California Energy Commission

Guidebook

EMERGING RENEWABLES PROGRAM DRAFT GUIDEBOOK

Eleventh Edition

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ENERGY COMMISSION

Edmund G. Brown, Jr., Governor

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ABSTRACT

The Emerging Renewables Program provides rebates and production incentives to end-use consumers who purchase and install renewable energy technologies, specifically small wind systems and fuel cells, for on-site generation. Payments from the Emerging Renewables Program are intended to reduce the net cost of generating equipment using emerging renewable technologies and thereby stimulate substantial sales of such systems. Increased sales of generating equipment are expected to encourage manufacturers, sellers, and installers to expand their operations and reduce their costs per unit.

Along with expanding the sales of emerging renewable technology systems, another goal of the Emerging Renewables Program is to encourage the siting of small, reliable distributed generating systems throughout California in locations where the produced electricity is both needed and consumed.

This Guidebook describes the rules and process for applying and claiming a rebate under the Emerging Renewables Program. This Guidebook also contains copies of all the forms necessary for the rebate process.

Keywords: emerging, renewable, program, ERP, California Energy Commission, small wind, fuel cell, rebate, incentive, electricity production, distributed generation, guidelines, ~~eligibility~~and eligibility.

What's New in This Guidebook?

Below are the major changes to this Eleventh edition of the *Emerging Renewables Program Guidebook* as compared to the April 2010 edition of the *Emerging Renewables Program Guidebook*.

- The rebate level of $3/watt for the first 10 kilowatts will be extended for 120 days from the date the Eleventh edition of this Guidebook is adopted
- Rebates shall not exceed 50 percent of the net purchase price of the system (before ERP incentives)
- Small wind turbines shall no longer receive listing on the list of eligible small wind turbines for the ERP by providing 12 consecutive months of performance data
- Small wind turbines are required to receive third-party certification in order to receive listing on the list of eligible small wind turbines for the ERP
- Small wind turbines currently listed on the Energy Commission's list of eligible equipment for the ERP shall provide a third party-certified power curve in order to remain on the list of eligible equipment
- The rating of small wind turbines shall be standardized at 11 meter per second (24.6 miles per hour) for purposes of determining program incentives
- Additional criteria for removing equipment from the list of eligible equipment has been added

I. Introduction

This *Emerging Renewables Program Guidebook* is one of several guidebooks the California Energy Commission (Energy Commission) has adopted to implement the Renewable Energy Program pursuant to Senate Bill 1038[1], Senate Bill 183[2], Senate Bill 1250[3], and Senate Bill 107.[4] It describes the requirements for receiving funding for the installation and operation of non-solar renewable energy systems under the Emerging Renewables Program (ERP) element of the Renewable Energy Program.

The Energy Commission has adopted additional guidebooks to address the requirements for the other elements of the Renewable Energy Program and guidelines governing the overall administration of the Renewable Energy Program. The *Overall Program Guidebook* describes how the Renewable Energy Program will be administered and includes information and requirements that apply to all program elements of the Renewable Energy Program.

Applicants requesting funding under the Emerging Renewables Program must satisfy the requirements contained in both the *Overall Program Guidebook* and this *Emerging Renewables Program Guidebook*. This guidebook replaces the previous guidebook governing the Emerging Renewables Program (*the Emerging Renewables Program Guidebook, ~~Ninth~~ Tenth Edition*). Applications for funding approved under the previous program guidebook remain governed by the previous guidebook until the projects are completed, expired, or cancelled.

Funding for the installation and operation of solar photovoltaic systems on new residential construction is available under the Energy Commission's *New Solar Homes Partnership*. Funding for the installation and operation of solar photovoltaic systems on existing residential and new and existing non-residential buildings is available under the California Public Utilities Commission's *California Solar Initiative*. Information on these two programs can be found at [www.gosolarcalifornia.org].

A. Purpose

The ERP was created to help develop a self-sustaining market for renewable energy systems that supply on-site electricity needs across California. Through this program, the Energy Commission provides funding to offset the cost of purchasing and installing new renewable energy systems using emerging renewable technologies.

The goal of the ERP is to reduce the net cost of on-site renewable energy systems to end-use consumers, and thereby stimulate demand and increased sales of such systems. Increased sales are expected to encourage manufacturers, sellers, and installers to expand operations, improve distribution, and reduce system costs.

Funding for the Renewable Energy Program is collected from the ratepayers of four investor-owned utilities in California to support existing, new, and emerging renewable electricity

[1] Stats. 2002, Ch. 515, §§ 15 & 16, as codified in Public Utilities Code §§ 383.5 and 445.
[2] Stats. 2003, Ch. 666, §§ 1 & 2, as codified in Public Resources Code §§ 25401.6, and 25740 – 25751.
[3] Stats, 2006, Ch. 512, §§ 9-14, as codified in Public Resources Code §§ 25740.5 – 25747.
[4] Stats, 2006, Ch. 464, §§ 7 & 9, as codified in Public Resources Code §§ 25744.5 and 25746.

generation technologies. For more information about the Renewable Energy Program, please visit the Energy Commission's website at [www.energy.ca.gov/renewables].

For consumer tips on purchasing a renewable energy system to supply on-site electricity needs please refer to Appendix 2 of this guidebook. Also see *Buying a Small Wind Electric System, February 2002* for further information. This and other documents are available on the Energy Commission's website at [www.consumerenergycenter.org].

B. Overview

The ERP provides electricity consumers with a financial incentive to install renewable energy systems on their property. The financial incentive varies based on system size, technology, and type of installation and is paid once the system is installed and operational. The consumer must apply to the Energy Commission for funding using the protocols in this guidebook.

To qualify for an incentive, both the consumer and the renewable energy system must satisfy a number of requirements. The consumer must receive electricity distribution service at the site of installation from an existing in-state electrical corporation contributing funds to support the program. These electrical corporations are Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E), and Golden State Water Company (doing business as Bear Valley Electric Service (BVES)).

The renewable energy system must utilize one of two emerging renewable technologies: fuel cells using renewable fuels or small wind turbines.[5] The system must also use new components that are certified ~~or tested to be reliable~~ and come with a five-year warranty. In addition, the renewable energy system must generate electricity to offset the consumer's on-site electrical load. Lastly, the system must be interconnected to the utility distribution grid, unless the system is a fuel cell system used for backup generation for emergency, safety, or telecommunication purposes.

A "backup generation system" is defined as a generation system that is designed to serve as a backup in the event of a temporary failure or interruption in the flow of power from the primary electricity source or utility distribution grid.

In most cases, an applicant submits a Reservation Request Form (CEC-1038 R1) and supporting documentation to reserve a fixed amount of program funds. For fuel cell systems, a CEC-1038 R1-A form is also required to verify the eligibility and use of renewable fuel. Once the Reservation Request Form is reviewed and approved, the Energy Commission sends the applicant a Payment Claim Form (CEC-1038 R2) that identifies the amount of funds reserved and the date upon which the reservation expires. The applicant then proceeds to install an eligible system. When the system is completed and operational, the applicant then submits the Payment Claim Form and supporting documentation to the Energy Commission. If the applicant installs an eligible system, meets all program requirements, and submits a completed Payment Claim Form, with supporting documentation prior to the expiration date of the

[5] Rebates are available for systems less than 30 kilowatts in size (wind systems up to 50 kilowatts in size may participate, but the rebates for such systems are limited to less than 30 kilowatts).

reservation, the Energy Commission reviews the amount reserved and the incentive the applicant is eligible to receive and makes the appropriate payment.

~~For forms~~Forms are available in Appendix 1 of this Guidebook. For ~~or~~ additional information, contact the Energy Commission's Call Center at: (800) 555-7794 or go to [www.consumerenergycenter.org/erprebate/forms.html].

II. Program Eligibility Requirements

Effective January 1, 2007, two technologies are eligible for ERP funding:~~.~~ ~~They are the following:~~

1. Small Wind Turbines - small electricity-producing, wind-driven generating systems with a rated electrical generating capacity no greater than 50 kilowatts;

2. Fuel Cells - technologies that generate electricity through an electrochemical reaction using a renewable fuel, with a generating capacity not greater than 30 kilowatts~~W~~. For purposes of fuel cell eligibility, "renewable fuel" is limited to the following:

> a) Landfill gas, digester gas, and other gases that meet the definition of an "eligible renewable energy resource" as defined in Public Utilities Code section 399.12(c) with reference to Public Resources Code section 25741(b).
>
> b) Hydrogen or hydrogen rich gases derived from a non-fossil fuel or feedstock through the use of power generated by an "eligible renewable energy resource."[6]

In addition, fuel cell technologies must meet additional eligibility requirements of Public Resources Code section 25744(b)(3) which identifies "fuel cell technologies with an emission profile equivalent or better than the State Air Resources Board 2007 standard."

Systems that use the above technologies must satisfy the following eligibility criteria as explained in this chapter. Other technologies may be added to this category if they meet the criteria identified in Appendix 3 to the Energy Commission's satisfaction.

A. System Ownership

Eligible renewable energy systems may not be owned by an electrical corporation as defined in Public Utilities Code section 218, or by a local publicly owned electric utility as defined in Public Utilities Code section 224.3.

B. System Location

The renewable energy system and eligible renewable energy resource must be located on the same site where the customer's own electricity demand is located. To meet this requirement a fuel cell system and its renewable fuel storage tank must be installed at the site where the

[6] An example of a renewable fuel is hydrogen derived from water through an electrolysis process energized with electricity generated by a solar photovoltaic system. In this example, the hydrogen is derived from water (a non-fossil fuel or feedstock) through a process energized with electricity from an eligible renewable energy resource (a solar photovoltaic system). The electricity used to energize the process must be bundled with the associated renewable attributes, so that renewable energy is used to produce the hydrogen. If the renewable attributes are unbundled from the electricity and disposed of separately, the hydrogen will be produced with null power and will not be considered a renewable fuel for purposes of fuel cell eligibility under the ERP.

customer's own electricity demand is located. However, the renewable fuel may be produced at another location and transported to the customer's site.

C. Grid Interconnection

The renewable energy system must be permanently interconnected to the electrical distribution grid of the utility serving the customer's electrical load for the duration of the equipment's expected life. This requirement does not apply to fuel cell systems used for backup generation for emergency, safety, or telecommunication purposes.

Portable systems are not eligible. The site where the system is installed must receive electrical distribution service from PG&E, SCE, SDG&E, or BVE. The system's interconnection to the electricity distribution system must also comply with applicable electrical codes and utility interconnection requirements.

D. System Components

The major system components must be certified or approved as described in Appendix 3 and listed by the Energy Commission in its lists of eligible equipment for the Emerging Renewables Program. The Energy Commission will only list equipment that is eligible to participate in the Emerging Renewables Program. Fuel cells with a generating capacity greater than 30 kilowatts and small wind turbines with a generating capacity greater than 50 kilowatts will not be listed, because fuel cell and wind turbine systems exceeding these capacities are not eligible for program funding. Rebuilt or refurbished equipment components will not be listed, because equipment must be new and unused and not previously placed in service to be eligible for program funding.

The ~~Approved major components are on the~~ Energy Commission's lists of eligible equipment ~~and~~ are available at [www.consumerenergycenter.org/erprebate/equipment].

The applicant should confirm that the components purchased for a system are eligible when applying for ERP funding. New equipment may be added to the lists of eligible equipment from time to time and existing equipment removed as specified in Appendix 3. Energy Commission staff will confirm that equipment identified in a reservation application meets eligibility requirements prior to an application being approved. However, if the applicant begins or completes the installation before the Energy Commission has approved the reservation, equipment lists may have changed, and significant and costly changes may be needed for the system to comply with the eligibility criteria.

E. New Equipment

All major system components (requiring certification under ~~per~~ section D~~C~~) must be new and unused and must not have been previously placed in service in any other location or for any other application. Equipment purchased or installed more than 18 months before applying for a reservation is not eligible.

F. System Sized to Offset On-site Electricity Load

For all eligible systems, regardless of technology, the system must be sized so that the amount of electricity produced by the system primarily offsets part or all of the customer's electrical needs at the site of installation. The expected production of electricity by the system may not be more than the historical or expected electrical needs of the electricity consumer at the site of installation. See Appendix 4 for further details on how to determine the maximum allowed system size.

G. System Installation

All systems, if installed under contract, 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 a C-10 license.

Systems may also be self-installed by the purchaser (owner). While such installations are eligible for funding without the licensing requirements listed, they will be eligible only for a lesser rebate as described in Chapter III.

In all cases, systems must be installed in conformance with the manufacturer's specifications and with all applicable electrical and building codes and standards.[7]

H. Five-Year Warranty Requirements

All systems must have a minimum five-year warranty to protect the purchaser against system or component breakdown. The warranty must cover, and provide for no-cost, repair or replacement of the system or system components including any associated labor for five years. The warranty must also cover the major components of the generating system against breakdown or degradation in electrical output of more than 10 percent from their originally rated electrical output during the five-year period. Major components are defined as wind turbine generators, fuel cell reformers and fuel cells, fuel processing and storage systems, and inverters. The warranty may be provided in combination by the manufacturer and installer.

Self-installed systems must have a minimum five-year warranty to protect the purchaser against breakdown or electrical output degradation of major system components. In this case, the warranty need not cover the labor costs associated with removing or replacing major components, because any repairs would be done by the self-installer or at the self-installer's expense.

