



Self-Generation Incentive Program Handbook

May 5, 2010

Provides financial incentives for installing clean, efficient, on-site distributed generation



What's New

2010 Self-Generation Incentive Program

The 2010 Self-Generation Incentive Program (SGIP) handbook includes significant changes resulting from recent CPUC decisions.

1. A two-step application process is available for all residential and small non-residential customers (<10 kW) that meet the SGIP eligibility criteria. Non-Residential projects that are ≥10 kW may opt-into the two-step application process, but all two-step requirements must be met. (Sections 4.1, 4.3 and 4.5).
2. A Residential Minimum Operating Efficiency Worksheet is available for non-renewable fuel cell projects installed at residential Host Customer sites. This new worksheet simplifies the thermal load and waste heat utilization eligibility calculations. (Section 2.5.8.3)
3. "Directed Biogas" eligibility requirements have been added so that eligible technologies utilizing nominated Renewable Fuel sources can participate in SGIP. (Sections 2.6.1, 4.3, 4.4 and 4.5)
4. Advanced Energy Storage systems coupled with fuel cells must meet the site specific requirements for on-site peak demand reduction and be capable of discharging fully at least once per day in order to be eligible for the \$2/watt incentive. (Section 2.5.1.1)
5. Metering requirements have been added for Advanced Energy Storage systems coupled with fuel cells and wind turbines (Section 5.0).
6. The PY2010 budgets by SGIP Program Administrator are –

Program Administrator	Percentage	2010 SGIP Budget (in millions)
PG&E	44%	\$36
SCE	34%	\$28
CCSE	13%	\$11
SoCalGas	9%	\$8
TOTAL	100%	\$83

Table of Contents

1	INTRODUCTION	1
1.1	Program Summary.....	1
1.2	Legislation and Regulatory Background	1
1.3	Program Modification.....	3
2	PROGRAM ELIGIBILITY CRITERIA AND REQUIREMENTS	5
2.1	Host Customer Eligibility	5
2.2	System Owner Eligibility	6
2.3	Applicant Eligibility	6
2.4	Fraudulent Activity	6
2.5	Generator System Equipment Eligibility.....	7
2.5.1	Equipment Must Serve Host Customer’s Site Electrical Load	7
2.5.2	Hybrid Systems	7
2.5.3	Equipment and Installation Certifications.....	8
2.5.4	Rating Criteria for System Output.....	8
2.5.5	Minimum Size	9
2.5.6	Maximum Size	9
2.5.7	Not Eligible under the SGIP.....	11
2.5.8	Minimum Operating Efficiency.....	12
2.5.9	Eligibility of Replacement Generation.....	14
2.5.10	Eligibility with Existing Generation.....	15
2.5.11	Warranty Requirements.....	15
2.5.12	Interconnection to the Utility Distribution System.....	16
2.5.13	Permanent Installation.....	16
2.5.14	New Equipment, Not Pilot or Demonstration Systems.....	17
2.6	Eligible Fuels	17
2.6.1	Renewable Fuels.....	18
2.6.2	Non-Renewable Fuels.....	20
2.6.3	Waste Gas Fuels.....	21
2.7	Incentives from Other Sources	21
3	INCENTIVES	22
3.1	Incentive Levels	22
3.2	Incentives for Technologies from a California Supplier.....	23
3.2.1	Directed Biogas Projects	24
3.3	Incentive Limitations	24
3.3.1	Total Eligible Project Costs.....	24
3.3.2	Other Incentives or Rebates.....	25

3.4	Calculating the Incentive.....	26
3.4.1	Level 2 (Renewable Fuel) Incentive Calculation.....	26
3.4.2	Incentive for Systems with Output Capacity above 1 MW.....	26
3.5	Hybrid System Incentives.....	27
4	APPLICATION PROCESS.....	28
4.1	Application Process Overview.....	28
4.2	Assignment of SGIP Application Rights & Responsibilities.....	32
4.3	Reserving an Incentive.....	32
4.3.1	Reservation Request Form.....	32
4.3.2	Required Attachments.....	33
4.3.3	Submitting the Reservation Request Package.....	36
4.3.4	Application Screening.....	36
4.3.5	Incomplete Reservation Requests.....	36
4.3.6	Approved Reservation Request Form.....	36
4.3.7	Wait List Procedures.....	37
4.3.8	Conditional Reservation Notice Letter.....	37
4.3.9	Reservation Period.....	37
4.4	Proof of Project Milestone.....	38
4.4.1	Required Attachments.....	38
4.4.2	Changes to the Proposed System.....	41
4.4.3	Submitting Proof of Project Milestone.....	42
4.4.4	Incomplete Proof of Project Milestone.....	42
4.4.5	RFP and Proof of Project Milestone Extensions.....	42
4.4.6	Approval of Proof of Project Milestone.....	42
4.5	Incentive Claim Form.....	43
4.5.1	Extending the Reservation Expiration Date.....	43
4.5.2	Required Attachments.....	43
4.5.3	Changes to the Proposed System.....	46
4.5.4	Submitting Your Incentive Claim Package.....	47
4.5.5	Incentive Claim Package Submittals.....	47
4.5.6	Field Verification Visit.....	47
4.5.7	Incentive Check Payment and Terms.....	48
4.5.8	Directed Biogas Renewable Fuel Audits.....	48
5	METERING REQUIREMENTS.....	49
5.1	Minimum Meter Requirements.....	49
5.1.1	Meter Type.....	49
5.1.2	Meter Accuracy.....	50
5.1.3	Meter Measurement.....	50
5.1.4	Meter Testing.....	50
5.1.5	Meter Certification.....	50

5.1.6	Meter Memory and Storage	50
5.2	Minimum Reporting Requirements	50
5.2.1	Required AES Performance / Output Data	50
5.2.2	Minimum Report Delivery Requirements	51
5.2.3	Time Granularity of Acquired Data	51
5.2.4	Minimum Reporting Requirements	51
5.3	Acceptable Metering Points	51
5.4	Inspection	51
6	OTHER INSTALLATION REQUIREMENTS & CONTINUING SITE ACCESS REQUIREMENTS	52
6.1	Connection to the Utility Distribution System	52
6.1.1	How to Apply For Interconnection of Self Generation Systems	52
6.2	Measurement and Evaluation (M&E) Activities	53
6.2.1	Field M&E Visits	54
6.2.2	Electrical Metering Requirements.....	54
6.2.3	Other Energy Metering Requirements.....	54
6.2.4	M&E System Monitoring Data Transfer Requirements.....	54
6.2.5	Disposition of SGIP Metering Equipment	55
6.3	Audit Rights	55
6.4	Dispute Resolution.....	55
7	DEFINITIONS AND GLOSSARY	56
8	PROGRAM ADMINISTRATOR CONTACT INFORMATION	61
	APPENDIX A - SYSTEM CALCULATION EXAMPLES.....	62
	Efficiency Calculations	62
	Example #1: 5 kW Residential Fuel Cell CHP System.....	62
	Example #2: Efficiency Calculations for 300 kW Fuel Cell CHP System	64
	Incentive Calculations	65
	Example #3: Single System Level 2 Wind Turbine Technology.....	65
	Example #4: Incentive Calculation for System Receiving Incentives from Other Programs.....	66
	Example #5: Incentive Calculation for Systems with Output Capacity above 1 MW and Receiving Incentives from Other Programs	66
	Example #6: Incentive Calculation for System Added to Site with Existing SGIP Funded Capacity	66
	Example #7: Incentive Calculation for Advanced Energy Storage System	67
	Example #8: Hybrid System Cost Calculation.....	68
	APPENDIX B - DESCRIPTION OF TOTAL ELIGIBLE PROJECT COSTS	69
	APPENDIX C - SGIP CONTRACT	71
	INDEX.....	78

1 Introduction

This handbook establishes the policies and procedures of the Self-Generation Incentive Program (SGIP) for potential program participants and other interested parties. It is the joint work product of Pacific Gas and Electric (PG&E), Southern California Edison (SCE), the Southern California Gas Company (SoCalGas), California Center for Sustainable Energy (CCSE), San Diego Gas & Electric (SDG&E), California Energy Commission (CEC) and the Energy Division of the California Public Utilities Commission (CPUC). The SGIP has been approved by the CPUC and is subject to change in whole or in part at any time without prior notice. Any changes made to the SGIP will be published in revisions to this Handbook and/or posted at each Program Administrator's website under "Interim Changes".¹

1.1 Program Summary

The SGIP provides financial incentives for the installation of new, qualifying self-generation equipment installed to meet all or a portion of the electric energy needs of a facility and is administered by PG&E, SCE, SoCalGas and CCSE². The SGIP was originally designed to complement the CEC's Emerging Renewables Program (ERP)³ by providing incentive funding to larger renewable and non-renewable self-generation units up to the first 1.0 MW in capacity.

The April 24, 2008 CPUC Decision 08-04-049 increased the incentive cap to 3.0 MW on a pilot basis contingent on available carry over budget. On December 17, 2009 by CPUC Decision 09-12-047 eliminated the requirement for available carry over funding. All projects regardless of propose capacity, will be funded from the current program year budget.

The SGIP Working Group consists of the Program Administrators and representatives from SDG&E, the California Energy Commission staff associated with the ERP, and the Energy Division of the CPUC. The CPUC tasked the Working Group with the tasks of program implementation, addressing programmatic issues and maintaining statewide program uniformity.

Incentives for solar electric systems are provided by the California Solar Initiative (CSI) program. Information regarding CSI can be found on www.gosolarcalifornia.org.

1.2 Legislation and Regulatory Background

Date	Bill Number	Description
9/6/2000	AB 970	Required the CPUC to initiate load control and distributed generation activities.
3/27/2001	Decision 01-03- 073	Required the state's investor owned utilities to work with the CPUC Energy Division, the CEC and CCSE to develop and implement a self generation incentive program.

¹ Capitalized terms used herein are defined in Section 6 of this Handbook.

² CCSE is the Program Administer for SDG&E customers.

³ Wind turbines and fuel cell projects less than 30 kW should apply to the CEC's Emerging Renewable Program.

Date	Bill Number	Description
10/12/2003	AB 1685	<ul style="list-style-type: none"> • Extended the SGIP through 2007 • Required that projects commencing January 1, 2005 meet a NOx emission standard • Required that projects commencing January 1, 2007 meet a more stringent NOx emission standard and a minimum system efficiency standard. • Established a NOx emission credit that can be used by combined heat and power (CHP) units to meet minimum system efficiency standard
9/22/2004	AB 1684	Exempts certain projects from NOx emission standards set forth in AB 1685 that meet waste gas fuel and permitting requirements.
12/16/2004	Decision 04-12-045	<ul style="list-style-type: none"> • Modified SGIP to incorporate provisions of AB 1685 • Eliminates maximum percentage payment limits • Reduces incentive payments for several technologies • Expands opportunities for public input regarding developing a declining incentive schedule, developing an exit strategy and adopting a data release format • Required an application fee for all projects received after 1/1/2005 in order to deter against “phantom projects”. This requirement was removed beginning in 2007 except in the case of new technologies that are in the process of certification.
1/12/2006	Decision 06-01-047	Established the California Solar Initiative (CSI) and ordered changes in the 2006 SGIP to accommodate the transition of solar program elements to the CSI beginning January 1, 2007.
9/29/2006	AB 2778	<ul style="list-style-type: none"> • Extended SGIP until January 1, 2012 • Limited eligible technologies beginning January 1, 2008 to fuel cells and wind systems that meet emissions standards required under the distributed generation certification program adopted by the State Air Resources Board • Requires that eligibility of non-renewable fuel cell projects be determined either by calculating electrical and process heat efficiency according to PU Code 216.6 or by calculating overall electrical efficiency
4/24/2008	Decision 08-04-049	Removed the 1 MW cap on incentives for 2008 and 2009 allowing projects to receive lower incentives on a tiered structure for the portion of a system over 1 MW.
9/28/2008	AB 2667	Requires an additional 20% incentive for the installation of eligible distributed generation resources from a California supplier. This additional incentive is applied only to the technology portion of the incentive; the additional incentive for renewable fuels is not included in calculating the 20%.
11/21/2008	Decision 08-11-044	<ul style="list-style-type: none"> • Determined that Advanced Energy Storage systems coupled with eligible SGIP technologies will receive an incentive of \$2/watt of installed capacity. • Revises the process for the review of SGIP program modification requests
9/09/2009	Decision 09-09-048	Grants a petition to modify SGIP policies expanding eligibility for Level 2 incentives to include “directed biogas” projects where renewable fuel is nominated via contract.

Date	Bill Number	Description
2/25/2010	Decision 10-02-017	<ul style="list-style-type: none"> • Revises Decision 08-11-044 so that Advanced Energy Storage systems coupled with fuel cells must meet the site specific requirements for on-site peak demand reduction and be capable of discharging fully at least once per day in order to be eligible for the \$2/watt incentive from the self-generation incentive program. • Determines that Advanced Energy Storage systems coupled with eligible technologies under the SGIP must install metering equipment capable of measuring and recording interval data on generation output and advanced energy storage system charging and discharging.

1.3 Program Modification

On August 21, 2003, the CPUC issued Decision 03-08-013 that instructed the SGIP Working Group to implement a more effective process for the CPUC to consider proposed new technologies or SGIP rule changes that does not rely on procedures related to petitions for modification.

The Working Group developed a process for interested parties to propose changes to the Working Group and the CPUC for careful and complete consideration in an efficient manner. This process, described in the Program Modification Guidelines (PMG), prescribes the proposal requirements, evaluation process and schedule. The latest PMG is available from any of the Program Administrators' websites.

In summary, the Program Modification Request process consists of -

1. All Program Modification Requests (PMRs) must be submitted in writing, using the current PMR format, to the SGIP Working Group for review at least 10 business days prior to the SGIP Working Group meeting or the request will roll over to the next SGIP Working Group meeting.
2. All parties desiring a program modification will be required to meet with the SGIP Working Group at the monthly SGIP Working Group meeting to determine if the Working Group would support the PMR.
3. The SGIP Working Group will first determine whether or not the proposed PMR requires a modification to a prior Commission order.
4. If the PMR is minor and non-substantive, and does not require modifications to prior Commission orders, then:
 - a. The Working Group will review the PMR. If accepted, the Working Group will make the appropriate changes to the Handbook.
 - b. If the Working Group needs more information, the party proposing the PMR would have the opportunity to present at the following Working Group meeting with additional information which supports its request for a program change.⁴

⁴ The Working Group will determine the timeframe in which the applicant should provide additional information at the following Working Group meeting.

- c. The Working Group will make a decision to accept or deny the PMR based on the new information presented in the follow-up presentation.
 - d. The proposed program change and the Working Group recommendation(s) and rationale will be captured in the Working Group meeting minutes.
 - e. If the party objects to the Working Group's decision to deny the PMR, the party may write a letter to Energy Division stating why their program change should be included in SGIP. Information that supports the party's reasons to accept the program change must be included in the letter.
 - f. Energy Division will then make a final decision on whether to approve the PMR.
 - g. Energy Division will report its final decision at the following SGIP Working Group meeting, which will be captured in the SGIP Working Group meeting minutes.
 - h. If the PMR is accepted, appropriate revisions to the Handbook will be made to capture the change.
5. If the proposed change requires modification to a prior Commission order or if the PMR addresses large programmatic or substantive issues, then:
- a. The Working Group will review the PMR and make a recommendation to support or oppose the PMR in the same meeting.
 - b. The proposed program change, the Working Group recommendation and rationale will be captured in the Working Group meeting minutes.
 - c. Subsequent to the meeting, the Working Group will write up a summary of the discussion of the PMR at the Working Group meeting, a list of comments in support or against the PMR, as well as the Working Group's overall recommendation with rationale, which will be presented to the Applicant.
 - d. The party proposing the PMR has the choice to move forward and submit a petition to modify (PTM) for Commission review regardless of the Working Group's recommendation, but the Working Group's summary must be included in the PTM.
 - e. The Energy Division participates in Working Group meetings and is welcome to participate in the discussion related to the PMR as well as in generating the "list of issues". The Energy Division does not need to participate in the "recommendation" portion of the Working Group's PMR review.
 - f. Once the PTM is filed with the Commission, the normal PTM process will transpire, only it will have the benefit of the idea being somewhat vetted before submittal. All parties have a chance to comment on PTMs according to the Commission's Rules of Practice and Procedure.
 - g. The Commission will review and address the PTM in a decision.

2 Program Eligibility Criteria and Requirements

The eligibility criteria for the SGIP govern which utility customers and Projects can participate. In order to qualify for incentives, all program eligibility criteria must be satisfied. The following sections detail these requirements.

2.1 Host Customer Eligibility

Any retail electric or gas distribution customer of PG&E, SCE, SoCalGas, or SDG&E is eligible to apply as the Host Customer and receive incentives from the SGIP. The Host Customer must be the utility customer of record at the Site where the generating equipment is or will be located. In the event the Host Customer's name is not on the utility bill, a letter of explanation is required. Said letter must address the relationship of the Host Customer to the named utility customer. Systems will be eligible for a reservation up to 12 months after receiving authorization to operate in parallel with the grid from the electric utility. Any class of customer (industrial, agricultural, commercial or residential) is eligible to be a Host Customer in the SGIP. The Host Customer's Site must be located in the service territory of, and receive retail level electric or Gas Service⁵ from PG&E, SCE, SDG&E or SoCalGas at the Site. Municipal utility customers also served by SCE, PG&E, SDG&E or SoCalGas at the Site are eligible.

The Host Customer is the incentive reservation holder. The Host Customer may also be the Applicant and/or System Owner. In the event the Host Customer or System Owner withdraws from the Project and cancels the Host Customer and System Owner Agreement that is part of the Reservation Request Form, the Host Customer alone will retain sole rights to the incentive reservation and corresponding incentive reservation number. To preserve such incentive reservation and corresponding reservation number, the Host Customer must submit a new Reservation Request Form to the Program Administrator. The Host Customer thus has the right to designate the Applicant, energy services provider, and/or system installer. As the utility customer of record, the Host Customer shall be party to the SGIP Contract. See Section 4.2 for further information on Host Customer rights to assign responsibilities and claims.

The following Host Customers or Host Customer Loads are **not** eligible for incentives under the SGIP:

- Customers who have entered into contracts for Distributed Generation (DG) services (e.g. DG installed as a distribution upgrade or replacement deferral) and who are receiving payment for those services. This does not include Power Purchase Agreements, which are allowed.
- Metered Host Customer loads, serviced by an on-site generator (or generators) that export and sell power. This does not include other metered Host Customer loads at the Site that are not exporting or Net Energy Metering agreements, which are allowed.

⁵ "...retail level electric or Gas Service..." means that the Host Customer pays for and receives distribution services, as defined by their respective utility rate schedule.

- Any portion of a Host Customer's load that is committed to Electric Utility interruptible, curtailable rate schedules, programs or any other state agency-sponsored interruptible, curtailable, or demand-response programs. For Electric Utility customers who are on an interruptible rate, only the portion of their electric load designated as firm service is eligible for the SGIP. Customers must agree to maintain the firm service level at or above capacity of the proposed generating system for the duration of the required applicable warranty period (see Section 2.5.11). Customers may submit a letter requesting an exemption to the firm service rule if they plan to terminate or reduce a portion of their interruptible load.
- Publicly-owned or investor-owned gas, electricity distribution utilities or any Electrical Corporation (ref. Public Utility Code 218) that generates or purchases electricity or natural gas for wholesale or retail sales.

2.2 System Owner Eligibility

The System Owner is the owner of the generating equipment at the time the incentive is paid. For example, in the case when a vendor sells a turnkey system to a Host Customer, the Host Customer is the System Owner. In the case of a leased system, the lessor is the System Owner. The System Owner shall be designated on the Reservation Request Form, if known at that time, and on the Incentive Claim Form. If different from the Host Customer, the System Owner shall also be a party to the SGIP Contract. The Program Administrator may require documentation substantiating equipment ownership.

2.3 Applicant Eligibility

The Applicant is the entity that completes and submits the SGIP application and serves as the main point of communication between the SGIP Program Administrator throughout the application process. Host Customers may act as the Applicant or they may designate a third party (e.g. a party other than the Program Administrator or the utility customer) to act as the Applicant on their behalf. Applicants may be third parties such as, but not limited to, engineering firms, installation contractors, equipment distributors, Energy Service Companies (ESCO), equipment lessors, etc.

The Host Customer may elect to change the Applicant at their discretion.

2.4 Fraudulent Activity

The Program Administrators will exercise their judgment in assessing fraud, which can occur due to gross negligence or intentional submission of inaccurate system information in an attempt to collect more incentive dollars. Fraud may be determined at any stage of the SGIP process. If it is determined that fraud has been committed, a reasonable sanction shall be imposed at the discretion of the Program Administrator, and may result in a suspension from the SGIP Program for a minimum of one year.

2.5 Generator System Equipment Eligibility

Self-generation technologies eligible for the SGIP are grouped into two incentive levels⁶ as shown in Table 2-1 below:

Table 2-1 - Technologies Eligible for SGIP Incentives

Incentive Levels	Eligible Technologies
Level 2 Renewable	<ul style="list-style-type: none"> • Fuel cells operating on Renewable Fuel • Wind turbine • Advanced Energy Storage coupled with renewable eligible self generation technology and four hour discharge period at rated capacity
Level 3 Non-Renewable	<ul style="list-style-type: none"> • Fuel cells operating on non-renewable fuel and meeting the minimum operating efficiency requirement • Advanced Energy Storage coupled with Non-renewable eligible self generation technology and four hour discharge period at rated capacity

2.5.1 Equipment Must Serve Host Customer's Site Electrical Load

Only self-generation equipment installed on the Host Customer's side of the Electric Utility meter is eligible. Equipment must be sized to serve all or a portion of the electrical load at the Site.

2.5.1.1 Load Following Requirement for Advanced Energy Storage

To be eligible for SGIP incentives Advanced Energy Storage systems coupled with wind generation must have the ability to handle hundreds of partial discharge cycles each day. Whereas Advanced Energy Storage systems coupled with fuel cell generation must meet the site specific requirements for on-site peak demand reduction and be capable of discharging fully at least once per day. Advanced Energy Storage systems must have the capability to discharge over a four hour period at rated capacity irrespective of the type of generation they are coupled with.

