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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking
Regarding Policies, Procedures and
Rules for the Self-Generation Incentive
Program and Related Issues.

Rulemaking 20-05-012

**DECISION REVISING SELF-GENERATION INCENTIVE
PROGRAM RENEWABLE GENERATION TECHNOLOGY
PROGRAM REQUIREMENTS AND OTHER MATTERS**

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**DECISION REVISING SELF-GENERATION INCENTIVE PROGRAM
RENEWABLE GENERATION TECHNOLOGY PROGRAM REQUIREMENTS
AND OTHER MATTERS**

Summary

This decision revises program requirements for Self-Generation Incentive Program (SGIP) renewable generation technologies and addresses other issues. This decision terminates a pause on acceptance of applications for renewable generation technology projects using a control/use/destroy baseline as adopted in Decision (D.) 20-01-021. It limits eligible directed renewable fuels to those produced within California and strengthens renewable fuel documentation, verification, auditing, and enforcement requirements. This decision requires that all environmental attributes associated with renewable fuels used in a SGIP project, if any, are obtained and exclusively owned and retained by the SGIP Host Customer. It clarifies that SGIP renewable generation projects using 100 percent renewable fuels and involving internal combustion engines shall meet the same criteria pollutant emission levels as required in Public Utilities Code Section 379.6(c)(1) - (3) for fossil-fuel combustion projects. This decision requires on-site SGIP biogas projects to meet the standard of methane purity set forth in Southern California Gas Company Tariff Rule no. 30, "Transportation of Customer-Owned Gas," and prohibits award of SGIP incentives to internal combustion engine projects in counties listed as severe or extreme federal nonattainment areas for particulate matter or ozone.

This decision updates the definition of SGIP-eligible renewable fuels and revises certain SGIP application requirements for wind technologies. This decision revises the eligibility requirements for the Equity Resiliency Budget and provides several other clarifications. It requires Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas

Company, and the Center for Sustainable Energy to file a joint Tier 2 Advice Letter no later than 45 days from issuance of this decision proposing modifications to the 2021 SGIP Handbook to implement the revisions adopted here.

This decision is effective immediately. This proceeding remains open.

1. Background on SGIP Renewable Technology Project Renewable Fuel Requirements

Distributed generation projects using renewable fuels have been a component of the Self-Generation Incentive Program (SGIP) since the Commission established the program in Decision (D.) 01-03-073. However, the Commission has revised requirements for SGIP renewable generation technology projects using renewable fuels many times. Public Utilities (Pub. Util.) Code Section 379.6(m) requires that SGIP generation technology projects must use 100 percent renewable fuels as of January 1, 2020.¹

In D.20-01-021, the Commission “paused” acceptance of all SGIP applications involving renewable fuels that use a “capture/use/destroy” baseline. Projects with this baseline use biomethane derived from methane sources that are already required by law or regulation to capture and productively use or destroy the methane.² Typically, this means that gas at the fuel source is flared or burned, reducing but not eliminating greenhouse gas emissions.³ Most landfills in California are subject to such regulations, as are most sewage treatment plants, while California dairies are not required to

¹ Hereafter all references to code are to the Public Utilities Code unless otherwise indicated.

² See D.20-01-021 at 66.

³ 2016-2017 SGIP Impact Evaluation, Appendix D at D-4, D-5, D-8, available here: <https://www.cpuc.ca.gov/General.aspx?id=7890>.

capture/use/destroy methane emissions.⁴ D.20-01-021 justifies pausing acceptance of applications for projects with a capture/use/destroy baseline by pointing to low greenhouse gas emission reductions or potential emission increases for these types of projects as well as other concerns.⁵

D.20-01-021 revises other renewable generation program requirements. First, D.20-01-021 increases base renewable generation technology incentives from between \$0.60 to \$1.20 per watt to \$2.00 per watt, with no step down, and adopts a \$2.50 per watt incentive adder for projects located in Tier 2 or Tier 3 High Fire Threat Districts or in areas subject to two or more discrete Public Safety Power Shutoff (PSPS) events.⁶ Second, D.20-01-021 clarifies that as of January 1, 2020, SGIP projects must only use renewable fuels for the duration of their useful lives.⁷ Third, D.20-01-021 identifies inconsistencies in biofuel source verification requirements between the SGIP and the California Air Resources Board Low Carbon Fuel Standard⁸ and inconsistencies in requirements for the provision of environmental benefits in California (beyond greenhouse gas emission reductions) and treatment of environmental attributes between the SGIP and the California Energy Commission's Renewables Portfolio Standard

⁴ See discussion in D.20-01-021 at 66.

⁵ D.20-01-021 at 64- 66. The low negative or positive greenhouse gas emission profiles from projects with a capture/use/destroy baseline stem from the exclusion of methane (CH₄) emission reductions from this activity from the project baseline. The baseline for such projects only includes avoided CO₂, not also avoided methane. See 2016-2017 SGIP Impact Evaluation, Appendix C, C-10 through C-11.

⁶ *Id.* at 35-36 and 51 and Ordering Paragraphs (OP) 14 and 27. See D.16-06-055 for a summary of renewable generation technology incentives prior to D.20-01-021.

⁷ D.20-01-021 at 37 and OP 16.

⁸ *Id.* at 62 and 69.

rules.⁹ Fourth, D.20-01-021 expresses concern about evaluation reports indicating that most SGIP renewable technology projects revert to using fossil fuel (natural gas) after the end of their performance verification period.¹⁰ Finally, D.20-01-021 authorizes the SGIP Program Administrators to submit a Tier 2 Advice Letter to propose additional tracking and verification requirements for SGIP biogas projects, which has not yet occurred.¹¹

Because of the pause placed on acceptance of new renewable generation projects using a capture/use/destroy baseline, D.20-01-021 pledges to consider revisions to the SGIP's renewable generation requirements early in the successor proceeding to Rulemaking (R.) 12-11-005.

1.1. Procedural History

The Commission closed rulemaking R.12-11-005 on February 6, 2020, and opened R.20-05-012 on May 28, 2020; both address the SGIP. The Assigned Administrative Law Judge held a pre-hearing conference in R.20-05-012 on July 29, 2020. On August 17, 2020, the Assigned Commissioner issued an *Assigned Commissioner's Scoping Memo and Ruling* (Scoping Memo). The Scoping Memo identifies renewable generation technologies and renewable fuel evaluation, oversight, and program issues as within the scope of R.20-05-012.¹²

The Scoping Memo also identifies several other potential program revisions as within the scope of this proceeding, including: (1) considering refinements to the Equity Resiliency Budget and/or General Market Resiliency Adder Incentive requirements adopted in D.19-09-027 and D.20-01-021;

⁹ *Id.* at 61-63, 66 - 67,

¹⁰ D.20-01-021 at 62, 66.

¹¹ D.20-01-021 at 38 and OP 14.

¹² Scoping Memo, August 17, 2020 at 6.

(2) considering revisions to SGIP’s multifamily building requirements, including, potentially, to facilitate the participation of multi-tenant commercial buildings; and, (3) considering whether electric vehicle energy storage systems and/or electric vehicle supply equipment should be eligible for SGIP incentives, and if so, what rules or conditions should apply.¹³ The Scoping Memo further asked if the Commission should clarify the definition of “discrete PSPS event” adopted in D.20-01-021, amongst several other questions that we discuss further below.¹⁴ Twenty-four parties commented on questions in the Scoping Memo.¹⁵

On October 20, 2020, the Assigned Commissioner issued an *Assigned Commissioner’s Ruling Seeking Comment on Renewable Generation Fuels and Technologies (Renewables Ruling)*.¹⁶ On November 12, 2020, Commission staff

¹³ *Id.* at 7.

¹⁴ *Id.* at 9.

¹⁵ Parties commenting on questions b – k of the Scoping Memo include the Public Advocates Office, Sunrun, Inc., Rural County Representatives of California, Pacific Gas and Electric Company (PG&E), The Utility Reform Network (TURN), Southern California Edison Company (SCE), California Solar and Storage Association (CALSSA), Sierra Club and Natural Resources Defense Council (Sierra Club/NRDC), Fermata, LLC, FuelCell Energy Inc., San Diego Gas and Electric Company (SDG&E), California Energy Storage Alliance (CESA), GRID Alternatives, Tesla, the Center for Energy Efficiency and Renewable Technologies (CEERT), Protect Our Communities Foundation, the Vehicle-Grid Integration Council and BMW of North America, LLC, Southern California Gas Company (SoCalGas), East Bay Community Energy, Marin Clean Energy and Peninsula Clean Energy Authority (Joint Community Choice Aggregators or CCAs), and the Small Business Utility Advocates.

¹⁶ The Renewables Ruling sought party input on a range of questions. It asked: (1) Are there sufficient benefits from offsetting grid electricity through an electric fuel cell using a directed biofuel source that is required to capture/use/destroy methane to justify providing SGIP incentives for this fuel source? (2) Should SGIP provide different incentive amounts for generating equipment using directed biofuels based on whether the fuel source is required to capture/use/destroy methane or whether the project uses a fuel source that captures what would otherwise be vented methane? (3) Are revisions required to ensure that directed biogas projects reduce greenhouse gases by a minimum of five kilograms per kilowatt hour – the requirement adopted for energy storage projects in D.19-08-001; (4) Are changes to verification and documentation requirements for biofuels projects needed? Specifically: (a) Should the

Footnote continued on next page.

convened a workshop to discuss renewable generation technology and fuel issues. Fourteen parties filed opening comments on the Renewables Ruling on November 18, 2020, and 12 parties filed reply comments on November 24, 2020.¹⁷

On March 2, 2021, the Assigned Commissioner issued an additional *Assigned Commissioner's Ruling Requesting Comment* (2021 Ruling). The 2021 Ruling asks additional questions about renewable generation technology and fuel program requirements and the appropriate definition of PSPS events for Equity Resiliency Budget eligibility purposes, amongst other issues. Seventeen parties filed opening comments on the 2021 Ruling on March 22, 2021, and 12 parties filed reply comments on March 29, 2021.¹⁸

Commission consider modifications to the existing SGIP Handbook biofuel documentation, measurement, and verification requirements? (b) Should the Commission consider additional requirements to ensure compliance with Section 379.6(m), such as: (i) Increasing the length of time that a directed biofuel project must demonstrate that it has a fuel supply contract in place, to 15 years or some other time? (ii) Requiring on-site inspection of SGIP projects using directed biogas fuel sources to ensure that the project is continuing to use renewable fuel? (iv) Limiting sources of directed biogas for SGIP renewable technologies to facilities certified by the California Energy Commission's Renewables Portfolio Standard or verified through the California Air Resources Board's Low Carbon Fuel Standard program? (v) Requiring periodic on-site verification of all directed biofuel project generation sources unless the source is a Renewables Portfolio Standard or a Low Carbon Fuel Standard certified or verified renewable biofuel generator?

¹⁷ Parties filing opening comments on the Renewables Ruling include: the Bioenergy Association of California, the California Hydrogen Business Council, CEERT, CSE, Foundation Windpower, FuelCell Energy Inc., the Green Hydrogen Coalition, the National Fuel Cell Research Center, the Public Advocates' Office, PG&E, Sierra Club/NRDC, the Small Business Utility Advocates, SoCalGas, and SDG&E. Parties filing reply comments include: the California Association of Sanitation Agencies, the California Hydrogen Business Council, CEERT, CSE, the Fairfield-Suisan Sewer District, Foundation Windpower, FuelCell Energy Inc., the Green Hydrogen Coalition, the National Fuel Cell Research Center, the Public Advocates' Office, Sierra Club/NRDC, the Small Business Utility Advocates, and SoCalGas.

¹⁸ Parties filing opening and/or reply comments on the 2021 Ruling include: the Fairfield-Suisan Sewer District, CSE, the National Fuel Cell Research Center, Bioenergy Association of California, SCE, the California Association of Sanitation Agencies, the California Hydrogen Business Council, the Sierra Club, SoCalGas, FuelCell Energy, Inc., SDG&E, PG&E,

Footnote continued on next page.

2. Jurisdiction

Public Utility Code Section 379.6 directs the Commission to establish and oversee the SGIP. Section 379.6(m) requires the Commission to limit eligibility to SGIP generation technology incentives as of January 1, 2020, to technologies using 100 percent renewable fuels.

3. Issues Before the Commission

This decision addresses the following issues and questions included in the Scoping Memo, the Renewables Ruling and the 2021 Ruling.¹⁹

Regarding SGIP renewable technologies and fuels requirements:

Should the Commission:

1. Terminate the “pause” on accepting renewable generation technology project applications using a capture/use/destroy baseline adopted in D.20-01-021?
2. Revise requirements for eligible directed biofuels?
3. Remove internal combustion engines from the list of eligible technologies?
4. Revise definitions of eligible SGIP biofuels by:
 - a. Excluding crops grown solely for energy production?
 - b. Limiting eligible sources of renewable hydrogen to “green electrolytic hydrogen”?
5. Revise SGIP documentation, verification, auditing, and enforcement requirements for biofuel projects?
6. Revise SGIP requirements for wind technology projects to remove barriers to participation?

the California Clean DG Coalition, TURN, CALSSA, CEERT, the Public Advocates Office, and the Combined Heat and Power Alliance.

¹⁹ The Scoping Memo issues addressed in this decision are issues c, d(i), d(ii), d(iv) and questions b, d, e, h, i, j, and k. Scoping Memo question a was addressed in D.20-10-025.

Regarding other SGIP program requirements:

Should the Commission:

1. Clarify the definition of “two discrete PPS events” adopted in Decision 20-01-021 to include customer meters deenergized from an actual wildfire?
2. Revise requirements for multifamily buildings on a Virtual Net Energy Metering (VNEM) tariff?
3. Revise eligibility requirements for Equity Resiliency Budget customers using the medical baseline pathway adopted in D.19-09-027 and D.20-01-021?
4. Refine SGIP requirements to facilitate the participation of electric vehicle storage systems?

Sections 4 – 12 of this decision address renewable technologies and fuels issues. Sections 12 and 13 address all other program issues.

4. Terminating the Pause on Renewable Generation Technology Projects with Capture/Use/Destroy Baseline located in California

As discussed in section 1, D.20-01-021 paused acceptance of all SGIP applications involving renewable fuels using a capture/use/destroy baseline. D.20-01-021 states that the Commission paused acceptance of applications for projects with a capture/use/destroy baseline in order to review party concerns about low greenhouse gas emission reductions for these types of projects and other issues.²⁰ The low greenhouse gas emission reductions from projects with a capture/use/destroy baseline stem from the exclusion of methane emission reductions from this activity from the greenhouse gas emission reduction baseline used for such projects.²¹ D.20-01-021 also expresses concerns about the

²⁰ D.20-01-021 at 64- 66.

²¹ *Id.* at 65. *See also* 2016-2017 SGIP Impact Evaluation, Appendix C, at C-10 through C-11.

disposition of environmental attributes and the provision of environmental benefits to California from such projects, amongst other concerns.²²

This decision terminates the pause on acceptance of all SGIP applications involving renewable fuels using a capture/use/destroy baseline.

4.1 Party Comments

Many party comments on the Order Instituting Rulemaking, the Renewables Ruling and the 2021 Ruling strongly oppose the pause in accepting applications for projects with a capture/use/destroy baseline.²³

The California Association of Sanitation Agencies observes that the pause excludes the wastewater treatment sector from SGIP participation, even though wastewater treatment SGIP projects may be using biogas produced on-site. California Association of Sanitation Agencies states that the pause ignores the fact that wastewater treatment facilities and others produce, or have the potential to generate, more biogas than they need on-site and that this will only increase as Senate Bill (SB) 1383 regulations are implemented and wastewater plants receive even more diverted organic waste for co-digestion. The California Association of Sanitation Agencies asserts that there are already several wastewater plants that are providing 100 percent of their on-site needs and exporting excess electricity or biomethane.²⁴ The Fairfield-Suisun Sewer District also strongly opposes the

²² *Ibid.*

²³ Parties supporting removal of the pause on acceptance of applications for projects with a control/use/destroy baseline, in comments on the Order Instituting Rulemaking include the California Clean DG Coalition, FuelCell Energy Inc., the National Fuel Cell Research Center, and SoCalGas. (See opening comments, June 29, 2020, and reply comments, July 9, 2020.) These same and additional parties oppose the pause in comments on the Renewables Ruling and the 2021 Ruling.

²⁴ California Association of Sanitation Agencies, "Reply Comments on Renewables Ruling," November 24, 2020.

“pause,” explaining that it is planning to install a new on-site biogas cogeneration system, but that its treatment plant falls under the control/use/destroy baseline.²⁵

SoCalGas observes that some part of the reduced greenhouse gas emission reductions attributed to projects using the control/use/destroy baseline result from the assumed revision of such projects to natural gas after five years, whereas, currently, renewable fuel projects are required to maintain biofuel contracts for at least 10 years.²⁶

4.2 Discussion

This decision terminates the pause on acceptance of all SGIP applications involving renewable fuels using a capture/use/destroy baseline if the fuel source is produced in California. As discussed further in the next section, allowing renewable fuels produced from in-state sources using a capture/use/destroy baseline to resume participation in SGIP will help minimize the flaring of landfill gas in California, and the resulting release of criteria pollutants, and will support broader California waste diversion from landfill and short-lived climate pollutant goals.²⁷

We agree with the California Association of Sanitation Agencies and the Fairfield-Suisun Sewer District that SGIP projects at sewage treatment plants

²⁵ Fairfield-Suisun Sewer District, “Reply Comments on Renewables Ruling,” November 24, 2020.

²⁶ SoCalGas, “Reply Comments on Renewables Ruling,” at 4, referencing the 2016-2017 SGIP Impact Evaluation Report which assumed that projects reverted to natural gas fuel use after the then 5-year fuel supply contract requirement. Currently, SGIP generation projects have a 10-year obligation to use renewable gas.

²⁷ California Energy Commission 2017 Integrated Energy Policy Report at 286.
<https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2017-integrated-energy-policy-report>.

have the potential to provide substantial greenhouse emission reduction benefits despite already being subject to control/use/destroy regulations, primarily due to the role of such treatment plants in California's larger landfill waste diversion goals.

The SGIP Program Administrators shall submit a Tier 2 Advice Letter updating the SGIP Handbook to reflect this and all other guidance adopted here no later than 45 days from issuance of this decision.

5. Limiting Directed Biofuels to those Produced Within California

Renewable fuels that are eligible for use in SGIP projects include fuels produced "on-site" at the same location as an SGIP electricity generation project and "directed biofuels" that are produced offsite from the project but that are "nominated and delivered" to a SGIP project site.²⁸ The SGIP Handbook defines "on-site" fuel as fuel produced and captured at the same location as the site of the electrical generation facility and fuel delivered via a "dedicated pipeline" that is "only physically capable of delivering gas to the generating facility."²⁹ D.09-09-048 requires eligible directed biogas to be injected into a natural gas pipeline system that is either within the Western Electricity Coordinating Council (WECC) region or that is interconnected to a natural gas pipeline in the WECC region that delivers gas into California. D.09-09-048 also requires that directed fuel SGIP project applications include: 1) an attestation from the facility operator of its intent to procure directed biogas; and 2) an attestation from the

²⁸ D.09-09-048 at OP 2.

²⁹ The 2021 SGIP Handbook V1 at 121, available here: <https://www.selfgenca.com/home/resources/>

fuel supplier that the fuel meets currently applicable Renewables Portfolio Standard eligibility requirements for biogas injections.³⁰

The Renewables Ruling and the 2021 Ruling asked several questions about revising SGIP eligibility requirements for renewable fuels, including:

1. Should the Commission revise SGIP renewable generation technology requirements to remove directed biofuels as an eligible fuel?
2. Are there sufficient benefits from offsetting grid electricity through an electric fuel cell using a directed biofuel source that is required to capture/use/destroy methane to justify providing SGIP incentives for this fuel source?
3. Should the Commission consider requiring SGIP directed biomethane projects to demonstrate the provision of environmental benefits to California? If so, should the Commission consider adopting the requirements for biomethane project provision of environmental benefits as outlined in the California Energy Commission's Renewables Portfolio Standard Guidelines, or Section 651(b), or should some other approach be considered?
4. Should SGIP provide different incentive amounts for generating equipment using directed biofuels based on whether the fuel source is required to capture/use/destroy methane or whether the project uses a fuel source that captures what would otherwise be vented methane?
5. Are revisions required to ensure that directed biogas projects reduce greenhouse gases by a minimum of five kilograms per kilowatt hour – the requirement adopted for energy storage projects in D.19-08-001?³¹

³⁰ D.09-09-048 at OP 2. *See also* discussion in D.20-01-021 at 67-68 regarding later changes prohibiting out-of-state directed biogas that appear to have not been implemented by SGIP Program Administrators.

³¹ *See* section 8 for a list of Renewables Ruling questions about biofuels verification and documentation requirements.

5.1 Party Comments

Parties provide a range of comments on these questions but generally fall into three camps. First, Sierra Club, the Public Advocates Office, CEERT, and the Small Business Utility Advocates generally argue that the Commission should exclude directed biofuels from SGIP eligibility because such fuels provide insufficient and declining levels of greenhouse gas emission reductions. This is for two reasons, these parties state. First, SGIP projects using directed biofuels are offsetting an increasingly renewable grid. Second, pipeline injection of directed biofuels implies an overall increase in demand for natural gas when SGIP projects inevitably revert to natural gas after the 10-year biofuel contract requirement has ended.

These parties further point to the poor verification track record and continued non-compliance issues for SGIP directed biofuels.³² The Public Advocates Office states that on-site inspections of fuel sources for directed biogas projects would be necessary to ensure compliance but would be prohibitively expensive, so SGIP should not allow directed biogas projects. These parties negatively compare SGIP verification requirements to those required for the Low Carbon Fuel Standard and the federal Renewable Fuel Standard, both of which require on-site inspections of fuel sources.³³

Sierra Club/NRDC and the Public Advocates Office contend that directed biofuels are better suited to meet Low Carbon Fuel Standard requirements, because doing so ensures a fixed unit-to-unit offset of fossil fuel gas, as opposed to SGIP, for which directed biofuel projects would provide declining greenhouse

³² Public Advocates Office, "Reply Comments on 2021 Ruling," at 2, citing the Itron Renewable Fuel Use Reports No. 27 at 1 - 6 and Verdant Renewable Fuel Use Report No. 29 at 7.

³³ Sierra Club, "Reply Comments on 2021 Ruling," at 3.

gas reductions over time as more renewables are added to the electricity grid. These parties also argue that biofuels are better reserved for hard-to-decarbonize sectors such as heavy air or maritime transportation. They further contend that better avenues for the use of waste biofuels are the Low Carbon Fuel Standard, the Bioenergy Market Adjusting Tariff (BioMAT), or future procurement authorized under SB 1440.³⁴

The second grouping of party views is represented by the Bioenergy Association of California. This party recommends that the Commission allow directed biofuels in SGIP projects but require the fuels to be produced in California or meet Renewables Portfolio Standard or Section 399.12.6(b) requirements. These two authorities require demonstration that the capture and injection of biomethane into a common carrier pipelines directly results in one of the following environmental benefits to California: (a) the reduction or avoidance of the emission of any criteria pollutant in California; (b) the reduction or avoidance of pollutants that could have an adverse impact on waters of the state; (c) the alleviation of a local nuisance within California that is associated with the emission of odors.³⁵ SoCalGas observes that SGIP projects are already currently required to meet Renewables Portfolio Standard requirements, so it is unnecessary to adopt additional provisions.³⁶

³⁴ *Ibid.* See R.18-07-003 for information on the BioMAT program.

