

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



August 29, 2017

Advice Letters 5124 and 5124-A

Ray Ortiz
Tariff Manager – GT14D6
Southern California Gas Company
555 West Fifth Street
Los Angeles, CA 90013-1011

SUBJECT: Proposed Modifications to the Self-Generation Incentive Program to Implement a Field Inspection Protocol in accordance with D.16-06-055 and Revise the Energy Storage Inspection Protocol in accordance with Resolution E-4717

Dear Mr. Ortiz:

On April 27, 2017, the Center for Sustainable Energy filed Southern California Gas Company (SoCalGas) Advice Letter (AL) 5124 on your behalf that submitted for CPUC approval modifications to the Self-Generation Incentive Program (SGIP) to implement a field inspection protocol in accordance with CPUC Decision (D.) 16-06-055 and to revise the energy storage inspection protocol in accordance with CPUC Resolution E-4717.

On May 17, 2017, responses to your advice letter were submitted by Tesla, Inc. (Tesla), the California Energy Storage Alliance (CESA) or the California Solar Energy Industries Association (CalSEIA). The Center for Sustainable Energy (CSE) submitted a reply to these responses on behalf of the SGIP administrators on May 24, 2017. CSE filed AL 5124-A on your behalf on August 1, 2017.

Energy Division staff reviewed SoCalGas' AL 5124 and its supplement and determined that they demonstrate compliance with D.16-06-055 and Resolution E-4717. The advice letters are therefore approved.

See the attached appendix for a more detailed discussion of staff's review and findings.

The advice letter and its supplement are effective as of the date of this letter.

Sincerely,

Handwritten signature of Edward Randolph in cursive.

Edward Randolph
Director, Energy Division

Appendix: Staff Review and Findings

Background

Decision (D.)16-06-055 required the administrators of the Self-Generation Incentive Program (SGIP or program) to host a workshop to solicit industry feedback on implementing a sampling protocol for field inspections of energy storage systems that receive SGIP incentive payments. The program's administrators (PAs) were also directed to publish a report of their findings, including recommendations, within six months of the date of the D.16-06-055.¹

Critically, D.16-06-055 established the intent of field inspections to "ensure that each SGIP system is designed and installed in a manner that ensures grid benefits as well as customer safety." The allowance for the proposal of a sampling protocol was to address the costs and administrative burden of inspecting every system.²

Additionally, D.16-06-055 stated, "[t]he program administrators should be allowed to file an advice letter proposing changes to the inspections/sampling regime, following the publication of this workshop report, if they believe it will benefit the program."³

On November 14, 2016, the SGIP PAs held the SGIP Statewide Quarterly Workshop to discuss the field inspection sampling protocol, and on December 22, 2016, the SGIP PAs served the report on the R.12-11-005 service list.

On April 27, 2017, the SGIP PAs jointly filed Center for Sustainable Energy (CSE) Advice Letter 78 / Pacific Gas and Electric (PG&E) Advice Letter 3837-G/5062-E / Southern California Edison (SCE) Advice Letter 3596-E / Southern California Gas (SoCalGas) Advice Letter 5124 (the advice letters) to propose modifications to SGIP by implementing a field inspection sampling protocol in accordance with D.16-06-055 and revise the energy storage inspection protocol in accordance with Resolution E-4717.

The inspection sampling protocol proposed by the PAs required the first three projects using the same model for each developer in both the residential and non-residential customer category to be inspected. If those three inspections were successfully completed with no failures or suspensions, one in five projects may be randomly selected by the PAs for inspection. After six total successful inspections, a PA could exercise discretion to lower the random inspection sampling to one in ten projects. New equipment models introduced by a developer during the inspection sampling cycle will be inspected for at least three applications. If those inspections are successful, the sampling cycle would resume at a one in five rate. Any failed inspections resulting in the need to physically re-inspect the system would lead to an automatic resumption of the one in five sampling method. Five suspensions would lead to a reset of the inspection sampling process.

¹ D.16-06-055 at 47, 84-85 (OP 7, 8).

² D.16-06-055 at 46. *See also* D.16-06-055 at 70 (FOF 49).

³ D.16-06-055 at 47.