2.5.2 Hybrid Systems

A system that contains more than one type of eligible technology at one Site and behind one Electric Utility service meter is considered a "Hybrid System" and is eligible for SGIP incentives. This can include the two levels listed above in Table 2-1. For example, a Wind Turbine and Fuel Cell Hybrid System installed at a single Site may receive incentives, provided each technology meets all SGIP eligibility requirements for that technology. A system that consists of different technologies within one incentive

⁶ The SGIP incentive levels were reorganized by CPUC Decision 06-01-047, January 12, 2006, to better suit the implementation of the California Solar Initiative.

level (for example a Renewable Fuel Cell and Wind Turbine) is also considered a Hybrid System if installed behind the same meter at the Site. See Section 3.5 for an explanation of how to calculate incentives for Hybrid Systems.

2.5.2.1 Mandatory Hybrid Systems

To be eligible for SGIP incentives Advanced Energy Storage systems must be coupled with one of the eligible self generation technologies, namely wind or fuel cell technology. Any SGIP project that is currently an eligible technology (wind or fuel cell), including previously installed SGIP projects, are eligible to receive Advanced Energy Storage incentives if coupled with an eligible Advanced Energy Storage system.

“Coupled” means that the Advanced Energy Storage and self-generation equipment are installed on the same electric circuit on the customer side of a single electric utility billing meter.

Hybrid projects with Advanced Energy Storage Systems are required to install metering equipment that will record the generation system output as well as the charging and discharging of the Advanced Energy Storage system. Metering system requirements are articulated in section 5 below.

2.5.3 Equipment and Installation Certifications

The SGIP intends to provide incentives for reliable, permanent, safe systems that are professionally installed, and comply with all applicable Federal, State and local regulations. Host Customers and System Owners are strongly encouraged to become familiar with applicable equipment certifications, design, and installation standards for the systems they are contemplating. All systems must be installed by appropriately licensed California contractors in accordance with rules and regulations adopted by the State of California Contractors' State Licensing Board. Installation contractors must have an active A, B, or C-10 license. The system installers name, telephone number and contractor license number must be submitted along with the Proof of Project Milestone documentation.

2.5.4 Rating Criteria for System Output

Wind turbine rated capacity is the highest electrical output from the manufacturer's power output curve for wind speeds up to 30 mph including inverter losses. For Level 2 technologies (except wind turbines), the generating system capacity is the operating capacity based on the average annual available Renewable Fuel flow rate, including allowable fossil fuel at ISO conditions⁷. For Level 3 technologies, the generating system rated capacity is the net continuous power output of the packaged prime mover/generator at ISO conditions operating on a Non-Renewable fuel. For Advanced Energy Storage technologies, the rated capacity must be the net continuous discharge power output (kW) over a four hour period.

Eligible technology system rated capacity must be substantiated with documentation from the manufacturer. Refer to Section 4.3.2 for detailed instructions on documentation requirements.

⁷ Industry standard conditions to measure output – temperature at 59 degrees Fahrenheit and altitude at sea level (0 feet).

System capacity ratings are established at the time of Conditional Reservation Notification in order to determine the SGIP reservation dollar amount. If system modifications (i.e., changes in equipment make/model) are made after the Conditional Reservation Notification, the system capacity must be re-rated using currently available published component information for the changed equipment. If the number of components has increased or decreased and there is no change in the make/model of the equipment used, system components can be re-rated using the same published information used at the time of the Conditional Reservation Notification. Any net increase in system capacity after Conditional Reservation Notification may or may not result in an increase in the SGIP incentive amount, depending upon funding availability at the time the change is made.

2.5.5 Minimum Size

For Wind Turbine and Renewable Fuel Cell technologies, the minimum system size per Site is 30 kW.⁸ There are no minimum size criteria for Fuel Cell technologies operating on Non-Renewable fuel or Advanced Energy Storage technologies.

2.5.6 Maximum Size

The maximum eligible system size is 5 MW per Site or the load limited system size (2.5.6.1 for Wind Turbines or 2.5.6.2 for Fuel Cells), whichever is less. For systems larger than 1 MW, the maximum incentive is capped at 3 MW per Site. However, incentives are lower for projects above 1 MW on the portion of their SGIP funded system(s) that exceed 1MW for that site based upon a tiered incentive structure approved by the Commission.

The System Owner/Host Customer shall substantiate that the proposed system size does not exceed 5 MW. If any of the following items submitted (preliminary and final), or actions taken, indicate a system size greater than 5 MW, the Project will be deemed ineligible.

- Required SGIP applications, submittals, and supporting documentation
- Interconnection documentation
- Building Permits
- Air Permits
- Design documents including civil, structural, electrical and mechanical systems
- Expansion construction commencing prior to payment of the incentive.

2.5.6.1 System Sizing for Wind Turbine Projects

Wind Turbine Projects may be sized up to 200% of the Host Customer's previous 12-month annual peak demand at the proposed Site.

⁸ Based on the system rated capacity per Section 2.5.6.

If the Site hosts existing generation, the combined capacity of the proposed and existing generators (excluding any back-up generators) must be no more than 200% of the Host Customer's Maximum Site Electric Load.

Substantiation of system sizing is required with the initial Reservation Request application submittal.

2.5.6.2 System Sizing for Fuel Cell Projects

Fuel Cell Projects may be sized up to the Host Customer's previous 12-month annual peak demand at the proposed Site.

If the Site hosts existing generation, the combined capacity of the proposed and existing generators (excluding any back-up generators) must be no more than the Host Customer's Maximum Site Electric Load.

Substantiation of system sizing is required with the initial Reservation Request application submittal.

2.5.6.3 Non-Renewable Fuel Cell Systems 5 kW or Less

Non-Renewable Fuel Cell systems that are rated at 5 kW or less are exempt from the system sizing requirements.

2.5.6.4 System Sizing for Advanced Energy Storage Projects

Advanced Energy Storage Projects must be sized no larger than the rated capacity of the SGIP eligible technology it is operating in concert with.

Substantiation of system sizing is required with the initial Reservation Request application submittal.

2.5.6.5 System Sizing for Electric Energy (kWh) Only Data

Sites with 12-months of previous energy usage data (kWh), but without peak demand (kW) information available (e.g., customers on rate schedules without a demand component) will have an equivalent peak demand calculated using the following method –

$$\text{Peak Demand (kW)} = \text{Largest Monthly Bill (kWh/month)} / (\text{Load Factor} \times \text{Days/Bill} \times 24)$$

$$\text{Residential: Load Factor} = .45^9$$

$$\text{Small Commercial: Load Factor} = .47^{10}$$

$$\text{Agricultural: Load Factor} = .35$$

The resulting annual peak demand estimate should be used in either 2.5.6.1 or 2.5.6.2, depending on the technology proposed.

⁹ Residential Load Factor estimated from California Investor Owned Utility domestic static load profiles.

¹⁰ Small Commercial and agricultural Load Factors From "2002-2012 Electricity Outlook Report, CALIFORNIA, ENERGY COMMISSION, February 2002 P700-01-004F" Table III-2-1.

2.5.6.6 System Sizing Based on Future Load Growth or Availability of Renewable Fuel

Applications must include an engineering estimate with appropriate substantiation of the Host Customer Site's annual peak demand forecast if the generating system size is based on future load growth, including new construction, load growth due to facility expansion or other load growth circumstances. Suggested methods of demonstrating load growth include Application for Service with corresponding equipment schedules and single line diagram; building simulation program reports such as eQUEST, EnergyPlus, EnergyPro, DOE-2, and VisualDOE; or detailed engineering calculations. The Program Administrator will verify the load growth predicted before moving forward with the Conditional Reservation Notice. Application documentation must demonstrate that sufficient load has materialized before the incentive can be paid. Additionally, the Program Administrators will verify the Site load has materialized during the field verification visit or subsequent site inspections.

Proposed Renewable Fuel systems must include, in their Reservation Request application, an engineering survey or study confirming the on-site Renewable Fuel (i.e., adequate flow rate) and the generating system's average capacity during the term of the Project's required warranty/maintenance period.

If the Site load forecast or renewable fuel forecast has not yet materialized, the Applicant will be given two options; 1) take a onetime payment based on the Site load or fuel availability (whichever is less) demonstrated at the time of initial inspection or, 2) wait for the Site load or fuel to materialize within 12-months of the date the Incentive Claim Form and documents were initially received. If the Site load or fuel has not materialized within the 12-month period, the Project will be paid based on the Site load, or system operating capacity available at the end of the 12-month period.

2.5.7 Not Eligible under the SGIP

The following types of generating systems / equipment are not eligible for the SGIP:

- Back-Up Generators - systems intended solely for emergency or back-up generation purposes
- Any system/equipment that is capable of operating on or switching to diesel fuel, or Diesel Cycle for start-up or continuous operation
- Generating technologies not listed in Table 2-1 (Eligible Equipment Types) in Section 2.5.
- Stand alone Advanced Energy Storage systems that are installed without a companion currently eligible self-generation technology.
- Advanced Energy Storage systems utilizing hydrogen as the storage medium are not eligible at this time.

2.5.8 Minimum Operating Efficiency

Level 3 systems¹¹ must meet a minimum operating efficiency requirement. Proposed Level 3 systems can satisfy this requirement by either meeting the 1) waste heat utilization, or 2) minimum electric efficiency requirements. Each of these requirements is described in detail in Sections 2.5.8.1 and 2.5.8.2 and an example is provided in Appendix A.

2.5.8.1 Waste Heat Utilization

To meet minimum waste heat utilization Level 3 systems must meet the requirements of Public Utilities Code 216.6, which are expressed in the following equations.¹²

$$\text{P.U. Code 216.6 (a)} \Rightarrow T / (T + E) \geq 5\%$$

And,

$$\text{P.U. Code 216.6 (b)} \Rightarrow (E + 0.5 \times T) / F \geq 42.5\%$$

Where:

T ≡ The **annual** useful thermal output used for industrial or commercial process (net of any heat contained in condensate return and/or makeup water), heating applications (e.g., space heating, domestic hot water heating), used in a space cooling application (i.e., thermal energy used by an absorption chiller).

E ≡ The **annual** electric energy made available for use, produced by the generator, exclusive of any such energy used in the power production process.

F ≡ The generating system's **annual** Lower Heating Value (LHV) non-renewable fuel consumption.

All applications proposing Level 3 technologies must provide documentation demonstrating an ability to meet both of the minimum waste heat utilization standards stated above, including an engineering calculation of the P.U. Code 216.6 efficiencies with documented assumptions regarding the Site's Thermal Load. An example is provided in Appendix A

Specifically, following documentation must be provided.

- **Generator & Thermal System Description**

The application must include the performance and capacity specifications for the proposed Combined Heat and Power (CHP) system and all thermal system equipment that the CHP system

¹¹ For PY2008, Level 3 systems are limited to Fuel Cells operating on a Non-Renewable Fuel.

¹² PUC 216.6 - "Cogeneration" means the sequential use of energy for the production of electrical and useful thermal energy. The sequence can be thermal use followed by power production or the reverse, subject to the following standards: (a) At least 5 percent of the facility's total annual energy output shall be in the form of useful thermal energy; (b) Where useful thermal energy follows power production, the useful annual power output plus one-half the useful annual thermal energy output equals not less than 42.5 percent of any natural gas and oil energy input.

interacts with or serves. This includes but is not limited to the generator system, heat recovery system, heat exchangers, absorption chillers, boilers, furnaces, etc. In addition, a thermal process diagram must be provided as part of the documentation package that shows the configuration of the generator(s), heat recovery system, pumps, heat exchangers, Thermal Load Equipment, and the working fluid flow and temperatures in/out of each piece of major equipment at design conditions.

- **Forecast of Generator Electric Output**

The application must include a forecast of the monthly generator electric output (kWh/month) for a twelve-month period. The generator electric output forecast must be based on the operating schedule of the generator, historical or Site electric load forecast and maximum/minimum load ratings of the generating system; exclusive of any electric energy used in ancillary loads necessary for the power production process (i.e., intercooler, external fuel gas booster, etc.).

- **Forecast of Generator Thermal Output**

The application must include a forecast of the monthly generator thermal output (Btu/month) for a twelve-month period. The generator thermal output forecast must be based on the electric output forecast of the generating system and the waste heat recovery rate specifications of the system.

- **Forecast of Generator Fuel Consumption**

The application must include a forecast of the generating systems monthly fuel consumption (Btu/month) for a twelve-month period. The generator's fuel consumption forecast must be based on the generating system electric output forecast and the systems fuel consumption specifications.

- **Forecast of Thermal Load Magnitude**

The application must include a monthly Thermal Load forecast (Btu/month) for a twelve-month period for the Thermal Load served by the CHP system. The forecast must be based on engineering calculations, thermal system modeling, historical fuel billing, measured data or a combination of these methods. The Thermal Load forecast must be independent of the generator operation forecast. If historical natural gas or other fossil fuel consumption records (e.g., billing records) are used, the combustion efficiency of the natural gas or fossil fuel fired equipment that is being displaced must be included. Historical fuel consumption must be discounted to account for equipment Thermal Load that will not be displaced by the prime mover's thermal energy.

- **Forecast of Useful Thermal Output**

The useful thermal output of the CHP system will be the lesser of the Thermal Load forecast, or the prime mover's thermal output coincident with the Thermal Load. The useful thermal output is the value used in calculating the P.U. Code 216.6 requirements.

All assumptions, backup documentation, hand calculations, models (with inputs and outputs) and custom spreadsheets used to develop the forecasts must be included in the documentation. Forecasts based

solely on “professional experience” or subjective observation will be rejected. Applications must include a completed Waste Heat/AB1685 spreadsheet, available from the Program Administrators’ websites, to calculate the waste heat utilization efficiency.

2.5.8.2 Minimum Electric Efficiency¹³

To meet the minimum electric efficiency criteria the proposed generators electrical efficiency must be equal or greater than 40%, which is expressed in the following equation.

$$\text{Electrical Efficiency} \Rightarrow E / F \geq 40\%$$

Where:

E ≡ The generating system’s rated electric capacity as defined in Section 2.5.4, converted into equivalent Btu/hr using the factor 3,414 Btu/kWh.

F ≡ The generating system’s Higher Heating Value (HHV) fuel consumption rate (Btu/hr) at rated capacity.

2.5.8.3 Minimum Operating Efficiency Worksheet

To facilitate the PU Code 216.6 and Electrical Efficiency calculations to determine Level 3 system eligibility, a Minimum Operating Efficiency Worksheet spreadsheet is available for download from the Program Administrators’ websites.

There are two versions of the Minimum Operating Efficiency Worksheet; one for residential systems and a second worksheet for all other systems. “Residential systems” are Projects installed at a residential Host Customer Site. The Residential Minimum Operating Efficiency Worksheet is illustrated in Appendix A - Table 8-1 and the Minimum Operating Efficiency Worksheet, for all other systems, is illustrated in Appendix A - Table 8-2.

2.5.9 Eligibility of Replacement Generation

Installation of a new generating system intended to replace existing on-site generation is allowed only if the Project meets the eligibility requirements in Section 2, the Host Customer has not yet installed and received incentives on their fully allotted 3 MW incentive cap, and fits one of the following situations.

1. The replaced generating system did not receive an incentive through the California Solar Initiative, the Self-Generating Incentive Program or the Energy Commission’s Emerging Renewable Program.
2. The replaced generating system did receive an incentive through the California Solar Initiative, the Self-Generating Incentive Program or the Energy Commission’s Emerging Renewable Program and

¹³ This requirement was included as an alternative requirement to meeting Public Utilities Code 216.6 in compliance with AB 2778.

- a. the existing generator has been in service for at least the applicable program's warranty period
- or
- b. the system has been in service for a period less than the applicable program's warranty period, in which case an SGIP incentive can be paid on the incremental increase above the existing generator's rated capacity (kW). For example, if an existing 100 kW fuel cell (which has received SGIP incentives but has not been in service for the required five-year warranty period) is replaced with a 150 kW fuel cell – SGIP incentives are paid for the 50 kW increase in capacity.

In addition, the Host Customer must fully decommission and remove the replaced generator from the Site, which the Program Administrator will confirm as part of the field verification inspection.

2.5.10 Eligibility with Existing Generation

A generating system may be installed in addition to existing on-site generation if all eligibility requirements in Section 2 are met by the Project. Backup Generators are not considered "existing on-site generation".

Non-Renewable Fuel Cell systems converted to Renewable Fuel are considered, for determining SGIP eligibility, as new generators if all eligibility requirements in Section 2 are met, the Renewable Fuel source is local to the Project and the conversion takes place no later than 1 year from the original SGIP incentive payment. However, these conversions are only eligible to receive the \$/W difference between the Non-Renewable and Renewable Fuel incentives up to 100% of the project costs. For example, a site who installed and received an incentive for a 300 kW Non-Renewable Fueled Fuel Cell is eligible for $\$4.50/W - \$2.50/W = \$2.00/W$. The maximum eligible incentive for this project would be \$600,000. Customers choosing to contractually nominate a renewable fuel for a previously installed generator will not be eligible to receive the differential between the original reservation amount and the renewable fuel incentive.

2.5.11 Warranty Requirements

Warranty requirements apply to all eligible technologies regardless of length of commercial availability. System Owners are required to fulfill the warranty requirements described below in the following sequence:

1. Utilize equipment warranties, which come standard with the purchase of the system.
2. If the standard equipment warranty for any major system component is of insufficient duration to meet the requirement, the customer must purchase, if one is available, an extended warranty to bridge any gap in duration, which may exist.
3. Then, and only if an application can demonstrate that a standard and/or extended warranty combination is unavailable to meet the warranty requirement – OR if the extended warranty requires the purchase of a maintenance contract – the System Owner is to enter into a maintenance contract as a substitute measure.

The System Owner must provide proof of warranty (and/or maintenance contract), and specify the warranty start and end dates within the installation contract or power purchase agreement submitted with the required Proof of Project Milestone documentation.

2.5.11.1 Wind Turbine, Fuel Cell & Advanced Energy Storage System Warranty Requirements

Wind Turbine, Fuel Cell and Advanced Energy Storage systems must be covered by a minimum five-year warranty. The warranty must cover all of the major components of the system that are eligible for the incentive, to protect against breakdown or degradation in electrical output of more than ten percent from their originally rated electrical output. The warranty shall cover the full cost of repair or replacement of defective components or systems, including coverage for labor costs to remove and reinstall defective components or systems.

2.5.12 Interconnection to the Utility Distribution System

Connection to, and Parallel Operation with, the Electric Utility distribution system is required for all self-generation systems as a condition of receiving incentives under the SGIP. The SGIP Host Customer, or their designate, must also separately submit an application and enter into a contract with their local Electric Utility for connection to the distribution system. Parallel Operation is required prior to receiving an incentive payment. Refer to Section 5.1.1 of this handbook for information on how to apply to the Electric Utility for interconnection.

2.5.13 Permanent Installation

The intent of the SGIP is to provide incentives for generation equipment installed and functioning for the duration of its useful life. Only permanently installed systems are eligible for incentives. This means that the generating system must demonstrate to the satisfaction of the Program Administrator adequate assurances of both physical and contractual permanence prior to receiving an incentive.

Physical permanence is to be demonstrated by electrical, thermal and fuel connections in accordance with industry practice for permanently installed equipment and be secured to a permanent surface (e.g. foundation). Any indication of portability, including but not limited to: temporary structures, quick disconnects, unsecured equipment, wheels, carrying handles, dolly, trailer or platform will deem the system ineligible.

Contractual permanence, **corresponding to a minimum of twice the applicable warranty period**, is to be demonstrated as follows:

- System Owner agrees to notify the Program Administrator in writing a minimum of 60 days prior to any change in either the Site location of the generation system, or change in ownership of the generation system, if the change(s) takes place within twice the applicable warranty period.
- All agreements involving the generation system receiving an incentive are to be provided to the Program Administrator for review as soon as they become available (e.g., at the Proof of Project Milestone stage, or the Incentive Claim stage at the latest). These agreements include, but not

limited to system purchase and installation agreements, warranties, leases, energy or services agreements, energy savings guarantees and system performance guarantees.

2.5.14 New Equipment, Not Pilot or Demonstration Systems

Commercially available factory new generating equipment is eligible for incentives. Rebuilt, refurbished or relocated equipment is not eligible to receive SGIP incentives. Generating systems that utilize new technologies that are critical to its operation must have at least one year of documented commercial availability to be eligible, or meet the requirements of Section 2.5. "Commercially available" means that the major generating system components (e.g. the generator set, primary heat recovery system and Level 2 gas cleanup equipment) are acquired through conventional procurement channels, installed and operational at a Site. Commercially available does not include field demonstrations for proof-of-concept operation of experimental or non-conventional systems partially or completely paid by research and development funds.

2.5.14.1 Alternative Criteria for Generating System Eligibility – Third Party Certification

Generating systems consisting of or utilizing new technologies may be eligible for the SGIP if certification is obtained from a nationally recognized testing laboratory indicating that the technology meets the safety and/or performance requirements of a nationally recognized standard. Equipment manufacturers seeking eligibility through these criteria shall submit a written request via the PMG to the SGIP Working Group for consideration, along with the proposed standards for certification.

If a generating system consisting of or utilizing new technologies is not certified, but is in process of certification with a nationally recognized testing laboratory when the Reservation Request application is submitted and is deemed eligible by the SGIP Working Group per SGIP requirements, the Host Customer will be required to pay an Application Fee equal to 1% of the requested incentive. Once the Program Administrator issues a Conditional Reservation, the Application Fee will be forfeited if it is not withdrawn within 20 calendar days of the Conditional Reservation date by the Host Customer/System Owner or if cancelled by the Program Administrator for not satisfying the SGIP requirements.

Finally, the Host Customer or System Owner is required to obtain and submit to the Program Administrator proof of certification from a nationally recognized testing laboratory with the required Reservation Confirmation and Incentive Claim documents within 12-months of the original Reservation Expiration Date. Failure to submit proof of third party certification within the 12-month period will result in cancellation of the Project by the Program Administrator.

2.6 Eligible Fuels

Eligible fuels for eligible SGIP generating technologies are classified as renewable, non-renewable and Waste Gas. Each type of eligible fuel is described below.

2.6.1 Renewable Fuels

A Renewable Fuel, for the purposes of determining whether a proposed Project qualifies for Level 2 incentives, is a non-fossil fuel resource other than those defined as conventional in Section 2805 of the Public Utilities Code that can be categorized as one of the following: wind, gas derived from biomass, digester gas, or landfill gas. A facility utilizing a Renewable Fuel may not use more than 25 percent fossil fuel annually, as determined on a total energy input basis for the calendar year.