³⁵ Bioenergy Association of California, “Comments on Renewables Ruling,” November 18, 2020, at 9. See also Public Utilities Code Section 399.12.6. and the California Energy Commission’s 2017 Renewables Portfolio Standard Eligibility Commission Guidebook at 10-11, available here: <https://www.energy.ca.gov/programs-and-topics/programs/renewables-portfolio-standard>

³⁶ SoCalGas, “Comments on Renewables Ruling,” November 18, 2020, at 11.

As a rebuttal to the Bioenergy Association of California, the Sierra Club/NRDC point to Section 651(b) to argue that the Commission should be cautious regarding SGIP “environmental benefits” requirements. Sierra Club/NRDC observe that Section 651(b) allows for biofuel projects to either reduce criteria pollutants or reduce greenhouse gases or to provide other environmental benefits.³⁷ To the extent that the Commission allows use of directed biofuels, the Sierra Club/NRDC recommend limiting eligible fuels to those produced in California and requiring adherence to Section 399.12.6(b) rather than to Section 651(b).

In agreement with the Bioenergy Association of California, TURN and CEERT state that their main concerns lie with out-of-state directed biofuels. TURN asserts “there is no guarantee of any additional greenhouse gas reductions caused by contracts for out-of-state directed biogas... biogas projects in other states are already constructed based on economics or state requirements.”³⁸ The Commission should prohibit use of out-of-state directed biogas just as it prohibits use of out-of-state Renewable Energy Credits towards Renewables Portfolio Standard requirements to avoid California residents paying a premium for renewable electricity that would have been produced anyway, TURN argues. The National Fuel Cell Research Center observes that

³⁷ See Public Utilities Code Section 651(b), which directs the Commission to consider adopting biomethane targets for gas corporations and to “ensure that biomethane eligible for any procurement program meets one of the following conditions... (I) the reduction or avoidance of the emission of *any criteria pollutant, toxic air contaminant, or greenhouse gas in California*; (II) The reduction or avoidance of pollutants that could have an adverse impact on waters of the state; (III) the alleviation of a local nuisance within California that is associated with the emission of odors.” (emphasis added).

³⁸ TURN, “Comments on 2021 Ruling,” March 22, 2021, at 2.

SGIP could include a preference for in-state directed or on-site biogas if the Commission wishes to value other positive local impacts such as job creation.

FuelCell Energy, Inc. is representative of the third general grouping of parties, who argue that directed biofuels produced both in- and out-of-state should be eligible for SGIP because reducing greenhouse gas emissions provides sufficient environmental benefits and current SGIP reporting and tracking requirements are acceptable. However, industry parties voice their strongest objections to limiting eligible SGIP fuels to on-site sources.³⁹ The California Association of Sanitation Agencies points to SB 1383 legislation as driving an increase in the diversion of organic waste from California landfills, potentially to wastewater treatment plants, where the waste can be co-digested and converted to renewable biofuel. The Association notes that several wastewater plants are already providing 100 percent of their on-site energy needs and exporting excess electricity or biomethane; limiting SGIP fuels to on-site sources would undermine this positive trend.⁴⁰

FuelCell Energy Inc. contends that many biogas producers produce too much or too little biogas to be consumed on-site and that ending directed biogas eligibility for SGIP would simply mean that methane from such locations would continue to be vented or flared. If a biogas producer creates too little fuel, a 100 percent on-site fuel project is not financially feasible or practical without contracting for directed biogas, FuelCell Energy, Inc. states. Additionally,

³⁹ Industry parties opposing this policy include the California Association of Sanitation Agencies, FuelCell Energy, Inc., the California Hydrogen Business Council, the California Clean DDG Coalition, the National Fuel Cell Research Center, SoCalGas, and the Fairfield-Suisan Sewer District.

⁴⁰ California Association of Sanitation Agencies, "Reply Comments on Renewables Ruling," November 24, 2021, at 5.

developers would not be able to aggregate contracts from a group of small, directed biogas producers to create a viable SGIP project and such producers would be unable to sell their excess biogas in California to another renewable generation project if directed biofuels become ineligible. Directed biogas projects are crucial to connect biomethane suppliers with renewable energy project developers, thus allowing otherwise vented or flared gas to become a reliable source of renewable power, including for the “hard-to-reach” maritime and heavy air transportation sectors, according to FuelCell Energy, Inc. The California Hydrogen Business Council similarly asserts that biogenic renewable fuels are an essential resource in support of California’s decarbonization strategies and that use of the existing pipeline system to deliver such fuels is a crucial tool.

SoCalGas and FuelCell Energy, Inc. dispute Sierra Club/NRDC and the Public Advocates Office’s assertions that directed biogas projects are particularly prone to ongoing non-compliance with documentation and verification requirements. SoCalGas asserts that new renewable fuel verification and attestation requirements adopted in 2017 have yet to be tested through actual directed biofuel projects.⁴¹ FuelCell Energy Inc. further disagrees with the idea that directed biogas contracts are “paper transactions that provide no guarantee that the renewable molecules will be used in California by renewable generation projects,” asserting that such skepticism calls into question many existing renewable energy procurement programs that involve crediting use of out-of-state “electrons.”⁴²

⁴¹ SoCalGas, “Comments on Renewables Ruling,” at 3.

⁴² FuelCell Energy, Inc., “Comments on 2021 Ruling,” at 4.

5.2 Discussion

This decision limits eligible SGIP directed biofuels to those produced in-state. After carefully considering the range of party comments, we feel this approach most appropriately balances achievement of SGIP goals with industry needs while providing additional environmental benefits and advancing California's short-lived climate pollutant goals. While concerning, past biofuel project documentation non-compliance issues have not been limited to directed biofuel projects and are not insurmountable (see section 8).⁴³

We are persuaded by industry parties that lack of access to directed biofuels could severely limit the economic viability of otherwise beneficial projects, both from the standpoint of limiting export of excess biofuels, for example by sewage treatment plants, or by limiting the bundling of several small fuel sources together to supply one SGIP project. Further, our adopted approach simultaneously advances SGIP goals and SB 1383's short-lived climate pollutant goals. Under SB 1383, CalRecycle must adopt regulations no sooner than January 1, 2022, that achieve a 50 percent reduction in the level of statewide disposal of organic waste from 2014 levels by 2020 and a 75 percent reduction by

⁴³ The 2018 Renewable Fuel Use Report No. 27 states at 1-5 – 1-6 and 3-9 that, “[p]rior Renewable Fuel Use Reports have documented consecutive occurrences of non-compliance with renewable fuel use requirements. While some of these instances of non-compliance are due to projects occasionally falling below the minimum renewable fuel limit, some projects were consistently out of compliance. This report found no instances of biogas projects being out of compliance with SGIP renewable fuel use requirements. While no projects were found to be out of compliance, numerous on-site and directed biogas projects could not have their compliance status determined due to insufficient data....We find that for on-site biogas projects, many data availability issues originate during the [performance-based incentive] setup process. In other situations, the [Performance Data Provider] reported that their meter no longer was communicating, and therefore no data could be gathered. For directed biogas projects, historical compliance issues were due to difficulties in working with gas marketers and delays in obtaining appropriate documentation.”

2025.⁴⁴ Parties already report an increased use of bio-digesters to accommodate such waste.⁴⁵ SGIP eligibility for directed biogas can help support co-digestion of this diverted organic waste at existing anaerobic digesters at wastewater treatment plants.

The 2017 California Energy Commission Integrated Energy Policy Report highlights the potential role of wastewater treatment plants in co-digesting solid organic waste:

“Many of the largest plants have excess volume capacity, are close to population centers, and could potentially obtain and process significant amounts of solid organic waste.... The California Association of Sanitation Agencies estimates that existing infrastructure at government-owned wastewater treatment plants could accept up to 75 percent (7 million wet tons) of the food waste stream being landfilled”⁴⁶

Additionally, the California Air Resources Board’s short-lived climate pollutant strategy identifies co-digestion as a potential strategy.⁴⁷ By limiting SGIP directed biofuel projects to those within California, more in-state wastewater treatment plants will have the opportunity to use SGIP funds towards projects that expand use of diverted organic waste to produce biofuel.

We also see no compelling reason that SGIP biofuel eligibility criteria should not be designed to reduce greenhouse gases and maximize the provision of environmental benefits to California. Section 379.6(e)(4) requires that eligible SGIP technologies reduce criteria pollutants and Section 379.6(l)(1) - (2) requires

⁴⁴ California Energy Commission 2017 Integrated Energy Policy Report at 248 - 249.

⁴⁵ California Association of Sanitation Agencies, “Reply Comments on Renewables Ruling,” November 24, 2021 at 5.

⁴⁶ California Energy Commission 2017 Integrated Energy Policy Report at 248 - 249.

⁴⁷ *Ibid.*

estimation of both greenhouse gas and criteria pollutant emission reductions to assess SGIP's success. SGIP evaluators estimate NO_x and PM₁₀ emissions avoided from avoidance of flaring at the fuel source site to estimate the criteria pollutant benefits of SGIP projects, amongst other factors.⁴⁸

Limiting eligible directed biofuels to those produced in-state helps ensure the provision of additional environmental benefits at the fuel source site. These benefits include reducing criteria pollutants by avoidance of flaring, as well as, in some cases, reduction in nuisance odors, and/or reductions in adverse impacts on California waters. Unlike the Renewables Portfolio Standard program, however, we do not require certification of the provision of such in-state environmental benefits because our default assumption is that such environmental benefits are generally provided at some level whenever SGIP projects utilize an in-state biofuel source. Use of electricity generated by SGIP projects also offsets grid electricity that customers would otherwise use, which reduces both greenhouse gas and criteria pollutant emissions associated with grid electricity generated by gas-fired power plants.⁴⁹

On balance, we agree with industry proponents who argue that access to pipeline infrastructure for biofuels is an important tool to advance California's decarbonization and greenhouse gas emission goals. Additionally, use of existing pipeline infrastructure for the relatively small SGIP program is not a "make or break" issue— this larger policy debate will play out in R.20-01-007 and other fora moving forward.⁵⁰ We also share TURN's concern that allowing

⁴⁸ 2016-2017 SGIP Impact Evaluation, Appendix D at D-4, D-5, D-8.

⁴⁹ While renewable and carbon free electricity on the grid is increasing, some electricity from gas-fired power plants is still in use.

⁵⁰ R.20-01-007 to *Establish Policies, Processes, and Rules to Ensure Safe and Reliable Gas Systems in California and Perform Long-Term Gas System Planning*.

purchase of out-of-state directed biofuels could undercut incremental SGIP greenhouse gas emission reductions because biogas projects in other states are already constructed based on economics or state requirements. This strengthens our inclination to limit eligible SGIP directed biofuels sources to those produced in-state.

We accept SoCalGas's assertion that SGIP project Host Customers may wish to continue their commitment to renewable fuel use beyond 10 years instead of reverting to natural gas use. As noted earlier, Section 379.6(m) requires and D.20-01-021 clarifies that as of January 1, 2020, SGIP projects must use renewable fuels for the lifetime of the project.⁵¹ To help secure this potential commitment identified by SoCalGas, we adopt an additional requirement: SGIP Program Administrators shall require Host Customers for SGIP renewable generation technology projects using renewable fuels to provide an attestation with application materials committing that the project will only use 100 percent renewable fuels for its lifetime. Requiring this attestation will not in itself ensure compliance with our adopted revisions, but as discussed elsewhere, our enforcement tools are limited due to the anticipated termination of SGIP incentives at the end of 2025 and all SGIP oversight activities by 2036.⁵²

Although we remain concerned about SGIP evaluator findings of non-compliance with SGIP renewable fuels documentation requirements, these challenges are not insurmountable. For instance, we note that neither the 2018 or 2020 Renewable Fuel Use Reports found instances of non-compliance with renewable fuel blending requirements and the instances of lack of availability of

⁵¹ D.20-01-021 at 37 and OP 16

⁵² See D.20-10-021 at 66.

required documentation declined between the 2018 and 2020 reports.⁵³ We also note that SGIP evaluators found a lack of compliance and/or documentation for both directed and on-site renewable generation projects.⁵⁴ We discuss this issue more and adopt additional safeguards to ensure full compliance with SGIP fuel documentation and verification requirements in section 8.

6. Clarifying Requirements for On-Site Internal Combustion Engine Projects Using Biofuels

Internal combustion engines have been an eligible SGIP technology since the Commission created the program in 2001. Section 379.6(c) sets limits for emissions of criteria pollutants for combustion-operated SGIP projects using fossil fuels but does not set similar limits for combustion-operated SGIP projects using 100 percent renewable fuel.⁵⁵ Although not limited to SGIP projects,

⁵³ See section 8.

⁵⁴ The Renewable Fuel Use Report No. 29 (2020) at 7 found that, “[w]hile only one project was found to be out of compliance, numerous on-site and directed biogas projects could not have their compliance status determined due to insufficient data.”

⁵⁵ Section 379.6(c) requires eligible SGIP combustion-operated distributed generation projects using fossil fuel to be subject to all the following conditions: (1) An oxides of nitrogen (NO_x) emissions rate standard of 0.07 pounds per megawatt hour (lbs/MWh) and a minimum efficiency of 60 percent, or any other NO_x emissions rate and minimum efficiency standard adopted by the California Air Resources Board. A minimum efficiency of 60 percent shall be measured as useful energy output divided by fuel input. The efficiency determination shall be based on 100-percent load; (2) Combined heat and power units that meet the 60-percent efficiency standard may take a credit to meet the applicable NO_x emissions standard of 0.07 lbs/MWh. Credit shall be at the rate of one MWh for each 3,400,000 British thermal unit of heat recovered; (3) The customer receiving incentives shall adequately maintain and service the combined heat and power units so that during operation the system continues to meet or exceed the efficiency and emissions standards established pursuant to paragraphs (1) and (2); (4) Notwithstanding paragraph (1), a project that does not meet the applicable NO_x emissions standard is eligible if it meets both of the following requirements: (a) The project operates solely on waste gas. The Commission shall require a customer that applies for an incentive pursuant to this paragraph to provide an affidavit or other form of proof that specifies that the project shall be operated solely on waste gas. Incentives awarded pursuant to this paragraph shall be subject to refund and shall be refunded by the recipient to the extent the project does not operate on waste gas. As used in this paragraph, “waste gas” means natural gas that is

Footnote continued on next page.

Section 454.5(b)(9)(D) requires electric utilities to limit use of gas-fired generating units in disadvantaged communities that suffer from cumulative pollution burdens, including, high emission levels of toxic air contaminants, criteria air pollutants, and greenhouse gases.⁵⁶

To address the potential gap on allowable levels of criteria pollutants from SGIP renewable fuel combustion projects and, more generally, to consider revising SGIP to allocate limited funds to less-commercially established technologies, the 2021 Ruling asked if the Commission should remove internal combustion engines as an eligible SGIP technology.

This decision maintains internal combustion engines as an eligible SGIP technology but imposes some restrictions on the quality of fuel used and the location of such projects to protect air quality. First, we require renewable SGIP projects using renewable fuels to meet the same criteria pollutant emission levels as required in Section 379.6(c)(1) – (3) for fossil-fuel combustion projects and we clarify that Section 379.6(c)(4)- (5) does not apply to renewable fuel projects. Second, we require biogas fuel used by an SGIP internal combustion engine

generated as a byproduct of petroleum production operations and is not eligible for delivery to the utility pipeline system; (b) The air quality management district or air pollution control district, in issuing a permit to operate the project, determines that operation of the project will produce an onsite net air emissions benefit compared to permitted onsite emissions if the project does not operate. The Commission shall require the customer to secure the permit prior to receiving incentives.

⁵⁶ Public Utilities Code Section 454.5(b)(9)(D) states that (i) The electrical corporation, in soliciting bids for new gas-fired generating units, shall actively seek bids for resources that are not gas-fired generating units located in communities that suffer from cumulative pollution burdens, including, but not limited to, high emission levels of toxic air contaminants, criteria air pollutants, and greenhouse gases; and, (ii) In considering bids for, or negotiating contracts for, new gas-fired generating units, the electrical corporation shall provide greater preference to resources that are not gas-fired generating units located in communities that suffer from cumulative pollution burdens, including, but not limited to, high emission levels of toxic air contaminants, criteria air pollutants, and greenhouse gases.

project to meet the gas quality standard required in SoCalGas Tariff Rule 30.⁵⁷

Third, we prohibit awarding SGIP incentives to internal combustion engine projects located in a county that is a severe or extreme federal nonattainment area for particulate matter or ozone. Additionally, SGIP internal combustion engine projects must meet local air quality management district criteria pollutant emission limits.

6.1 Party Comments

Several parties, including SoCalGas, PG&E, the Fairfield-Suisan Sewage District, the Bioenergy Association of California, the California Clean DG Coalition, the California Hydrogen Business Council, FuelCell Energy, Inc., and the Combined Heat and Power Alliance, oppose eliminating internal combustion engines or combined heat and power systems that include internal combustion engines as eligible SGIP technologies. The Sierra Club and CEERT support removing internal combustion engines from SGIP eligibility.

In support of removing internal combustion engines from SGIP eligibility, Sierra Club states that these technologies fail to reduce criteria pollutants. CEERT states that with limited funds available, SGIP should prioritize the “cleanest technologies possible.”⁵⁸

Parties made several arguments opposing elimination of internal combustion engines as an eligible SGIP technology. The Bioenergy Association of California, the California Clean DG Coalition, the Combined Heat and Power Alliance, and SoCalGas state that internal combustion engines powered by biogas provide greater flexibility and operational benefits than non-combustion technologies and can better reach a wide variety of “hard-to-decarbonize”

⁵⁷ <https://www2.socalgas.com/regulatory/tariffs/tm2/pdf/30.pdf>.

⁵⁸ CEERT, “Comments on 2021 Ruling,” at 2.

markets to provide a range of useful services, including providing thermal outputs via heat recovery. The Fairfield-Suisan Sewer District states that biogas-fueled internal combustion engines are a proven and widely used technology at wastewater treatment plants and provide a wide range of useful services.

SoCalGas states that internal combustion engine projects are required to obtain an air quality emission permit that confirms criteria air pollutant reductions according to California Air Resources Board Distributed Generation regulations. These regulations require internal combustion engines to operate within specified emission limits for criteria air pollutants, and installed technologies are periodically measured by third parties to verify compliance, SoCalGas states. SoCalGas contends that combined heat and power systems that include internal combustion projects are consistent with air district requirements and that some air districts even provide an emissions credit for recovering heat from an internal combustion engine when utilized as a combined heat and power system.⁵⁹

The California Clean DG Coalition and the Combined Heat and Power Alliance observe that SGIP evaluations have found that internal combustion engines that received SGIP incentives reduced greenhouse gas, NO_x and PM₁₀ emissions.⁶⁰ Further, the Coalition asserts that an increasing number of internal combustion engine designs are capable of running on 100 percent hydrogen fuel

⁵⁹ SoCalGas, “Comments on 2021 Ruling,” at 4.

⁶⁰ California Clean DG Coalition, “Comments on 2021 Ruling” at 3, citing to the Itron 2016-2017 SGIP Evaluation (September 2018), Figure 6-4; Combined Heat and Power Alliance, “Comments on 2021 Ruling,” at 5, citing draft Verdant 2018-2019 SGIP Impact Evaluation results presented at the November 12, 2020 SGIP Renewable Generation workshop, available here (accessed April 1, 2021): [SGIP Renewable Generation Workshop Slide Deck 11.12.20.pdf \(ca.gov\)](#)

and SGIP should support this trend. The Combined Heat and Power Alliance argues that the California Energy Commission has identified use of biomass fuels in combined heat and power systems that include an internal combustion engine component as a low greenhouse gas emission strategy that also provides useful thermal energy for on-site needs.⁶¹

Instead of eliminating internal combustion engines from SGIP eligibility, FuelCell Energy, Inc. suggests that the Commission require SGIP combustion projects using 100 percent renewable fuels to meet the same criteria pollutant requirements as required in Section 379.6(c) for SGIP combustion projects using fossil fuels. FuelCell Energy Inc. states that the 0.07 lbs/MWh requirement in Section 379.6(c) is “consistent” with California Air Resources Board’s 2013 low oxides of nitrogen regulation and this requirement would ensure that SGIP technologies have cleaner emissions than flared methane.⁶²

6.2 Discussion

This decision maintains internal combustion engines as an eligible SGIP technology but imposes certain limitations. In response to comments from several parties, we note that electricity use is not generally considered a “hard to decarbonize” sector. In addition, Section 379.6(c)(1) expressly contemplates eligibility of internal combustion engines and combined heat and power in SGIP, and the Legislature did not restrict these technologies when it required

⁶¹ Combined Heat and Power Alliance, “Comments on 2021 Ruling,” at 11, citing the California Energy Commission report “A Comprehensive Assessment of Small Combined heat and Power Technical and Market Potential in California,” (2019) at 94.

⁶² FuelCell Energy, Inc., “Comments on 2021 Ruling,” at 5, citing to California Air resources Board Distributed Generation Certification Regulation at 4-5, available here (accessed April 1, 2021): https://ww3.arb.ca.gov/regact/dg06/finalfro.pdf?_ga=2.56085672.26609773.1616427825-673910888.1616427825

100 percent renewable fuel in Section 379.6(m). However, we are aware that combustion of biomass and biogas can contribute to increased criteria air pollutants such as particulate matter emissions.⁶³ Additionally, untreated biogas can contain approximately 50 percent CO₂ and inert gases, which is emitted to the atmosphere unless a facility employs carbon capture and storage.⁶⁴

First, we clarify that SGIP renewable generation projects using renewable fuels shall, at minimum, meet the same criteria pollutant⁶⁵ emission levels as required in Section 379.6(c)(1) – (3) for fossil-fuel combustion projects. These are:

1. A NO_x emissions rate standard of 0.07 lbs/MWh and a minimum efficiency of 60 percent, or any other NO_x emissions rate and minimum efficiency standard adopted by the California Air Resources Board. A minimum efficiency of 60 percent shall be measured as useful energy output divided by fuel input. The efficiency determination shall be based on 100-percent load.
2. Combined heat and power units that meet the 60-percent efficiency standard may take a credit to meet the applicable NO_x emissions standard of 0.07 lbs/MWh. Credit shall be at the rate of one MWh for each 3,400,000 British thermal units of heat recovered.
3. The customer receiving incentives shall adequately maintain and service the combined heat and power units so that during operation the system continues to meet or

⁶³ Kleeman, Michael J., Thomas M. Young, Peter G. Green, Stefan Wuertz, Ruihong Zhang, Bryan Jenkins, Norman Y. Kado, and Christopher F.A. Vogel. 2020. Air Quality Implications of Using Biogas to Replace Natural Gas in California. California Energy Commission. Publication Number: CEC-500-2020-034 at 126, 128, 137, <https://ww2.energy.ca.gov/2020publications/CEC-500-2020-034/CEC-500-2020-034.pdf>.

⁶⁴ *Id* at 113.