The advice letter also spelled out the proposed protocol for pre-inspection and field inspection of SGIP energy storage systems. The pre-inspection protocol generally requires developers to provide to the inspector verification that equipment information would be available to inspect and verification that the system was configured to operate in parallel with the grid, load shave and serve on-site demand. Finally, pre-inspection required the demonstration of energy storage system performance under normal operation through a review of one week's worth of data.

For field verification, the advice letter called for a visual inspection process, to verify that the device can serve onsite load, operate in parallel with the grid and meet other SGIP eligibility requirements. For discharge testing, an option is given for either field testing of the continuous discharge of the system, or a factory test accompanied by a 30-minute field test of continuous discharge.

In addition, the PAs further argued that Resolution E-4717 granted the PAs the authority to revise the field inspection protocol for energy storage projects as needed based on experience. Since Resolution E-4717 was issued on June 12, 2015, the PAs asserted that they and their inspection teams identified several ways to improve and streamline the inspection process for electrical discharging types of energy storage.

Protests, Comments and Replies

Three responses to the advice letter were filed on May 17, 2017 by Tesla, Inc. (Tesla), the California Energy Storage Alliance (CESA) and the California Solar Energy Industries Association (CalSEIA).

Tesla responded with several suggested changes to the inspection protocol. They recommended that the sampling rate should be reduced for those developers that successfully pass inspections as a matter of course, rather than leaving it to the discretion of the administrators. Tesla requests a 1-in-100 sampling rate once a developer reaches six successful field inspections.

Further, Tesla requests that the term "new equipment models" be clarified. If a new equipment model number results in minor changes to a model, Tesla requests that such a change in the number not lead to a reset of the sampling protocol. They also suggest that minor changes to non-battery pack elements of the system not lead to a reset of the sampling protocol.

Tesla also seeks clarification on the use of the words "suspension" and "failure" in the context of Section 2.e of the proposed sampling protocol.

Tesla expresses concern that field testing that leads to an export of energy from the storage system to the grid may result in a violation of the applicable interconnection agreement for the storage system. Tesla recommends that an export of energy that occurs during a field inspection not be considered a breach of the interconnection agreement with the utility, and that export generally not be required for systems designed to be non-exporting.

CalSEIA generally shares Tesla's concerns. CalSEIA recommends a 1-in-100 sampling rate after a developer achieves six successful field inspections. CalSEIA also seeks clarification on whether a "new equipment model" is considered by the PAs to occur when a new equipment model number is given to a piece of equipment. CalSEIA suggests that a new equipment model

only be considered to occur if a new equipment model number is given. CalSEIA also seeks clarification that onsite discharging testing will not result in violations of the non-export provisions of interconnection agreements.

In addition to the concerns mirroring Tesla's, CalSEIA also recommends that the field inspection interval data time be increased. They recommend a 15 minute data interval be used for field inspections.

CESA's concerns and suggestions are similar to those of Tesla and CalSEIA. CESA recommends that the final sampling rate for successful developers be 1-in-100 rather than 1-in-10. CESA also suggests a clarification of the definition of "failure" whereby it covers changes to equipment that did not have prior PA approval, rather than including changes to equipment that did have prior PA approval. CESA also recommends that the inspection protocol be modified so that discharge tests will not require or result in export of energy that violates an interconnection agreement. For non-exporting systems, CESA recommends that the discharge test not require any discharge that exceeds available load at the time of the test. CESA notes that during late morning and midday hours there may not be sufficient customer load to conduct a test and recommends an alternative testing protocol be developed for those circumstances.

CESA recommends that the language on physical disconnection be modified so that the storage system is tested as it would normally operate. They also recommend that the interval data period be lengthened to 15 minutes.

CSE filed a response to the comments of Tesla, CalSEIA and CESA on May 24, 2017 on behalf of the SGIP administrators.

On the question of reducing the sampling rate from 1-in-10 to 1-in-100, the PAs assert that the proposal is unreasonable. They state that a 1-in-10 rate is required in order for the PAs to gain adequate experience, familiarity and confidence in the systems being installed under SGIP. They refer to the California Solar Initiative (CSI) as a benchmark, which uses a 1-in-12 inspection sampling rate.

The PAs state that the sampling protocol is intended to balance the need for ratepayer protection and administrative efficiency, and is not intended to limit the PAs' due diligence. They therefore do not recommend limiting the discretion of the PAs to impose the sampling rate they feel is best. As a bottom line, the PAs assert that their discretion is required in order to ensure customer safety and maintain program integrity.

