



*RENEWABLE  
ENERGY  
PROGRAM*

**CALIFORNIA  
ENERGY  
COMMISSION**

**Volume 3**

**Emerging  
Renewable  
Resources  
Account**

**GUIDEBOOK**

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**These guidelines were formally adopted by the California Energy Commission on January 21, 1998, pursuant to Senate Bill 90 (Chp. 905, Stats. 97) and subsequently revised pursuant to this authority on the following dates: February 18, 1998, January 22, 1999, September 8, 1999, October 6, 1999, March 7, 2001, May 16, 2001, September 25, 2001, December 19, 2001, and September 25, 2002.**

**This guidebook contains general instructions for purchasers, lessees, lessors, or sellers of emerging renewable technologies in distributed generation applications on how to qualify and receive funding from the Emerging Renewable Resources Account of the Renewable Resource Trust Fund.**

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## Introduction

Assembly Bill 1890 (AB1890)<sup>1</sup>, enacted on September 23, 1996, provides \$540 million for the support of renewable electricity generation technologies. These funds will be collected from the ratepayers of the three largest investor-owned utilities in California from 1998 through March 31, 2002, to support existing, new, and emerging renewable electricity generation technologies. As part of the requirements of AB 1890, the California Energy Commission (Commission) submitted a Policy Report<sup>2</sup> to the Legislature with recommendations for allocating the \$540 million.

Senate Bill 90 (SB 90)<sup>3</sup>, enacted on October 12, 1997, places the \$540 million into the **Renewable Resources Trust Fund**, and contains explicit directions for distributing this fund through four distinct accounts: the Existing Renewable Resources Account, the New Renewable Resources Account, the Emerging Renewable Resources Account, and the Customer-Side Renewable Resource Purchases Account. Table 1 shows the percentage funding allocations by year.

**Table 1**  
**Yearly Allocations to Renewable Technologies<sup>4</sup>**

Account	1998	1999	2000	2001	Overall	(in millions)
Existing Technologies	57%	49%	41%	33%	45%	\$243
New Technologies	24%	28%	32%	36%	30%	\$162
Emerging Technologies	10%	10%	10%	10%	10%	\$54 <sup>5</sup>
Customer-Side	9%	13%	17%	21%	15%	\$81

To assist participants in the Renewable Energy Program in applying for funding from the various accounts within the program, the Commission developed account-specific guidebooks. These guidebooks are divided into five volumes, each corresponding to an account in the **Renewable Resources Trust Fund**:

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<sup>1</sup> Chapter 854, Statutes of 1996.

<sup>2</sup> **Policy Report on AB 1890 Renewables Funding**, published March 1997, publication number 500-97-002.

<sup>3</sup> Chapter 905, Statutes of 1997.

<sup>4</sup> These percentages apply to annual amounts of \$135 million dollars for four years as assumed in the **Policy Report on AB 1890 Renewables Funding**. Due to the fact that \$135 million will not be collected in the early years, it may be necessary to borrow some funds from one account in order to make payments in another account equal to the absolute amounts expected annually in the Report. This will only be done if the account from which money is being borrowed is not adversely affected. All funds borrowed will be returned to their appropriate account.

<sup>5</sup> This initial allocation was augmented on May 16, 2001 with an additional \$30 million pursuant to Assembly Bill 29x (Chp.8, stats.2001-02, 1<sup>st</sup> Extraordinary Session). It was augmented on September 25, 2001 with an additional \$16.2 million pursuant to Public Utilities Code section 383.5 and the Commission's Policy Report on AB 1890 Renewables Funding. On September 25, 2002 it was augmented again with an additional \$13 million from rollover funds.

- Volume 1 - Existing Renewable Resources Account
- Volume 2 - New Renewable Resources Account
- Volume 3 - Emerging Renewable Resources Account
- Volume 4 - Customer Credit Subaccount of the Customer-Side Renewable Resource Purchases Account
- Volume 5 – Consumer Education Subaccount of the Customer-Side Renewable Resource Purchases Account

In addition, the Commission developed Overall Guidelines, which set forth the administrative and legal requirements necessary to receive or appeal funding awards from the Existing, New and Emerging Account and the Customer Credit and Consumer Education Subaccounts of the Customer-Side Resource Purchases Account.

