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

Pacific Gas & Electric Company
ELC (Corp ID 39)
Status of Advice Letter 6571E
As of May 23, 2022

Subject: Modifications to PG&E's Electric Rule 21 to Incorporate Approved Language Regarding an Expedited Dispute Resolution Process Pursuant to Resolution ALJ-347 and Assembly Bill 2861

Division Assigned: Energy

Date Filed: 04-29-2022

Date to Calendar: 05-06-2022

Authorizing Documents: *ALJ-347

Disposition:	**Accepted**
Effective Date:	**05-29-2022**

Resolution Required: No

Resolution Number: None

Commission Meeting Date: None

CPUC Contact Information:
edtariffunit@cpuc.ca.gov

AL Certificate Contact Information:
Kimberly Loo
(415)973-4587
PGETariffs@pge.com

STATE OF CALIFORNIA **GAVIN NEWSOM,** *Governor*

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

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.

The AL status certificate indicates:

Advice Letter Number
Name of Filer
CPUC Corporate ID number of Filer
Subject of Filing
Date Filed
Disposition of Filing (Accepted, Rejected, Withdrawn, etc.)
Effective Date of Filing
Other Miscellaneous Information (e.g., Resolution, if applicable, etc.)

The Energy Division has made no changes to your copy of the Advice Letter Filing; please review your Advice Letter Filing with the information contained in the AL status certificate, and update your Advice Letter and tariff records accordingly.

All inquiries to the California Public Utilities Commission on the status of your Advice Letter Filing will be answered by Energy Division staff based on the information contained in the Energy Division's PAL database from which the AL status certificate is generated. If you have any questions on this matter please contact the:

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

Pacific Gas and Electric Company

Sidney Bob Dietz II
Director
Regulatory Relations

Pacific Gas and Electric Company
77 Beale St., Mail Code B13U
P.O. Box 770000
San Francisco, CA 94177

Fax: 415-973-3582

April 29, 2022

Advice Letter 6571-E
(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

Subject: **Modifications to PG&E's Electric Rule 21 to Incorporate Approved Language Regarding an Expedited Dispute Resolution Process Pursuant to Resolution ALJ-347 and Assembly Bill 2861**

Purpose

Pacific Gas and Electric Company (PG&E) hereby submits this Tier 2 advice letter to incorporate the model language for updating Section K ("Dispute Resolution Process") to PG&E's Electric Rule 21 tariff that was proposed in the joint IOUs[1] Advice Letters ("AL") 6503-E[2] and 6503-E-A,[3] *Joint Investor Owned Utility Proposed Modifications to Electric Rule 21 to Incorporate an Expedited Dispute Resolution Process Pursuant to Resolution ALJ-347 and Assembly Bill 2861,* and approved by the California Public Utilities Commission ("CPUC" or "Commission") on April 18, 2022, with the addition of one omission from AL 6503-E-A.

[1] The IOUs or Investor Owned Utilities, consist of Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company SDG&E).

[2] PG&E AL 6503-E (SDG&E AL 3958-E; SCE AL 4723-E) – Joint Investor Owned Utility Proposed Modifications to Electric Rule 21 to Incorporate an Expedited Dispute Resolution Process Pursuant to Resolution ALJ-347 and Assembly Bill 2861, submitted jointly with Southern California Edison and San Diego Gas & Electric Company on February 18, 2022.

[3] PG&E AL 6503-E-A (SDG&E AL 3958-E-A; SCE AL 4723-E-A) – Supplemental: Joint Investor Owned Utility Proposed Modifications to Electric Rule 21 to Incorporate an Expedited Dispute Resolution Process Pursuant to Resolution ALJ-347 and Assembly Bill 2861, submitted jointly with Southern California Edison and San Diego Gas & Electric Company on March 24, 2022.

Background

Based on Assembly Bill ("AB") 2861,[4] which authorizes the Commission to establish an expedited dispute resolution ("EDR") process, Resolution ALJ-347[5] establishes an EDR process that will issue binding determinations to electric distribution grid interconnection disputes based on the recommendation of a technical panel within 60 days of the Commission receiving the Application regarding a particular dispute.

In accordance with Resolution ALJ-347 and Energy Division guidance, PG&E submitted AL 6503-E on February 18, 2022 to propose model language for updating Section K ("Dispute Resolution Process") for Electric Rule 21 and the associated complaint template. (PG&E subsequently submitted AL 6503-E-A on March 24, 2022, as directed by the CPUC Energy Division to incorporate additional changes). AL 6503-E-A stated that, were the AL to be approved, each California investor-owned utility,[6] including PG&E, would submit a follow-up advice letter incorporating the approved Rule 21 language into their respective Rule 21 tariff and work with the CPUC to make the final dispute template available.

AL 6503-E-A was approved by the Commission on April 18, 2022, to be effective as of April 14, 2022. Accordingly, PG&E submits this Tier 2 AL 6571-E to incorporate the approved Rule 21 language into PG&E's Electric Rule 21 tariff.

In the preparation of this advice letter, it become apparent that a sentence added to Section K.5[7], which was included in AL 6305-E, was inadvertently omitted in the supplemental AL 6305-E-A. As no protests were received on the original filing, we are reincluding it here, and based on Energy Division guidance, are making this a Tier 2 advice letter.

Tariff Revisions

Following the CPUC's approval of AL 6503-E-A, PG&E now wishes to incorporate the approved language into its Electric Rule 21 tariff. PG&E includes these Electric Rule 21 tariff revisions in Attachment 1.

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[4] AB 2861 (Stats. 2016, Ch. 672) "An act to add Section 769.5 to the Public Utilities Code, relating to electricity"

[5] Resolution ALJ-347, Adopts an Expedited Interconnection Dispute Resolution Process as Authorized by Assembly Bill 2861, Issued October 17, 2017.

[6] The California investor-owned utilities consist of Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company.

[7] The added sentence to Section K.5 that was omitted is "Applicant and Distribution Provider may by mutual agreement suspend performance of their respective obligations under this Rule and any Implementing Agreements while the dispute is active."

For convenience of the reader, PG&E has included redline revisions in Attachment 2. Where Electric Rule 21 has been revised, the affected sheets are included in Attachment 1. PG&E implemented the use of the "(P)" symbol for Electric Rule 21 to signify material subject to change under a pending advice letter. The redlines in Attachment 2 are color coded to the specific advice letter. See Attachment 2 cover sheet for more details.

PG&E also includes the Expedited Interconnection Dispute Resolution Intake Form in Attachment 3.

No cost information is required for this advice letter. This advice letter will not increase any rate or charge, cause the withdrawal of service, or conflict with any other schedule or rule.

Protest

Anyone wishing to protest this submittal may do so by letter sent electronically via E-mail, no later than May 19, 2022, which is 20 days after the date of this submittal. Protests must be submitted to:

CPUC Energy Division
ED Tariff Unit
E-mail: EDTariffUnit@cpuc.ca.gov

The protest shall also be electronically sent to PG&E via E-mail at the address shown below on the same date it is electronically delivered to the Commission:

Sidney Bob Dietz II
Director, Regulatory Relations
c/o Megan Lawson
E-mail: PGETariffs@pge.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Section 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting information or legal argument; name and e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Section 3.11).

Effective Date

Pursuant to General Order (GO) 96-B, Rule 5.2, this advice letter is submitted with a Tier 2 designation. PG&E requests that this Tier 2 advice submittal become effective on regular notice, May 29, 2022, which is 30 calendar days after the date of submittal.

Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically to parties shown on the attached list and the parties on the service list for R.20-08-020 (NEM3), and R.17-07-007 (Rule 21). Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter submittals can also be accessed electronically at: http://www.pge.com/tariffs/.

/S/
Sidney Bob Dietz II
Director, Regulatory Relations

Attachments:
Attachment 1: Clean Tariff
Attachment 2: Redline Tariff Revisions
Attachment 3: Expedited Interconnection Dispute Resolution Intake Form

cc: Service Lists R. 20-08-020 and R.17-07-007

California Public Utilities Commission

ADVICE LETTER SUMMARY

ENERGY UTILITY

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

Company name/CPUC Utility No.: Pacific Gas and Electric Company (ID U39 E)

Utility type:
☑ ELC ☐ GAS ☐ WATER
☐ PLC ☐ HEAT

Contact Person: Kimberly Loo
Phone #: (415)973-4587
E-mail: PGETariffs@pge.com
E-mail Disposition Notice to: KELM@pge.com

EXPLANATION OF UTILITY TYPE
ELC = Electric GAS = Gas WATER = Water
PLC = Pipeline HEAT = Heat

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #: 6571-E

Tier Designation: 2

Subject of AL: Modifications to PG&E's Electric Rule 21 to Incorporate Approved Language Regarding an Expedited Dispute Resolution Process Pursuant to Resolution ALJ-347 and Assembly Bill 2861

Keywords (choose from CPUC listing): Compliance, Rule 21

AL Type: ☐ Monthly ☐ Quarterly ☐ Annual ☑ One-Time ☐ Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #: Resolution ALJ-347

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: No

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: 5/29/22

No. of tariff sheets: 67

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

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: See Attachment 1

Service affected and changes proposed[1]: N/A

Pending advice letters that revise the same tariff sheets: 5915-E-B, 6543-E

[1]Discuss in AL if more space is needed.

Clear Form

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: Sidney Bob Dietz II, c/o Megan Lawson
Title: Director, Regulatory Relations
Utility/Entity Name: Pacific Gas and Electric Company

Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email: PGETariffs@pge.com

Contact Name:
Title:
Utility/Entity Name:

Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email:

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

Clear Form

Cal P.U.C. Sheet No.	Title of Sheet	Cancelling Cal P.U.C. Sheet No.
52998-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 12	50818-E
52999-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 13	50819-E
53000-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 14	50820-E
53001-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 22	42319-E
53002-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 77	50347-E
53003-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 230	50893-E
53004-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 231	
53005-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 232	
53006-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 233	50894-E
53007-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 234	
53008-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 235	
53009-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 236	
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53013-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 240	50895-E
53014-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 241	50896-E
53015-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 242	50897-E
53016-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 243	50898-E
53017-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 244	50899-E
53018-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 245	50900-E
53019-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 246	50901-E
53020-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 247	50902-E
53021-E	ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS Sheet 248	50903-E
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Cal P.U.C. Sheet No.	Title of Sheet	Cancelling Cal P.U.C. Sheet No.
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C. DEFINITIONS (Cont'd.)

Electrical Independence Test: The tests set forth in Section G.3 used to determine eligibility for the Independent Study Process.

Emergency: Whenever in Distribution Provider's discretion an Unsafe Operating Condition or other hazardous condition exists or whenever access is necessary for emergency service restoration, and such immediate action is necessary to protect persons, Distribution Provider's facilities or property of others from damage or interference caused by Interconnection Customer's Generating Facility, or the failure of protective device to operate properly, or a malfunction of any electrical system equipment or a component part thereof.

Energy-Only Deliverability Status: A condition elected by an Interconnection Customer for a Generating Facility interconnected to Distribution System, the result of which is that the Interconnection Customer is responsible only for the costs of Reliability Network Upgrades and is not responsible for the costs of Delivery Network Upgrades, but the Generating Facility will be deemed to have a Net Qualifying Capacity as defined in the CAISO Tariff of zero.

Engineering and Procurement Agreement: An agreement that authorizes Distribution Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the Interconnection in order to advance the implementation of the Interconnection Request.

Expedited Interconnection Dispute Resolution Panel Process ("Expedited Process"): A process authorized by AB 2861 in which the CPUC's Executive Director issues binding determinations on interconnection disputes within 60 days of receiving the dispute. Determinations are made based on the recommendations of the Interconnection Dispute Resolution Panel, pursuant to Resolution ALJ-347. See Section K. (N)

Exporting Generating Facility: Any Generating Facility other than a Non-Export Generating Facility, NEM Generating Facility, or uncompensated Generating Facility.

Fast Track Process: The interconnection study process set forth in Section F.2.

Federal Energy Regulatory Commission: Referred to herein as FERC.

(Continued)

F. REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.)

1. OVERVIEW OF THE INTERCONNECTION REVIEW PROCESS (Cont'd.)

d. Compliance with Timelines (Cont'd.)

(i) Contact the ombudsman designated by Distribution Provider;

(ii) If the Distribution Provider ombudsman (Rule21.Ombudsman@pge.com) is unable to resolve the dispute within ten (10) Business Days, Applicant may either: (T)

a) Contact the Consumer Affairs Branch (CAB) at the Commission.

b) Upon mutual agreement with Distribution Provider, make a written request for mediation to the Alternative Dispute Resolution (ADR) Coordinator in the Commission's Administrative Law Judge (ALJ) Division. The request may be made by electronic mail to adr_program@cpuc.ca.gov, and shall state "Rule 21" in the subject line. The request shall contain the relevant facts of the timeline dispute. A copy of the request shall be sent to the Distribution Provider ombudsman. Provided that resources are available, the mediator assigned shall schedule a mediation with Applicant and Distribution Provider within ten (10) Business Days of receiving the request.

c) Initiate dispute resolution processes in accordance with Section K. (N) (N)

At any time, Applicant may file a formal complaint before the Commission pursuant to California PUC Section 1702 and Article 4 of the Commission's Rules of Practice and Procedure.

(Continued)

K. DISPUTE RESOLUTION PROCESS

In addition to the informal procedures for timeline-related disputes set out in Section F.1.d, the following procedures will apply for disputes arising from this Rule:

1. SCOPE

The Commission shall have initial jurisdiction to interpret, add, delete or modify any provision of this Rule or of any agreements entered into between Distribution Provider and Applicant or Producer to implement this tariff (“Implementing Agreements") and to resolve disputes regarding Distribution Provider’s performance of its obligations under Commission-jurisdictional tariffs, the applicable agreements, and requirements related to the interconnection of Applicant’s or Producer’s Generating Facility or Interconnection Facilities pursuant to this Rule.

2. INFORMAL DISPUTE RESOLUTION PROCEDURES (T)

Any dispute arising between Distribution Provider and Producer (individually referred to in Section K as “Party” and collectively “the Parties”) regarding Distribution Provider’s or Producer’s performance of its obligations under its tariffs, the Implementing Agreements, and requirements related to the interconnection of Producer’s Facilities pursuant to this Rule shall be resolved according to the following procedures:

a. Informal Dispute Resolution (N)

To initiate Informal Dispute Resolution, the aggrieved Party may submit a written notice (“notice”) to the other party pursuant to either Section K.2.a.(i) (Bilateral Negotiations) or K.2.a.(ii) (Expedited Bilateral Negotiations).

