Service	Procurement
Agriculture	ECAC / Energy Cost Adjustment	Qualifying Facility
Avoided Cost	EOR / Enhanced Oil Recovery	Rebates
Balancing Account	Energy Charge	Refunds
Baseline	Energy Efficiency	Reliability
Bilingual	Establish Service	Re-MAT/Bio-MAT
Billings	Expand Service Area	Revenue Allocation
Bioenergy	Forms	Rule 21
Brokerage Fees	Franchise Fee / User Tax	Rules
CARE	G.O. 131-D	Section 851
CPUC Reimbursement Fee	GRC / General Rate Case	Self Generation
Capacity	Hazardous Waste	Service Area Map
Cogeneration	Increase Rates	Service Outage
Compliance	Interruptible Service	Solar
Conditions of Service	Interutility Transportation	Standby Service
Connection	LIEE / Low-Income Energy Efficiency	Storage
Conservation	LIRA / Low-Income Ratepayer Assistance	Street Lights
Consolidate Tariffs	Late Payment Charge	Surcharges
Contracts	Line Extensions	Tariffs
Core	Memorandum Account	Taxes
Credit	Metered Energy Efficiency	Text Changes
Curtable Service	Metering	Transformer
Customer Charge	Mobile Home Parks	Transition Cost
Customer Owned Generation	Name Change	Transmission Lines
Decrease Rates	Non-Core	Transportation Electrification
Demand Charge	Non-firm Service Contracts	Transportation Rates
Demand Side Fund	Nuclear	Undergrounding
Demand Side Management	Oil Pipelines	Voltage Discount
Demand Side Response	PBR / Performance Based Ratemaking	Wind Power
Deposits	Portfolio	Withdrawal of Service
Depreciation	Power Lines	

**PG&E Gas and Electric
Advice Submittal List
General Order 96-B, Section IV**

AT&T Albion Power Company	East Bay Community Energy Ellison Schneider & Harris LLP Engineers and Scientists of California	Pioneer Community Energy
Alta Power Group, LLC Anderson & Poole	GenOn Energy, Inc. Goodin, MacBride, Squeri, Schlotz & Ritchie Green Power Institute Hanna & Morton ICF	Public Advocates Office Redwood Coast Energy Authority Regulatory & Cogeneration Service, Inc.
Atlas ReFuel BART	iCommLaw International Power Technology Intertie	Resource Innovations SCD Energy Solutions San Diego Gas & Electric Company
Barkovich & Yap, Inc. Braun Blaising Smith Wynne, P.C. California Cotton Ginners & Growers Assn California Energy Commission	Intestate Gas Services, Inc.	SPURR San Francisco Water Power and Sewer Sempra Utilities
California Hub for Energy Efficiency Financing	Johnston, Kevin Kelly Group Ken Bohn Consulting Keyes & Fox LLP Leviton Manufacturing Co., Inc.	Sierra Telephone Company, Inc. Southern California Edison Company Southern California Gas Company Spark Energy Sun Light & Power Sunshine Design Stoel Rives LLP
California Alternative Energy and Advanced Transportation Financing Authority California Public Utilities Commission Calpine	Los Angeles County Integrated Waste Management Task Force MRW & Associates Manatt Phelps Phillips Marin Energy Authority McClintock IP McKenzie & Associates	Tecogen, Inc. TerraVerde Renewable Partners Tiger Natural Gas, Inc.
Cameron-Daniel, P.C. Casner, Steve Center for Biological Diversity	Modesto Irrigation District NLine Energy, Inc. NRG Solar	TransCanada Utility Cost Management Utility Power Solutions Water and Energy Consulting Wellhead Electric Company Western Manufactured Housing Communities Association (WMA) Yep Energy
Chevron Pipeline and Power City of Palo Alto	OnGrid Solar Pacific Gas and Electric Company Peninsula Clean Energy	
City of San Jose Clean Power Research Coast Economic Consulting Commercial Energy Crossborder Energy Crown Road Energy, LLC Davis Wright Tremaine LLP Day Carter Murphy		
Dept of General Services Don Pickett & Associates, Inc. Douglass & Liddell Dish Wireless L.L.C.		