This Guidebook, identified as Volume 3 - ***Guidebook for the Renewable Energy Program***, Emerging Renewable Resources Account, addresses the eligibility and application process for receiving funding from this account under the Commission’s Emerging Renewable Buydown Program (Buydown Program). SB 90 directs that ten percent of the renewables funds provided under AB 1890 be used for the support of emerging technologies. This \$54 million is to be used to fund a multi-year, consumer-based program to foster the development of emerging renewable technologies in distributed generation applications.<sup>6</sup> The Commission’s Buydown Program was developed for this purpose. In accordance with SB 90, the Buydown Program must satisfy a number of specific requirements, including the following:

- 1) Funding for emerging technologies shall be provided through a competitive, market-based process that shall be in place for a period of not less than four years.
- 2) The program shall provide monetary rebates, buydowns, or equivalent incentives, to purchasers, lessees, lessors, or sellers of eligible electricity generating systems.
- 3) Incentives shall be issued on the basis of the rated electrical capacity of the system measured in watts.
- 4) The amount of the incentive shall decline over the term of the program.
- 5) There shall be a limit to the maximum percentage of an eligible system's cost that can be provided by the incentive.
- 6) Specified proportions of the incentive funds shall be available to smaller systems of specified sizes.

In addition, SB 90 provides that the emerging renewable technologies eligible to participate in this program are photovoltaic, solar thermal electric, fuel cell

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<sup>6</sup> The addition of \$16.2 million in rollover funds from other accounts within the Renewable Resource Trust Fund in September 2001, plus the addition of \$30 million for small systems from Assembly Bill 29x, plus the addition of another \$13 million in rollover funds brings the total funding for the Buydown Program to \$ \$113.2 million.

technologies that utilize renewable fuels, and wind turbines of not more than ten kilowatts (kW) rated electrical capacity per customer site. The law further states that these four technologies are only eligible to participate in the program if they meet the emerging technology eligibility criteria contained in the Commission's March 1997 ***Policy Report on AB 1890 Renewables Funding***.

Based on Commission staff research (e.g., Energy Technology Status Report, Targeted RD&D studies), docketed information, and testimonials by various interested parties and stakeholders at public workshops and hearings held during the AB 1890/SB 90 process, the Commission finds that photovoltaic, small wind systems (not more than 10 kW), fuel cells using renewable fuel and solar-thermal technology all meet the qualifying criteria for eligibility contained in the Commission's Policy Report. These eligibility criteria were applied to individual systems representing each of the four technology categories. At least one or more systems in each of the four technology categories was found to satisfy the eligibility criteria. Therefore, technologies from all four categories are eligible to receive funding from the Emerging Renewables Resources Account.

To qualify for funding, however, individual systems in the four eligible technology categories must meet the requirements contained in this guidebook. The Commission recognizes that there may be individual systems employing each of the four technologies that may not be able to meet these requirements because of the system's stage in its research, development and demonstration, and therefore will not qualify for funding despite the eligibility of their underlying technology.

Those who wish to receive funding from the Emerging Renewable Resources Account under the Buydown Program must purchase an electrical generating system that employs an emerging renewable technology and meets certain eligibility requirements, and follow the reservation and claim procedures outlined in this guidebook. If after reading this guidebook, you require additional information about the Buydown Program please contact the Commission Call Center at (800) 555-7794 or send e-mail to [renewable@energy.state.ca.us](mailto:renewable@energy.state.ca.us).

## **Summary of Buydown Program**

The Buydown Program is a multi-year program that provides funding in the form of rebates (also referred to herein as "buydown payments") for eligible electricity generating systems that are powered by emerging renewable resources. Funding from the Buydown Program is intended to substantially reduce the current costs of generating equipment using emerging renewable technologies. The intent is to reduce the net cost to the end user of such generating systems and, thereby, stimulate substantial sales of such systems during a period of at least four years beginning in 1998. These increased sales of generating equipment are expected to encourage manufacturers, sellers and installers to expand their operations and reduce their costs. In addition, the Buydown Program is intended to foster the siting of small, reliable generating systems throughout California at locations

where the electricity produced is needed and consumed. This is known as “distributed generation.”