There are two types of Renewable Fuels allowed in the program, depending on the location of the source and how it is delivered; On-Site Renewable Fuel and Directed Biogas. A summary of the requirements for both are summarized in Table 2-2.

Table 2-2 Renewable Fuel Eligibility Requirements

Renewable Fuel Eligibility Requirements	On-Site Renewable Fuel	Directed Biogas
Meets SGIP Renewable Fuel Definition	X	X
Demonstration of availability of adequate average flow rate of Renewable Fuel.	X	X
Submission of Fuel Gas Cleanup Purchase Order	X	
Signed Affidavit Complying with SGIP Renewable Fuel Requirements	X	
Meet the currently applicable Renewable Portfolio Standard eligibility requirements for biogas injected into a natural gas pipeline.		X
Renewable Fuel Supply must be within, or Interconnected to, Utility Pipelines within WECC Territory.		X
Must have Installed Utility Remotely Accessible Revenue-Grade Electric NGOM & Fuel Meter(s).		X
Annual Audit of Renewable Fuel Invoices		X
Notification of Change in Renewable Fuel Supplier		X

2.6.1.1 On-Site Renewable Fuel

For On-Site Renewable Fuel projects the following must be provided.

- Renewable fuel supplier facility must produce fuel that meets the SGIP definition of Renewable Fuels.
- Documentation demonstrating the availability of an adequate average flow rate of Renewable Fuel, for the duration of the required warranty period (Level 2 fuel cells is 5 years), to produce electricity at the unit's full rated capacity, or an appropriate de-rated operating capacity¹⁴ based on the annual average available Renewable Fuel resource flow rate including allowable Non-Renewable Fuel supplement. Evidence that an adequate Renewable Fuel resource exists will be verified during the field verification visit prior to approval of the incentive. Units whose annual fuel consumption exceeds the available Renewable Fuel plus the allowable Non-Renewable Fuel supplement will have the incentive based upon on the operating capacity resulting from the average annual available Renewable Fuel flow rate, including allowable Non-Renewable fuel flow rate. Increasing an existing generator's Non-Renewable Fuel consumption to increase the available Renewable Fuel resource for a new SGIP proposed generator is not allowed.
- Submit an equipment purchase order that indicates the fuel cleanup equipment as a separate invoice item.
- Provide a signed affidavit stating that the unit will comply with the SGIP Renewable Fuel requirements. The length of this commitment shall be the same as the equipment warranty requirement discussed above for each incentive category.

2.6.1.2 Directed Biogas Renewable Fuel

Directed Biogas Renewable Fuel is obtained pursuant to a contract where biogas is nominated and delivered¹⁵ to customers via a natural gas pipeline. Eligible Directed Biogas Renewable Fuel projects must meet all Renewable Fuel eligibility requirements in SGIP in addition to the following conditions and verification protocols:

- Renewable fuel supplier facility must produce fuel that meets the SGIP definition of Renewable Fuels.
- Renewable Portfolio Standard eligibility requirements for biogas injected into a natural gas pipeline.
- Documentation demonstrating the availability of an adequate average flow rate of Renewable Fuel, for the duration of the required warranty period (Level 2 fuel cells is 5 years), to produce electricity at the unit's full rated capacity, or an appropriate de-rated operating capacity¹⁶ based

¹⁴ "De-rated capacity" is the generating system average capacity based on available Renewable Fuel resource and is the capacity used to determine the incentive amount.

¹⁵ There is no means of ensuring the actual molecules of renewable gas are consumed at the customer's site. Thus, the gas is not literally delivered, but notionally delivered, as the biogas may actually be utilized at any other location along the pipeline route.

¹⁶ See footnote 14.

on the annual average available Renewable Fuel resource flow rate including allowable Non-Renewable Fuel supplement. Evidence that an adequate Renewable Fuel resource exists will be verified during the field verification visit prior to approval of the incentive. Units whose annual fuel consumption exceeds the available Renewable Fuel plus the allowable Non-Renewable Fuel supplement will have the incentive based upon on the operating capacity resulting from the average annual available Renewable Fuel flow rate, including allowable Non-Renewable fuel flow rate. Increasing an existing generator's Non-Renewable Fuel consumption to increase the available Renewable Fuel resource for a new SGIP proposed generator is not allowed.

- Renewable fuel supplier facility must be located within, or interconnected to, utility pipelines within the Western Electricity Coordinating Council (WECC) territory that delivers gas into California.¹⁷
- The Host Customer and the renewable fuel supplier must install a revenue-grade fuel gas meter(s) that can be remotely monitored by the utility.
- Program Administrators will conduct an annual audit of the renewable fuel invoices for each site to ensure compliance with the requirement to procure renewable fuel for at least 75% of the generator's total fuel supply. If it is determined that Directed Biogas Renewable Fuel deliveries fell below 75% of the generator's fuel demand during any 1 year period within the warranty period a refund of a portion of the incentive will be required.
- If the Host Customer decides to change their renewable fuel supplier, or if the Customer's current renewable fuel supplier cannot meet the obligations to perform as set forth in their contract, then the Host Customer is allowed to find a new supplier within 90 days, so long as they immediately make the Program Administrator aware of the situation and remain in compliance with the standard Level 2 SGIP requirement that at least 75% renewable fuel is consumed on an annual basis during this period of transition. Once the Host Customer finds a new supplier, then they must enter into a new contract that provides for at least 75% of the system's anticipated consumption and provide to the Program Administrator all documentation requested in the bullets above except for metering information unless it has changed.

2.6.2 Non-Renewable Fuels

Non-Renewable fuels for Level 3 technologies include fossil fuels and synthetic fuels.

For the SGIP, eligible fossil fuels include gasoline, natural gas and propane. Diesel fuel (including biodiesel and other fuels that can be interchanged with diesel fuel) is explicitly ineligible in the SGIP.

¹⁷ WECC's service territory extends from Canada to Mexico. It includes the provinces of Alberta and British Columbia, the northern portion of Baja California, Mexico, and all or portions of the 14 Western states between. A map of the WECC may be found at . <http://www.ferc.gov/market-oversight/mkt-electric/wecc-subregions.pdf>

Synthetic fuels are fuels derived from materials that are not Renewable Fuels (see Section 2.6.1) or fossil fuels. Eligible synthetic fuels include, but are not limited to, the direct use or synthesis of fuels from sewage sludge, industrial waste, medical waste or hazardous waste.

2.6.3 Waste Gas Fuels

Waste Gas fuels used for Level 3 technologies are strictly defined as natural gas that is generated as a byproduct of petroleum production operations and is not eligible for delivery to the utility pipeline system.

Incentives paid for Level 3 Waste Gas fuel systems shall be subject to refund to the Program Administrator by the recipient if it is determined that the Project does not operate on Waste Gas for at least the required warranty period.

2.7 Incentives from Other Sources

Projects receiving rebates or incentives based on future performance of the Project are ineligible for SGIP participation. See Section 3.3.2 for treatment of incentives from other sources in calculating the SGIP incentives.

3 Incentives

Annual incentive budgets for Program Year 2010 authorized by the CPUC for each Program Administrator are as follows:

Pacific Gas and Electric Company	\$32,400,000
Southern California Edison Company	\$25,200,000
California Center for Sustainable Energy	\$9,900,000
Southern California Gas Company	\$7,200,000

The \$74,700,000 total SGIP incentive budget is allocated equally to each of the self-generation categories (Levels 2 and 3). Advanced Energy Storage projects are funded out of the same budget that provides incentives to those technologies (i.e., Level 2 and 3). Although the Program Administrator may move funds from the non-renewable category to renewable categories, the Program Administrator must seek approval from the CPUC through an advice letter prior to shifting funds from renewable categories into the non-renewable category.

3.1 Incentive Levels

The SGIP provides a one-time incentive payment to help reduce the cost of installing self-generation equipment. The incentive levels for the three categories of self-generation technologies are below in Table 3-1. Check the Program Administrators' websites for current incentive levels.

Table 3-1 Base Incentive Levels for Eligible Technologies

Incentive Levels	Eligible Technologies	Incentive Offered (\$/Watt)	Minimum System Size	Maximum System Size	Maximum Incentive Size
Level 2 Renewable	Wind turbines	\$1.50/W	30 kW	5 MW	1 MW
	Renewable fuel cells	\$4.50/W			
Level 3 Non-Renewable	Non-Renewable fuel cells	\$2.50/W	None	5 MW	1 MW
Advanced Energy Storage	Coupled with eligible self generation technology and four hour discharge period at rated capacity	\$2.00/W	None	5 MW	1 MW

For projects that are greater than 1 MW up to 3 MW, the incentive identified in Table 3-1 declines according to the schedule in Table 3-2.

Table 3-2 Tiered Incentive Rates for Projects up to 3 MW

Capacity	Incentive Rate (Pct. of Base)
0 – 1 MW	100%
>1 MW – 2 MW	50%
>2 MW – 3 MW	25%

No incentives are paid for system capacities above 3 MW including existing generating capacity that has previously received SGIP incentives.

Advanced Energy Storage system capacity is not additive with the companion self generation capacity for purposes of calculating the tiered incentive. The incentive calculation and capacity limits are treated separately for Advanced Energy Storage and companion self generation technologies. See incentive calculation description in Section 3.3.

3.2 Incentives for Technologies from a California Supplier

An additional incentive of 20 percent will be provided for the installation of eligible distributed generation or Advanced Energy Storage technologies from a California Supplier. “California Supplier” means any sole proprietorship, partnership, joint venture, corporation, or other business entity that manufactures eligible distributed generation technologies in California and that meets either of the following criteria:

A) The owners or policymaking officers are domiciled in California and the permanent principal office, or place of business from which the supplier’s trade is directed or managed, is located in California.

Or

B) A business or corporation, including those owned by, or under common control of, a corporation, that meets all of the following criteria continuously during the five years prior to providing eligible distributed generation technologies to an SGIP recipient:

- i) Owns and operates a manufacturing facility located in California that builds or manufactures eligible distributed generation technologies.
- ii) Is licensed by the state to conduct business within the state.
- iii) Employs California residents for work within the state.

For purposes of qualifying as a California Supplier, a distribution or sales management office or facility does not qualify as a manufacturer.

The additional incentive of 20 percent will be calculated as follows:

$$\text{Adjusted Incentive (\$)} = \text{Unadjusted Incentive (\$)} \times \text{Adjustment Factor}$$

Where:

Adjusted Incentive (\$) ≡ the increased incentive amount for the installation of eligible distributed generation or Advanced Energy Storage technologies from a California Supplier.

Unadjusted Incentive (\$) ≡ the incentive amount normally calculated.

Adjustment Factor ≡ 1.20 or 20% of the Unadjusted Incentive (\$)

The 20 percent adder for using a California Supplier, as defined in PUC Code 379.6(g) shall be calculated on the non-renewable incentive rate of \$2.50 per watt before adding the additional \$2.00 per watt incentive for using renewable fuel.

3.2.1 Directed Biogas Projects

For Projects utilizing fuel that is any fraction claimed to be Directed Biogas, the 20 percent adder for using a California supplier of distributed generation resources shall be calculated on the non-renewable Level 3 incentive rate, not the renewable Level 2 incentive rate.

3.3 Incentive Limitations

Incentive amounts and Project eligibility for the SGIP are limited by a number of factors, including:

- Total eligible Project costs
- Other Incentives or Rebates
- Project capacity size & Host Customer site limitations

3.3.1 Total Eligible Project Costs

The maximum possible incentive payment for each system is the system size (up to 3,000 kW) multiplied by the applicable dollar per kW incentive rate. No Project can receive total incentives (SGIP and other incentives combined) that exceed total eligible Project costs.¹⁸ Submittal of Project cost details is required to report total eligible Project costs and to ensure that total incentives do not exceed out of pocket expenses for the System Owner. See Appendix B for a description of cost elements to be included in the total eligible Project cost. Total eligible Project costs cover the generating system and its ancillary equipment. Equipment and other costs outside of the Project envelope, defined in Appendix B, are considered ineligible Project costs, but also must be reported. For large multifaceted Projects where the generating system costs are embedded, applications must include a prorated estimate of the total eligible costs for the generating system. Applications must include the Project cost breakdown worksheet available from the Program Administrators' websites.

¹⁸ "Total eligible Project costs" include the generator equipment, ancillary equipment and installations labor/materials. "Total eligible Project costs" are equivalent to "eligible Project costs" which were used in previous SGIP program years to calculate incentive amounts. See Appendix A for a list of "total eligible Project costs".

3.3.2 Other Incentives or Rebates

Customers may not receive SGIP incentives for the same self-generation equipment from more than one Program Administrator (e.g., PG&E and SoCalGas, SCE and SoCalGas, etc.).

For Projects receiving self-generating incentives under other programs, the SGIP incentive may be reduced, depending on the source of the other incentive, effectively allowing only part of the other program incentive in addition to the SGIP incentive. For Projects that receive “other incentives” funded by California Investor Owned Utility (IOU) ratepayers (e.g., Utility or CEC Public Goods Charge programs, etc.), the SGIP incentive is discounted by the amount of the other incentive. For Projects that receive “other incentives” funded by non-IOU ratepayers (LADWP, SMUD, etc.) the SGIP incentive is discounted by 50% of the other incentive. For Projects that receive “other incentives” funded from other sources than utility ratepayers (federal & state grants, air district grants, tax credits, etc.) no adjustment is made to the SGIP incentive.

In no event may the combined incentives received from SGIP and other funding sources exceed the total eligible Project cost. Host Customers, Applicants, and System Owners are required to disclose information about all other incentives.

The SGIP incentives will be reduced by the percent of other program incentives depending on the funding source of the other incentives as described in Table 3-3 below.

Table 3-3 Percent of “Other Incentive” Adjustment to SGIP

Other Incentive Funding Source	Pct. Of Other Incentive Discount of SGIP Incentive
Investor Owned Utility Ratepayer	100%
Non-IOU Ratepayer	50%
Non-Ratepayer	0%

A sample calculation of a SGIP Project with incentives from the SGIP and a second funding source for various types of eligible 1 MW systems is illustrated in Table 3-4.

Table 3-4 Accounting for Other Incentives

		(A)	(B)	(C)	(D) = (A) - (B) X (C)	(E) = (D) + (B)
System Type	System Size (kW)	Unadjusted SGIP Incentive	“Other Rebate” Amount	Source and Percentage of “Other Rebate” Adjustment to SGIP Incentive	Adjusted SGIP Incentive	Total Customer Rebate Amount \$/Watt
Wind Turbine	800 kW	\$1,200,000	\$800,000	Public Interest Energy Research (PIER)	\$400,000 = \$1,200,000 - \$800,000 X 100%	\$1,200,000 = \$400,000 + \$800,000
		\$1.50 /W	\$1.00 /W	100%	\$0.50 /W	\$1.50 /W

Fuel Cell (Non- Renewable)	200 kW	\$500,000	\$200,000	Federal Government Grant	$\$500,000 =$ $\$500,000 - \$200,000 \times$ 0%	$\$700,000 =$ $\$500,000 + \$200,000$
		\$2.50 /W	\$1.00 /W	0%	\$2.50 /W	\$3.50 /W

3.4 Calculating the Incentive

Incentives for a proposed system are calculated by multiplying the capacity of the generating system by the incentive rate for the appropriate incentive Level (2 or 3) and technology. If the Project is receiving other incentives, a portion of those incentives may be subtracted from the maximum SGIP incentive depending on the source of the other incentive. The remaining amount is the incentive that will be provided by SGIP. An SGIP Incentive Calculation Worksheet is included in the Reservation Request and Incentive Claim Forms. No Project can receive incentive payments that exceed the total eligible cost of the generating system. See Appendix A for examples of calculating various incentives.

3.4.1 Level 2 (Renewable Fuel) Incentive Calculation

For Fuel Cells operating on Renewable Fuels an incentive will be paid based on the operating capacity resulting from the average annual available Renewable Fuel flow rate, including allowable Non-Renewable fuel flow rate. The nameplate rated capacity of the Fuel Cell generator must not exceed the peak electric load at the site.

3.4.2 Incentive for Systems with Output Capacity above 1 MW

For Projects with capacities greater than 1 MW, up to 3 MW the incentive is calculated by multiplying the first 1 MW by 100% of the incentive rate, then multiplying the next capacity increment above 1 MW up to 2 MW by 50% of the incentive rate, then multiplying the last capacity increment above 2 MW up to 3 MW by 25% of the incentive rate and summing each of these incentive components. If these Projects are also receiving self-generating incentives from other programs, the SGIP incentive may be reduced, depending on the source of the other incentive, effectively allowing only part of the other program incentive in addition to the SGIP incentive (See Section 3.3.2). The remaining amount is the incentive that will be provided by SGIP.

For Sites with existing generating capacity previously funded by SGIP, the existing generating capacity is accounted first at the highest incentive rate, and then the proposed system capacity incentive is added on top of the existing capacity to determine which incentive capacity bin the proposed system falls. See Example #6 in Appendix A for details on calculating the incentives for systems with existing SGIP funded generating systems.

Advanced Energy Storage system capacity is not additive with the coupled self-generation capacity for purposes of calculating the tiered incentive. The incentive calculation and capacity limits are treated separately for Advanced Energy Storage and companion self-generation technologies. See Example #6 in Appendix A.

3.5 Hybrid System Incentives

Program participants can apply for incentives for multiple types of generating technologies installed at one Site. The program defines these as “Hybrid Systems”. An example of this situation would be wind turbines and natural gas fuel cells combined at one Site. As with single technology systems, hybrid systems must meet all eligibility requirements set forth by this program including, but not limited to, size constraints, waste heat utilization and reliability criteria. In addition, each system type must be submitted as a separate Reservation Request and will be tracked through the program as separate projects.

The total SGIP hybrid incentive is the sum of the incentive for each type of technology less other incentives. When calculating the total eligible incentive for a hybrid system, the incentives are to be calculated sequentially until the 3 MW limit is reached, with the lowest incentive rate (\$/Watt) technology portion calculated first, then the next lowest rate incentive technology (based on whatever capacity remains under 1 MW after that claimed for the first technology) and so forth. For multiple technologies within a single Incentive Level, the incentives are calculated in the order in which they appear in Table 3-1, from top to bottom. Table 8-3 in Appendix A provides an example of the incentive calculation for an example hybrid system that is greater than 1 MW without other incentives. The system consists of 800 kW Level 2 wind turbine and 300 kW Level 3 fuel cell technologies. As shown below, the Level 2 wind turbine technology receives the full incentive of \$1,200,000. The Level 3 fuel cell technology receives a reduced incentive amount of \$625,000 based on 200 kW of capacity receiving \$2.50/Watt and 100 kW of the remaining capacity receiving 50% of \$2.50/Watt.

4 Application Process

Incomplete or incorrect applications will result in a delay of receiving an approved reservation as well as non-placement within a queue should there be a wait-list for reservation money, so it saves time to follow the instructions carefully. Applicants may contact the Program Administrator for assistance in completing their applications. See Section 7 for contact information for each of the Program Administrators.

4.1 Application Process Overview

To receive an incentive payment through the SGIP, Applicants must submit the appropriate application form and supplemental materials at specific milestones. While the overall three-step application process is identical for both incentive levels (See Table 2-1), there are a few minor differences in the required attachments for each. In addition, the application process differs slightly for Public Entities versus non-Public Entities. The overall application process is illustrated in Figure 4-1 for non-Public Entities and Figure 4-2 for Public Entities. For all residential Projects and small (<10kW) non-residential Projects, a two-step application process is available. Large ($\geq 10\text{kW}$) non-residential may opt-into the two-step application process, but all two-step requirements must be met. The small system application 2-step process is illustrated in Figure 4-3.