On the question of whether equipment with new model numbers should necessitate a reset of the inspection protocol, the PAs assert that this is reasonable. They disagree with Tesla that it should be limited to the battery pack. A change in ancillary equipment that does not result in a new model number but does impact the operation of a system should be inspected, in the view of the PAs. Having said that, they clarify that the make or model number of solar panels will not be considered when considering changes to equipment.

On the interval data question raised by CalSEIA, the PAs clarify that 1-5 minute data is only required for the discharge test, and is not needed for other SGIP reporting requirements. The PAs

note that they will address the potential infeasibility of 1-5 minute data reporting on a case-by-case basis.

On the non-export interconnection requirements question raised by CESA, the PAs affirm that the 30-minute discharge test is not intended or required to test output at full capacity, nor is it intended to violate the non-export provisions of an interconnection agreement. The PAs note that the discharge test may be performed at a time of the developer's choosing, when there is sufficient onsite load to test a system's discharge.

On the physical disconnection question raised by CESA, the PAs decline to adopt CESA's recommendation, and assert that a circuit breaker-level disconnection from the grid is not a permissible operating mode per SGIP rules. Therefore, the PAs note that during the discharge test the SGIP energy storage system must be able to demonstrate parallel operation with the grid.

The PAs codified the changes spelled out in their response in a supplemental advice letter filed August 1, 2017.

Findings

Energy Division staff reviewed SoCalGas' AL 5124 and 5124-A and determined that they demonstrate compliance with D.16-06-055 and Resolution E-4717. The advice letter and its supplement are therefore approved.

April 27, 2017

Advice No. 78
(Center for Sustainable Energy®)

Advice No. 3837-G /5062-E
(Pacific Gas and Electric Company –U 39 M)

Advice No. 3596-E
(Southern California Edison Company – U 338-E)

Advice No. 5124
(Southern California Gas Company – U 904-G)

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA
ENERGY DIVISION

SUBJECT: Proposed Modifications to the Self-Generation Incentive Program to Implement a Field Inspection Sampling Protocol in accordance with D.16-06-055 and Revise the Energy Storage Inspection Protocol in accordance with Resolution E-4717.

PURPOSE

In accordance with Commission Decision (D.)16-06-055, Ordering Paragraph 8 and Resolution E-4717, the Center for Sustainable Energy® (CSE), on behalf of the Self-Generation Incentive Program (SGIP) Program Administrators (PAs),¹ hereby submits this advice filing to propose modifications to the Self-Generation Incentive Program (SGIP) to implement a Field Inspection Sampling Protocol and revise the Energy Storage Inspection Protocol.

BACKGROUND

D.16-06-055 required the SGIP PAs to hold a workshop to solicit industry feedback on implementing a sampling protocol for field inspections and to subsequently publish a report including recommendations within six months of the date of the Decision. Additionally, the Decision stated, “[t]he program administrators should be allowed to file an advice letter

¹ The SGIP PAs are Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), Southern California Gas Company (SoCalGas), and CSE in the service territory of San Diego Gas & Electric Company (SDG&E).

proposing changes to the inspections/sampling regime, following the publication of this workshop report, if they believe it will benefit the program.”²

On November 14, 2016, the SGIP PAs held the SGIP Statewide Quarterly Workshop to discuss the field inspection sampling protocol, and on December 22, 2016, the SGIP PAs served the report on the R.12-11-005 service list. Based on feedback from industry and the experience to date of the SGIP PAs in conducting field inspections, the PAs believe that it is in the best interest of the SGIP to implement a protocol that allows for a minimum sampling of field inspections to be applied at the discretion of the PAs. Attachment A to this Advice Letter contains the details of the proposed sampling regime.

In addition, Resolution E-4717 granted the SGIP PAs authority to revise the field inspection protocol for energy storage projects as needed based on experience. Since Resolution E-4717 was issued on June 12, 2015, the SGIP PAs and their inspection teams have identified several ways to streamline the inspection process for electrical-discharging types of energy storage. Attachment B contains the revised energy storage inspection protocol.

PROPOSED AMENDMENTS TO THE SGIP HANDBOOK

Field Inspection Sampling Protocol

Implement a protocol that allows for a minimum sampling of field inspections to be applied at the discretion of the SGIP PAs.

Attachment A contains the details of the proposed sampling regime.

