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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Consider
Streamlining Interconnection of Distributed
Energy Resources and Improvements to
Rule 21.

Rulemaking 17-07-007

**ADMINISTRATIVE LAW JUDGE'S RULING DIRECTING RESPONSES TO
QUESTIONS ON WORKING GROUP TWO REPORT**

Parties are directed to respond to the attached questions on the October 31, 2018 Working Group Two Report. Responses shall be filed no later than February 1, 2019. Reply comments may be filed no later than February 22, 2019. Additionally, the December 21, 2018 deadline for filing general comments on the report is revised to align with the dates to file responses to the questions.

1. Procedural Background

The October 2, 2017 Scoping Memo of Assigned Commissioner and Administrative Law Judge (Scoping Memo) set forth the scope and schedule for a series of working groups established to consider revisions to rules for the interconnection of distributed energy resources, *i.e.*, Electric Rule 21. Each working group is also responsible for filing a report describing the proposed solutions to the issues assigned to that group.

In response to a July 9, 2018 motion filed by the Interstate Renewable Energy Council, the Administrative Law Judge issued a ruling on August 15, 2018 delaying the deadline for filing the Working Group Two report to October 31, 2018. That ruling also delayed the filing of comments to the report to December 21, 2018.

Pursuant to the schedule in the August 15, 2018 Ruling, Working Group Two filed its report on October 31, 2018 (October Report).

On November 7, 2018, the Administrative Law Judge facilitated a workshop, at which time representatives of Working Group Two presented proposals and recommendations contained in the October Report. The purpose of the workshop was to provide additional clarity to enable the Commission to determine whether to approve the proposals and recommendations contained in the October Report.

2. Further Developing the Record

First, as indicated during the November 7, 2018 workshop, the record needs additional information to determine whether to approve the recommendations from the October Report. Parties shall provide responses to the questions attached to this ruling. Some questions are directed only to certain parties, *e.g.*, the investor-owned utilities. Parties should respond to all other questions.

Second, recognizing that the August 15, 2018 Ruling established a deadline of December 21, 2018 to comment on the October Report, this ruling looks to coordinate the deadlines for filing comments on the October Report and responses to questions on the October Report. Hence, the deadline to comment on the October Report is delayed. Comments to the October Report and responses to the attached questions on the October Report shall be filed together, no later than February 1, 2019. Reply comments shall be filed no later than February 22, 2019.

IT IS RULED that:

1. The date for filing comments to the October 31, 2018 Working Group Two Report is delayed to February 1, 2019.
2. Parties shall file responses to the questions contained in the Attachment to this Ruling. Those responses shall be filed with the comments to the October 31, 2018 Working Group Two Report, no later than February 1, 2019.
3. Reply comments to the October 31, 2018 Working Group Two Report comments and reply comments to the responses to the questions shall be filed no later than February 22, 2019.

Dated December 7, 2018, at San Francisco, California.

/s/ KELLY A. HYMES

Kelly A. Hymes
Administrative Law Judge

ATTACHMENT

Questions Regarding the October 31, 2018 Working Group Two Report (October Report)

All Issues

- 1) For any proposals that developers support, and one or more utilities oppose based on a perceived reliability concern, explain whether and how developers and/or customers could voluntarily take on certain defined financial risks associated with the utility's concerns, with agreement from the utility.
- 2) For any proposals that developers support, and one or more utilities oppose based on a perceived reliability concern, should the Commission require the utilities to pilot the proposal in an isolated geographic area? If yes, include a description of proposed parameters for the pilot.

Issue 6

- 3) In order to consider whether to adopt the proposed draft Distributed Energy Resource Aggregation Agreement (Agreement), explain whether the Commission needs to first determine if the Agreement governs only the capabilities or the actual performance of generating facilities? Please also explain whether you think the Agreement governs only the capabilities or the actual performance of generating facilities.
- 4) Does the Commission need to answer any other questions before parties continue negotiating the Agreement? If yes, explain both why an issue needs to be addressed now and your organization's position on that issue.
- 5) What procedural mechanism should the utilities use to seek Commission approval of the Agreement?
- 6) What is the recommended deadline for the utilities to ask for such approval? Justify that deadline.

Issue 8

- 7) Answer the following questions related to costs and benefits:
 - a. What are the types and approximate magnitudes of costs and benefits of each proposal in the October Report?
 - b. What perspective should the Commission use in the cost and benefit analysis (i.e., which costs and benefits should be considered by the Commission in determining whether proposed activities are just and reasonable and in ratepayers' best interests)?
 - c. Who should perform an analysis of costs and benefits?
 - d. Should there be a threshold magnitude of costs, above which it is appropriate for the Commission to consider costs, and below which it is not

- appropriate for the Commission to consider costs? Why or why not? If there should be a threshold, what should that threshold be?
- e. Which proposals are likely to cross this threshold?