This notice shall:

- specify whether the aggrieved Party is invoking the Informal Dispute Resolution procedures pursuant to either Section K.2.a.(i) (Bilateral Negotiations) or K.2.a.(ii) (Expedited Bilateral Negotiations);
- state the specific dispute and the relief sought; and
- contain all relevant known facts pertaining to the dispute. (N) (L)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd) (N)

2. INFORMAL DISPUTE RESOLUTION PROCEDURES (Cont'd)

a. Informal Dispute Resolution (Cont'd) (N)

(D)
The notice shall be sent to the Party's email address and physical address set forth in the Generator Interconnection Agreement or Interconnection Request, if there is no Generator Interconnection Agreement. A copy of the notice shall also be sent to the Energy Division, Office of the Director, at the Commission, and Rule21.Disputes@cpuc.ca.gov. (L) (L) (T)/(L) (T)

(i) Bilateral Negotiations (N)

1) The receiving Party shall acknowledge the notice within five (5) Calendar Days of its receipt. (T)/(L) (L)

2) Each Party must designate a representative with the authority to make decisions for its respective Party to review the dispute within seven (7) Calendar Days of receiving Party's receipt of the notice. (T) (L) (T)/(L)

3) The Distribution Provider shall provide the aggrieved Party with all relevant regulatory and/or technical details and analysis regarding any Distribution Provider interconnection requirements under dispute within twenty-one (21) Calendar Days of receiving Party's receipt of the notice. (T)/(L) (L) (L) (T)/(L) (T)

4) Within forty-five (45) Calendar Days of the date of the notice, the Parties' authorized representatives will be required to meet and confer to try to resolve the dispute. Parties are expected to operate in good faith and use best efforts to resolve the dispute. (T)/(L) (L) (L)

5) Parties may by mutual agreement extend any deadline identified in this section. (N) (N)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd) (N)

2. INFORMAL DISPUTE RESOLUTION PROCEDURES (Cont'd)

a. Informal Dispute Resolution (Cont'd)

(ii) Expedited Bilateral Negotiations

1) The receiving Party shall acknowledge the notice within five (5) Calendar Days of its receipt.

2) Each party must designate a representative with the authority to make decisions for its respective Party to review the dispute within seven (7) Calendar Days of receiving Party's receipt of the notice.

3) Distribution Provider shall provide the aggrieved Party with all relevant regulatory and/or technical details and analysis regarding any Distribution Provider interconnection requirements under dispute within ten (10) Business Days of receiving Party's receipt of the notice.

4) Within fifteen (15) Business Days of the date of the notice, the Parties' authorized representatives will be required to meet and confer to try to resolve the dispute. Parties are expected to operate in good faith and use best efforts to resolve the dispute.

5) Parties may by mutual agreement extend any deadline identified in this section.

(N)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd.) (L)

2. INFORMAL DISPUTE RESOLUTION PROCEDURES (Cont'd.) (T)/(L)

b. If a resolution of a dispute raised as part of section K.2.a is not reached in forty-five (45) Calendar Days from the date of the notice, either (T)/(L) (L)

1) a Party may request to continue negotiations for an additional forty-five (45) Calendar Days; or (L) (T)/(L)

2) the Parties may by mutual agreement make a written request for mediation to the ADR Coordinator in the Commission's ALJ Division. (L)

The request may be submitted by electronic mail to adr_program@cpuc.ca.gov. Alternatively, both Parties by mutual agreement may request mediation from an outside third-party mediator with costs to be shared equally between the Parties.

c. At any time, either Party may file a formal complaint before the Commission. (L) (T)

(D)
(D)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd.) (N)

3. EXPEDITED INTERCONNECTION DISPUTE RESOLUTION PROCESS

The Expedited Interconnection Dispute Resolution process ("Expedited Process") may be used to resolve eligible disputes between the Distribution Provider and an Applicant according to the following procedures.

For a complete description of all Expedited Process rules and requirements, please refer to Resolution ALJ-347, Exhibit A "Expedited Interconnection Dispute Resolution Process FINAL". Information can also be found on the Commission's website at https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/infrastructure/rule-21-interconnection/expedited-interconnection-dispute-resolution. In the event of a conflict between the terms of this section and the terms of Resolution ALJ-347, the terms of Resolution ALJ-347 shall govern.

a. Eligibility

i) An Applicant may apply for Expedited Process at any stage of the interconnection process if it can demonstrate that:

- it has, in compliance with Section K.2 requirements, invoked the Section K.2.a Informal Dispute Resolution procedures and has been unable to resolve the dispute in accordance with Section K.2.a[ii];
- it has, in compliance with Section K.2 requirements, invoked the Section K.2.b Informal Dispute Resolution procedures and has been unable to resolve the dispute in accordance with Section K.2.b[ii];
- the subject matter of the dispute at issue concerns whether one or both parties' actions are compliant with established interconnection rules and/or are reasonable, cost efficient and necessarily required under those rules to ensure safe and reliable interconnection.

[ii] The Commission's Energy Division has the discretion to grant waivers to this eligibility requirement when the Applicant and Distribution Provider have already engaged in a dispute resolution process equivalent to Section K.2.a or K.2.b, including equivalent duration and with equivalent opportunity for both parties to understand the facts of the dispute and prepare responses. The Applicant or Distribution Provider must make a request to the Energy Division to waive the requirement.

(N)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd.)

3. EXPEDITED INTERCONNECTION DISPUTE RESLUTION PROCESS (Cont'd) (N)

a. Eligibility (Cont'd)

ii) The Energy Division has the authority to determine that a dispute is not eligible for this process in response to notice submitted in Section K.2.b.

b. Initiation of Expedited Process by Applicant

To request a resolution of a dispute pursuant to the Expedited Process, the Applicant shall download a PDF application form from the CPUC Expedited Interconnection Dispute Resolution Webpage (https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/infrastructure/rule-21-interconnection/expedited-interconnection-dispute-resolution), complete the application, and email an electronic PDF application form to Rule21.disputes@cpuc.ca.gov.

i) The Applicant shall include the following in the PDF application form:

- all relevant known facts pertaining to the dispute;
- the specific dispute and the relief sought;
- express notice by the Applicant that it is requesting resolution using the Commission's Expedited Process;
- a description of all efforts to date to resolve the dispute directly with the Distribution Provider, including at minimum a showing that the Applicant meets the eligibility requirements described above; and
- names of all Interconnection Dispute Resolution Panel members who may have a conflict of interest as defined in Public Utilities Code Section 769.5(b)(1).

ii) The Applicant shall also attach to the PDF application form all materials that may aid in review of the dispute, including a copy of the Interconnection Request, any interconnection study performed for that Interconnection Request, and all correspondence between the Applicant and the Distribution Provider relevant to the dispute. For treatment of confidential materials, please refer to Resolution ALJ-347 and the relevant notes on pages 1 and 3 of the PDF application form. (N)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd.) (236)

3. EXPEDITED INTERCONNECTION DISPUTE RESLUTION PROCESS (Cont'd) (N)

b. Initiation of Expedited Process by Applicant (Cont'd)

iii) The Applicant shall serve this written notice on:

- Energy Division (Rule21.Disputes@cpuc.ca.gov);
- the Distribution Provider's email address set forth in the Generator Interconnection Agreement or Interconnection Request, if there is no Generator Interconnection Agreement;
- the ombudsman designated by Distribution Provider; and
- any other interested persons. "Interested persons" for the purposes of this section are defined as the applicant, utility, a person who has submitted comments on the recommendation of the Review Sub- Panel, or a person who has a demonstrable interest in the outcome of the dispute and has written Energy Division requesting to be added to the distribution list for the dispute.

Please refer to Resolution ALJ-347 for more information and instructions for applying to the Commission for the Expedited Process.

c. Eligibility Verification

i) The Energy Division will evaluate the submission of an Expedited Process written notice and notify the Applicant and the Distribution Provider of the dispute's eligibility within three (3) Business Days of receiving the request.

ii) The Energy's Division's notice shall contain specific instructions regarding how the Expedited Process will be resolved. Please refer to Resolution ALJ-347 for more information. (N)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd.)

3. EXPEDITED INTERCONNECTION DISPUTE RESLUTION PROCESS (Cont'd.) (N)

d. Distribution Provider Response

i) Upon receiving notice from the Energy Division of the dispute's eligibility for the Expedited Process, the Distribution Provider shall have five (5) Business Days to serve its response to the Sub-Panel (as defined in Resolution ALJ-347) assigned to the dispute, the Applicant, Energy Division and other interested persons in accordance with the procedures outlined in Resolution ALJ-347.

ii) The Distribution Provider's response shall include:

- the relevant known facts pertaining to the dispute, including the dispute's impact on safe and reliable grid operations;
- its position on the dispute as presented by the Applicant;
- a response to the relief requested by the Applicant; and
- a description of the efforts to date to resolve the dispute directly with the Applicant.

iii) The Distribution Provider shall also include in its response a copy of documentation in its possession that was not previously submitted in the Applicant's written notice that requested the Expedited Process that Distribution Provider believes may aid in review of the dispute, including the Applicant's Interconnection Request, any interconnection study performed for that Interconnection Request, and all correspondence between the Applicant and the Distribution Provider relevant to the dispute. For treatment of confidential materials, please refer to Resolution ALJ-347 and the relevant notes on pages 1 and 3 of the PDF application form.

The Distribution Provider shall serve this written notice on:

- Energy Division (Rule21.Disputes@cpuc.ca.gov);
- the Applicant's email address set forth in Applicant's written notice requesting the Expedited Process; and
- any other interested persons in accordance with the procedures outlined in Resolution ALJ-347. (N)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd.)

3. EXPEDITED INTERCONNECTION DISPUTE RESLUTION PROCESS (Cont'd) (N)

e. Comments on Review Sub-Panel Recommendations

The Review Sub-panel will issue recommendations to the Executive Director of the Commission on how to resolve an Expedited Process's dispute.

Within five (5) Business Days of the issuance of the Review Sub-Panel's recommendations, Applicant, Distribution Provider, and any other interested persons may serve comments on those recommendations via Rule21.Disputes@cpuc.ca.gov.

The Applicant and Distribution Provider may serve a reply to any comments within three (3) Business Days of the last day for service of opening comments via Rule21.Disputes@cpuc.ca.gov.

Please refer to Resolution ALJ-347 and https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/infrastructure/rule-21-interconnection/expedited-interconnection-dispute-resolution for more information regarding the service requirements.

f. Appealing the Executive Director's Order

Upon receipt of the Review Sub-Panel's recommendations, the Executive Director of the Commission will issue an order resolving the dispute within thirty (30) Calendar Days.

Within ten (10) Calendar Days of the issuance of the Executive Director's Order, the Applicant, Distribution Provider, or any interested person may appeal the Order and request Commission review. Such a request must set forth specifically the grounds on which the requester considers the Order to be unlawful or erroneous. Requests for review should be emailed to Rule21.Disputes@cpuc.ca.gov. (N)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd.)

3. EXPEDITED INTERCONNECTION DISPUTE RESLUTION PROCESS (Cont'd) (N)

g. Withdrawal

At any time following Applicant's submission of a written notice under this Section, the Applicant may withdraw its notice. If the Applicant and Distribution Provider reach a settlement independent of the Commission, it is not necessary for the Commission to approve the settlement.

Notices of withdrawal should be sent to all interested parties and Rule21.Disputes@cpuc.ca.gov. Please refer to Resolution ALJ-347 for more information regarding the service requirements. (N)

4. FORMAL COMPLAINT (L)

At any time, either Party may file a formal complaint before the Commission pursuant to California PUC section 1702 and Article 4 of the Commission's Rules of Practice and Procedure. (L)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd.)

5. PERFORMANCE DURING DISPUTE (T)

Pending resolution of any dispute under this Section, the Parties shall proceed diligently with the performance of their respective obligations under this Rule and the Implementing Agreements, unless the Implementing Agreements have been terminated. Applicant and Distribution Provider may by mutual agreement suspend performance of their respective obligations under this Rule and any Implementing Agreements while the dispute is active. (L) (T)

Disputes as to the Interconnection Request and implementation of this Section shall be subject to resolution pursuant to the procedures set forth in this Section. (L)

L. CERTIFICATION AND TESTING CRITERIA

1. INTRODUCTION

This Section describes the test procedures and requirements for equipment used for the Interconnection of Generating Facilities to Distribution Provider's Distribution or Transmission System. Included are Type Testing, Production Testing, Commissioning Testing, and Periodic Testing. The procedures listed rely heavily on those described in appropriate Underwriters Laboratory (UL), Institute of Electrical and Electronic Engineers (IEEE), and International Electrotechnical Commission (IEC) documents—most notably UL 1741 and IEEE 929 as well as the testing described in *May 1999 New York State Public Service Commission's Interconnection Requirements.* As noted in Section B, this Rule has been revised to be consistent with ANSI/IEEE 1547-2003 Standard for Interconnecting Distribution Resources with Electric Power Systems. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

1. INTRODUCTION (Cont'd.)

The tests described here, together with the technical requirements in Section H of this Rule, are intended to provide assurance that the Generating Facility's equipment will not adversely affect Distribution Provider's Distribution or Transmission System and that a Generating Facility will cease providing power to Distribution Provider's Distribution or Transmission System under abnormal conditions. The tests were developed assuming a low level of Generating Facility penetration or number of connections to Distribution Provider's Distribution or Transmission System. At high levels of Generating Facility penetration, additional requirements and corresponding test procedures may need to be defined.

Section L also provides criteria for "Certifying" Generators, inverters or converters. Once a Generator, inverter or converter has been Certified per this Rule, it may be considered suitable for Interconnection with Distribution Provider's Distribution or Transmission System. Subject to the exceptions described in Section L, Distribution Provider will not repeat the design review or require retesting of such Certified Equipment. It should be noted that the Certification process is intended to facilitate Generating Facilities Interconnections. Certification is not a prerequisite to interconnect a Generating Facility for Section H, except for Non-Export AC/DC Converters seeking an expedited process, but it is a prerequisite for inverters installed after September 8, 2017, pursuant to Section Hh of this Rule. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

2. CERTIFIED AND NON-CERTIFIED INTERCONNECTION EQUIPMENT

a. Certified Equipment

Equipment tested and approved (i.e. "Listed") by an accredited NRTL as having met both the Type Testing and Production Testing requirements described in this document is considered to be Certified Equipment for purposes of Interconnection with Distribution Provider's Distribution or Transmission System. Certification may apply to either a pre-packaged system or an assembly of components that address the necessary functions. Type Testing may be done in the manufacturer's factory or test laboratory, or in the field. At the discretion of the testing laboratory, field-certification may apply only to the particular installation tested. In such cases, some or all of the tests may need to be repeated at other installations.

When equipment is Certified by a NRTL, the NRTL shall provide to the manufacturer, at a minimum, a Certificate with the following information for each device:

Administrative:

(1) The effective date of Certification or applicable serial number (range or first in series), and/or other proof that certification is current;

(2) Equipment model number(s) of the Certified equipment;

(3) The software version utilized in the equipment, if applicable;

(4) Test procedures specified (including date or revision number); and

(5) Laboratory accreditation (by whom and to what standard). (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

2. CERTIFIED AND NON-CERTIFIED INTERCONNECTION EQUIPMENT (Cont'd.)

a. Certified Equipment (Cont'd.)

Technical (as appropriate):

(1) Device ratings (kW, kV, Volts, amps, etc.);

(2) Maximum available fault current in amps;

(3) In-rush Current in amps;

(4) Trip points, if factory set (trip value and timing);

(5) Trip point and timing ranges for adjustable settings;

(6) Nominal power factor or range if adjustable;

(7) If the equipment is Certified as Non-Exporting and the method used (reverse power or underpower);

(8) If the equipment is Certified as Non-Islanding; and

(9) If the equipment is Certified as a Non-Export AC/DC Converter.

It is the responsibility of the equipment manufacturer to ensure that Certification information is made publicly available by the manufacturer, the testing laboratory, or by a third party.

b. Non-Certified Equipment

For non-Certified equipment, some or all of the tests described in this Rule may be required by Distribution Provider for each Generating and/or Interconnection Facility. The manufacturer or a laboratory acceptable to Distribution Provider may perform these tests. Test results for non-Certified equipment must be submitted to Distribution Provider for the Supplemental Review. Approval by Distribution Provider for equipment used in a particular Generating and/or Interconnection Facility does not guarantee Distribution Provider's approval for use in other Generating and/or Interconnection Facilities. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

3. TYPE TESTING

a. Type Tests and Criteria for Interconnection Equipment Certification

Type testing provides a basis for determining that equipment meets the specifications for being designated as Certified equipment under this Rule. The requirements described in this Section cover only issues related to Interconnection and are not intended to address device safety or other issues.

