



October 10, 2011

Advice No. 22
(California Center for Sustainable Energy)

Advice No. 3245-G/3923-E
(Pacific Gas and Electric Company –U 39 M)

Advice No. 2637-E
(Southern California Edison Company – U 338-E)

Advice No. 4286
(Southern California Gas Company – U 904-G)

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA
ENERGY DIVISION

SUBJECT: Proposed Revisions to the Self-Generation Incentive Program Handbook to Implement Decision (D.) 11-09-015, Improvements to the Waste Heat Utilization Worksheet, Greenhouse Gas Emission Rate Testing Protocol for Electric-Only Technologies that Consume Fossil Fuels, and Guidelines to Protect against Entities Creating Different Governance Structures to be able to Achieve More Funding than the Capped Amount

The California Center for Sustainable Energy (CCSE), on behalf of Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and Southern California Gas Company (SCG), hereby submits this advice filing to propose revisions to the Self-Generation Incentive Program (SGIP) Handbook to implement California Public Utilities Commission (CPUC) D. 11-09-015,¹ propose improvements to the Waste Heat Utilization Worksheet, propose a greenhouse gas (GHG) emission rate testing protocol for electric-only technologies that consume fossil fuels, and propose guidelines to protect against entities creating different governance structures to be able to achieve more funding than the capped amount under the SGIP.

¹ Decision 11-09-015, *Decision Modifying the Self-Generation Incentive Program and Implementing Senate Bill 412*, September 8, 2011.

PURPOSE

Ordering Paragraph 2 of D.11-09-015 directs the Program Administrators (PAs)² for the SGIP, to file a Tier 2 advice letter within thirty (30) days of the effective date of the Decision to submit for approval:

- Revisions to the SGIP Handbook to implement D.11-09-015;
- Improvements to the Waste Heat Utilization Worksheet to qualify fossil fuel-based combined heat and power (CHP) projects as GHG reducing;
- A GHG emission rate testing protocol for electric-only technologies that consume fossil fuels; and
- Guidelines to protect against entities creating different governance structures to be able to achieve more funding than the capped amount under the SGIP.

CCSE, on behalf of the SGIP PAs, hereby submits the required advice filing in compliance with Ordering Paragraph 2 of D.11-09-015.

BACKGROUND

In 2001, the CPUC established the SGIP in D.01-03-073 to encourage the development and commercialization of new distributed generation (DG) technologies.³ In 2009, the Legislature passed and the Governor signed Senate Bill (SB) 412 (Stats. 2009, ch. 182) which authorized the CPUC, in consultation with the California Air Resources Board (CARB), to determine what technologies should be eligible for the SGIP based on GHG emissions reductions. In addition, SB 412 extended the sunset date of the SGIP from January 1, 2012 to January 1, 2016.

To implement SB 412, the CPUC issued D.11-09-015 on September 8, 2011. In D.11-09-015, the CPUC directs the SGIP PAs to implement changes to the program identified in Attachment A to D.11-09-015. In Ordering Paragraph 2 of D.11-09-015, the CPUC orders the SGIP PAs to file a Tier 2 advice letter within thirty (30) days of the effective date of the Decision to propose revisions to the SGIP Handbook to implement D.11-09-015, improvements to the Waste Heat Utilization Worksheet, a GHG emission rate testing protocol for electric-only technologies that consume fossil fuels, and guidelines to protect against entities creating different governance structures to be able to achieve more funding than the capped amount under the SGIP.

PROPOSED AMENDMENTS TO THE SGIP PROGRAM HANDBOOK

This advice filing seeks to revise sections of the SGIP Program Handbook to implement D.11-09-015 and to make other necessary updates and revisions. The proposed revisions appear in the SGIP Program Handbook included in redline format in Attachment A to this filing. Additionally, the proposed revisions are summarized below:

² The SGIP PAs are PG&E, SCE, SCG, and CCSE in the service territory of San Diego Gas & Electric Company (SDG&E).

³ DG refers to generation technologies installed on the customer's side of the utility meter that provide electricity for all or a portion of that customer's onsite electric load.

A. Eligibility

Decision summary: Eligibility for participation in the SGIP will be based on GHG emissions reductions.

