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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
ATTACHED QUESTIONS ON WORKING GROUP ONE REPORT AND
GRANTING, IN PART, THE IREC MOTION TO MODIFY SCHEDULE**

Summary

This ruling directs parties to respond to a set of questions on the March 15, 2018 Working Group One Report. Responses shall be filed no later than September 5, 2018. Reply comments shall be filed no later than September 12, 2018. This ruling also grants, in part, the *Motion of The Interstate Renewable Energy Council, Inc. To Revise Certain Deadlines of the R.17-07-007 Scoping Memo*. The Schedule is revised as indicated in the ruling paragraphs.

1. Background

The October 2, 2017 Scoping Memo of Assigned Commissioner and Administrative Law Judge (ALJ) (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. Pursuant to the Scoping Memo, the statutory deadline for completion of this proceeding is 24 months from the issuance of the Scoping Memo; hence, October 2, 2019. In response to a request by Working Group One, the Administrative Law Judge issued a ruling on February 14, 2018, delaying the schedule by four weeks to allow additional time for Working Group One to complete its report.

Pursuant to the schedule in the February 14, 2018 Ruling, Working Group One filed a report on March 15, 2018. Parties filed comments on the report on April 16, 2018. On June 19, 2018, the ALJ facilitated a workshop, at which time representatives of Working Group One presented proposals and recommendations contained in the Working Group One report. The purpose of the workshop was to provide additional clarity to enable the Commission to determine whether to approve the proposals and recommendations. The Administrative Law Judge informed the parties that, to ensure a complete record, a ruling would be issued asking parties to respond to questions about the Working Group One report.

On July 9, 2018, the Interstate Renewable Energy Council (IREC) filed a motion requesting to revise certain deadlines of the Scoping Memo (Motion). IREC indicates that eleven stakeholders support the motion: California Energy Commission, California Energy Storage Alliance, California Solar & Storage Association, Green Power Initiative, Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), Small Business Utility Advocates, Southern California Edison Company (SCE), Stem, Tesla, Inc. and The Utility Reform Network. ORA does not oppose the motion.

2. Discussion

2.1. Completing the Record for the Working Group One Report

As indicated during the June 19, 2018 workshop, to determine whether to approve recommendations from the Working Group One report, the record needs additional information. 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. Responses shall be filed no later than September 5, 2018 and reply comments shall be filed no later than September 12, 2018.

2.2. Revising the Schedule

The Motion filed by IREC states that Working Group Two has been working diligently to address the issues assigned to it, pursuant to the Scoping Memo. IREC

contends that the issues are complex. Additionally, through working group conversations, Working Group Two has identified numerous sub-issues. IREC maintains that more time than originally anticipated is needed to complete the work of Working Group Two, i.e., thoroughly address each issue, improve the probability of achieving consensus on the issues, and increase the likelihood that the Working Group Two report will be complete. IREC requests that the schedule be extended by six weeks.

IREC also requests an option to extend the schedule further if the working group members can demonstrate it is necessary. As such, the Motion proposes that Working Group Two provide monthly email status updates to the service list. The monthly status updates will provide a summary of the progress of the working group, issues to be resolved, a proposed timeline and plan for addressing those issues, and an indication of whether additional time is necessary. IREC explains that the monthly status reports should preclude the need to file additional motions for extensions of time and will apprise the ALJ of the group’s progress. Because of the requested changes to the Working Group Two schedule, IREC notes the schedule for the other Working Groups also will be affected.

IREC and the Working Group Two stakeholders listed above propose the following changes to the schedule:

Activity	Current Deadline	Proposed Revised Deadline
Working Groups Three through Six Commence Meeting	9/1/18 ¹	10/15/18
Working Group Two Proposals Filed	9/15/18 ²	10/31/18
Comments on Working Group Two Proposals Filed	10/15/18 ²	11/30/18
Status Reports for Working Groups Three through Six Filed and Served (monthly beginning)	12/1/18 ¹	2/15/19
Working Groups Three through Six Proposals Filed	3/1/19 ¹	5/15/19

¹ Pursuant to Scoping Memo.