⁶⁵ Criteria air pollutants are carbon monoxide (CO), lead (Pb), oxides of nitrogen (NO_x), ozone (O₃), particulate matter (PM), and sulfur dioxide (SO₂). See discussion of California Air Resources Board and air quality management district requirements for criteria pollutants in 2016-2017 SGIP Impact Evaluation, Appendix D, at D-1 through D-4.

exceed the efficiency and emissions standards established pursuant to paragraphs (1) and (2).

It is reasonable to require SGIP renewable fuel projects to meet the same criteria pollutant standards as previously required for SGIP fossil fuel combustion projects. In addition, SGIP internal combustion engine projects must meet local air quality management district pollutant emission limits.

Second, Section 379.6(c)(4)- (5) sets forth an exemption from NO_x standards for fossil fuel “waste fuel.” This exemption shall not apply to SGIP internal combustion engine projects using renewable fuels and is not adopted. It is inappropriate to allow use of fossil fuel waste fuels in SGIP due to Section 379.6(m), which limits SGIP projects to those using 100 percent renewable fuels starting January 1, 2020.

Third, we require biogas fuel used in on-site SGIP internal combustion engine projects to meet or exceed the gas quality standard set forth in Section I.3.h. of SoCalGas Tariff Rule 30, “Transportation of Customer-Owned Gas.”⁶⁶ Section I.3.h. of Tariff Rule 30 requires that gas transported by pipeline “shall not contain in excess of four percent (4%) total inerts (the total combined carbon dioxide, nitrogen, oxygen and any other inert compound) by volume.”⁶⁷ Requiring SGIP biogas projects to meet or exceed the same 96 percent of methane gas quality standard required by SoCalGas for transported natural gas ensures that contaminants, including volatile organic compounds and hydrogen sulfide, have been removed from the fuel before the fuel is combusted. Requiring this ensures that the fuel that is combusted is relatively pure methane and does not result in greater greenhouse gas or criteria pollutant emissions than combustion

⁶⁶ <https://www2.socalgas.com/regulatory/tariffs/tm2/pdf/30.pdf>.

⁶⁷ *Ibid.*

of pipeline natural gas. For simplicity, we apply the SoCalGas Tariff Rule 30 requirement to SGIP on-site internal combustion engine projects in all investor-owned service territories.⁶⁸

We require on-site SGIP internal combustion engine projects using biogas to self-certify to installation of equipment necessary to achieve this requirement and adherence to the 96 percent of methane standard. SGIP evaluators shall also inspect the project site for compliance with this requirement during the initial site evaluation and during subsequent on-site measurement and verification assessments. This is reasonable approach that balances the various issues and interests before us.

Fourth, to ensure that incentives are not awarded to facilities that could exacerbate exceedances of air quality standards, we prohibit award of SGIP incentives for internal combustion projects located in a county listed as a severe or extreme federal nonattainment area for particulate matter (PM₁₀ or PM_{2.5}) or eight-hour ozone (O₃) in the U.S. Environmental Protection Agency Green Book in any of the three years prior to the SGIP application date.⁶⁹ We model this requirement on Section 8388 regarding bioenergy facilities generating electricity in the Bioenergy Renewable Auction Mechanism program, which states: “[t]his section shall not apply to facilities located in federal severe or extreme nonattainment areas for particulate matter or ozone.”⁷⁰

⁶⁸ See PG&E’s Gas Tariff Rule 21, “Transportation of Natural Gas,” section C.1, which requires transported natural gas to contain no more than one percent by volume of CO₂, available here (accessed April 13, 2021): https://www.pge.com/tariffs/assets/pdf/tariffbook/GAS_RULES_21.pdf.

⁶⁹ See the U.S. Environmental Protection Agency Greenbook list of nonattainment counties by year, available here: https://www3.epa.gov/airquality/greenbook/anayo_ca.html.

⁷⁰ Section 8388.

Our adopted requirements will ensure that internal combustion engine projects reduce methane emissions and criteria pollutants as compared to the electricity and gas usage that the SGIP project replaces and SGIP projects do not exacerbate exceedances of air quality standards.

As pointed to by parties, SGIP evaluations have found that SGIP internal combustion engines that received SGIP incentives taken as a group reduced both greenhouse gas and criteria pollutant emissions,⁷¹ although combustion engines using non-renewable gas slightly increased greenhouse gas emissions.⁷² The 2016-2017 SGIP Impact Evaluation found that internal combustion engines using renewable fuels reduced both greenhouse gas and criteria pollutant emissions, primarily due to the criteria pollutant emissions from flaring and the grid baseline that were avoided. The same evaluation found that internal combustion engines with venting baselines did not reduce criteria pollutants because methane is only converted to criteria pollutants after combustion.⁷³

Section 379.6(c)(1) expressly contemplates eligibility of internal combustion engines and combined heat and power under SGIP and the Legislature did not restrict this technology when it required 100 percent renewable fuel. The requirements adopted here will improve the performance of SGIP internal combustion engine projects relative to greenhouse gas emissions and criteria pollutants.

7. Defining SGIP-Eligible Renewable Hydrogen Fuels

The Order Instituting Rulemaking clarifies that SGIP renewable generation incentives are available to fuel cells that use renewable fuel, including green

⁷¹ Itron 2016-2017 SGIP Evaluation (September 2018), Figures 6-1, 6-3, and 6-4.

⁷² *Id.* at Figures 6-6 and 6-7.

⁷³ *Id.* at Figures 6-10, 6-10, 6-11, 6-13, 6-14.

electrolytic hydrogen, and states that this rulemaking would consider revisions to implement SB 1369 as necessary.⁷⁴ SB 1369 (Skinner, 2017) and the resulting Section 400.2. require the Commission increase the use of large- and small-scale energy storage with a variety of technologies, including green electrolytic hydrogen, where doing so is feasible, cost effective, and consistent with other state policy objectives. SB 1369 defines green electrolytic hydrogen as “hydrogen gas produced through electrolysis and does not include hydrogen gas manufactured using steam reforming or any other conversion technology that produces hydrogen from a fossil fuel feedstock.”⁷⁵

The Scoping Memo, the Renewables Ruling and the 2021 Ruling asked several questions to explore whether revisions were needed to SGIP to implement SB 1369, including:

1. Should the Commission limit eligible sources of renewable hydrogen to “green electrolytic hydrogen” and define green electrolytic hydrogen as hydrogen produced at the project site, or delivered to the project site by vehicle or dedicated pipeline, that was produced through electrolysis using:
 - a. 100 percent renewable electricity, as defined by the Renewables Portfolio Standard, with the addition of large hydro;
 - b. 100 percent renewable electricity from a Renewables Portfolio Standard purchase program that provides bundled Renewable Energy Credits to the electricity purchaser; and

⁷⁴ Order Instituting Rulemaking, May 28, 2020 at 17.

⁷⁵ Public Utilities Code Section 400.2.

- c. Excluding hydrogen gas manufactured by any other method?
2. Should the Commission authorize hydrogen produced from organic waste as an eligible fuel source in SGIP?
3. Should the Commission limit SGIP eligibility to fuel cells and other technologies using hydrogen from one of the following sources:
 - a. Hydrogen from electrolysis that is directly connected to and entirely supplied by renewable generation (on-site solar, for instance);
 - b. Hydrogen from grid-powered electrolysis that takes place only during times of excess renewable generation;
 - c. Hydrogen from grid-powered electrolysis if the customer is enrolled in a 100 percent green electricity program.
4. Should the Commission require that renewable hydrogen for SGIP projects must meet the requirements in the Renewables Portfolio Standard Guidebook regarding Fuels Cells Using Qualifying Hydrogen Gas?
5. Should the Commission consider other eligibility requirements or definitions for green hydrogen as an eligible SGIP renewable fuel?

The Renewables Ruling also provided background on Renewables Portfolio Standard requirements for Fuel Cells Using Qualifying Hydrogen Gas.⁷⁶

⁷⁶ Renewables Ruling at 24, citing the 2017 California Energy Commission Renewables Portfolio Standard Guidebook at 13: “the [Renewables Portfolio Standard] Guidebook restricts fuel cell certification to the following: ‘Fuel Cells Using Qualifying Hydrogen Gas: A facility converting hydrogen gas to electricity in a fuel cell may qualify for [Renewables Portfolio Standard] certification if the hydrogen was derived from a non-fossil-based fuel or feedstock through a

Footnote continued on next page.

This decision defines SGIP-eligible renewable hydrogen fuel as hydrogen produced at a SGIP project site, or delivered to a SGIP project site by vehicle or dedicated pipeline, that was produced through non-combustion thermal conversion of biomass, or electrolysis using 100 percent renewable electricity, as defined by the Renewables Portfolio Standard, with the addition of large hydro and excluding purpose-grown crops.⁷⁷ If the renewable electricity is not generated on-site, the purchase program or load serving entity must provide bundled Renewable Energy Credits to the electricity purchaser. Allowing non-combustion thermal conversion of biomass as an eligible feedstock means that gasification of woody biomass, *i.e.* “pyrolysis,” is an appropriate method to produce renewable hydrogen for SGIP purposes, but hydrogen produced from steam reformed biomethane is not.

7.1 Party Comments

Twelve parties comment on the appropriate definition of renewable hydrogen fuel for SGIP purposes.⁷⁸ The parties general fall into three groups of views.

First are groups that advocate for a narrow definition of SGIP-eligible hydrogen fuel. The Sierra Club/NRDC, CEERT and the Public Advocates’ Office

process powered using an eligible renewable energy resource. The electricity generated by a facility using this type of hydrogen gas is eligible for the [Renewables Portfolio Standard] only if the electricity that was used to derive the hydrogen is not also counted toward an [Renewables Portfolio Standard] compliance obligation or claimed for any other program as renewable generation. The applicant must submit information on the hydrogen production process as part of the application.”

⁷⁷ By “dedicated pipeline” we mean “a pipeline that only transports hydrogen fuel.”

⁷⁸ Bioenergy Association of California, California Hydrogen Business Council (CHBC), CEERT, CSE, Green Hydrogen Coalition, Fuel Cell Energy, Inc., National Fuel Cell Research Center, the Public Advocates’ Office, PG&E, Sierra Club/NRDC, Small Business Utility Advocates, and SoCalGas.

recommend that the Commission limit SGIP-eligible hydrogen fuel to “green hydrogen” produced via electrolysis using zero emission renewable energy. These groups recommend that the Commission limit hydrogen fuel eligibility to fuel produced using an on-site renewable electricity supply or produced during times of excess renewable generation.

Sierra Club/NRDC further recommend that the Commission prioritize using hydrogen fuel in SGIP projects that produce renewable electricity for: (1) direct use in efficient electric appliances and vehicles; (2) storage in batteries with lower efficiency losses; (3) limited and target seasonable load shifting. Sierra Club/NRDC oppose designating hydrogen produced from grid-powered electrolysis where the customer is enrolled in a 100 percent green electricity program as an SGIP-eligible fuel. They state that 100 percent green electricity programs only net out energy use and do not match energy consumption with times of renewable generation, meaning that fossil fuels would be used, in part, to produce the hydrogen. CEERT emphasizes excluding bio-based feedstocks from renewable energy sources fueling hydrogen production. CEERT observes that steam methane reformation of hydrogen is highly energy intensive, produces CO₂ as a byproduct, and that it is difficult to monitor the feedstock used in this process that has, until recently, consisted primarily of natural gas.

A second grouping of parties takes a more centrist approach. Within this group, the Bioenergy Association of California proposes that SGIP-eligible hydrogen should include any fuel generated from Renewables Portfolio Standard eligible energy sources, including biogas and biomass feedstocks, and should not be limited to electrolytic hydrogen.

The Small Business Utility Advocates state that the Commission should define SGIP-eligible hydrogen as including hydrogen produced from organic

waste and should require the hydrogen fuel source to be directly connected to and entirely powered by the renewable generation energy source. The Small Business Utility Advocates propose that the Commission prohibit eligibility to hydrogen mixed with natural gas in the utility delivery system to “ensure that the SGIP incentives are invested in projects that are likely to increase utilization of biogas and outlast the ten-year minimum biogas contract” length.⁷⁹

PG&E, partially supported by the Sierra Club/NRDC, proposes that Commission direct a SGIP Technical Working Group to study the feasibility, cost and benefits of adding renewable hydrogen as an eligible SGIP renewable fuel source before doing so.

The third general group, the hydrogen industry parties, supports the broadest definition of SGIP-eligible renewable hydrogen possible. The Green Hydrogen Council, supported by the California Hydrogen Business Council, proposes that the Commission define SGIP-eligible hydrogen as gas that is not produced from fossil fuel feedstock sources and that does not produce incremental carbon emissions during its production. Electrolytic hydrogen produced from any zero-carbon resource should be eligible, these parties say.

The California Hydrogen Business Council asserts that the Commission should not limit eligible renewable energy sources to produce hydrogen fuel to those approved in the Renewables Portfolio Standard program, as doing so would exclude electrolysis powered by otherwise curtailed renewables and legacy hydropower. Further, limiting allowable production processes to only electrolysis would exclude hydrogen fuel from steam methane reformation of biogas from organic materials or emerging technologies like direct conversion of

⁷⁹ SBUA, “Comments on Assigned Commissioner’s Ruling,” November 18, 2020, at 3.

sunlight to hydrogen. The National Fuel Cell Research Center recommends the Commission allow all hydrogen produced from organic material, not just from organic waste, stating that hydrogen from organic material has a very high conversion rate of waste into electricity.

The Green Hydrogen Council recommends that the Commission treat electrolytic hydrogen used in storage systems similarly to electrochemical battery storage systems. The Commission should make all grid electricity eligible for local production of hydrogen that is stored and later converted back to electricity for on-site or grid use, states the Green Hydrogen Council. The Commission should not limit eligible grid electricity for production of hydrogen fuel to 100 percent renewable sources or to electricity produced during periods of renewables curtailment, as the Commission does not require this for electrochemical storage charging from the grid.

7.2 Discussion

After carefully considering party input, this decision defines SGIP-eligible renewable hydrogen fuel as hydrogen produced at a SGIP project site, or delivered to a SGIP project site by vehicle or dedicated pipeline, that was produced through non-combustion thermal conversion of biomass, or electrolysis using 100 percent renewable electricity, as defined by the Renewables Portfolio Standard, with the addition of large hydro and excluding purpose-grown crops.⁸⁰ If the renewable electricity is not generated on-site, the purchase program or load serving entity must provide bundled Renewable Energy Credits to the electricity purchaser. Allowing non-combustion thermal conversion of biomass as an eligible feedstock means that gasification of woody biomass, *i.e.*

⁸⁰ By “dedicated,” we mean “a pipeline that only transports hydrogen fuel.”

“pyrolysis,” is an appropriate method to produce renewable hydrogen for SGIP purposes, but hydrogen produced from steam reformed biomethane is not.

Broadly defining SGIP-eligible renewable hydrogen fuels supports development of a variety of distributed generation projects using a variety of feedstocks, electricity sources, and methods, and in so doing advances California’s decarbonization goals by encouraging innovation.

We do not limit eligible SGIP renewable hydrogen fuels to green electrolytic hydrogen as defined in SB 1369 but rather more broadly define SGIP-eligible fuels to including non-combustion thermal conversion of biomass as acceptable sources of hydrogen. We take this step because we are aware that there are other sources of renewable energy and feedstocks beyond green electrolytic hydrogen, such as forest waste, that merit development as a potential source of renewable hydrogen. Gasification or “pyrolysis,” of such debris is an available and appropriate source of hydrogen feedstock. California has high and increasing levels of excess forest debris as a result of the stewardship agreement between the US Forest Service and State of California, which requires extensive forest thinning by 2025 to help minimize wildfires in California.⁸¹ Further, making hydrogen fuel derived from forest waste feedstock eligible for SGIP supports the development of supply chains, technologies and greenhouse gas estimation and verification methodologies for projects using this fuel source. However, it is appropriate and important to exclude crops grown solely for energy production (commonly referred to as “purpose-grown crops”) as eligible feedstocks for SGIP renewable fuels, including hydrogen fuel, because allowing

⁸¹ Agreement for Shared Stewardship of California’s Forest and Rangelands Between the State of California And The USDA, Forest Service Pacific Southwest Region, August 12, 2020. See, available here: <https://www.gov.ca.gov/wp-content/uploads/2020/08/8.12.20-CA-Shared-Stewardship-MOU.pdf>. (accessed April 12, 2021).

purpose-grown crops as feedstock could result in net positive greenhouse gas emissions, as discussed by the Sierra Club in their comments.⁸²

We provide two additional clarifications. First, hydrogen produced via steam reformation, using either fossil fuel feedstock or renewable fuels, is ineligible for use in SGIP. Steam-methane reforming is a mature hydrogen production process that uses fuel to create steam at high temperatures. However, the process creates carbon dioxide emissions and should therefore be excluded from SGIP eligibility. Because SGIP incentives are limited, and the program only extends through 2025, it is appropriate to prioritize using biomethane to directly generate electricity as opposed to the less efficient use of limited biomethane supplies to generate renewable hydrogen that is in turn used to offset grid electricity use.

Second, hydrogen produced using electricity derived from hydropower should be eligible for use if the SGIP project is located on-site or if the electricity is directly connected to the SGIP project via a dedicated line. Although large hydropower is excluded from the Renewables Portfolio Standard program, allowing use of all sources of hydropower as a renewable energy source within the much smaller SGIP program increases flexibility for developers. Requiring the SGIP project to be on-site with the hydropower source or directly connected via a dedicated electric line ensures that SGIP projects will not be powered by hydropower imported from long distances that results in greater use of fossil-generated electricity in other areas.

Third, we do not limit renewable electricity sources to only electricity produced during times of excess renewable electricity generation. Verifying this

⁸² Sierra Club, "Comments on Renewables Ruling," at 1.

requirement would be burdensome and, additionally, although this may be a promising electricity source for renewable hydrogen that would benefit California, hydrogen production and use technologies are too nascent to limit eligible renewable energy sources for hydrogen fuel production in this way at this time.

We emphasize that this decision does not adopt a definition for green hydrogen or renewable hydrogen, but only identifies the types of hydrogen fuel that are eligible for SGIP incentives at this time.⁸³

The SGIP Program Administrators shall propose documentation, verification, and auditing requirements specific to renewable hydrogen fuels eligible for use in SGIP projects in the Tier 2 Advice Letter required in this decision.

8. Updating Definition of Eligible Non-Hydrogen Renewable Fuels

The SGIP Handbook defines renewable fuel as “a non-fossil fuel categorized as one of the following: biodiesel or gas derived from digester gas, landfill gas or biomass. SGIP projects can use one or more eligible renewable energy sources, as identified by the Renewables Portfolio Standard.”⁸⁴ In response to comments on the Order Instituting Rulemaking, the Scoping Memo includes review of the definition of SGIP-eligible renewable fuels.⁸⁵

The Renewables Ruling reviews the Renewables Portfolio Standard definitions of biodiesel, biomass, biomethane, and municipal solid waste and the requirements of AB 3163, signed into law in September 2020. It also discusses

⁸³ A definition of renewable hydrogen for purposes of injection into utility gas distribution pipelines is under consideration in R.13-02-008.

⁸⁴ 2021 SGIP Handbook at 116.

⁸⁵ Scoping Memo, August 17, 2020 at 6.

the updated definitions of renewable gas, biogas and biomethane adopted in D.20-08-043 for purposes of the BioMAT program.⁸⁶

The Renewables Ruling asks the following questions:

1. Should the Commission update SGIP definitions of biodiesel, biomass, and/or biomethane? If yes, how?
2. Should the Commission update SGIP definitions of biodiesel, biomass, and/or biomethane to reflect those included in:
 - a. Pub. Util. Code Section 650?
 - b. AB 3136 as adopted by the California Legislature?
 - c. The California Energy Commission's Renewables Portfolio Standard Guidelines?

Subsequently, the 2021 Ruling asked if the Commission should exclude crops grown solely for energy production (commonly referred to as “purpose-grown crops”) as eligible feedstocks for renewable fuels. In doing so, the 2021 Ruling discusses D.20-12-022, *Decision Adopting Voluntary Pilot Renewable Natural Gas Tariff Program*, which excludes purpose-grown crops from the SoCalGas and SDG&E tariff for this purpose.

This decision further revises the definition of SGIP-eligible renewable fuel. First, it prohibits use of purpose-grown crops as feedstocks for SGIP-eligible renewable fuels. Second, it expands the definition of SGIP-eligible biomethane feedstocks to those identified in AB 3163.

⁸⁶ The Renewables Ruling cites D.20-08-013, which was an error. The decision that it should have referenced is D.20-08-043, which addresses the Bioenergy Market Adjusting Tariff Program, not the Standard Renewable Gas Interconnection Agreement, which the Commission adopted in D.20-08-035. The relevant update in D.20-08-043 is that eligible directed biogas is required to meet additional reporting requirements.

8.1 Party Comments

Parties have widely divergent views on this topic. The Bioenergy Association of California supports aligning SGIP definitions with the Renewables Portfolio Standard or the definition of biomethane in AB 3163. The Association states that making biomethane from biomass an eligible SGIP fuel would encourage the non-combustion conversion of biomass for renewable fuel as envisioned in AB 3163. This would provide air quality benefits, the Association states. Converting biomass to biomethane instead of combusting it also means that biomass can provide energy storage as biomethane or hydrogen, which combusted biomass cannot, states the Association.⁸⁷ SoCalGas similarly argues that the Commission should adopt the definition of biogas adopted in Section 650 for the BioMAT program.

In contrast, Sierra Club/NRDC state that the Commission should not expand SGIP-eligible biofuels. Referring to U.S. Environmental Protection Agency findings, the Sierra Club/NRDC state that allowing as eligible SGIP feedstocks agricultural crops grown for the purpose of generating energy could result in conversion of arable land and the release of stored carbon, negating greenhouse gas benefits, amongst other potential consequences. To address this, Sierra Club/NRDC, along with the Public Advocates Office, CEERT, SCE and the Bioenergy Association of California, support excluding purpose-grown crops from SGIP eligibility, as was done recently in D. 20-12-022. Sierra Club/NRDC further state that wood should be precluded as an eligible SGIP feedstock, arguing that this issue has not been sufficiently studied and could result in unexpectedly high greenhouse emissions.⁸⁸

⁸⁷ Bioenergy Association of California, "Comments on Renewables Ruling."

⁸⁸ Sierra Club/NRDC, "Comments on Renewables Ruling."

FuelCell Energy, Inc. opposes excluding purpose-grown crops from SGIP eligibility, stating this sends the wrong signal and the latter proposing further study in a Technical Working Group. PG&E neither supports nor opposes excluding purpose-grown crops from SGIP and SoCalGas did not comment on this question.

8.2 Discussion

This decision updates the definition of SGIP-eligible renewable fuels. We take two steps beyond the actions outlined in sections 6 and 7. First, we prohibit use of crops grown solely for energy production (referred to as “purpose-grown crops”) as feedstocks for SGIP-eligible renewable fuels. Second, we expand the definition of eligible biomethane feedstocks to include those identified in AB 3163.