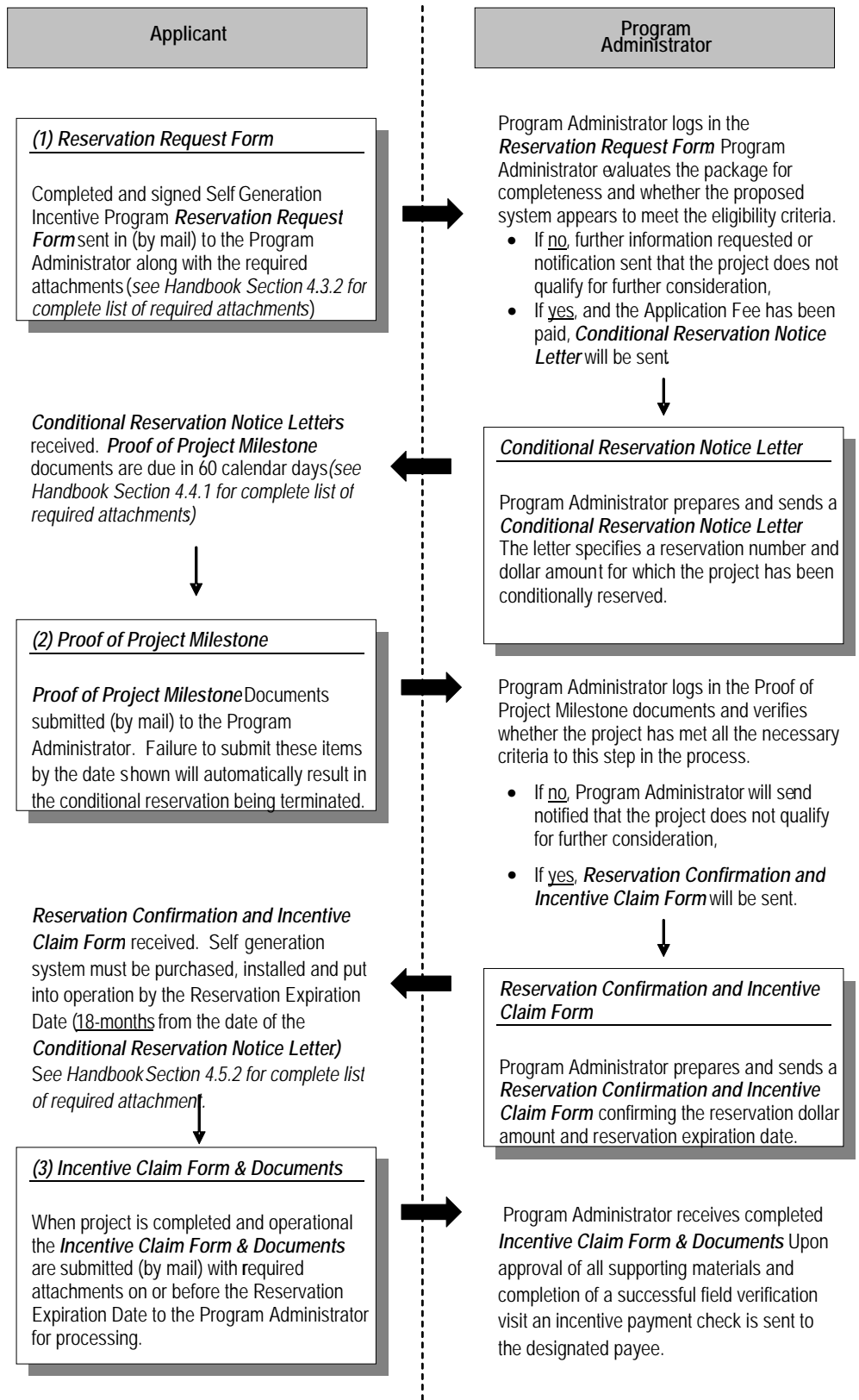


Figure 4-1 Three Step Application Process for Non-Public Entities

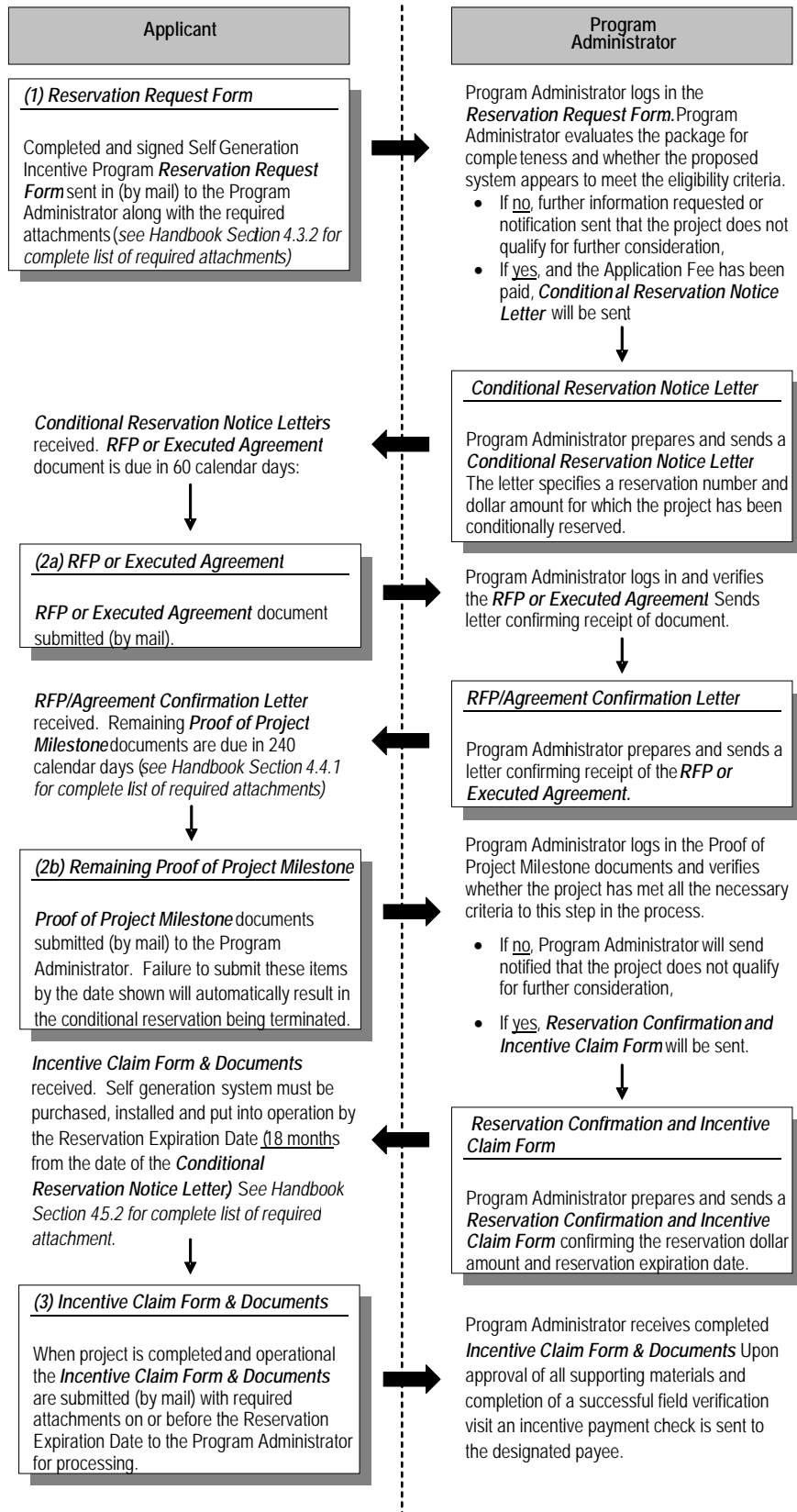


Figure 4-2 Three Step Application Process for Public Entities

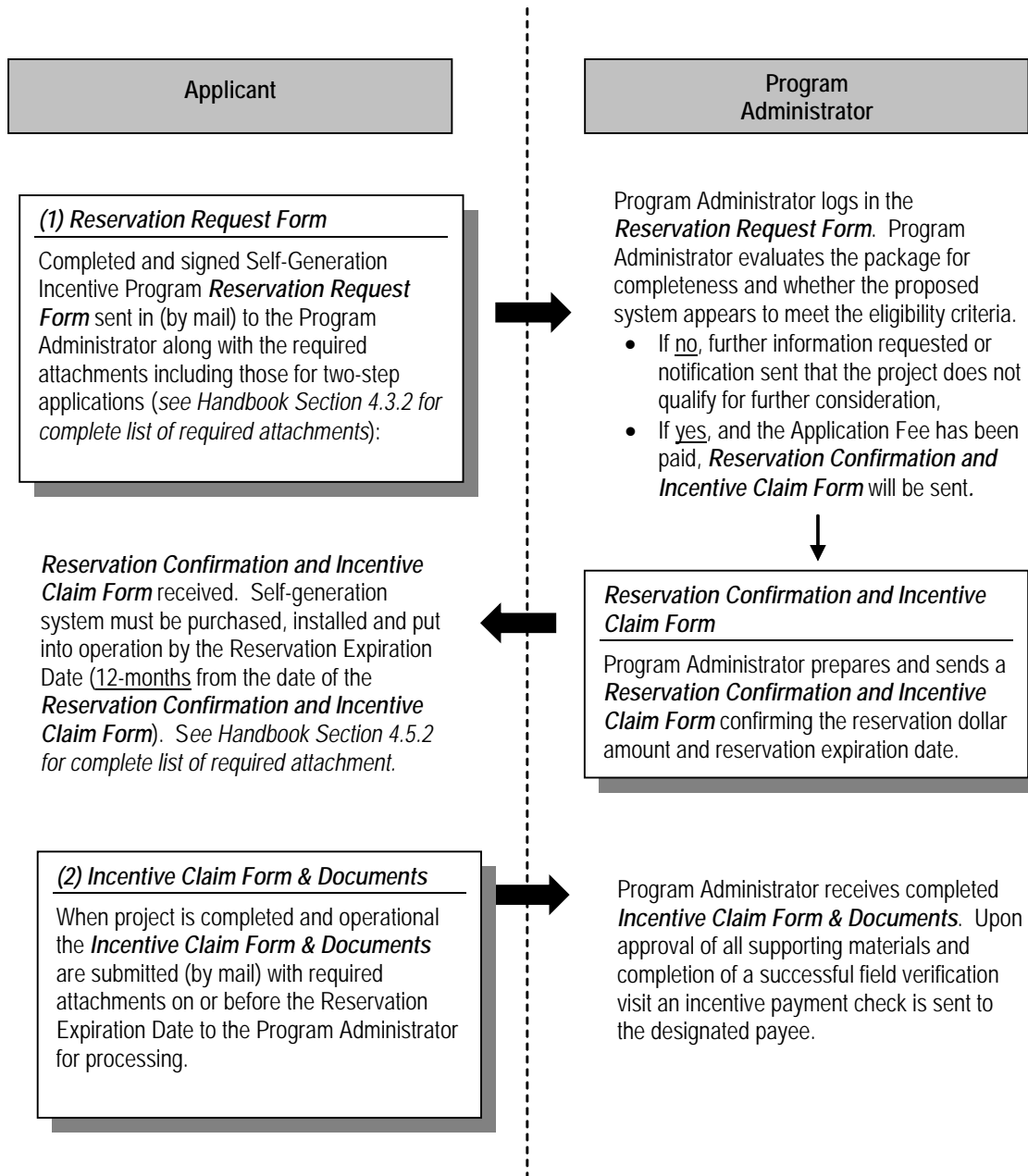


Figure 4-3 Two Step Application Process

4.2 Assignment of SGIP Application Rights & Responsibilities

The Host Customer is the exclusive reservation holder. Neither the Host Customer nor the System Owner may assign its rights or delegate its duties without prior written consent of the Program Administrator. The System Owner shall assign its rights or delegate its duties only with the prior written consent of the Host Customer, except in connection with the sale or merger of a substantial portion of its assets. Both the Host Customer and the System Owner, if different than the Host Customer, must provide assurance of Project success, if assigned, by providing any additional information requested by Program Administrator.

4.3 Reserving an Incentive

Applicants can reserve an incentive amount for up to 12-months for residential two-step applications and 18-months for non-residential three-step applications (non-Public Entities and Public Entities). Once a Reservation Request Form and application package is determined to be complete and eligible, the Program Administrator will (depending upon funding availability) conditionally reserve a specific dollar amount for a specified Project system size. For three-step applications, the initial *Conditional Reservation* is only valid for 60 calendar days. Public Entities must submit a copy of the issued request for proposal (RFP or equivalent) for purchase or installation of the generating system within 60 calendar days of the date of the Conditional Reservation letter. All Proof of Project Milestone documentation must be submitted within 240 days of the date the Conditional Reservation Letter. Once the application has successfully met Proof of Project Milestone requirements or for a two-step application, Reservation Request requirements, the Program Administrator will issue an Incentive Claim Form. The Confirmed Reservation Letter will indicate a Reservation Expiration Date, for three-step applications, of 18-months for non-Public Entities and Public Entities. For two-step applications, the Confirmed Reservation Letter will indicate a Reservation Expiration Date of 12-months from the date of the Reservation Request approval.

SGIP funds are available on a first-come, first-served basis throughout the calendar year (January 1 through December 31). Reservations received after total funds have been committed for a calendar year will be placed on a waiting list in the event that more funding becomes available (either through an approved shift in funds between incentive levels or Project cancellations). Reservations received before December 31 will follow the Program Rules of the year they were submitted, even if the Conditional Reservation is issued in the following year.

4.3.1 Reservation Request Form

To reserve a specified incentive amount, a Reservation Request Form must be submitted and all required documentation attachments.

Applications that include technologies from two or more different incentive levels (hybrid Projects) must include one Reservation Request Form for each technology in the Project. For more information on Hybrid Systems, see Sections 2.5.2 and 3.5.

Reservation Request Forms and instructions on completing these forms can be obtained by calling or visiting the website of the Program Administrator in your area.

4.3.2 Required Attachments

In addition to a completed Reservation Request Form with signatures of the Host Customer and System Owner (if Not Host Customer), all applications (Levels 2 and 3) must provide a copy of the following:

Table 4-1 Reservation Request Application Attachments

Required Materials	Wind Turbines	Renewable Fuel Cells	Non-Renewable Fuel Cells	Advanced Energy Storage
Reservation Documents for Three-Step & Two-Step Applications				
1. Completed Reservation Request Application and Program Contract w/ Signatures	✓	✓	✓	✓
2. Equipment Specifications	✓	✓	✓	✓
3. Proof of Utility Service	✓	✓	✓	✓
4. 12-Month Electric Load Documentation	✓	✓	✓	✓
5. Proof of Adequate Renewable Fuel Resource	N/A	✓	N/A	N/A
6. Gas Injection Qualification	N/A	✓ Directed Biogas Renewable Fuel Only	N/A	N/A
7. Revised Minimum Operating Efficiency Calculations (if applicable) Waste Heat Utilization Documentation OR Minimum Electric Efficiency Calculation	N/A	N/A	✓	N/A
8. Forecasted Fuel Consumption	N/A	✓ Directed Biogas Renewable Fuel Only	N/A	N/A

Required Materials	Wind Turbines	Renewable Fuel Cells	Non-Renewable Fuel Cells	Advanced Energy Storage
9. Directed Biogas Renewable Fuel Attestation – System Owner	N/A	✓ Directed Biogas Renewable Fuel Only	N/A	N/A
10. Directed Biogas Renewable Fuel Attestation – Fuel Supplier	N/A	✓ Directed Biogas Renewable Fuel Only	N/A	N/A
Additional Reservation Documents for Two-Step Applications				
11. Copy of Executed Contract or Agreement for Installation (includes warranty language documentation)	✓	✓	✓	✓
12. Fuel Cleanup Equipment Purchase Order	N/A	✓	N/A	N/A
13. Renewable Fuel Affidavit	N/A	✓	N/A	N/A
14. Renewable Fuel Contract	N/A	✓ Directed Biogas Renewable Fuel Only	N/A	N/A

- 1) **Reservation Request Form and Program Contract** – A completed and signed Reservation Request Form must be submitted with all applications. It must be completed and signed by representatives with signature authority for both the System Owner and Host Customer.
- 2) **Equipment Specifications** – Manufacturer equipment specifications stating rated capacity (kW) and, if necessary, fuel consumption and waste heat recovery rate, must be provide with the Reservation Request application. For Advanced Energy Storage, the manufacturer equipment specifications must include a capacity rating based on the net continuous discharge power output over a four hour period.
- 3) **Proof of Utility Service** – Eligibility requirements restrict participation in the SGIP to customers who are located in PG&E, SCE, SoCalGas or SDG&E service territories and physically connected to the Electric Utility transmission and distribution system. All applications must include a copy of a recent electric or gas utility bill indicating the account number, meter number, site address, and Host customer name. For new construction, the Host Customer must receive confirmation from the serving utility that their Site is within the Program Administrator’s service territory.
- 4) **12-month Load Documentation** – To confirm that participating distributed generation systems will not exceed the capacity of the Host Customer's previous 12-month peak (maximum) electrical demand, all applications must include a copy of the previous 12-months of energy consumption including maximum demand and/or kWh consumption. If the system is new or expanded construction, as per Section 2.5.6.6, provide proof of projected load that will satisfy the proposed generation system including but not limited to a document that details the building systems electrical

load, hours of use for the indicated building systems, and the total projected kWh consumption per year. For example:

Number of Units	Unit Description	Model	Other Description	Power Consumption per Unit (Watts)	Hours of Operation (hr/yr)	Est. energy usage per year (kWh/yr)
20	2 lamp 2ft X 4ft recessed direct/indirect fixture	32W 800 series high lumenT8	Electronic, instant start, extra efficient standard (0.88) ballast factor	55	2,080	2,288

- 5) **Proof of Adequate Renewable Fuel (Renewable Fuel Cell)** – When applicable, applications must include an engineering survey or study confirming the Renewable Fuel (*i.e.*, adequate flow rate) and the generating system’s average capacity during the term of the Project’s required warranty/maintenance period.
- 6) **Gas Injection Qualification** – Documentation that approves the Directed Biogas Renewable Fuel provider to inject the renewable fuel into the utility pipeline local to the renewable fuel source.
- 7) **Minimum Operating Efficiency (Non-Renewable Fuel Cell)** – When applicable, applications must provide documentation satisfying the minimum operating efficiency requirement. This requirement can be met by submitting one of the following:
 - a) **Waste Heat Utilization:** documentation must include a generator and thermal system description, generator electric output forecast and thermal output, generator fuel consumption forecast, thermal load magnitude forecast, and useful thermal energy forecast, to demonstrate compliance with the Program’s waste heat utilization requirements (PU Code 216.6)
 - b) **Minimum Electric Efficiency:** Documentation must include engineering calculations, data used and all assumptions used to demonstrate this system efficiency.
- 8) **Forecasted Fuel Consumption** – Application must include documentation of the forecasted fuel consumption of the generator over the life of project.
- 9) **Directed Biogas Renewable Fuel Attestation System Owner** - Attestation letter from the System Owner of its intent to notionally procure Renewable Fuel
- 10) **Directed Biogas Renewable Fuel Attestation Fuel Supplier** - Attestation from the fuel supplier that the fuel meets currently applicable Renewable Portfolio Standard eligibility requirements for biogas injected into a natural gas pipeline.

Additional Requirements for Two Step Applications

- 11) **Executed Contract and/or Agreement for System Installation** – All SGIP program participants must include a copy of their executed contract for purchase and installation of the system, and/or alternative System Ownership agreement (such as a Power Purchase Agreement). The

contract/agreements must be legally binding and clearly spell out the scope of work, equipment, terms, total eligible system cost and warranty. All agreements must be signed by appropriate representatives (Host Customer, Installer, and/or System Owner) who are a party to the agreements and the SGIP reservation.

- 12) **Fuel Cleanup Equipment Purchase Order (Level 2 Renewable Fuel Cells)** – When applicable, application documentation must include a purchase order for Renewable Fuel cleanup equipment.
- 13) **Renewable Fuel Use Affidavit (Level 2 Renewable Fuel Cells)** – When applicable, application documentation must include a signed SGIP affidavit that they will not switch to fossil fuel for a period of five years , or the life of the equipment, whichever is shorter.
- 14) **Renewable Fuel Contract (Directed Biogas Renewable Fuel Projects)** – Contract between customer and renewable fuel supplier. Additional details in Proof of Project Milestone Section 4.4.

4.3.3 Submitting the Reservation Request Package

Once the Reservation Request Form is complete and all the required attachments are secured, Applicants must submit their application package to the Program Administrator. To ensure confirmation of receipt, submit documentation to the appropriate Program Administrator by certified or overnight mail. No faxed or hand delivered applications will be accepted.

4.3.4 Application Screening

Once received, the Program Administrator will review the application package for completeness and determine eligibility. Applications will also be screened to ensure that the Project has not applied for incentives through other Program Administrators or other state- or government-sponsored incentive programs (e.g., CEC's Emerging Renewables Program).

4.3.5 Incomplete Reservation Requests

If an application is found to require clarification, the Program Administrator will request the information necessary to process that application further. Applicants have 20 calendar days to respond to the requested clarification with the necessary information. If after 20 calendar days, the Applicant has not submitted the requested information the applications will be cancelled. Resubmitted application packages will be treated as a new application (i.e., all required documents must be resubmitted) and processed in sequence along with other new applications.

4.3.6 Approved Reservation Request Form

Upon approval by Program Administrator of the reservation request package (Reservation Request Form and required attachments), the Applicant and Host Customer will receive a Conditional Reservation Notice Letter *if* funds are available. Incentive funds are not reserved until the Program Administrator receives all information and documentation required for the Reservation Request Form and the Project is approved.

4.3.7 Wait List Procedures

If funds are not available for a particular reservation request while a Program Administrator is still accepting new applications it will be assigned a place on a waiting list upon approval of the reservation request package (Reservation Request Form and required attachments). The Applicant and Host Customer will receive notification that their request is on a waiting list until funding is made available (through budget transfers between categories, carryover and/or other Projects ahead of it dropping out), or it is withdrawn or cancelled. A place on the waiting list is not secured until the Program Administrator receives all information and documentation required with the Reservation Request Form and the Project is determined to meet all eligibility requirements. When applications are placed on the waiting list, the procedures below will be followed.

- Waiting list applications will be given priority based on the date received, although the incentive amount is based on the date all information is received.
- All waiting list applications will be reviewed for completeness and eligibility. Any deficiencies must be corrected to maintain their position on the waiting list.
- As soon as the Program Administrator has determined that there is available funding, within the affected level, adequate to reserve the first in line waiting list application, that application will be moved to active status and, if all application deficiencies have been satisfactorily fixed, the Program Administrator will issue a Conditional Reservation Notification. The incentive amount is based on the date all information is received (i.e. if the information was received after the incentive had been reduced, the application is subject to the lower incentive rate).
- If a waiting list exists at the end of a Program Year, the Program Administrator will notify the Host Customer of any incentive or eligibility rule changes. If the Host Customer wishes to withdraw their application from the waiting list, they must promptly inform the Program Administrator.

4.3.8 Conditional Reservation Notice Letter

The Conditional Reservation Notice Letter confirms that a specific incentive amount is conditionally reserved for a self-generation Project. The letter will list, at a minimum, the approved incentive amount and the Proof of Project Milestone Date. All reservations are conditional until the Proof of Project Milestone documentation is submitted on or before the Proof of Project Milestone Date. The Conditional Reservation Notice Letter also will list the required information that must be submitted by the Proof of Project Milestone Date to confirm their reservation and maintain an active status.

4.3.9 Reservation Period

Incentives can be reserved for up to 18-months for non-Public Entities and Public Entities. Once a Reservation Request Form and application package is determined to be complete and eligible, the Program Administrator will (depending upon funding availability) conditionally reserve a specific dollar amount for a specified Project system size. The initial reservation is only valid for 60 calendar days.

Within 60 calendar days of the date the Conditional Reservation Letter, all Proof of Project Milestone criteria must be satisfied. Once the application documentation has successfully demonstrated Proof of Project Milestone, the Program Administrator will issue a Reservation Confirmation and Incentive Claim Form with a Reservation Expiration Date of 18-months for non-Public Entities and Public Entities from the date of the initial Conditional Reservation Notice Letter.

4.4 Proof of Project Milestone

For three-step applications and within 60 calendar days of the date on the Conditional Reservation Letter, documentation must be supplied to demonstrate to the Program Administrator that the Project is progressing and that there is a sustained commitment to complete the Project. Non-Public Entities, within 60 calendar days of the date the Conditional Reservation Letter, must satisfy all Proof of Project Milestone criteria. Public Entities must submit a copy of the issued request for proposal (RFP or equivalent) for purchase or installation of the generating system within 60 calendar days of the date of the Conditional Reservation letter. All Proof of Project Milestone documentation must be submitted within 240 days of the date the Conditional Reservation Letter. Once the Applicant has successfully met Proof of Project Milestone requirements, the Program Administrator will issue an Incentive Claim Form with a Reservation Expiration Date of 12-months for residential two-step applications and 18-months for non-residential three-step applications (non-Public Entities and Public Entities).