Table L.1 defines the test criteria by Generator or inverter technology. (L)
While UL 1741(1) and UL 1741 – Supplement SA** were written (P)/(L)
specifically for inverters, the requirements are readily adaptable to (L)
synchronous Generators, induction Generators, as well as single/multi-function controllers and protection relays. Until a universal test standard is developed, Distribution Provider or NRTL shall adopt the procedures referenced in Table L.1 as appropriate and necessary for a Generating Facility and/or Interconnection Facilities or associated equipment performance and its control and Protection Functions. These tests shall be performed in the sequence shown in Table L.2.

Non-Export AC/DC Converters must satisfy the requirements in its definition in Section C. (L)

** An exemption exists for DC V2G Electric Vehicle Service Equipment (EVSE) interconnecting for (P)/(L)
the purpose of participating in the Emergency Load Reduction Program, see footnote ***** in the (P)/(L)
opening paragraphs of Section Hh.

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

3. TYPE TESTING (Cont'd.)

a. Type Tests and Criteria for Interconnection Equipment Certification (Cont'd.)

Table L.1, Type Test and Requirements for Interconnection Equipment Certification

Type Test	Reference 1	Inverter (6)	Smart Inverter (7)	Synchronous Generators	Induction Generators
Utility Interaction	UL 1741 – 39, 40	X	X	X	X
Utility Compatibility (Required testing to 1547 & 1547.1)	UL 1741 - 46	X	X	X	X
DC Isolation	IEEE 1547.1(8) -5.6	X	X	-	-
Dielectric Voltage Withstand	IEEE 1547.1(8) -5.5.3	X	X	X	X
Harmonic Distortion	IEEE 1547.1(8) -5.11	X	X	X	X
DC Injection	IEEE 1547.1(8) -5.6	X	X	-	-
Distribution Provider Voltage Variation	IEEE 1547.1(8) -5.2	X	-	X	X
Distribution Provider Frequency Variation	IEEE 1547.1(8) -5.3	X	-	X	X
Abnormal Tests	UL 1741 – 47				
Loss of Control Circuit	UL 1741 – 47.8	X	X	X	X
Short Circuit	UL 1741 - 47.3	X	X	X	X
Load Transfer	UL 1741 - 47.7	X	X	X	X
Surge Withstand Capability	L.3.e	X	X	X	X
Anti-Islanding (non-Smart Inverters)	L.3.b	(2)	-	(2)	(2)
Non-Export	L.3.c	(3)	(3)	(3)	(3)
In-rush Current	L.3.d	-	-	-	(4)
Synchronization	L.3.f	(5)	(5)	X	(5)
Anti-islanding (Smart Inverters)	UL 1741 SA - SA8	-	X	-	-
Low and High Voltage Ride-through (L/H VRT)	UL 1741 SA – SA9	-	X	-	-
Low and High Frequency Ride-through (L/H FRT)	UL 1741 SA - SA10	-	X	-	-
Normal and Soft-Start Ramp Rate (RR)	UL 1741 SA - SA11	-	X	-	-
Specified Power Factor	UL 1741 SA - SA12	-	X	-	-
Volt/Var Mode (Q(V))	UL 1741 SA - SA13	-	X	-	-
Frequency-Watt(FW) - optional	UL 1741 SA - SA14	-	X	-	-
Volt-Watt (VW) - optional	UL 1741 SA - SA15	-	X	-	-
Markings and Instructions	UL 1741 SA6, SA16	-	X	-	-

Table Notes:

(1) References are to section numbers in either UL 1741 and/or UL 1741-Supplement SA (Inverters, Converters and Charge Controllers for Use in Independent Power Systems) or this Rule. References in UL 1741 to "photovoltaics" or "inverter" may have to be adapted to the other technologies by the testing laboratory to appropriately apply in the tests to other technologies.
(2) Required only if Non-Islanding designation.
(3) Required only if Non-Export designation is desired.
(4) Required for Generators that use Distribution Provider power to motor to speed.
(5) Required for all self-excited induction Generators as well as Inverters that operate as voltage sources when connected to Distribution Provider's Distribution or Transmission System.
(6) Inverters compliant with Section H.
(7) Inverters compliant with Section Hh.
(8) IEEE 1547.1 refers to 2005 revision.

"X" = Required "-" = Not Required

(L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

3. TYPE TESTING (Cont'd.)

a. Type Tests and Criteria for Interconnection Equipment Certification (Cont'd.)

Table L.2 Type Tests Sequence for Interconnection Equipment Certification

Test No.	Type Test
1	Distribution Provider Voltage and Frequency Variation
2	Synchronization
3	Surge Withstand Capability
4	Distribution Provider Voltage and Frequency Variation, including ride through
5	Synchronization
6	Other Required and Optional Tests

Tests 1, 2, and 3 must be done first and in the order shown. Tests 4 and on follow in order convenient to the test agency.

b. Anti-Islanding Test

Devices that pass the Anti-Islanding test procedure described in UL 1741 Section 46.3 will be considered Non-Islanding for the purposes of these Interconnection requirements. The test is required only for devices for which a Certified Non-Islanding designation is desired.

c. Non-Export Test

Equipment that passes the Non-Export test procedure described in Section L.7.a will be considered Non-Exporting for the purposes of these Interconnection requirements. This test is required only for devices for which a Certified Non-Export designation is desired. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

3. TYPE TESTING (Cont'd.)

d. In-rush Current Test

Generation equipment that utilizes Distribution Provider power to motor up to speed will be tested using the procedure defined in Section L.7.b to determine the maximum current drawn during this startup process. The resulting In-rush Current is used to estimate the Starting Voltage Drop.

e. Surge Withstand Capability Test

The interconnection equipment shall be tested for the surge withstand requirement in Section H.1.c in all normal operating modes in accordance with IEEE Std C62.45-2002 for equipment rates less than 1000 V to confirm that the surge withstand capability is met by using the selected test level(s) from IEEE Std C62.41.2-2002. Interconnection equipment rated greater than 1000 V shall be tested in accordance with manufacturer or system integrator designated applicable standards. For interconnection equipment signal and control circuits, use IEEE Std C37.90.1-2002. These tests shall confirm the equipment did not fail, did not misoperate, and did not provide misinformation (IEEE 1547-5.1.3.2).

The location/exposure category for which the equipment has been tested shall be clearly marked on the equipment label or in the equipment documentation. External surge protection may be used to protect the equipment in harsher location/exposure categories. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

3. TYPE TESTING (Cont'd.)

f. Synchronization Test

This test is applied to synchronous Generators, self-excited induction generators, and inverters capable of operating as voltage-source while connected to Distribution Provider's Distribution or Transmission System. The test is also applied to the resynchronization Function (transition from stand-alone to parallel operation) on equipment that provides such functionality. This test may not need to be performed on both the synchronization and re-synchronization functions if the manufacturers can verify to the satisfaction of the testing organization that monitoring and controls hardware and software are common to both functions. This test is not necessary for induction generators or current-source inverters. Instead, the ln-rush Current test Section L.3.d shall be applied to those generators.

This test shall demonstrate that at the moment of the paralleling-device closure, all three synchronization parameters in Table L.3 are within the stated limits. This test shall also demonstrate that if any of the parameters are outside of the limits stated in the table, the paralleling-device shall not close (IEEE 1547-5.1.2A). The test will start with only one of the three parameters: (1) voltage difference between Generating Facility and Distribution Provider's Distribution or Transmission System; (2) frequency difference; or (3) phase angle outside of the synchronization specification. Verify that the Generating Facility is brought within specification prior to synchronization. Repeat the test five times for each of the three parameters. For manual synchronization with synch check or manual control with auto synchronization, the test must verify that paralleling does not occur until the parameters are brought within specifications. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

3. TYPE TESTING (Cont'd.)

f. Synchronization Test (Cont'd.)

Table L.3
***Synchronization Parameter Limits* [1]**

Aggregate Rating of Generator Units (kVA)	Frequency Difference (Δf, Hz)	Voltage Difference Phase Angle (ΔV, %)	Difference (ΔΦ,°)
0-500	0.3	10	20
> 500-1,500	0.2	5	15
> 1,500-10,000	0.1	3	10

[1] – IEEE 1547-5.1.1B

g. Paralleling Device Withstand Test

The di-electric voltage withstand test specified in Section L.1 shall be performed on the paralleling device to ensure compliance with those requirements specified in Section H.1.c (IEEE 1547-5.1.3.3).

h. Backfeed Test

Non-Export AC/DC Converters must satisfy the requirements in its definition in Section C.

4. PRODUCTION TESTING

At a minimum, each interconnection system shall be subjected to Distribution Provider Voltage and Frequency Variation Test procedure described in UL1741 under Manufacturing and Production Tests, Section 68 and the Synchronization test specified in Section L.3.f. Interconnection systems with adjustable set points shall be tested at a single set of set points as specified by the manufacturer. This test may be performed in the factory or as part of a Commissioning Test (Section L.5). (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

5. COMMISSIONING TESTING

a. Commissioning Testing

Commissioning Testing, where required, will be performed on-site to verify protective settings and functionality. Upon initial Parallel Operation of a Generating Facility, or any time interface hardware or software is changed that may affect the functions listed below, a Commissioning Test must be performed. An individual qualified in testing protective equipment (professional engineer, factory–certified technician, or licensed electrician with experience in testing protective equipment) must perform Commissioning Testing in accordance with the manufacturer's recommended test procedure to verify the settings and requirements per this Rule.

Distribution Provider may require written Commissioning test procedure be submitted to Distribution Provider at least 10 working days prior to the performance of the Commissioning Test. Distribution Provider has the right to witness Commissioning Test. Distribution Provider may also require written certification by the installer describing which tests were performed and their results. Protective Functions to be tested during commissioning, particularly with respect to non-Certified equipment, may consist of the following:

(1) Over and under voltage

(2) Over and under frequency

(3) Anti-Islanding function (if applicable)

(4) Non-Exporting function (if applicable)

(5) Inability to energize dead line (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

5. COMMISSIONING TESTING (Cont'd.)

a. Commissioning Testing (Cont'd.)

(6) Time delay on restart after Distribution Provider source is stable

(7) Distribution Provider system fault detection (if used)

(8) Synchronizing controls (if applicable)

(9) Other Interconnection Protective Functions that may be required as part of the Generator Interconnection Agreement

Commissioning Test shall include visual inspections of the interconnection equipment and protective settings to confirm compliance with the interconnection requirements.

b. Review, Study, and Additional Commissioning Test Verification Costs

A Producer shall be responsible for the reasonably incurred costs of the reviews, studies and additional Commissioning Test verifications conducted pursuant to Section E of this Rule. If the initial Commissioning Test verification is not successful through no fault of Distribution Provider, Distribution Provider may impose upon Producer a cost based charge for subsequent Commissioning Test verifications. All Costs for additional Commissioning Test verifications shall be paid by Producer within thirty days of receipt of Distribution Provider's invoice. The invoice provided by Distribution Provider shall consist of the hourly rate multiplied by the hours incurred by Distribution Provider and will separately specify the amount of time spent on-site from that spent in roundtrip travel to the Commissioning Test site. Additional cost, if any, will be specified on the invoice. If the initial Commissioning Test verification is not successful through the fault of Distribution Provider, that visit will not be considered the initial Commissioning Test verification. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

5. COMMISSIONING TESTING (Cont'd.)

c. Other Checks and Tests

Other checks and tests that may need to be performed include:

(1) Verifying final Protective Function settings

(2) Trip test (L.5.g)

(3) In-service tests (L.5.h)

d. Certified Equipment

Generating Facilities qualifying for interconnection through the Fast Track process incorporate Certified Equipment that have, at a minimum, passed the Type Tests and Production Tests described in this Rule and are judged to have little or no potential impact on Distribution Provider's Distribution or Transmission System. For such Generating Facilities, it is necessary to perform only the following tests:

(1) Protective Function settings that have been changed after Production Testing will require field verification. Tests shall be performed using injected secondary frequencies, voltages and currents, applied waveforms, at a test connection using a Generator to simulate abnormal Distribution Provider voltage or frequency, or varying the set points to show that the device trips at the measured (actual) Distribution Provider voltage or frequency.

(2) The Non-Islanding function shall be checked by operating a load break disconnect switch to verify the Interconnection equipment ceases to energize Distribution Provider's Distribution or Transmission System and does not re-energize it for the required time delay after the switch is closed. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

5. COMMISSIONING TESTING (Cont'd.)

d. Certified Equipment (Cont'd.)

(3) The Non-Exporting function shall be checked using secondary injection techniques. This function may also be tested by adjusting the Generating Facility output and local loads to verify that the applicable Non-Exporting criteria (i.e., reverse power or underpower) are met.

The Supplemental Review or an Interconnection Study may impose additional components or additional testing.

e. Non-Certified Equipment

Non-certified Equipment shall be subjected to the appropriate tests described in Type Testing (Section L.3) as well as those described in Certified Equipment Commissioning Tests (Section L.5.d). With Distribution Provider's approval, these tests may be performed in the factory, in the field as part of commissioning, or a combination of both. Distribution Provider, at its discretion, may also approve a reduced set of tests for a particular Generating Facility or, for example, if it determines it has sufficient experience with the equipment.

f. Verification of Settings

At the completion of Commission testing, Producer shall confirm all devices are set to Distribution Provider-approved settings. Verification shall be documented in the Commissioning Test Certification. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

5. COMMISSIONING TESTING (Cont'd.)

g. Trip Tests

Interconnection Protective Functions and devices (e.g. reverse power relays) that have not previously been tested as part of the Interconnection Facilities with their associated interrupting devices (e.g. contactor or circuit breaker) shall be trip tested during commissioning. The trip test shall be adequate to prove that the associated interrupting devices open when the protective devices operate. Interlocking circuits between Protective Function devices or between interrupting devices shall be similarly tested unless they are part of a system that has been tested and approved during manufacturing.

h. In-service Tests

Interconnection Protective Functions and devices that have not previously been tested as part of the Interconnection Facilities with their associated instrument transformers or that are wired in the field shall be given an in-service test during commissioning. This test will verify proper wiring, polarity, CT/PT ratios, and proper operation of the measuring circuits. The in-service test shall be made with the power system energized and carrying a known level of current. A measurement shall be made of the magnitude and phase angle of each Alternating Current (AC) voltage and current connected to the protective device and the results compared to expected values. For protective devices with built-in Metering Functions that report current and voltage magnitudes and phase angles, or magnitudes of current, voltage, and real and reactive power, the metered values may be used for in-service testing. Otherwise, portable ammeters, voltmeters, and phase-angle meters shall be used. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

6. PERIODIC TESTING

Periodic Testing of Interconnection-related Protective Functions shall be performed as specified by the manufacturer, or at least every four years. All Periodic Tests prescribed by the manufacturer shall be performed. Producer shall maintain Periodic Test reports or a log for inspection by Distribution Provider. Periodic Testing conforming to Distribution Provider test intervals for the particular Line Section may be specified by Distribution Provider under special circumstances, such as high fire hazard areas. Batteries used to activate any Protective Function shall be checked and logged once per month for proper voltage. Once every four years, the battery must be either replaced or a discharge test performed.