AB 3163 and the resulting Section 650 defines “biomethane” as methane produced from a range of organic waste feedstock that meets the standards adopted in Health and Safety Code Section 25421 for injection into a common carrier pipeline.⁸⁹ Specifically, AB 3163 expands the definition of biomethane beyond methane produced from landfill or digester gas, as required in the 2017 Renewables Portfolio Standard, to include methane produced from the thermal gasification of organic waste, including dead trees, agricultural waste

⁸⁹ AB 3163: “‘biomethane’ means methane produced from an organic waste feedstock that meets the standards adopted pursuant to subdivisions (c) and (d) of Section 25421 of the Health and Safety Code for injection into a common carrier pipeline and that meets either of the following requirements: (a) The methane is produced from the anaerobic decomposition of organic material, including co-digestion; (b) The methane is produced from the non-combustion thermal conversion of any of the following materials, when separated from other waste: (1) Agricultural crop residues; (2) Bark, lawn, yard, and garden clippings; (3) Leaves, silvicultural residue, and tree and brush prunings; (4) Wood, wood chips, and wood waste; (5) Nonrecyclable pulp or nonrecyclable paper materials; (6) Livestock waste; and, (7) Municipal sewage sludge or biosolids.” Section 650 defines biomethane for purposes of the utility biomethane procurement targets adopted in SB 1440.

and vegetation removed for wildfire mitigation.⁹⁰ AB 3163 also requires eligible biomethane to meet health and pipeline integrity and safety standards for “constituents of concern” pursuant to Health and Safety Code Section 25421.⁹¹

The approach we adopt here is reasonable and balances a range of considerations and interests. First, prohibiting use of purpose-grown crops as SGIP biofuel feedstocks will help avoid unintended greenhouse gas emission increases from land conversion for energy crops and will focus developers on the considerable amounts of organic waste already available in California.

Second, allowing use of a broader set of feedstocks to produce biomethane for SGIP purposes, as done in AB 3163, supports the evolution of the renewable fuel industry towards additional available sources of organic waste in California, as opposed to restricting SGIP-eligible biomethane to that produced from landfill or digester gas, as required in the Renewables Portfolio Standard. We understand Sierra Club/NRDC’s concerns about the potential unintended consequences of use of forest wood waste as feedstock but hold that such concerns must be addressed in different forums that focus specifically on the issue of management of forests and forest waste in California.

To implement these changes and those adopted in sections 6 and 7, we direct the SGIP Program Administrators to update the definition of eligible renewable fuels in the SGIP Handbook as follows:

A renewable fuel is a non-fossil fuel categorized as the following:

- a. Biodiesel or gas derived from feedstocks as defined in AB 3163, or biomass as defined by the Renewables

⁹⁰ The 2017 Renewables Portfolio Standard defines biomethane as “landfill gas or digester gas, consistent with Public Resources Code Section 25741 and Pub. Util. Code Section 399.12.6, subdivision (g).”

⁹¹ See Public Utilities Code Section 650.

- Portfolio Standard, with the exclusion of purpose-grown energy crops;
- b. Biogas fuel used in on-site internal combustion engine projects must contain a minimum of 96 percent methane;
 - c. Hydrogen produced at a SGIP project site, or delivered to a SGIP project site by vehicle or dedicated pipeline, that was produced through non-combustion thermal conversion of biomass or electrolysis using 100 percent renewable electricity, as defined by the Renewables Portfolio Standard, with the addition of large hydropower and excluding purpose-grown crops. If the renewable electricity is not generated on-site, the purchase program or load serving entity must provide bundled Renewable Energy Credits to the electricity purchaser; and,
 - d. Fossil fuel “waste fuel” as defined in Section 379.6(c)(4) is not an eligible fuel for SGIP projects.

SGIP Program Administrators shall also update the SGIP Handbook to state that renewable fuel projects must comply with the following:

- a. Meet or exceed criteria pollutant emission levels as required in Section 379.6(c)(1) - (3);
- b. Meet or exceed local air quality management district pollutant emission limits; and,
- c. Incentives shall not be awarded to internal combustion engine projects located in a county listed as a severe or extreme federal nonattainment area for particulate matter (PM₁₀ or PM_{2.5}) or eight-hour ozone (O₃) in the U.S. Environmental Protection Agency Green Book for any of the three years prior to the SGIP application date.

The SGP Program Administrators shall include these SGIP Handbook revisions in the Tier 2 Advice Letter required in this decision. To reduce confusion, the SGIP Program Administrators shall in the same Advice Letter

propose updates to the SGIP Handbook to remove all references to and/or requirements pertaining to fossil-fuel projects that are no longer relevant.

To ensure that SGIP generation projects reduce greenhouse gas emissions even as the proportion of renewable electricity on the grid increases, we direct Program Administrators to file a Tier 2 Advice Letter with recommended actions in response to any SGIP evaluation that shows an increase in customer greenhouse gas emissions due to on-site or directed internal combustion engine projects using 100 percent renewable fuel.

9. Updating Documentation, Verification, Auditing and Enforcement Requirements for Renewable Fuels

SGIP requires submittal of documentation, auditing and verification for all renewable fuel projects.⁹² Additionally, the SGIP Program Administrator or evaluator conduct periodic on-site visits to inspect renewable fuel documentation and the installed SGIP technology. Despite this, SGIP evaluator Renewable Fuel Use Reports have since 2014 found a lack of compliance or a lack of availability of required documentation. Identified documentation gaps pertain to both on-site and directed biogas projects. Many non-compliance issues relate to previously required non-renewable and renewable fuel blending requirements, but the overall pattern is unacceptable:

2014: “[This report] marks the tenth consecutive occurrence of non-compliance with renewable fuel use requirements. While some of these instances of non-compliance are due to projects occasionally falling below the minimum renewable fuel limit, some projects are consistently out of compliance.”⁹³ “[T]hree projects were found to

⁹² See Renewables Ruling for a full summary of existing monitoring, reporting and documentation requirements for SGIP biofuel projects. See also 2021 SGIP Handbook sections 6.5, 6.8, 6.10, 6.11, and 7.

⁹³ SGIP Renewable Fuel Use Report No. 26 (2014) at 1-3.

be out of compliance with SGIP renewable fuel use requirements. An additional 18 projects could not have their compliance status determined because insufficient data were available.”⁹⁴ “[T]he timely delivery of directed biogas documentation from the relevant parties to the evaluation contractor remains a weak link in the process. Further, the documentation that is delivered is often unclear or at times illegible.”⁹⁵

2018: “Prior Renewable Fuel Use Reports have documented consecutive occurrences of non-compliance with renewable fuel use requirements. While some of these instances of non-compliance are due to projects occasionally falling below the minimum renewable fuel limit, some projects were consistently out of compliance. This report found no instances of biogas projects being out of compliance with SGIP renewable fuel use requirements. While no projects were found to be out of compliance, numerous on-site and directed biogas projects could not have their compliance status determined due to insufficient data. We find that for on-site biogas projects, data availability issues originate during the [performance-based incentive] setup process.”⁹⁶

2020: “While only one project was found to be out of compliance, numerous on-site and directed biogas projects could not have their compliance status determined due to insufficient data.”⁹⁷

In response to this trend, the 2021 Ruling and the Renewables Ruling asked the following questions about renewable fuel use and source documentation, auditing, and verification procedures:

⁹⁴ *Id.* at 1-4.

⁹⁵ *Id.* at 1-5. There was no 2016 Renewable Fuel Use Report.

⁹⁶ SGIP Renewable Fuel Use Report No. 27 (2018) at 1-5 – 1-6 and 3-9. Both the 2018 and 2020 reports then state: “We find that for on-site biogas projects, many data availability issues originate during the [performance-based incentive] setup process. In other situations, the [Performance Data Provider] reported that their meter no longer was communicating, and therefore no data could be gathered. For directed biogas projects, historical compliance issues were due to difficulties in working with gas marketers and delays in obtaining appropriate documentation.”

⁹⁷ SGIP Renewable Fuel Use Report No. 29 (2020) at 7.

1. Should the Commission direct SGIP Program Administrators to issue a single 30-day warning when renewable fuel use documentation is not provided as required, followed by issuance of an infraction and initiation of procedures as outlined in section 9 of the SGIP Handbook if the required information is not provided within 30 days of issuance of the warning?
2. Are changes to verification and documentation requirements for biofuels projects needed? Specifically:
 - a. Should the Commission consider modifications to the existing SGIP Handbook biofuel documentation, measurement, and verification requirements? If so, what approaches should be considered, and:
 - i. How long should customers be obligated to provide the information?
 - ii. What is a reasonable time for SGIP Program Administrators to monitor customer compliance with such requirements?
 - b. Should the Commission consider additional requirements to ensure compliance with Section 379.6(m), such as:
 - i. Increasing the length of time that a directed biofuel project must demonstrate that it has a fuel supply contract in place, to 15 years or some other time?
 - ii. Requiring on-site inspection of SGIP projects using directed biogas fuel sources to ensure that the project is continuing to use renewable fuel?
 - iii. Limiting sources of directed biogas for SGIP renewable technologies to facilities certified by the Renewables Portfolio Standard program or verified through Low Carbon Fuel Standard program?
 - iv. Requiring periodic on-site verification of all directed biofuel project generation sources

unless the source is a California Energy Commission or Low Carbon Fuel Standard certified or verified renewable biofuel generator? If yes, who should conduct the inspections and who should pay the costs? How long should inspections be required?

3. Should the Commission consider allowing fuel supply contract terms less than 10 years for SGIP directed biofuel projects? If yes, what term should be required?

This decision strengthens SGIP renewable fuel documentation, auditing, verification, and enforcement requirements. We direct SGIP Program Administrators to propose strengthened renewable fuel documentation requirements such that customers and/or gas marketers are required to submit evidence on renewable fuels use similar to that required for SGIP performance-based incentives or the Renewables Portfolio Standard. At minimum, we require monthly submittal of directed and on-site renewable fuel reports, attestations, supporting documentation, nomination records, procurement invoices, and meter data. We also direct SGIP Program Administrators to conduct periodic and random no-warning verification spot-checks of directed biofuel sources. We direct SGIP Program Administrators to issue a single 30-day warning when renewable fuel use documentation is not provided as required, or if a verification spot-check reveals a lack of compliance with SGIP requirements, followed by issuance of an infraction and initiation of procedures as outlined in section 9 of the SGIP Handbook (excluding imposition of a fiscal or programmatic audit as a sanction) if compliance does not occur within 30 days.

We do not alter existing SGIP renewable fuel supply contract lengths. However, we clarify that SGIP projects may switch to a new fuel provider during

the required 10-year fuel contract period if this change is approved by an SGIP Program Administrator, who must respond to a request within 30 days.

9.1 Party Comments

Several parties comment on whether the Commission should alter renewable fuel supply contract terms, with most stating that this should not be altered, that the system is working fine as is. SoCalGas notes that current requirements allow projects to switch fuel providers if the developer works with the Program Administrator to ensure compliance requirements are met.⁹⁸ Most parties commenting on the fuel source supply contract term suggest that 10 years is the appropriate period to verify compliance.

Regarding verification, documentation, and auditing requirements, parties' views include those calling for 100 percent on-site inspections of renewable fuel sources, additional documentation, and greater attention to enforcement, as well as parties that state the current system is working fine. The Public Advocates Office contends that on-site inspections of fuel sources for directed biogas projects are necessary to ensure compliance but would be expensive. Public Advocates Office observes that the Program Administrators have failed to ensure compliance with the existing tracking and verification protocols and that stricter protocols should be implemented so that Program Administrators are held accountable for penalizing Performance Data Provider non-performance. The Public Advocates Office states that the Commission "should establish a strict timeline for [Performance Data Providers] to correct problems that have been identified by the Program Administrators ...penalties should be issued against the Program Administrators if they do not submit

⁹⁸ SoCalGas, "Comments on Renewables Ruling," November 18 at 6.

non-performance notices to the [Performance Data Providers] soon after receiving clearly incomplete or inaccurate data.”⁹⁹

The Sierra Club/NRDC similarly recommend additional penalties for non-compliance, stating that “[r]equirements without consequence for non-compliance will not be effective.”¹⁰⁰ Sierra Club/NRDC recommend that the Commission adopt the Low Carbon Fuel Standard’s approach to on-site fuel source inspection requirements.¹⁰¹

Several parties, including PG&E, FuelCell Energy, Inc., and the Small Business Utility Advocates support using the Renewables Portfolio Standard documentation and verification requirements for SGIP projects and/or the requirements adopted for the BioMAT program in D.20-08-043. PG&E recommends that the Commission:

... formalize the directed biogas documentation requirements so that customers and/or gas marketers submit evidence of the renewable fuel similar to the approach that is used for the performance-based incentive data and evidence. PG&E believes the data requirements should mirror [California Energy Commission Renewables Portfolio Standard] certification requirements for biomass facilities. The Commission may also want to consider requiring monthly reporting of directed biogas fuel reports, ‘monthly attestations, supporting documentation, nomination records, procurement invoices, and meter data,’ as ordered for BioMAT programs in D.20-08-043.¹⁰²

FuelCell Energy, Inc. recommends that “[a]ll projects should follow the Renewables Portfolio Standard guidelines as laid out by the California Energy Commission. The reporting requirements should be the same as required under

⁹⁹ Public Advocates Office, “Reply Comments on Renewables Ruling,” at 2-3.

¹⁰⁰ Sierra Club, “Comments on Renewables Ruling,” at 8.

¹⁰¹ *Id.* at 1.

¹⁰² PG&E, “Comments on Renewables Ruling,” at 2-3.

the Renewables Portfolio Standard, as should the process for auditing and allocation of those inspection costs.”¹⁰³ FuelCell Energy, Inc. and other parties oppose using the Low Carbon Fuel Standard auditing protocols. SoCalGas suggests “enhancing” the existing SGIP audit protocol but does not provide specific recommendations.¹⁰⁴

9.2 Discussion

As discussed in D.20-01-021, SGIP requirements for verification of source fuels have not kept pace with Low California Fuel Standard or Renewables Portfolio Standard requirements. This is in part because California Air Resources Board considers directed biofuel sources to be at “high risk” for non-compliance and requires on-site verification of such fuels. However, the costs of 100 percent on-site verification of directed biogas fuel sources could be significant for the much smaller SGIP program to bear. SGIP requires inspection and measurement and verification field visits for on-site renewable fuel projects but does not require evaluator or SGIP Program Administrator on-site visits to the locations of directed fuel sources.¹⁰⁵

This decision strengthens SGIP renewable fuel documentation, reporting, auditing, and enforcement requirements. We accept PG&E’s recommendation and direct SGIP Program Administrators to strengthen renewable fuel documentation requirements so that customers and/or gas marketers submit evidence on renewable fuel use in a similar way to that required for SGIP performance-based incentives or the Renewables Portfolio Standard. The SGIP

¹⁰³ FuelCell Energy, Inc., “Comments on Renewables Ruling” at 5.

¹⁰⁴ SoCalGas, “Comments on Renewables Ruling,” at 9.

¹⁰⁵ SGIP Handbook section 7.4.1 Measurement and Evaluation Field visits, and section 2.5.3 Inspections. *See also* SGIP Handbook sections 2.5.2 Directed Biogas Project Requirements and 2.5.3 Directed Biogas Renewable Fuel Audits.

Program Administrators shall convene one or more meetings, as needed, to confer with interested R.20-05-012 parties and SGIP participants to determine the specific changes required to accomplish this and shall outline the proposed changes in the Tier 2 Advice Letter required in this decision. At minimum, we require monthly submittal of directed and on-site renewable fuel reports, attestations, supporting documentation, nomination records, procurement invoices, and meter data as suggested by PG&E. The SGIP Program Administrators shall also determine enhancements to renewable fuel audit protocols beyond these requirements and shall propose them in the Tier 2 Advice Letter. The SGIP Program Administrators shall propose the same documentation, auditing, verification, and enforcement requirements for all SGIP-eligible renewable fuels in the Tier 2 Advice Letter, including for renewable hydrogen fuels, or shall provide a full justification for any varying approaches.

It is reasonable to take these steps to strengthen and ensure compliance with SGIP renewable fuel documentation, auditing, and verification requirements. Directing the SGIP Program Administrators to propose the details of how renewable fuel documentation, auditing and verification requirements should be strengthened to ensure full compliance with SGIP requirements will help ensure that only administratively pragmatic changes to existing procedures are made.

Further, we direct SGIP Program Administrators to conduct periodic and random no-warning verification spot-checks of directed biofuel sources. These random verification spot checks may be performed by the SGIP Program Administrators or by the SGIP evaluator, as needed. Periodic verification spot checks undertaken randomly and periodically without warning will help ensure

compliance with SGIP's 100 percent biofuel requirements while limiting administrative and verification costs.

We further direct SGIP Program Administrators to issue a single 30-day warning when renewable fuel use documentation is not provided as required, or if a verification spot-check reveals a lack of compliance with SGIP requirements, followed by issuance of an infraction and initiation of SGIP Handbook section 9 procedures (excluding imposition of a fiscal or programmatic audit as a sanction) if compliance does not occur within 30 days. Taking these steps will help ensure that SGIP Program Administrators vigorously enforce SGIP biofuel documentation requirements.

We do not alter the existing SGIP 10-year fuel supply contract term that must be demonstrated at the time of application for incentives. However, we clarify that SGIP projects may switch to a new fuel provider during the 10-year fuel contract period if this change is approved by an SGIP Program Administrator, who must respond to a request within 30 days. This should allow for flexibility and for SGIP renewable fuel projects to secure the least expensive fuel possible, as prices change over time.

10. Requiring Exclusive Ownership of Environmental Attributes by SGIP Host Customers

SGIP rules do not explicitly require environmental attributes associated with SGIP projects to be exclusively owned by the project. Previously, the Commission has applied Renewables Portfolio Standard requirements to SGIP.¹⁰⁶ At present, the Renewables Portfolio Standard program requires the tracking, verification, exclusive ownership, and retention of Renewable Energy Credits for biomethane projects that generate electricity that counts toward the state's

¹⁰⁶ See discussion of this topic in D.20-01-021 at 62-68.

Renewables Portfolio Standard goals. To operationalize these rules, the Renewables Portfolio Standard program requires approved generators to register and track their renewable generation through the Western Renewable Energy Generation Information System and to obtain Renewable Energy Credits for the generation.¹⁰⁷ In addition, renewable-generated hydrogen used to generate electricity in a fuel cell “is eligible for the [Renewables Portfolio Standard] only if the electricity that was used to derive the hydrogen is not also counted toward an [Renewables Portfolio Standard] compliance obligation or claimed for any other program as renewable generation.”¹⁰⁸

To consider if the Commission should revise SGIP to align with Renewables Portfolio Standard requirements on environmental attributes, the Renewables Ruling asked the following questions:

1. Should the Commission require SGIP renewable fuel contracts to include the buyer’s exclusive ownership of all environmental attributes associated with procured directed biomethane? If yes, how should this requirement be implemented?
2. Should the Commission impose on SGIP directed biofuels projects the same requirements regarding claims of environmental attributes as required in the Renewables Portfolio Standard Guidebook and outlined above?

This section requires SGIP renewable generation project Host Customer and fuel source providers to provide attestations that all environmental attributes associated with renewable fuels used in a SGIP project, including Renewable Energy Credits, if any, are obtained and will be exclusively owned

¹⁰⁷ 2017 California Energy Commission Renewables Portfolio Standard Guidebook at 12-13 <https://www.energy.ca.gov/programs-andtopics/programs/renewables-portfolio-standard/renewables-portfolio-standard-0>.

¹⁰⁸ California Energy Commission Renewables Portfolio Standard Guidebook at 13.

and retained by the SGIP Host Customer. The Host Customer must not sell, trade, or transfer any environmental attributes of the contracted fuel sources. By “environmental attributes,” we mean all environmental benefits associated with the project, including any Renewable Energy Credits, and any carbon negative emission value associated with biofuels used in the project.

10.1 Party Comments

Parties hold a range of views on this topic. The Bioenergy Association of California states that the Commission should treat environmental attributes generated by SGIP projects the same as the California Energy Commission does for the Renewables Portfolio Standard program. FuelCell Energy Inc. states that it has assumed that ownership of environmental attributes is addressed in the terms of SGIP contracts. If this is not the case, the default SGIP contract should be modified to clearly show the ownership terms of the environmental attributes, says FuelCell Energy, Inc. PG&E agrees that SGIP contracts should clearly require the buyer’s exclusive ownership of all environmental attributes. PG&E recommends that a SGIP Technical Working Group explore any requirements beyond this.

Sierra Club/NRDC observe that a requirement for SGIP projects to track and retain environmental attributes does not ensure that the attributes would not be double counted. This is because there is currently no nationwide tracking program for the greenhouse gas reduction attributes of biofuels, which makes it impossible to independently verify whether these environmental attributes have been sold to or claimed by other entities. However, Sierra Club/NRDC agree that all environmental attributes, including greenhouse gas emission reductions from methane destruction, must be conveyed and retained as part of SGIP renewable generation projects.

SoCalGas opposes applying Renewables Portfolio Standard requirements to SGIP, stating that Renewables Portfolio Standard requirements pertain to the commercial sale of electricity and are not appropriate for SGIP. Instead, SoCalGas recommends that SGIP documentation and audit requirements be updated to require retirement of environmental attributes.

10.2 Discussion

We direct SGIP Program Administrators to modify SGIP fuel source and other contracting requirements to require the exclusive ownership of all environmental attributes from contracted renewable fuel sources by the Host Customer, including any Renewable Energy Credits and any carbon negative emission value, and the submittal of attestations committing to this by both the fuel seller and the Host Customer. The Host Customer may not sell, trade or transfer any of the environmental attributes of the contracted fuel sources. However, we do not require SGIP customers to create and/or retire Renewable Energy Credits for the electricity that they generate on-site.

We direct the SGIP Program Administrators to propose methods for the fuel source verification spot checks required in section 9 to include review of the disposition of environmental attributes from the fuel source, as deemed appropriate by the SGIP Program Administrators. We also direct SGIP Program Administrators to propose additional revisions to SGIP program documentation and auditing requirements to ensure the exclusive ownership of all environmental attributes from contracted renewable fuel sources by the Host Customer, after discussing this issue with interested R.20-05-012 parties and SGIP participants.

Our adopted requirements strike a balanced approach. It is not appropriate to require the same level of oversight of SGIP fuel environmental

attributes as required in the Renewables Portfolio Standard program due to the different scales of projects in each program. Without a national registry to track the conveyance of environmental attributes from biofuels or renewable hydrogen, options are somewhat limited.

11. Revising Program Requirements for Wind Technologies

SGIP currently allocates incentive reservations for generation projects on a first-come/first-served basis subject to certain lottery priorities in the event of same-day submissions.¹⁰⁹ The SGIP Handbook requires a fixed 18-month timeline from “Conditional Reservation” to “Incentive Claim Deadline,” with the possibility of up to three six-month extensions granted with the discretion of the PA Working Group.¹¹⁰ SGIP wind projects are required to have an installed hub height of more than 80 feet.¹¹¹

Foundation Windpower asserts that the wind technology sector faces uncertain future prospects due to significant challenges in permitting, interconnection and financing and related barriers to SGIP participation.¹¹² To address these potential issues, the Scoping Memo asked whether the Commission should revise SGIP program requirements to remove barriers to the participation of wind technologies. The Renewables Ruling asked additional questions, namely whether the Commission should:

¹⁰⁹ SGIP Handbook Sections 2.1 & 2.3.2.

¹¹⁰ SGIP Handbook Sections 2.4.3 & 2.6.3. The second and third extension requests are granted only on a unanimous vote of the Working Group. D.21-03-009 stays the cancellation of projects past their third extension to provide interim relief to customers affected by the COVID-19 pandemic.

¹¹¹ 2021 SGIP Handbook Section 6.3.1.