4.4.1 Required Attachments

All Proof of Project Milestone submittals must include the following:

Table 4-2 Proof of Project Milestone Required Materials

Required Materials	Wind Turbines	Renewable Fuel Cells	Non-Renewable Fuel Cells	Advanced Energy Storage
1. Copy of RFP or executed agreement for System Installation and/or Purchase for Public Entities RFP due within 60 days. All PPA materials, including an executed agreement for installation or lease due within 240 days.	✓ Public Entities only	✓ Public Entities only	✓ Public Entities only	✓ Public Entities only
2. Completed Proof of Project Milestone Checklist	✓	✓	✓	✓
3. Copy of Executed Contract or Agreement for Installation (includes warranty language documentation)	✓	✓	✓	✓
4. Copy of Executed Renewable Fuel Contract	N/A	✓ Directed Biogas Renewable Fuel Only	N/A	N/A

Required Materials	Wind Turbines	Renewable Fuel Cells	Non-Renewable Fuel Cells	Advanced Energy Storage
5. Revised Minimum Operating Efficiency Calculations (if applicable) Waste Heat Utilization Documentation OR Minimum Electric Efficiency Calculation	N/A	N/A	✓	N/A
6. Fuel Cleanup Equipment Purchase Order	N/A	✓	N/A	N/A
7. Renewable Fuel Affidavit	N/A	✓	N/A	N/A

1. **Request for Proposals (RFP) Documentation for Public Entities** – Public Entities must submit a copy of Request for Proposals (RFP), Notice to Invite Bids, or similar solicitation issued for the installation, lease and/or purchase for systems proposed for the SGIP. The RFP must include sufficient project details such as the scope of work, schedule, terms, budget, and/or generating system components desired. For Public Entities not issuing an RFP, alternative documentation such as an executed letter of intent to engage with a contractor on the Host Customer letterhead, an executed contract/agreement for system installation/lease, an equipment purchase order, or alternate system ownership agreement must instead be submitted within 60 calendar days of the date the Conditional Reservation Letter.
2. **Proof of Project Milestone Checklist** – All Proof of Project Milestone submittals must be accompanied by a completed and signed checklist. It must identify both the System Owner (if different from the Host Customer), the installation contractor (including the installer’s name, telephone number and contractor license number) and be completed and signed by a representative with signature authority for either the System Owner or Host Customer.
3. **Executed Contract and/or Agreement for System Installation** – All SGIP program participants must include, with their Proof of Project Milestone package, a copy of their executed contract for purchase and installation of the system, and/or alternative System Ownership agreement (such as a Power Purchase Agreement). The contract/agreements must be legally binding and clearly spell out the scope of work (quantity of panels/inverters, panel type, inverter type, etc.), terms, total eligible system price, and warranty. All agreements must be signed by appropriate representatives (Host Customer, Installer, and/or System Owner) who are a party to the agreements and the SGIP reservation.
4. **Copy of Executed Renewable Fuel Contract (Directed Biogas Renewable Fuel projects)**,
The following criteria must be included in the contract:
 - a. Contract should at a minimum include term (minimum of 5 years), cost, amount of renewable fuel injected on a monthly basis for the length of the contract,

address of renewable fuel facility, location of pipeline injection site, name of pipeline owner, and facility address of Host Customer.

- b. The SGIP PA has the right to audit & verify Customer Generator’s consumption of renewable fuel consumption upon request over the life of the contract.
- c. The Host Customer will consume the contracted renewable fuel for the sole purpose of fueling the SGIP Project.
- d. The contract includes a forecast for at least 75% of the system’s anticipated fuel consumption. One possible schedule:

	Starts	Ends	MMBtu/Month	MMBtu/year
Period 1	<i>date</i>	<i>date</i>	V	M
Period 2	<i>date</i>	<i>date</i>	W	N
Period 3	<i>date</i>	<i>date</i>	X	O
Period 4	<i>date</i>	<i>date</i>	Y	P
Period 5	<i>date</i>	<i>date</i>	Z	Q

- e. The contract must include a true-up mechanism. The supplier & customer will handle variations in actual consumption vs. the contract as follows:
 - i. True-ups will occur quarterly, or as otherwise specified, based on actual consumption of the system over the preceding quarter.
 - ii. Customer and Renewable Fuel supplier will agree to true up based on actual deliveries of renewable fuel. Note that the fleet of SGIP systems will have its own revenue-grade, electric NGOM and gas meters that are accessible via internet by the Program Administrator.
 - iii. If less on-site fuel is consumed than renewable fuel is nominated into the pipeline, then parties can agree to a financial make-whole provision.
 - iv. If more on-site fuel is consumed than Renewable Fuel is nominated into the pipeline, then parties can agree to a make whole provision, such that Customer Generator consumes at least 75% renewable fuel, as measured annually, per SGIP Handbook section 2.6.1.

5. **Revised Minimum Operating Efficiency Calculations** – When applicable, applications must provide documentation satisfying the minimum operating efficiency requirement. This requirement can be met by submitting one of the following:

- a. **Waste Heat Utilization:** documentation must include a generator and thermal system description, generator electric output forecast and thermal output, generator fuel consumption forecast, thermal load magnitude forecast, and useful thermal energy forecast, to demonstrate compliance with the Program's waste heat utilization requirements (PU Code 216.6)
 - b. **Minimum Electric Efficiency:** Documentation must include engineering calculations, data used and all assumptions used to demonstrate this system efficiency.
6. **Fuel Cleanup Equipment Purchase Order (Level 2 Renewable Fuel Cells)** – When applicable, application documentation must include a purchase order for Renewable Fuel cleanup equipment.
7. **Renewable Fuel Use Affidavit (Level 2 Renewable Fuel Cells)** – For renewable fuel projects, application documentation must include a signed SGIP affidavit that they will not switch to fossil fuel for a period of five years for fuel cells or three years for all other technologies, or the life of the equipment, whichever is shorter. The SGIP PA has the right to audit & verify Customer Generator's consumption of renewable fuel consumption upon request over the life of the contract. The Host Customer will consume the contracted renewable fuel for the sole purpose of fueling the SGIP Project.

4.4.2 Changes to the Proposed System

The Program Administrator will expect a system to be installed as described in the Reservation Request Form, but recognizes that minor changes may result during installation and that substantive changes may be necessary in extraordinary circumstances.

4.4.2.1 Substantive Changes to the Proposed Project

Substantive changes, such as change of System Owner, incentive payment recipient, Project location, or changes in equipment type, require prior approval by the Program Administrator for the reservation to remain in force. Requests for substantive Project changes must be requested in writing.

4.4.2.2 System Changes Affecting Incentive Amount

If all available funds are reserved for other Projects, the Program Administrator cannot raise the originally reserved incentive amount.

If any change results in the installed system differing in its rated electrical output from the system originally specified in the Reservation Request Form, a new incentive payment amount will be calculated. If the proposed system is smaller in output and its eligible costs are lower than those specified in the Reservation Request Form, the application will receive the smaller incentive amount.

If the proposed system is larger or more expensive than that originally specified in the Reservation Request Form, the Program Administrator may accept the revised incentive as reported in the submitted Proof of Project Milestone documentation. There is no guarantee, however, that Projects who increase

the size of the system from that originally stated in the Reservation Request Form will receive the higher incentive amount.

If system size is increased after a conditional reservation has been issued, an incentive amount is calculated at the current SGIP incentive rate for the entire system size. This new incentive amount is compared to the Conditional Reservation amount and the larger of the two becomes the incentive amount.

4.4.3 Submitting Proof of Project Milestone

Once the Proof of Project Milestone package is complete and all the required attachments are secured, the application package must be submitted to the Program Administrator for review. Faxed or hand delivered applications are not allowed. To ensure confirmation of receipt, documentation is to be delivered to the appropriate Program Administrator by certified or overnight mail. No faxes or hand deliveries will be accepted. The Program Administrator will confirm receipt of the package by notifying the reservation contacts of each party (Applicant, Host Customer, and System Owner).

4.4.4 Incomplete Proof of Project Milestone

If a complete Proof of Project Milestone package is not received by the Proof of Project Milestone Date, the application will be cancelled by the Program Administrator.

If submitted Proof of Project Milestone documentation is complete but requires clarification, the Program Administrator will request the information necessary to process that application further. Applicants have 20 calendar days to respond with the necessary information. If, after 20 calendar days, the requested information has not been submitted, the application will be cancelled.

4.4.5 RFP and Proof of Project Milestone Extensions

In general, no extensions to the Proof of Project Milestone Date are permitted. An extension of the due date for the RFP (or equivalent documentation) may be granted only for Public Entities up to a maximum of 60 days at the Program Administrator's discretion. Any extension granted does not extend the Proof of Project Milestone Date or the Reservation Expiration Date. Applicants and Host Customers must demonstrate that failure to submit a satisfactory RFP (or equivalent documentation) was for reasons beyond their control (e.g., board agenda describing approval of Project and award of bid at next meeting). If the RFP (or equivalent documentation) submittal due date expires and no extension is granted, the Reservation will be terminated. Applicants and Host Customers may reapply for an incentive, but such re-applications will be processed in sequence along with other new applications.

4.4.6 Approval of Proof of Project Milestone

Once applications have successfully demonstrated satisfaction of the Proof of Project Milestone the Program Administrator will issue an Incentive Claim Form. This notification will list the specific reservation dollar amount and the Reservation Expiration Date. Upon Project completion and prior to the Reservation Expiration Date, the completed Incentive Claim Form must be submitted along with all of the necessary documentation to request an incentive payment.

4.5 Incentive Claim Form

After an eligible generating system is completed, Applicants may request payment of the incentive amount listed on their Incentive Claim Form. A generating system is considered “complete” when it is completely installed, interconnected, permitted, paid for and capable of producing electricity in the manner and in the amounts for which it was designed. The Program Administrator will disburse payment after the Program Administrator verifies the claim by field inspection that the generating system is “completed” and meets all the eligibility requirements of the SGIP. The completed Incentive Claim Form must be submitted to the Program Administrator on or before the Reservation Expiration Date, together with all required attachments described below.

4.5.1 Extending the Reservation Expiration Date

A request to extend the Reservation Expiration Date is limited to a maximum of an additional 180 calendar days. Any request must include a written explanation of why the extension is required and how much additional time is needed. Both the Host Customer and System Owner must acknowledge the request by signature or email. Approval of a request for a change in Reservation Expiration Date will not change or modify any other reservation condition. Failure to submit the Incentive Claim package by the original or extended Reservation Expiration Date will result in cancellation of the Reservation.

4.5.2 Required Attachments

In addition to the completed Incentive Claim Form, the following attachments must be submitted when requesting incentive payment:

Table 4-3 Incentive Claim Required Materials

Required Materials	Wind Turbines	Renewable Fuel Cells	Non-Renewable Fuel Cells	Advanced Energy Storage
• Completed Incentive Claim w/ Signatures	✓	✓	✓	✓
• Proof of Authorization to Interconnect	✓	✓	✓	✓
• Final Project Cost Breakdown Worksheet	✓	✓	✓	✓
• Project Cost Affidavit	✓	✓	✓	✓
• Final Building Permit Inspection Report	✓	✓	✓	✓
• Substantiation of Load (New Construction/Expanded Load Only)	✓	✓	✓	✓
• Substantiation of Renewable Fuel Resource	N/A	✓ On Site Renewable Fuel Only	N/A	N/A

Required Materials	Wind Turbines	Renewable Fuel Cells	Non-Renewable Fuel Cells	Advanced Energy Storage
• Revised Sizing Calculations (if applicable)	✓	✓	✓	✓
• Revised Minimum Operating Efficiency Calculations (if applicable) Waste Heat Utilization Documentation OR Minimum Electric Efficiency Calculation	N/A	N/A	✓	N/A
• Final Fuel Cleanup Skid Cost Documentation	N/A	✓	N/A	N/A
• Final Air Permit Documentation (if applicable)	N/A	✓	✓	N/A
• Supplier Renewable Fuel Documentation	N/A	✓ Directed Biogas Renewable Fuel Only	N/A	N/A
• Proof of Renewable Fuel Contract Commencement	N/A	✓ Directed Biogas Renewable Fuel Only	N/A	N/A
• Renewable Fuel Metering Specifications	N/A	✓ Directed Biogas Renewable Fuel Only	N/A	N/A

- 1) **Incentive Claim Form** – A completed and signed Incentive Claim form must be submitted with all applications. The Incentive Claim form information must accurately represent the actual installed system size and type.
- 2) **Proof of Authorization to Interconnect** – A copy of the signed letter from their Electric Utility granting the Host Customer and/or System Owner permission to interconnect and operate in parallel with the local grid. For questions on the interconnection process, see Section 5.1.
- 3) **Final Project Cost Breakdown Worksheet** – A final Project Cost Breakdown Worksheet substantiating the claimed eligible Project cost. The Program Administrator reserves the right to withhold final incentive payment pending review and approval of Project cost and receipt of supporting documentation. For a list of total eligible Project cost, see Appendix A. The Program Administrator reserves the right to periodically audit Host Customer's and, if different from Host Customer, the System Owner's records.

- 4) **Project Cost Affidavit** – A signed Project Cost Affidavit substantiating the claimed eligible Project cost.
- 5) **Final Building Inspection Report** – A copy of the final building inspection report demonstrating that the Project meets all codes and standards of the permitting jurisdiction. Contact your local permitting jurisdiction to learn about permitting requirements.
- 6) **Substantiation of Load (New Construction or Added Load Only)** – For Projects where Host Customer estimated future load was used to justify system size, applications must include documentation demonstrating that the load forecast has materialized.
- 7) **Substantiation of Renewable Fuel Resource** – For Projects where the Host Customer, Applicant or System Owner provided Renewable Fuel resource estimates, applications must include documentation demonstrating that the On Site Renewable Fuel resource has materialized.
- 8) **Revised Sizing Calculations** – When applicable, applications must include a thorough description of any changes that have occurred in the system design effecting size or incentive amount since the initial application submittal. If funding is not available, the reserved incentive cannot be increased amount regardless of the changes to the proposed generating system.
- 9) **Revised Minimum Operating Efficiency Calculations** – When applicable, applications must provide documentation satisfying the minimum operating efficiency requirement. This requirement can be met by submitting one of the following:
 - a. **Waste Heat Utilization:** documentation must include a generator and thermal system description, generator electric output forecast and thermal output, generator fuel consumption forecast, thermal load magnitude forecast, and useful thermal energy forecast, to demonstrate compliance with the Program's waste heat utilization requirements (PU Code 216.6)
 - b. **Minimum Electric Efficiency:** Documentation must include engineering calculations, data used and all assumptions used to demonstrate this system efficiency
- 10) **Fuel Cleanup Skid Cost Documentation (Renewable Fuel Cells)** – When applicable for Renewable Fuel Projects, applications must include documentation substantiating the fuel cleanup skid cost.
- 11) **Final Air Permitting Documentation (Fuel Cells)** – For those Projects that require an air permit from the local air district, the application must include a copy of the final documentation indicating compliance with all applicable air pollution regulations.
- 12) **Supplier Renewable Fuel Documentation** – Documentation from the supplier showing that the fuel is renewable and that it meets the quality standards to be injected into the local natural gas pipeline.

- 13) **Proof of Renewable Fuel Contract Commencement** – Documentation (e.g. one month fuel invoice) showing that the contract has commenced and the supplier has begun nominating the renewable fuel into the pipeline. The project will be given up to one-year from the date the Incentive Claim was received by the SGIP PA for commencement of the contract. However, no incentive will be paid until the contract has commenced.
- 14) **Renewable Fuel Metering Specifications** – Make, model, specifications and serial number of installed revenue grade electric NGOM and gas meters.

4.5.3 Changes to the Proposed System

The Program Administrator will expect a system to be installed as described on the Incentive Claim Form, but recognizes that minor changes may result during installation and that substantive changes may be necessary in extraordinary circumstances.

4.5.3.1 Substantive Changes to the Proposed Project

Substantive changes, such as change of System Owner, incentive payment recipient, Project location, or changes in equipment type, require prior approval by the Program Administrator for the reservation to remain in force. Requests for substantive Project changes must be requested in writing.

4.5.3.2 System Changes Affecting Incentive Amount

If all available funds are reserved for other Projects, the Program Administrator cannot raise the originally determined incentive amount.

If any change resulted in the installed system differing in its rated electrical output from the system originally specified in the Reservation Request Form, or the most recent approved revised system size, a new incentive payment amount will be calculated. If the installed system is smaller in output and its eligible costs are lower than those specified in the Reservation Request Form, the Host Customer will receive the smaller incentive amount.

If the installed system is larger or more expensive than that originally specified in the Reservation Request Form, or the most recent approved revised system size, the Program Administrator may accept the revised incentive as reported in the submitted Reservation Confirmation and Incentive Claim form. There is no guarantee, however, that Host Customers who increase the size of the system from that originally stated in the Reservation Request Form will receive the higher incentive amount.

If system size is increased after a conditional reservation has been issued, an incentive amount is calculated at the current SGIP incentive rate for the entire system size. This new incentive amount is compared to the amount currently reserved by the Host Customer and the larger of the two becomes the incentive amount.

- **Example: 200 kW Level 3 Fuel Cell System Size Increased to 400 kW**

The existing reservation is \$500,000 for a 200 kW fuel cell system at a \$2.50/W incentive rate.

The Host Customer adds 200 kW for a total of 400 kW at the time of payment or when modifying the existing reservation and the current rebate level is \$2.00/W, the Project's new incentive amount is $400,000 \text{ W} \times \$2.00/\text{W} = \$800,000$. The Host Customer would receive a higher incentive than what was originally reserved *if* funding is available.

- **Example: 200 kW Level 3 Fuel Cell System Size Increased to 240 kW**

The existing reservation is \$500,000 for a 200 kW fuel cell system at a \$2.50/W incentive rate.

The Host Customer adds 40 kW for a total of 240 kW at the time of payment or when modifying the existing reservation and the current rebate level is \$2.00/W, the Project's new incentive amount is $240,000 \text{ W} \times \$2.00/\text{W} = \$480,000$. In this case, the Host Customer would *not* qualify for additional funding due to an increase in capacity and the existing reservation of \$500,000 for the 200 kW would remain in force.

4.5.4 Submitting Your Incentive Claim Package

Once the Incentive Claim Form is complete and all the required attachments are secured, the package must be submitted to the Program Administrator. To ensure confirmation of receipt, documentation shall be delivered to the appropriate Program Administrator by certified or overnight mail. No faxes or hand deliveries will be accepted.

4.5.5 Incentive Claim Package Submittals

If a complete Incentive Claim package is not received by the Reservation Expiration Date of the reservation, the application may be cancelled by the Program Administrator.

If submitted Incentive Claim documentation are complete but require clarification, the Program Administrator will request the information necessary to process that application.

4.5.6 Field Verification Visit

Upon receipt of a complete Incentive Claim Form package, the Program Administrator will conduct a field verification visit to verify that the Project system is installed as represented in the application, is operational, interconnected and conforms to the eligibility criteria of the SGIP. If the Project is a Level 2 Renewable Fuel Cell, the availability and flow rate of the Renewable Fuel will be demonstrated by Host Customer and/or System Owner. If the eligible system size depended on new construction or load growth, the required load will be confirmed at the time of Field Verification Visit. The Program Administrator also will verify system capacity rating to confirm the final incentive amount.

4.5.6.1 Failed Field Verification

If field verification results indicate that the system is not eligible, the Program Administrator will notify the Applicant, Host Customer and System Owner the reasons for system ineligibility. The Applicant, Host Customer and System Owner will have 60 calendar days to bring the system into compliance. A subsequent inspection visit will be conducted to determine final approval. If the Applicant, Host Customer

and System Owner fails to bring the system to full eligibility within the 60 days the application will be cancelled.

If the Site load or renewable fuel forecast has not yet materialized, the Applicant will be given two options; 1) Receive a onetime payment based on the Site load or fuel availability (whichever is less) demonstrated at the time of initial inspection or, 2) Wait for the Site load or fuel to materialize within 12-months from the date the Incentive Claim Forms and documents were initially received. If the Site load or fuel has not materialized within the 12-month period, the Project will be paid based on the Site load, or system operating capacity available at the end of the 12-month period.

4.5.7 Incentive Check Payment and Terms

Upon final approval of the incentive claim package documentation and completed field verification visit, the Program Administrator will issue the incentive in approximately 30 days. Payment will be made to the Host Customer, System Owner, or a third party (as designated), as indicated on the Incentive Claim Form, and will be mailed to the address provided. The lump sum incentive payment issued constitutes final and complete payment.

4.5.8 Directed Biogas Renewable Fuel Audits

After the incentive is issued, SGIP requires a yearly audit process for five years after the renewable fuel contract commences. The audit process works as follows: at the completion of each year, the Customer must provide the SGIP Program Administrator with the preceding 12 months of invoices for renewable fuel purchases. The Program Administrator will review the invoices to ensure that the Customer is satisfying the intent to procure renewable fuel to meet at least 75% of the generator's consumption.¹⁹ Audits can be conducted remotely, thereby reducing costs for the SGIP program.

If invoices show that nominated renewable fuel deliveries fell below 75% of the generator's fuel demand over the same period, and the generator is not malfunctioning such that it consumes more fuel than originally forecast for the nomination, then the SGIP Program Administrators will request that the Customer refund the full differential amount between the higher renewable Level 2 SGIP incentive and the lower, non-renewable Level 3 SGIP incentive and reserve the right to request additional costs associated with administrative and legal incurred by the Program Administrators.²⁰

¹⁹ The percent of Renewable Fuel consumption for Directed Biogas Projects will be calculated as:

$$Pct_Renewable_Fuel = \frac{\sum_{Month=1}^{12} Directed_Biogas_Injected_MMBtu / Month}{\sum_{Month=1}^{12} Natural_Gas_Consumed_MMBtu / Month}$$

²⁰ The full differential incentive amount will be based on the SGIP incentive rates (\$/W) in the program year the project's Reservation Request was approved and will be calculated

$$Differential_Incentive_Amount = Rated_Capacity_kW \times [(Level_2_Incentive_Rate) - (Level_3_Incentive_Rate)]$$

5 Metering Requirements

This section contains detailed information on the minimum metering and monitoring requirements for SGIP projects requesting an Advanced Energy Storage (AES) incentive. These minimum requirements were developed to increase Project Administrator knowledge of AES system performance, when coupled with an intermittent generation resource such as wind power as well as with fuel cell generation where it will serve to provide peak demand reduction.