7. TYPE TESTING PROCEDURES NOT DEFINED IN OTHER STANDARDS

This Section describes the additional Type Tests necessary to qualify a device as Certified under this Rule. These Type Tests are not contained in Underwriters Laboratories UL 1741 Standard *Inverters, Converters and Controllers for Use in Independent Power Systems,* or other referenced standards.

a. Non-Exporting Test Procedures

The Non-Exporting test is intended to verify the operation of relays, controllers and inverters designed to limit the export of power and certify the equipment as meeting the requirements of Screen I, Options 1 and 2, of the review process. Tests are provided for discrete relay packages and for controllers and inverters with the intended Functions integrated. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

7. TYPE TESTING PROCEDURES NOT DEFINED IN OTHER STANDARDS (Cont'd.)

a. Non-Exporting Test Procedures (Cont'd.)

i) Discrete Reverse Power Relay Test

This version of the Non-Exporting test procedure is intended for discrete reverse power and underpower relay packages provided to meet the requirements of Options 1 and 2 of Screen I. It should be understood that in the reverse power application, the relay will provide a trip output with power flowing in the export (toward Distribution Provider's Distribution or Transmission System) direction.

Step 1: Power Flow Test at Minimum, Midpoint and Maximum Pickup Level Settings

Determine the corresponding secondary pickup current for the desired export power flow of 0.5 secondary watts (the minimum pickup setting, assumes 5 amp and 120V CT/PT secondary). Apply nominal voltage with minimum current setting at zero (0) degrees phase angle in the trip direction. Increase the current to pickup level. Observe the relay's (LCD or computer display) indication of power values. Note the indicated power level at which the relay trips. The power indication should be within 2% of the expected power. For relays with adjustable settings, repeat this test at the midpoint, and maximum settings. Repeat at phase angles of 90, 180 and 270 degrees and verify that the relay does not operate (measured watts will be zero or negative). (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

7. TYPE TESTING PROCEDURES NOT DEFINED IN OTHER STANDARDS (Cont'd.)

a. Non-Exporting Test Procedures (Cont'd.)

i) Discrete Reverse Power Relay Test (Cont'd.)

Step 2: Leading Power Factor Test

Apply rated voltage with a minimum pickup current setting (calculated value for system application) and apply a leading power factor load current in the non-trip direction (current lagging voltage by 135 degrees). Increase the current to relay rated current and verify that the relay does not operate. For relays with adjustable settings, this test should be repeated at the minimum, midpoint, and maximum settings.

Step 3: Minimum Power Factor Test

At nominal voltage and with the minimum pickup (or ranges) determined in Step 1, adjust the current phase angle to 84 or 276 degrees. Increase the current level to pickup (about 10 times higher than at 0 degrees) and verify that the relay operates. Repeat for phase angles of 90, 180 and 270 degrees and verify that the relay does not operate.

Step 4: Negative Sequence Voltage Test

Using the pickup settings determined in Step 1, apply rated relay voltage and current at 180 degrees from tripping direction, to simulate normal load conditions (for three-phase relays, use Ia at 180, Ib at 60 and Ic at 300 degrees). Remove phase-1 voltage and observe that the relay does not operate. Repeat for phases-2 and 3. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

7. TYPE TESTING PROCEDURES NOT DEFINED IN OTHER STANDARDS (Cont'd.)

a. Non-Exporting Test Procedures (Cont'd.)

i) Discrete Reverse Power Relay Test (Cont'd.)

Step 5: Load Current Test

Using the pickup settings determined in Step 1, apply rated voltage and current at 180 degrees from the tripping direction, to simulate normal load conditions (use Ia at 180, Ib at 300 and Ic at 60 degrees). Observe that the relay does not operate.

Step 6: Unbalanced Fault Test

Using the pickup settings determined in Step 1, apply rated voltage and 2 times rated current, to simulate an unbalanced fault in the non-trip direction (use Va at 0 degrees, Vb and Vc at 180 degrees, Ia at 180 degrees, Ib at 0 degrees, and Ic at 180 degrees). Observe that the relay, especially single phase, does operate properly.

Step 7: Time Delay Settings Test

Apply Step 1 settings and set time delay to minimum setting. Adjust the current source to the appropriate level to determine operating time, and compare against calculated values. Verify that the timer stops when the relay trips. Repeat at midpoint and maximum delay settings. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

7. TYPE TESTING PROCEDURES NOT DEFINED IN OTHER STANDARDS (Cont'd.)

a. Non-Exporting Test Procedures (Cont'd.)

i) Discrete Reverse Power Relay Test (Cont'd.)

Step 8: Dielectric Test

Perform the test described in IEC 414 using 2 kV RMS for 1 minute.

Step 9: Surge Withstand Test

Perform the surge withstand test described in IEEE C37.90.1.1989 or the surge withstand capability test described in L.3.e.

ii) Discrete Underpower Relay Test

This version of the Non-Exporting test procedure is intended for discrete underpower relay packages and meets the requirements of Option 2 of Screen I. A trip output will be provided when import power (toward Producer's load) drops below the specified level.

Note: For an underpower relay, pickup is defined as the highest power level at which the relay indicates that the power is less than the set level. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

7. TYPE TESTING PROCEDURES NOT DEFINED IN OTHER STANDARDS (Cont'd.)

a. Non-Exporting Test Procedures (Cont'd.)

ii) Discrete Underpower Relay Test (Cont'd.)

Step 1: Power Flow Test at Minimum, Midpoint and Maximum Pickup Level Settings

Determine the corresponding secondary pickup current for the desired power flow pickup level of 5% of peak load minimum pickup setting. Apply rated voltage and current at 0 (zero) degrees phase angle in the direction of normal load current.

Decrease the current to pickup level. Observe the relay's (LCD or computer display) indication of power values. Note the indicated power level at which the relay trips. The power indication should be within 2% of the expected power. For relays with adjustable settings, repeat the test at the midpoint, and maximum settings. Repeat at phase angles of 90, 180 and 270 degrees and verify that the relay operates (measured watts will be zero or negative).

Step 2: Leading Power Factor Test

Using the pickup current setting determined in Step 1, apply rated voltage and rated leading power factor load current in the normal load direction (current leading voltage by 45 degrees). Decrease the current to 145% of the pickup level determined in Step 1 and verify that the relay does not operate. For relays with adjustable settings, repeat the test at the minimum, midpoint, and maximum settings. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

7. TYPE TESTING PROCEDURES NOT DEFINED IN OTHER STANDARDS (Cont'd.)

a. Non-Exporting Test Procedures (Cont'd.)

ii) Discrete Underpower Relay Test (Cont'd.)

Step 3: Minimum Power Factor Test

At nominal voltage and with the minimum pickup (or ranges) determined in Step 1, adjust the current phase angle to 84 or 276 degrees. Decrease the current level to pickup (about 10% of the value at 0 degrees) and verify that the relay operates. Repeat for phase angles 90, 180 and 270 degrees and verify that the relay operates for any current less than rated current.

Step 4: Negative Sequence Voltage Test

Using the pickup settings determined in Step 1, apply rated relay voltage and 25% of rated current in the normal load direction, to simulate light load conditions. Remove phase 1 voltage and observe that the relay does not operate. Repeat for Phases-2 and 3.

Step 5: Unbalanced Fault Test

Using the pickup settings determined in Step 1, apply rated voltage and two times rated current, to simulate an unbalanced fault in the normal load direction (use Va at 0 degrees, Vb and Vc at 180 degrees, Ia at 0 degrees, Ib at 180 degrees, and Ic at 0 degrees). Observe that the relay (especially single-phase types) operates properly. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

7. TYPE TESTING PROCEDURES NOT DEFINED IN OTHER STANDARDS (Cont'd.)

a. Non-Exporting Test Procedures (Cont'd.)

ii) Discrete Underpower Relay Test (Cont'd.)

Step 6: Time Delay Settings Test

Apply Step 1 settings and set time delay to minimum setting. Adjust the current source to the appropriate level to determine operating time, and compare against calculated values. Verify that the timer stops when the relay trips. Repeat at midpoint and maximum delay settings.

Step 7: Dielectric Test

Perform the test described in IEC 414 using 2 kV RMS for 1 minute.

Step 8: Surge Withstand Test

Perform the surge withstand test described in IEEE C37.90.1.1989 or the surge withstand test described in Section L.3.e. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

7. TYPE TESTING PROCEDURES NOT DEFINED IN OTHER STANDARDS (Cont'd.)

a. Non-Exporting Test Procedures (Cont'd.)

iii) Tests for Inverters and Controllers with Integrated Functions

Inverters and controllers designed to provide reverse or underpower functions shall be tested to certify the intended operation of this function. Two methods are acceptable:

Method 1: If the inverter or controller utilizes external current/voltage measurement to determine the reverse or underpower condition, then the inverter or controller shall be functionally tested by application of appropriate secondary currents and potentials as described in the Discrete Reverse Power Relay Test, Section L.7.a.i of this Rule.

Method 2: If external secondary current or voltage signals are not used, then unit-specific tests must be conducted to verify that power cannot be exported across the PCC for a period exceeding two seconds. These may be factory tests, if the measurement and control points are integral to the unit, or they may be performed in the field.

iv) Tests for Inadvertent Export Inverters

Test requirements for certified inverters with integrated functions for Inadvertent Export shall verify the performance requirements specified in Section Mm of this Rule.

(L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

7. TYPE TESTING PROCEDURES NOT DEFINED IN OTHER STANDARDS (Cont'd.)

a. Non-Exporting Test Procedures (Cont'd.)

v) Interim Tests for Non-Export AC/DC Converters ("Converter")

Step 1: Limitation of Back-feed Under Steady State Conditions

Apply the nominal DC operating voltage of the Converter across its DC terminals with a battery source or simulated equivalent of a battery source. Vary the battery source by 100%, 75%, 50%, 25%, and 10% of Converter rated output power. The measured steady-state DC current component at each of the AC terminals of the Converter is required to be less than 0.5% of the Converter's rated RMS AC current. This test is to be repeated for 80% nominal DC operating voltage and for 125% nominal DC operating voltage. Testing requirements can be modified upon mutual agreement of the Distribution Provider and the Applicant.

Step 2: Back-feed Under Fault Conditions – DC Output Shorted

With a battery source or simulated equivalent of a battery source connected to the DC terminals, apply rated conditions of the Converter then short its DC terminals for 200 milliseconds. After 5 cycles of inducing the short circuit, record the measured peak current at each of the AC terminals of the Converter. These peak currents within this time interval are each required to be less than 0.5% of the Converter's rated RMS AC current. Testing requirements can be modified upon mutual agreement of the Distribution Provider and the Applicant. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

7. TYPE TESTING PROCEDURES NOT DEFINED IN OTHER STANDARDS (Cont'd.)

a. Non-Exporting Test Procedures (Cont'd.)

v) Interim Tests for Non-Export AC/DC Converters ("Converter") (Cont'd.)

Step 3: Back-feed Under Fault Conditions – AC Input Shorted: Phase-Ground, Phase-Phase, and 3-Phase

With a battery source or simulated equivalent of a battery source connected to the DC terminals, apply rated conditions of the Converter, then apply a short between any two phases on the grid side of the Converter for 200 milliseconds. After 5 cycles of inducing the short circuit, record the measured peak current at each of the AC terminals of the Converter. These peak currents within this time interval are each required to be less than 0.5% of the Converter's rated RMS AC current. This test is to be repeated for phase-ground and 3-phase shorts. Testing requirements can be modified upon mutual agreement of the Distribution Provider and the Applicant.

Step 4: Back-feed Under Fault Conditions – Component Faults

Distribution Provider can elect to test for back-feed under the condition of a short circuit across certain components which are internal to the Converter. Potential tests can include inducing a short circuit across different terminals for electronic switches and/or across different terminals for internal transformers. Ultimately, the components used for testing will be chosen on a case-by-case basis and will depend on the Converter's circuit topology. Testing requirements can be modified upon mutual agreement of the Distribution Provider and the Applicant.

Step 5: Harmonics Testing

Under normal loading conditions at 10%, 25%, 50%, 75%, and 100% of the Converter's rated power output, conduct harmonic current distortion measurements on each of the AC terminals. Measurements should be below the maximum harmonic current distortion requirements given in IEEE 1547-4.3.3. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.) (L)

7. TYPE TESTING PROCEDURES NOT DEFINED IN OTHER STANDARDS (Cont'd.)

b. In-rush Current Test Procedures

This test will determine the maximum In-rush Current drawn by the Generator.

i) Locked-Rotor Method

Use the test procedure defined in NEMA MG-1 (manufacturer's data is acceptable if available).

ii) Start-up Method

Install and setup the Generating Facility equipment as specified by the manufacturer. Using a calibrated oscilloscope or data acquisition equipment with appropriate speed and accuracy, measure the current draw at the Point of Interconnection as the Generating Facility starts up and parallels with Distribution Provider's Distribution or Transmission System. Startup shall follow the normal, manufacturer-specified procedure. Sufficient time and current resolution and accuracy shall be used to capture the maximum current draw within 5%. In-rush Current is defined as the maximum current draw from Distribution Provider during the startup process, using a 10-cycle moving average. During the test, Distribution Provider source, real or simulated, must be capable of maintaining voltage within +/- 5% of rated at the connection to the unit under test. Repeat this test five times. Report the highest 10-cycle current as the In-rush Current. A graphical representation of the time-current characteristic along with the certified In-rush Current must be included in the test report and made available to Distribution Provider. (L)

(Continued)

M. INADVERTENT EXPORT (L)

Under certain operating conditions, an Applicant may choose to completely offset their facility load by installing generation systems which are optimally sized to meet their peak demand with load following functionality on the Generator controls to ensure conditional export of electrical power from the Generating Facility to Distribution Provider's Distribution or Transmission System. In situations where the loading changes rapidly and/or the Generator cannot ramp down quickly enough, the Generating Facility may need to export small amounts of power for limited duration. The event of exporting uncompensated power for a short time is referred to as Inadvertent Export.

The following are the minimum requirements for Inadvertent Export systems. Other factors relevant to the interconnection study process (e.g. 15% screen results, short circuit current ratio, etc.) may necessitate additional technical requirements (e.g. reclose block, transfer trip, ground bank, etc.) that are not explicitly noted here. Inadvertent Export may not be available for interconnections to Networked Secondary Systems.

1. For Inadvertent Export interconnection requests, additional Protective Functions and equipment to detect Distribution or Transmission System faults (per Distribution Provider's standard practices) may be required over and above the basic Protective Functions and equipment associated with the four options in the Export Screen. Protective Functions may include, but are not limited to, directional overcurrent/voltage-restraint overcurrent Protective Functions for line-to-line fault detection and overcurrent/overvoltage Protective Functions for line-to-ground detection. The addition of a ground bank or ground detector may also be necessary. (L)

(Continued)

M. INADVERTENT EXPORT (Cont'd.) (L)

2. The effect on equipment ratings can be mitigated by limiting the amount of inadvertent export allowed. To a large degree, Voltage Regulation may be similarly handled. The amount of Inadvertent Export is dependent on specific Distribution Provider requirements and should be limited to the lesser of the following values:

   a. 50% of the Generating Facility Capacity, or

   b. 10% of the continuous conductor rating in watts at 0.9 power factor for the lowest rated feeder conductor upstream of the GF (i.e. 200kW @ 12kV), or

   c. 110% of the largest load block in the facility, or

   d. 500kW or some other maximum level indicated by Distribution Provider

3. In addition to the limits above, the following are required:

   a. A reverse power Protective Function will be provided to trip the connected Generator(s) within two seconds if the proposed amount of Inadvertent Export is exceeded.

   b. The frequency of Inadvertent Export occurrences should be less than two occurrences per 24-hour period.

   c. A separate reverse power or underpower Protective Function will be required (in addition to the reverse power Protective Function described in 3a. above) to trip the connected Generator(s) if the duration of reverse power or underpower (i.e. ANY export) exceeds 60 seconds. (L)

(Continued)

Mm. INADVERTENT EXPORT FOR INTERCONNECTION REQUESTS UTILIZING UL-1741 CERTIFIED OR SA LISTED GRID SUPPORT (NON-ISLANDING) INVERTERS (L)

The following are the minimum requirements for Inadvertent Export systems that meet the criteria specified below. Other factors relevant to the interconnection study process (e.g., 15% screen results, short circuit current ratio, etc.) may necessitate additional technical requirements (e.g., reclose block, transfer trip, ground bank, etc.) that are not explicitly noted here. Inadvertent Export may not be available for interconnections to Networked Secondary Systems.