Under the program, buydown payments may be made either directly to the retailer of a generating system, to the purchaser, or to the lessor in a leasing arrangement. It is expected that most purchasers of these systems will find it preferable to have the buydown payment paid directly to the retailer, and thereby deducted from the price the purchaser will pay. Purchasers of these systems can be any class of utility customer, including residential, commercial, agricultural or industrial customers. This program, however, is open only to customers of the California electrical corporations contributing to this fund and to customers of local publicly owned electric utilities pursuant to Assembly Bill 29x (AB 29x). (See “Who Can Receive the Buydown Payment?” below.) The electrical load served by the generating systems must be connected to the electrical grid of such utilities.

Additionally, the generating system must be installed on the premises of eligible customers and be sized so that the electricity produced is expected to primarily offset part or all of the customer's electrical needs at these premises. All electricity generating system components must be new and unused, and must not have been previously placed in service in any other location or for any other application, and major system components must be approved by the Commission. It is expected that systems receiving rebates from this program will remain at the original service location during their useful life. If a system is removed for any reason, you must notify the Commission in writing. To help maintain minimum standards of quality, the program also requires:

- 1) a minimum of a full five year warranty on the entire generating system if installed by a licensed contractor, or a limited five year warranty if installed by the owner;
- 2) installation by an appropriately licensed contractor, or the system owner, and in compliance with appropriate electrical codes; and
- 3) certain key system components, or the entire generating system, certified to meet certain established standards as described herein.

The amount of the buydown payment an eligible system will receive is dependent on:

- 1) the \$/watt rebate level available to pay buydowns at the time an eligible system is purchased and a buydown is reserved;
- 2) the size or rated electrical output of the system in comparison to the customer's estimated annual electrical load or usage; and
- 3) the total eligible costs of the system.

Table 2 provides the rebate levels available. These rebate levels will be reviewed on an annual basis and may be decreased if reasonable, consistent with the intent of SB 90 that rebate levels decline over the term of the program. Sellers and purchasers of generating systems may want certainty at the time their system is



ordered of the rebate amount they are eligible to receive once their system is installed. To provide this certainty, purchasers or retailers can reserve a rebate amount using the Reservation Request Form (CEC-1890C-1). Submitting this form to the Commission along with the supporting documentation (see "How Do I Reserve a Buydown") will allow purchasers or retailers to reserve a specified rebate amount for a period of 9 months for generating systems of 10 kW or smaller and for 18 months for all systems larger than 10 kW. A group of reservations in one location, such as for multiple homes in a new residential development, or for one customer at several locations, such as for multiple retail store in one retail chain, which totals 30 kW or greater in aggregate capacity, will receive an 18 month reservation period and may request an extended reservation period, which may be granted at the Commission's discretion.

When the system is installed and in service the purchaser or retailer may request a buydown payment by submitting the Reservation Confirmation and Claim Form (CEC 1890C-2) along with the other required documentation. (See "How Do I Request a Buydown Payment?" below.) If the Reservation Confirmation and Claim Form is complete and submitted with the required documentation, the Commission will then issue a check for the buydown, typically within 30 days of receiving the claim form.

**Table 2  
Buydown Program Parameters**

<b>BUYDOWN PROGRAM FUNDS</b>	<b>Rebate</b>
All systems	The lesser of \$4.50 /watt or 50% of total installed costs

To be eligible for this increased rebate level, the funding must be reserved and the system must be installed on or after February 8, 2001.<sup>7</sup> In this context, "reserved" means the date the Commission's Accounting Office receives an application for funding for a proposed system.

The Buydown Program is open to generating systems of all sizes, subject to certain conditions and restrictions. The program, however, is intended to favor small generating systems, such as those typically used by residential or small commercial and agricultural customers. Pursuant to SB 90, at least 60 percent of the program funds must be awarded to systems of 10 kW or smaller in rated output, and at least 15 percent of the program funds must be awarded for systems rated at 100 kW or less. The Commission applied this awarding requirement to the initial \$54 million allocated to the program. It also applied this requirement to the \$16.2 million (September 2001) and the \$13 million (September 2002) in rollover

<sup>7</sup> Systems not meeting the date criteria but otherwise meeting all other eligibility criteria contained in this Guidebook were eligible to receive 1) the lesser of \$3/watt or 50% of total costs for 10kw or less systems or 2) the lesser of \$2.50/watt or 40% of total costs for systems larger than 10kw.

funds reallocated to this program from other accounts within the Renewable Resource Trust Fund.