SGIP technologies that are allowed to be coupled with an Advanced Energy Storage system must install and maintain metering and monitoring equipment at their own cost. The system owner is responsible for monitoring, maintaining and reporting the metered data to the Program Administrators on a quarterly basis for a minimum of 5 years. If the system owner chooses to contract with a Performance Monitoring and Reporting Service (PMRS), a list of qualified PMRS providers is can be found on <http://www.gosolarcalifornia.ca.gov/equipment/monitors+rsp.html>

All System Owners are responsible for the choice and installation of the metering hardware as well as the selection of a PMRS provider. A list of eligible meters can also be found on <http://www.gosolarcalifornia.ca.gov/equipment/index.html>. The System Owner is also responsible for resolving any issues relative to PMRS performance data. Please see Section 5.1.5 for further information regarding the transfer of production data.

Detailed information on these summarized metering requirements follows.

5.1 Minimum Meter Requirements

All AES systems coupled with any SGIP-eligible technology must install metering equipment capable of measuring and recording interval data on generation output and AES charging and discharging to facilitate gathering of data regarding the AES system performance. The meter must be listed with the California Energy Commission and must meet the minimum meter requirements of this section.

The California Energy Commission's list of qualifying meters can be found at <http://www.gosolarcalifornia.ca.gov/equipment/index.html>

5.1.1 *Meter Type*

For all AES systems the installed meter(s) may be a separate Interval Data Recording (IDR) meter(s), or if the AES technology utilizes an inverter and a rectifier for power conditioning, the meter may be internal to the AES system. The complete system must be functionally equivalent to an IDR meter, recording data no less frequently than every 15 minutes.

5.1.2 Meter Accuracy

All AES systems must install a meter accurate to within $\pm 2\%$ of actual system output.

5.1.3 Meter Measurement

Electric meters must:

- Measure 15 minute gross energy generated (kWh) by the eligible SGIP generation system.
- Measure 15 minute gross energy for the AES system during charging and during discharge.
- Count the number of charge and discharge cycles during the 15 minute interval
- Generate a time/date stamp.

5.1.4 Meter Testing

$\pm 2\%$ meters must be tested according to all applicable ANSI C-12 testing protocols pertaining to the monitoring of power (kW) and energy (kWh).

5.1.5 Meter Certification

The accuracy rating of $\pm 2\%$ meters must be certified by an independent testing body (i.e., a NRTL such as UL or TUV).

5.1.6 Meter Memory and Storage

All meters must have the ability to retain collected data in the event of a power outage. Meters that are reporting data remotely must have sufficient memory to retain 60 days of data if their standard reporting schedule is monthly and 7 days of data if their standard reporting schedule is daily. Meters that do not remotely report their data must retain 120 days of data. In all cases, meters must be able to retain lifetime production.

5.2 Minimum Reporting Requirements

In order to enable Program Administrators to properly evaluate the performance of AES systems installed in conjunction with fuel cell systems with respect to peak load shaving and to allow monitoring of the performance of AES systems installed in conjunction with wind power generation systems the System Owner must perform all monitoring, data collection, data retention, and reporting as specified in the corresponding sub-sections below. If the system owner chooses to contract with a PMRS the California Energy Commission's list of qualifying PMRS providers can be found at <http://www.gosolarcalifornia.ca.gov/equipment/monitors+rsp.html>.

5.2.1 Required AES Performance / Output Data

The System Owner or PMRS must monitor, record, and report on:

- 15 minute gross energy (kWh) generated by the eligible SGIP generation system.
- 15 minute gross energy for the AES system during charging and during discharge.
- The number of charge and discharge cycles during the 15 minute interval
- A time/date stamp.

5.2.2 Minimum Report Delivery Requirements

The System Owner or PMRS must provide for the electronic delivery of reports to the Program Administrators on a quarterly basis.

5.2.3 Time Granularity of Acquired Data

The System Owner or PMRS must log all required output data points no less frequently than once every 15 minutes.

5.2.4 Minimum Reporting Requirements

The System Owner or PMRS must provide the following reports based on acquired, processed, and analyzed data:

- Data as collected and summarized by hour, day, month, and year in electronic format (Excel, CSV, acceptable).
- Data must be associated with a specific site.

5.3 Acceptable Metering Points

The metering system must meter delivered energy by having a meter at the output of the generator and a meter to measure the charge and discharge of the AES. Alternatively, one meter can be used with multiple channels that can monitor at these two points. It is acceptable to use a meter that is internal to the AES to monitor these two points as long as it meets the meter testing and certification criteria listed in sections 5.1.4 and 5.1.5.

5.4 Inspection

The meters will be inspected as part of the project inspection process.

6 Other Installation Requirements & Continuing Site Access Requirements

6.1 Connection to the Utility Distribution System

All distributed generation systems receiving incentives under the SGIP must be connected to the local Electric Utility's distribution system. The interconnection, operation, and metering requirements for generating systems shall be in accordance with the local Electric Utility rules for customer generating facility interconnections. In order to connect a generating system to the Electric Utility distribution system, Host Customers and/or System Owners will be required to execute certain documents such as, but not limited to, an "Application to Interconnect a Generating Facility" and a "Generating Facility Interconnection Agreement" with the local Electric Utility. Written certification of interconnection and Parallel Operation to the Program Administrator prior to the Reservation Expiration Date will be required.

Applicants, Host Customers and System Owners are solely responsible to submit interconnection applications to the appropriate Electric Utility interconnection department as soon as the information to do so is available to prevent any delays in system Parallel Operation.

6.1.1 How to Apply For Interconnection of Self Generation Systems

For more information on electric grid and/or natural gas pipeline interconnections, please contact your local utility (investor owned utilities are listed below). It is the sole responsibility of the SGIP System Owner and Host Customer to seek and obtain approval to interconnect the self-generation system to a utility's distribution system. System Owners and Host Customers participating in the SGIP should immediately contact the utility to seek guidance on how to apply for interconnection. Contact information is listed below.

Pacific Gas & Electric (PG&E)

Website: www.pge.com/gen

Email: gen@pge.com

Phone: (415) 972-5676 (PG&E Generation Interconnection Hotline)

San Diego Gas & Electric (SDG&E)

Website: http://www.sdge.com/business/self_generation.shtml

Contact information for wind systems:	
Net Metering Team San Diego Gas & Electric PO Box 129831, CP52F San Diego, CA 92123-9749 Phone: (858) 636-5585 Email: netmetering@semprautilities.com	Ken Parks San Diego Gas & Electric PO Box 129831, CP52F San Diego, CA 92123-9749 Phone: (858) 636-5581 Email: kparks@semprautilities.com

All other systems:	
Self Generation Team San Diego Gas & Electric PO Box 129831, CP42F San Diego, CA 92123-9749 Phone: (858) 654-1278 Email: selfgensd@semprautilities.com	Scott Wilson San Diego Gas & Electric PO Box 129831, CP42F San Diego, CA 92123-9749 Phone: (858) 654-1278 Email: selfgensd@semprautilities.com

Southern California Edison (SCE)

Southern California Edison
Interconnection – Net Metering
2244 Walnut Grove Avenue, GO1-Quad 4D
Rosemead, Ca 91770
Phone: (626)302-9680
E-mail: customer.generation@sce.com

Southern California Gas Company (SoCalGas)

www.socalgas.com
Residential Customers: (800) GAS-2200
Business Customer: (800) GAS-2000

6.2 Measurement and Evaluation (M&E) Activities

As a condition of receiving incentive payments under the SGIP, System Owners and Host Customers agree to provide full access to Site and generating system equipment in support of, as well as participate in Measurement and Evaluation (M&E) activities as required by the CPUC. M&E activities will be performed by the Program Administrator or the Program Administrator's independent third-party consultant and include but are not limited to, periodic telephone interviews, site visits, development of a M&E Monitoring Plan, installation of metering equipment, collection and transfer of data from installed system monitoring equipment, whether installed by Host Customer, System Owner, a third party, or the Program Administrator.

6.2.1 Field M&E Visits

During the course of the Project, the Program Administrator or the Program Administrator's independent third-party consultant will require one or more visits to the Site for M&E purposes. These site M&E visits can occur before, during or after startup of the generating system for the purposes of developing a monitoring plan, installing additional M&E instrumentation, performing equipment operations inspection and retrieving system data. These visits are separate and distinct from the field verification visits (see Section 4.5.6) by the Program Administrator or its consultants, which are used to determine eligibility of the installed generating system and occur during the Incentive Claim stage of the application process.

6.2.2 Electrical Metering Requirements

At the discretion of the Program Administrator, and in consultation with the Program Administrator's independent third-party consultant, SGIP systems may require installation of dedicated, recording, time-of-use or interval metering to measure and record electrical generation output (i.e., Net Generation Output Meter) solely for M&E purposes. Many installations will already require this type of electrical metering as a condition of interconnection with the Electric Utility grid. In the case of investor-owned electric utilities, this means compliance with their filed CPUC Rule 21, Generating Facility Interconnections. Specifications for the net generation output meter can be found on the Program Administrator's or the Electric Utility's website.

Costs for metering normally required by the Electric Utility in accordance with its tariff rules shall be paid by the customer. Metering not normally required by the Electric Utility's rules, but required as a condition of receiving incentives under the SGIP, shall be paid for by the Program Administrator.

6.2.3 Other Energy Metering Requirements

The CPUC requires that Level 2 (except wind turbines) and Level 3 technology installations be evaluated for compliance with SGIP requirements for efficiency, waste heat recovery, or use of renewable/non-renewable fuels. As a condition of receiving incentive payments in the SGIP, Host Customer and System Owner agree to allow the Program Administrator, or the Program Administrator's independent third-party consultant, to conduct M&E activities on completed installations. Furthermore, the Host Customer and System Owner agree to cooperate with the installation of any additional system monitoring equipment that the M&E consultant may deem necessary. All labor and material costs for instrumentation and data collection required solely for SGIP M&E purposes (and not by utility tariff) will be paid by the Program Administrator. Results of M&E activities will have no bearing on the incentive payment previously received, with the exception of Projects utilizing Renewable Fuels.

6.2.4 M&E System Monitoring Data Transfer Requirements

For systems with Host Customer, System Owner, third party, or Program Administrator installed monitoring equipment; the Host Customer and System Owner agree to provide system monitoring data (typically 15-minute interval data) to the SGIP M&E consultant on a quarterly basis for a period of twice the required warranty period of the generating system.

6.2.5 Disposition of SGIP Metering Equipment

Upon completion of the SGIP M&E metering activities at the Site, the Program Administrator will offer all M&E metering equipment to the System Owner for transference. The Program Administrator will provide an Equipment Transfer Agreement with a schedule of the SGIP M&E equipment located at the Site. The Equipment Transfer Agreement must be signed by both the System Owner and the Program Administrator. If the System Owner does not wish to accept the M&E metering equipment, the Program Administrator or its independent third-party consultant will remove the M&E metering equipment. The Program Administrator shall pay the costs for meter removal.

6.3 Audit Rights

Program Administrator shall be allowed to periodically audit System Owner's and Host Customer's records related to the work done under this Contract, and report the results of its audit to the CPUC or its designee. System Owner and Host Customer must provide all requested Project documents to Program Administrator upon written request, and must, for 5 years following Contract termination, maintain copies of all Project documents, including, but not limited to, Contracts, invoices, purchase orders, reports, and all back-up documents, for Program Administrator's review.

6.4 Dispute Resolution

All participants shall attempt in good faith to resolve any dispute arising out of or relating to this transaction promptly by negotiations between a vice president of Program Administrator or his or her designated representative and an executive of similar authority from System Owner and/or Host Customer. Either party must give the other party, or parties, written notice of any dispute. Within thirty (30) calendar days after delivery of the notice, the executives shall meet at a mutually acceptable time and place, and shall attempt to resolve the dispute. If the matter has not been resolved within thirty (30) calendar days of the first meeting, any party may pursue other remedies, including mediation. All negotiations and any mediation conducted pursuant to this clause are confidential and shall be treated as compromise and settlement negotiations, to which Section 1152.5 of the California Evidence Code shall apply, and Section 1152.5 is incorporated herein by reference. Notwithstanding the foregoing provisions, a party may seek a preliminary injunction or other provisional judicial remedy if in its judgment such action is necessary to avoid irreparable damage or to preserve the status quo. Each party is required to continue to perform its obligations under this Contract pending final resolution of any dispute arising out of or relating to this Contract.

7 Definitions and Glossary

AB 970:

Assembly Bill 970, signed by Governor Davis on September 6, 2000. This legislation required the CPUC to initiate certain load control and distributed generation activities, which resulted in the SGIP.

AB 1685:

Assembly Bill 1685, signed by Governor Davis on October 12, 2003. This legislation requires the CPUC, in consultation with the Energy Commission, to administer, until January 1, 2008, a self-generation incentive program for distributed generation resources in the same form that exists on January 1, 2004, but requires that combustion-operated distributed generation Projects using fossil fuels commencing January 1, 2005, meet a NOx emission standard, and commencing January 1, 2007, meet a more stringent NOx emission standard and a minimum system efficiency standard, to be eligible for incentive rebates under the SGIP. The bill establishes a credit for combined heat and power units that meet minimum system efficiency standard. The bill also revises the definition of an ultra-clean and low-emission distributed generation to include electric generation technologies that commence operation prior to December 31, 2008.

AB 2667:

Assembly Bill 2667, approved by the Governor September 28, 2008, requires the CPUC to provide from existing SGIP funds an additional incentive of 20% for the installation of eligible distributed generation resources from a California Supplier.

Advanced Energy Storage:

Are technologies that convert electricity into another form of energy, stored and then converted back into electricity at another time. Advanced Energy Storage systems eligible for SGIP incentives must be coupled with an eligible self generation technology, currently fuel cell and wind turbines, and be able to discharge at rated capacity for a four hour period. Advanced Energy Storage systems coupled with fuel cells must be capable of discharging fully at least once per day. Whereas as those coupled with wind turbines must have the capability of handling hundreds partial discharge cycles per day.

Applicant:

The entity, either the Host Customer, System Owner, or third party designated by the Host Customer, responsible for the development and submission of the SGIP application materials and the main point of communication between the SGIP Program Administrator for a specific SGIP Application.

Application Fee:

Is required for new technologies that are in process of certification and is 1% of the requested incentive amount, due and payable with the Reservation Request application. Once the Program Administrator issues a Conditional Reservation, the Application Fee will be forfeited if it is not withdrawn by the Host

Customer/System Owner within 20 days of the Conditional Reservation or cancelled by the Program Administrator for not satisfying the SGIP requirements.

Backup Generators:

Operate as short-term temporary replacement for electrical power during periods of Electric Utility power outages. In addition to emergency operation they ordinarily only operate for testing and maintenance. Backup generators do not produce power to be sold or otherwise supplied to the grid or provide power to loads that are simultaneously serviced by the Electric Utility grid. Backup generators only service customer loads that are isolated from the grid either by design or by manual or automatic transfer switch.

California Supplier:

Is any sole proprietorship, partnership, joint venture, corporation, or other business entity that manufactures eligible distributed generation technologies in California and that meets either of the following criteria:

A) The owners or policymaking officers are domiciled in California and the permanent principal office, or place of business from which the supplier's trade is directed or managed, is located in California.

Or

B) A business or corporation, including those owned by, or under common control of, a corporation, that meets all of the following criteria continuously during the five years prior to providing eligible distributed generation technologies to an SGIP recipient:

- i) Owns and operates a manufacturing facility located in California that builds or manufactures eligible distributed generation technologies.
- ii) Is licensed by the state to conduct business within the state.
- iii) Employs California residents for work within the state.

For purposes of qualifying as a California Supplier, a distribution or sales management office or facility does not qualify as a manufacturer.

CCSE:

California Center for Sustainable Energy

CEC:

California Energy Commission

CPUC:

California Public Utilities Commission

Directed Biogas:

A renewable fuel that is obtained pursuant to a contract where biogas is nominated and delivered to Host Customer's Project via a natural gas pipeline. There is no means of ensuring that actual molecules of

renewable gas are consumed at the Host Customer's Site. Thus, the gas is not literally delivered, but notionally delivered, as the renewable fuel may actually be utilized at any other location along the pipeline route.

Electric Utility:

The Host Customer's local electric transmission and distribution service provider for their Site.

ESCO:

Energy Service Company (ESCO), a business entity that designs, builds, develops, owns, operates or any combination thereof self-generation Projects for the sake of providing energy or energy services to a Host Customer.

Fraud:

A knowing misrepresentation of the truth or concealment of a material fact to induce another to act to his or her injury.

Fuel Cell:

Power plants that produce electricity through an electrochemical reaction with a fuel source resulting in extremely low emissions and hot water or steam.

Gas Service:

The gas line from the Utility's distribution main to the serving gas meter

Host Customer:

An entity that meets all of the following criteria: 1) has legal rights to occupy the Site, 2) receives retail level electric or gas distribution service from PG&E, SCE, SoCalGas or SDG&E, 3) is the utility customer of record at the Site 4) is connected to the electric grid, and 5) is the recipient of the net electricity generated from the self-generation equipment.

Interim Changes:

Changes by the Program Administrators to the SGIP instituting legislative, regulatory, clarifying or corrective rules that are posted on their SGIP websites.

Investor Owned Utility:

For purposes of the SGIP, this refers to Pacific Gas & Electric Company, San Diego Gas & Electric Company, Southern California Edison Company and Southern California Gas Company.

ISO:

International Standards Organization

Non-Renewable Fuel:

Includes fossil fuels and synthetic fuels not generated from a renewable resource.

Parallel Operation:

The simultaneous operation of a self-generator with power delivered or received by the Electrical Utility

while interconnected to the grid. Parallel Operation includes only those generators that are interconnected with the Electric Utility distribution system for more than 60 cycles.

PG&E:

Pacific Gas and Electric Company

Power Purchase Agreements:

An agreement for the sale of electricity from one party to another, where the electricity is generated and consumed on the Host Customer Site. Agreements that entail the export and sale of electricity from the Host Customer Site do not constitute Host Customer's use of the generated electricity and therefore are ineligible for the SGIP.

Program Year:

January 1 through December 31.

Proof of Project Milestone Date:

The Proof of Project Milestone Date is the date when required information to demonstrate that their Project is moving forward is due.

Project:

For purposes of the SGIP, the "Project" is the installation and operation of the proposed eligible self-generation technology (ies), as described by the submitted Reservation Request documentation.

Project Completion Date:

For purposes of the SGIP, the Project completion date will be determined when the Host Customer receives permission, from the Electric Utility, to operate in parallel.

Public Entity:

Includes the United States, the state and any county, city, public corporation, or public district of the state, and any department, entity, agency, or authority of any thereof.²¹

Renewable Fuel:

A Renewable Fuel is a non-fossil fuel resource other than those defined as conventional in Section 2805 of the Public Utilities Code that can be categorized as one of the following: solar, wind, gas derived from biomass, digester gas, or landfill gas. A facility utilizing a Renewable Fuel may not use more than 25 percent fossil fuel annually, as determined on a total energy input basis for the calendar year.

Reservation Expiration Date:

The Reservation Expiration Date is the date the Incentive Reservation expires and all required documentation must be provided by.

SCE:

Southern California Edison

²¹ Source: CALIFORNIA CODES - PUBLIC CONTRACT CODE, SECTION 21611

SDG&E:

San Diego Gas and Electric

Single Business Enterprise:

For purposes of defining a Site, a Single Business Enterprise is a business that has a unique taxpayer or employer identification number. Two or more businesses with the same taxpayer or employer identification number, as a group, are a Single Business Enterprise.

Site:

A Single Business Enterprise or home located on an integral parcel or parcels of land undivided by a public road or thoroughfare regardless of the number of meters serving that Site; or if divided by a public road or thoroughfare, served by a single Electric Utility meter. Separate business enterprises or homes on a single parcel of land undivided by a highway, public road, thoroughfare or railroad would be considered for purposes of the SGIP as separate Sites.

SoCalGas:

Southern California Gas Company

System Owner:

The owner of the generating system at the time the incentive is paid. For example, in the case when a vendor sells a turnkey system to a Host Customer, the Host Customer is the System Owner. In the case of a leased system, the lessor is the System Owner.

Thermal Load:

Host Customer heating process(es) including but not limited to industrial process heating, space heating, domestic hot water heating and/or heat input to an absorption chiller used for space cooling or refrigeration.

Thermal Load Equipment:

Thermal end-use equipment such as but not limited to absorption chillers (indirect or direct fired), boilers, water heaters, space heaters, furnaces, dryers, secondary heat exchangers, thermal storage tanks or vessels including pumps, cooling towers, and piping or any other ancillary equipment.

Waste Gas:

Natural gas that is generated as a byproduct of petroleum production operations and is not eligible for delivery to the utility pipeline system.

8 Program Administrator Contact Information

Potential Host Customers and their s can receive more information and apply for incentive funding through the following Program Administrators²²:

Pacific Gas & Electric (PG&E)

Website: www.pge.com/sgip
Email Address: selfgen@pge.com
Telephone: (415) 973-6436
Fax: (415) 973-2510
Mailing Address: Self-Generation Incentive Program
PO Box 7433

Overnight Mailing Address: San Francisco, CA 94120
Self-Generation Incentive Program
245 Market Street
Mail Code N7R
San Francisco, CA 94105-1797

California Center for Sustainable Energy (CCSE)

Website: www.energycenter.org
Contact Person: Program Manager, Self-Generation Incentive Program
Telephone: (858) 244-1177
Fax: (858) 244-1178
Email: selfgen@energycenter.org
Address: California Center for Sustainable Energy
Attn: SELFGEN Program Manager
8690 Balboa Ave., Suite 100
San Diego, CA 92123-1502

Southern California Edison (SCE)

Website: www.sce.com/SGIP
E-mail: CSIGroup@sce.com
Address: Program Manager Self-Generation Incentive Program
Southern California Edison
P.O. Box 800.
Rosemead, CA 91770-0800
Telephone: (866) 584-7436
Fax: (626) 302-3967

Southern California Gas Company (SoCalGas)

Website: www.socalgas.com/business/selfgen
E-Mail: selfgeneration@socalgas.com
Telephone: 1-866-DG-REBATE (1-866-347-3228)
Fax: (213) 244-8222
Address: Self-Generation Incentive Program Administrator
Southern California Gas Company
555 West Fifth Street, GT22H4
Los Angeles, CA 90013-1011

²² Potential eligible Projects located in the service territory of both Southern California Edison and the Southern California Gas Company can apply for incentive funding to either Program Administrator.