² Pursuant to February 14, 2018 Ruling.

Workshop to Discuss Working Groups Three through Six Proposals	3/15/19 ¹	5/31/19
Ruling Issued Requesting Comments on Working Groups Three through Six Proposals	4/1/19 ¹	6/15/19
Comments on Working Groups Three through Six Proposal Filed	5/1/19 ¹	7/15/19

Given the complexity of the issues presented to Working Group Two, it is not surprising that additional time is needed. IREC notes in the Motion that each issue has sub-issues. We recognized the complexity of the matters when the Scoping Memo was issued in this proceeding and provided a twenty-four-month schedule for the first phase of the proceeding instead of the normal eighteen-month schedule. However, we did not anticipate the full extent of the complexities. It may be reasonable to grant the motion. However, should the motion be granted, there is a possibility that we will not have time by the current statutory deadline of October 2, 2019 to resolve all the issues in this proceeding. Furthermore, the Motion alludes to the potential for additional requests for extensions of time and proposes to file monthly email status updates. The Motion asserts this should provide an efficient process to regularly update the ALJ on the progress of the working groups and any difficulties they encounter. The monthly reporting approach recommended by the Motion is reasonable but underscores the possibility of exceeding the statutory deadline.

Accordingly, the motion to extend the schedule is granted but limited to the dates for the Working Group Two schedule and the commencement of Working Groups Three through Six. Working Group Two is directed to include as part of the Working Group Two final report, a list of the sub-issues that Working Group Two encountered (as indicated in the Motion) and a **detailed** description of why the group needed an additional six weeks to address the issues, attempt to reach consensus and develop the report. The question of whether to extend the remaining schedule for Working Groups Three through Six will be addressed in a future ruling. In the Scoping Memo, PG&E, SDG&E and SCE (the Utilities) were directed to file a status report on Working Groups

Three through Six.³ The December 1, 2018 status report is hereby replaced with the monthly status reports, as described in the motion. However, the monthly reports shall be filed, beginning on September 15, 2018, so that the information contained in the reports are part of the record of this proceeding.

IT IS RULED that:

1. Parties shall file detailed responses to the questions attached to this ruling. The responses shall be filed no later than September 5, 2018. Reply comments shall be filed no later than September 12, 2018.

2. The *Motion of The Interstate Renewable Energy Council, Inc. To Revise Certain Deadlines of the R.17-07-007 Scoping Memo* is granted but limited to the activities described in the schedule below.

3. Working Group Two shall include, as part its Working Group Two report, a list of the sub-issues encountered during its meetings to resolve the issues of Working Group Two. The report shall also include a detailed description of why the group needed an additional six weeks to address the issues, attempt to reach consensus and develop the report.

4. The December 1, 2018 status report required by the October 2, 2017 Scoping Memo of Assigned Commissioner and Administrative Law Judge is replaced with a monthly status update. The monthly update shall include a summary of the progress made by each active working group and any disputes that have arisen, a description of the issues still to be resolved, and a proposed timeline and plan for addressing them. The monthly updates shall be filed and served on the service list on the 15th of each month, beginning on September 15, 2018.

³ Scoping Memo at 11.

Attachment 1

R.17-07-007 Questions Regarding Working Group 1 Report and Workshop

Issue 1

1. For non-Utility stakeholders: Explain whether you prefer the use of nameplate capacity or net export to measure the threshold for the Screen Q exemption. What are the policy reasons to justify adoption of your preference?
2. Explain how calculating net export of up to 1 MVA for systems with nameplate 1 MVA or above is effectively modifying the exemption in Proposal 1 to 2 MVA or greater nameplate. (See Report at 10.)
3. Should the Commission allow software or firmware controls to limit export to under 1 MVA or MW, pending the creation of a certification scheme?
4. Explain why a project, with net export below 1 MVA and nameplate capacity above 1 MVA, is more likely than another project, with nameplate capacity equal to the first project's net export and with all generation exported, to be interdependent to the transmission system and contribute to the need for network upgrades.
5. During the workshop, SCE stated that non-exporting energy storage systems could have a higher short circuit duty contribution than exporting solar PV systems with the same nameplate capacity. Define short circuit duty contribution and explain why different technologies of the same nameplate capacity may have different short circuit duty contributions.
6. Is short circuit duty contribution considered in the Electrical Independence Test?
7. Should Screen Q differentiate among technology types in order to more accurately account for short circuit duty contribution? If so, how?
8. What, if any, are the material electrically-related differences between net energy metering ("NEM") and non-NEM projects for the purposes of the Screen Q exemption?
9. Describe potential issues with expanding the Screen Q exemption from NEM projects to all projects, including any interactions with the Utilities' wholesale distribution tariff study processes and the CAISO Tariff procedures.