Handbook Modifications:

Section 1.1 – Eligible Technologies and Incentive Levels

Section 2.1 – Reservation Request-Required Attachments

Section 3.1 – Proof of Project Milestone-Required Attachments

Chapter 9 – Generator System Equipment Eligibility

B. Storage Eligibility

Decision summary: We will grant eligibility to stand-alone Advanced Energy Storage (AES). However, if a future CPUC decision in another proceeding provides any incentives to energy storage, the incentives provided to AES under the SGIP should be removed so as to prevent multiple incentives encouraging the same resource.

AES must be able to discharge its rated capacity for a minimum of two hours.

Handbook Modifications:

Section 9.1.3 – System Size for Advanced Energy Storage (AES) Projects.

Section 9.2 – Rating Criteria for System Output

C. Pressure Reduction Turbines (PRT) and Bottoming Cycle Technology Eligibility

Decision Summary: Including PRT and bottoming-cycle technologies in the SGIP will help promote these technologies as viable options for clean DG and achieve the market transformation goal articulated above.

Handbook Modifications:

Section 1.1 – Eligible Technologies and Incentive Levels

Section 9.1.4 – Generator System Equipment Eligibility-System Sizing for Pressure Reduction Turbine, Waste Heat to Power, Gas Turbine, Microturbine, Internal Combustion Engine and Fuel Cell Projects

Section 9.2 Rating Criteria for System Output

D. Biogas Eligibility

Decision Summary: Given the concerns raised regarding the ability to verify of out-of-state directed biogas, as well as the lack of local environmental benefits to California ratepayers, we will exclude it from SGIP eligibility. We will retain a separate incentive for biogas utilization for SGIP projects that use biogas from in-state sources. This eligibility applies to both onsite biogas and directed biogas produced within California.

For customers using directed biogas, a 10-year contract must be signed with 75% of the fuel coming from a renewable source (consistent with the RPS eligibility requirement).

Handbook Modifications:

Section 6 – Incentives

Section 10 – Eligible Fuels

E. System Size

Decision Summary: The minimum size requirement for wind and renewable fuel cells remains in place only as long as the Emerging Renewables Program (ERP) continues to provide incentives for these technologies. The maximum size limit for SGIP systems will be eliminated as the tiered incentive structure, which only provides incentives for the first three MW of a project's capacity, and the requirement that projects be sized to meet a customer's onsite-load, obviate the need for the maximum size limitation.

Handbook Modifications:

Section 9.1 – System Size Parameters

F. Payment Structure

Decision Summary: Replace the current upfront, capacity-based incentive mechanism with a PBI mechanism to ensure long-term performance of projects that receive SGIP incentives. Adopt a hybrid incentive structure with a 50% upfront incentive and 50% as PBI payments over a 5-year period for projects over 30kW.

Maintain the current tiered incentive structure.

PBI payments will be reduced or eliminated in years that cumulative greenhouse gas reductions do not occur.

Handbook Modifications:

Section 6.2 – Calculating the Incentive

Section 6.3 – Limitations on PBI Based on GHG Reductions

Section 6.4 – Tiered Incentives and Incentive Decline

G. Incentive Rates

Decision Summary: Renewable and waste heat capture technologies will receive an incentive of \$1.25 per watt; conventional fuel-based combined heat and power (CHP) will receive an incentive of \$0.50 per watt; AES will receive an incentive of \$2 per watt; and fuel cells will receive an incentive of \$2.25 per watt.

The biogas incentive of \$2 per watt is an adder that may be used in conjunction with fuel cells or any conventional CHP technology.

Handbook Modifications:

Section 1.1 – Eligible Technologies and Incentive Levels

Section 6.1 – Incentive Rates

H. Incentive Decline

Decision Summary: 10% per year for emerging technologies and 5% per year for all other technologies, beginning January 1, 2013.

Handbook Modifications:

Section 6.4 – Tiered Incentives and Incentive Decline

I. Capacity Factor

Decision Summary: The assumed capacity factors are 10% for AES, 25% for wind, and 80% for all other distributed energy resources.