Appendix A - System Calculation Examples

Efficiency Calculations

Example #1: 5 kW Residential Fuel Cell CHP System

A 5 kW fuel cell operating on natural gas is proposed to provide electricity and heat to a residential Host Customer. The fuel cell is sized to operate at an annual average 90% capacity factor. The residential Host Customer's Thermal Load consists of pool heating, domestic hot water and space heating. The Applicant used the Residential Minimum Operating Efficiency Worksheet (see Table 8-1) and entered the following information –

- Rated Net Generating Capacity – The rated kW capacity of the proposed generating system
- Ancillary Generating System Loads – The rated kW size of all ancillary loads necessary for generator operation.
- Fuel Consumption Rate (LHV) – The lower heating value fuel consumption at rated capacity (Btu/hr).
- Fuel Consumption Rate (HHV) – The higher heating value fuel consumption at rated capacity (Btu/hr).
- Waste Heat Recovery Rate – The amount of recoverable heat from the generating system (Btu/hr)
- Zip Code of Residence – The zip code location of the Host Customer.
- Dwelling Living Area – The living area of the home (sq ft)
- Residential Space Heating – Check box indicating that recovered waste heat will be used for space heating.
 - Residential Type – Single family, town home or apartments
 - Vintage – When was the period the home was constructed.
- Pool Heating – Check box indicating that recovered waste heat will be used for pool heating.
 - Energy smart pools net load data entered into "Pool Heating" worksheets
- Domestic Hot Water - Check box indicating that recovered waste heat will be used for domestic hot water heating.
 - Household Size – The number of people living in the home.
- Generator Equipment Full Load Hours per Month

The fuel cell exceeds the PU Code 216.6. (a) and (b) requirements, therefore it meets the minimum operating efficiency requirement for the program.

Table 0-1 Residential Minimum Operating Efficiency Worksheet

Applicant: **ESCO** Date: **November 1, 2009**
 Host Customer: **Residential Customer** Application No.: **XX-XXX**

Instructions: This spreadsheet determines if a proposed Level 3 (non-renewable) Fuel Cell system meets the Minimum Operating Efficiency eligibility requirement of the Self-Generation Incentive Program for **Residential Systems**. Applicants must provide documentation supporting all inputs including but not limited to system capacity, fuel consumption, waste heat recovery rate, operating schedule, equivalent full load operating hours and thermal load. See the 2008 SGIP Handbook for details of eligibility and documentation requirements. All yellow cells must be completed by Applicant/Host Customer.

Rated Net Generating Capacity =	5 kW	Full load net continuous rated capacity of the packaged prime mover/generator at ISO conditions.
Ancillary Generating System Loads =	0.000 kW	Any ancillary equipment loads necessary for the operation of the generator (e.g., fuel compressors, intercooler chillers, etc.) not accounted for in the Rated Net Generating Capacity.
Fuel Consumption Rate (LHV) =	42,844 Btu/hr	Provided by manufacturer or calculated from rated capacity and generator efficiency or heat rate specifications. Based on lower heating value of fuel.
Fuel Consumption Rate (HHV) =	47,511 Btu/hr	Provided by manufacturer or calculated from rated capacity and generator efficiency or heat rate specifications. Based on higher heating value of fuel.
Waste Heat Recovery Rate =	20,000 Btu/hr	Recoverable heat as specified by manufacturer of generator or waste heat recovery unit at full load conditions. This is not total waste heat of the unit. The value provided should be supported by Generating System specifications (if packaged unit), Waste Heat Recovery System specifications, or engineering analysis of recoverable waste heat.

Zip Code of Residence = 94563 **Weather Zone = 4** **Electric Utility = PG&E**

Dwelling Living Area = 12,000 sqft **City = ORINDA** **Gas Utility = PG&E**

Applicable Thermal Loads
 Check the residential thermal load(s) to be included

Residential Space Heating **TRUE** **Residential Type = Single Family** **Vintage = 1992-present** **Vintage # = 5**
Pool Heating **TRUE** Enter Energy Smart Pools Net Load Data into "Pool Heating" Worksheet
Domestic Hot Water **TRUE** **Household Size = 2 Persons**

Month	Std Hours Per Month (hrs)	Generator Equivalent Full Load Hours per Month (hrs)	Capacity Factor	Generator Electric Output per Month (kWh)	Recovered Waste Heat per Month (Btu)	Thermal Load per Month (Btu)	Useful thermal energy output (Btu)	Fuel Input (LHV Btu)
Jan	744	670	90%	3,348	13,392,000	97,512,642	13,392,000	28,688,342
Feb	672	605	90%	3,024	12,096,000	81,743,641	12,096,000	25,912,051
Mar	744	670	90%	3,348	13,392,000	88,935,030	13,392,000	28,688,342
Apr	720	648	90%	3,240	12,960,000	83,325,987	12,960,000	27,762,912
May	744	670	90%	3,348	13,392,000	83,986,266	13,392,000	28,688,342
Jun	720	648	90%	3,240	12,960,000	79,279,484	12,960,000	27,762,912
Jul	744	670	90%	3,348	13,392,000	80,760,000	13,392,000	28,688,342
Aug	744	670	90%	3,348	13,392,000	80,869,365	13,392,000	28,688,342
Sep	720	648	90%	3,240	12,960,000	78,896,706	12,960,000	27,762,912
Oct	744	670	90%	3,348	13,392,000	83,166,029	13,392,000	28,688,342
Nov	720	648	90%	3,240	12,960,000	84,583,684	12,960,000	27,762,912
Dec	744	670	90%	3,348	13,392,000	90,930,940	13,392,000	28,688,342
Annual Total	8,760	7,884	90%	39,420	157,680,000	1,013,989,774	157,680,000	337,782,096

Minimum Operating Efficiency Eligibility = PASS
 P. U. Code 216.6 (a) = 54.0% ≥ 5% TRUE Public Utilities Code 216.6(a) & 18CFR Part 292
 P. U. Code 216.6 (b) = 63.2% ≥ 42.5% TRUE Public Utilities Code 216.6(b) & 18CFR Part 292
 Minimum Electric Efficiency = 35.9% ≥ 40% FALSE Public Utilities Code 353.2 and 379.6

Enter Net Total Monthly Pool Load (10 ⁶ BTU's) from Energy Smart Pools Base Analysis												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total Load	78	68	75	73	75	73	75	75	73	75	73	75

Provide hardcopy of Energy Smart Pools Executive and Engineer Reports

Example #2: Efficiency Calculations for 300 kW Fuel Cell CHP System

A 300 kW fuel cell operating on natural gas is proposed to provide electricity and heat to an industrial manufacturing facility. The fuel cell is sized such that it will operate at full load most of the year. Its output will be reduced in December for maintenance and diagnostic testing, while the manufacturing plant is shutdown. The manufacturing plant's Thermal Load consists of process and space heating. The Minimum Operating Efficiency Worksheet use for this application is similar to the residential version, but the Thermal Load per Month must be calculated and justified separately and entered manually for each month. Because the fuel cell's minimum electric efficiency is greater than 40%, it meets the minimum operating efficiency requirement for the program.

Table 0-2 Minimum Operating Efficiency Worksheet

Applicant:	ESCO			Date:	January 1, 2008			
Host Customer:	Industrial Customer			Application No.:	XX-XXX			
Instructions:	This spreadsheet determines if a proposed Level 3 (non-renewable) Fuel Cell system meets the Minimum Operating Efficiency eligibility requirement of the Self-Generation Incentive Program. Applicants must provide documentation supporting all inputs including but not limited to system capacity, fuel consumption, waste heat recovery rate, operating schedule, equivalent full load operating hours and thermal load. See the 2008 SGIP Handbook for details of eligibility and documentation requirements. All yellow cells must be completed by Applicant/Host Customer.							
Rated Net Generating Capacity =	300 kW			Full load net continuous rated capacity of the packaged prime mover/generator at ISO conditions.				
Ancillary Generating System Loads =	10 kW			Any ancillary equipment loads necessary for the operation of the generator (e.g., fuel compressors, intercooler chillers, etc.) not accounted for in the Rated Net Generating Capacity.				
Fuel Consumption Rate (LHV) =	2,178,000 Btu/hr			Provided by manufacturer or calculated from rated capacity and generator efficiency or heat rate specifications. Based on lower heating value of fuel.				
Fuel Consumption Rate (HHV) =	2,418,000 Btu/hr			Provided by manufacturer or calculated from rated capacity and generator efficiency or heat rate specifications. Based on higher heating value of fuel.				
Waste Heat Recovery Rate =	480,000 Btu/hr			Recoverable heat as specified by manufacturer of generator or waste heat recovery unit at full load conditions. This is not total waste heat of the unit. The value provided should be supported by Generating System specifications (if packaged unit), Waste Heat Recovery System specifications, or engineering analysis of recoverable waste heat.				
Month	Std Hours Per Month (hrs)	Generator Equivalent Full Load Hours per Month (hrs)	Capacity Factor	Generator Electric Output per Month (kWh)	Recovered Waste Heat per Month (Btu)	Thermal Load per Month (Btu)	Useful thermal energy output (Btu)	Fuel Input (LHV Btu)
Jan	744	744	100%	215,760	357,120,000	358,000,000	357,120,000	1,620,432,000
Feb	672	672	100%	194,880	322,560,000	322,200,000	322,200,000	1,463,616,000
Mar	744	744	100%	215,760	357,120,000	289,980,000	289,980,000	1,620,432,000
Apr	720	720	100%	208,800	345,600,000	260,982,000	260,982,000	1,568,160,000
May	744	744	100%	215,760	357,120,000	234,883,800	234,883,800	1,620,432,000
Jun	720	720	100%	208,800	345,600,000	211,395,420	211,395,420	1,568,160,000
Jul	744	744	100%	215,760	357,120,000	190,255,878	190,255,878	1,620,432,000
Aug	744	744	100%	215,760	357,120,000	209,281,466	209,281,466	1,620,432,000
Sep	720	720	100%	208,800	345,600,000	230,209,612	230,209,612	1,568,160,000
Oct	744	744	100%	215,760	357,120,000	253,230,574	253,230,574	1,620,432,000
Nov	720	720	100%	208,800	345,600,000	278,553,631	278,553,631	1,568,160,000
Dec	744	350	47%	101,500	168,000,000	306,408,994	168,000,000	762,300,000
Annual Total	8,760	8,366	96%	2,426,140	4,015,680,000	3,145,381,375	3,006,092,381	18,221,148,000
Minimum Operating Efficiency Eligibility = PASS								
P.U. Code 218.5 (a) =		26.6% ≥ 5%	TRUE	Public Utilities Code 216.6(a) & 18CFR Part 292				
P.U. Code 218.5 (b) =		53.7% ≥ 42.5%	TRUE	Public Utilities Code 216.6(b) & 18CFR Part 292				
Minimum Electric Efficiency =		42.3% ≥ 40%	TRUE	Public Utilities Code 353.2 and 379.6				

Incentive Calculations

Example #3: Single System Level 2 Wind Turbine Technology

A Host Customer proposes to install an 800 kW wind turbine to provide a portion of their facilities' peak (maximum) electric demand. There are no other incentives included. The Level 2 incentive for this technology is \$1.50/Watt (or \$1,500/kW) and the Project cost is \$800,000 (\$1,000/kW). Multiplying the Level 2 incentive by the capacity of the generation results in an incentive of \$1,200,000, this exceeds the out-of-pocket expense for the system. Therefore, the incentive is limited to \$800,000.

Example #4: Incentive Calculation for System Receiving Incentives from Other Programs

A Host Customer is installing a 1.0 MW fuel cell, operating on Renewable Fuel, which is estimated to cost \$10 million (\$10/Watt). The Project received a previous rebate of 20% of the Project costs (\$2 million) from an IOU Ratepayer funded program. The Level 2 SGIP incentive for this technology is \$4.50/watt. Because the other incentive is IOU ratepayer funded, the SGIP incentive is adjusted. In addition, the out-of-pocket expense of the System Owner must not be less than zero. The out-of-pocket expense of the system is the total eligible Project cost less any incentives including SGIP. Under the SGIP, this Project would be eligible for an incentive of \$2.5 million as follows:

$$\text{Maximum SGIP Incentive based on System Size} = 1,000,000 \text{ W} \times \$4.50 / \text{W} = \$4,500,000$$

$$\text{Adjusted SGIP Incentive} = \$4,500,000 - 1.0 \times \$2,000,000 = \$2,500,000$$

$$\text{Total Incentive} = \$2,500,000 + \$2,000,000 = \$4,500,000$$

Since the total Incentive (\$4,500,000) is lower than the total eligible Project cost of \$10 million the SGIP incentive is \$2,500,000.

Example #5: Incentive Calculation for Systems with Output Capacity above 1 MW and Receiving Incentives from Other Programs

A customer is installing a 2.2 MW fuel cell, operating on natural gas, which is estimated to cost \$13 million. The Level 3 incentives for this technology are \$2.50/watt for the first 1.0 MW, 50% of \$2.50/watt for the capacity greater than 1.0 MW up to 2.0 MW and 25% of \$2.50/Watt for the capacity greater than 2.0 MW up to 3.0 MW. The Project also received a \$1 million rebate from a Federal taxpayer funded program. Under the SGIP, the incentive would be calculated as follows:

$$\text{Maximum SGIP Incentive} = 1,000,000 \text{ Watt} \times \$2.50/\text{Watt} + 1,000,000 \text{ Watt} \times 50\% \times \$2.50/\text{Watt} + 200,000 \text{ Watt} \times 25\% \times \$2.50/\text{Watt} = \$3,875,000$$

$$\text{Adjusted SGIP Incentive} = \$3,875,000 - 0.0 \times \$1,000,000 = \$3,875,000$$

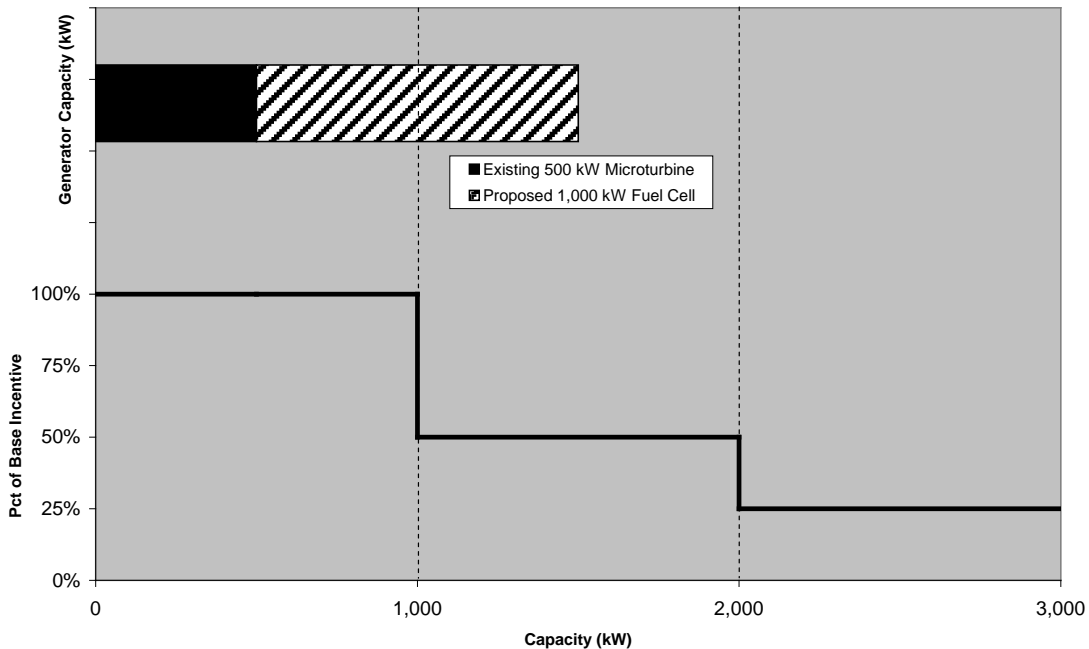
$$\text{Total Incentive} = \$3,875,000 + \$1,000,000 = \$4,875,000$$

Since total incentive of \$4,875,000 is lower than the total eligible Project cost of \$13 million the SGIP incentive is \$3,875,000.

Example #6: Incentive Calculation for System Added to Site with Existing SGIP Funded Capacity

A customer is installing a 1 MW fuel cell, operating on natural gas, which is estimated to cost \$6 million. Under the SGIP, any existing generating capacity previously funded by SGIP is accounted for at that highest incentive as illustrated in the following chart. Because the customer Site has an existing 500 kW microturbine cogenerator, the proposed system receives 500 kW at \$2.50/Watt and the remaining 500 kW at \$1.25/Watt.

**Pct of Base Incentive Including Existing SGIP Funded Capacity
Existing 500 kW Microturbine + Proposed 1,000 kW Fuel Cell**



S

The incentive would be calculated as follows:

Existing SGIP Funded Capacity = 500,000 Watt

Proposed Capacity = 1,000,000 Watt

Maximum SGIP Incentive = 500,000 Watt x \$2.50/Watt + 500,000 Watt x 50% x \$2.50/Watt = \$1,875,000

Since total incentive of \$1,875,000 is lower than the total eligible Project cost of \$6 million the SGIP incentive is \$1,875,000.

Example #7: Incentive Calculation for Advanced Energy Storage System

A customer proposes to install a 1 MW Advanced Energy Storage system and a natural gas fueled 1 MW fuel cell cogenerator. Since the Advanced Energy Storage capacity is not additive with the companion fuel cell, the Advanced Energy Storage system receives \$2.00/Watt for 1,000 kW of capacity and the fuel cell receives \$2.50/Watt for 1,000 kW of capacity.

The incentive would be calculated as follows:

Advanced Energy Storage = 1,000,000 Watt

Fuel Cell = 1,000,000 Watt

Maximum SGIP Incentive = 1,000,000 Watt x \$2.00/Watt + 1,000,000 Watt x \$2.50/Watt = \$4,500,000

Since total incentive of \$4,500,000 is lower than the total eligible Project cost the SGIP incentive is \$4,500,000.

Example #8: Hybrid System Cost Calculation

Table 0-3

	Level 2 Renewable	Level 3 Non-Renewable	Hybrid System Total
1. Incentive Rate (\$/Watt)	\$1.50/W Wind Turbine (A)	\$2.50/W Fuel Cell (B)	
2. Technology Capacity (kW)	<u>800 kW</u> (C)	<u>300kW</u> (D)	<u>1,100 kW</u> (E) C + D
3. Incented Capacity (kW)		<u>200 kW</u> (G) = 1,000 - F + <u>100 kW</u> (H) H = E - 1,000	
	<u>800 kW</u> (F) F = C		<u>1,100 kW</u> (I) F + G + H
4. Total SGIP hybrid Incentive Calculation	\$1,200,000 (J) J = A x F \$1.50/W x 800,000 W	<u>\$500,000</u> (K) K = B x G \$2.50/W x 200,000 W <u>\$125,000</u> (L) JL = B x 50% x H \$2.50/W x 50% x 100,000 W	<u>\$1,825,000</u> J + K + L

Appendix B - Description of Total ELIGIBLE PROJECT COSTS

The following costs may be included in total eligible Project cost:

1. Self-generation equipment capital cost
2. Engineering and design costs
3. Construction and installation costs. For Projects in which the generation equipment is part of a larger Project, only the construction and installation costs directly associated with the installation of the energy generating equipment are eligible.
4. Engineering feasibility study costs
5. Interconnection costs, including:
 - a. Electric grid interconnection application fees
 - b. Metering costs associated with interconnection
6. Environmental and building permitting costs
7. Warranty and/or maintenance contract costs associated with eligible Project cost equipment (See 2.6.2 for full explanation of eligible costs)
8. Gas line installation costs, limited to the following:
 - a. Costs associated with installing a natural gas line on the customer's Site that connects the serving gas meter or customer's natural gas infrastructure to the distributed generation unit(s).²³
 - b. Customer's cost for an additional (second) Gas Service to serve the distributed generation unit if this represents a lower cost than tying to the existing meter or Gas Service.
 - c. Customer's cost for any evaluation, planning, design, and engineering costs related to enhancing/replacing the existing Gas Service specifically required to serve the distributed generation unit.
9. Sales tax and use tax
10. Generating system measurement, monitoring and data acquisition equipment.
11. Air emission control equipment capital cost

²³ In many cases, the Utility requires a separate, Utility owned gas meter, dedicated to the generator to qualify for a generation gas rate schedule. In that case, costs associated with installing a separate gas meter that are in excess of those covered under the applicable gas rules may be included as an Eligible Project Cost.

-
12. Primary heat recovery equipment, i.e. heat recovery equipment directly connected to the generation system whose sole purpose is to collect the waste heat produced by the power plant. For example, a heat exchanger or heat recovery boiler (a.k.a., heat recovery steam generator, or HRSG) used to capture heat from a gas turbine is an eligible cost
 13. Heat recovery piping and controls necessary to interconnect the generating equipment to either the Primary Heat Recovery Equipment or the heat recovery piping and controls within the space primarily occupied by the generator partitioned by a fence or wall, whichever cost is less. If there is no identifiable Primary Heat Recovery Equipment and no identifiable space primarily occupied by the generator, eligible heat recovery piping and control costs shall be limited to the generator skid.
 14. Level 2 Projects (except wind turbines) may claim the cost associated with securing a bond to certify use of Renewable Fuel, described in the SGIP Contract, as eligible costs.
 15. For Level 2 technologies (except wind turbines), the cost of equipment to remove moisture and other undesirable constituents from Renewable Fuels that would damage the generation equipment. Such equipment includes but is not limited to “gas skids”, dryers/moisture removal and siloxane removal towers.
 16. Cost of capital included in the system price by the vendor, contractor or subcontractor (the entity that sells the system) is eligible if paid by the System Owner.

Appendix C - SGIP CONTRACT

Self-Generation Incentive Program
Program Administrator
ENTER PA ADDRESS HERE

SELF-GENERATION INCENTIVE PROGRAM CONTRACT

BETWEEN **PROGRAM ADMINISTRATOR, HOST CUSTOMER, AND SYSTEM OWNER**

This Contract is made by and between Host Customer, organized and existing under California law, jointly and severally with System Owner, organized and existing under California law, and Program Administrator, a California corporation. If a separate System Owner is not designated, the Host Customer will be the designated System Owner for the purpose of this Contract. Capitalized terms not defined herein are given the same meaning as that provided in Appendix B hereto, the Self-Generation Incentive Program Handbook.