The certified control functions internal to the inverter control or external control system may be used to replace the discrete reverse/under power relay functions described in Section M provided the requirements outlined below are met.

1) All of the following requirements must be met by the Generating Facility to qualify for Inadvertent Export under this Section.

   a. The Generating Facility must utilize only UL-1741 certified or UL-1741 SA listed grid support non-islanding inverters; and,

   b. The Generating Facility must have an aggregate maximum nameplate capacity of 500 kVA or less; and,

   c. The Generating Facility's total energy export must not exceed its nameplate rating (kVA-gross) multiplied by 0.1 hours per day over a rolling 30-day period (e.g., for a 100 kVA-gross nameplate Generating Facility, the maximum energy allowed to be exported for a 30-day period is 300 kWh) ; and,

   d. Export from the Generating Facility across the PCC to the Distribution System is less than 100 kVA. (L)

(Continued)

Mm. INADVERTENT EXPORT FOR INTERCONNECTION REQUESTS UTILIZING UL-1741 CERTIFIED OR SA LISTED GRID SUPPORT (NON-ISLANDING) INVERTERS (Cont'd.) (L)

2) To govern the level of Inadvertent Export allowable under this Section, the Generating Facility must utilize a NRTL-certified control system or NRTL-certified inverter system that meets all of the following requirements.

a. Must result in the Generating Facility disconnecting from the Distribution System, ceasing to energize the Distribution System or halting energy production within two (2) seconds after either:

i. The period of continuous export exceeds 30 seconds;

or,

ii. The level of export exceeds 100 kVA.

b. Must monitor that the total energy export is maintained within the allowable energy export outlined above 1.c and provide an indication or notification (e.g., electronic, alarm) if that energy export limit is exceeded.

c. Failure of the of the control or inverter system for more than thirty (30) seconds, resulting from loss of control signal, loss of control power or a single component failure or related control sensing of the control circuitry, must result in the Generating Facility entering Non-Export operation where no energy is exported across to the PCC to the Distribution System.

Interim approval of the control or inverter system may be permitted upon mutual agreement of PG&E and the Producer. (L)

(Continued)

Mm. INADVERTENT EXPORT FOR INTERCONNECTION REQUESTS UTILIZING UL-1741 CERTIFIED OR SA LISTED GRID SUPPORT (NON-ISLANDING) INVERTERS (Cont'd.) (L)

3) Applicability of Engineering Review Screens.

Inadvertent Export systems that meet the requirements described herein are processed under Initial Review Screens A through J as described in Section H. If these systems fail Screen J, they then bypass Screens K and L and are processed under Screens M and M1 as described below.

Screen M: Is the aggregate Generating Facility capacity on the Line Section less than 15% of Line Section peak load for all line sections bound by automatic sectionalizing devices?

- If Yes (pass), Initial Review is complete.
- If No (fail), continue to Screen M1.

Screen M1: Is the aggregate of all distributed energy resources (DER) causing reverse power flow (1) at a line section with a voltage regulator device(s) or (2) at a protection device, including the circuit breaker / field recloser?*,**

- If No (pass), existing DER does not cause reverse power flow at (1) or (2) and Initial Review is complete.
- If Yes (fail), existing DER causes reverse power flow at (1) or (2); fail Initial Review and Supplemental Review is required.

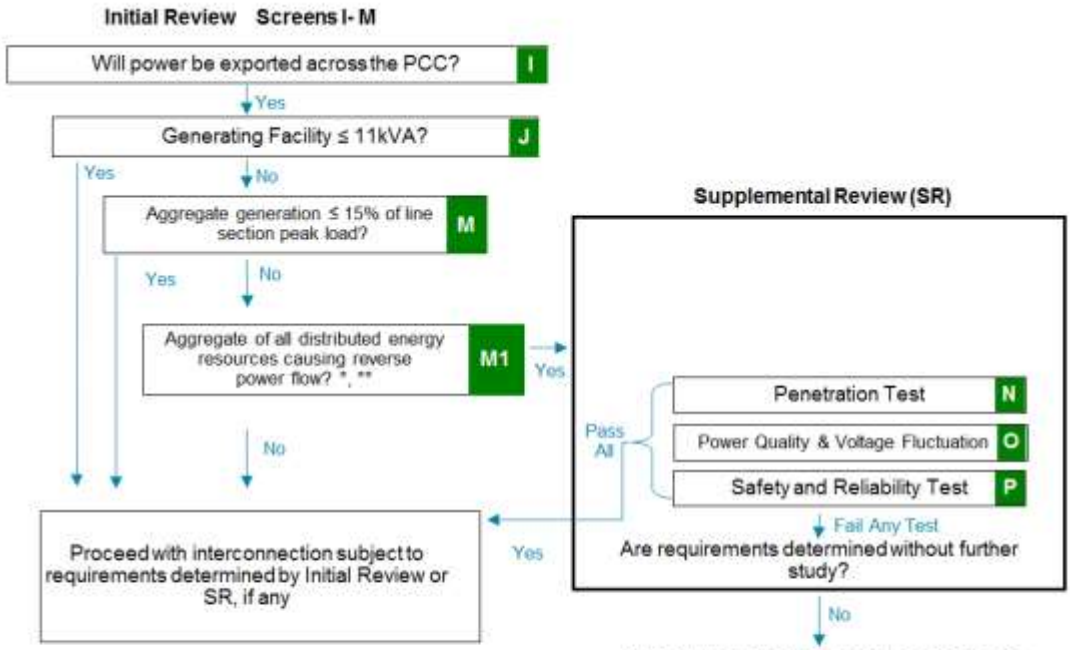
* For the purposes of applying Screen M1 herein, Distribution Provider shall utilize a zero coincidence factor when considering the impact of other Inadvertent Export systems that meet the requirements of Section Mm (i.e., projects that qualify for Option 6 under Section G.1.i) such that those Inadvertent Export systems do not impact Screen M1's aggregate analysis determination for the individual Inadvertent Export project being evaluated.

** The presence of existing non-certified DER on the line section may require additional review to ensure safe and reliable grid operation. (L)

(Continued)

Mm. INADVERTENT EXPORT FOR INTERCONNECTION REQUESTS UTILIZING UL-1741 CERTIFIED OR SA LISTED GRID SUPPORT (NON-ISLANDING) INVERTERS (Cont'd.) (L)

3) Applicability of Engineering Review Screens. (Cont'd.)



* For the purposes of applying Screen M1 herein, Distribution Provider shall utilize a zero coincidence factor when considering the impact of other Inadvertent Export systems that meet with the requirements of Section Mm (i.e., projects that qualify for Option 6 under Section G.1.i) such that those Inadvertent Export systems do not impact Screen M1's aggregate analysis determination for the individual analysis determination for the individual Inadvertent Export project being evaluated.

** The presence of existing non-certified DER on the line section may require additional review to ensure safe and reliable grid operation. (L)

(Continued)

Mm1. OPTION 8: Non-Export Utilizing Certified Power Control Systems (L)

The following are the minimum requirements for Non-Export systems that use certified power control systems (PCS) with an open loop response time (OLRT) no more than two seconds. It should be noted that other factors relevant to the Interconnection Study process may necessitate additional technical requirements that are not explicitly noted here.

1. Use a PCS that passes the requirements of the 2019 Underwriters Laboratories (UL) Power Control Systems Certification Requirements Decision (CRD) test protocol. Non-Export systems may use a PCS that passes later published revisions to the CRD test protocol or may use a PCS that is certified to the UL 1741 certification standard, if UL incorporates the test protocol for PCS into UL 1741 in the future. The NRTL evaluation must have determined that the PCS conforms to the non-exporting functionality in accordance with the relevant CRD or UL published standard.

2. Use a PCS that is certified with an OLRT of two seconds or less, as provided in the PCS's specification data sheets.

3. The PCS must reduce export to zero or less within two seconds of commencing export. A PCS that is certified with an open-loop response time of two seconds or less, and a time to reach steady state of 10 seconds or less, meets this requirement.

4. Set the PCS to not export (zero-export).

5. Use only UL 1741 listed grid-support non-islanding inverters as approved by this tariff.

6. Maintain voltage fluctuations at the limits specified in Electric Rule 2. (L)

(Continued)

Mm1. OPTION 8: Non-Export Utilizing Certified Power Control Systems (Cont'd) (L)

The evaluation of a Non-Export system requesting interconnection under this section:

1. Shall omit evaluation for screen D;

2. Shall utilize the Generating Facility's Gross Nameplate Rating for screens F, F1, and G;

3. If the Non-export system has an aggregate PCS controlled nameplate greater than 600 kVA and the maximum reported steady state value of the PCS is greater than 1% of the PCS controlled nameplate (as provided in the NRTL testing reports), the evaluation may utilize the following calculation when determining the impacts to the grid under screens I, J, K, M, N, and O: The sum of the nameplate values of the exporting DER resource (if any) plus the maximum percentage steady state value of the PCS (as provided in the NRTL testing reports) times PCS controlled nameplate capacity.

4. Screen P may be applied using the Generating Facility's Gross Nameplate Rating for evaluations that use fault current calculations. For other evaluations under screen P, the value identified in 3 above may be used.

(L)

(Continued)

Mm2. OPTION 9: Limited Export Utilizing Certified Power Control Systems (L)

The following are minimum requirements for limited export systems that use certified power control systems (PCS) with an open loop response time (OLRT) no more than two seconds to maintain a level of export that is lower than the nameplate rating. It should be noted that other factors relevant to the Interconnection Study process may necessitate additional technical requirements that are not explicitly noted here.

1. Use a PCS that passes the requirements of the 2019 Underwriters Laboratories (UL) Power Control Systems Certification Requirements Decision (CRD) test protocol. Limited export systems may use a PCS that passes later published revisions to the CRD test protocol, or may use a PCS that is certified to the UL 1741 certification standard, if UL incorporates the test protocol for PCS into UL 1741 in the future. The NRTL evaluation must have determined that the PCS conforms to the export limiting functionality in accordance with the relevant CRD or UL published Standard.

2. Use a PCS that is certified with an OLRT of two seconds or less as provided in the PCS's specification data sheets.

3. The PCS must reduce export to the approved export limit, or less, within two seconds of exceeding the approved export limit. A PCS that is certified with an open-loop response time of two seconds or less, and a time to reach steady state of ten seconds or less, meets this requirement.

4. Set the PCS to not exceed the proposed level of export.

5. Use only UL 1741 listed grid-support non-islanding inverters as approved by this tariff.

6. Maintain voltage fluctuations at the limits specified in Electric Rule 2.

(L)

(Continued)

Mm2. OPTION 9: Limited Export Utilizing Certified Power Control Systems (Cont'd) (L)

The evaluation of a limited export system requesting interconnection under this section:

1. Shall utilize the Generating Facility's Gross Nameplate Rating for screens F, F1, and G.

2. If the maximum steady state value is greater than 1% of the PCS controlled nameplate (as provided in the NRTL testing reports) utilize the requested limited export value plus the maximum steady state value of the PCS times the PCS controlled nameplate, to evaluate the impacts to the grid under screens D, I, J, K, M, N, and O. If the maximum steady state value is less than 1% of the PCS controlled nameplate (as provided in the NRTL testing reports), utilize only the requested limited export value under screens D, I, J, K, M, N and O.

3. Screen P shall be applied using the Generating Facility's Gross Nameplate Rating for evaluations that use fault current calculations. For other evaluations under screen P, the value identified in 2 above may be used.

(L)

(Continued)

Mm3. OPTION 10: Non-Export with Inadvertent Export Utilizing Certified Power Control Systems (L)

The following are the minimum requirements for Non-Export systems that use certified power control systems (PCS) with an open loop response time (OLRT) between two and ten seconds. It should be noted that other factors relevant to the Interconnection Study process may necessitate additional technical requirements that are not explicitly noted here.

1. Have a nameplate capacity equal to or less than 1,000 kVA.

2. Use a PCS that passes the requirements of the 2019 Underwriters Laboratories (UL) Power Control Systems Certification Requirements Decision (CRD) test protocol. Non-Export may use a PCS that pass later published revisions to the CRD test protocol, or may use a PCS that is certified to the UL 1741 certification standard, if UL incorporates the test protocol for PCS into UL 1741 in the future. The NRTL evaluation must have determined that the PCS conforms to the non-exporting functionality in accordance with the relevant CRD or UL published standard.

3. Use a PCS that is certified with an OLRT of no more than ten seconds, as provided in the PCS's specification data sheets.

4. Set the PCS to not export (zero-export).

5. Use only UL 1741 listed grid-support non-islanding inverters as approved by this tariff.

6. Maintain voltage fluctuations at the limits specified in Electric Rule 2. (L)

(Continued)

Mm3. OPTION 10: Non-Export with Inadvertent Export Utilizing Certified Power Control Systems (Cont'd) (L)

The Distribution Provider evaluating Generating Facilities requesting interconnection under this section shall:

1. Apply screens A through M using the aggregate nameplate inverter rating.

2. Notify the applicant if supplemental review is required, and if so, require the applicant to identify, within 15 business days of being notified, the frequency of inadvertent export, the real power level in watts of inadvertent export, and the time duration of inadvertent export.

3. If distribution upgrades are identified, use screen P to recognize power control parameters, taking into account local feeder conditions; the customer's operating profile; and the magnitude, duration, and frequency of anticipated export;

4. Complete supplemental review within 15 days of receiving the required information specified under 2 above.

5. If the applicant does not provide the operating profile information within the specified 15 business days, perform supplemental review based on information included in the interconnection request within 30 business days of the request for customer operating profile information.

6. Use only the largest facility in the line section for aggregate evaluation for subsequent interconnection requests. (L)

(Continued)

Mm4. OPTION 11: Limited Export with Inadvertent Export Utilizing Certified Power Control Systems (L)

The following are the minimum requirements for limited export controlled systems that use certified power control systems (PCS) with an open loop response time (OLRT) between two and ten seconds to maintain a level of export that is lower than the nameplate rating. It should be noted that other factors relevant to the Interconnection Study process may necessitate additional technical requirements that are not explicitly noted here.

1. Have a nameplate capacity equal to or less than 1,000 kVA.

2. Use a PCS that passes the requirements of the 2019 Underwriters Laboratories (UL) Power Control Systems Certification Requirements Decision (CRD) test protocol. Limited export systems may use a PCS that pass later published revisions to the CRD test protocol, or may use a PCS that is certified to the UL 1741 certification standard, if UL incorporates the test protocol for PCS into UL 1741 in the future. The NRTL evaluation must have determined that the PCS conforms to the export limiting functionality in accordance with the relevant CRD or UL published standard.

3. Use a PCS that is certified with an OLRT of no more than ten seconds, as provided in the PCS's specification data sheets.