8.b

- 8) For Pacific Gas and Electric Company (PG&E) and San Diego Gas & Electric Company (SDG&E): What is the reason for not considering future implementation of a system for providing a visual indicator (*i.e.*, “flagging” in the October Report) as part of the online Integration Capacity Analysis (ICA) data maps and/or portal, if the ICA values likely need an update?
- 9) For PG&E: Provide a detailed explanation of how the 15 percent screen is proposed to be used in ICA verification.

8.d

- 10) For non-utility stakeholders: If Proposal 8.d is adopted, how should the utilities manage the monthly ICA update process?

8.i

- 11) For the utilities: If Screen I is not moved to Rule 21’s technical framework overview, how soon and with what frequency do you anticipate that the distribution grid will experience overvoltage conditions and possible overloads that would otherwise have been addressed through the interconnection process? What is the range of typical costs for upgrades that would be required to mitigate these issues?

8.l

- 12) For Southern California Edison Company (SCE): When will SCE be able to determine if it can develop the additional capability at a reasonable cost?
- 13) For SDG&E: Explain your opposition to proposal 8.l?

8.m

- 14) For PG&E and SDG&E: Explain your opposition to Implementation Variation 1.
- 15) Under Screen M.d. on page 68 of the October Report, would a buffer set at a certain level on the ICA- Operational Flexibility (OF) curve be preferable to using 100 percent of the lowest ICA-OF value? If yes, what level of buffer should be used in the following revised language: “Is the Photo Voltaic (PV) Interconnection Request real power production based on PV Watts or equivalent greater than [XX] percent of the ICA-OF value *in any hour*?”
- 16) If a project fails Screen M because generation exceeds 100 percent of the lowest ICA-OF value, what determines whether a project is required to go to

Supplemental Review or Detailed Study? List the additional steps of review that would be done in either study track, and the typical values for how much additional time would be required for each step?

8.t

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- 17) What additional issues must be resolved prior to the Commission revisiting the queue management rules? Can these issues be resolved through comments? If so, how?
 - 18) For PG&E: Explain why the timelines proposed would not work for most of applications? (October Report at 83.)

Issue 9

- 19) For the non-utility parties: Describe any missing details of the Issue 9 proposal, including:
 - What is the recommended buffer between the published maximum ICA-Static Grid and the corresponding output in the Limited Generation Profile? Provide justification for your response.
 - What customers would you foresee using this option, and do all project sizes and asset types need this option?
 - How should the utilities make the determination that generation profile reductions to maintain safety and reliability are necessary?
 - Is there any limit to the amount of curtailment the utilities could require of a facility?
 - If an upgrade is avoided due to an operational constraint, but the next customer elects to upgrade, does the operational constraint remain?
- 20) For the utilities: List any missing details of the Issue 9 counter proposal.
- 21) For the utilities: How are voltage, thermal, VAR, and frequency controlled and monitored on the distribution grid? Include communication latency times (i.e., the lag between the time of an excursion event, the receipt of the information by a communications or control system or device about the occurrence of the excursion, and the completion of corrective action by the appropriate control method) for each monitoring or control method. If different methods are used in different parts of the utility's distribution grid, describe each method.
- 22) For the utilities: Approximately what percentage of your distribution grid—by customers served—is covered by each monitoring and control method?
- 23) For the utilities: For the utilities' concerns raised on page 123 of the October Report under the heading "IOU Perspective", describe any missing equipment, communication infrastructure, experience and certification or testing that would be necessary to rely on generator controls/generation reductions, as well as the utilities' current expected timeline for acquiring each missing element.
- 24) Should the Commission track costs that result when systems interconnect up to the defined hosting capacity limit, load subsequently disappears, and mitigations are therefore required later?

- 25) Should the Commission explore the idea of a cost recovery mechanism for the situation described in Question 24 above? For example, the utilities could track costs for upgrades that are required after systems interconnect through a process like the one described in the Issue 9 proposal. Interconnection fees for projects interconnecting through the new process could be adjusted annually to reflect the additional costs.

Issue 10

Proposals 4-8

- 26) What are the benefits and drawbacks of including timelines in the utilities' Rule 21 tariffs rather than within individual interconnection agreements?
- 27) For the utilities: For any timelines opposed in the proposals, are there longer timelines that would be acceptable?

Proposal 4

- 28) For SDG&E and PG&E: Explain, in detail, your perspective on the proposal and your current business practice for providing invoices to interconnection applicants.

Issue 11

- 29) On page 141 of the October Report, the utilities present five issues with expanding Proposal B1 to include all generating facilities with aggregate gross nameplate inverter rating under 30 kVA regardless of whether those systems are exporting or non-exporting. Propose solutions to each of the identified issues.
- 30) For non-utility stakeholders: What is the approximate percentage of overall projects, on an annual nameplate basis by customer segment and technology type, that you expect to use the Lightning Review Process going forward (e.g., X percent of annual MW of residential rooftop solar + storage)? What are the public policy reasons the Commission should focus on streamlining the interconnection process for these specific project types?
- 31) Provide rough estimates of the costs and benefits (in terms of shortened timelines, reduced interconnection study costs, staff time spent reviewing applications, costs to develop software, etc.) for each phase of the Lightning Review Process.