Affected Sections:

- 2.2-1 - Three-Step Application Process for Public and Non-Public Entities \geq 10 kW
- 2.2-2 - Two-Step Application Process for All Residential and Non-Residential Entities <10 kW
- 2.5 - Incentive Claim
- 2.5.3 - Field Verification Visit
- 2.5.4 - Approval of the Incentive Claim

Energy Storage Field Inspection and Discharge Testing Protocol

Streamline the inspection process for electrical-discharging types of energy storage.³

Attachment B contains the revised energy storage inspection protocol.

Affected Sections:

- 2.5.3 - Field Verification Visit

² D.16-06-055, *Decision Revising the Self-Generation Incentive Program Pursuant to Senate Bill 861, Assembly Bill 1478, and Implementing Other Changes*, June 23, 2016, page 47.

³ Requirements pertaining to discharging electricity would not apply to thermal storage systems.

TIER DESIGNATION

Pursuant to General Order (GO) 96-B, Energy Industry Rule 5.2 and D.16-06-055, this Advice Letter is submitted with a Tier 2 designation.

PROTESTS

Anyone wishing to protest this Advice Letter may do so by letter sent via U.S. mail, by facsimile or electronically, any of which must be received no later than May 17, 2017, which is twenty (20) days after the filing of this Advice Letter. Protests should be mailed to:

CPUC Energy Division
Attention: Tariff Unit
505 Van Ness Ave., 4th Floor
San Francisco, CA 94102
Email: EDTariffUnit@cpuc.ca.gov

Copies of the protest should also be sent to the attention of the Director, Energy Division, Room 4004, at the address shown above.

A copy of the protest should also be sent via e-mail and U.S. mail to the addresses below on the same date it is mailed or delivered to the Commission:

For CSE:
Sephra Ninow
Associate Director, Regulatory Affairs
Center for Sustainable Energy®
9325 Sky Park Court, Suite 100
San Diego, CA 92123
E-mail: sephra.ninow@energycenter.org

For SoCalGas:
Attn: Ray Ortiz
Tariff Manager - GT14D6
555 West Fifth Street
Los Angeles, CA 90013-1011
E-mail: rortiz@SempraUtilities.com

For SCE:
Russell G. Worden
Managing Director, State Regulatory Operations
Southern California Edison Company
8631 Rush Street
Rosemead, CA 91770
E-mail: AdviceTariffManager@sce.com

Laura Genao
Managing Director, State Regulatory Affairs
c/o Karyn Gansecki
Southern California Edison Company
601 Van Ness Avenue, Suite 2030
San Francisco, CA 94102
E-mail: Karyn.Gansecki@sce.com

For PG&E:
Erik Jacobson
Director, Regulatory Relations
c/o Megan Lawson
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, CA 94177
E-mail: PGETariffs@pge.com

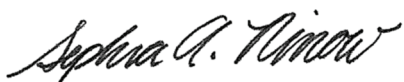
There are no restrictions as to who may file a protest, but the protest shall set forth specifically the grounds upon which it is based and shall be submitted expeditiously.

EFFECTIVE DATE

CSE requests that this Advice Letter become effective on regular notice, May 27, 2017, which is thirty (30) calendar days after the date of filing.

NOTICE

CSE is providing a copy of this Advice Letter to service list R.12-11-005.



Sephra Ninow
Associate Director, Regulatory Affairs
Center for Sustainable Energy®

Attachments: Attachment A – Field Inspection Sampling Protocol
Attachment B – Energy Storage Field Inspection and Discharge Testing Protocol

cc: Service List R.12-11-005

CALIFORNIA PUBLIC UTILITIES COMMISSION

ADVICE LETTER FILING SUMMARY ENERGY UTILITY

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

Company name/CPUC Utility No. Center for Sustainable Energy® (CSE)

Utility type: N/A

ELC GAS

PLC HEAT WATER

Contact Person: Sephra Ninow

Phone #: (858) 244-1186

E-mail: sephra.ninow@energycenter.org

EXPLANATION OF UTILITY TYPE

ELC = Electric

GAS = Gas

PLC = Pipeline

HEAT = Heat

WATER = Water

Tier: 1 2 3

Advice Letter (AL) #: 78

Subject of AL: Proposed Modifications to the Self-Generation Incentive Program to Implement a Field Inspection Sampling Protocol in accordance with D.16-06-055 and Revise the Energy Storage Inspection Protocol in accordance with Resolution E-4717.