1.0 PROJECT DESCRIPTION - This Contract is limited to the Project described on the submitted Reservation Request Form and attached hereto as Appendix A. If all Program and Contract terms and conditions are complied with, Program Administrator will pay an incentive to the party designated in the submitted Incentive Claim Form attached hereto as Appendix D. Program Administrator reserves the right to modify or cancel the incentive offer if the actual installation of Self-Generation (SG) Unit(s) differs from the proposed installation described in Appendix A. SG Unit(s) must also be installed by the date shown on the Incentive Claim Form to be issued by Program Administrator after all required Proof of Project Milestone items are submitted.

2.0 DOCUMENTS INCORPORATED BY REFERENCE - The following documents set forth additional terms, conditions and requirements of this Contract:

Appendix A – Self-Generation Incentive Program “Reservation Request Form”

Appendix B – Self-Generation Incentive Program Handbook, Revision 0 dated January 1, 2008, or as subsequently amended.

Appendix C – Renewable Fuel Affidavit (if applicable)

Host Customer and System Owner each acknowledge having received and read, and agree to be bound by Appendices A, B, and C, copies of which were previously provided or are available to Host Customer and System Owner, and the terms of which are incorporated herein by reference as though set forth in full. Should a conflict exist between this Contract and these Appendices, this Contract shall control.

3.0 OTHER PROGRAM DOCUMENTS – The following forms set forth additional terms, conditions, and requirements of the Program:

Appendix D – Self-Generation Incentive Program “Incentive Claim Form”

Appendix E – “Final Project Cost Affidavit” form

Host Customer and System Owner each acknowledge having received copies of these forms, and that these forms, when completed, set forth additional Program terms and requirements. Host Customer and System Owner further acknowledge that Appendices D and E contain certifications by Host Customer and System Owner, which certifications shall be true, accurate, and complete.

4.0 SUBMITTAL REQUIREMENTS FOR PAYMENT - As a condition of payment, the Host Customer or System Owner shall submit to Program Administrator, within the deadlines established by Program Administrator, the documents described in Appendix B, Section 4. Each document requires

review and Program Administrator's written approval before Host Customer and System Owner may move on to the next stage of the application process.

4.1 **Reserving an Incentive** - Appendix A or Reservation Request Form ("RRF") describes the Project, lists the SG Unit(s) that will be installed in the Project, and estimates its size (system rated capacity according to Appendix B Section 2.5.4) and its costs (including interconnection fees and in some cases warranty costs). When Host Customer or System Owner submits the RRF to Program Administrator, it shall include the applicable items listed in Appendix B, Section 4.3.2, Program Administrator will review the RRF and, if the Project appears to meet eligibility requirements, Program Administrator will make a conditional reservation of funds for the Project and will send Host Customer and System Owner a Conditional Reservation Notice Letter, the description of which is provided in Appendix B, Section 4.3.8.

4.2 **Proof of Project Milestone** - Within the prescribed number of days, as defined in Appendix B, Section 4.4, of the date on the Conditional Reservation Notice Letter, Host Customer or System Owner must submit the applicable Proof of Project Milestone ("PPM") items listed in Appendix B, Section 4.4.1, to demonstrate to Program Administrator that the Project is progressing and that there is a substantial commitment to complete the Project.

After Program Administrator reviews the PPM items and determines that the Project has met all the necessary criteria, Program Administrator will send Host Customer and System Owner the Incentive Claim Form ("ICF"). This ICF will list the specific reservation amount and the reservation expiration date.

4.3 **Incentive Claim** - Upon Project completion and prior to the reservation expiration date, Host Customer and System Owner must complete and submit the ICF to request an incentive payment. In addition to the completed ICF, the Host Customer or System Owner must submit the applicable items listed in Appendix B Section 4.5.2.

5.0 FIELD VERIFICATION BY INSPECTION- After complete, proper installation of the SG Unit(s) and submittal of the applicable items listed in Appendix B Section 4, the Program Administrator or its authorized agent will schedule and complete a **Field Verification Visit** to verify that the SG Unit(s) have been installed and are operating in accordance with the RRF, ICF and required accompanying information. During the Field Verification Visit, Host Customer and System Owner must provide access to the SG Unit(s) and must demonstrate the operation of the SG Unit(s). During the Field Verification Visit, Host Customer and System Owner must ensure that someone is present for an interview that is knowledgeable about the SG Unit(s) and their operation, and must allow photographs of the SG Unit(s) and its related systems to be taken. No incentive payment can be made until the final Field Verification Visit report has been satisfactorily completed.

6.0 MEASUREMENT & EVALUATION (M&E) ACTIVITIES - As a condition of receiving incentive payments, Host Customer and System Owner must ensure that Program Administrator or its authorized agent and the Program M&E consultant have access to the Project Site(s) for all Field M&E Visits and M&E data collection activities summarized below and described in detail in Appendix B, Section 5.2.

6.1 The Host Customer and System Owner agree to participate in M&E activities as discussed in Appendix B, Section 5.2. For systems with Host Customer, System Owner, and/or third party installed monitoring equipment; the Host Customer and System Owner agree to provide system monitoring data (including but not limited to electric, gas, thermal and/or other relevant fuel input data) to the M&E consultant. Furthermore, the Host Customer and System Owner agree to cooperate with the installation of any additional monitoring equipment that the M&E consultant may deem necessary in its sole discretion.

6.2 Host Customer and System Owner agree to allow the Program Administrator or its Measurement & Evaluation contractor access to the Host Customer's Site to develop and implement a Measurement and Evaluation Plan for the SG Unit(s) and its related systems in support of Measurement

and Evaluation activities discussed in Appendix B, Section 5.2. The same terms and conditions specified for Field Verification Visits in Section 5.0 will apply to such field Measurement and Evaluation Visits.

7.0 PAYMENT - The incentive payment check will be made payable to the entity designated in writing by System Owner and Host Customer on the ICF only after the appropriate documents have been submitted (within the deadlines established by Program Administrator) and approved, and the Field Verification Visit report has been satisfactorily completed, in accordance with the Program rules set forth in Appendix B. Program Administrator's determination of the incentive amount is final and the System Owner and Host Customer each agree to accept this determination. The incentive payment constitutes final and complete payment.

7.1 System Owner and Host Customer may designate in writing a third party to whom Program Administrator shall make the approved incentive payment.

8.0 REVIEW AND DISCLAIMER - Program Administrator's review of the design, construction, installation, operation or maintenance of the Project or the SG Unit(s) is not a representation as to their economic or technical feasibility, operational capability, or reliability. System Owner and Host Customer each agrees that neither of them will make any such representation to any third party. System Owner and Host Customer are solely responsible for the economic and technical feasibility, operational capability, and reliability of the Project and the SG Unit(s).

9.0 RENEWABLE FUEL LEVELS - For fuel cells running on renewable fuel, System Owner and Host Customer shall not, for five years or the life of the applicable SG Unit, whichever is shorter, use non-renewable fuel for more than 25% of its total annual fuel requirements for such SG Unit(s) in any calendar year.

9.1 In the event the System Owner or Host Customer fails to comply with Section 9.0 above, then System Owner and/or Host Customer shall, within 30 days of receipt of a written demand from Program Administrator, reimburse Program Administrator all incentive payments paid by Program Administrator pursuant to the Program and this Contract. Such reimbursement shall be in the form of a certified check or cash payable to Program Administrator.

9.2 In order to ensure payment in the event the System Owner or Host Customer fails to reimburse Program Administrator pursuant to Section 9.1 above, the Program Administrator may, in its sole discretion, require a bond or other forms of security acceptable to Program Administrator. Acceptable forms of security include cash deposit, irrevocable letter of credit, surety bond from an "A" rated company by A.M. Best, assignment of certificate of deposit, or corporate guarantee (guarantor subject to creditworthiness review).

10.0 WASTE GAS FUEL PROJECTS - For fuel cells projects running on waste gas fuel, System Owner and Host Customer shall, for the applicable five year warranty period or the life of the applicable SG Unit, whichever is shorter, operate the applicable SG Unit solely on waste gas, *i.e.*, the total annual fuel requirements for such SG Unit in any calendar year shall be 100% met by waste gas.

10.1 In the event the System Owner or Host Customer fails to comply with Section 10.0 above and Section 10.0 applies to Applicant or Host Customer's project, then System Owner and/or Host Customer shall, within 30 days of receipt of a written demand from Program Administrator, reimburse Program Administrator all incentive payments paid by Program Administrator pursuant to the Program and this Contract. Such reimbursement shall be in the form of a certified check or cash payable to Program Administrator.

10.2 In order to ensure payment in the event the System Owner or Host Customer fails to reimburse Program Administrator pursuant to Section 10.1 above, the Program Administrator may, in its sole discretion, require a bond or other forms of security acceptable to Program Administrator. Acceptable forms of security include cash deposit, irrevocable letter of credit, surety bond from an "A" rated company

by A.M. Best, assignment of certificate of deposit, or corporate guarantee (guarantor subject to creditworthiness review).

11.0 TERMS AND TERMINATION

11.1 The Term of this Contract shall begin on the date that the last party signs the RRF, and shall terminate no later than twice the length of the required warranty; which for wind turbine and fuel cell systems is ten years; unless terminated earlier pursuant to the operation of this Contract, or unless modified by order of the CPUC or by written agreement of the parties.

11.2 The Contract may be terminated by Program Administrator in the event (a) System Owner or Host Customer fails to perform a material obligation under this Contract and System Owner or Host Customer fails to cure such default within 15 days of receipt of written notice from Program Administrator of such failure to perform a material obligation, or (b) any statement, representation or warranty made by System Owner or Host Customer in connection with the Program or this Contract is false, misleading or inaccurate on the date as of which it is made.

11.3 The termination of this Contract shall not operate to discharge any liability, which has been incurred by either party prior to the effective date of such termination.

12.0 PERMANENT INSTALLATION - Equipment installed under this Program is intended to be in place for the duration of its useful life. Only permanently installed systems are eligible for incentives. This means that the System Owner and/or Host Customer must demonstrate to the satisfaction of the Program Administrator that the SG Unit(s) has both physical and contractual permanence prior to Program Administrator's paying any incentive.

Physical permanence is to be demonstrated by the SG Unit(s)' electrical, thermal and fuel connections in accordance with industry practice for permanently installed equipment and its secure physical attachment to a permanent surface (e.g. foundation). Any indication of portability, including but not limited to: temporary structures, quick disconnects, unsecured equipment, wheels, carrying handles, dolly, trailer or platform will render the SG Unit(s) ineligible for incentives.

Contractual permanence, corresponding to a minimum of twice the applicable warranty period, is to be demonstrated as follows:

- ❖ System Owner agrees to notify the Program Administrator in writing a minimum of sixty (60) days prior to any change in either the Site location of the SG Unit(s), or change in ownership of the SG Unit(s).
- ❖ An additional agreement between the System Owner and the Program Administrator may be required at the Program Administrator's sole discretion in order to safeguard against the possibility of early removal and relocation of the generation system. This additional agreement, if required, must be negotiated to the satisfaction of the Program Administrator.

13.0 OTHER AGREEMENTS - All agreements involving the Project including, but not limited to, sales agreements, warranties, leases, energy service agreements, agreements for the sale of trade of RECs, and/or energy savings guarantees, must be disclosed and provided to the Program Administrator as soon as they are available and in no event later than submission of the ICF.

14.0 ASSIGNMENT- System Owner and Host Customer consent to Program Administrator's assignment of all of Program Administrator's rights, duties and obligations under this Contract to the CPUC and/or its designee. Any such assignment shall relieve Program Administrator of all rights, duties and obligations arising under this Contract. Neither System Owner nor Host Customer shall assign its rights or delegate its duties without the prior written consent of Program Administrator or its assignee, if any, except in connection with the sale or merger of a substantial portion of its assets. Any such assignment or delegation without the prior written consent of Program Administrator or its assignee, if any, shall be null and void. Consent to assignment shall not be unreasonably withheld or delayed.

System Owner and Host Customer must provide assurance of the success of a Project if assigned by providing any additional information requested by Program Administrator.

15.0 PERMITS AND LICENSES – System Owner and/or Host Customer, at their own expense, shall obtain and maintain all licenses and permits needed to successfully perform work on the Project.

16.0 ADVERTISING, MARKETING AND USE OF PROGRAM ADMINISTRATOR'S NAME – System Owner and Host Customer shall not use Program Administrator's corporate name, trademark, trade name, logo, identity or any affiliation for any reason, including soliciting persons to participate in the Project, without the prior written consent of Program Administrator. System Owner and Host Customer shall make no representations on behalf of Program Administrator.

17.0 INDEPENDENT CONTRACTOR - In assuming and performing the obligations of this Contract, System Owner and Host Customer are each an independent contractor and neither shall be eligible for any benefits which Program Administrator may provide its employees. All persons, if any, hired by System Owner and/or Host Customer shall be their respective employees, subcontractors, or independent contractors and shall not be considered employees or agents of Program Administrator.

18.0 INDEMNIFICATION

18.1 To the greatest extent permitted by applicable law, System Owner and Host Customer shall each indemnify, defend and hold harmless Program Administrator, its affiliates, subsidiaries, current and future parent company, officers, directors, agents and employees, from and against all claims, demands, losses, damages, costs, expenses, and liability (legal, contractual, or otherwise), which arise from or are in any way connected with any: (i) injury to or death of persons, including but not limited to employees of Program Administrator, Host Customer, System Owner, or any third party; (ii) injury to property or other interests of Program Administrator, Host Customer, System Owner, or any third party; (iii) violation of local, state or federal common law, statute, or regulation, including but not limited to environmental laws or regulations; or (iv) strict liability imposed by any law or regulation; so long as such injury, violation, or strict liability (as set forth in (i) - (iv) above) arises from or is in any way connected with this Contract or System Owner's or Host Customer's performance of, or failure to perform, this Contract, however caused, regardless of any strict liability or negligence of Program Administrator whether active or passive, excepting only such loss, damage, cost, expense, liability, strict liability, or violation of law or regulation that is caused by the willful misconduct of Program Administrator, its officers, managers, or employees.

18.2 System Owner and Host Customer each acknowledges that any claims, demands, losses, damages, costs, expenses, and legal liability that arise out of, result from, or are in any way connected with the release or spill of any hazardous material or waste as a result of the work performed under this Contract are expressly within the scope of this indemnity, and that the costs, expenses, and legal liability for environmental investigations, monitoring, containment, abatement, removal, repair, cleanup, restoration, remedial work, penalties, and fines arising from strict liability, or violation of any local, state, or federal law or regulation, attorney's fees, disbursements, and other response costs incurred as a result of such releases or spills are expressly within the scope of this indemnity.

18.3 System Owner and Host Customer each shall, on Program Administrator's request, defend any action, claim or suit asserting a claim which might be covered by this indemnity. System Owner and Host Customer shall pay all costs and expenses that may be incurred by Program Administrator in enforcing this indemnity, including reasonable attorney's fees. This indemnity shall survive the termination of this Contract for any reason.

19.0 LIMITATION OF LIABILITY - Program Administrator shall not be liable to System Owner, Host Customer or to any of their respective subcontractors for any special, incidental, indirect or consequential damages whatsoever, including, without limitation, loss of profits or commitments, whether in contract, warranty, indemnity, tort (including negligence), strict liability or otherwise arising from Program Administrator's performance or nonperformance of its obligations under the Contract.

20.0 **VENUE** - This Contract shall be interpreted and enforced according to the laws of the State of California. Sole jurisdiction and venue shall be with the courts in Los Angeles County, California.

21.0 **INTEGRATION AND MODIFICATION** - This Contract and its appendices constitute the entire Contract and understanding between the Parties as to its subject matter. It supersedes all prior or contemporaneous contracts, commitments, representations, writings, and discussions between System Owner, Host Customer, and Program Administrator, whether oral or written, and has been induced by no representations, statements or contracts other than those expressed herein.

NO AMENDMENT, MODIFICATION OR CHANGE TO THIS CONTRACT SHALL BE BINDING OR EFFECTIVE UNLESS EXPRESSLY SET FORTH IN WRITING AND SIGNED BY PROGRAM ADMINISTRATOR'S REPRESENTATIVE AUTHORIZED TO SIGN THE CONTRACT.

Notwithstanding the foregoing, this Contract is subject to such changes or modifications by the CPUC as it may, from time to time, direct in the exercise of its jurisdiction over Program Administrator. Furthermore, this Contract is subject to change or modification by the Program Working Group, as it may from time to time make to the Program in the exercise of its jurisdiction over the implementation of the Program. For purposes of this Contract, the "Program Working Group" shall constitute certain staff of each California investor-owned utility, the California Center for Sustainable Energy, California Energy Commission and the Energy Division of the CPUC.

25.0 **NO THIRD PARTY BENEFICIARIES** - This Contract is not intended to confer any rights or remedies upon any other persons other than the undersigned parties hereto.

By execution of this Contract, System Owner and Host Customer each certifies the Project meets all Program eligibility requirements, and that the information supplied in Appendix A is true and correct. System Owner and Host Customer further certify that System Owner and Host Customer have read and understand the Self-Generation Incentive Program documents described in Appendix B and agree to abide by the rules and requirements set forth in this Contract and in Appendices A, B, C, and D as applicable.

System Owner and Host Customer each declare under penalty of perjury under the laws of the State of California that 1) the information provided in the RRF is true and correct to the best of my/our knowledge, 2) they have each read the Host Customer and System Owner Agreement set forth in Appendix A and agree to terms therein; 3) SG Unit(s) described in the RRF are new and intended to offset part or all of the Host Customer's electrical needs at the Site of installation, 4) the Site of installation is located within the Program Administrator's service territory, 5) the SG Unit(s) are not intended to be used solely as a backup generator, and 6) the Host Customer and the System Owner each has received a copy of this Contract and the completed RRF.

In witness whereof, the parties have executed this Contract by executing the RRF as of the latest date on the RRF.

All communications under this Contract shall be forwarded directly to:

Self-Generation Incentive Program
Program Administrator
Pacific Gas & Electric (PG&E)
Mailing Address: P.O. Box 7433
San Francisco, Ca 94120

Overnight Mailing Address: 245 Market Street
Mail Code N7R

San Francisco, CA 94105-1797

INDEX

Advanced Energy Storage, i, iii, 3, 7, 8, 9, 10, 12, 16, 23, 24, 25, 28, 34, 36, 41, 47, 59, 8-71

Applicant, i, 4, 5, 6, 11, 39, 40, 45, 49, 52, 59, 8-66

Application Fee, 18, 59

Assignment, ii, 33

Backup Generators, 16, 60

budgets, 23

building inspection, 49

California Solar Initiative, 1, 2, 7, 15

California Supplier, ii, 24, 25, 59, 60

CCSE, 1, 2, 60, 65

CEC, 1, 2, 26, 38, 60

Certifications, i, 8

Conditional Reservation, ii, 9, 11, 18, 33, 39, 40, 42, 45, 59

Contract, 5, 6, 34, 36, 38, 41, 42, 43, 48, 50, 57, 58, 9-74

CPUC, 2, 1, 2, 3, 7, 23, 55, 56, 57, 59, 60

Directed Biogas, 2, ii, iii, 19, 20, 21, 25, 35, 36, 37, 38, 41, 42, 47, 48, 52, 60

dispute, 57

Electric Output, 13

fraud, 7

Fuel cells, 7

Fuel Consumption, 14, 35, 38, 8-66

Host Customer, 2, i, 5, 6, 8, 10, 11, 15, 17, 18, 21, 25, 33, 34, 36, 37, 38, 39, 40, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 54, 56, 57, 59, 60, 61, 62, 63, 8-66, 8-69, 8-70

Hybrid System, ii, iv, 8, 28, 8-72

Incentive Claim, iii, 6, 12, 17, 18, 27, 33, 40, 41, 46, 47, 48, 50, 51, 52, 56

incentive levels, 7, 23, 29, 33, 34

incentives from other sources, 22

Interconnect, 47, 48, 54

Interconnection, i, iii, 10, 17, 54, 9-73

load forecast, 11, 13, 49

maximum eligible system size, 9

maximum incentive, 9

minimum operating efficiency, 7, 12, 37, 44, 49, 8-67, 8-68

Minimum Operating Efficiency, 2, i, 12, 15, 35, 37, 41, 44, 47, 49, 8-66, 8-67, 8-68, 8-69

minimum system size, 9

New Equipment, ii, 18

Non-Public Entities, 40

Non-Renewable fuels, 21

Other Incentives, ii, 25, 26, 27

Payment, iii, 52

permanence, 17

PG&E, 1, 5, 26, 36, 54, 61, 62, 65

PMG, 3, 18

PMR, 3, 4

Program Administrators, 1, 3, 7, 11, 14, 15, 21, 23, 26, 29, 38, 52, 61, 65

Program Modification Guidelines, 3

Program Modification Requests, 3

Proof of Project Milestone, ii, iii, 8, 16, 17, 33, 38, 40, 41, 42, 45, 46, 62

proof-of-concept, 18

Public Entities, 29, 30, 31, 33, 40, 41, 42, 45

rated capacity, 7, 9, 10, 14, 15, 20, 23, 27, 36, 59, 8-66

Renewable Fuel, 2, i, ii, iii, 7, 8, 9, 10, 11, 12, 16, 19, 20, 21, 27, 34, 35, 36, 37, 38, 41, 42, 43, 44, 47, 48, 49, 50, 51, 52, 61, 62, 8-70, 9-74

Replacement Generation, i, 15

research and development, 18

Reservation Request, ii, 5, 6, 10, 11, 18, 27, 28,
33, 34, 36, 38, 39, 40, 44, 45, 50, 53, 59, 62

SCE, 1, 5, 26, 36, 55, 61, 63, 65

SDG&E, 1, 5, 36, 55, 61, 63

SoCalGas, 1, 5, 26, 36, 55, 61, 63, 65

System capacity, 9

System Owner, i, 5, 6, 10, 16, 17, 18, 26, 33, 34,
36, 38, 42, 44, 45, 46, 48, 49, 50, 51, 52, 54,
56, 57, 59, 60, 63, 8-70, 9-74

Thermal Load, 13, 14, 63, 8-66, 8-68

Thermal Output, 13, 14

Thermal System, 13

Warranty, i, 16, 9-73

Waste Gas fuels, 22

waste heat utilization, 2, 12, 13, 14, 28, 37, 44,
49

Wind turbine, 7, 9