4. Set the PCS to not to exceed the proposed level of export.

5. Use only UL 1741 listed grid-support non-islanding inverters as approved by this tariff.

6. Maintain voltage fluctuations at the limits specified in Electric Rule 2. (L)

(Continued)

Mm4. OPTION 11: Limited Export with Inadvertent Export Utilizing Certified Power Control Systems (Cont'd) (L)

The Distribution Provider evaluating Generating Facilities requesting interconnection under this section shall:

1. Apply screens A through M using the aggregate nameplate inverter rating.

2. Notify the applicant if supplemental review is required, and if so, require the applicant to identify, within 15 business days of being notified, the frequency of inadvertent export, the real power level in watts of inadvertent export, and the time duration of inadvertent export.

3. If distribution upgrades are identified, use screen P to recognize power control parameters, taking into account local feeder conditions; the customer's operating profile; and the magnitude, duration, and frequency of anticipated export.

4. Complete supplemental review within 15 days of receiving the required information specified under 2 above.

5. If the applicant does not provide the operating profile information within the specified 15 business days, perform supplemental review based on information included in the interconnection request within 30 business days of the request for customer operating profile information. (L)

(Continued)

N. EXPEDITED INTERCONNECTION PROCESS FOR NON-EXPORT ENERGY STORAGE GENERATING FACILITIES (L)

Applicants with Interconnection Requests for Non-Export Energy Storage Generating Facilities who meet the requirements outlined below are eligible for expedited interconnection in accordance with the Fast Track Process technical review requirements of Section F.2. Applicants with Non-Export AC/DC Converters that meet the requirements outlined in O. below are also eligible.

1. ELIGIBILITY REQUIREMENTS

Applicants seeking to interconnect a Generating Facility under the provisions of this Section N must meet the following eligibility requirements.

a. Applicant must electronically submit a completed Interconnection Request, including completing all application fields and submitting all supporting documentation necessary to facilitate the expedited review as required by Distribution Provider. Such documentation may include, but is not limited to, single line diagrams with specific details, manufacturer data sheets for proposed equipment, description of control systems, validation of the right to do business in the state, etc. Distribution Provider shall clearly communicate these requirements as part of the application process. Applicant shall select this process option in the Interconnection Request.

b. Applicant's Generating Facility must meet the requirements outlined in Section N.2 below.

c. Applicant's Interconnection Request must be eligible for and select the Fast Track Process.

d. Applicant's Interconnection Request must pass Fast Track Initial Review and not require any Interconnection Facilities, Distribution Upgrades or Network Upgrades to remain eligible under this Section. As such, Interconnection Requests that select the Cost Envelope Option are not eligible.

e. Applicants selecting this section shall use the corresponding interconnection agreement type provided for eligible Generating Facilities. (L)

(Continued)

N. EXPEDITED INTERCONNECTION PROCESS FOR NON-EXPORT ENERGY STORAGE GENERATING FACILITIES (Cont'd.) (L)

2. GENERATING FACILITY ELIGIBILITY CRITERIA

An Applicant's Generating Facility must meet and adhere to the following criteria.

a. The Generating Facility must be comprised solely of the following specific categories of generation technology: Non-Exporting battery storage.

b. The Generating Facility must have an aggregate maximum inverter nameplate rating of no greater than 500 kW. There is no limitation on an energy storage device's kWh capacity rating.

c. The Generating Facility must be located behind an existing single retail meter and Point of Common Coupling with a single, clearly marked and accessible disconnect. No other Generators, other than isolated back-up Generators, may be at the same Point of Interconnection or Point of Common Coupling.

d. The Generating Facility must utilize Option 3 or Option 4 to meet the non-export protection requirements of Screen I in Section G.1.i.

e. The Generating Facility must have a single or coordinated control system for all charging functions if utilizing multiple inverters. The control system must also ensure that there is no increase in the Interconnection Customer's existing peak load demand.

f. The Generating Facility must utilize only inverter-based, UL 1741 and UL 1741 SA-listed equipment. Additionally, all installed equipment must meet Distribution Provider's current electric service requirements with no violations or variances. (L)

(Continued)

O. Non-Export AC/DC CONVERTER ELIGIBILITY CRITERIA (L)

Applicants with Non-Export AC/DC Converters who meet the eligibility criteria below qualify for the expedited interconnection process outlined in Section N of this Rule.

1. The Non-Export AC/DC Converter must have an aggregate maximum inverter nameplate rating of no greater than 500 kW. There is no limitation on an energy storage device's kWh capacity rating.

2. Applicant's Interconnection Request must be eligible for and select the Fast Track Process.

3. Applicant's Interconnection Request must pass Fast Track Initial Review and not require any Interconnection Facilities, Distribution Upgrades or Network Upgrades to remain eligible under this Section.

4. Applicants selecting this section shall use the corresponding interconnection agreement type provided for Non-Export AC/DC Converters eligible under this Section. As such, Interconnection Requests that select the Cost Envelope Option are not eligible.

5. Applicant's Non-Export AC/DC converter must meet the Certification requirements in the Section C Definition of "Non-Export AC/DC Converters". (L)

(Continued)

ELECTRIC RULE NO. 21 Sheet 284
GENERATING FACILITY INTERCONNECTIONS

(L)

Appendix A Forms Associated with Rule 21 Generating Facility Interconnections			
Form Number	Title	Associated Tariffs	Use Guidance
Pre-Application Request			
79-1181	Rule 21 Pre-Application Report Request	Rule 21	For Generator Developer to request basic info about local distribution circuit
Study Agreement			
79-1162	Rule 21 Detailed Study Agreement	Rule 21	Independent Study and Distribution Group Study Process Study Agreement
NEM and Non-Export Interconnection Forms			
79-978	Interconnection Agreement for Net Energy Metering of Solar or Wind Electric Generating Facilities of 1,000 kW or Less, Other Than Facilities of 30 kW or Less	NEM, Rule 21	Solar and/or Wind > 30 kW and ≤ 1 MW expanded NEM used with Form 79-1174-02
79-978-02	Interconnection Agreement for Net Energy Metering (NEM2) of Solar or Wind Electric Generating Facilities of 1,000 Kilowatts or Less, Other than Facilities of 30 Kilowatts or Less	NEM2, Rule 21	Solar and/or Wind > 30 kW and ≤ 1 MW expanded NEM2 used with Form 79-1174-02
79-997	Interconnection Agreement for Net Energy Metering of Biogas Digester Generating Facilities	NEM, Rule 21	NEMBIO (Closed to new applicants), NEMBIOA Interconnection Agreement used with Form 79-1174
79-1010	Interconnection Agreement for Net Energy Metering of Fuel Cell Generating Facilities	NEM, Rule 21	NEMFC Interconnection Agreement used with Form 79-1174
79-1069	Generating facility Interconnection Agreement (Multiple Tariff)	NEM, Rule 21	NEMMT Interconnection Agreement used with Form 79-1174
79-1069-02	Generating Facility Interconnection Agreement (Multiple Tariff NEM2MT)	NEM2, Rule 21	NEM2MT Interconnection Agreement used with Form 79-1174-02
79-1109 ***	Virtual Net Energy Metering Application and Interconnection Agreement For The Building Owner of Multifamily Affordable Housing With A Solar Generating Facility of 1 Megawatt or Less	NEM, Rule 21	NEMV Interconnection Agreement used with Form 79-974

(L)

(Continued)

Appendix A (Cont'd.) Forms Associated with Rule 21 Generating Facility Interconnections			
Form Number	Title	Associated Tariffs	Use Guidance
NEM and Non-Export Interconnection Forms (Cont'd.)			
79-1193	AGREEMENT AND CUSTOMER AUTHORIZATION Net Energy Metering (NEM) Interconnection For Solar And/Or Wind Electric Generating Facilities Of 30 Kilowatts Or Less with Energy Storage of 10 Kilowatts Or Less or Energy Storage with Power Control System Certification	NEM	For NEM pair storage scenarios using Power Control Systems to ensure NEM integrity
79-1193-02	AGREEMENT AND CUSTOMER AUTHORIZATION Net Energy Metering (NEM2) Interconnection For Solar And/Or Wind Electric Generating Facilities Of 30 Kilowatts Or Less with Energy Storage of 10 Kilowatts Or Less or Energy Storage with Power Control System Certification	NEM2	For NEM2 pair storage scenarios using Power Control Systems to ensure NEM integrity
79-1109-02***	NEM2VMSH Virtual Net Energy Metering Application and Interconnection Agreement for the Building Owner of Multifamily Affordable Housing with a Solar Generating Facility of 1 Megawatt or Less	NEM2VMSH, Rule 21	NEM2VMSH Interconnection Agreement used with Form 79-1174-02
79-1151A	Net Energy Metering Interconnection for Solar And/or Wind Electric Generating Facilities Of 30 Kilowatts Or Less Agreement and Customer Authorization	NEM, Rule 21	NEMS Interconnection Agreement be used with 79-1151B Application
79-1151A-02	Agreement And Customer Authorization - Net Energy Metering (NEM2) Internconnection For Solar And/Or Wind Electric Generating Facilities Of 30 Kilowatts Or Less	NEM2, Rule 21	NEM2S Application to be used with 79-1151A Interconnection Agreement
79-1151B	Net Energy Metering Interconnection For Solar And/or Wind Electric Generating Facilities Of 30 Kilowatts Or Less Application	NEM, Rule 21	NEMS Application to be used with 79-1151A Interconnection Agreement
79-1151B-02	Application - Net Energy Metering (NEM2) Interconnection For Solar And/Or Wind Electric Generating Facilities Of 30 Kilowatts Or Less	NEM2, Rule 21	NEM2S Application to be used with 79-1151A-02 Interconnection Agreement
79-1124 ***	Eligible Low Income Development Virtual Net Energy Metering Application and Interconnection Agreement for Multifamily Affordable Housing with Solar Generation Totaling 1 Megawatt or Less	NEMVMASH, Rule 21	NEMVMASH Interconnection Agreement

(L)

(L)

(Continued)

Appendix A (Cont'd.)
Forms Associated with Rule 21
Generating Facility Interconnections

Form Number	Title	Associated Tariffs	Use Guidance
NEM and Non-Export Interconnection Forms (Cont'd.)			
79-1124-02***	Eligible Low Income Development Virtual Net Energy Metering (NEM2VMSH) Application and Interconnection Agreement for Multifamily Affordable Housing with Solar Generation Totaling 1 Megawatt or Less	NEM2VMSH, Rule 21	NEM2VMSH Interconnection Agreement
79-1131 ***	NEMV Application and Interconnection Agreement for a Solar (PV) or Wind Generating Facility of 1 MW or Less *Serving Multiple Tenants Served at a Single Property Delivery Point*	NEM, Rule 21	NEMV Interconnection Agreement
79-1131-02***	NEM2V Application and Interconnection Agreement for a Solar (PV) or Wind Generating Facility of 1 MW or Less *Serving Multiple Tenants Served at a Single Property Delivery Point*	NEM2V, Rule 21	NEM2V Interconnection Agreement
79-1137	Interconnection Agreement for Net Energy Metering for a Renewable Electrical Generation Facility of 1,000 kW or Less, Except Solar or Wind (SB 489)	NEM, Rule 21	NEMV, NEMEXP, NEMEXPM Interconnection Agreement typically used with Forms 79-974 and 79-1142 Applications
79-1137-02	Interconnection Agreement for Net Energy Metering (NEM2/NEM2V) for a Renewable Electricity Generation Facility of 1,000 Kilowatts or Less, Except Solar or Wind	NEM2, NEM2V, Rule 21	NEM2V, NEM2EXP, NEM2EXPM Interconnection Agreement typically used with Forms 79-1174-02
79-1142 ***	NEMV Interconnection Application for a Renewable Electrical Generation Facility of 1 Megawatt or Less	NEM, Rule 21	Used with Form 79-1137 (L)
79-973	Generating Facility Interconnection Agreement For Non-Export Generating Facilities (Rule 21 Interconnection Agreement)	Rule 21	Interconnection Agreement used for RESBCT and non-NEM generation with Application 79-974 and 79-1112
79-992	Customer Generation Agreement (Third party Generator on Premises, Non-Exporting)	Rule 21	Used with Forms 79-1174
79-1070	Export Addendum to Generating Facility Interconnection Agreement for Non-Export Generating Facilities (Form 79-973) Sized 2 Megawatts or Less	Rule 21	Export addendum used with Form 79-973
79-1136	PG&E Interconnection Agreement For an Existing Small Generating Facility Interconnecting to the Distribution System under Rule 21	Rule 21	Used for existing QFs with Form 79-974 (L)

(L)

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(Continued)

Appendix A (Cont'd.)
Forms Associated with Rule 21
Generating Facility Interconnections

Form Number	Title	Associated Tariffs	Use Guidance
Other NEM and Non-Export Forms (Cont'd.)			
79-1192	Interconnection Agreement for Non-Export Storage Generating Facilities 500KW or Less	Rule 21	Used for expedited interconnection of non-export energy storage, pursuant to Rule 21 Section N, PG&E AL 4941-E & E-A and D.16-06-052, & Attachment C, Section II.1
79-1199	Agreement And Customer Authorization Non-Export Stand-Alone Energy Storage Of 30 Kilowatts Or Less	Rule 21	Interconnection Agreement For non-export storage ≤ 30 kW
79-1206-02	Eligible Low-Income Development Virtual Net Energy Metering (NEM2VSOM) Interconnection Agreement For The Solar On Multifamily Affordable Housing (SOMAH) Program With Solar Generation Totaling 1 Mw Or Less	NEM2VSOM	NEM2VSOM Interconnection agreement for solar 1 MW or less.
79-1130	Request to Opt-out of / Opt-in to Compensation for Surplus Electricity	NEM	AB 920- Opt not to receive compensation for net annual excess energy
79-1202 ****	Load Aggregation Appendix	NEM, NEM2, Rule 21	Use as an Appendix with Form 79-1151A, 79-1151A-02, 79-978, 79-978-02,79-1137, 79-1137-02, 79-1069 or 79-1069-02
79-1155	Schedules NEM, NEMV, NEMVMASH, Net Surplus Electricity (NSE) Renewable Energy Credits Compensation	NEM, Rule 21	
79-1155-02	Schedules NEM2, NEM2V, NEM2VMSH, Net Surplus Electricity (NSE) Renewable Energy Credits Compensation	NEM2 NEM2V NEM2VMSH, Rule 21	
79-1174	Rule 21 Generator Interconnection Application	NEM (NEMEXP, NEMMT and NEMA), NEMFC, NEMV, NEMVMASH, RES-BCT, Rule 21	Rule 21 customer interconnection application form for expanded net-energy metered (all NEM > 30 kw and all non-Solar/Wind NEM), NEMFC, NEMV, NEMVMASH, RES-BCT, and non-export and limited export Rule 21 generation. (Standard NEM for solar and/or wind ≤ 30 kw will continue to use the 79-1151B application.)