¹¹² See July 29, prehearing conference transcript, published August 3, 2020.

1. Adopt proposals offered by Foundation Windpower to address the identified barriers, or adopt proposals offered by other parties; or,
2. Convene a Technical Working Group to discuss wind technology issues.¹¹³

This decision revises SGIP requirements affecting wind technologies to allow refunds of wind technology application fees under limited conditions, allow suspension of the required 18- month incentive submittal deadline under limited conditions, and allow wind projects with hubs less than 80 feet.

11.1 Foundation Windpower Proposals

In comments on the Renewables Ruling, Foundation Windpower describes the challenges to SGIP participation faced by wind technology developers as the following:

1. California Environmental Quality Act (CEQA) permitting requirements that can entail multi-year biological studies, expensive mitigations, and/or administrative proceedings that extend timeframes and sometimes render projects infeasible after multiple years;
2. Rising interconnection costs and timelines as more distributed resources are added to the grid; and,
3. Financing challenges that stem from permitting and interconnection challenges, resulting in higher costs of capital, and exacerbated by the risk that a SGIP Program Administrator may be unwilling or unable to grant an extension for a SGIP reservation if the project remains unfinished after 18 months.

Foundation Windpower explains that revisions to SGIP rules in 2013 heightened the financing risks faced by wind technology developers by

¹¹³ Assigned Commissioners Ruling Seeking Party Comment on Renewable Generation Fuels and Technologies, October 22, 2020.

removing the possibility of wind technology projects receiving application fee refunds even if the request for a refund is “due to extenuating circumstances beyond the Host Customer’s control.”¹¹⁴ Foundation Windpower asserts that revisions to the SGIP handbook in 2017 extended financial risks even further by increasing SGIP application fees from one percent to five percent of a project’s requested incentive amount.¹¹⁵

To address these risks, Foundation Windpower recommends the Commission modify the SGIP Handbook in two ways. First, Foundation Windpower recommends that the Commission reinstate refunds of SGIP application fees under limited circumstances. As mentioned, SGIP currently allocates incentive reservations for generation projects on a first-come/first-served basis subject to certain lottery priorities in the event of same-day submissions.¹¹⁶ Because of this, entire budget categories and/or incentive levels have frequently been exhausted on the first day the budget category or incentive level has opened. Foundation Windpower asserts that for wind projects to compete under these circumstances, developers must submit their SGIP applications and the required five percent non-refundable application fee as soon as a budget category or incentive level has been opened.¹¹⁷ However, Foundation Windpower states that this creates risks for wind projects facing potential permitting delays beyond their control. Foundation Windpower

¹¹⁴ Foundation Windpower, Comments on Assigned Commissioner’s Ruling,” November 18, 2020 at 4, citing to 2012 SGIP Handbook, Section 14.1. 2012 SGIP Handbook available here: <https://www.selfgenca.com/home/resources/>

¹¹⁵ *Ibid.* See also 2021 SGIP Handbook Section 5.4.1.

¹¹⁶ *Ibid.* See also 2021 SGIP Handbook Section 6.10.

¹¹⁷ The application fee is due within seven calendar days of project being assigned an incentive step. See SGIP Handbook Section 6.10.1(2).

suggests this challenge could be addressed by allowing refunds of the required application fee in instances when a developer is able to certify to the SGIP Program Administrator Working Group for a project developed in good faith with reasonable expectation of approvals that it was unable to obtain a permit or that required interconnection upgrades rendered the project financially infeasible. To implement this, Foundation Windpower suggests the Commission add the following language to section 6.10.1(2)) of the SGIP handbook (underlined):

“The application fee will be refunded upon completion and verification of the installed SGIP project. Prior to project completion, application fees are non-refundable once a Confirmed Reservation has been issued, unless the Host Customer subsequently cancels the project, requests a refund and certifies to the Program Administrator Working Group that it was unable to obtain a permit required for the installation and operation of the project or that the utility required installation of distribution upgrades that rendered the project financially unfeasible, in which case the Program Administrator Working Group shall approve such request unless it determines that the original Confirmed Reservation was obtained in bad faith or without the Host Customer having a reasonable expectation of obtaining the required permit or a financially feasible interconnection of the project.”

Second, Foundation Windpower recommends that the Commission pause incentive claim expiration deadlines during the pendency of extended CEQA and/or interconnection processes. As mentioned, SGIP currently requires a fixed 18-month timeline from a “Conditional Reservation” to an “Incentive Claim Deadline,” with the possibility of up to three six-month extensions granted with the discretion of the SGIP Program Administrator Working Group.¹¹⁸

¹¹⁸ SGIP Handbook Sections 2.4.3 and 2.6.3. The second and third extension requests are granted only on a unanimous vote of the Working Group. D.21-03-009 stays the cancellation of
Footnote continued on next page.

Foundation Windpower asserts that these extension provisions have in the past been sufficient for most large scale behind-the-meter wind projects, but more recently, uncertainty regarding the availability of extensions has increased. This, combined with increasingly lengthy interconnection and permitting processes, has created risks that sources of capital financing find difficult to absorb.

To reduce this risk, Foundation Windpower recommends the Commission revise the SGIP Handbook to suspend the 18-month incentive claim deadline during periods that a wind project is awaiting final decision on a CEQA permit and/or utility completion of required interconnection upgrades. To ensure appropriate suspension periods, Foundation Windpower recommends that the Commission require customers seeking a suspension to provide evidence of the date it filed its CEQA permit or interconnection application and evidence of the date when CEQA authorities issued a final non-appealable permit decision or when the utility completed construction of required upgrades (*i.e.*, interconnection facilities, distribution upgrades and/or network upgrades). Foundation Windpower suggests that the Commission implement this recommendation by adding the following language at the end of section 2.5 of the SGIP handbook:

“The reservation expiration date for any project using wind turbines shall be automatically extended for the period of time the Applicant is awaiting a final non-appealable decision on a permit required for the installation and operation of such project or the utility’s completion of any interconnection upgrades (*i.e.*, interconnection facilities, distribution upgrades and network upgrades). In order to administer this provision, upon the Program Administrator’s request, the Applicant shall provide the Program Administrator with evidence satisfactory to the Program Administrator of (a) the

projects past their third extension to provide interim relief to customers affected by the COVID-19 pandemic.

date on which the Applicant filed its application for such permit, (b) the date on which it submitted its interconnection application, (c) the date on which a final non-appealable decision on such permit has been issued, and (d) the date on which the Utility has completed construction of any required upgrades.”

11.2 Party Comments

Two parties commented on Foundation Windpower’s proposals. CSE supports Foundation Windpower’s proposals and suggests that the Commission also revise SGIP program requirements to facilitate eligibility for small wind projects with turbines less than 30 kilowatts. To facilitate smaller projects, CSE recommends that SGIP wind projects be allowed to have an installed hub height of less than 80 feet.¹¹⁹ CSE opposes further discussion of wind technology issues by a Technical Working Group prior to revising requirements, asserting that Foundation Windpower’s recommendations are “sufficiently clear and could be incorporated into the SGIP program without the formulation of a Technical Working Group subgroup.”¹²⁰

PG&E does not agree or disagree with Foundation Windpower’s recommendations but instead suggests that the Commission direct a SGIP Technical Working Group or a neutral third-party technical expert to evaluate Foundation Windpower’s proposals and recommend program changes for consideration by the SGIP Program Administrators and Energy Division. PG&E states that the increased interconnection timelines described by Foundation Windpower are attributable to new Net Energy Metering requirements.¹²¹

¹¹⁹ CSE, “Comments on Assigned Commissioner’s Ruling,” November 18, 2020 at 1.

¹²⁰ *Id.* At 2.

¹²¹ PG&E, Comments on Assigned Commissioner’s Ruling,” November 18, 2020 at 10-12.

11.3 Discussion

We approve both Foundation Windpower's and CSE's recommended revisions as proposed and summarized above. Foundation Windpower's proposed changes amount to modest revisions to accommodate the permitting and financing challenges facing wind technologies. Adopting these revisions could spur additional SGIP wind technology projects. We concur with CSE and Foundation Windpower that further discussion of the proposed revisions as suggested by PG&E is unnecessary. CSE's proposed revision to allow SGIP wind technology projects with hub heights below 80 feet also seems reasonable to accommodate changes in technology that may have rendered smaller projects more feasible than previously. Neither proposal would harm ratepayers.

12. Revising Resiliency Incentive Eligibility Requirements

As described in Resolution ESRB-8, Section 451 and Section 399.2(a) give electric utilities the authority to shut off electric power to protect public safety. This authority allows a utility to proactively de-energize electric facilities in locations where dangerous weather conditions exist that present extremely high risk of wildfires caused by blowing trees, branches, or other infrastructure contacting electric infrastructure. Resolution ESRB-8 requires a utility to initiate a PSPS event only when all other options have been exhausted.¹²²

D.20-02-021 approves eligibility for the Equity Resiliency Budget and General Market Resiliency Adder Incentive for customers whose electricity was shut off during "two or more discrete PSPS events," that meet certain additional criteria.¹²³ D.20-01-021 directs the SGIP Program Administrators to include a

¹²² Resolution ESRB-8, July 12, 2018, available here: <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M218/K186/218186823.PDF>.

¹²³ D.20-01-021 at OPs 20.

working definition of “discrete PSPS event” in the compliance Advice Letter for that decision.¹²⁴ D.20-01-021 further directs PG&E, SCE, SoCalGas and SD&GE to refine lists of customers subject to two or more discrete PSPS events to improve their accuracy.¹²⁵

In early 2020, the investor-owned utilities filed CSE Advice Letter 110-E/-A *et al* (Joint Advice Letters)¹²⁶ to implement D.20-01-021. Commission staff approval of the Joint Advice Letters approved the following definition of “discrete PSPS event” for SGIP purposes:

For the purposes of SGIP, if the utility de-energizes a customer for safety and then restores power after the weather event has passed, this would count as one PSPS event – whether that PSPS event endured for the customer for only a few hours or some number of days. If power is restored for the customer and another weather event subsequently requires that the utility de-energize the same customer again – whether this occurred days, weeks or months later – this would count as the customer’s second PSPS event.¹²⁷

Subsequently, while overseeing SGIP implementation, Commission staff reported receiving numerous questions from developers and the public regarding application of the phrase “discrete PSPS event.” In response, the Scoping Memo asked if the Commission should clarify the definition of “discrete PSPS event” adopted in D.20-01-021 to address situations where customers: (1) experience an electricity outage due to an actual wildfire; (2) are at high risk of a future electricity outage, either from a PSPS event or due to an actual

¹²⁴ *Id.* at OP 22.

¹²⁵ *Id.* at OP 21.

¹²⁶ CSE Advice Letter 110-E/-A, SCE Advice Letter 4192-E/-A, SoCalGas Advice Letter 5619-G/-A, and PG&E Advice Letter 4237-G/-A/5808-E/-A.

¹²⁷ Commission staff Non-Standard Disposition Letter at 118, available here: https://www.pge.com/tariffs/assets/pdf/adviceletter/GAS_4237-G.pdf. See also 2021 SGIP Handbook at 118.

wildfire; or, (3) are de-energized due to an actual wildfire.¹²⁸ Numerous parties commented on this question.¹²⁹ Subsequently, the 2021 Ruling asked the following additional questions on this topic:

1. Should the Commission clarify the definition of “discrete PSPS event” adopted in Decision 20-01-021 to include customer meters deenergized as a result of an actual wildfire?
2. Do PG&E, SCE, and SDG&E (collectively electric Investor-Owned Utilities or electric IOUs) track which customers are deenergized as a result of an actual wildfire?
3. Are there any insurmountable barriers that would prevent the electric IOUs from identifying customers deenergized as a result of actual wildfires for the SGIP Program Administrators, for Equity Resiliency Budget eligibility purposes, if this clarification is added to the definition of “discrete PSPS event”?

This decision revises the eligibility requirements for the Equity Resiliency Budget and the General Market Resiliency Adder Incentive to extend eligibility to customers that have experienced one PSPS event and one de-energization or outage from an actual wildfire that occurred on or after January 1, 2017, in addition to customers that have been subject to two or more discrete PSPS events¹³⁰. This decision applies these revised criteria to the customer meter. This

¹²⁸ See the Joint Advice Letters for further refinement to the definition of “PSPS event” for SGIP purposes.

¹²⁹ The following parties commented on this issue in their comments on the Scoping Memo: the Rural County Representatives of California, GRID Alternatives, CSE, the Public Advocates Office, CALSSA, Tesla, Sunrun Inc., the California Energy Storage Alliance, Protect Our Communities Foundation, SoCalGas, SCE, SDG&E, PG&E, and the Joint CCAs.

¹³⁰ To be clear, this decision does not approve new sources of funds. We understand that some territories, such as PG&E’s, have Equity Resiliency Budgets that are fully subscribed. The Equity Resiliency Budget eligibility changes adopted here should apply to customers using any remaining funds, as well as customers applying for any new funds that may become available.

decision directs SDG&E to share PSPS and fire-caused outage data with CSE without customer authorization, to proactively provide this data, and to timely take all necessary steps to support CSE's role as SGIP Program Administrator. It directs the electric IOUs and SGIP Program Administrators to discuss with interested R.20-05-012 parties and SGIP participants additional means to proactively share fire-caused outage information with SGIP developers and to propose methods to accomplish this.

12.1 Party Comments

TURN, PG&E, SCE and SDG&E oppose modifying the definition of "discrete PSPS event" in their comments on the Scoping Memo, the Renewables Ruling and the 2021 Ruling. TURN comments that modifying the definition could inappropriately broaden the scope of eligible customers to those who may not have critical resiliency needs and could reduce funding for customers impacted by potentially repeating utility power shutoffs. Having experience of "two or more" PSPS events indicates an increased future likelihood of such events, TURN asserts. TURN states that because wildfire outages can occur in areas outside of High Fire Threat Districts, the occurrence of a wildfire-related outage at a location is not an indicator of whether future outages are likely to happen in that area. SCE shares this concern, stating that wildfires can be started by other ignition sources beyond utility equipment. The expansion of the definition of PSPS events for SGIP purposes may have the unintended consequence of providing resiliency incentives to customers that are never included in PSPS events and could eliminate SGIP incentives for those with the greatest need for battery storage, according to SCE. SCE recommends that Commission maintain the definition adopted in D.20-01-021 until an evaluation of the effectiveness of the Equity Resiliency Budget completed.

PG&E comments that the current definition provides the most reasonable predictor of a customer's likelihood to be impacted by a PSPS event at this time, although PG&E also states that historical PSPS events may not be best indicator of future PSPS events due to ongoing system hardening and sectionalizing.¹³¹ PG&E opposes modifications to the Equity Resiliency Budget incentives at this time as customer demand for the incentives already exceeds available funds.¹³² PG&E recommends that, if necessary, the Commission should make customers experiencing "two or more discrete PSPS events, or one discrete PSPS event plus a de-energization due to wildfire" eligible for the Equity Resiliency Budget rather than modifying the definition of "PSPS event" itself.¹³³

In contrast, Rural County Representatives of California, Protect Our Communities Foundation, the Joint CCAs, Sunrun, Tesla, California Energy Storage Alliance, CALSSA, and CSE support a range of modifications to the definition of "discrete PSPS event," with many of these parties supporting a modification to include outages due to actual wildfires. CSE states that there are few distinctions between a customer who has had their power shut off for a PSPS event and a customer who has had their power shut off for an actual wildfire. CSE states that clarifying this eligibility requirement would lessen confusion for Equity Resiliency Budget participants and project developers and create a commonsense approach to eligibility. CSE further requests that the Commission direct SDG&E to establish channels to enable CSE to easily verify if customer has experienced an outage or has been de-energized for an actual wildfire.

¹³¹ PG&E, "Comments on Scoping Memo questions b-k," September 16, 2020 at 5.

¹³² PG&E, "Reply comments on 2021 Ruling," at 2.

¹³³ PG&E, "Comments on 2021 Ruling," at 6.

Tesla and CSE comment that the Commission should clarify that eligibility is based on the customer's meter, not an individual customer, because the location is subject to the same risk even if the customer changes. Tesla also recommends that the Commission direct the electric IOUs to develop tools that customers and developers can access to definitively determine if customer address has experienced at least two qualifying outages. The CCAs assert that power loss due to an actual wildfire is "as strong an indicator of future de-energization risk as location within a Tier-2 or Tier-3 [High Fire Threat District]." ¹³⁴

The Joint CCAs and the California Energy Storage Alliance observe that customer confusion has resulted when a customer reports multiple outages but the SGIP Program Administrator states that not all of the outages qualify as a "PSPS event." In some instances, the Joint CCAs assert, this utility assertion may conflict with the practice of participants in R.18-12-005 to refer to PSPS events as "weather events" and with post-PSPS reporting required in D.19-05-042. ¹³⁵

Several parties propose broadening eligibility requirements to two or more outages that occur for any reason, including earthquakes, rolling blackouts and/or unplanned outages. Several parties, including Rural County Representatives of California, voice support for including communities at high

¹³⁴ Joint CCAs, "Comments on Scoping Memo," September 16, 2020 at 5.

¹³⁵ D.19-05-042 and D.20-05-051 in R.18-12-025 do not appear to define "PSPS event." *But see* Wildfire Safety Division, Attachment 2.2: 2021 Wildfire Mitigation Plan Guidelines Template, November 2020, Page 12, where PSPS event is defined as "the time period from the first public safety partner notified of a planned public safety de-energization to the final customer re-energized," available here (accessed April 14, 2021): https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/About_Us/Organization/Divisions/WSD/Attachment%202.2%20to%20WSD-011%20-%202021%20WMP%20Guidelines%20Template.pdf

risk of a future electricity outage within the definition, whereas others, such as CSE, oppose this.

12.2 Discussion

We revise eligibility requirements for the Equity Resiliency Budget and the General Market Resiliency Adder Incentive adopted in D.20-01-021 to extend eligibility to customer meters that have experienced one PSPS event and one de-energization or power outage due to an actual wildfire that occurred on or after January 1, 2017, in addition to customers that have experienced two or more discrete PSPS events. This approach adds an evenhandedness and fairness to the eligibility criteria for customers that have experienced either PSPS events or de-energizations or outages due to actual wildfires that occurred recently while also keeping incentives targeted to those most in need.

Our revisions clarify that the eligibility requirements apply to the meter, not to individual customers. Someone that moves into a home with a meter that has been subject to two or more PSPS shutoffs is just as likely to experience additional PSPS shutoffs as a customer that has resided at that location for many years. Additionally, a customer that has experienced one PSPS event and one de-energization or outage due to an actual wildfire that occurred on or after January 1, 2017, is likely to reside at the confluence of areas at risk for both types of events. Residing in such a location makes it more likely that the customer's meter would again be subject to a PSPS event and would have need for the resiliency opportunities afforded by on-site battery storage. The SGIP Program Administrators shall reference CalFIRE or a similar source to define "wildfire" in the Tier 2 Advice Letter required in this decision.

To be clear, this decision does not approve new sources of funds. We understand that some territories, such as PG&E's, may have Equity Resiliency

Budgets that are fully subscribed. The eligibility changes we adopt here shall apply to customers using any remaining funds, as well as customers applying for any new funds that may become available.

Regarding coordination between CSE and SDG&E, we direct SDG&E to share PSPS and fire-caused outage data with CSE without customer authorization. We require SDG&E to proactively provide this data and timely take all necessary steps to support CSE's role as SGIP Program Administrator. SDG&E's full and rapid cooperation is necessary to ensure that SDG&E ratepayers have full access to the SGIP program.

Additionally, we direct SDG&E and the SGIP Program Administrators to discuss with interested R.20-05-012 and SGIP participants additional means to proactively share fire-caused outage information with SGIP developers and/or customers and to propose methods to accomplish this in the Tier 2 Advice Letter required in this decision. Providing developers and/or customers with streamlined access to fire-caused customer outage data will help eligible customers to participate in SGIP.

We do not adopt parties' additional recommendations to make all customers that have experienced planned or unplanned outages related to non-wildfire disaster events or for customers located in Earthquake Hazard Zones eligible for the Equity Resiliency Budget. We want to limit eligibility for the Equity Resiliency Budget to those customers most likely to suffer from recurring de-energizations. We see recurring de-energizations as most likely to occur from recurring wildfire threats, as wildfires are increasing in their regularity and extent in California. The needs of customers experiencing recurring de-energizations from PSPS events differ from those living in

Earthquake Hazard Zones, for instance, in the potential regularity of PSPS events as opposed to the rare occurrence of disabling earthquakes.

We also take no action to address the issue identified by the Joint CCAs as doing so would cause greater confusion and administrative complexity.

13. Other Scoping Memo Issues

In D.19-09-027, the Commission established a \$100 million Equity Resiliency Budget for energy storage technologies that support resiliency for medically vulnerable customers located in areas of extreme or elevated fire risk and the critical facilities supporting them. D.20-01-021 expanded the Equity Resiliency Budget to \$613 million over five years and established Resiliency Adder Incentives for General Market large-scale energy storage systems and renewable generation technologies.

This section addresses three questions set forth in the Scoping Memo regarding Equity Resiliency Budget medical baseline customers, SGIP requirements for multifamily buildings, and incentives for electric vehicle batteries and/or electric vehicle supply equipment.¹³⁶

13.1 Equity Resiliency Budget Medical Baseline Requirements

D.19-09-027 defines residential customers with critical resiliency needs as eligible for the Equity Resiliency Budget. D.19-09-027 defines eligible customers as including any customer located in a Tier 3 or Tier 2 High Fire Threat District that is: a) eligible for the Equity Budget; or, b) eligible for the medical baseline program as defined in D.86087, 80 CPUC 182; or, c) a customer that has notified

¹³⁶ Scoping Memo at 7.

their utility of serious illness or condition that could become life-threatening if electricity is disconnected, as defined in D.12-03-054.¹³⁷

In response to the COVID-19 pandemic, the electric IOUs suspended requirements for applicants to the medical baseline program to provide a medical certification to enroll and indicated they may not require such a certification from applicants for up to a year. Given this, the Scoping Memo asked if the Commission should consider adopting additional eligibility or verification requirements for medical baseline customers wishing to access the Equity Resiliency Budget incentives adopted in D.19-09-027 and D.20-01-021.

This decision requires customers using the medical baseline pathway to participate in the Equity Resiliency Budget to self-certify that he or she has a serious illness or condition that could become life threatening if service is disconnected. This decision requires medical baseline customers and customers that have notified the utility of a serious illness or condition that could become life- threatening in the event of outage to attest that an Equity Resiliency Budget incentive will be used for energy storage equipment installed at the customer's primary residence.