I. System Performance Meter

All systems must be installed with a performance meter[8] so that the customer can determine the

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[7] For information on restrictions placed on owner-builders or self-installers, contact the Contractors State License Board at (800) 321-CSLB to obtain a current edition of the *Contractor's License Law and Handbook*.

amount of energy produced by the system. The meter must be listed with the Energy Commission and measure the total energy produced by the system in kilowatt hours (or watt hours) and have a manufacturer's uncertainty specification of ±5 percent. The meter must retain the kilowatt-hour production data in the event of a power outage and must provide a display of system output that the customer can easily view and understand. A system need not include a separate meter if the system is installed with an inverter that contains internal metering and display equipment that meets the meter requirements above. The meter requirement also applies to system additions if the existing system does not include a performance meter. A list of eligible performance meters and inverters that have built-in meters is available at [www.consumerenergycenter.org/erprebate/equipment.html].

J. Equipment Sellers/Installers

To participate in the ERP, companies that sell and/or install system equipment must be self-registered on the Energy Commission's Contractors, Installers, and Sellers Database. Equipment sellers/installers should have the following information available prior to self-registration:

1. Business name, address, phone, fax, and e-mail address
2. Owner or principal contact
3. Business license number
4. Contractor license number (if applicable)
5. Proof of good standing on the records with the California Secretary of State, as required for corporate and limited liability entities
6. Reseller's license number

This information must be submitted to the Energy Commission through the self-registration process before a company can become eligible to participate in the ERP. Contractors, sellers, and installers are responsible for maintaining their listing to reflect the most current information for their company.~~To remain eligible, this information must be resubmitted annually by March 31.~~

Self-registration ~~can~~ must be done on-line at: http://gosolarcalifornia.ca.gov/database/addcompany.php.

Sellers, contractors, or installers that are listed in the online Database should maintain their information on a regular basis. This can be done using the log-on account name and password provided when the company has registered. Updates can be done online at:

http://www.gosolarcalifornia.ca.gov/database/updates.php

The Energy Commission will send out emails periodically to remind companies to update their online information, contacts, and other data.

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[8] A performance meter is a device which measures and displays the energy output of the renewable energy system.

It is the responsibility of each company to maintain its online information. If the Energy Commission's e-mails are returned as undeliverable, and the Energy Commission cannot reach that company by phone or by regular U.S. mail, the Energy Commission reserves the right to remove the company from the online database after a three-month period.

The above information must be on file with the Energy Commission before the applicant can receive any reservation confirmation or payment. The Energy Commission will compile the information and make it available to consumers to assist them in making purchase decisions and effectuating remedial action. Information about registered equipment sellers will be posted on the Energy Commission's website at [www.gosolarcalifornia.ca.gov/retailers/search-new.php].

~~Payment requests must be mailed, but reservation requests, and responses to Energy Commission correction requests may be faxed.~~

K. Audits and Inspections

The Energy Commission will conduct audits of the applications it receives to verify that the information provided in the applications is true and correct. The Energy Commission may also conduct field inspections to verify systems are operating properly and installed as specified in the reservation request and payment claim applications.

In the event that a contractor, equipment seller, or purchaser provides information in a reservation application or payment request that appears to be questionable, the Energy Commission may take the following steps to clarify the questionable information:

1. Stop review of the application containing the questionable information to investigate further.

2. Require additional documentation from the manufacturer, contractor, equipment seller, and/or purchaser to verify the accuracy of the questionable information.

If the questionable information appears to be false or misrepresented, the Energy Commission will take one or more of the following corrective measures:

1. Reject the reservation application, or if a payment application, reject the payment request and cancel the reservation.

2. Notify the proper authorities, including the Contractors State Licens~~ing~~ Board, so appropriate enforcement action may be taken.

3. Suspend review of all other applications submitted by or associated with the manufacturer, contractor, equipment seller, or purchaser to review whether false or misrepresented information was provided in those applications.

4. Require additional documentation from the manufacturer, contractor, equipment seller, or purchaser to verify if false or misrepresented information was provided with these other applications.

5. Notify purchasers identified in these other applications that additional information will be required to keep approved applications active or to process payment requests, and that the processing of any such applications will likely be delayed.

6. Require supporting documentation for all new applications and payment requests submitted by or associated with the manufacturer, contractor, or equipment seller.

7. Require that all payment requests submitted by or associated with the manufacturer, contractor, equipment seller, or purchaser be supported by additional verification of payments made by the purchaser, including bank statements, cancelled checks, credit card statements, or other similar documentation.

8. Post information on the Energy Commission website which informs consumers that:

    a. Additional information is required when applying for reservations or payments using the manufacturer, contractor, or equipment seller, and

    b. Any applications submitted by or associated with the manufacturer, contractor, or equipment seller will be subject to a more thorough review which will delay the processing of these applications.

III. Incentives Offered Through This Program

A. Rebates Offered

The rebates offered through this program are based on the generating capacity of a system and vary by system size, technology, and type of installation. The incentive must be used to reduce the purchase or lease cost of the eligible system, or the cost of electricity produced by the eligible system for the on-site customer. A rebate that is 15 percent lower than the standard rebate is ~~also~~ available for self-installed systems. Additionally, special rebates may be available for systems installed for affordable housing. Because these special rebates target specific groups or classes of customers, they are discussed separately in Chapter VIII of this Guidebook.

The total amount of rebates available within this program will be limited by technology. The total amount allotted for each technology is dependent on the amount of available funds within the Emerging Renewable Resources Account (ERRA) of the Renewable Resource Trust Fund. In addition to this overall program funding limit described above, the total amount allotted to any single technology supplier and/or retailer is limited to a percentage of the annual funding allocation for the ERRA. -These limits are discussed in the Overall Program Funding Limits section of this Chapter.

The rebate will be based on the generating capacity of the system. The total eligible rebate amount is calculated by multiplying the capacity of the system in watts by the appropriate rebate rate at the time of application. If the capacity of the energy system(s) exceeds the capacity of the inverter(s), then the capacity of the inverter(s) will be used to determine the total eligible rebate amount. It is not recommended that the capacity of the energy system(s) exceed the capacity of the inverter(s).

For systems using small wind turbines, a power rating at 11 meters per second (24.6 miles per hour) will be used for calculating the incentive.

Table 1 lists the rebate levels available, by size category and technology type. Since the Emerging Renewables Program was suspended approximately 30 days before a scheduled rebate drop for small wind systems, from $3.00/watt for the first 10 kW of generating capacity to $2.50/watt for the first 10 kW, the higher rebate for small wind systems will be extended for a fixed period of time after the suspension is lifted. The rebate level for the first 10 kW of generating capacity of a small wind system will remain $3.00 per watt through [120 days after Guidebook adoption], and will revert to $2.50 per watt on [121 days after Guidebook adoption]. **Applications for wind turbine systems submitted to the Energy Commission via fax by 5:00 PM on [date $3.00 per watt rebate level drops], will be considered for the $3.00 per watt rebate.** Applications received via fax after 5:00 PM on [date $3.00 per watt rebate level drops], will be considered for the $2.50 per watt rebate. **No exceptions will be made.** Applications that are sent via hard-copy mail and are postmarked on or before [date $3.00 per watt rebate level drops], will be deemed to have been submitted before the rebate drop date and will be considered for the $3.00 per watt rebate. Only **COMPLETE** applications submitted before the deadline will be eligible for the $3.00 per watt rebate. **Applications submitted via electronic mail will not be accepted.**

Additionally, the total eligible rebate amount available for any energy system shall not exceed 50 percent of the net purchase price of the system (before ERP incentives).[9]

~~The rebates offered for professionally installed new systems are identified below in Table 1. A 15 percent lower rebate is also available for self-installed systems. Additionally, special rebates may be available for systems installed for affordable housing. Because these special rebates target specific groups or classes of customers, they are discussed separately in Chapter VIII of this Guidebook. Under no circumstance will the incentive from the ERP exceed the net purchase price of the system to the final customer (before ERP incentives).[10]Table 1 lists the rebate levels available as of April 7, 2010, by size category and technology type. The rebate level for the first 10 kW of a small wind system is $3.00 per watt through April 6, 2011, and will revert to $2.50 per watt on April 7, 2011The Energy Commission will conduct a review on the adequacy of the rebate level before April 7, 2011.~~

Table 1: Rebates Available for Emerging Renewable Systems

Technology Type	Size Category	Rebate Offered
Fuel Cells using a renewable fuel	<30 kW	$3.00 per watt
Wind	First 10 kW	$3.00 per watt through [120 days after Guidebook is adopted] $2.50 per watt beginning [121 days after Guidebook is adopted]
	Increments between >10 kW and <30 kW	$1.50 per watt

[9] The net system price is based on the system's eligible costs as described in Chapter VII of this guidebook.

~~[10] The net system price is based on the system's eligible costs as described in Chapter VII 7 of this guidebook.~~

C. Additional Reporting for Leased Systems

Renewable energy systems purchased under a lease agreement are eligible for rebates under the ERP, but are subject to additional requirements discussed in Appendix 5.

D. Overall Program Funding Limits

Due to funding limitations the ERP will divide the funds available to the program evenly between rebates for systems using small wind turbines and systems using fuel cells[11]. If more funds are made available, -additional allocations may be made for each technology. The Energy Commission reserves the right to adjust the allocation of funds between technologies at any time. The Energy Commission will issue a public notice announcing any changes to the allocation of funds 30 days before the changes go into effect.

Once the funding for a given technology is exhausted, through the payment of rebates and the issuance of rebate reservations, the Energy Commission will stop accepting rebate reservation applications for that technology and will issue a public notice informing consumers that the funds for that technology are exhausted.

Only complete applications will be approved and receive fund encumbrances. Incomplete applications will be returned to the applicant; applicants may reapply but will be subject to the funding availability at the time the application is deemed complete.

Because program funding is limited, and will ultimately be exhausted, the Energy Commission recommends that applicants not purchase or start work on any system until they receive a reservation confirming the availability and amount of funding approved for their application. The Energy Commission will closely monitor the rate at which the program funds are used for each technology to inform program participants on the availability of funds. The Energy Commission will post weekly updates on the amount of funds available. These updates can be found on the Energy Commission website
at: http://www.energy.ca.gov/renewables/emerging_renewables/index.html

The Energy Commission will suspend the ERP once program funding is exhausted and may establish a waiting list for complete applications that are not funded. Applications on a waiting list may be funded if additional program funding becomes available. The Energy Commission may establish additional conditions for applications on the waiting list, including, but not limited to, conditions that limit the total dollar amount of applications on the waiting list and the duration of time applications may remain on the waiting list.

1. Funding Limits by Technology Supplier or Retailer

[11] It is anticipated that the initial sum of $20 million will be available for both technologies after the Eleventh edition of this Guidebook is adopted; $10 million allocated to each technology.

In addition to the overall program funding limit described above, no single manufacturer or retailer may claim more than 25 percent of the annual funding allocation for the ERRA.[12]

E. Other Incentives May Affect Rebate Amount

The rebate amount received from the Energy Commission may be reduced for applicants who receive incentives from sources other than the ERP that lower the cost of a generating system. No less than 5 percent of incentives received or expected must be subtracted from the rebate amounts listed in Table 1 if the applicant receives incentives from other utility incentive programs, a State of California sponsored incentive program, or a federal government sponsored incentive program, other than tax credits. The percent reduction will be increased as necessary to ensure the sum of all incentives received or expected from all sources, including the ERP, does not exceed the total cost of the system. No applicant may be issued a reservation or receive payment from the ERP for any system or portion of a system that has received payment from the Energy Commission's New Solar Homes Partnership, California Public Utilities Commission-approved Self-Generation Incentive Program or California Solar Initiative, the Rebuild a Greener San Diego program, or any other rebate program using electric utility ratepayer funds, or that is participating in and eligible to receive payment under such programs.

See Chapter VIII of this guidebook for information regarding rebate levels for qualifying affordable housing.

F. Adjustment of Rebate Levels

The rebate levels for all technology types, over time, may be periodically reduced or otherwise adjusted. Any changes to the rebate levels~~and~~ will be included in future editions of the *Emerging Renewables Program Guidebook*.

[12] The annual funding allocation for the ERRA in 2011 is expected to be $57,647,608.00.

IV. Reservation Process

Through this program, funding is reserved for applicants who have committed to purchase and install an eligible system at a given site. A funding reservation provides the purchaser assurance that the reserved funds will be available when the payment claim is made. The standard reservation period is for 12 months. The reservation period for systems installed on public and charter schools and new construction is 18 months. Multiple systems at each site are treated as a single system for purposes of determining the appropriate rebate. The site is defined as a single parcel of real property plus any improvements on that site.

In cases where multiple systems are installed, all generating capacity on the site is treated as a single system. For example, a 5 kW renewable energy system and a 3 kW renewable energy system on the same property are treated as a single 8 kW system for purposes of reserving funds and calculating the rebate payment. No single site shall receive more than 30 kW worth of rebates from the ERP, including cases of multiple systems being installed at different periods of time. ~~However, in~~In cases where there are multiple utility meters on the same parcel, such as vineyards or other agricultural properties, only meters with unique owners are eligible for separate rebates. For example, an agricultural property with five utility meters all belonging to the same utility customer is eligible for rebates up to 30 kW. If the agricultural property has ~~had~~ two utility meters with two unique utility customers, each of those customers are eligible for rebates up to 30 kW. Additions to existing systems are also subject to this 30 kW cap. Examples of calculating the rebate for additions to existing systems are detailed in Appendix 5. ~~five or more high density dwelling units, such as condominiums or apartments on a single parcel, utility meter numbers will be used to determine the number of reservations that may be granted for systems installed at the site. For example, an apartment complex comprised of five separate apartments each with its own designated electric utility meter is eligible to receive five separate reservations up to a maximum of 30 kW each.~~

Applicants with an 18-month reservation period cannot reapply for a new reservation during the term of their original reservation period. These applicants may reapply for a new reservation only after the term of their original reservation period expires, and may qualify for rebate levels available at that time.