(L)

(L)

(Continued)

Appendix A (Cont'd.)
Forms Associated with Rule 21
Generating Facility Interconnections

Form Number	Title	Associated Tariffs	Use Guidance
Other NEM and Non-Export Forms (Cont'd.)			
79-1174-02	Rule 21 Generator Interconnection Application	NEM2 (NEM2EXP, NEM2MT and NEM2A), NEMFC, NEM2V, NEM2VMSH, RES-BCT, Rule 21	Rule 21 customer interconnection application form for expanded net-energy metered (all NEM2 > 30 kw and all non-Solar/Wind NEM), NEMFC, NEM2V, NEM2VMSH, RES-BCT, and non-export and limited export Rule 21 generation. (Standard NEM for solar and/or wind ≤ 30 kw will continue to use the 79-1151B application.)
Export for Sale Interconnection Forms			
79-1145	Rule 21 Exporting Generator Interconnection Request	Rule 21	Preferred online application: https://www.pge.com/en_US/large-business/services/alternatives-to-pge/electric-generation-interconnection.page
79-1197	Local Government Renewable Energy Self-Generation Bill Credit Transfer (RES-BCT) Re-Allocation Request	RES-BCT	Use to establish RES-BCT benefiting account re-allocations
79-1198-02	Interconnection Agreement For Net Energy Metering (NEM2) And Renewable Electrical Generating Facility Sized Greater Than 1,000 Kw	NEM2	FT and Detailed Study Interconnection Agreement for >1MW NEM2 Generating Facilities
79-1200	Rule 21 Generator Interconnection Agreement For Exporting Generating Facilities	Rule 21	FT and Detailed Study Interconnection Agreement for Exporting Generating Facilities
Other Agreements			
79-280	Agreement for Installation of Allocation of Special Facilities for Parallel Operation of Non-Utility-Owned Generation and/or Electrical Standby Service (Electric Rules 2 and 21)	Rule 21	Special Facilities Agreement to be used with Form 79-702
79-702	Appendix A: Detail of Special Facilities Charges to be used in concert with form 79-280	Rule 21	Used with Form 79-280

(L)

*** The application section of these forms is replaced by 79-1174.
**** For NEMA expanded customers, use the online 79-1174 form.

(L)

(Continued)

APPENDIX B (L)

Unit Cost Guide

Distribution Provider shall publish a Unit Cost Guide for facilities generally required to interconnect generation in Distribution Provider's Distribution System. The Unit Cost Guide shall not be binding for actual facility costs and is provided only for additional cost transparency, developer reference, and Distribution Provider's reference when preparing the cost estimate provided in any applicable studies. The Unit Cost Guide shall not replace the estimated cost provided by Distribution Provider in an Interconnection Study or an initial or supplemental review under the Fast Track Process.

The Unit Cost Guide shall include the anticipated cost of procuring and installing Interconnection Facilities and Distribution Upgrades generally utilized by the Applicant. An annual adjustment shall be performed within the Unit Cost Guide for five (5) years to account for the anticipated timing of procurement to accommodate a potential range of Commercial Operation Dates.

The Unit Cost Guide shall be updated annually in accordance with the process set forth in D.16-06-052. (L)

(Continued)

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Advice 6571-E
April 29, 2022

Attachment 2

Redline Tariff Revisions

For convenience of the reader, PG&E has included redline revisions in Attachment 2. Where Electric Rule 21 has been revised, the affected sheets are included in Attachment 1.

In this advice letter and accordance to CPUC General Order 96B, Section 9.5.3, PG&E has implemented the use of the "(P)" symbol to signify material subject to change under a pending advice letter. The redlines in Attachment 2 are color coded to the specific advice letter. The color coding is as follows:

Redline Text Color	Advice Letter	Subject	Comments
	5915-E-B	Second Supplemental: Advice Letter Modifying Electric Rule 21 Pursuant to Decision 20-09-035 for Working Group 2 and 3 (due 120 Days from Issuance) for Ordering Paragraphs 6 and 11	No language changes shown in these Redline Tariff Revisions. Only location changes are pending in the attached sheets.
	6543-E	Modifications to Electric Rule 21 Pursuant to Emergency Load Reduction Program Decision 21-02-015	Pending Approval
	6571-E	Modifications to PG&E's Electric Rule 21 to Incorporate Approved Language Regarding an Expedited Dispute Resolution Process Pursuant to Resolution ALJ-347 and Assembly Bill 2861	In this advice letter, revisions are made according to the approved model tariff revisions in AL 6503-E-A, et al.

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(Continued)

ELECTRIC RULE NO. 21 Sheet 12
GENERATING FACILITY INTERCONNECTIONS

h. Backfeed Test 241 (T)

(Continued)

TABLE OF CONTENTS (Cont'd.)

(Continued)

TABLE OF CONTENTS (Cont'd.)

(Continued)

C. DEFINITIONS (Cont'd.)

Electrical Independence Test: The tests set forth in Section G.3 used to determine eligibility for the Independent Study Process.

Emergency: Whenever in Distribution Provider's discretion an Unsafe Operating Condition or other hazardous condition exists or whenever access is necessary for emergency service restoration, and such immediate action is necessary to protect persons, Distribution Provider's facilities or property of others from damage or interference caused by Interconnection Customer's Generating Facility, or the failure of protective device to operate properly, or a malfunction of any electrical system equipment or a component part thereof.

Energy-Only Deliverability Status: A condition elected by an Interconnection Customer for a Generating Facility interconnected to Distribution System, the result of which is that the Interconnection Customer is responsible only for the costs of Reliability Network Upgrades and is not responsible for the costs of Delivery Network Upgrades, but the Generating Facility will be deemed to have a Net Qualifying Capacity as defined in the CAISO Tariff of zero.

Engineering and Procurement Agreement: An agreement that authorizes Distribution Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the Interconnection in order to advance the implementation of the Interconnection Request.

Expedited Interconnection Dispute Resolution Panel Process ("Expedited Process"): A process authorized by AB 2861 in which the CPUC's Executive Director issues binding determinations on interconnection disputes within 60 days of receiving the dispute. Determinations are made based on the recommendations of the Interconnection Dispute Resolution Panel, pursuant to Resolution ALJ-347. See Section K. (N)

Exporting Generating Facility: Any Generating Facility other than a Non-Export Generating Facility, NEM Generating Facility, or uncompensated Generating Facility.

Fast Track Process: The interconnection study process set forth in Section F.2.

Federal Energy Regulatory Commission: Referred to herein as FERC.

(Continued)

F. REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.)

1. OVERVIEW OF THE INTERCONNECTION REVIEW PROCESS (Cont'd.)

d. Compliance with Timelines (Cont'd.)

(i) Contact the ombudsman designated by Distribution Provider;

(ii) If the Distribution Provider ombudsman (Rule21.Ombudsman@pge.com) is unable to resolve the dispute within ten (10) Business Days, Applicant may either: (T)

a) Contact the Consumer Affairs Branch (CAB) at the Commission.

b) Upon mutual agreement with Distribution Provider, make a written request for mediation to the Alternative Dispute Resolution (ADR) Coordinator in the Commission's Administrative Law Judge (ALJ) Division. The request may be made by electronic mail to adr_program@cpuc.ca.gov, and shall state "Rule 21" in the subject line. The request shall contain the relevant facts of the timeline dispute. A copy of the request shall be sent to the Distribution Provider ombudsman. Provided that resources are available, the mediator assigned shall schedule a mediation with Applicant and Distribution Provider within ten (10) Business Days of receiving the request.

c) Initiate dispute resolution processes in accordance with Section K. (N) (N)

At any time, Applicant may file a formal complaint before the Commission pursuant to California PUC Section 1702 and Article 4 of the Commission's Rules of Practice and Procedure.

(Continued)

K. DISPUTE RESOLUTION PROCESS

In addition to the informal procedures for timeline-related disputes set out in Section F.1.d, the following procedures will apply for disputes arising from this Rule:

1. SCOPE

The Commission shall have initial jurisdiction to interpret, add, delete or modify any provision of this Rule or of any agreements entered into between Distribution Provider and Applicant or Producer to implement this tariff ("Implementing Agreements") and to resolve disputes regarding Distribution Provider's performance of its obligations under Commission-jurisdictional tariffs, the applicable agreements, and requirements related to the interconnection of Applicant's or Producer's Generating Facility or Interconnection Facilities pursuant to this Rule.

2. INFORMAL DISPUTE RESOLUTION PROCEDURES (T)

Any dispute arising between Distribution Provider and Producer (individually referred to in Section K as "Party" and collectively "the Parties") regarding Distribution Provider's or Producer's performance of its obligations under its tariffs, the Implementing Agreements, and requirements related to the interconnection of Producer's Facilities pursuant to this Rule shall be resolved according to the following procedures:

a. Informal Dispute Resolution (N)

To initiate Informal Dispute Resolution, the aggrieved Party may submit a written notice ("notice") to the other party pursuant to either Section K.2.a.(i) (Bilateral Negotiations) or K.2.a.(ii) (Expedited Bilateral Negotiations).

This notice shall:

- specify whether the aggrieved Party is invoking the Informal Dispute Resolution procedures pursuant to either Section K.2.a.(i) (Bilateral Negotiations) or K.2.a.(ii) (Expedited Bilateral Negotiations);
- state the specific dispute and the relief sought; and
- contain all relevant known facts pertaining to the dispute. (N)

(Continued)

K. DISPUTE RESOLUTION PROCESS (N)

2. INFORMAL DISPUTE RESOLUTION PROCEDURES (Cont'd)

a. Informal Dispute Resolution (Cont'd) (N)

~~The dispute shall be documented in a written notice ("notice") by the aggrieved Party to the other Party containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought, and express notice by the aggrieved Party that it is invoking the procedures under this Section.~~ (D)

The notice shall be sent to the Party's email address and physical address set forth in the Generator Interconnection Agreement or Interconnection Request, if there is no Generator Interconnection Agreement. A copy of the notice shall also be sent to the Energy Division, Office of the Director, at the Commission, and Rule21.Disputes@cpuc.ca.gov. (D) (L) (L) (T)/(L)

(i) Bilateral Negotiations (N)

1) The receiving Party shall acknowledge the notice within five (5) Calendar Days of its receipt. (T)/(L) (L)

2) ~~Upon the aggrieved Party notifying the other Party of the dispute,~~ Eeach Party must designate a representative with the authority to make decisions for its respective Party to review the dispute within seven (7) Calendar Days of receiving Party's receipt of the notice. (T)/(D) (L) (L) (T)/(L) (L)

3) ~~In addition, upon receipt of the notice,~~ The Distribution Provider shall provide the aggrieved Party with all relevant regulatory and/or technical details and analysis regarding any Distribution Provider interconnection requirements under dispute within twenty-one (21) Calendar Days of receiving Party's receipt of the notice. (T)/(L) (L) (L) (T)/(L) (T)

4) Within forty-five (45) Calendar Days of the date of the notice, the Parties' authorized representatives will be required to meet and confer to try to resolve the dispute. Parties are expected to operate in good faith and use best efforts to resolve the dispute. (T)/(L) (L) (L)

5) Parties may by mutual agreement extend any deadline identified in this section. (N) (N)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd.)

2. INFORMAL DISPUTE RESOLUTION PROCEDURES (Cont'd.) (N)

a. Informal Dispute Resolution (Cont'd)

(ii) Expedited Bilateral Negotiations

1) The receiving Party shall acknowledge the notice within five (5) Calendar Days of its receipt.

2) Each party must designate a representative with the authority to make decisions for its respective Party to review the dispute within seven (7) Calendar Days of receiving Party's receipt of the notice.

3) Distribution Provider shall provide the aggrieved Party with all relevant regulatory and/or technical details and analysis regarding any Distribution Provider interconnection requirements under dispute within ten (10) Business Days of receiving Party's receipt of the notice.

4) Within fifteen (15) Business Days of the date of the notice, the Parties' authorized representatives will be required to meet and confer to try to resolve the dispute. Parties are expected to operate in good faith and use best efforts to resolve the dispute.

5) Parties may by mutual agreement extend any deadline identified in this section. (N)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd.)

2. INFORMAL DISPUTE RESOLUTION PROCEDURES (Cont'd.) (T)/(L)

b. If a resolution of a dispute raised as part of section K.2.a is not reached in forty-five (45) Calendar Days from the date of the notice, either (T) (L)

1) a Party may request to continue negotiations for an additional forty-five (45) Calendar Days; or (L) (T)/(L)

2) the Parties may by mutual agreement make a written request for mediation to the ADR Coordinator in the Commission's ALJ Division. (L)

The request may be submitted by electronic mail to adr_program@cpuc.ca.gov. Alternatively, both Parties by mutual agreement may request mediation from an outside third-party mediator with costs to be shared equally between the Parties.

c. At any time, either Party may file a formal complaint before the Commission. ~~pursuant to California PUC section 1702 and Article 4 of the Commission's Rules of Practice and Procedure.~~ (L) (T) (T)

~~Nothing in this section shall be construed to limit the rights of any Party to exercise rights and remedies under Commission law.~~ (D) (D)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd.)

3. EXPEDITED INTERCONNECTION DISPUTE RESLUTION PROCESS (N)

The Expedited Interconnection Dispute Resolution process ("Expedited Process") may be used to resolve eligible disputes between the Distribution Provider and an Applicant according to the following procedures.

For a complete description of all Expedited Process rules and requirements, please refer to Resolution ALJ-347, Exhibit A "Expedited Interconnection Dispute Resolution Process FINAL". Information can also be found on the Commission's website at https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/infrastructure/rule-21-interconnection/expedited-interconnection-dispute-resolution. In the event of a conflict between the terms of this section and the terms of Resolution ALJ-347, the terms of Resolution ALJ-347 shall govern.

a. Eligibility

i) An Applicant may apply for Expedited Process at any stage of the interconnection process if it can demonstrate that:

- it has, in compliance with Section K.2 requirements, invoked the Section K.2.a Informal Dispute Resolution procedures and has been unable to resolve the dispute in accordance with Section K.2.a[ii];
- it has, in compliance with Section K.2 requirements, invoked the Section K.2.b Informal Dispute Resolution procedures and has been unable to resolve the dispute in accordance with Section K.2.b[ii];
- the subject matter of the dispute at issue concerns whether one or both parties' actions are compliant with established interconnection rules and/or are reasonable, cost efficient and necessarily required under those rules to ensure safe and reliable interconnection. (N)

(N)

[ii] The Commission's Energy Division has the discretion to grant waivers to this eligibility requirement when the Applicant and Distribution Provider have already engaged in a dispute resolution process equivalent to Section K.2.a or K.2.b, including equivalent duration and with equivalent opportunity for both parties to understand the facts of the dispute and prepare responses. The Applicant or Distribution Provider must make a request to the Energy Division to waive the requirement.

(N)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd.)

3. EXPEDITED INTERCONNECTION DISPUTE RESLUTION PROCESS (Cont'd) (N)

a. Eligibility (Cont'd)

ii) The Energy Division has the authority to determine that a dispute is not eligible for this process in response to notice submitted in Section K.2.b.

b. Initiation of Expedited Process by Applicant

To request a resolution of a dispute pursuant to the Expedited Process, the Applicant shall download a PDF application form from the CPUC Expedited Interconnection Dispute Resolution Webpage (https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/infrastructure/rule-21-interconnection/expedited-interconnection-dispute-resolution), complete the application, and email an electronic PDF application form to Rule21.disputes@cpuc.ca.gov.

i) The Applicant shall include the following in the PDF application form:

- all relevant known facts pertaining to the dispute;
- the specific dispute and the relief sought;
- express notice by the Applicant that it is requesting resolution using the Commission's Expedited Process;
- a description of all efforts to date to resolve the dispute directly with the Distribution Provider, including at minimum a showing that the Applicant meets the eligibility requirements described above; and
- names of all Interconnection Dispute Resolution Panel members who may have a conflict of interest as defined in Public Utilities Code Section 769.5(b)(1).

ii) The Applicant shall also attach to the PDF application form all materials that may aid in review of the dispute, including a copy of the Interconnection Request, any interconnection study performed for that Interconnection Request, and all correspondence between the Applicant and the Distribution Provider relevant to the dispute. For treatment of confidential materials, please refer to Resolution ALJ-347 and the relevant notes on pages 1 and 3 of the PDF application form. (N)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd.)