13.1.1 Party Comments

Most parties urged caution regarding potential revisions to Equity Resiliency Budget requirements for medical baseline customers. CSE and Rural County Representatives of California state that the risk of customers intentionally defrauding a utility to enroll in the medical baseline program to obtain an SGIP incentive is low and outweighed by the risk that customers with a legitimate need will be denied access to the program if they are required to make

¹³⁷ D.19-09-027 at Attachment A, A1.

a doctor's visit to confirm eligibility for medical baseline program. PG&E opposes requiring additional income-based eligibility criteria for customers enrolled in a medical baseline program as these customers are one of most vulnerable customer segments, regardless of income. Sunrun states that changing requirements now would make finding and qualifying customers more difficult during this crisis period and additional barriers would only further exacerbate vulnerability. SCE opposes any rule changes because the electric IOUs' suspension of medical certification requirements is only temporary, and California is moving towards greater inclusion of customers in the medical baseline program.¹³⁸

Some parties urge modest rule changes, however. PG&E supports requiring medical baseline customers that apply for Equity Resiliency Budget incentives to verify that the incentive would be used for equipment installed at the customer's primary residence. The Public Advocates' Office and SDG&E support "self-certification" of medical baseline eligibility consistent with prior Commission decisions. CALSSA states that customers applying to the Equity Resiliency Budget should be subjected to normal verification requirements to provide greater certainty that recipients do in fact meet medical baseline requirements. SoCalGas states that, if the Commission determines COVID-19 medical baseline enrollment validations do not rise to level of customer self-certification established in D.12-03-054, it may be prudent to establish an equivalent self-certification within SGIP.¹³⁹

¹³⁸ SCE's website indicates that customers who use electrically-powered medical equipment can temporarily enroll in the medical baseline allowance program without a physician's signature until June 30, 2021. [Medical Baseline Allowance | Help Paying Your Bill | Your Home | Home - SCE](#)

¹³⁹ D.12-03-054 at 30.

13.1.2 Discussion

We direct SGIP Program Administrators to require customers using the medical baseline pathway to participate in the Equity Resiliency Budget to self-certify that he or she has a serious illness or condition that could become life threatening if service is disconnected. Further, as required in D.20-10-025 for customers using the electric well pump pathway for Equity Budget eligibility, we direct SGIP Program Administrators to require customers using the medical baseline pathway and customers that have notified the utility of a serious illness or condition that could become life- threatening in the event of outage as the basis of their eligibility to verify that the incentive will be used for energy storage equipment installed at the customer's primary residence.

Requiring a self-certification on the part of customers using the medical baseline pathway for eligibility for the Equity Resiliency Budget is consistent with requirements adopted in D.12-03-054 and is reasonable because of the large incentives available to SGIP customers. Self-certification of an existing serious illness or condition that could become life threatening if service is disconnected is not an onerous requirement. We do not require SGIP Program Administrators to modify online portal information submittal requirements or take other time-consuming steps to implement this requirement: submittal of a letter by the customer or a similar low-tech method of implementing this requirement is sufficient. Additionally, requiring medical baseline customers and customers that have notified the utility of a serious illness or condition that could become life- threatening in the event of outage to attest that an Equity Resiliency Budget incentive will be used for energy storage equipment installed at the customer's primary residence is reasonable for the same reasons.

13.2 Multifamily Buildings

D.19-09-027 directs the SGIP Program Administrators to review and modify SGIP eligibility requirements, as needed, to support the participation of multifamily buildings by updating system-sizing requirements for multifamily housing.¹⁴⁰ D.19-09-027 also directs the SGIP Program Administrators to modify SGIP eligibility requirements to better include multifamily buildings on a VNEM tariff and ensure that such properties are included in the definition of Host Customer in the SGIP Handbook.¹⁴¹

In comments on the Order Instituting Rulemaking, parties indicated ongoing challenges with multifamily building participation in SGIP. The Scoping Memo subsequently included questions on the need for additional revisions to SGIP's multifamily building requirements, including regarding multi-tenant commercial buildings.¹⁴² Specifically, the Scoping Memo asked:

- Should the Commission further refine the multifamily building requirements adopted in D.19-09-027 to facilitate this customer segment's participation in SGIP?
- Should refinements include extending eligibility for SGIP for multifamily buildings on a VNEM tariff to multi-tenant commercial buildings?

This decision expressly prohibits multi-tenant commercial buildings from eligibility for the Equity and Equity Resiliency Budgets but allows such buildings to participate in all other energy storage incentive budgets. This decision does not modify SGIP requirements for buildings on a VNEM tariff.

¹⁴⁰ D.19-09-027 at Conclusion of Law 25.

¹⁴¹ D.19-09-027 at Conclusion of Law 23

¹⁴² Scoping Memo at 7.

13.2.1 Party Comments

Several parties support further refinements to SGIP multifamily building requirements. Regarding multifamily buildings on VNEM tariffs, Sunrun states that application of the current VNEM tariff to SGIP multifamily buildings is confusing and needs refinement. The Joint CCAs discuss possible application of Net Energy Metering Aggregation (NEMA) tariffs to multifamily buildings to allow for a physical connection to individual units to allow for recharging of batteries located individual units. Without allowing use of NEMA tariffs or something similar, the Joint CCAs assert that resiliency benefits in multifamily buildings would be limited to common areas, which could be used as cooling centers.

Regarding the eligibility of multi-tenant commercial buildings for SGIP incentives, Small Business Utility Advocates, CALSSA, and FuelCell Energy, Inc. urge the Commission to explicitly make such building types eligible for SGIP. CSE notes that the Program Administrators have not attempted or intended to preclude multi-tenant commercial properties on VNEM from participating in SGIP. CSE states that it has not received any applications for such projects so it does not have evidence of what type of refinements would be needed to allow these projects to participate in SGIP at this time. CALSSA states that the barrier lies with the definition of “Host Customer” in the SGIP Handbook, which limits multi-unit building participation to multifamily buildings only.

TURN opposes making multi-tenant commercial buildings eligible for the SGIP Equity or Equity Resiliency Budgets. TURN states that there is no evidence of any automatic positive implications for disadvantaged communities if the Commission were to expand eligibility for equity incentives to multi-tenant commercial buildings. TURN notes that many commercial buildings are owned

by large corporations and are located in disadvantaged communities due to historical accident, lower real estate costs, and/or the use of broad air quality criteria to define disadvantaged communities. Protect Our Communities Foundation states that multi-tenant commercial buildings should not be eligible for SGIP incentives because they are not occupied at night and batteries located at these sites would have no “24/7” reliability value to the customer.

PG&E argues that further refinements to SGIP multifamily building requirements are not needed as there is already significant demand from multifamily properties and multi-tenant commercial buildings can participate in SGIP and Net Energy Metering 2.0 if they qualify for both programs.

13.2.2. Discussion

This decision expressly prohibits multi-tenant commercial buildings from eligibility for the Equity and Equity Resiliency Budgets but allows such buildings to participate in all other energy storage incentive budgets if the project meets all SGIP eligibility and operational requirements. This decision provides additional guidance for SGIP project applications for buildings on a VNEM tariff.

We agree with Sunrun that application of the current VNEM tariff to SGIP multifamily buildings is confusing. The VNEM tariff entails installation of in-front-of-the meter renewable generation. D.19-09-027 authorizes use of SGIP incentives for systems that interconnect to the local electric utility’s distribution system under the requirements of the VNEM tariff.¹⁴³ Rule 21 addresses the safety requirements of equipment connected to the grid, and the parameters for its safe connection and disconnection, but does not address the question of how buildings on a VNEM tariff might set up islanding for energy storage systems.

¹⁴³ D.19-09-027 at 52.

Further, we do not have full clarity as to whether some or all utilities' VNEM tariffs preclude in-front-of the meter storage systems on a VNEM tariff from providing power to a building's on-site load; in comments on the proposed decision, Sunrun asserts that SDG&E and PG&E's VNEM tariffs allow for this.¹⁴⁴ Regardless, methods involving "switching and isolation" technologies would be necessary to facilitate islanding of a building on a VNEM tariff as required for Equity Resiliency Budget incentives.¹⁴⁵

On balance, and because of the lack of clarity on this issue, we find that it is reasonable that a developer must demonstrate at the time of its application for Equity Resiliency Budget and Resiliency Adder incentives that: (1) the applicable utility's VNEM tariff allows installed storage to serve on-site load; and, (2) the applicant intends to use a switching and isolation technology arrangement allowed under Rule 21 at the time the of application to provide for discharging the battery to serve onsite load and to island. If necessary, the applicant and SGIP Program Administrator should utilize the SGIP Handbook's dispute resolution process or apply to the Commission's Alternative Dispute Resolution program to settle a dispute on this point. SGIP Program Administrators and/or applicants should initiate the dispute resolution process in a timely manner, and Program Administrators shall allow applications involving VNEM tariff disputes to remain in the SGIP reservation system until such time as the dispute is resolved, or until June 30, 2023, whichever comes first.

Regarding multi-tenant commercial building eligibility for SGIP, we agree with CSE that the Commission has not expressly prohibited or provided for this

¹⁴⁴ Sunrun, Comments on Proposed Decision at 3.

¹⁴⁵ See CESA, Comments on Proposed Decision at 4.

in the multifamily-specific refinements adopted in D.19-09-027. However, we concur that multi-tenant commercial buildings in disadvantaged communities are not appropriate to receive Equity or Equity Resiliency Budget incentives for the reasons TURN cites. This decision therefore expressly prohibits multi-tenant commercial buildings from eligibility for the Equity and Equity Resiliency Budgets.

Multi-tenant commercial buildings participating in the General Market Budget must comply with all SGIP operational requirements, but we see no compelling reason to *a priori* prohibit this. Therefore, we clarify that multi-tenant commercial buildings are eligible for the General Market Budget.

13.3 Potential Participation of Electric Vehicles

Comments on the Order Instituting Rulemaking indicate significant interest in offering SGIP incentives for electric vehicle batteries or electric vehicle supply equipment. In response to this interest, the Scoping Memo asked whether electric vehicle energy storage systems and/or electric vehicle supply equipment may be eligible for SGIP incentives and, if so, what rules or conditions should apply?¹⁴⁶ Specifically, the Scoping Memo asked:

1. How can SGIP incentives facilitate use of electric vehicle energy storage systems and/or electric vehicle supply equipment to reduce peak load on the grid and/or to charge the storage system when excess electricity is available?
2. How can SGIP incentives facilitate use of electric vehicle storage systems and/or electric vehicle supply equipment to reduce grid greenhouse gas emissions?
3. How can SGIP incentives facilitate use of electric vehicle storage systems and/or electric vehicle supply equipment

¹⁴⁶ Scoping Memo at 7.

to provide other benefits of electric vehicle grid integrations (as defined in Section 740.6)?

4. How can the Commission ensure that electric vehicle storage systems and/or electric vehicle supply equipment that receive SGIP incentives are used to provide long-term benefits to ratepayers?¹⁴⁷

This decision does not modify SGIP to make incentives available to electric vehicles or electric vehicle storage equipment at this time.

13.3.1 Party Comments

Several parties support offering SGIP incentives for electric vehicle energy storage and/or electric vehicle supply equipment, including Fermata LLC, CEERT, the Vehicle to Grid Integration Coalition and BMW of North America LLC, and the Joint CCAs. Some could support this under certain conditions, including SCE, the California Energy Storage Alliance, and Protect Our Communities Foundation. Parties opposing modifications to SGIP to offer incentives for electric vehicle battery storage include the Small Business Utilities Association, TURN, PG&E, SDG&E, SoCalGas, CSE, Tesla, and Sunrun.

Parties supporting granting SGIP eligibility to electric vehicle energy storage or electric vehicle supply technologies state that single-direction electric vehicle charging allows for flexible demand-managed charging and aligns with SGIP objectives because it shifts load and reduces peak load. The Joint CCAs state that electric vehicle battery vehicle-to-grid or vehicle-to-building systems can increase resilience by providing backup power and/or meeting transportation needs during emergency events, particularly when paired with distributed generation. The Joint CCAs recommend that the Commission undertake sector-specific electric vehicle storage pilots, for instance, to support

¹⁴⁷ *Id.* at 9-10.

electric school buses that can provide emergency backup power and offer ancillary services. The Joint CCAs recommend that the Commission require that SGIP-incentivized equipment remain in place and participate in local vehicle grid integration programs for a pre-determined period and require the electric vehicle owner or fleet operator to refund part of the SGIP incentive if they do not comply.¹⁴⁸

Fermata suggests that SGIP incentives could fund electric vehicle supply equipment installed on a concrete pad or wall with a 10-year contract and “permanency” requirement similar to that required for other SGIP energy storage systems.¹⁴⁹ Fermata also recommends providing a limited amount (*e.g.* 10 to 20 percent) of incentives up-front for electric vehicle supply equipment, with the remainder of incentives provided through performance-based incentive payments.¹⁵⁰

The Vehicle-Grid Integration Council and BMW of North America, LLC state that no retail rates or programs, or wholesale participation options such as the proxy demand response program, are designed to facilitate bi-directional electric vehicle charging capabilities, so SGIP could play an important role in advancing use of this commercially available technology and related functions.¹⁵¹

Protect Our Communities Foundation asserts that SGIP incentives could make bi-directional electric vehicle chargers more economically accessible to customers and accelerate deployment, as these technologies are just entering the

¹⁴⁸ Joint CCAs, “Comments on Scoping Memo,” September 16, 2020 at 18.

¹⁴⁹ Fermata LLC, “Comments on Scoping Memo,” September 16, 2020 at 9.

¹⁵⁰ *Id.* at 11.

¹⁵¹ The Vehicle-Grid Integration Council and BMW of North America, LLC, “Comments on Scoping Memo,” September 16, 2020 at 9.

commercial market. SCE identifies many potential complications and challenges with adding electric vehicles as eligible SGIP technologies and recommends that the Commission convene workshops to discuss potential use-cases.

TURN argues that electric vehicles should not qualify for SGIP incentives because electric vehicle charging infrastructure has already received more than \$1 billion in ratepayer funds and the potential load-shifting benefits that electric vehicle batteries may offer are more appropriately compensated via demand response programs.

The California Energy Storage Alliance asserts that electric vehicles and/or electric vehicle supply equipment inherently reduce greenhouse gas emissions, so it is unnecessary for such systems to receive SGIP incentives to deliver these benefits. The California Energy Storage Alliance recommends that the Commission avoid separate carve-outs for electric vehicles and only deem fully incremental or incrementally funded components of vehicle-to-grid systems as eligible for SGIP incentives, for example, incremental costs for an inverter or controller.

13.3.2 Discussion

We do not establish new SGIP budget categories or incentives for electric vehicle bi-directional charging incentives. Establishing the type of pilot projects suggested by parties would take considerable time and resources to develop the appropriate criteria for projects and rules to ensure that projects result in load-shifting and greenhouse gas reductions, along with any desired resiliency benefits. Award of SGIP incentives for customers using electric vehicle batteries for resiliency and load-shifting raises issues about compliance with the requirement that equipment is permanently installed at a customer's site. Awarding SGIP incentives for electric vehicles or electric vehicle supply

equipment would also require us to divert funds away from existing SGIP incentive budgets at a time when there is significant demand for incentives, including wait lists for some budget categories.

Further, the Commission recently authorized \$35 million for vehicle-to-grid integration projects in D.20-12-029, issued in R.18-12-006, which is one option that could encompass the type of pilot projects suggested by parties. In D.20-12-029, the Commission found that electric IOUs should “Accelerate the Use of [Electric Vehicles] for Bi-Directional Non Grid-Export Power and PSPS Resiliency and Backup.”¹⁵²

For these reasons, we decline to create the complicated rules that would be needed for a new SGIP incentive program for bi-directional electric vehicle charging that serves customer load at this time. Rather, given the limited time and funds remaining for the SGIP program, the necessary pilot projects should be developed in the Commission proceeding(s) that specifically address issues related to electric vehicles, including vehicle-to-grid integration. As appropriate, we may revisit this issue at a later date, if the Legislature authorizes the collection of additional funds for SGIP purposes.

14. Comments on Proposed Decision

The proposed decision of Commissioner Clifford Rechtschaffen in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission’s Rules of Practice and Procedure. Twenty-two parties filed comments on May 19, 2021, and 10 parties filed comments on May 24, 2021.¹⁵³

¹⁵² D.20-12-029 at 20.

¹⁵³ Parties filing opening comments include CSE, CEERT, Sierra Club/NRDC, SoCalGas, SCE, California Clean DG Coalition, Green Hydrogen Coalition, FuelCell Energy, Inc., Protect Our
Footnote continued on next page.

Parties generally support the proposed decision. However, some raise concerns that resulted in substantive modifications to the final decision. We discuss these below.

Requirement for internal combustion engine projects to meet SoCalGas's Tariff Rule 30's Quality Standards: The Fairfield-Suisun Sewer District, the California Association of Sanitation Agencies, and SoCalGas object to the proposed decision's requirement that SGIP on-site internal combustion engine projects meet the quality standards set forth in SoCalGas's Tariff Rule 30. These parties state that meeting the proposed quality standards would increase greenhouse gas emissions associated with the project. Additionally, these parties note that the cost of equipment required to meet the quality standard could exceed the value of SGIP incentives.

We decline to modify the final decision based on these comments. First, our concern with use of untreated biogas in internal combustion engines stems from concern with criteria pollutants, not greenhouse gas emissions. As discussed in section 6.2, combustion of biomass and biogas can contribute to increased criteria air pollutants such as particulate matter emissions. In particular, we are concerned with emissions of PM_{2.5}, SO₂, NO_x, silicon dioxide and other ultrafine particles. With regards to greenhouse gas emissions, we note that biomethane facilities can separate up to 99 percent methane and we accept that some system inefficiencies are acceptable to protect public health.

Communities Foundation, CESA, Sunrun, Inc., Bioenergy Association of California, Vehicle-Grid Integration Council, PG&E, Public Advocates Office, CALSSA, SDG&E, California Association of Sanitation Agencies, National Fuel Cell Research Center, California Hydrogen Business Council, and the Fairfield-Suisun Sewer District. Parties filing reply comments include California Hydrogen Business Council, CEERT, SoCalGas, FuelCell Energy, Inc., Sierra Club/NRDC, SDG&E, SCE, PG&E, National Fuel Cell Research Council, and CALSSA.

Prohibiting SGIP incentives for internal combustion projects located in a county that is listed as a severe or extreme federal nonattainment area: The Fairfield-Suisun Sewer District, the California Association of Sanitation Agencies, SoCalGas, the California Clean DG Coalition oppose the proposed decision's prohibition on incentives for internal combustion projects located in a county that is listed as a severe or extreme federal nonattainment area for any of the three years prior to the SGIP application year. These parties argue that this requirement is redundant to California Environmental Quality Act (CEQA), Air Quality Management District (AQMD), and California Air Resources Board (CARB) requirements to minimize criteria air pollutants and may undercut programs offered by some AQMDs, whereby the district provides an emission credit for waste heat recovery from a combined heat and power system using an internal combustion engine. Sierra Club/NRDC support the proposed decision's restrictions as appropriate to protect the health and safety of communities already overburdened by poor air quality because CEQA, AQMD, and CARB requirements do not eliminate criteria air pollutants from internal combustion engine projects.

The final decision retains the prohibition on incentives for internal combustion projects located in a county that is listed as a severe or extreme federal nonattainment area for any of the three years prior to the SGIP application year. It is appropriate and within our discretion to limit SGIP incentives to internal combustion engine projects in severe or extreme federal nonattainment areas to reduce pollution burdens in already severely impacted areas.

The final decision also corrects discrepancies in the proposed decision on this issue as identified by SoCalGas. SoCalGas observes that proposed decision

text inadvertently indicated that restrictions on internal combustion engine projects in federal nonattainment areas would be applied to all SGIP projects using renewable fuels, whereas our intent it to apply this restriction only to SGIP internal combustion engine projects. The final decision contains minor corrections to section 8.2, Conclusion of Law 15, and Ordering Paragraph 1(k)(iii) to address this issue.

Renewable Hydrogen for SGIP Purposes: The Green Hydrogen Coalition, PG&E, the Bioenergy Association of California, CEERT, SoCalGas, the California Hydrogen Business Council, SDG&E and the National Fuel Cell Research Center recommend that the final decision adopt a broad definition of renewable hydrogen eligible for SGIP purposes, as commented in earlier stages of this proceeding.

We decline to modify eligible renewable hydrogen for SGIP purposes in the final decision. As discussed in section 7.2, because SGIP incentives are limited, and the program only extends through 2025, it is appropriate to prioritize using biomethane to directly generate electricity as opposed to the less efficient use of limited biomethane supplies to generate renewable hydrogen that is in turn used to offset grid electricity use.

We do, however, modify the final decision to provide greater clarity on our intent. Specifically, we modify the phrase “non-combustion thermal conversion” to clarify that we mean the “non-combustion thermal conversion of biomass.” By clarifying that this decision allows the non-combustion thermal conversion of biomass as an eligible hydrogen fuel feedstock, we clarify that gasification of woody biomass, *i.e.* “pyrolysis,” is an appropriate method to produce renewable hydrogen for SGIP purposes. Gasification or pyrolysis of woody debris is an available and appropriate source of hydrogen feedstock. We

also clarify in response to comments that this decision does not prohibit biogas to hydrogen to power projects that meet our adopted requirements.

The California Hydrogen Business Council and the National Fuel Cell Research Council recommend that we strike the word “dedicated” from the phrase “dedicated pipeline” in our discussion of renewable hydrogen eligible for SGIP purposes. CEERT recommends we define this term.

The final decision retains the phrase “dedicated pipeline” and defines this as “a pipeline that only transports hydrogen fuel.” R.13-02-008 is exploring whether to allow some amount of hydrogen blending into commercial gas pipelines and, if allowed, appropriate safety standards. As appropriate, we may reconsider this issue in this proceeding after taking further action on it in R.13-02-008.

Definition of environmental attributes for SGIP purposes: The Bioenergy Association of California and FuelCell Inc. request clarification of the term “environmental attributes,” as used in this decision, proposing that its usage here aligns with the definition of “Renewable Energy Credits” adopted in D.15-09-004 for purposes of the BioMAT program. These parties state that D.15-09-004 terminates most usages of the term “green attributes” for BioMAT Program purposes. The parties concern is with the “value of carbon negative emissions” of certain biofuel projects, which they state is excluded from the term “Renewable Energy Credits” as clarified in D.15-09-004.¹⁵⁴

In effect, the Bioenergy Association of California and FuelCell Inc. request that we eliminate the proposed decision’s requirement that SGIP customers exclusively own all environmental attributes of the renewable fuel they use to

¹⁵⁴ Bioenergy Association of California, Comments on Proposed Decision at 7.

generate electricity. We surmise that Bioenergy Association of California and FuelCell Inc. propose this so that customers (or developers) could retain and presumably be compensated for the value of greenhouse gas reductions below carbon neutrality (*i.e.*, carbon negative emissions) from fuel used by an SGIP project. In effect, however, this would allow two separate entities to use, or claim environmental benefits from the same fuel.

We decline to make this change in the final decision, due to questions about compliance with statutory intent, the complexity and burden of tracking and verification, and heightened concerns about double counting if more than one party may claim environmental attributes from the same fuel. For clarity, we modify the final decision to define “environmental attributes” more clearly as encompassing all environmental benefits associated with the project, including any Renewable Energy Credits, and any carbon negative emission value associated with biofuels used in the project. This results in changes to Finding of Fact 46, Conclusion of Law 22, and Ordering Paragraph 1(r).

Compliance and enforcement of SGIP renewable fuel requirements: The Public Advocates Office and Sierra Club/NRDC comment that the proposed decision delegates too much discretion to SGIP Program Administrators to determine appropriate sanctions for developers that violate SGIP renewable fuel requirements. Specifically, these parties object that section 9 of the SGIP Handbook allows use of an audit as a “sanction” in addition to project cancellation, suspension, or expulsion.