In September 2001, the Commission created two subcategories of medium systems: those systems larger than 10kW but smaller than 30 kW, and those systems that are 30 kW or larger, up to 100 kW. The rollover funds reallocated to this program for medium systems in September 2001 were distributed 75 percent to the 10 to 30 kW subcategory and 25 percent to the 30 to 100 kW subcategory.<sup>8</sup> All of the funds reallocated to this program for medium systems in September 2002 were distributed to the 10 to 30 kW subcategory.<sup>6</sup> These subcategories and allocations are intended to ensure that systems in the 10 to 30 kW subcategory have sufficient funds available for the remainder of 2002. These systems do not have the option of applying for funding under the CPUC-approved Self Generation program, which is limited to systems 30kW and larger in size.

Pursuant to AB 29x, an additional \$30 million in program funds was allocated to systems 10 kW or smaller in size. These funds may not be distributed to medium or large systems. Under AB 29x, \$8 million of the \$30 million in new program funding must be used to fund eligible systems 10 kW and smaller located in the service territories of local publicly owned electric utilities. Customers of local publicly owned electric utilities are eligible for funding under the Buydown Program for systems purchased and installed after December 19, 2001, provided the systems meet the requirements specified herein.

Pursuant to Interagency Agreement No. R500-02-006 between the Commission and the California Power Authority, an additional \$1.25 million from the Attorney General's Alternative Energy Retrofit Account (AGAERA) was provided to the Buydown Program to fund photovoltaic electricity generating systems for eligible K -12 public schools. This initial contribution from the AGAERA may be increased up to \$ 25 million under the Interagency Agreement. To qualify for these funds schools must satisfy special requirement discussed herein as part of the Solar Schools Program.

For generating systems placed in service (i.e., installed and generating) that are eligible for this program, there is a maximum payment amount of \$2,500,000 overall for any single project as defined herein.

The Energy Commission will conduct random audits of systems which have received buydown payments to ensure that the systems were properly installed, are properly functioning and are in accordance with the information provided in the reservation request and buydown claim forms. The Energy Commission will also

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<sup>8</sup> Of the \$2.43 million in rollover funds reallocated in September 2001 to the program for medium systems (\$16.2 million x 15 percent), \$1.82 million will be distributed for systems in the 10 to 30 kW subcategory and the \$0.61 million will be distributed for systems in the 30 to 100 kW subcategory.

<sup>6</sup> \$3 million of the \$13 million in rollover funds reallocated to the Emerging Renewable Resources Account in September 2002 will be distributed for systems in the 10 to 30 kW subcategory. \$10 million will go to systems 10kW and smaller in size.

periodically review the results of the Buydown Program to determine if modifications or changes to the level of buydown or other program terms and conditions are necessary to achieve the overall program goals.

## **What Types of Financial Assistance Will the Program Provide?**

The Buydown Program will make direct payments to the purchaser, seller, or lessor of an eligible electricity generating system upon satisfactory evidence that the system meets the requirements of this program.

## **Who Can Receive the Buydown Payment?**

The payment can be reserved by and paid to the purchaser, retailer, or lessor of an eligible generating system, as long as the owner of the system is not an electrical corporation or local publicly owned electric utility, and the purchaser or lessee receives electrical distribution service from either an electrical corporation contributing to the renewables fund or from a local publicly owned electric utility. At the present time the electrical corporations contributing to the renewables fund are Pacific Gas and Electric Company, Southern California Edison Company, San Diego Gas and Electric Company and Bear Valley Electric Service. Electricity customers of local publicly owned electric utilities will remain eligible for the Buydown Program on a first come first served basis until the \$8 million in funding under AB 29x is exhausted. It will most likely be the retailer, or seller, of the system that will request a reservation and receive payment of the buydown. State law, however, requires that regardless of who receives the payment, the payment shall directly and exclusively reduce the cost of the eligible system, or the cost of electricity produced by the eligible system.

## **What Generating Systems are Eligible for Buydowns?**

Eligible generating systems must meet all of the following requirements:

1. They must use one of the designated emerging renewable technologies to produce electricity.
2. For certain technologies, specified components of the systems, or the entire systems, must meet national standards. The Commission will maintain lists of components and systems that meet the required standards of the program.<sup>7</sup> These lists may be obtained by calling (800) 555-7794 or through the Commission's website at: <http://www.consumerenergycenter.org/buydown>.

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<sup>7</sup> For generating systems serving alternating current (AC) loads, both the generating equipment and the inverter must be on the Commission's lists of eligible equipment.