Issue 3

1. In Proposal 1, if only one modification is allowed per interconnection application, is there a certain point in the interconnection process where the modification should be allowed? If not, how can the Utilities ensure that multiple issues with an

- application are not given back to an applicant to be remedied at different times in the interconnection process, thus necessitating more than one modification?
2. In Proposal 2, the Utilities state that Process Options 2 and 3 would take 2 to 3 years to develop and implement. Developers say they need an interim solution. What would an interim solution look like? Provide details and a proposed schedule or timeline.
 3. For the Utilities: Describe the projected costs, steps, and timeline required to develop Process Option 2.
 4. For the Utilities: Describe the projected costs, steps, and timeline required to develop Process Option 3.
 5. If the Commission orders development of Process Options 2 and/or 3, should the Utilities recover their costs through the General Rate Cases, balancing accounts, or increasing the interconnection application fees? Explain the reasoning for your preferred approach.
 6. For SDG&E only: In Proposal 2 Use Case 1, SDG&E contends that replacing same make and model equipment or performing inverter firmware upgrades may require a building permit. Explain why the utility would be responsible for ensuring the developer has obtained the appropriate building permit. Explain why Process Option 1 is not sufficient for Use Case 1.
 7. During the workshop, TURN stated that the verification process in Process Option 3 involves verifying the paperwork and does not entail any other work by the Utilities, i.e., a “truck roll.” For Use Case 2, which involves replacing like for like equipment and where system output does not exceed what is listed in the original interconnection agreement, what is the worst-case scenario if Process option 1 or 2 is implemented? Can this worst-case scenario be mitigated?
 8. What is the worst-case scenario if Process option 2 is implemented for Use Case 3? Can this worst-case scenario be mitigated?
 9. If firmware and/or software controls are allowed for Use Case 3, describe the electrical engineering basis for adding a limitation that firmware and/or software controls only be allowed if the system capacity otherwise would not increase more than 10%.
 10. For non-Utility stakeholders: What evidence is available to indicate that firmware and/or software controls are reliable?
 11. For the Utilities: What evidence should the Commission require to indicate that firmware and/or software controls are reliable?

12. For the Utilities: Your statement in support of Process Option 3 indicates that Use Case 4 may not require engineering re-review. What changes would determine whether the engineering re-review is required? If it is determined that an engineering re-review is not required, what is the worst-case scenario if the Commission adopts Process Options 1 or 2 for Use Case 4? Can this worst-case scenario be mitigated?

Issue 4

1. For the Utilities: The Utilities contend that real-time telemetry is needed, as opposed to the current 15-minute data (Report at 72.) Furthermore, the Utilities assert that without the use of telemetry, the Utilities do not have sufficient visibility or operational awareness of projects connected to the utility's grid. (Report at 72.) The Utilities maintain that this awareness is essential to the safe operation of the distribution system and to provide reliable service to the customers. (Report at 72.) Provide real-life examples of what has happened without this adequate telemetry.
2. For the Utilities: The Utilities assert that real-time telemetry will address the concern of load masking whereby the lack of generation output visibility prevents system operators and engineers from determining the real system load conditions which can inhibit the ability to plan and operate the distribution system. Provide real-life examples of how load masking has inhibited the ability for operators to plan and operate the distribution system because of the lack of real-time telemetry.
3. For non-Utility stakeholders: Under Proposal 5, describe a maintenance plan for how to cover equipment repairs beyond the end of a warranty period.

(END OF ATTACHMENT 1)