Funding reservations are made only for **complete** applications on a first-come, first-served basis until program funding is exhausted. Applications that are missing application forms or have omissions or discrepancies will not be approved or processed. The applicants that submitted these applications will be notified and directed to submit new applications if interested in applying for program funding. The applications that are rejected will normally be kept by the Energy Commission for approximately three months after being rejected. In the case of omissions that do not affect eligibility or the amount reserved, the purchaser and equipment seller may be asked to provide additional information to clarify the application.[13] If additional

[13] Examples of omissions that do not affect eligibility include situations where the required information is provided in an application, but the information is not legible~~, or where pertinent information is missing from an application's supporting documentation, as in the case of a partial utility bill that does not clearly specify a street address.~~

information is requested, the application will not be processed unless the requested information is provided within the time period specified in the request (usually 30 days). If the requested information is not provided within the time period specified in the request, the purchaser will be notified to reapply as specified above.

No payment will be made unless the installed system meets all applicable ERP requirements even if funds are reserved.

Only one reservation and one rebate payment will be allowed for each site with a standard 12 month reservation period.[14] The application information and funding reserved can be modified (except for the reservation expiration date) within that 12- month reservation period with supporting documentation and if sufficient funds are available.

A. Reserving a Rebate

This section describes the paperwork that is normally required to reserve funding for a standard rebate. Please be sure to submit a complete reservation application and provide all the supporting documentation as described below to receive your reservation approval. The application will not be reviewed if incomplete and will be rejected. The reservation process will be delayed if incorrect or non-complying information is received. Rebate reservation applications must be submitted via hard-copy mail or fax; applications may not be submitted via electronic mail. To obtain a rebate reservation, all applicants must submit at minimum the following items:

- A completed Reservation Request Form (CEC-1038 R1)
- Copy of agreement(s) to purchase and install a system
- Evidence that site electricity load is supplied by an eligible utility
- Payee data record (Form STD-204) for the rebate recipient
- For fuel cell systems, a completed Fuel Cell Supplemental Information~~l~~ Form (CEC-1038-R1A) is required.

Please see Chapter V for the documentation requirements to claim a rebate payment.

Chapter VIII covers the special funding requirements for the rebates offered for affordable housing. Appendix 5 covers new construction, systems installed on property owned by retailers and/or contractors, adding to existing systems, and systems that are leased by the end-use customer or provide electricity to the end-use customer under a power purchase agreement.

1. Reservation Request Form

The Reservation Request Form (CEC-1038 R1) is a form that identifies most of the information

[14] An applicant with a standard reservation may only cancel his or her reservation and reapply for a new reservation within the original 12-month reservation period if the rebate level has dropped at least one level from the rebate granted in the original reservation. A letter explaining the request must be submitted with a new reservation request form and signed by the purchaser and seller.

needed about the proposed system and specifies what information must be submitted with the application.

The purchaser of the system must always sign the Reservation Request Form. If the equipment seller is designated as the payee, the seller (retailer or wholesaler) must also sign the Reservation Request Form. The purchaser must use a registered equipment seller. A listing of registered equipment sellers may be found at:

[www.gosolarcalifornia.ca.gov/retailers/search-new.php].

Eligible equipment sellers need to have registered online with the Energy Commission to be eligible to participate in the program. Reservation requests that identify ineligible retailers will not be approved unless the required business information is filed with the Energy Commission. Please refer to Section J of Chapter II for registration details.

Detailed instructions are included with the Reservation Request Form (CEC-1038 R1). These instructions also provide information on how the rebate is calculated when the rated system output exceeds the inverter(s) capacity. Appendix 1 includes a blank copy of the Reservation Request Form and accompanying instructions. To obtain additional blank forms, call the Energy Commission Call Center at (800) 555-7794 or download the forms online from the following Energy Commission website:

[www.consumerenergycenter.org/erprebate/forms.html].

2. Evidence of Agreement to Purchase and Install a System

Evidence of an agreement(s) to purchase and install a system must be demonstrated. How this is demonstrated depends upon whether the system is 1) owner-installed; 2) contractor-installed where the equipment seller is a separate entity; or 3) contractor-installed where the contractor is also the equipment seller.

In each of these three cases, information concerning the contractual agreements must be provided in the Reservation Request Form (CEC-1038 R1) and must be consistent among agreements and with the Form, or the application may be rejected. Regardless of the situation, agreements for the purchase of a system or system equipment must be in writing and clearly include, at a minimum, the following information:

1. The quantity, make and model number (as shown on the Energy Commission lists of eligible equipment) for the inverters, system performance meters, wind turbines or other generating equipment, including fuel cell systems.

2. The total purchase price of the system before applying the rebate.

3. Language indicating the purchaser's commitment to buy the system.

4. Printed names and signatures of the purchaser and equipment seller's authorized representative.

5. The site address for the system installation.

Installation contracts must comply with the Contractors State License Board (CSLB) requirements. In addition, these contracts must contain the following information:

1. Name, address and contractor's license number of the company performing the system installation.
2. Site address for the system installation.
3. Description of the work to be performed.
4. Total agreed price to install the system.
5. Payment terms (payment dates and dollar amounts).
6. Printed names and signatures of the purchaser and the company's authorized representative.

Please refer to the CSLB website for more information on CSLB guidelines at: [www.cslb.ca.gov].

Applications with installation contracts that appear to be deficient may be forwarded by the Energy Commission to the CSLB for verification. Entities without a valid A, B or C-10 contractor's license may not offer installation services or charge for installation in any agreement.

The above requirements are sufficient evidence of an agreement to purchase and install a system for the case where a contractor sells and installs the system. For the other two cases, the following case-specific requirements must be satisfied:

A. Owner or Self-Installed System

In situations where the system is installed by the system owner, the applicant must provide the following information:

- An equipment purchase agreement as described above, OR
- In cases where there is not a signed agreement to purchase equipment the purchaser may provide invoices or receipts showing that at least 10 percent of the system equipment purchase price (generating equipment and inverters) has been paid to the seller(s).[15]

B. Professionally Installed System with Separate Seller and Installer

In situations where the purchaser is purchasing the system from one company and hiring a separate company (licensed contractor) for installation, the purchaser must obtain proof of his or her commitment to purchase and install the system in separate documents as follows:

- An equipment purchase agreement as described above, OR

[15] An example of this situation is where the purchaser buys new equipment via the Internet or mail order.

- In cases where there is not a signed purchase agreement the purchaser may provide invoices or receipts showing that at least 10 percent of the system equipment purchase price (generating equipment and inverters) has been paid to the seller(s), AND
- An installation contract from the second company as described above.

3. Evidence That Site Electricity Load Is Supplied by an Eligible Utility

If the installation location currently has electrical service, the applicant must submit a recent copy of the utility bill showing the service address of the installation site, the name of the applicant, electric energy usage, and the utility name. Submit all pages of a utility bill to ensure that this information is provided. **The utility bill ~~should~~ must be no older than six months from the date of application[16].** If the customer name on the utility bill is not the same as the applicant's, provide an explanation. This or other documentation must show that the annual on-site electrical load justifies the proposed system size before payment will be made (see Appendix 4).

Exception only for new construction - If the installation location is a new facility without electrical service, the applicant must identify on the Reservation Request Form (CEC-1038 R1) the electric utility that will provide electric service to the site. Documentation to show that the annual on-site electrical load justifies the system size will need to be provided before payment will be made. (See Appendix 4 for program requirements for on-site electrical loads. See also Appendix 5, Section A for additional requirements.)

4. Payee Data Record (Form STD-204)

This form must be completed by the person or business entity identified as the rebate payee on the Reservation Request Form (CEC-1038 R1). The payee data record is still required even if the rebate payee chooses to assign the payment to another party. If the designated payee has submitted a complete STD-204 form with a prior application and has already received a rebate payment within the last two years from the Energy Commission, a new STD-204 is not needed again. In these cases the Energy Commission will use data from the previously submitted STD-204 form. If the data provided in a previously submitted STD-204 has changed, the payee must notify the Energy Commission and submit a new STD-204 form.

5. Submitting Your Complete Reservation Application

The complete reservation request application must be delivered by fax ~~FAX~~ to (916) 653-2543 or by mail to:

[16] A limited exception is granted for older utility bills included with applications submitted within 180 days of the adoption of the Eleventh edition of the Guidebook. For applications submitted within this 180 day period, the utility bill may be dated as far back as September 4, 2010. After the 180 day period has lapsed, applications must include utility bills that are no older than six months from the date of application

ERP Reservation Request
California Energy Commission
1516 - 9th Street, MS-45
Sacramento, CA 95814-5512

Please note that the Commission will not accept applications submitted by electronic mail.

If the application is mailed close to a scheduled rebate level decline, it must be postmarked no later than the last day before the decline to be considered for the higher rebate level. No funding will be reserved if an application is incomplete or illegible, has conflicting information or does not otherwise comply with the program requirements. The application will be approved for a reservation based on the date it is deemed complete and not the date it was first submitted. The rebate level and other program criteria applicable on the date the application is deemed complete will apply.

As described earlier in this chapter, if the reservation request application is missing required forms or has other omissions or discrepancies, the purchaser will be notified that the application will not be approved. **Incomplete applications will be returned to the applicant**. Applicants may reapply with the corrections necessary to complete their application; however, resubmissions will be ~~Any new application will be~~ subject to the program requirements and funding availability at the time the resubmission is deemed complete. **Applicants are strongly encouraged to keep copies of all applications and supporting documentation submitted to the Energy Commission.**

~~The available rebate amount may change during the term of the program. Therefore, the Energy Commission recommends that applicants wait to install system equipment until after they receive a confirmation indicating the amount of funding that has been reserved for their rebate.~~

V. Payment Process

A. Claiming a Rebate Payment

To receive rebate payment, all program requirements must be in compliance and a complete claim for payment must be made before the expiration of the reservation.

1. Payment Claim Form

The Energy Commission will send a copy of the Payment Claim Form (CEC-1038 R2) to the purchaser and designated payee to confirm the amount of funding reserved on the purchaser's behalf. In most cases, the parties entering into the purchase and installation agreement(s) (purchaser and equipment seller and/or installer) must read, sign, and date the Payment Claim Form. If the purchaser alone applied for and is to receive the rebate, only the purchaser needs to sign the Payment Claim Form. This form must be returned to the Energy Commission by mail, as original signatures are required to process a payment. Please sign the form so that it is clear the signatures are original. Signing in black ink can make it difficult to distinguish whether the signature is original or a copy. In some cases, a new form with clearly original signatures may be requested. Stamped signatures are not acceptable.

Any changes to the information provided on the previously submitted Reservation Request Form (CEC-1038 R1) must be noted in the space provided on the Payment Claim Form (CEC-1038 R2). Changes from the previously submitted Reservation Request Form, such as changes in equipment, installer or equipment seller must be identified on the Payment Claim Form. If additional space is required to note such changes, additional pages may be attached to the Payment Claim Form. Changes in equipment from that identified in the previously submitted Reservation Request Form or other changes may affect the eligibility and amount of the rebate.

2. Documentation Confirming Final Payment and System Installation

Applicants must submit final system cost documentation clearly identifying the final amount paid or legally incurred to purchase the system and the final amount paid to install the system. The cost documentation must provide proof of the final amount paid or legally incurred by the applicant to the equipment seller and/or installer and provide sufficient information to clearly identify the equipment purchased and the labor paid. The final amount paid or legally incurred to the equipment seller and/or the final amount paid to the installer must match the cost information identified in the Payment Claim Form (CEC-1038 R2). To meet this requirement, the applicant must submit final invoices or a copy of the final agreement. The actual amount paid or legally incurred by the purchaser to the equipment seller and/or the actual amount paid to the installer must be clearly indicated. If there is no direct proof of actual payment from the applicant to an appropriately licensed installer, the rebate will be reduced to the owner-installed rebate level.

In addition, the final invoices or agreements should clearly indicate the extent to which the Energy Commission's rebate lowered the cost of the system to the applicant. If the applicant has entered into an agreement to pay the equipment seller over time rather than in lump sum, the final agreement must indicate the terms of payment and the amount of any deposits or

payments paid by applicant to the equipment seller to date. The cost of any system installation must be paid by the applicant prior to submitting a payment request to the Energy Commission.

The Energy Commission will conduct spot checks to verify that payments were made as identified in the final invoices or agreements provided by equipment sellers and/or installers. As part of these spot checks, the Energy Commission will require applicants to submit copies of cancelled checks, credit card statements, or equivalent documentation to substantiate payments made to the equipment seller and/or installer. (When submitting this documentation, applicants are encouraged to remove their personal account numbers or other sensitive information identified in the documentation.) Applicants must explain the difference if the final amount paid by the applicant is different from the amount of the purchase or installation shown in any agreement or invoice or in the previously submitted Reservation Request Form (CEC-1038 R1).

3. Final Building Permit and Final Inspection Sign-Off

Applicants must submit a copy of the building permit and the final inspection signoff for the system installation. The name and site address on the final building permit and final inspection signoff must match the name and site address shown on the Payment Claim Form (CEC-1038 R2) as well as the previously submitted Reservation Request Form (CEC-1038 R1).[17]

4. Five-Year Warranty

A standard full five-year warranty form (CEC-1038 R3) must be completed and signed by the appropriate party(ies) and given to the purchaser. Submit a copy of this form with the Payment Claim Form (CEC-1038 R2) to claim the maximum incentive. If the applicant is unable to obtain warranty coverage for labor, the application will be treated as an owner installed system and will receive a rebate amount 15 percent lower.