3. EXPEDITED INTERCONNECTION DISPUTE RESLUTION PROCESS (Cont'd) (N)

b. Initiation of Expedited Process by Applicant (Cont'd)

iii) The Applicant shall serve this written notice on:

- Energy Division (Rule21.Disputes@cpuc.ca.gov);
- the Distribution Provider's email address set forth in the Generator Interconnection Agreement or Interconnection Request, if there is no Generator Interconnection Agreement;
- the ombudsman designated by Distribution Provider; and
- any other interested persons. "Interested persons" for the purposes of this section are defined as the applicant, utility, a person who has submitted comments on the recommendation of the Review Sub- Panel, or a person who has a demonstrable interest in the outcome of the dispute and has written Energy Division requesting to be added to the distribution list for the dispute.

Please refer to Resolution ALJ-347 for more information and instructions for applying to the Commission for the Expedited Process.

c. Eligibility Verification

i) The Energy Division will evaluate the submission of an Expedited Process written notice and notify the Applicant and the Distribution Provider of the dispute's eligibility within three (3) Business Days of receiving the request.

ii) The Energy's Division's notice shall contain specific instructions regarding how the Expedited Process will be resolved. Please refer to Resolution ALJ-347 for more information. (N)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd.)

3. EXPEDITED INTERCONNECTION DISPUTE RESLUTION PROCESS (Cont'd) (N)

d. Distribution Provider Response

i) Upon receiving notice from the Energy Division of the dispute's eligibility for the Expedited Process, the Distribution Provider shall have five (5) Business Days to serve its response to the Sub-Panel (as defined in Resolution ALJ-347) assigned to the dispute, the Applicant, Energy Division and other interested persons in accordance with the procedures outlined in Resolution ALJ-347.

ii) The Distribution Provider's response shall include:

- the relevant known facts pertaining to the dispute, including the dispute's impact on safe and reliable grid operations;
- its position on the dispute as presented by the Applicant;
- a response to the relief requested by the Applicant; and
- a description of the efforts to date to resolve the dispute directly with the Applicant.

iii) The Distribution Provider shall also include in its response a copy of documentation in its possession that was not previously submitted in the Applicant's written notice that requested the Expedited Process that Distribution Provider believes may aid in review of the dispute, including the Applicant's Interconnection Request, any interconnection study performed for that Interconnection Request, and all correspondence between the Applicant and the Distribution Provider relevant to the dispute. For treatment of confidential materials, please refer to Resolution ALJ-347 and the relevant notes on pages 1 and 3 of the PDF application form.

The Distribution Provider shall serve this written notice on:

- Energy Division (Rule21.Disputes@cpuc.ca.gov);
- the Applicant's email address set forth in Applicant's written notice requesting the Expedited Process; and
- any other interested persons in accordance with the procedures outlined in Resolution ALJ-347. (N)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd.)

3. EXPEDITED INTERCONNECTION DISPUTE RESLUTION PROCESS (Cont'd) (N)

e. Comments on Review Sub-Panel Recommendations

The Review Sub-panel will issue recommendations to the Executive Director of the Commission on how to resolve an Expedited Process's dispute.

Within five (5) Business Days of the issuance of the Review Sub-Panel's recommendations, Applicant, Distribution Provider, and any other interested persons may serve comments on those recommendations via Rule21.Disputes@cpuc.ca.gov.

The Applicant and Distribution Provider may serve a reply to any comments within three (3) Business Days of the last day for service of opening comments via Rule21.Disputes@cpuc.ca.gov.

Please refer to Resolution ALJ-347 and https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/infrastructure/rule-21-interconnection/expedited-interconnection-dispute-resolution for more information regarding the service requirements.

f. Appealing the Executive Director's Order

Upon receipt of the Review Sub-Panel's recommendations, the Executive Director of the Commission will issue an order resolving the dispute within thirty (30) Calendar Days.

Within ten (10) Calendar Days of the issuance of the Executive Director's Order, the Applicant, Distribution Provider, or any interested person may appeal the Order and request Commission review. Such a request must set forth specifically the grounds on which the requester considers the Order to be unlawful or erroneous. Requests for review should be emailed to Rule21.Disputes@cpuc.ca.gov. (N)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd.)

3. EXPEDITED INTERCONNECTION DISPUTE RESLUTION PROCESS (Cont'd) (N)

g. Withdrawal

At any time following Applicant's submission of a written notice under this Section, the Applicant may withdraw its notice. If the Applicant and Distribution Provider reach a settlement independent of the Commission, it is not necessary for the Commission to approve the settlement.

Notices of withdrawal should be sent to all interested parties and Rule21.Disputes@cpuc.ca.gov. Please refer to Resolution ALJ-347 for more information regarding the service requirements. (N)

4. FORMAL COMPLAINT

At any time, either Party may file a formal complaint before the Commission pursuant to California PUC section 1702 and Article 4 of the Commission's Rules of Practice and Procedure. (L) (L)

(Continued)

K. DISPUTE RESOLUTION PROCESS (Cont'd.)

~~3~~5. PERFORMANCE DURING DISPUTE (T)

Pending resolution of any dispute under this Section, the Parties shall proceed diligently with the performance of their respective obligations under this Rule and the Implementing Agreements, unless the Implementing Agreements have been terminated. Applicant and Distribution Provider may by mutual agreement suspend performance of their respective obligations under this Rule and any Implementing Agreements while the dispute is active. (L) (L) (T) (T)

Disputes as to the Interconnection Request and implementation of this Section shall be subject to resolution pursuant to the procedures set forth in this Section. (L)

L. CERTIFICATION AND TESTING CRITERIA

1. INTRODUCTION

This Section describes the test procedures and requirements for equipment used for the Interconnection of Generating Facilities to Distribution Provider's Distribution or Transmission System. Included are Type Testing, Production Testing, Commissioning Testing, and Periodic Testing. The procedures listed rely heavily on those described in appropriate Underwriters Laboratory (UL), Institute of Electrical and Electronic Engineers (IEEE), and International Electrotechnical Commission (IEC) documents—most notably UL 1741 and IEEE 929 as well as the testing described in *May 1999 New York State Public Service Commission's Interconnection Requirements.* As noted in Section B, this Rule has been revised to be consistent with ANSI/IEEE 1547-2003 Standard for Interconnecting Distribution Resources with Electric Power Systems. (L)

(Continued)

L. CERTIFICATION AND TESTING CRITERIA (Cont'd.)

3. TYPE TESTING

a. Type Tests and Criteria for Interconnection Equipment Certification

Type testing provides a basis for determining that equipment meets the specifications for being designated as Certified equipment under this Rule. The requirements described in this Section cover only issues related to Interconnection and are not intended to address device safety or other issues.

Table L.1 defines the test criteria by Generator or inverter technology. While UL 1741(1) and UL 1741 – Supplement SA** were written specifically for inverters, the requirements are readily adaptable to synchronous Generators, induction Generators, as well as single/multi-function controllers and protection relays. Until a universal test standard is developed, Distribution Provider or NRTL shall adopt the procedures referenced in Table L.1 as appropriate and necessary for a Generating Facility and/or Interconnection Facilities or associated equipment performance and its control and Protection Functions. These tests shall be performed in the sequence shown in Table L.2. (P)

Non-Export AC/DC Converters must satisfy the requirements in its definition in Section C.

** An exemption exists for DC V2G Electric Vehicle Service Equipment (EVSE) interconnecting for the purpose of participating in the Emergency Load Reduction Program, see footnote * in the opening paragraphs of Section Hh. (P) (P)

(Continued)

Advice 6571-E
April 29, 2022

Attachment 3

Expedited Interconnection Dispute Resolution Intake Form

EXPEDITED INTERCONNECTION DISPUTE RESOLUTION INTAKE FORM

To request resolution of a dispute via the Expedited Interconnection Dispute Resolution (EIDR) process (per ALJ-347, 2017), please complete and sign this form (E-Signatures and scanned, signed copies of this form are the acceptable methods of submission) and email it to Rule21.Disputes@cpuc.ca.gov. If you prefer to submit a physical copy of this form, please mail a completed, signed form to California Public Utilities Commission; Energy Division, Interconnection and Distribution Engineering Section; 505 Van Ness Ave.; San Francisco, CA 94102.

IMPORTANT NOTE: Documents you submit will be published on the California Public Utilities Commission's public web page and distributed via email list. You have the option of submitting public and confidential versions of this form and accompanying materials. If submitting public and confidential versions, please clearly label each version and redact any personally identifiable information that you prefer not to be posted publicly. California Public Utilities Commission is not responsible for redacting personally identifiable information from your forms and attachments. Decision 06-06-066 and related Decisions, General Orders and statutes contain additional information regarding confidentiality. Please submit any questions regarding confidentiality to Rule21.Disputes@cpuc.ca.gov before you submit this form.

Applicant Name

Applicant Email

Applicant Phone

Name of Applicant Organization

Please describe in detail the relevant known facts pertaining to the dispute. Please feel free to refer to materials that accompany this document in your description (*3,000 character limit*).

Please describe in detail the specific dispute and relief sought. Please feel free to refer to materials that accompany this document in your description (*3,000 character limit*).

Please describe in as much detail as possible the efforts you and/or your organization have made to resolve the dispute directly with the electric utility, including at a minimum demonstrating that your dispute fits the following description of eligibility "A dispute may be considered eligible for Expedited Process when there is an unresolved disagreement between the applicant and the utility regarding whether one or both parties' actions are compliant with established interconnection rules and/or are reasonable, cost efficient and necessary required under those rules to ensure safe and reliable interconnection (ALJ-347, Exhibit A at 9)." Please feel free to refer to materials that accompany this document in your description (3,000 character limit).

Please list the names of any Expedited Interconnection Dispute Resolution Panel members who may have a conflict of interest as defined in California Public Utilities Code Section 769.5(b)(1) (as codified by Assembly Bill 2861(Ting, 2016) (*1,000 character limit*).

Attachment Checklist (Please check all that apply)

- ☐ Project Interconnection Application
- ☐ Interconnection Study
- ☐ Correspondence between interconnection applicant and utility regarding the dispute
- ☐ Other(s): please describe below

Expedited Interconnection Dispute Resolution Intake Form

APPLICANTS TO THIS EXPEDITED INTERCONNECTION DISPUTE RESOLUTION PROCESS AGREE THAT THEY ENTER VOLUNTARILY AND AS AN ALTERNATIVE TO OTHER DISPUTE RESOLUTION OPTIONS, INCLUDING LITIGATION. THE EXPEDITED INTERCONNECTION DISPUTE RESOLUTION PROCESS IS ADMINISTERED BY THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, THROUGH ITS CALIFORNIA INSTITUTE FOR ENERGY & ENVIRONMENT AND ITS CENTER FOR LAW, ENERGY & THE ENVIRONMENT (THE "CONVENERS"); INDIVIDUAL DISPUTE REVIEWS ARE CONDUCTED BY TECHNICAL PANELISTS (SELECTED BY THE CONVENERS BASED ON AVAILABILITY AND CONFLICTS OF INTEREST) WHO MAY BE ADVISED BY TECHNICAL EXPERTS. FOLLOWING DISPUTE REVIEW, THE TECHNICAL PANELISTS MAKE A RECOMMENDATION TO THE EXECUTIVE DIRECTOR OF THE CPUC, WHO SUBSEQUENTLY ISSUES AN OPINION TO THE ELECTRIC UTILITY RESOLVING THE DISPUTE. THE EXECUTIVE DIRECTOR'S ORDER MAY BE APPEALED TO THE CPUC.

***LIABILITY WAIVER AND RELEASE*: AS A CONDITION OF PARTICIPATING IN THE EXPEDITED INTERCONNECTION DISPUTE RESOLUTION PROCESS, THE APPLICANT BY THEIR INITALS BELOW, ACKNOWLEDGES AND AGREES TO RELEASE FROM LIABILITY AND WAIVES THE RIGHT TO SUE IN STATE OR FEDERAL COURT, THE CONVENERS, TECHNICAL PANELISTS, AND TECHNICAL EXPERTS (together, "RELEASED PARTIES") FOR ANY CLAIM OR CAUSE OF ACTION OTHER THAN GROSS NEGLIGENCE AND/OR INTENTIONAL MISCONDUCT, ARISING OUT OF THE PERFORMANCE OF THE RELEASED PARTIES' DUTIES IN THE DISPUTE RESOLUTION PROCESS, INCLUDING WITHOUT LIMITATION ANY DISPUTE REVIEW RECOMMENDATIONS OR FINAL ORDER, AND ANY ACTIONS TAKEN IN DEVELOPMENT OF SUCH RECOMMENDATIONS.**

Applicant Initials	*Date Initialed*

***IMPORTANT NOTE**: Documents you submit will be published on the California Public Utilities Commission's public web page and distributed via email list. You have the option of submitting public and confidential versions of this form and accompanying materials. If submitting public and confidential versions, please clearly label each version and redact any personally identifiable information that you prefer not to be posted publicly. Decision 06-06-066 and related Decisions, General Orders and statutes contain additional information regarding confidentiality. California Public Utilities Commission is not responsible for redacting personally identifiable information from your forms and attachments. Please submit any questions regarding confidentiality to Rule21.Disputes@cpuc.ca.gov before you submit this form.*

BY SIGNING THIS DOCUMENT, I AFFIRM THAT I AM REQUESTING RESOLUTION OF THIS DISPUTE VIA THE CALIFORNIA PUBLIC UTILITIES COMMISSION'S EXPEDITED INTERCONNECTION DISPUTE RESOLUTION PROCESS PER ALJ-347 (2017).

Applicant Signature	*Date Signed*

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

AT&T
Albion Power Company

Alta Power Group, LLC
Anderson & Poole

Atlas ReFuel
BART

Barkovich & Yap, Inc.
Braun Blaising Smith Wynne, P.C.
California Cotton Ginners & Growers Assn
California Energy Commission

California Hub for Energy Efficiency Financing

California Alternative Energy and Advanced Transportation Financing Authority
California Public Utilities Commission
Calpine

Cameron-Daniel, P.C.
Casner, Steve
Center for Biological Diversity

Chevron Pipeline and Power
City of Palo Alto

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

East Bay Community Energy Ellison Schneider & Harris LLP
Engineers and Scientists of California

GenOn Energy, Inc.
Goodin, MacBride, Squeri, Schlotz & Ritchie
Green Power Institute
Hanna & Morton
ICF
International Power Technology

Intertie

Intestate Gas Services, Inc.
Kelly Group
Ken Bohn Consulting
Keyes & Fox LLP
Leviton Manufacturing Co., Inc.

Los Angeles County Integrated Waste Management Task Force
MRW & Associates
Manatt Phelps Phillips
Marin Energy Authority
McClintock IP
McKenzie & Associates

Modesto Irrigation District
NLine Energy, Inc.
NRG Solar

OnGrid Solar
Pacific Gas and Electric Company
Peninsula Clean Energy

Pioneer Community Energy

Public Advocates Office

Redwood Coast Energy Authority
Regulatory & Cogeneration Service, Inc.
SCD Energy Solutions
San Diego Gas & Electric Company

SPURR
San Francisco Water Power and Sewer
Sempra Utilities

Sierra Telephone Company, Inc.
Southern California Edison Company
Southern California Gas Company
Spark Energy
Sun Light & Power
Sunshine Design
Tecogen, Inc.
TerraVerde Renewable Partners
Tiger Natural Gas, Inc.

TransCanada
Utility Cost Management
Utility Power Solutions
Uplight
Water and Energy Consulting Wellhead Electric Company
Western Manufactured Housing Communities Association (WMA)
Yep Energy