Keywords (choose from CPUC listing): Compliance; Self Generation

AL filing type: Monthly Quarterly Annual One-Time Other

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #: D.16-06-055 and Resolution E-4717

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 AL¹: N/A

Resolution Required? Yes No

Requested effective date: May 27, 2017

No. of Tariff Sheets: 0

Estimated system annual revenue effect: (%): 0

Estimated system average rate effect (%): 0

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: N/A

Service affected and changes proposed¹: Self-Generation Incentive Program: Implementation of a Field Inspection Sampling Protocol and Revision of the Energy Storage Inspection Protocol

Pending advice letters that revise the same tariff sheets: N/A

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

**CPUC, Energy Division
Attention: Tariff Unit
505 Van Ness Ave., 4th Flr.
San Francisco, CA 94102
EDTariffUnit@cpuc.ca.gov**

**Utility Info (including e-mail)
Sephra Ninow
Center for Sustainable Energy®
9325 Sky Park Court, Suite 100
San Diego, CA 92123
sephra.ninow@energycenter.org**

¹ Discuss in AL if more space is needed.

Field Inspection Sampling Protocol

Inspections ensure that each SGIP system is designed and installed in a manner that complies with the program and ensures customer safety. The following sampling protocol documents the inspection process for developers with multiple SGIP reservations. This protocol may be implemented at the discretion of each Program Administrator. Program Administrators reserve the right to inspect any and all projects requesting an incentive.

1. Inspections could be subject to a suspension as defined below:

- a. **Suspensions** occur when the equipment is operating normally but another requirement of the inspection process is not satisfied, at the Program Administrator's discretion. A suspension would typically NOT require re-inspection and may be satisfied via submission of revised documentation. Suspensions include but are not limited to:
 - i. The equipment installed does not match the equipment identified on the reservation documentation
 - ii. Sufficient discharge data is not submitted prior to the inspection
 - iii. The customer failed to implement the required energy efficiency measures, if applicable
 - iv. The utility meter inspected onsite does not match the meter ID on the proof of utility
- b. **Failures**¹ are typically applied when the project does not fulfill program rules and a re-inspection is required, at the Program Administrator's discretion. Failures include but are not limited to:
 - i. The inspector is unable to access the equipment or conduct the inspection through no fault of their own
 - ii. The equipment is not operating properly
 - iii. The equipment or technology that is installed does not match the equipment or the technology identified in the ICF documentation²

2. Inspection sampling will be managed per Program Administrator territory, will apply to each developer, and will be separate for residential and non-residential projects. The following methodology may be applied:

- a. The first three projects using the same model for each developer in both the residential and non-residential customer category will be inspected.

¹ Section 2.5.3 of the SGIP Handbook addresses failed field verification

² While considered a failure, differing equipment may not require a physical re-inspection but would result in an automatic failure

Field Inspection Sampling Protocol

- b. Once three inspections from a single developer have been successfully completed with no failures or suspensions, one in five projects may be randomly selected by the Program Administrator for inspection.
- c. At the Program Administrator's discretion, one in ten projects may be randomly selected for inspection after six total successful inspections.
- d. New equipment models introduced by a developer during the inspection sampling cycle will be inspected for at least three applications. If the inspections are successful, the cycle will resume from the existing sampling rate in 2(b) above.
- e. Any failed inspections resulting in a need to physically re-inspect the project (as defined in 1(b) above) will result in a reset of the inspection sampling (i.e. start back at "2(b)" above). Failed inspections resulting in five suspensions (as defined in 1(a) above) could result in a reset of the inspection sampling.

Energy Storage Field Inspection and Discharge Testing Protocol

Pre-Inspection

Prior to the field inspection, the following numbered items must be provided to the inspector.