Exception for owner installed systems - Submit copies of the manufacturer's five-year warranties for the inverters and generating equipment.

5. Evidence That Site Electricity Load Is Supplied by an Eligible Utility

If the site of installation was a new facility without electrical service when the reservation request was submitted, a copy of the applicant's utility statement or other proof from the utility must be submitted before payment can be made. Other proof may include written confirmation from the utility that a meter has been installed at the site and verifying that the site had electrical service prior to the expiration of the reservation. In addition, if an electric utility bill is not provided, the applicant must provide a separate letter from a qualified architect, engineer, or electrical contractor (C-10 licensed) that identifies the expected electricity consumption at the site and verifies that the consumption will satisfy program requirements for system size.

[17] Instead of a building permit and final inspection signoff, public schools, community colleges and public buildings subject to the jurisdiction of the Department of General Services, Division of the State of Architect (DSA), must submit documentation from DSA confirming either compliance with DSA standards, or an exemption from DSA standards.

6. System Interconnection With Utility Grid

The applicant must demonstrate that the system is interconnected to the utility distribution grid and that the utility has approved this interconnection for the system's operation at the site of installation. The applicant must demonstrate this by submitting from the utility a letter of authorization to interconnect the system.

Backup generation systems are exempt from the above requirements, unless they are serving grid-connected electrical loads.

By applying for program funding, purchasers authorize the Energy Commission during the term of the ERP to exchange purchaser information with the purchaser's utility ~~in order~~ to verify compliance with program requirements, including requirements for system interconnection to the utility grid.

7. Renewable Fuel Supplier Attestation

A Renewable Fuel Supplier Attestation (CEC-1038 R2A) is required for all fuel cell systems to verify the eligibility of the renewable fuel that will be used in the system. Fuel cell systems that use a non-renewable fuel, such as hydrogen produced from natural gas or other fossil fuels or produced through a process energized with power from a non-eligible renewable energy resource, are not eligible for funding under the ERP. In many, if not all cases, the purchaser of the fuel cell system will have no control over how the fuel for his or her system is produced. For this reason, the supplier of the renewable fuel must provide an attestation to verify that the fuel supplied to the purchaser meets the criteria for "renewable fuel" specified in Chapter II of the guidebook.

As discussed in Chapter II, electricity from an eligible renewable energy resource may be used to make renewable fuel only when the electricity is bundled with the associated renewable attributes, so that renewable energy is used to produce the fuel. If the renewable attributes are unbundled from the electricity and disposed of separately, the fuel will be produced with null power[18] and will not be considered a renewable fuel for purposes of fuel cell eligibility under the ERP.

The Energy Commission reserves the right to periodically request additional information at any time and for any reason in order to verify that the fuel being used originates from a renewable resource.

8. Payee Data Record (Form STD-204)

If the data provided in a previously submitted STD-204 has changed, the payee must notify the Energy Commission and submit a new STD-204. If the payee originally identified has changed, a STD-204 form must be submitted (if the new payee was not previously paid by the Energy Commission). The STD-204 form may be found in Appendix 1 of this guidebook.

[18] Null power refers to renewable energy that has been stripped or unbundled from its renewable attributes. These renewable attributes may be disposed of separately.

B. Submitting a Payment Claim

Once a system is installed, grid-connected[19] and operating satisfactorily, the following documents must be submitted to claim a rebate payment:

- Rebate Payment Claim Form (CEC-1038 R2).
- Documentation confirming what equipment and labor was purchased including the final amount(s) paid to purchase and install the system.
- Final building permit and final signoff.
- Five-year warranty for the system and labor, if applicable (CEC-1038 R3 form).
- If not already provided, a copy of a recent utility bill (or in the case of a new home or facility, other proof of utility service and expected electricity consumption at the site).
- A copy of the utility letter authorizing interconnection to utility grid.
- For fuel cell systems, a Renewable Fuel Supplier Attestation (CEC-1038 R2A).
- Payee data record (STD-204), if not provided with the initial application or the payee was not previously paid by the Energy Commission within the last two years.
- Payment Assignment Form (CEC-1038 R5) with wet signature, if the designated payee is assigning payment to another individual or entity.

Mail the complete Payment Claim Form (CEC-1038 R2) and supporting documentation to the Energy Commission at the address shown below on or before the expiration date specified on the Payment Claim Form. The Payment Claim Form cannot be submitted by FAX as original signatures are required on the Payment Claim Form to process rebate payments. The request for payment must be received or postmarked on or before the reservation expiration date. Be sure to keep a copy of the Payment Claim Form together with the purchase and installation agreements, contracts, receipts, evidence of payment, building permit and final signoff, utility bill, etc. for your records. If the payment is being assigned to a third party, an original signature of the payee is also required on the Payment Assignment Form (CEC-1038 R5).

Payment Claim Forms should not be submitted unless a complete application can be provided and all eligibility requirements can be met. The application must document that utility service existed at the site and that the system's installation was signed off by the building department prior to the expiration date of the applicant's reservation, otherwise the system does not meet the conditions of the reservation and the applicant will be required to reapply under the program rules and funding availability in effect at the time of reapplication.

If the payment request application is incomplete, the Energy Commission may request the provision of all missing or unclear information from the appropriate party (purchaser, equipment seller, or installer) to process the request. In that event, the Energy Commission will allow the submitting party up to 60 days to respond with all the required information to approve payment.

The request for payment will be denied if all the requested information is not received within the time period specified by the Energy Commission. Participants submitting a claim that is not

[19] This does not apply to backup generation systems, unless the systems are serving grid-connected electrical loads.

received by the expiration date of the applicant's reservation or is otherwise ineligible will be sent a written notice stating the reasons why the claim was rejected. If the claim is made after the expiration date of the reservation or is otherwise ineligible, the applicant may reapply for a rebate reservation, but will be subject to the eligibility requirements, incentives, and funding available at that time of reapplication.

All required forms and supporting documentation required to claim payment shall be mailed to:

ERP Payment Claim
California Energy Commission
1516 9th Street, MS-45
Sacramento, CA 95814- 5512

The Energy Commission intends to make incentive payments within 6 to 8 weeks of receipt of a complete rebate payment claim application. Payment will be made to the seller or purchaser, as designated on the Reservation Request Form (CEC-1038 R1), unless the payee has assigned the payment to a third party, and will be mailed to the address provided by the recipient on the Payee Data Record (Form STD-204), previously submitted to the Energy Commission.

C. Claiming a Rebate Payment Without a Prior Reservation

If a rebate payment is claimed for a system not previously approved for a rebate reservation, the Payment Claim Form (CEC-1038 R2) and required documentation must also be accompanied by a completed and signed Reservation Request Form (CEC-1038 R1). The submittal should meet all requirements needed for approval and payment as described herein. Applicants without a prior reservation should be aware that program eligibility requirements and rebate levels may have changed since installation and may require the applicant to make significant and costly changes to the system in order for it to qualify for an incentive. The Energy Commission advises rebate applicants to submit their rebate reservation request applications prior to installing their renewable energy system to insure that funding is available for their project upon its completion. Applicants that submit rebate payment claims without a prior reservation will receive rebates subject to the availability of funds.

D. Assignment of Rebate Payment

The designated payee of the rebate payment may assign his or her right to receive the payment to a third party by completing the Reservation Payment Assignment Form (CEC-1038 R5) and submitting it with the Payment Claim Form (CEC-1038 R2). The Reservation Payment Assignment Form may not be submitted by FAX as original signatures are required to process the assignment. Payees that assign their rebate payment to a third party will still be reported as the recipients of ~~said~~ payments ~~for tax purposes~~.

E. Time Extension Requests

Time extensions to a reservation are not available under any circumstances. Applicants failing to install their systems and submit a complete reservation payment claim within the reservation

period must reapply for funding at the rebate level and under the terms and conditions applicable at the time of reapplication.

VI. Modifications or Changes to Reservations

A. Can Installed System Be Different Than Reservation?

The Energy Commission expects a system to be installed as described in the Reservation Request Form (CEC-1038 R1), but recognizes that minor changes may result during installation. Minor changes do not require prior approval, but must be documented on the Payment Claim Form (CEC-1038 R2) and may change the rebate amount. Minor changes include decreases in the system size (while staying within the Energy Commission size categories), changes in the equipment seller and/or installer, and changes from one make or model of a listed ~~certified~~ system component to another.

Changes made to a system may affect the eligible rebate amount as specified below. If the changes result in an increase of eligible costs that affect the associated rebate amount, additional funds may be approved for the reservation -subject to availability.~~Any changed rebate amount that occurs is subject to availability of funding.~~

In addition to listing any modifications on the Payment Claim Form (CEC-1038 R2), changes must also be reflected on the final invoice/contract, Minimum Warranty Form (CEC-1038 R3), grid interconnection letter (as appropriate), and final inspection/building permit (as appropriate).

1. How Do Changes Affect the Rebate Amount?

Modifications to an approved reservation may be made prior to a payment claim or when the complete payment claim is submitted. When a modification includes parameters that affect incentive amounts, a new incentive amount will be calculated and the calculation will be based on the program parameters at the time a modification request, with supporting documentation, is deemed complete. Parameters affecting the incentive include the installation type, system size, and technology. If any change results in the installed system differing in its rated electrical output or other parameters from the system originally specified in the Reservation Request Form (CEC-1038 R1), a new rebate payment amount will be calculated.

If any change occurs that would have decreased the original rebate calculation, the amount reserved will also be decreased by the same factor. For example, if the installed system is smaller in output than originally specified in the Reservation Request Form, the new rebate amount will be determined by prorating the amount reserved downward (using the same rebate level that was used to calculate the original rebate amount). Similarly, if the installation type changes from a professional install to an owner-install, the incentive is reduced by 15 percent.

Any change that may result in a higher incentive will be recalculated and either reserved or paid without requiring a new application to be submitted. If a system's total calculated capacity is increased in size, the incremental increase in capacity will be calculated at the rebate level available at the time the modification request was made. ~~Similarly, if the installation type changes from a professional install to an owner-install, the incentive is reduced by 15 percent.~~

The amount reserved will be increased if the incentive calculated for the entire proposed project is higher than the amount already reserved, provided there is adequate Emerging Renewables Program funding for the increased rebate amount. The Energy Commission may not be able to increase the rebate amount reserved if no additional funds are available. See Appendix 5 for additions to existing systems.

Table 2: Example Rebate Payment Calculations

Description of application information and resulting rebate calculations after changes relative to the base case are made	*Rebate Calculation*	*Total Rebate*
Base Case – Funding reserved for a 10,000 watt wind system installed by contractor ~~with a~~at a $2.50~~3.00~~/watt ~~and $1.50/watt~~ rebate level. Assumes next rebate step is $1.50/watt for incremental capacity above 10,000 watts.~~,~~	**(10,000 x $2.50~~3.00~~) =**	**$ ~~30,000~~25,000**
Change to owner install ~~during~~ at ~~**$2.503.00/watt and**~~ **$~~1~~2.50/watt** rebate level with no other changes to base case (owner-installed systems receive 85% of full rebate)	**-(10,000 x $~~3.00~~2.50) x .85 =**	$~~25,500~~21,250
Add 1,000 watts to reserved 10,000 watt ~~existing~~ system, at ~~during~~ ~~**$2.503.00 and**~~ **$1.50** rebate level, with no other changes from base case	**(10,000 x $2.50~~3.00~~) + (1,000 x $1.50) =**	$~~31,500~~26,500
Add 1,000 watts to reserved 10,000 watt ~~existing~~ system, at $1.50 rebate level, and change to owner install ~~at $2.503.00 and $1.50 rebate level~~	**[(10,000 x $2.50~~3.00~~) + (1,000 x $1.50)] x .85 =**	$ ~~26,775~~22,525
Reduce system size by 500 watts ~~during~~ at ~~**$2.503.00 and**~~ **$~~1~~2.50** rebate level *	**(9,500 x $2.50~~3.00~~) =**	$ ~~28,500~~23,750

*The above examples are for a system that was reserved funds at $2.50~~3.00~~/watt, but then modified (increased or decreased in size) before requesting a rebate payment.

VII. Eligible System Costs

In most cases, the system cost will not affect the eligible incentive amount, but is needed for a variety of reasons. First, total costs are needed to assure the incentive does not exceed 50 percent of the net purchase price of the system. Second, the Energy Commission is interested in having information about system prices to evaluate future rebate levels and monitor whether the program goals are being achieved. ~~Second, total costs are needed to assure the incentive does not exceed the net purchase price of the system.~~

A. What System Costs Are Eligible?

In addition to the cost of permits issued by local building departments or appropriate government entities, the labor to install the electricity generation system and sales tax, the program covers only the following specific eligible components and equipment:

Small Wind: The wind turbine, tower, wire, inverter, foundation (for free standing systems), kWh system performance meters, and utility required interconnection equipment.

Fuel Cells: The renewable gas pre-treatment equipment (but not the gas collection or production equipment), fuel processor, cell stacks, fuel storage for backup unit generation, inverter and power conditioning equipment, cooling equipment, foundation (for free-standing systems), simple kWh system performance meters, and utility required interconnection equipment.

B. What Costs Are Not Eligible?

Many of the system costs included in the purchase or installation contracts may not be eligible. The purchaser or equipment seller must provide details to separate these costs from eligible costs. The cost of any equipment used to store the electricity produced is not eligible (e.g., batteries, charge controllers, battery cables, etc.). The cost of tools is not eligible.