We agree with these parties that initiation of a simple audit in response to a developer’s violation of renewable fuel requirements as described in sections 5 and 9 of this decision, would be an insufficient response and deterrent. The final decision clarifies that SGIP Program Administrators shall exclude use of a fiscal or

programmatic audit as an appropriate enforcement response regarding violations of renewable fuel or renewable fuel reporting requirements as discussed in this decision. This results in minor changes to section 9.2 of this decision, Finding of Fact 41, and Conclusion of Law 20, and Ordering Paragraph 1(p) in the final decision.

The Public Advocates Office and Sierra Club/NRDC also request clarification on Commission standards for the spot checks required in this decision. We decline to provide further clarification on this topic; publicizing the spot check method could encourage gaming. However, we clarify here that SGIP Program Administrators must seek feedback on their intended approach with Commission staff.

We also clarify, in response to comments by SoCalGas, that this decision orders on-site, unannounced spot check verification of the sources (*i.e.* suppliers) of directed biofuels.¹⁵⁵ The SGIP Program Administrators shall modify fuel source contract templates accordingly to clearly communicate this requirement to directed biofuel suppliers. SGIP Program Administrators must not in the Tier 2 Advice Letter ordered in this decision propose alterations to this requirement under the pretext that the Renewables Portfolio Standard program does not include a similar requirement.

VNEM, Multifamily Buildings, and the Equity Resiliency Budget:

Sunrun, CESA, and CSE request modifications and clarifications to this decision's treatment of VNEM issues. CESA and Sunrun request that the Commission continue to monitor VNEM technologies and allow projects involving VNEM to

¹⁵⁵ See SoCalGas, Comments on Proposed Decision, at 8. In these comments SoCalGas appears to imply that this decision authorizes SGIP Program Administrators to not undertake on-site spot checks of directed biofuels because this step is not required in the Renewables Portfolio Standard program.

continue to be eligible for the Equity Resiliency Budget should technology and policy allow. CESA proposes that the Commission allow use of the “existing SGIP procedure of technical documentation and attestation requirements for VNEM projects to demonstrate their ability to serve VNEM customer accounts for resiliency purposes, where switching and isolation technologies are used to facilitate these operations.”¹⁵⁶ Sunrun proposes that projects that are otherwise eligible be “temporarily exempted from the requirement that the system be configured to provide on-site backup power.”¹⁵⁷ CSE requests clarification on “whether these projects may move forward with a reservation, assuming they meet all other relevant SGIP eligibility requirements, or if the projects should be cancelled and the funds returned to the Equity Resiliency Budget.”¹⁵⁸

Additionally, Sunrun states that “nothing in Rule 21 or the investor-owned utilities’ (“IOUs”) VNEM tariffs prevents these VNEM systems from islanding during an outage and serving on-site load.”¹⁵⁹ Sunrun further contends that SDG&E and PG&E’s VNEM tariffs “explicitly allow for the provision of power to on-site load.”¹⁶⁰

Application of the current VNEM tariff to SGIP multifamily buildings is confusing. The VNEM tariff entails installation of in-front-of the meter renewable generation. D.19-09-027 authorizes use of SGIP incentives for systems that interconnect to the local electric utility’s distribution system under the

¹⁵⁶ CESA, Comments on Proposed Decision at 4.

¹⁵⁷ Sunrun, Comments on Proposed Decision at B-2.

¹⁵⁸ CSE, Comments on Proposed Decision at 4-5.

¹⁵⁹ Sunrun, Comments on Proposed Decision at 1.

¹⁶⁰ *Id.* at 3.

requirements of the VNEM tariff.¹⁶¹ Rule 21 addresses the safety requirements of equipment connected to the grid, and the parameters for its safe connection and disconnection, but does not address the question of how buildings on a VNEM tariff might set up islanding systems. Despite Sunrun's comments, we do not have full clarity as to whether some or all utilities' VNEM tariffs preclude in-front-of the meter storage systems on a VNEM tariff from providing power to a building's on-site load. Regardless, methods involving "switching and isolation" technologies would be necessary to facilitate islanding of a building on a VNEM tariff as required for Equity Resiliency Budget incentives.¹⁶²

On balance, and because of the lack of clarity on this issue, we find that it is reasonable that a developer must demonstrate at the time of its application for Equity Resiliency Budget and Resiliency Adder incentives that: (1) the applicable utility's VNEM tariff allows installed storage to serve on-site load; and, (2) the applicant intends to use a switching and isolation technology arrangement allowed under Rule 21 at the time the of application to provide for discharging the battery to serve onsite load and to island. If necessary, the applicant and SGIP Program Administrator should utilize the SGIP Handbook's dispute resolution process or apply to the Commission's Alternative Dispute Resolution program to settle a dispute on this point. SGIP Program Administrators and/or applicants should initiate the dispute resolution process in a timely manner, and Program Administrators shall allow applications involving VNEM tariff disputes to remain in the SGIP reservation system until such time as the dispute is resolved, or until June 30, 2023, whichever comes first.

¹⁶¹ D.19-09-027 at 52.

¹⁶² See CESA, Comments on Proposed Decision at 4.

Further, other proceedings may address or discuss these issues.¹⁶³ We encourage SGIP Program Administrators, utilities and parties working on VNEM and SGIP storage issues to participate in any future workshops or forums that discuss updates to existing VNEM tariffs or the creation of new resiliency tariffs to more explicitly address the challenges identified here.

The final decision contains clarifications in section 13.2.2 to our discussion of Rule 21 and VNEM requirements as we understand their relationship with SGIP projects in consideration of Sunrun's comments.

Lack of availability of Equity Resiliency Budget funds in some SGIP Program Administrator areas: PG&E and SCE request that the final decision clarify that SGIP Equity Resiliency Budget funds are fully subscribed in some Program Administrator territories to manage developer expectations.

We agree this is a useful clarification and add PG&E's suggested language to section 12 of the final decision.

Equity Resiliency Budget requirements pertaining to an outage caused by an actual wildfire: On this topic, PG&E and SCE request we clarify the relevant timeframe for qualifying wildfires and related outages, and recommend we define this as occurring on or after January 1, 2017. Similarly, SoCalGas recommends we define a qualified "wildfire event" using a CalFIRE or similar source. SCE also suggests we authorize use of a customer attestation as evidence that a customer was de-energized because of a specific wildfire to minimize administrative requirements, particularly given the minimal funding remaining in the Equity Resiliency Budget.

¹⁶³ See Joint Assigned Commissioner's Scoping Memo and Administrative Law Judge Ruling Directing Comments on Proposed Guiding Principles, November 19, 2020 at 3, in R.20-08-020.

We agree with the suggested timeframe of January 1, 2017, as a reasonable cut-off point beyond to identify qualifying wildfires and that CalFIRE, or a similar source, is an appropriate authority for SGIP Program Administrators to reference to define this term in a standardized fashion. We revise the final decision to make these changes in section 12.2, Finding of Fact 49, Conclusion of Law 26, and Ordering Paragraph 1(v). We agree with SCE that, given the limited Equity Resiliency Budget funds remaining as of the writing of this decision, that customer attestations could be useful but that SGIP Program Administrators must nonetheless also verify that the customer meter in question experienced an outage due to an actual wildfire.

Medical Baseline Equity Resiliency Budget Customers: CSE seeks clarification on whether customers who claim eligibility by notifying the utility of a serious illness or condition that could become life-threatening in the event of outage must also attest that the energy storage equipment. That is the intent of this decision and we made minor modifications to section 13.1, Finding of Fact 55, Conclusion of Law 28, and Ordering Paragraph 1(x) to clarify this.

SoCalGas and PG&E also request that we require developers to “execute” medical baseline and medically vulnerable customers’ attestations. We do not require this as this would be inappropriate. However, we agree with PG&E’s further suggestion that an SGIP evaluation could assess whether implementation discrepancies occurred in this area, at the appropriate time. We direct Commission staff to discuss with the SGIP Program Administrators methods for the SGIP evaluator to assess whether customers that self-certified they were on a medical baseline as the basis for their eligibility for an Equity Resiliency Budget incentive remain on a medical baseline rate one or two years (or some other appropriate period) after receiving the SGIP incentive. If they deem it feasible

and helpful, Commission staff shall work with SGIP evaluators and Program Administrators to include this topic in a subsequent SGIP impact evaluation.

SDG&E Sharing of Customer Information with CSE: SDG&E proposes edits to the final decision to reflect the customer energy usage data and privacy provisions adopted in D.11-07-056 and subsequently reflected in SDG&E's Electric Rule 33 tariff. We do not modify the final decision to make SDG&E's requested changes. Instead, we modify Ordering Paragraph 4 to order SDG&E to release customer-specific data to CSE to the extent necessary to confirm eligibility for incentives that a customer has applied for. This is a limited use of customer information for a limited prescribed purpose.

Our order here is sufficient relative to SDG&E's Electric Rule 33 on customer privacy. We explicitly do not require SDG&E to ensure CSE's adherence to the following portion of SDG&E's Rule 33 due to the limited type and purpose of the information that we order SDG&E to provide: "provided that the covered entity disclosing the data shall, by contract, require the third party to agree to access, collect, store, use, and disclose the covered information under policies, practices and notification requirements no less protective than those under which the covered entity itself operates as required under this rule."¹⁶⁴ Instead, we refer SDG&E to the final phrase of its Electric Rule 33 text, "unless otherwise directed by the Commission" and confirm that we are so ordering here.

Extension of Tier 2 Advice Letter timeframe: CSE and SCE request that the timeframe for submitting the required Tier 2 Advice Letter proposing modifications to the 2021 SGIP Handbook to implement the revisions adopted in

¹⁶⁴ SDG&E, Comments on the Proposed Decision at 2.

this decision be extended from 45 days to 90 days. These SGIP Program Administrators state that the various consultations and steps this decision requires prior to submittal of the advice letter would be better served by a slightly longer timeframe. This is a reasonable request, and we modify the final decision accordingly.

Additional Minor clarifications: CSE supports the revisions to SGIP wind technology rules adopted here but proposes that no wind project be suspended beyond June 30, 2027. CSE recommends this to ensure that the SGIP Program Administrators can process any incentive claims within reasonable bounds of the program's sunset period. Section 379.6(a)(2) requires repayment of all unallocated funds collected for SGIP purposes as of January 1, 2026. CSE's request is reasonable, and we grant it here. We modify the final decision to indicate that that no wind project will be suspended beyond June 30, 2027, unless the Legislature authorizes additional revenue collections for SGIP purposes such that SGIP's sunset date is extended beyond January 1, 2026. This results in an additional Finding of Fact 61 and modifications to Conclusion of Law 24 and Ordering Paragraph 1(t).

CSE requests clarification regarding usage of the term SGIP "Technical Working Group," in the proposed decision. We modify the final decision to direct the SGIP Program Administrators in several instances to convene one or more meetings with interested R.20-05-012 parties and SGIP participants to discuss issues as directed here.

CESA, Protect Our Communities Foundation and the Vehicle to Grid Coalition request that this decision indicate that the Commission may revisit the question of incentives for electric vehicle storage equipment as a form of energy storage at a future date, if additional funds are added to the SGIP program. The

final decision clarifies that, as appropriate, the Commission may reconsider this issue if the Legislature authorizes additional SGIP funding collections.

PG&E requests that the final decision clarify PG&E's position on "purpose grown crops" in section 8.1, which it does.

We have carefully reviewed all party opening and reply comments to consider the suggested modifications but decline to make any changes not summarized above.

15. Assignment of Proceeding

Clifford Rechtschaffen is the assigned Commissioner and Cathleen A. Fogel is the assigned Administrative Law Judge in this proceeding.

Findings of Fact

Projects Using Capture/Use/Destroy Baseline

1. SGIP renewable fuel projects with a capture/use/destroy baseline use biomethane from sources that are required by law or regulation to capture and productively use or destroy the methane; this typically means that the gas is flared or burned, reducing but not eliminating greenhouse gas emissions.
2. Low greenhouse gas emission reductions from projects with a capture/use/destroy baseline stem from the exclusion of avoided methane emissions from the baseline used for such projects.
3. Classifying renewable fuels produced from in-state fuel sources with a capture/use/destroy baseline as SGIP-eligible will help minimize the flaring of landfill gas and the resulting release of criteria pollutants and will support broader California waste diversion and short-lived climate pollutant goals.
4. The largest wastewater treatment plants in California have excess capacity, are close to population centers, and could potentially obtain and co-digest significant amounts of solid organic waste.

5. SGIP projects at sewage treatment plants have the potential to provide substantial greenhouse gas emission reduction benefits despite already being subject to control/use/destroy regulations primarily due to the potential role of treatment plants in California's larger landfill waste diversion goals.

Directed Biofuels

6. By limiting SGIP directed biofuel projects to those located in California, more in-state wastewater treatment plants will have the opportunity to use SGIP funds towards projects that expand use of diverted organic waste to produce biofuel.

7. Limiting eligible SGIP directed biofuels to those produced in-state balances achievement of SGIP goals with industry needs, provides additional environmental benefits, and advances California's broader waste diversion and short-lived climate pollutant goals as embodied in SB 1383.

8. Lack of access to directed biofuels could limit the economic viability of otherwise beneficial SGIP projects by limiting the export of excess biofuels or bundling several small fuel sources together to supply one SGIP project.

9. Environmental benefits such as the reduction of criteria pollutants, reduction of nuisance odors, or reduction of adverse impacts on California waters are generally provided when biofuels are produced in-state; limiting eligible directed biofuels to those produced in-state increases these environmental benefits for the state.

10. Access to pipeline infrastructure for biofuels is an important tool to advance California's decarbonization and greenhouse gas emission goals.

11. Allowing purchase of out-of-state directed biofuels could undercut incremental SGIP greenhouse gas emission reductions because biogas projects in

other states may be already fully funded based on existing economics or state requirements.

12. It is reasonable to adopt SGIP requirements to encourage Host Customers to continue their commitment to renewable fuel use beyond the 10-year SGIP fuel purchase contract requirement instead of reverting to natural gas use.

13. Both on-site and directed renewable fuel projects have failed to fully comply with SGIP renewable fuel use or documentation requirements.

Internal Combustion Engine Projects

14. SGIP evaluations have found that SGIP internal combustion engine projects using renewable fuels reduced greenhouse gas and criteria pollutant emissions, mainly because of avoided criteria pollutant emissions from flaring and the grid baseline; however, combustion engines using non-renewable gas slightly increased greenhouse gas emissions during the 2016 to 2017 period.

15. SGIP evaluations have found that internal combustion engine projects with a venting baseline did not reduce criteria pollutants since methane is only converted into criteria pollutants after the combustion process.

16. Combustion of biomass and biogas can contribute to increased criteria air pollutants such as particulate matter emissions.

17. It is reasonable to require all SGIP renewable fuel combustion projects to meet the same criteria pollutant standards as previously required for SGIP fossil fuel combustion projects, which are no longer eligible for SGIP incentives.

18. Requiring on-site SGIP internal combustion engine projects using biogas to meet the same methane gas quality standard required for natural gas ensures that contaminants, including volatile organic compounds and hydrogen sulfide, are removed from the fuel, that the fuel that is combusted is relatively pure

methane, and that the project does not result in greater greenhouse gas emissions than combustion of pipeline natural gas.

19. Requiring SGIP internal combustion engine projects using biogas to self-certify to installation of equipment necessary to achieve a 96 percent of methane gas quality standard and requiring SGIP evaluators to inspect such project sites for compliance with this requirement during the initial site evaluation and during subsequent on-site measurement and verification assessments is a reasonable approach that balances various issues and interests.

20. Prohibiting SGIP incentives for internal combustion projects located in a county that is listed as a severe or extreme federal nonattainment area for particulate matter or ozone ensures that funds are not awarded to facilities that could exacerbate exceedances of air quality standards.

21. Our adopted requirements will ensure that internal combustion engine projects reduce methane emissions and criteria pollutants as compared to the electricity and gas usage that the SGIP project replaces.

Hydrogen Fuel

22. Broadly defining renewable hydrogen for SGIP purposes supports the development of a variety of distributed generation projects using a variety of feedstocks, electricity sources, and methods, and advances California's decarbonization goals by encouraging competition and innovation.

23. There are other sources of renewable energy and feedstocks beyond green electrolytic hydrogen, such as forest waste, that merit development as a source of renewable hydrogen.

24. Making hydrogen fuel derived from forest waste feedstock eligible for SGIP supports the development of supply chains, technologies, and greenhouse gas estimation methodologies.

25. Allowing use of hydropower as a renewable energy source for production of hydrogen fuel increases flexibility.

26. Requiring SGIP projects to be on-site with a hydropower source or directly connected via a dedicated electric line ensures that SGIP projects will not be powered by hydropower imported from long distances that results in greater use of fossil-generated electricity in other areas.

27. Limiting renewable electricity sources for production of hydrogen fuel to electricity produced during times of excess renewable electricity generation would be difficult to verify.

28. Although excess renewable electricity is a likely future beneficial electricity source for renewable hydrogen in California, hydrogen production and use technologies are at present too nascent to limit eligible SGIP renewable electricity sources for hydrogen production in this way.

29. Steam-methane reforming is a mature hydrogen production process that creates carbon dioxide emissions.

Non-Hydrogen Renewable Fuels

30. Prohibiting use of purpose-grown crops as SGIP renewable fuel feedstocks will help avoid unintended greenhouse gas emission increases from land conversion for energy crops and will focus developers on the considerable amounts of organic waste already available in California.

31. Allowing use of the broader set of feedstocks identified in AB 3163 to produce biomethane for SGIP purposes supports evolution of the renewable fuel industry towards additional available sources of organic waste in California.

32. Allowing SGIP projects to switch to a new renewable fuel provider during the course of the 10-year fuel supply contract period, if this change is approved

by an SGIP Program Administrator, provides flexibility and helps projects secure the least expensive fuels.

Documentation, Auditing, Verification, Enforcement

33. SGIP evaluator Renewable Fuel Use Reports have since 2014 consistently found a lack of compliance with renewable fuel use requirements or a lack of availability of required documentation.

34. The 2018 and 2020 Renewable Fuel Use Reports found no and one project out of compliance with renewable fuel use requirements, respectively, but both found numerous cases of on-site and directed biogas projects that could not have their compliance status determined due to insufficient data.

35. SGIP requirements for verification of source fuels have not kept pace with Low Carbon Fuel Standard or Renewables Portfolio Standard requirements.

36. The California Air Resources Board considers directed biofuel sources to be at high risk for non-compliance and, as a result, requires on-site verification of biofuel sources for the Low Carbon Fuel Standard but the costs of 100 percent on-site fuel source verification for directed biofuels could be significant for the smaller SGIP program.

37. It is reasonable to strengthen SGIP's renewable fuel documentation requirements so that customers and/or gas marketers submit evidence on renewable fuels use in a manner similar to that required for SGIP performance-based incentives or for the Renewables Portfolio Standard that includes, at minimum, monthly reporting of directed and on-site renewable fuel reports, attestations, supporting documentation, nomination records, procurement invoices, meter data, and other enhancements to audit protocols.

38. Directing the SGIP Program Administrators to propose the details of how renewable fuel documentation, auditing and verification requirements should be

strengthened to ensure full compliance with SGIP fuel use and documentation requirements will help ensure that modifications are administratively pragmatic.

39. SGIP on-site renewable fuel projects are already subject to periodic on-site audits.

40. Periodic and random no-warning verification spot checks of SGIP directed biofuel sources will help ensure compliance with SGIP's 100 percent renewable fuel requirements while limiting administrative and verification costs.

41. Directing SGIP Program Administrators to issue a single 30-day warning when required renewable fuel use documentation is not provided, or if verification spot-checks reveal a lack of compliance with SGIP requirements, followed by issuance of an infraction and initiation of SGIP Handbook section 9 procedures (excluding imposition of a fiscal or programmatic audit as a sanction) if compliance does not occur within 30 days will help ensure that SGIP Program Administrators vigorously enforce SGIP renewable fuel requirements.

Environmental Attributes

42. The SGIP 2021 Handbook does not explicitly require that the environmental attributes associated with renewable fuel use for SGIP projects be exclusively owned and retained by the Host Customer.

43. The Renewables Portfolio Standard program requires tracking, verification, exclusive ownership, and retention of Renewable Energy Credits and requires approved generators to register and track their renewable generation through the Western Renewable Energy Generation Information System.

44. There is no nationwide program to track the greenhouse gas reduction or other environmental attributes of renewable fuels, which makes it difficult or

impossible to conclusively verify if these environmental attributes have been sold or claimed by other entities.

45. Instituting the same level of oversight of SGIP biofuels environmental attributes as required in the Renewables Portfolio Standard program is inappropriate due to the different project size in each program.

46. Directing the SGIP Program Administrators to modify fuel source and other SGIP contracting requirements to require the Host Customer to exclusively own and retain all environmental attributes from contracted renewable fuel sources by the Host Customer and to require the fuel seller and the Host Customer to submit attestations to this effect and including review of these commitments during fuel source verification spot checks strikes a balanced approach. Defining environmental attributes for SGIP purposes as all environmental benefits associated with an SGIP project, including any Renewable Energy Credits, and any carbon negative emission value associated with biofuels used in the project, advances SGIP's greenhouse gas emission reduction and broader environmental benefits goals.

Wind Technologies

47. Modest rule revisions to address the unique permitting and financing challenges facing wind technologies and to allow smaller wind technology projects could help spur additional SGIP wind technology projects and will not harm ratepayers.

Eligibility for Resiliency Incentives

48. A person who moves into a home with a meter that has been subject to two or more PSPS shutoffs is just as likely to experience additional PSPS shutoffs as a customer that has resided at that location for many years.

49. A customer that has experienced one PSPS event and one de-energization or outage from an actual wildfire occurring on or after January 1, 2017, is likely to reside at the confluence of areas at risk for both types of events; CalFIRE, or a similar source, is an appropriate authority for the SGIP Program Administrators to reference to define the term “wildfire.”

50. SDG&E’s full and rapid cooperation with CSE to provide customer and outage data is necessary to ensure that SDG&E ratepayers have full access to the SGIP program.

51. Providing developers and/or customers with streamlined access to fire-caused customer outage data will help eligible customers participate in SGIP.

52. Modifying the definition of PSPS event to address differences between the definition used for SGIP purposes and that required in D.19-05-042 for post-PSPS reporting would create additional customer confusion and administrative complexity.

53. Revising the eligibility requirements for the Equity Resiliency Budget and the General Market Resiliency Adder Incentive to extend eligibility to customer meters that have experienced one PSPS event and one de-energization or power outage from an actual wildfire that occurred on or after January 1, 2017, adds an evenhandedness and fairness to SGIP while also keeping incentives targeted to those most in need.

54. In response to the COVID-19 pandemic, the electric IOUs suspended requirements for applicants to the medical baseline program to provide a medical certification to enroll and indicated they may not require this again for up to a year.

55. Requiring customers using the medical baseline pathway for eligibility for the Equity Resiliency Budget to self-certify is reasonable because of the large

incentives available, is not an onerous requirement, and is consistent with requirements adopted in D.12-03-054. Requiring medical baseline customers and customers that have notified the utility of a serious illness or condition that could become life-threatening in the event of outage to attest that an Equity Resiliency Budget incentive will be used for energy storage equipment installed at the customer's primary residence is reasonable for the same reasons and is consistent with requirements adopted in D.20-10-025.