Handbook Modifications:

Section 6.2.2 – Hybrid PBI

J. 40% Manufacturer Concentration

Decision summary: No more than 40% of the annual statewide budget available on the first of a given year may be allocated to any single manufacturer's technology during that year. The initial 40% limit will cover the period from the launch of the new program through 2012 and will be calculated based on the total funding available when the program is reinstated plus any additional funds collected in 2012, if applicable.

Handbook Modifications:

Section 6.14 – Manufacturer Concentration Limit

K. Maximum Project Incentive

Decision summary: A project can receive a maximum incentive of \$5 Million.

Handbook Modifications:

Section 6.5 – Total Eligible Project Cost and Maximum Incentive Amount

L. SGIP Share of Project Cost

Decision Summary: Minimum customer investment must be 40% of eligible project costs. Therefore, the SGIP portion of project cost is based on the following formula:

$$1 - \text{applicable Investment Tax Credit (ITC)} - 0.4$$

The biogas adder does not count toward the above limit for projects using DBG. Instead, the adder is applied separately to the cost of the biogas contract and shall not exceed the cost difference between the biogas contract and a similar contract for standard natural gas.

Handbook Modification:

Section 6.6 – SGIP Incentive Limit as Share of Project Cost

Section 6.7 – SGIP Incentive Limit as Share of Biogas Contract

M. Budget Allocation

Decision Summary: 75% renewable and emerging technologies, 25% non-renewable. PAs may shift funds from the non-renewable category to the renewable and emerging technologies category at their discretion if funds in the renewable and emerging technologies category are exhausted. PAs must file an advice letter to receive authorization to shift funds from the renewable and emerging technologies category to the non-renewable category.

Handbook Modification:
Section 17.1 – Budget Allocation

N. Export to Grid

Decision Summary: Customers who participate in a feed-in tariff are allowed to export 25% of their output to the grid on an annual basis.

Handbook Modifications:
Section 6.15– Export to Grid

O. Energy Efficiency Audit

Decision Summary: Mandatory for participation in SGIP unless an extensive audit has been conducted within five years of the date of the reservation request. Any measures with a payback period of two years or less shall be implemented prior to receipt of the upfront incentive payment. Exceptions may be granted by the PAs if documentation is submitted by the applicant explaining why implementation of the measure(s) was not feasible.

Handbook Modifications:
Section 2.1 - Required Attachments
Section 14.2 – Energy Efficiency Requirements

P. Application Fee

Decision Summary: Equal to 1% of the amount of incentive requested

Handbook Modifications:
Section 2.1 – Reservation Request Required Attachments
Section 14.1 – Application Fee

Q. Warranty

Decision Summary: 10-year parts and service warranty required

Handbook Modification:
Section 12 – Warranty Requirements

R. Extensions

Decision Summary: We require that all projects be limited to a maximum of two extensions of six months each, after which the reservation expires automatically.

Handbook Modification:

Section 4.6 – Extending the Reservation Expiration Date

S. Pending Handbook Revisions

Handbook revisions in regards to the implementation of the hybrid-PBI payment structure and metering and monitoring protocols will be included in a second Tier 2 advice letter to be filed with 60 days of the effective date of D.11-09-015 and ARE NOT included in the version of the SGIP Handbook included as Attachment A to this filing.

PROPOSED IMPROVEMENTS TO THE WASTE HEAT UTILIZATION WORKSHEET

This advice filing seeks to make necessary improvements to the Waste Heat Utilization Worksheet to qualify fossil fuel-based CHP projects as GHG reducing. Attachment B to this filing presents the proposed revised Waste Heat Utilization Worksheet. Additionally, the proposed improvements and revisions are summarized below:

The new Waste Heat Emissions Worksheet now:

1. Incorporates Facility Electric Load
2. Calculates a Thermal Load Coincidence Factor
3. Calculates the fuel input on a higher heating value
4. Calculates the gross generated GHG in kg CO₂
5. Calculates the GHG savings from heat recovery
6. Calculates the Net GHG emissions
7. Imposes the NO_x emissions eligibility test
8. Imposes the GHG emissions eligibility test
9. Imposes the coincident thermal load test
10. Imposes an electrical export eligibility test