Other ineligible costs include items that are not typically required for the installation of an eligible system. These ineligible costs include, but are not limited to, tree trimming, fencing, re-roofing, roof repairs or reinforcement, landscaping, relocating vent pipes, and moving HVAC or other equipment. Additionally, financing fees or costs incurred by either the purchaser or the equipment seller are ineligible.

VIII. Special Funding

A. Special Funding for Affordable Housing Projects

Pursuant to Assembly Bill 58 (Keeley, Chapter 836, Statutes of 2002), the Energy Commission has established a higher rebate level for qualifying systems installed on affordable housing projects. Qualifying systems include systems connected to and serving the energy needs of: 1) residential units subject to affordability requirements, 2) the office and residential unit of the project manager, provided all other residential units in the project are subject to affordability requirements, and 3) the common areas of the project, such as laundry rooms and parking structures, provided all residential units in the project (except the manager's unit) are subject to affordability requirements.

Qualifying systems installed on affordable housing projects will receive a rebate 25 percent higher than the standard rebate level, not to exceed 75 percent of the system cost, if the following additional criteria are met:

- The affordable housing project was undertaken pursuant to section 50052.5, 50053 or 50199.4 of the Health and Safety Code or other affordable housing law. Applicants must demonstrate this by providing documentation that identifies the statutory basis under which the project was undertaken. In addition, the applicant must provide a copy of the regulatory agreement or approval for the project's development that identifies 1) the project, 2) the number of residential units in the project subject to affordability requirements, and 3) the applicable affordability requirements for these residential units. The regulatory agreement or approval must expressly limit residency in the affordable residential units to persons with extremely low, very low, lower or moderate income persons as defined by the Health and Safety Code section 50052.5, 50053, 50199.4, or regulations adopted by the California Department of Housing and Community Development for a period of 45 years.

- Each residential unit (apartments, multifamily homes, etc.) for which a system is being installed has an individual electric utility meter. Applicants must provide documentation from the electric utility confirming service and meter number.

- Each residential unit for which a system is being installed is at least 15 percent more energy efficient than the current standards specified in Title 24 of the California Code of Regulations or has already taken or will take measures to reduce the unit's energy use by at least 15 percent as calculated pursuant to Title 24 compliance models (usually C2R model runs). When systems are installed to serve the energy needs of a project's common areas, the entire affordable housing project must be at least 15 percent more energy efficient than the current standards specified in Title 24 of the California Code of Regulations or must have already taken or will take measures to reduce the entire project's energy use by at least 15 percent as calculated pursuant to Title 24 compliance models. Applicants must provide the energy efficiency calculations performed by an individual certified by the California Association of Building Energy Consultants (CABEC). For a list of Certified Energy Plans

Examiners, visit the Energy Commission's website at [www.energy.ca.gov/efficiency/cabec_roster.html].

Appendix 1 Forms and Worksheets

CEC-1038 R1-	Reservation Request Form (All technologies)
CEC-1038 R1A -	Fuel Cell Supplemental Information Form (Fuel Cell technologies only)
STD 204 -	Payee Data Record
CEC-1038 R2 -	Payment Claim Form
CEC-1038 R2A -	Renewable Fuel Supplier Attestation (Fuel Cell technologies only)
CEC-1038 R3 -	Minimum Warranty Form
CEC-1038 R5 -	Reservation Payment Assignment Form

R1

RESERVATION REQUEST FORM

EMERGING RENEWABLES PROGRAM

~~☐ Modify Existing Record # _____~~
~~☐ Affordable Housing Project~~
~~☐ New Construction~~

1. Physical Site of System Installation

Street Address:

City: | State: | Zip

2. Purchaser Name and Mailing Address

Phone: ( ) | ~~Fax: ( )~~Email:

3. Equipment Seller (Must be registered)

Company:

City: | CEC ID (if known):

Phone: ( ) | Fax: ( )

4. System Installation (Write "Owner" if not hiring contractor)

Company:

City: | License No.:

Phone: | Fax:

5. Electric Utility (Attach all pages of monthly statement)

☐ PG&E ☐ SCE ☐SDG&E ☐ BVE | Service ID:

Billing Period: | KWh Used:

Note: If new construction attach building permit. Permit No. _____

Submit complete application by fax at (916) 653-2543 or by mail to:

California Energy Commission
Emerging Renewables Program (MS-45)
1516 Ninth Street
Sacramento, CA 95814-5512

6. Equipment (Turbines, fuel cells, inverters, meters)

	Quantity	Manufacturer, Model (see CEC lists)
Generating Equipment		
Inverters, Meters		

7. Installation Type and Height (For wind only - Tower, Pole, or Roof-mounted)

Estimated annual energy production _____ kWh/Year

~~7~~8. Rebate and Other Incentives

System Rated Output _____ watts

Total System Cost: $ _____

Expected Rebate: $ _____

Pay Rebate to: ☐ Purchaser ☐ Seller

~~8~~9. Fuel Cell System. ☐ No ☐ Yes. If yes attach completed R1A Fuel Cell Supplemental Information Form.

Other Incentives: $ _____

Source/Record No.: _____

~~10~~9. Declaration

The undersigned parties declare under penalty of perjury that the information provided in this form and the R1A form, if applicable, and the supporting documentation submitted herewith is true and correct to the best of their knowledge and that the following is true:

1. All system equipment is new and unused and has been purchased within the last 18 months;
2. The generating system is intended primarily to offset Purchaser's electrical needs at the site of installation;
3. The generating system will be operated at the above site of installation for its useful life or the duration of the applicable lease agreement;
4. If the generating system is a fuel cell system, it will only use renewable fuel;
5. If the generating system is leased or provides electricity under a power purchase agreement the undersigned parties will comply with the special reporting requirements and will repay some or all of the ERP funding he or she receives if the lease agreement or power purchase agreement is terminated within five years of the system's installation or the start date of the agreement, whichever is later; and
6. The generating system will be interconnected with the distribution system of the electric utility identified above, unless the system is for backup generation that will not be serving grid-connected electrical load.

The undersigned parties further acknowledge that they are aware of the requirements and conditions of receiving funding under the Emerging Renewables Program (ERP) and agree to comply with all such requirements and conditions as provided in the Energy Commission's ERP Guidebook and Overall Program Guidebook as a condition to receiving funding under the ERP. The undersigned Purchaser authorizes the Energy Commission during the term of the ERP to exchange information on this form with the Purchaser's electric utility to verify compliance with the requirements of the ERP.

Purchaser Signature	Equipment Seller Signature
Print Name: _____	Print Name: _____

Signature: _____ Date: _____	Signature: _____ Date: _____

~~Necessary Supporting Documentation.~~
~~1. All pages of a monthly electric utility bill.~~
~~2. Agreements to purchase and install equipment.~~
~~3. Payee Data Record (Form STD-204) if payee identified has not previously been paid by the Energy Commission.~~
~~4. If not a standard rebate application, attach other required documentation as specified in the ERP Guidebook.~~
~~5. For fuel cell systems – A Fuel Cell Supplemental Information Form (CEC-1038-R1A).~~

INSTRUCTIONS FOR THE RESERVATION REQUEST FORM (CEC-1038 R1)

~~Title Box: Indicate if the request is to modify an existing reservation application, is for affordable housing, or new construction.~~

Section 1. Physical Site of System Installation

Provide the complete address for the site (parcel) of installation. Note that the site is the legal parcel of land on which the system is installed.

Section 2. Purchaser

Provide the purchaser name, company name if appropriate, and complete mailing address (as it would be written on a letter to be mailed). Enter the site address information even if it is the same as the site of installation address. Also enter the phone number and fax number of the purchaser.

Section 3. Equipment Seller Information

Provide the name of the equipment seller's company and city where located. If known also enter the CEC ID number for the seller available from the list of eligible equipment sellers [www.consumerenergycenter.org/erprebate] for most companies. Also enter the phone number and fax number. The equipment seller must register with the Energy Commission each year for the application to be considered. If not already registered provide a filled out Seller Registration Form (CEC-1038 R4) with the application. The seller must also sign and date the application form if the seller is the designated payee of the rebate. Enclose a copy of the purchase agreement with the application form.

Section 4. System Installation

Identify the name of the company hired to install the system or write in "owner install" (if a contractor is not hired and paid by the purchaser to install the system, the application will qualify for a 15% lower rebate). If installed by a licensed contractor, provide the contractor's license number, phone and fax number. All contractors must have an active "A", "B" or "C-10". A standard five year warranty form (Form CEC-1038 R3) must be submitted when payment is requested for systems installed by a contractor to qualify for the full rebate amount. Enclose a copy of the signed contract with the application form.

Section 5. Utility Bill

Identify the Purchaser's electric utility provider at the site where the system will be installed. Also identify from a monthly billing statement the service ID number, billing start and end period, and the energy usage in kWh for that monthly period. Provide all pages of the monthly billing statement with the application. Utility bills must not be older than six months from the date of application.

Section 6. System Equipment (Turbines, inverters, performance meters and other)

Provide the quantity, name of the manufacturer and exact model number for the eligible equipment as identified at [www.consumerenergycenter.org/erprebate]. Clearly identify the generating equipment such as wind turbines in the upper section. Also identify the inverters and system performance (kWh) meters (some inverters contain eligible performance meters). Eligible generating equipment, inverters and rating information is located on the Commission's website [www.consumerenergycenter.org/erprebate]. Calculate and include the system output by multiplying the inverter efficiency rating by the quantity and rating of the generating equipment used.

Section 7. Installation Type and Height (For wind only - Tower, Pole, or Roof-mounted)

For wind turbines only. provide the type of installation for your wind turbine: tower-, pole-, or roof-mounted. Also provide the height of the installation off the ground (i.e. tower or pole height or height of roof-mounted turbine).

Section 8. Rebate and Other Incentive Information

Calculate and include the system output by multiplying the quantity of generating equipment, and the generating equipment rating in watts. If the capacity of the system exceeds the capacity of the inverter, then the rating of the inverter will be used to determine the total eligible rebate amount

Quantity x Equipment Rating = System Output (watts)

Provide the system installed cost (before the ERP rebate). The ERP requires that incentives from other sources be accounted for before determining the rebate from the ERP. Five percent of any incentive received or expected from a utility incentive program, a State of California or federal government sponsored incentive program, other than tax credits, must be subtracted from the ERP rebate amount requested. The "Total Request" should therefore be based on the ERP rebate level in place at the time the application is received by the Commission and the system cost after subtracting other incentives.

Check the box indicating whether the incentive is to be paid to the purchaser or seller. If any, identify incentives expected or received from other sources. If an incentive from the ERP was received previously for this site, include the incentive amount and, if known, the reservation number, for the prior application.

Section ~~8~~9. Fuel Cell Systems

Identify whether the renewable energy system is a fuel cell system. Applicants of fuel cell systems must submit a completed Fuel Cell Supplemental Information Form (CEC-1038 R1A) with their Reservation Request Form.

Section ~~9~~10. Declaration and Signatures:

The purchaser must always print and sign his or her name on the form. If the seller is designated as the payee, the seller must also sign his or her name on the form.

Submit your request by fax (916) 653-2543 or by mail to:

ERP, Reservation Request
California Energy Commission

R1A	FUEL CELL SUPPLEMENTAL INFORMATION *EMERGING RENEWABLES PROGRAM*	**Please submit form to:** **California Energy Commission Renewable Energy Program 1516 Ninth Street, MS-45 Sacramento, CA 95814-5512**

SUPPLEMENTAL INFORMATION

1. Expected Type(s) of Renewable Fuel To be Used by Fuel Cell System: _____	*2. Expected Hours of Annual Operational for Fuel Cell System:* _____	*3. Expected Renewable Fuel Usage Annually (ft^3, gallons):* _____
4. Expected Heat Input of Renewable Fuel (mmBTU/ ft^3 or gallon of fuel): _____	*5. Expected Onsite Storage Capacity of Renewable Fuel (ft3,gallons):* _____	*6. Renewable Fuel Supplier (Name and Address):* _____
7. Backup Generation. *Will fuel cell system be used for backup generation?* ☐ *No* ☐ *Yes*. If yes, will fuel cell system provide back up generation for the following purposes? a. Emergency ☐ *No* ☐ *Yes* b. Safety ☐ *No* ☐ *Yes* c. Telecommunication ☐ *No* ☐ *Yes*		

This Fuel Cell Supplemental Information Form is submitted by the undersigned parties as part of their Reservation Request Application to the Energy Commission's Emerging Renewables Program (ERP). The information provided in this Fuel Cell Supplemental Information Form is subject to the declaration provided by the undersigned parties in their completed Reservation Request Application form (CEC-1038 R1).

The undersigned parties declare under penalty of perjury that the information provided in this form and any supporting documentation submitted herewith is true and correct to the best of their knowledge. The undersigned parties acknowledge that they are aware of the requirements and conditions of receiving funding under the ERP and agree to comply with all such requirements and conditions as provided in the Energy Commission's ERP Guidebook and Overall Program Guidebook as a condition of receiving funding under the ERP.

[PURCHASER SIGNATURE]	***[EQUIPMENT SELLER SIGNATURE]***
*Signature:*_____	*Signature:*_____
Print Name: _____	*Print Name:*_____

STATE OF CALIFORNIA-DEPARTMENT OF FINANCE

PAYEE DATA RECORD

(Required when receiving payment from the State of California in lieu of IRS W-9)

STD. 204 (Rev. 6-2003)

1

INSTRUCTIONS: Complete all information on this form. Sign, date, and return to the State agency (department/office) address shown at the bottom of this page. Prompt return of this **fully completed** form will prevent delays when processing payments. Information provided in this form will be used by State agencies to prepare Information Returns (1099). See reverse side for more information and Privacy Statement.