- 1. Verification that all necessary equipment information (e.g. make, model, kW and/or kWh capacity, etc.) is easily visible either from the outside or on the interior of the system at the time of inspection. If access to the interior of the system is necessary, a qualified technician must be present to facilitate verification.**
- 2. Verification that the energy storage system is configured to operate in parallel with the grid, load shave, and serve on-site load by supplying one or more of the following:**
 - a. Reviewing the Interconnection Agreement or Permission to Operate letter (if applicable)
 - b. Charge and discharge data for the unit installed and comparison to interval data from the utility
 - c. Securing a copy of the electrical single line diagram for the project and using it to verify against the field connection during the inspection
 - d. Requesting that there be a field technician at the site inspection with a user interface such as a laptop to demonstrate parallel operation during the inspection
- 3. Demonstration of energy storage system performance under normal operation through the review of one weeks' worth of data:**
 - a. The data will include kW and kWh¹ charged and discharged or offset, state of charge, date and time stamps, and the serial number or unique identifier of the battery or energy storage system.
 - b. The inspector will verify standby, charging and discharging modes, and if coupled with wind generation, will verify if the energy storage system is able to handle hundreds of charge-discharge cycles daily.

¹ For AC-based systems, kWh must be measured on the AC connection.

Energy Storage Field Inspection and Discharge Testing Protocol

Field Inspection

The inspections will be conducted by parties responsible to the Program Administrators (PAs), either PA employees or inspectors contracted to the PAs. The inspector will visually inspect the energy storage system to verify the device(s) can service onsite load, can operate in parallel with the grid, and meets SGIP technical eligibility requirements. The inspector will also confirm the energy storage system equipment is permanently installed and is of the same make, model, capacity, and configuration as that specified in the application documentation². While on-site during the inspection, the inspector may be required to witness a discharge demonstration of the system, performed on-site or remotely by the project Developer, System Owner or Host Customer³.

Prior to the inspection, the PA will require either option 1 **or** option 2 below to satisfy the discharge testing requirement. For either option, the following information must be provided to the PA:

- a. The type of load served (i.e. native load⁴, grid⁵ or artificial load⁶, depending on what is practical at the installation)
- b. Unique system identifier (e.g. battery/system serial number or MAC address)
- c. The average battery cell temperature (if applicable) or ambient temperature at the time of the test
- d. Interval data⁷ (no less than 1 minute, and no more than 5 minutes) with the following information for each interval recorded over the test period:
 - a. Date and time stamps
 - b. kW and/or kWh⁸
 - c. State of charge

Additional data and information requirements specific to each option are identified below.

Option 1

Field Test: Continuous⁹ discharge test measuring actual energy storage system output over the discharge duration specified on the application.

² If there is additional generation onsite behind the same meter as the energy storage system, the inspector may confirm relevant equipment information of the generator(s) (e.g. type, fuel, capacity, make, etc.).

³ Applicants will be informed prior to the inspection should the inspector be required to witness a discharge demonstration. Physically disconnecting the system from the grid in order to demonstrate a discharge does not satisfy this requirement.

⁴ Grid served native load must be available for the discharge duration specified.

⁵ Export to grid must be possible based upon interconnection agreement

⁶ Power electronics may need to be self-commutated (most inverters are self-commutated)

⁷ Data will be used to establish the average capacity of the energy storage system

⁸ If kW or kWh data is not available then voltage and current should be provided

Energy Storage Field Inspection and Discharge Testing Protocol

The continuous discharge test is to be completed by the project developer, System Owner or Host Customer independently of the field verification visit, and results should be submitted to the PA prior to field inspection.

Option 2

Factory Test Accompanied by a 30-Minute Field Test: For battery systems, manufacturer and/or system integrator continuous discharge test report of the same make and model as the unit(s) inspected in the field must be provided. Factory report must also include description of testing approach or methodology and location of test. Additionally, a ½ hour continuous field discharge test measuring actual energy storage system output must be provided.

The 30-minute continuous discharge field test is to be completed by the project developer, System Owner or Host Customer, independently of the field verification visit. Both the manufacturer report and 30-minute test results should be submitted to the PA prior to field inspection. The 30-minute discharge test does not require demonstration of the system's full rated capacity and is not intended to calculate the incentive, rather to provide insight into the onsite system's actual operation.

Discharge Data Analysis

The results of the continuous Field or Factory discharge test for Option 1 or 2 over the specified discharge duration must be within +/- 5% of the SGIP incentivized capacity in the incentive claim documentation. Projects yielding test results outside of the +/-5% threshold are subject to capacity and incentive adjustments according to the test results, and may be subject to additional eligibility requirements before final approval.

⁹ Continuous discharge means discharging at its rated capacity from the fully charged state without charging over the discharge duration specified on the application documentation and equipment specifications