

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



March 28, 2023

Tara Kaushik
Managing Director, Regulatory Relations
Southern California Edison
Tara.Kaushik@sce.com

By electronic mail on March 16, 2023, and pursuant to Rule 16.6 of the Commission's Rule of Practice and Procedure (Rules) and General Order (G.O.) 96-B General Rule 8.3, Southern California Edison Company (SCE), on behalf of itself, Pacific Gas and Electric Company (PG&E), and San Diego Gas & Electric Company (SDG&E) (collectively, "the Joint Utilities"), respectfully requested approval of a five-month extension to the requirements in Ordering Paragraph (OP) 7 of Resolution E-5000 that "[e]ighteen months after the publication of a nationally recognized test procedure containing [Phase 3, Function 1, Monitor Key Data], PG&E, SCE, and SDG&E shall require that the function be tested according to the prescribed procedures."

The testing requirements for Phase 3 Function 1 were published in IEEE 1547.1-2020 on May 21, 2020. UL 1741 Supplement B (SB) is the inverter standard that incorporates those IEEE 1547.1-2020 testing requirements.¹ UL 1741 SB was revised on September 28, 2021. Pursuant to Resolution E-5000 OP 7, SCE must therefore require compliance with UL 1741 SB beginning 18 months after September 28, 2021. With approval of the requested extension, the new date for full transition to UL1741SB would be August 29, 2023. As discussed further below, the Joint Utilities request this extension because they have recently been made aware of a lack of availability of UL 1741 SB inverters at the megawatt scale which impacts the ability to interconnect commercially sized photovoltaic projects.

Resolution E-5000 clarified implementation details of smart inverter Phase 2 communications requirements and Phase 3 Functions 1 and 8 requirements, including setting compliance deadlines and acceptable methods for generating facilities to meet the requirements. In particular, OP 7 set forth timelines for when the Joint Utilities could accept manufacturer attestations to show compliance with Phase 3 Function 1 (Monitor Key Data) and when the function would be required to be tested according to nationally recognized test procedures. Resolution E-5036 resolved an ambiguity between OP 7 and the text of Resolution E-5000 and affirmed OP 7's requirement that the Utilities "must accept manufacturer attestations as sufficient evidence of compliance with Phase 3

¹ UL1741 Supplement SB – Grid Support Utility Interactive Inverters and Converters Based Upon IEEE 1547-2018 and IEEE 1547-1-2020.

Function 1 (Monitor Key Data) until 18 months after the publication of a nationally recognized test procedure containing said function.”²

On July 1, 2022, pursuant to Resolutions E-5000 and E-5036, SCE submitted Advice 4824-E³ to modify SCE’s Electric Rule 21, Generating Facility Interconnections, to provide for a transition from UL 1741 SA to UL 1741 SB requirements for inverter based Generating Facilities. On July 27, 2022, SCE submitted Advice 4824-E-A⁴ to correct the date for the full transition from UL 1741 Supplement A to UL 1741 SB from April 1, 2023 to March 29, 2023, 18 months after the last revision of UL 1741 SB. Advice 4824-E-A, as supplemented by Advice 4824-E-B, is pending.⁵

Based on recent discussions with Energy Division and feedback from the industry, including comments made by the California Solar & Storage Association (CALSSA) during a special Interconnection Discussion Forum (IDF) meeting held on March 3, 2023, it has come to the Joint Utilities’ attention that there are no UL 1741 SB solar inverters with a Maximum Continuous Output Power at Unity Power Factor between 275 kW to 2,500 kW currently listed on the CEC Solar Equipment List.⁶ In contrast, there are currently several UL 1741 SA solar inverters listed for the 275 kW to 2,500 kW range.

Based on CALSSA’s representation that the lack of UL 1741 SB inverters could impact the ability of commercially sized Net Energy Metering (NEM) projects to submit a valid interconnection request beginning March 29, 2023, the Joint Utilities are requesting an extension of full implementation of the UL1741SB requirement to August 29, 2023. The Joint Utilities assert that this extension will allow processing of inverter manufacturer requests to have additional commercially sized UL 1741 SB inverters added to the CEC Solar Equipment List and provide a reasonable period of time for developers to, if necessary, make adjustments to their projects to accommodate the UL 1741 SB requirement. The Joint Utilities assert that granting this extension will not their ability to reliably operate their distribution grids.

On March 19, 2023, the Interstate Renewable Energy Council (IREC) filed a Letter of Support for the Joint Utilities’ Request for Extension, citing the lack of UL 1741 SB inverters sized from 275 kW to 2,500 kW, outstanding issues related to the advice letters “Modifications to Electric Tariff Rule 21 to Incorporate IEEE 1547.1-2020 Test Procedures into Testing Regime for Phase 2 and 3 Requirements in Compliance with Resolutions E-5000 and E-5036.”, and the significant confusion which exists today about what Rule 21 will specify for the UL 1741 SB testing requirements caused by the high

² Resolution E-5036, Finding 11 and OP 5.

³ PG&E submitted Advice Letter 6635-E and SDG&E submitted Advice Letter 4032-E to make similar revisions.

⁴ PG&E submitted Advice Letter 6635-E-A on July 20, 2022 to make similar revisions, and SDG&E similarly submitted Advice Letter 4032-E

⁵ On February 24, 2023, SCE filed Advice Letter 4824-E-B, PG&E filed Advice Letter 6635-E-B, and SDG&E filed Advice Letter 4032-E-A to provide clarifying changes that do not impact Joint Utilities’ request to extend the SB inverter implementation date.

⁶ [CEC List Link](#) (last accessed March 22, 2023).

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number of separate advice letters (including supplementals) filed.⁷ IREC asserts that the extension will help to resolve the remaining outstanding issues and clarify guidance to the inverter market.

The Commission finds that the Joint Utilities and non-utility stakeholders are in agreement on the benefits of the Joint Utilities' request for a five month extension to transition to mandatory SB inverters and, therefore, grants the extension. This extension moves the deadline to August 29, 2023.

Sincerely,

A handwritten signature in black ink that reads "Rachel Peterson". The signature is written in a cursive, flowing style.

Rachel Peterson
Executive Director
California Public Utilities Commission

Cc: Service List R.17-07-007
Matthew Coldwell, Energy Division
Justin Regnier, Energy Division
Frank McElvain, Energy Division

⁷ 17 separate advice letters (including supplementals) have been filed between the Joint Utilities.