3. The system must be installed by a licensed contractor or the purchaser/owner, installed in conformance with the system manufacturer's specifications and with applicable electrical and building codes and standards, and it must be grid connected as defined herein.
4. The system must come with a minimum of a full five-year warranty against breakdown or unusual degradation for the purchaser, or a limited five-year warranty if owner-installed.

### ***Approved Technologies***

For a generating system to be eligible to receive a payment under this program, the system must use an approved emerging renewable technology for its production of electricity. Subject to Commission approval, there are four eligible technologies:

- 1) Photovoltaics - the direct conversion of sunlight to electricity;
- 2) Solar Thermal Electric - the conversion of sunlight to heat and its concentration and use to power a generator to produce electricity;
- 3) Fuel Cells - the conversion of sewer gas, land fill gas or other renewable sources of hydrogen or hydrogen rich gases into electricity by a direct chemical process;
- 4) Small Wind Turbines - small electricity producing, wind-driven generating systems with a rated output of 10 kilowatts or less.

### ***Certified Components or Systems***

System components must be certified or approved as described below and listed on the Commission's lists of eligible components. Systems using components that are not listed as eligible will not be issued a buydown reservation or a buydown payment. If a component becomes decertified according to the testing requirements described below, and is removed from the Commission's lists of eligible components, applicants may be required to modify their systems by replacing the decertified component with a certified component before a buydown payment is issued.

#### **Photovoltaics**

All flat plate photovoltaic modules must be certified by a nationally recognized testing laboratory as meeting the requirements of the Underwriters Laboratory Standard 1703. For concentrator modules, manufacturers of concentrator photovoltaic systems must provide acceptable evidence to the Commission for each model of system they wish to sell under this program that the module model is listed by UL, or other nationally or internationally recognized testing institution, using test procedures and requirements as appropriate for the intended use.

## **Solar Thermal**

No standards exist at present for solar thermal electric generating systems. In lieu of certification manufacturers of solar thermal systems must provide acceptable evidence to the Energy Commission of one year of reliable operation for each model of system they wish to sell under this program.

## **Fuel Cells**

All fuel cells must be certified as meeting the requirements of American National Standards Institute (ANSI) standard Z21.83 "Fuel Cell Power Plants."

## **Small Wind**

There are two options to achieve eligibility under the Buydown Program:

1. All 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 IEC (International Electrical Code) 61400-2.
2. Manufacturers of small wind systems must provide acceptable evidence to the Energy Commission for each model of system they wish to sell under this program of one year of reliable operation of that model of equipment at a site with average annual wind speeds of at least 12 mph.

## **Inverters**

All inverters should be certified as meeting the requirements of UL 1741. However, in the case of large inverters, where the size of the inverter is larger than any other inverter placed on the Commission's list of eligible inverters, a reservation may be granted if the applicant submits a signed statement acknowledging that no buydown will be paid for any part of the system unless the inverter passes a field test meeting the requirements of UL 508C and Rule 21 (utility interconnection). Payment for such a system will only be made when the inverter is shown to meet either UL 1741 or the combined UL 508C and Rule 21 standard.

## ***New Components***

All eligible electricity generating system components must be new and unused, and must not have been previously placed in service in any other location or for any other application. To ensure the Buydown Program only funds systems using new components, from December 19, 2001 forward, all applications must be submitted within 18 months of the date of the system's purchase and installation.

## ***Contractors and Installation Codes and Standards***

All systems must be installed by appropriately licensed California contractors in accordance with rules and regulations adopted by the State of California Contractors' State Licensing Board, unless they are self-installed by the purchaser (owner), and must in all cases be installed in conformance with the manufacturer's specifications and with all applicable electrical and building codes and standards.<sup>8</sup>

### **Photovoltaics**

Contractors must possess, or employ subcontractors who possess, an "A", "B", C-10 or a C-46 license.

### **Solar Thermal**

Contractors must possess, or employ subcontractors who possess, an "A", "B", C-10 or a C-46 license.

### **Fuel Cells**

Contractors must possess, or employ subcontractors who possess, an "A", "B", or C-10 license.

### **Small Wind**

Contractors must possess, or employ subcontractors who possess, an "A", "B", or C-10 license.