PROPOSED GHG EMISSION RATE TESTING PROTOCOL FOR ELECTRIC-ONLY TECHNOLOGIES THAT CONSUME FOSSIL FUELS

This advice filing seeks to propose a GHG emission rate testing protocol for electric-only technologies that consume fossil fuels. Attachment C to this filing presents the proposed GHG emission rate testing protocol for electric-only technologies that consume fossil fuels. Additionally, the proposed protocol is summarized below:

ASME PTC 50:

This protocol refers to the testing of electric-only fuel cells operating on fossil fuels under the 2011 SGIP. This protocol utilizes the existing ASME PTC 50-2002, which is a performance test code for fuel cells. The ASME PTC 50 calculates the energy input to the fuel cell, the electrical power output, thermal and mechanical outputs, average net power, electrical efficiency, thermal effectiveness and heat rate under certain test conditions. These results can be used to calculate the gas emission rate of the fuel cells.

PROPOSED GUIDELINES TO PROTECT AGAINST ENTITIES CREATING DIFFERENT GOVERNANCE STRUCTURES TO BE ABLE TO ACHIEVE MORE FUNDING THAN THE CAPPED AMOUNT

This advice filing seeks to propose guidelines to protect against entities creating different governance structures to be able to achieve more funding than the capped amount under the SGIP. Attachment D to this filing presents the proposed guidelines. Additionally, the proposed guidelines are summarized below:

In order to protect against entities creating governance structures or affiliations that would allow them to achieve more funding than the capped amount, it is required that Host Customers, Applicants, and System Owners disclose information about all other incentives and eligible tax credits available to them or any of their affiliates applicable to the project. Failure to disclose such information will be considered an infraction and is subject to the penalties indicated in Section 15 of the SGIP Handbook.

This requirement will be checked at the Reservation Request Stage and there are fields in the Reservation Request Forms where affiliations can be identified.

Handbook Modification:

Section 6.14 – Governance Structures and Affiliation with Other Entities

TIER DESIGNATION

Pursuant to General Order (GO) 96-B, Energy Industry Rule 5.2, this advice letter is submitted with a Tier 2 designation.

PROTESTS

Anyone wishing to protest this Advice Letter may do so by letter sent via U.S. mail, by facsimile or electronically, any of which must be received no later than October 31, 2011, which is twenty-one (21) days after the filing of this Advice Letter.⁴ Protests should be mailed to:

CPUC Energy Division
Attention: Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102
Facsimile: (415) 703-2200

Copies of the protest should also be sent via e-mail to the attention of both Maria Salinas (mas@cpuc.ca.gov) and Honesto Gatchalian (jnj@cpuc.ca.gov) of the Energy Division.

⁴ The twentieth day after the filing of this Advice Letter falls on Sunday, October 30, 2011. Rule 1.14 of the CPUC Rules of Practice & Procedure, provides that “[i]f the last day falls on a Saturday, Sunday, holiday or other day when the Commission offices are closed, the time limit is extended to include the first day thereafter.” Thus, the time limit for protests to this Advice Letter is extended to Monday, October 31, 2011.

A copy of the protest should also be sent via e-mail, U.S. mail, and by facsimile to CCSE at the address shown below on the same date it is mailed or delivered to the Commission:

Andrew McAllister
Director of Policy & Strategy
California Center for Sustainable Energy
8690 Balboa Avenue, Suite 100
San Diego, California 92123
Facsimile: (858) 244-1178
E-mail: andrew.mcallister@energycenter.org


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

EFFECTIVE DATE

CCSE requests that this Advice Letter become effective on regular notice, November 9, 2011, which is thirty (30) calendar days after the date of filing.

NOTICE

CCSE is providing a copy of this Advice Letter to service list R.10-05-004.



Andrew McAllister
Director of Policy & Strategy
California Center for Sustainable Energy

Attachments:

- Attachment A – Revised SGIP Program Handbook (Redline Version)
- Attachment B – Revised Waste Heat Utilization Worksheet
- Attachment C – Proposed GHG emission rate testing protocol for electric-only technologies that consume fossil fuels
- Attachment D – Proposed guidelines to protect against entities creating different governance structures to be able to achieve more funding than the capped amount

cc: Service List R.10-05-004