NOTE: Governmental entities, federal, State, and local (including school districts), are not required to submit this form.

2

PAYEE'S LEGAL BUSINESS NAME (Type or Print)

SOLE PROPRIETOR – ENTER NAME AS SHOWN ON SSN (Last, First, M.I.)

E-MAIL ADDRESS

MAILING ADDRESS

BUSINESS ADDRESS

CITY, STATE, ZIP CODE

CITY, STATE, ZIP CODE

3

PAYEE ENTITY TYPE

CHECK ONE BOX ONLY

ENTER FEDERAL EMPLOYER IDENTIFICATION NUMBER (FEIN): ___ – _____

☐ **PARTNERSHIP**

☐ **ESTATE OR TRUST**

CORPORATION:

- ❑ **MEDICAL** (e.g., dentistry, psychotherapy, chiropractic, etc.)
- ❑ **LEGAL** (e.g., attorney services)
- ❑ **EXEMPT** (nonprofit)
- ❑ **ALL OTHERS**

☐ **INDIVIDUAL OR SOLE PROPRIETOR ENTER SOCIAL SECURITY NUMBER:** ___ – __ – ____

(SSN required by authority of California Revenue and Tax Code Section 18646)

NOTE: Payment will not be processed without an accompanying taxpayer I.D. number.

4

PAYEE RESIDENCY STATUS

☐ California resident - Qualified to do business in California or maintains a permanent place of business in California.

☐ California nonresident (see reverse side) - Payments to nonresidents for services may be subject to State income tax withholding.

- ❑ No services performed in California.
- ❑ Copy of Franchise Tax Board waiver of State withholding attached.

5

I hereby certify under penalty of perjury that the information provided on this document is true and correct. Should my residency status change, I will promptly notify the State agency below.

AUTHORIZED PAYEE REPRESENTATIVE'S NAME (Type or Print)

TITLE

SIGNATURE

DATE

TELEPHONE

( )

6

Please return completed form to:

Department/Office: California Energy Commission

Unit/Section: Emerging Renewables Program

Mailing Address: 1516 9th Street, MS 45

City/State/Zip: Sacramento, CA 95814-5512

Telephone: (___) _____ **Fax:** (___) _____

E-mail Address: _____

PAYEE DATA RECORD

STD. 204 (Rev. 6-2003) (REVERSE)

1	**Requirement to Complete Payee Data Record, STD. 204** A completed Payee Data Record, STD. 204, is required for payments to all non-governmental entities and will be kept on file at each State agency. Since each State agency with which you do business must have a separate STD. 204 on file, it is possible for a payee to receive this form from various State agencies. Payees who do not wish to complete the STD. 204 may elect to not do business with the State. If the payee does not complete the STD. 204 and the required payee data is not otherwise provided, payment may be reduced for federal backup withholding and nonresident State income tax withholding. Amounts reported on Information Returns (1099) are in accordance with the Internal Revenue Code and the California Revenue and Taxation Code.
2	Enter the payee's legal business name. Sole proprietorships must also include the owner's full name. An individual must list his/her full name. The mailing address should be the address at which the payee chooses to receive correspondence. Do not enter payment address or lock box information here.
3	Check the box that corresponds to the payee business type. Check only one box. Corporations must check the box that identifies the type of corporation. The State of California requires that all parties entering into business transactions that may lead to payment(s) from the State provide their Taxpayer Identification Number (TIN). The TIN is required by the California Revenue and Taxation Code Section 18646 to facilitate tax compliance enforcement activities and the preparation of Form 1099 and other information returns as required by the Internal Revenue Code Section 6109(a). The TIN for individuals and sole proprietorships is the Social Security Number (SSN). Only partnerships, estates, trusts, and corporations will enter their Federal Employer Identification Number (FEIN).
4	**Are you a California resident or nonresident?** A corporation will be defined as a "resident" if it has a permanent place of business in California or is qualified through the Secretary of State to do business in California. A partnership is considered a resident partnership if it has a permanent place of business in California. An estate is a resident if the decedent was a California resident at time of death. A trust is a resident if at least one trustee is a California resident. For individuals and sole proprietors, the term "resident" includes every individual who is in California for other than a temporary or transitory purpose and any individual domiciled in California who is absent for a temporary or transitory purpose. Generally, an individual who comes to California for a purpose that will extend over a long or indefinite period will be considered a resident. However, an individual who comes to perform a particular contract of short duration will be considered a nonresident. Payments to all nonresidents may be subject to withholding. Nonresident payees performing services in California or receiving rent, lease, or royalty payments from property (real or personal) located in California will have 7% of their total payments withheld for State income taxes. However, no withholding is required if total payments to the payee are $1,500 or less for the calendar year. For information on Nonresident Withholding, contact the Franchise Tax Board at the numbers listed below: Withholding Services and Compliance Section: 1-888-792-4900 E-mail address: wscs.gen@ftb.ca.gov For hearing impaired with TDD, call: 1-800-822-6268 Website: www.ftb.ca.gov
5	Provide the name, title, signature, and telephone number of the individual completing this form. Provide the date the form was completed.
6	This section must be completed by the State agency requesting the STD. 204.
	Privacy Statement Section 7(b) of the Privacy Act of 1974 (Public Law 93-579) requires that any federal, State, or local governmental agency, which requests an individual to disclose their social security account number, shall inform that individual whether that disclosure is mandatory or voluntary, by which statutory or other authority such number is solicited, and what uses will be made of it. It is mandatory to furnish the information requested. Federal law requires that payment for which the requested information is not provided is subject to federal backup withholding and State law imposes noncompliance penalties of up to $20,000. You have the right to access records containing your personal information, such as your SSN. To exercise that right, please contact the business services unit or the accounts payable unit of the State agency(ies) with which you transact that business. All questions should be referred to the requesting State agency listed on the bottom front of this form.

R2 REBATE PAYMENT CLAIM FORM

EMERGING RENEWABLES PROGRAM

RENEWABLE ENERGY PROGRAM
CALIFORNIA ENERGY COMMISSION

Mail complete payment claim to:
California Energy Commission
ERP, Payment Claim
1516 Ninth Street (MS-45)
Sacramento, CA 95814-5512

Record Number _____

Payee Number _____

[CEC use only]

[CEC use only]

Total Eligible Cost: $_____ Date CFA: _____
SRO watts: _____ Rebate @ _____ = $_____

1. Confirmation of Reservation Amount

_____ has been granted a reservation of $ _____ for a _____ kW renewable energy generating system. The reservation will expire on _____. The system is being installed at _____ and is expected to produce _____ (kWh per year). The payment will be made to the _____.

The generation system must be completed and the claim submitted with the appropriate documentation by the deadline. Claims must be postmarked by the expiration date or the reservation will expire. This reservation is non-transferable. System must be installed at the installation address and sold to the above.

2. System Equipment (Wind Turbines, Fuel Cell, Inverters, kWh Meters)

Number	Manufacturer	Model
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Is this the same equipment identified in the R1 Reservation Request Form? ☐ Yes ☐ No

Total System Price $ _____
Amount paid by purchaser to date: $_____

3. Modifications

Has any of the information in section 1 or from the R1 or R1A form changed? ☐ Yes ☐ No
If yes, note the changes before claiming payment.

_____
_____
_____

The undersigned parties declare under penalty of perjury that the information provided in this form and the supporting documentation submitted herewith is true and correct to the best of their knowledge. The parties further declare under penalty of perjury that the following statements are true and correct to the best of their knowledge:

(1) The electrical generating system described above and in any attached documents meets the terms and conditions of the Energy Commission's Emerging Renewables Program and has been installed and is operating satisfactorily as of the date stated below.
(2) The electrical generating system described above and in any attached documents is either a) properly interconnected to the utility distribution grid and approved by the utility or will be issued utility approval to operate the system as interconnected to the distribution grid, or b) a fuel cell system for backup generation for emergency, safety, or telecommunication purposes that is serving electrical load that is not interconnected to the utility distribution grid.
(3) The rated electrical output of the generating system, the physical location of the system, and the equipment identified were installed as stated above.
(4) The electrical generating system described above and in the attached documents will only use renewable fuel if it is a fuel cell system.
(5) Except as noted above, there are no changes in the information regarding the seller, installer, purchaser, generating system specifications, installation location, price, expected operation, or renewable fuel type, expected usage or supplier from that information provided in the Reservation Request Form originally submitted by the undersigned.

The undersigned parties further acknowledge that they are aware of the requirements and conditions of receiving funding under the Emerging Renewables Program (ERP) and agree to comply with all such requirements and conditions as provided in the Energy Commission's ERP Guidebook and Overall Program Guidebook as a condition to receiving funding under the ERP. As specified in the ERP Guidebook, the undersigned Purchaser authorizes the Energy Commission during the term of the ERP to exchange purchaser information on this form with the Purchaser's electric utility in order to verify compliance with the ERP requirements. If a copy of the utility "letter of authorization to operate" the system is not submitted with this payment claim form, the undersigned Purchaser understands that he/she is obligated to submit a copy of this letter to the Energy Commission once it is received.

Purchaser	***Seller***	***Is payment assigned to another party?*** ☐ **Yes** ☐ **No**
Print Name: _____	Print Name: _____	**If yes, attach the payment assignment form (CEC-1038 R5) with original signatures.**
Signature: _____	Signature: _____	
Date: _____	Date: _____	

IMPORTANT - Necessary Supporting Documentation

1. Final building permit and final inspection signoff; 2. Final invoice(s) confirming the total amount paid for the system equipment and installation; 3. Five-year warranty (CEC-1038 R3 form); 4. Utility letter of authorization to interconnect the system 5. Utility bill or other proof of electrical service and consumption at the site of installation if not previously provided; 6. Renewable Fuel Supplier Attestation (CEC-1038 R2A), 7. Lease or Power Purchase Agreement, if applicable 8. Payee Data Record (STD-204)

INSTRUCTIONS FOR THE REBATE PAYMENT CLAIM FORM (CEC-1038 R2)

The CEC-1038 R2 form is used to request payment for a completely installed and operational renewable energy system. The form specifies information about the renewable energy system that was to be installed at the time the reservation request was initiated. It also serves as a means of documenting what changes occurred from the time the reservation request was processed until the time the system was installed. The payment claim form must be submitted before the reservation expires.

Section 1. Confirmation of Reservation Amount
Self explanatory.

Section 2. System Equipment Installed
Fill in the equipment information requested including the number of units, the make, complete model number, and voltage (if applicable). Enter the total system price and the amount paid by purchaser to date. If the system is a wind system, identify the height and site wind class.

Section 3. Modifications
Check the "yes" box if changes were made to the system and note any changes in the information from the previously submitted Reservation Request Form. If more space is required to note changes, additional pages may be added to the form. Changes in equipment from the original application may affect its eligibility and the amount of the rebate. If no changes were made, check the "no" box.

Signatures:
The purchaser must always print and sign their name on the form. If the seller is the rebate payee, the seller must also print and sign their name on the form. Enter the date of each signature. Original signatures are required on the form.

Please indicate whether the rebate payment is to be assigned to a third party. A third party is an entity other than the purchaser or seller. If yes, please fill in the name and address in the space provided and attach the original of the assignment form (CEC-1038 R5). The assignment form must contain original signatures. Payees that assign the rebate payment to a third party will still be reported as the recipient of the payment(s) for tax purposes.

Attachments:

Several attachments to the form must also be submitted before the claim will be processed. These include:

- A copy of the final building permit and final signoff
- A copy of the final invoices confirming the total amount paid for the system equipment and installation
- A copy of the completed and signed CEC-1038 R3 form (attach equipment warranty forms, if required)
- For grid-connected applications only, letter of authorization from the utility to interconnect the system.
- Copy of the utility bill or other proof of electrical service and consumption at the site of installation if not previously provided.
- For fuel cell systems, a completed and signed Renewable Fuel Supplier Attestation(CEC-1038 R2A)

Building Permit and Final Signoff:
<u>The name and address on the building permit must match the installation address on the payment claim form</u>.

Invoices:
The invoices must clearly identify the work that was done and the amount paid. This includes identifying the quantity, make and model numbers of major equipment installed and the labor charge for installation. To meet this requirement you may submit a copy of the final invoice(s) or a copy of the final contract(s) showing a zero balance or the amount paid by the purchaser. The invoice or contract should also indicate the extent to which the Commission's rebate lowered the cost of the system. Copies of bank statements, cancelled checks, or credit card statements may also be requested by Energy Commission staff. The final system price paid by the purchaser should match the price shown on any contract or invoice previously submitted. Any differences must be explained.

Warranty:
Complete and attach the CEC-1038 R3 form. See instructions on form for details.

Proof of Utility Interconnection:
For grid-connected systems only, utility letter of authorization to interconnect the system is required. The address in document must match the address of the installed system.

Claiming a Rebate without a Prior Reservation

To claim a rebate without a previously approved reservation, you must also submit a completed and signed Reservation Request Form (CEC-1038 R1).

Submit your request only by mail to:
ERP, Payment Claim
California Energy Commission
1516 9th Street, MS-45
Sacramento, CA 95814-5512

Allow at least 6 to 8 weeks from receipt of a complete payment claim application for payment. Payment will be mailed to the retailer or purchaser as indicated on the Reservation Request Form at the address indicated on the Payee Data Record form (STD-204), unless you have assigned payment to a third party.