Multifamily Buildings

56. Application of the current VNEM tariff to SGIP multifamily buildings is confusing. The VNEM tariff entails installation of in-front-of the meter renewable generation. D.19-09-027 authorizes use of SGIP incentives for systems that interconnect to the local electric utility's distribution system under the requirements of the VNEM tariff. Rule 21 addresses the safety requirements of equipment connected to the grid, and the parameters for its safe connection and disconnection, but does not address the question of how buildings on a VNEM tariff might set up islanding for energy storage systems. We do not have full clarity as to whether some or all utilities' VNEM tariffs preclude in-front-of the meter storage systems on a VNEM tariff from providing power to a building's on-site load. Regardless, methods involving switching and isolation technologies would be necessary to facilitate islanding of a building on a VNEM tariff as required for Equity Resiliency Budget incentives.

57. The Commission has not expressly prohibited or provided for multi-tenant commercial building participation in SGIP.

58. It is not clear that there are automatic positive implications for disadvantaged communities from eligibility for Equity Budget or Equity Resiliency Budget incentives for multi-tenant commercial buildings.

59. There is no compelling reason to prohibit multi-tenant commercial buildings from participating in the General Market Budget as long as they comply with all SGIP operational requirements.

Electric Vehicles

60. Establishing the type of electric vehicle pilot projects or incentives suggested by parties would take considerable time and resources, raises issues about compliance with SGIP's permanency requirement, and would require the Commission to divert funds away from existing SGIP incentive categories at a time when there is significant demand for the existing incentives.

61. Because Section 379.6(a)(2) requires repayment of all unallocated funds collected for SGIP purposes as of January 1, 2026, it is reasonable that no wind project will be suspended beyond June 30, 2027, unless the Legislature authorizes additional revenue collections for SGIP purposes such that SGIP's sunset date is extended beyond January 1, 2026.

Conclusions of Law

1. The Commission should terminate the pause adopted in D.20-01-021 on accepting incentive applications for renewable generation technology projects using renewable fuel with a capture/use/destroy biofuels baseline for renewable fuels produced in-state.

2. The Commission should limit eligible SGIP directed renewable fuels to those produced in-state.

3. The Commission should direct SGIP Program Administrators to require the Host Customers for SGIP renewable technology projects using renewable fuels to provide an attestation with application materials stating that the project will only use 100 percent renewable fuels for the lifetime of the project.

4. The Commission should adopt requirements to ensure that internal combustion engine projects reduce criteria pollutants as compared to the electricity and gas usage that the SGIP project replaces.

5. The Commission should require SGIP 100 percent renewable fuel projects to meet the criteria pollutant emissions standards required for SGIP fossil fuel combustion projects in Section 379.6(c)(1) - (3) and to meet any additional local air quality management district pollutant emission limits.

6. The Commission should prohibit SGIP incentives for internal combustion engine projects located in a county listed as a severe or extreme federal nonattainment area for particulate matter (PM₁₀ or PM_{2.5}) or eight-hour ozone (O₃) in the U.S. Environmental Protection Agency Green Book for any of the three years prior to the SGIP application date.

7. The Commission should require biogas fuel used in on-site SGIP internal combustion engine projects to meet a 96 percent methane gas quality standard and should require projects using this fuel to self-certify to installation of equipment necessary to achieve this requirement; the Commission should require SGIP evaluators to inspect on-site internal combustion engines using biogas for compliance with these requirements during the initial site evaluation and during subsequent on-site measurement and verification assessments.

8. The Commission should define eligible renewable hydrogen fuel for SGIP projects as hydrogen produced at a SGIP project site, or delivered to a SGIP project site by vehicle or dedicated pipeline, that was produced through non-combustion thermal conversion of biomass, or electrolysis using 100 percent renewable electricity, as defined by the Renewables Portfolio Standard, with the addition of large hydropower and excluding purpose-grown crops. If the renewable electricity is not generated on-site, the purchase program or load

serving entity must provide bundled Renewable Energy Credits to the electricity purchaser. This definition allows for gasification of woody biomass through pyrolysis as an eligible SGIP renewable hydrogen fuel source.

9. The Commission should prohibit hydrogen produced via steam methane reforming or other combustion processes using either fossil or renewable fuel feedstocks as an eligible SGIP fuel.

10. The Commission should allow hydrogen produced using electricity derived from hydropower to be eligible for use in SGIP projects if the project is located on-site or if the electricity is directly connected to the project via a dedicated line.

11. Section 650 defines biomethane as methane produced from a range of organic waste feedstock that meets the standards in California Health and Safety Code Section 25421 for injection into a common carrier pipeline.

12. Section 379.6(m) requires that on or before January 1, 2020, generation technologies using non-renewable fuels shall not be eligible for incentives under the self-generation incentive program.

13. Section 379.6(c)(4)(A) pertained to SGIP distributed generation projects using fossil-fuel prior to the elimination of such projects from SGIP eligibility by Section 379.6(m).

14. Section 379.6(c)(1) expressly contemplates SGIP eligibility for internal combustion engines and combined heat and power and the Legislature did not restrict these technologies when it required 100 percent renewable fuel in Section 379.6(m).

15. The Commission should direct the SGIP Program Administrators to update the definition of eligible renewable fuels in the SGIP Handbook as follows:

A renewable fuel is a non-fossil fuel categorized as the following:

- a. Biodiesel or gas derived from feedstocks as defined in AB 3163, or biomass as defined by the Renewables Portfolio Standard, with the exclusion of purpose-grown energy crops;
- b. Biogas fuel used in on-site internal combustion engine projects that contains a minimum of 96 percent methane;
- c. Hydrogen produced at a SGIP project site, or delivered to a SGIP project site by vehicle or dedicated pipeline, that was produced through non-combustion thermal conversion of biomass, or electrolysis using 100 percent renewable electricity, as defined by the Renewables Portfolio Standard, with the addition of large hydropower and excluding purpose-grown crops. If the renewable electricity is not generated on-site, the purchase program or load serving entity must provide bundled Renewable Energy Credits to the electricity purchaser; and,
- d. Fossil fuel "waste fuel" as defined in Section 379.6(c)(4) is not an eligible fuel for SGIP projects.

SGIP renewable fuel projects must comply with the following:

- a. Shall meet or exceed criteria pollutant emission levels as required in Section 379.6(c)(1) - (3);
- b. Shall meet any additional local air quality management district criteria pollutant emission limits; and,
- c. Incentives shall not be awarded to internal combustion engine projects located in a county listed as a severe or extreme federal nonattainment area for particulate matter (PM₁₀ or PM_{2.5}) or eight-hour ozone (O₃) in the U.S. Environmental Protection Agency Green Book for any of the three years prior to the SGIP application date.

16. The Commission should direct the SGIP Program Administrators to update the SGIP Handbook to remove all references to and/or requirements pertaining to fossil-fuel projects that are no longer relevant.

17. The Commission should direct SGIP Program Administrators to strengthen SGIP renewable fuel documentation requirements so that customers and/or gas marketers are required to submit evidence regarding their renewable fuels use in a manner similar to that required for SGIP performance-based incentives or the Renewables Portfolio Standard.

18. The Commission should direct SGIP Program Administrators to, at minimum, require monthly reporting of directed and on-site biogas fuel reports, attestations, supporting documentation, nomination records, procurement invoices, and meter data, and to propose additional enhancements to audit protocols beyond these requirements.

19. The Commission should direct SGIP Program Administrators to conduct periodic and random no-warning verification spot-checks of directed biofuel sources.

20. The Commission should direct SGIP Program Administrators to issue a single 30-day warning when renewable fuel use documentation is not provided as required or if a verification spot-check reveals a lack of compliance with SGIP requirements, followed by issuance of an infraction and initiation of SGIP Handbook section 9 procedures (excluding imposition of a fiscal or programmatic audit as a sanction) if the project is not in compliance within 30 days of issuance of the warning.

21. The Commission should allow SGIP projects to switch to a new fuel provider during the 10-year fuel contract length period if this change is approved by an SGIP Program Administrator, who must respond to a request within 30 days.

22. The Commission should direct the SGIP Program Administrators to:
(a) modify fuel source and other SGIP contracting requirements to require that

the Host Customer maintains exclusive ownership of all environmental attributes from contracted renewable fuel sources and may not sell, trade or transfer any of these attributes; (b) require the submittal of attestations committing to this by both the fuel seller and the Host Customer; (c) propose methods to include review of the disposition of environmental attributes during the fuel source verification spot checks adopted in this decision; (d) propose additional revisions to program documentation and auditing requirements to ensure full Host Customer ownership of all environmental attributes of SGIP renewable fuels sources as necessary, after discussing this issue with interested R.20-05-012 parties and SGIP participants; and, (e) define environmental attributes for SGIP purposes as all environmental benefits associated with an SGIP project, including any Renewable Energy Credits, and any carbon negative emission value associated with biofuels used in the project.

23. The Commission should add the following language to section 6.10.1(2)) of the SGIP handbook (underlined):

“The application fee will be refunded upon completion and verification of the installed SGIP project. Prior to project completion, application fees are non-refundable once a Confirmed Reservation has been issued, unless the Host Customer subsequently cancels the project, requests a refund and certifies to the Program Administrator Working Group that it was unable to obtain a permit required for the installation and operation of the project or that the utility required installation of distribution upgrades that rendered the project financially unfeasible, in which case the Program Administrator Working Group shall approve such request unless it determines that the original Confirmed Reservation was obtained in bad faith or without the Host Customer having a reasonable expectation of obtaining the required permit or a financially feasible interconnection of the project.”

24. The Commission should add the following language at the end of section 2.5 of the SGIP handbook:

“The reservation expiration date for any project using wind turbines shall be automatically extended for the period of time the Applicant is awaiting a final non-appealable decision on a permit required for the installation and operation of such project or the utility’s completion of any interconnection upgrades (i.e., interconnection facilities, distribution upgrades and network upgrades). In order to administer this provision, upon the Program Administrator’s request, the Applicant shall provide the Program Administrator with evidence satisfactory to the Program Administrator of (a) the date on which the Applicant filed its application for such permit, (b) the date on which it submitted its interconnection application, (c) the date on which a final non-appealable decision on such permit has been issued, and (d) the date on which the utility has completed construction of required any required upgrades. However, no wind project will be suspended beyond June 30, 2027 unless the Legislature authorizes additional revenue collections for SGIP purposes such that SGIP’s sunset date is extended beyond the date of January 1, 2026 authorized in Senate Bill 700.”

25. The Commission should allow SGIP wind projects to have an installed hub height of less than 80 feet.

26. The Commission should revise the eligibility requirements for the Equity Resiliency Budget and the General Market Resiliency Adder Incentive to extend eligibility to customers who have experienced one PSPS event and one de-energization or power outage from an actual wildfire that occurred on or after January 1, 2017, in addition to customers that have experienced two or more discrete PSPS events, should apply the eligibility requirements to the meter not to individual customers, and should direct the SGIP Program Administrators to refer to CalFIRE or a similar source to define the term “wildfire” for SGIP purposes.

27. The Commission should direct SGIP Program Administrators to require customers using the Equity Resiliency Budget medical baseline pathway to self-certify that the customer has a serious illness or condition that could become life threatening if service is disconnected.

28. The Commission should require customers using the medical baseline pathway and customers that have notified the utility of a serious illness or condition that could become life-threatening in the event of outage to verify that the Equity Resiliency Budget incentive will be used for energy storage equipment installed at the customer's primary residence.

29. The Commission should expressly prohibit multi-tenant commercial buildings from eligibility for the Equity and Equity Resiliency Budgets.

30. The Commission should allow multi-tenant commercial buildings to participate in the General Market Budget as long as they comply with all SGIP eligibility and operational requirements.

31. The Commission should require SDG&E and SGIP Program Administrators to discuss with interested parties to R.20-05-012 and SGIP participants additional means to proactively share fire-caused outage information with SGIP developers and/or customers and to propose methods to accomplish this in the Tier 2 Advice Letter required in this decision.

32. The Commission should direct SDG&E to share PSPS and fire-caused outage data with CSE to the extent necessary to confirm eligibility for incentives that a customer has applied for and to timely take all necessary steps to support CSE's role as SGIP Program Administrator.

33. The Commission should require the SGIP Program Administrators to submit a Tier 2 Advice Letter updating the SGIP Handbook to reflect the guidance adopted here no later than 45 days from issuance of this decision.

34. To ensure that SGIP generation projects reduce greenhouse gas emissions even as the proportion of renewable electricity on the grid increases, the Commission should require Program Administrators to file a Tier 2 Advice Letter with recommended actions in response to any SGIP evaluation that shows an increase in customer greenhouse gas emissions due to internal combustion engine or directed biogas projects using 100 percent renewable fuel.

35. The Commission should authorize SGIP Program Administrators to allow applications involving VNEM tariffs to remain in the SGIP reservation system until such time as any dispute resolving the project's ability to adhere to Equity Resiliency Budget incentive requirements is resolved, or until June 30, 2023, whichever comes first.

O R D E R

IT IS ORDERED that:

1. Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company, and the Center for Sustainable Energy shall implement the revisions adopted in this decision and shall update the Self-Generation Incentive Program (SGIP) Handbook to:
 - a. Terminate the pause adopted in Decision 20-01-021 on accepting incentive applications for renewable generation technology projects using renewable fuel with a capture/use/destroy biofuels baseline for renewable fuels produced in-state.
 - b. Limit eligible directed renewable fuels to those produced in-state.
 - c. Require Host Customers for renewable technology projects using renewable fuels to provide an attestation with application materials stating that the project will only use 100 percent renewable fuels for the lifetime of the project.

- d. Require 100 percent renewable fuel projects to meet the criteria pollutant emissions standards required for SGIP fossil fuel combustion projects in Section 379.6(c)(1) – (3) and to meet any additional local air quality management district pollutant emission limits.
- e. Prohibit SGIP incentives for internal combustion engine projects located in a county listed as a severe or extreme federal nonattainment area for particulate matter (PM₁₀ or PM_{2.5}) or eight-hour ozone (O₃) in the U.S. Environmental Protection Agency Green Book for any of the three years prior to the SGIP application date.
- f. Require biogas fuel used in on-site internal combustion engine projects to meet a 96 percent methane gas quality standard; require projects using this fuel to self-certify to installation of equipment necessary to achieve this requirement; and require evaluators to inspect on-site internal combustion engines using biogas for compliance with these requirements during the initial site evaluation and during subsequent on-site measurement and verification assessments.
- g. Define eligible renewable hydrogen fuel as hydrogen produced at a SGIP project site, or delivered to a SGIP project site by vehicle or dedicated pipeline, that was produced through non-combustion thermal conversion of biomass, or electrolysis using 100 percent renewable electricity, as defined by the Renewables Portfolio Standard, with the addition of large hydropower and excluding purpose-grown crops; require, if the renewable electricity is not generated on-site, the purchase program or load serving entity to provide bundled Renewable Energy Credits to the electricity purchaser.
- h. Prohibit use of hydrogen produced via steam methane reforming or other combustion processes using either fossil or renewable fuel feedstocks in SGIP projects.
- i. Classify hydrogen produced using electricity derived from hydropower as eligible for use in SGIP projects if the

- project is located on-site or if the electricity is directly connected via a dedicated line.
- j. Define eligible renewable fuels as follows: A renewable fuel is a non-fossil fuel categorized as the following:
 - i. Biodiesel or gas derived from feedstocks as defined in Assembly Bill 3163, or biomass as defined by the Renewables Portfolio Standard, with the exclusion of purpose-grown energy crops;
 - ii. Biogas fuel used in on-site internal combustion engine projects that contains a minimum of 96 percent methane;
 - iii. Hydrogen produced at a SGIP project site, or delivered to a SGIP project site by vehicle or dedicated pipeline, that was produced through non-combustion thermal conversion of biomass or electrolysis using 100 percent renewable electricity, as defined by the Renewables Portfolio Standard, with the addition of large hydropower and excluding purpose-grown crops. If the renewable electricity is not generated on-site, the purchase program or load serving entity must provide bundled Renewable Energy Credits to the electricity purchaser; and,
 - iv. Fossil fuel “waste fuel” as defined in Section 379.6(c)(4) is not an eligible fuel for SGIP projects.
 - k. Require that renewable fuel projects must comply with the following:
 - i. Meet or exceed criteria pollutant emission levels as required in Section 379.6(c)(1) - (3);
 - ii. Meet any additional local air quality management district criteria pollutant emission limits; and,
 - iii. Incentives shall not be awarded to internal combustion engine projects located in a county listed as a severe or extreme federal

nonattainment area for particulate matter (PM₁₀ or PM_{2.5}) or eight-hour ozone (O₃) in the U.S. Environmental Protection Agency Green Book for any of the three years prior to the SGIP application date.

- l. Remove all references to and/or requirements pertaining to fossil-fuel projects that are no longer relevant.
- m. Propose ways to strengthen SGIP renewable fuel documentation requirements so that customers and/or gas marketers submit evidence regarding their renewable fuels use in a manner similar to that required for SGIP performance-based incentives or the Renewables Portfolio Standard.
- n. Require, at minimum, monthly reporting of directed and on-site biogas fuel reports, attestations, supporting documentation, nomination records, procurement invoices, and meter data, and to propose additional enhancements to audit protocols beyond these requirements.
- o. Indicate that SGIP Program Administrators or the SGIP evaluator will conduct periodic and random no-warning verification spot-checks of directed biofuel sources.
- p. Indicate that SGIP Program Administrators will issue a single 30-day warning when renewable fuel use documentation is not provided as required or if a verification spot-check reveals a lack of compliance with SGIP requirements, followed by issuance of an infraction and initiation of SGIP Handbook section 9 procedures (excluding imposition of a fiscal or programmatic audit as a sanction) if the project is not in compliance within 30 days of issuance of the warning.
- q. Allow SGIP projects to switch to a new fuel provider during the 10-year fuel contract length period if the requested change is approved by the SGIP Program Administrator, who must respond to a request within 30 days.

- r. Regarding environmental attributes of eligible renewable fuels:
 - i. Modify fuel source and other SGIP contracting requirements to require that the Host Customer maintains exclusive ownership of all environmental attributes from contracted renewable fuel sources and may not sell, trade or transfer any of these attributes;
 - ii. Require the submittal of attestations committing to this by both the fuel seller and the Host Customer;
 - iii. Propose methods to include review of the disposition of environmental attributes during the fuel source verification spot checks adopted in this decision;
 - iv. Propose additional revisions to program documentation and auditing requirements to ensure full Host Customer ownership of all environmental attributes of SGIP renewable fuels sources as necessary, after discussing this issue with interested parties to Rulemaking 20-05-012 and SGIP participants;
 - v. Define environmental attributes for SGIP purposes as all environmental benefits associated with an SGIP project, including any Renewable Energy Credits, and any carbon negative emission value associated with biofuels used in the project.
- s. Add the following language to section 6.10.1(2)) of the SGIP handbook (underlined): “The application fee will be refunded upon completion and verification of the installed SGIP project. Prior to project completion, application fees are non-refundable once a Confirmed Reservation has been issued, unless the Host Customer subsequently cancels the project, requests a refund and certifies to the Program Administrator Working Group that it was unable to obtain a permit required for the installation and operation of the project or that the utility required installation of distribution upgrades that rendered the project financially unfeasible, in which case the Program Administrator

- Working Group shall approve such request unless it determines that the original Confirmed Reservation was obtained in bad faith or without the Host Customer having a reasonable expectation of obtaining the required permit or a financially feasible interconnection of the project.”
- t. Add the following language at the end of section 2.5 of the SGIP handbook: “The reservation expiration date for any project using wind turbines shall be automatically extended for the period of time the Applicant is awaiting a final non-appealable decision on a permit required for the installation and operation of such project or the utility’s completion of any interconnection upgrades (i.e., interconnection facilities, distribution upgrades and network upgrades). In order to administer this provision, upon the Program Administrator’s request, the Applicant shall provide the Program Administrator with evidence satisfactory to the Program Administrator of (a) the date on which the Applicant filed its application for such permit, (b) the date on which it submitted its interconnection application, (c) the date on which a final non-appealable decision on such permit has been issued, and (d) the date on which the utility has completed construction of any required upgrades. However, no wind project will be suspended beyond June 30, 2027 unless the Legislature authorizes additional revenue collections for SGIP purposes such that SGIP’s sunset date is extended beyond the date of January 1, 2026 authorized in Senate Bill 700.”
- u. Allow SGIP wind projects to have an installed hub height of less than 80 feet.
- v. Revise the eligibility requirements for the Equity Resiliency Budget and the General Market Resiliency Adder Incentive to extend eligibility to customers who have experienced one Public Safety Power Shutoff (PSPS) event and one de-energization or power outage from an actual wildfire that occurred on or after January 1, 2017, in addition to customers that have experienced two or more discrete PSPS events and apply the eligibility requirements to the

meter not to individual customers, referencing CalFIRE or a similar source to define the term “wildfire.”

- w. Require customers using the Equity Resiliency Budget medical baseline pathway to self-certify that the customer has a serious illness or condition that could become life threatening if service is disconnected.
- x. Require customers using the medical baseline pathway and customers that have notified the utility of a serious illness or condition that could become life-threatening in the event of outage to attest that an Equity Resiliency Budget incentive will be used for energy storage equipment installed at the customer’s primary residence.
- y. Prohibit multi-tenant commercial buildings from eligibility for the Equity and Equity Resiliency Budgets.
- z. Allow multi-tenant commercial buildings to participate in the General Market Budget if they comply with all SGIP eligibility and operational requirements.
- aa. Allow applications involving Virtual Net Energy Metering tariffs to remain in the SGIP reservation system until such time as any dispute resolving the project’s ability to adhere to Equity Resiliency Budget or Resiliency Adder incentive requirements is resolved, or until June 30, 2023, whichever comes first.

2. Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company, and the Center for Sustainable Energy shall discuss with interested parties to Rulemaking 20-05-012 and Self-Generation Incentive Program (SGIP) participants additional means to proactively share fire-caused outage information with SGIP developers and/or customers and shall propose methods to accomplish this in the Tier 2 Advice Letter required in this decision.

3. San Diego Gas & Electric Company shall collaboratively discuss with the Center for Sustainable Energy, interested parties to Rulemaking 20-05-012, and

Self-Generation Incentive Program (SGIP) participants ways to proactively share fire-caused outage information with SGIP developers and/or customers and shall actively support the identification of methods to accomplish this for inclusion in the Tier 2 Advice Letter required in this decision.

4. San Diego Gas & Electric Company is directed to share Public Safety Power Shutoff and fire-caused outage data with the Center for Sustainable Energy (CSE) to the extent necessary to confirm eligibility for incentives that a customer has applied for, and shall timely take all necessary steps to support CSE's role as a Self-Generation Incentive Program Administrator.

5. Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company, and the Center for Sustainable Energy shall file a joint Tier 2 Advice Letter no later than 45 days from issuance of this decision proposing modifications to the 2021 Self-Generation Incentive Program Handbook to implement the revisions adopted in this decision.

6. Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company, and the Center for Sustainable Energy shall file a Tier 2 Advice Letter with recommended actions in response to any Self-Generation Incentive Program evaluation that shows an increase in customer greenhouse gas emissions due to internal combustion engine or directed biogas projects using 100 percent renewable fuel.

7. Rulemaking 20-05-012 remains open.

This order is effective immediately.

Dated June 3, 2021, at San Francisco, California.

MARYBEL BATJER

President

MARTHA GUZMAN ACEVES

CLIFFORD RECHTSCHAFFEN

GENEVIEVE SHIROMA

DARCIE HOUCK

Commissioners