R2A	RENEWABLE FUEL SUPPLIER ATTESTATION *EMERGING RENEWABLES PROGRAM*	**Please submit form to:** **California Energy Commission** **Renewable Energy Program** **1516 Ninth Street, MS-45** **Sacramento, CA 95814-5512**

I. Purchaser of Renewable Fuel Information

Purchaser Name:

Purchaser Address.

Street: City: State: Zip:

System Installation Site (street address where Purchaser's fuel cell system is installed), if different from above.

Street: City: State: Zip:

Purchaser's Fuel Cell System. Type:_____ System Rated Output (Watts):_____

Backup Generation: ☐ Yes, ☐ No. Onsite Fuel Storage Capacity (ft^3,gallon):_____ ERP Rebate No.:_____

II. Renewable Fuel Supplier Information

Company Name of Renewable Fuel Supplier:

Company Address:

Street: City: State: Zip:

Renewable Fuel Production Site (street address where renewable fuel is produced), if different from above.

Street: City: State: Zip:

Name and Title of Company Representative Completing Sections II through IV of this Form:

III. Renewable Fuel Information

Type of Fuel (e.g. hydrogen from water):

Feedstock Used to Produce the Fuel (must be from a non-fossil fuel or non-fossil feedstock):

Process Used to Produce Fuel (e.g. Electrolysis):

Source of Electricity Used to Energize Process to Produce Fuel:

Is the source of electricity used to produce the fuel an "eligible renewable energy resource" as defined in Public Utilities Code Section 399.12, with reference to Public Resources Code Section 25741? ☐ Yes, ☐ No.

If Yes, is the source of electricity a facility that has been Certified or Pre-Certified by the Energy Commission as eligible for the California Renewables Portfolio Standard (RPS)? ☐ Yes, ☐ No.

If Yes, provide the RPS Certification or Pre-Certification Identification No.:_____

Were the renewable attributes associated with the electricity used to produce the fuel disposed of separately in the form of renewable energy credits or other credits or offsets, or otherwise separated from the electricity and available for disposition, transfer or sale in the future? ☐ Yes, ☐ No.

(The electricity used to produce the fuel must remain bundled with the associated renewable attributes, so that renewable energy is used to produce the fuel. If the renewable attributes are unbundled from the electricity and disposed of separately, the fuel will not be produced with renewable energy and will not be considered a "renewable fuel" for purposes of fuel cell eligibility under the ERP.)

Energy Content of Fuel (mmBTU/ft^3,gallon):
Quantity of Fuel Supplied to Purchaser (ft^3,gallon):
Date Fuel Supplied to Purchaser:

Section IV. Renewable Fuel Supplier Attestation

I, the undersigned party, hereby declare under penalty of perjury that the information provided in Sections II through IV of this form is true and correct to the best of my knowledge. I further declare under penalty of perjury that the following is true and correct to the best of my knowledge:

1) I am an authorized representative of the company identified in Section II above and am authorized to make this attestation on the company's behalf;
2) I am aware of the requirements and conditions for receiving funding under the California Energy Commission's Emerging Renewables Program (ERP) as described in the California Energy Commission's ERP Guidebook and Overall Program Guidebook for the Renewable Energy Program;
3) I am aware that fuel cell systems are only eligible for ERP funding if they use a renewable fuel as defined in the ERP Guidebook; and
4) I am aware that the Purchaser identified in Section I above has secured funding from the ERP based on the fuel cell system described in Section I and based on the Purchaser's attestation that this fuel cell system will use the renewable fuel described in Section III above as supplied by the company identified in Section II above.

Renewable Fuel Supplier

Print Name and Title:_____

Signature: _____ Date:_____

R3

MINIMUM WARRANTY FORM
EMERGING RENEWABLES PROGRAM

System Information

This warranty applies to the following _____ kW renewable energy electric generating system

Description: _____

Located at: _____

What is Covered

This five year warranty is subject to the terms below (check one of the boxes):

☐ **All components of the generating system AND the system's installation.** Said warrantor shall bear the full cost of diagnosis, repair and replacement of any system or system component, at no cost to the customer. This warranty also covers the generating equipment against breakdown or degradation in electrical output of more than ten percent from the originally rated output (Manufacturers rating for wind turbines); or

☐ **System's installation only.** Said warrantor shall bear the full cost of diagnosis, repair and replacement of any system or system component, exclusive of the manufacturer's coverage. (Copies of five-year warranty certificates for the major system components (i.e., wind turbines, etc. and inverter- MUST be provided with this form.)

General Terms

This warranty extends to the original purchaser and to any subsequent purchasers or owners at the same location during the warranty period. For the purpose of this warranty, the terms "purchaser," "subsequent owner," and "purchase" include a lessee, assignee of a lease, and a lease transaction. This warranty is effective from _____ (date of completion of the system installation). A copy of this warranty is provided to the original purchaser.

Exclusions

This warranty does not apply to:

- Damage, malfunction, or degradation of electrical output caused by failure to properly operate or maintain the system in accordance with the printed instructions provided with the system.
- Damage, malfunction, or degradation of electrical output caused by any repair or replacement using a part or service not provided or authorized in writing by the warrantor.
- Damage malfunction, or degradation of electrical output resulting from purchaser or third party abuse, accident, alteration, improper use, negligence or vandalism, or from earthquake, fire, flood, or other acts of God.

Obtaining Warranty Service

Contact the following warrantor for service or instructions:

Name: _____ Phone: ( )
Company: _____ Fax: ( )
Address: _____

Signature: _____ Date: _____

R5

RESERVATION PAYMENT ASSIGNMENT FORM

EMERGING RENEWABLES PROGRAM

RENEWABLE ENERGY PROGRAM

CALIFORNIA ENERGY COMMISSION

Record Number _____

Payee ID Number _____

Reservation Information

Payee Name: _____

Payee Address: _____

_____

Payee Contact: _____

Payee Phone Number: _____

Assignment Request

I, _____, the designated payee or authorized representative of the payee, hereby assign the right to receive payment for the above noted reservation under the Emerging Renewables Program to the following individual or entity:

Name: _____

Address: _____

_____

Phone Number: _____

I request that payment be forwarded to this individual or entity at the address noted. Upon request proof of payment will be forwarded to me.

Acknowledgement

As the designated payee or authorized representative, I understand that I remain responsible for complying with the requirements of the Emerging Renewables Program and will remain liable for any tax consequences associated with the reservation payment, despite the payment's assignment. I further understand that I may revoke this payment assignment at any time prior to the Energy Commission's processing of the payment by providing written notice to the Energy Commission's Renewable Energy Office. Such notice shall be provided to: Emerging Renewables Program, California Energy Commission, 1516 9th Street, MS-45, Sacramento, CA 95814-5512.

Executed on: _____

Signature: _____

Name: _____

Title: _____

This completed form may be submitted with either the Reservation Request Form (CEC-1038 R1) or the Payment Claim Form (CEC-1038 R2) for standard rebates. This form may not be submitted by telefax, as original signatures are needed to process assignment requests.

Appendix 2 Tips for Consumers

This Appendix provides some basic guidelines for those who are not familiar with renewable energy systems and may be interested in learning more. The Energy Commission has a variety of sources of additional information about choosing a renewable energy system, finding retailers, or estimating a system's energy output. This information can be obtained by visiting the Energy Commission's website at [www.consumerenergycenter.org/].

A. Choosing a Contractor

Make sure the contractor is licensed by the Contractors State License Board. State law specifies that any job that costs $500 or more (labor and materials) requires the services of a licensed contractor. As with any large purchase decision, the Energy Commission recommends that a customer obtain at least two or three bids before selecting an installer or agreeing to purchase a renewable energy system. The final contractor selection should be based on various factors including company reputation, warranty service, and installed system price. The Contractors State License Board [www.cslb.ca.gov] provides helpful consumer information, has a process to address complaints against contractors, and maintains information about the status of contractor licenses. The Energy Commission recommends that the status of the installer's contractor license be verified for consumer protection.

B. Choosing a Retailer

The Energy Commission maintains a list of renewable energy system retailers to make it easier to find products in your area. The list is available on the Energy Commission's webpage at

[www.gosolarcalifornia.ca.gov/retailers/search-new.php].

C. How Much Energy Does a System Produce?

The annual amount of energy from an eligible renewable energy system can be estimated and in most cases can be guaranteed by the system retailer or installer. The annual amount of wind energy at a given location can be estimated, but is somewhat difficult to predict accurately without sufficient site wind speed data. It is important to note that wind turbines are rated at a wind speed of 28 miles per hour and some wind turbines do not produce any energy until the wind speed exceeds 12 miles per hour.

Battery backup systems are an option when purchasing renewable energy system and have the advantage of providing power during a utility outage. However, adding battery back-up significantly increases the cost of the generating system, requires additional maintenance, and reduces the useful energy output of the system by about 10 to 20 percent compared to a similar system without batteries.

Be sure to compare the energy output that contractors prepare before choosing a contractor. The energy output from a system is a much better indicator of the system performance than is the systems rated output. Also, be sure to verify that your installed system has an easy to read

meter installed that measures the energy produced in kilowatt hours. A meter is required by the ERP so that you will be able to determine if your system is operating properly. The utility meter only provides the net energy used at your home but does not tell you how much energy your system produces.

You may wish to consider purchasing a pre-designed packaged system to reduce the chance of safety or performance problems with mismatched equipment. Of course, all systems are not the same and may not suit your particular situation. Also, be sure that your system warranty clearly identifies the responsible party for repairing your system in the event of a malfunction or break down. Although you may be able to obtain lower prices by purchasing system components and equipment separately, keep in mind that the money you save may be more than offset by increased installation costs and lower energy output because of mismatched equipment. This, in turn, could affect your warranty coverage.

System prices vary depending on the technology, equipment type, local labor rates, site conditions, and other factors. The following table lists a range of system prices and annual energy production that are typical for wind energy system installations.

Table 3: Typical Wind Energy System Prices and Energy Production

Technology Type	Typical Energy Production (kWh/year)	Typical Installed System Prices[1]
Wind Energy Systems[2]		
3 kW	4,990 to 8,500	$12,000-18,000
10 kW	8,400 to 16,440	$30,000-650,000

1. Price examples are for 2010~~02~~. The incentives will decrease to promote similar reduction in price.
2. Wind calculations based on manufacturer's predicted monthly energy production for a site with average wind speeds of 11 mph and 14 mph.

Appendix 3 Criteria for Listing Components as Eligible

This Appendix summarizes the criteria used for listing which components can be used to create a renewable energy system that is eligible for a rebate from the Emerging Renewables Program.

The equipment must meet national or internationally recognized electrical standards or other appropriate criteria. Until the equipment is listed by the Energy Commission on its lists of eligible equipment for the Emerging Renewables Program, it is not eligible and no funding will be reserved or paid for a system using such equipment. Equipment that has not met the aforementioned requirements will not be placed on the lists of eligible equipment.

To have equipment listed by the Energy Commission, the equipment manufacturer must provide the Energy Commission with the following information:

- The name, address, and contact information for the equipment manufacturer;
- A detailed description of the equipment, including the equipment type, model number, and system specifications such as the rotor diameter, cut-in wind speed, and cut-out wind speed (for small wind turbines)
- Documentation demonstrating the equipment has been certified to the applicable standard;
- A copy of the certification report;
- For small wind turbines, a certified power curve showing power output (in watts or kilowatts) as a function of wind speed.
- A declaration confirming the equipment is new and unused, and is not rebuilt or refurbished equipment.

A subset of the information provided to the Energy Commission for the purposes of receiving listing on the eligible list of equipment may be made available on the Energy Commission's website.

~~If a component becomes decertified according to the testing requirements described below, and is removed from the Energy Commission's lists of eligible components before a reservation is granted, applicants may be required to modify their systems by replacing the decertified component with a certified component before a payment is issued.~~

Generating equipment (e.g. wind turbines), inverters, and performance meters are periodically added and removed from the lists of eligible equipment. The Energy Commission reserves the right to deny or remove any equipment on its lists of eligible equipment for any reason that adversely affects the goals or successful implementation of the program, including, but not limited to: poor equipment performance, concerns about equipment design or safety, concerns about the quality of data presented for purposes of equipment listing, or lack of manufacturer support for equipment maintenance and warranties. The equipment in question may be removed from the list of eligible equipment at any time and may be subject to ~~for~~ further review.

A. Small Wind

For small wind turbines not currently listed with the Energy Commission to be placed on the Energy Commission's list of eligible equipment, the turbine must meet the following requirements:

- The turbine must be certified to either the International Electrotechnical Commission 61400-2 (IEC 61400-2) standard or the American Wind Energy Association 9.1-2009 (AWEA 9.1-2009) standard by the Small Wind Certification Council (SWCC) or a Nationally Recognized Testing Laboratory (NRTL) such as Intertek.[20]
- The turbine must also have a certified power curve tested to the standards of IEC 61400-12-1, or Section 2 of the AWEA 9.1-2009 standards. The certified power curve must also come from the SWCC or a NRTL.

For all small wind turbines listed on the Energy Commission's list of eligible equipment, the power rating at 11 meters per second (24.6 miles per hour) will be used for calculating the incentive.

1. Small Wind Turbines Previously Listed

Turbines that were listed on the Energy Commission's list of eligible equipment under prior editions of this Guidebook must have a power performance certification that satisfies either Section 2 of the AWEA 9.1-2009 standard or the IEC 61400-12-1 standard in order to remain on the list of eligible equipment after the Eleventh edition of this Guidebook is adopted.

Any turbine that does not have a certified power curve at the time the Eleventh edition of this Guidebook is adopted will be removed from the Energy Commission's list of eligible equipment, but may be re-listed upon submission of a certified power curve within 12 months of the adoption of the Eleventh edition of this Guidebook.

A manufacturer must provide the Energy Commission with the following documentation within five calendar days of the adoption of the Eleventh edition of this Guidebook to ensure the manufacturer's turbine is not removed from the list of eligible equipment:

- A certified power curve for the turbine showing power output (in watts or kilowatts) as a function of wind speed.
- Documentation demonstrating the power curve was prepared in accordance with the standards of IEC 61400-12-1 or Section 2 of the AWEA 9.1-2009 standards by the SWCC or a NRTL prior to the adoption date of the Eleventh edition of this Guidebook.

[20] The AWEA 9.1-2009 standard can be found here: http://www.awea.org/learnabout/smallwind/upload/AWEA_Small_Turbine_Standard_Adopted_Dec09.pdf

Moreover, after 12 months from the date the Eleventh edition of this Guidebook is adopted, any turbine that has not received a complete certification satisfying the AWEA 9.1-2009 standard or the IEC 61400-2 standard will be removed from the list of eligible equipment.

Equipment that is removed from the list of eligible equipment may reapply to be listed upon proof of completion of certification to one of the above-listed standards.

Small wind turbines that are listed on the list of eligible equipment, but are not eligible to participate in the Emerging Renewables Program, such as turbines with a rated generating capacity exceeding 50 kilowatts, will be removed from the list of eligible equipment 12 months from the date the Guidebook is adopted.

~~There are two options to achieve ERP eligibility for small wind systems:~~

1. ~~Small wind turbines must be certified as meeting the requirements of a small wind turbine-specific safety and/or performance standard adopted by a national or international standards setting body, including, but not limited to International Electrical Code (IEC) 61400-2. The Energy Commission will monitor, review, and may participate in the Interstate Renewable Energy Council's efforts to create a national certification program.~~

   ~~OR~~

2. ~~Manufacturers of small wind systems must provide monthly data of average energy produced (kWh) and average wind speed for one consecutive year for each model of system they wish to be considered eligible for this program to demonstrate reliable operation of that model of equipment at a site with average annual wind speeds of at least 12 mph.~~

B. Fuel Cells

All fuel cells must be certified as meeting the requirements of ANSI/CSA America FC 1-2004 for fuel cell power plants.

C. Inverters

All inverters must be certified as meeting the requirements of UL 1741 **for inverters that will be used exclusively with small wind turbines or fuel cells.** –Only inverters that have completed the testing will be listed as eligible equipment.

Additional testing is required by a qualified Nationally Recognized Test Laboratory (NRTL) for inverters that will be used with solar photovoltaic systems participating in the California Solar Initiative or the New Solar Homes Partnership.[21]

[21] Nationally Recognized Testing Laboratories shall be those laboratories that have been recognized by the U.S. Department of Labor, Occupational Safety & Health Administration (OSHA), in accordance with Title 29 of the Code of Federal Regulations, section 1910.7, and are approved to conduct test UL 1741 under the scope of their OSHA recognition. A list of all current Nationally Recognized Testing

The Energy Commission also plans to consider if changes should include adjusting the ratings for inverters with battery-backup to account for losses inherent in battery back-up systems or for wind specific applications.

D. Metering Criteria

Meters must retain the kilowatt-hour production data in the event of a power outage and must be easy to read for the customer's benefit. The meter must measure the total energy produced by the system in kilowatt-hours (or watt hours) and have a manufacturer's uncertainty specification of plus or minus five percent.

E. Other Technologies

New technologies may be added by petitioning the Energy Commission, through the appropriate Committee. Applicants must submit the proper documentation satisfying all of the following criteria:

1) Financial assistance is required for these technologies to become commercially viable.
2) The technology must be commercially available with at least one vendor available for the sale of the system.
3) Vendors of any generating systems employing the technology must offer at least a five-year full warranty on the entire generating system.
4) The technology must show at least one year of demonstrated reliable, predictable, and safe performance by a full-scale facility using this technology under field conditions.
5) The available data must show that generating systems using the technology have a useful design life of at least 20 years.
6) The technology must be designed so that it can produce grid-connected electricity, unless the system purpose is for backup generation used for emergency, safety, or telecommunications.
7) The technology represents a new electricity generating process not well represented among existing grid-connected renewable generating facilities, rather than some evolutionary or incremental improvements to renewable technologies used in existing renewable resource technology generating facilities (examples of such evolutionary or incremental improvements will be: a) an improved blade design for wind turbines, b) less expensive well drilling techniques for geothermal, or c) a more efficient burner design for a biomass plant).
8) The project must be designed exclusively for the purpose of producing electricity for on-site use or sale (excluding demonstration projects that may sell to one specific customer), in contrast to a research or demonstration facility, which is designed primarily for collecting additional research data.

Laboratories is available on OSHA's web page at [www.osha.gov/dts/otpca/nrtl/index.html]. Please note, not all of the Nationally Recognized Testing Laboratories identified on OSHA's list are approved to conduct test UL 1741.

F. Criteria for Removing Small Wind Turbines from the List of Eligible Equipment

In order to insure that small wind turbines on the list of eligible equipment perform as represented to the Energy Commission by the equipment manufacturer, small wind turbines with a power coefficient (Cp) of greater than 0.593 will be removed from the list of eligible equipment. A power coefficient of 0.593 represents the theoretical maximum amount of kinetic energy that can be captured from the wind, according to the Betz Limit Theory. [22]

The Cp is calculated as a ratio of the power of the turbine at a certain wind speed to the total power in wind at that speed. The Cp is represented by Equation 1:

$$Cp = \frac{P_{turbine}}{P_{wind}}$$

The equation for the total power in the wind is shown in Equation 2:

$$P_{wind} = \frac{1}{2}\rho V^3 A$$

Where:

- P_{wind} is the power of the wind in watts
- ρ is the air density in kg/m^3
- V is the wind speed in m/s
- A is the swept area of the rotor in m^2

The power of the turbine $P_{turbine}$ is the rating at certain wind speed, supplied by the manufacturer.

G. Procedure for Removing Equipment from Eligible Lists

The Energy Commission may de-list and remove equipment from the lists of eligible small wind turbines, fuel cells, inverters, or meters for the ERP by providing the manufacturer of such equipment advance notice of equipment's removal. The notice shall identify the reason(s) for the equipment's de-listing and shall provide the manufacturer at least 10 business days from

[22] de Vries, O., Fluid Dynamic Aspects of Wind Energy Conversion, National Aerospace Laboratory NLR, The Netherlands, 1979.

receipt of the notice to respond to the Energy Commission and address the stated reason(s) for de-listing the equipment[23].

Pending the manufacturer's response to a notice of de-listing, the Energy Commission may suspend the processing of any reservation applications that propose a system using the equipment subject to de-listing. In addition, the Energy Commission may alert consumers and program participants of the equipment subject to de-listing.

If a component becomes de-listed, and is removed from the Energy Commission's lists of eligible equipment before a rebate reservation is granted, applicants may be required to modify their systems by replacing the de-listed component with a listed component before a payment is issued.

[23] This process does not preclude the Energy Commission from initiating a formal review of the equipment in question pursuant to the complaint and investigatory process set forth in the California Code of Regulations, title 20, Section 1230, et seq.

Appendix 4 Maximum System Size Calculations

This Appendix describes the method used to determine the maximum system size eligible for incentives from the program. Because the average annual residential electricity consumption in California is about 7000 kWh/yr system, 5 kW and under are exempt from the maximum size limitation.

In cases where the proposed system size is greater than 5 kW, the system must be sized so that the expected production of the system is no greater than 100 percent of the building's on-site estimated annual electricity consumption. The customer may submit either a recent utility bill, the estimated annual electricity consumption of the building based on a detailed energy use calculation signed by a professional energy rater or a letter from a qualified architect, engineer, or electrical contractor (C-10 licensed) detailing expected energy consumption. In cases where the expected electricity production is greater than 100 percent of the estimated annual consumption, the rebate reserved will be reduced by an amount equal to the ratio between the estimated annual consumption and the expected system production.

If the Energy Commission calculates a reduced rebate amount, the applicant may submit subsequent utility bills within the following three months to receive their full reservation amount, provided there are sufficient program funds available at that time to make an additional payment.

Appendix 5 Atypical Incentive Applications

A. New Construction (Building Permit)

For sites that currently do not have electrical service, a copy of the building permit for the new home or major site improvement must be included with the reservation application (not remodeling projects). All approved applications for new construction will receive 18 month reservations.

B. Systems Installed by Sellers or Contractors for Their Own Personal or Business Use

Renewable energy system sellers (e.g., retailers, wholesalers, manufacturers) or contractors who arrange to have a system installed by a separate company on their own home or place of business may qualify for the full rebate. To receive a reservation, the applicant must submit documentation consistent with that of an individual independently buying a system. When an equipment seller purchases equipment for the seller's own use, the purchase agreement (or proof of purchase) must be between the purchaser and the generating equipment supplier, in most cases the wholesaler.

The supplier must be identified as the seller on the application form and must be registered with the Energy Commission. If the labor installation is done by a contractor on his own home or place of business, the application will be treated as an owner installed system unless the contractor hires an independent company to do the system installation and is able to document payments to the independent company. The purchase and installation agreements must be between two independent entities. Documentation of a purchase between two principals or owners within the same entity or between spouses is not acceptable, nor is a purchase agreement if signed by the same individual.

C. Adding to Existing Systems

Additions to existing systems will only be allowed for systems that met past program requirements and were partially funded by participating in the Energy Commission's program. For these projects, the Energy Commission has the records and documentation identifying the equipment that was installed previously, the program warranty, and system equipment standards and warranties that were met by the originally installed equipment. The newly added generating equipment must be selected from the current lists of eligible equipment and meet the current guidebook requirements. All of the current program eligibility criteria and documentation requirements apply to the added equipment.

The rebate calculation will be based on the incremental rated capacity of the added equipment. Under no circumstances will the rebate for the added equipment exceed the current rebate for the incremental watts added.

Because the rebate for wind decreases with the system size, the incremental calculation will be based on the incremental system size above the pre-existing system.

Sample Calculation – Incremental Calculation for Wind Systems

Existing 5,000 watt system, rebate amount is: $~~3.00~~2.50 x 5,000 = $~~15,000~~12,500

Adding 6,000 watts for a total of 11,000 watts (no inverter capacity limitation)

~~Current rebate~~ Rebate level is $~~3.00~~2.50 per watt for first 10 kW and $1.50 per watt for increments above 10 kW

The rebate available for the new addition is:

5,000 W x $~~3.00~~2.50/watt + 1,000 x $1.50/watt (for contractor installation) = $14,000

D. Special Requirements for Leased Systems

Wind energy systems or fuel cells that are leased by an end-use customer or provide electricity to an end-use customer under a power purchase agreement (PPA) are eligible for ERP funding if the lease agreement or PPA is executed and has a start date on or after July 1, 2009. Lease agreements and PPAs that are executed or have a start date prior to July 1, 2009, are not eligible for funding even though the system may have been installed after this date. Lease agreements and PPAs must have an initial term of no less than 10 years and must provide the lessee or customer the option to renew the agreement, purchase the system, or remove the system at the end of the initial term of the agreement. In addition, lease agreements and PPAs must demonstrate that the ERP funding benefits the end-use customer by directly and exclusively reducing the lease payments for the system or the cost of electricity produced by the system.

For the first five years of the lease or PPA, the lessor or owner of the ~~solar energy system~~renewable energy system, in the case of a PPA, shall provide an annual status report to the Energy Commission on the operation of the ERP-funded energy system. The annual status report shall address agreements executed through December 31 of each year, be submitted to the Energy Commission no later than January 31 of each year, and shall include the following information for each system:

1) Date that the agreement was fully executed and the start date of the agreement;
2) Operational status of the system; and
3) Status of the agreement, and if status has changed, date of change and reason for the change. (Status changes would primarily include, change in lessee or customer, system purchase, termination of agreement, and system removal.)

If any lease agreement or PPA for a system that received funding from the ERP is terminated and the system is removed from the building on which it was originally installed, the ERP funding received by the applicant shall be repaid by the Lessor or system owner to the Energy Commission in the amounts specified below:

- If the agreement is terminated within one year of the system's installation or the start date of the agreement, whichever is later, 100 percent of the funding received shall be repaid;
- If the agreement is terminated within two years of the system's installation or the start date of the agreement, whichever is later, 80 percent of the funding received shall be repaid;

- If the agreement is terminated within three years of the system's installation or the start date of the agreement, whichever is later, 60 percent of the funding received shall be repaid;
- If the agreement is terminated within four years of the system's installation or the start date of the agreement, whichever is later, 40 percent of the funding received shall be repaid;
- If the agreement is terminated within five years of the system's installation or the start date of the agreement, whichever is later, 20 percent of the funding received shall be repaid;
- Repayment shall not be required if the agreement is terminated more than five years after the system's installation or the start date of the agreement, whichever is later.

Repayment will not be required if a system is destroyed by natural disaster or fire at no fault of the lessor/owner or lessee/customer.

Nothing in this section precludes an applicant from using an otherwise valid reservation to request a rebate for a system that is leased or provides electricity through a power purchase agreement.

~~Time Extension Requests~~

~~Time extensions to a reservation are not available under any circumstances. Applicants failing to install their systems and submit a complete reservation payment claim within the reservation period must reapply for funding at the rebate level and under the terms and conditions applicable at the time of reapplication.~~