## ***Grid Connected***

Eligible systems in the buydown program must be grid-connected. This means simply that the system must be electrically connected (on the customer's premises) to the local utility electrical grid serving the customer's electrical load. The generating system's physical interconnection to the local utility electrical grid may be located on either side of the electrical meter used to measure the quantity of electrical energy supplied to the customer from the local utility electrical grid. The interconnection must comply with any applicable electrical codes and interconnection requirements. The system offsets the customer's energy use either directly, by supplying electrical energy otherwise supplied by local utility electrical grid, or indirectly, by supplying electrical energy to the local utility electrical grid which is then available for use by the customer or others. The electricity generated by the system may be sold to other customers through the grid, or may simply reduce the bill of the customer. The delivery, or ability to

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<sup>8</sup> For information on restrictions placed on owner-builders or self-installers, contact the Contractor's State License Board at 1-800-321-CSLB to obtain a current edition of the Contractor's License Law and Handbook.

deliver, any portion of the generating system's output into the local utility electrical grid is not required, nor must the customer loads served be only alternating current (AC) loads (that is, where applicable, the system need not have an inverter).

## **Warranties**

All retailers of generating systems which receive a buydown payment under this program must provide a minimum five-year warranty to the purchaser against breakdown or degradation of output. The warranty must cover all of the components of the generating system which are eligible for the buydown against breakdown or degradation in electrical output of more than ten percent from their originally rated electrical output. The warranty shall cover the full cost of repair or replacement of defective components or systems. Where the retailer is also the installer or professionally contracts for the installation the warranty must also cover labor costs to remove and reinstall defective components or systems.

There are three basic categories of warranties acceptable under the program. Choose the category which most closely addresses your plans, and when you send back the rebate claim form, make sure to include a copy of the appropriate warranty(s), as identified below.

**Full warranty, Option #1:** The retailer sells and installs equipment or has the system installed by a licensed contractor. The retailer should provide to the customer a full and complete five-year warranty on all parts and labor as defined by federal statute. This type of warranty would cover all of the components of the system eligible for funding under the Buydown Program and the full cost of the repair or replacement of defective system components, including the labor and handling costs.

**Proof of warranty for rebate:** Copy of full warranty.

**Full warranty, Option #2:** Retailer sells complete system; customer contracts with licensed contractor to install system. In this case the customer should get the same warranty coverage as Option #1, but from two sources. One warranty would be from the retailer who will guarantee all the equipment for at least five years. The second warranty would be from the licensed contractor, covering the quality of the installation, and agreeing to change out any equipment for a period of five years.

**Proof of warranties for rebate:** 1. Copy of equipment warranty from retailer.  
2. Copy of installation warranty from contractor.

**Limited warranty.** Customer buys system and/or system equipment from one or more retailers and installs system without a licensed contractor. A copy of a five year limited warranty covering only the major components is needed. Major components are defined as PV panels, wind turbine generators, solar thermal

engines and dishes, fuel cell reformers and cells, and inverters, if used. The retailer or manufacturer should be prepared to provide the customer with replacement equipment, i.e., new or repaired equipment. The retailer would not be responsible for warranting the labor or handling costs of removing and replacing equipment. Thus, the customer would have to bear the costs of removal and replacement of equipment.

**Proof of warranties for rebate:** Copies of major component warranties from appropriate retailers.

## **What Costs of a Generating System are Eligible for the Buydown?**

Those portions of a generating system that convert the energy source to electricity and the related power conditioning and control systems, including system performance indicators, are eligible to be covered by the Buydown Program. Labor costs to install the system are eligible if the installation is completed by an appropriately licensed contractor and a full 5-year warranty for the system and installation is provided to the customer as described herein. All systems must be installed in conformance with the manufacturer's specifications and with all applicable electrical and building codes and standards. In addition to permits issued by local authorities to install the electricity generation system and sales tax, only the following specific components and equipment are eligible to be covered by the program.

**Photovoltaics:** The photovoltaic cells, modules, mounting or tracking structures, wire, inverters, foundation (for free-standing systems), simple kW or kWh system performance meters and utility required interconnection equipment.

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

**Solar Thermal:** The concentrating and collecting apparatus, tracking and mounting structures, wiring, inverters, foundation (for free-standing systems), simple kW or 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, inverter and power conditioning equipment, cooling equipment, foundation (for free-standing systems), simple kW or kWh system performance meters (except for batteries) and utility required interconnection equipment.

There are a number of system costs that may be included in sales or installation contracts that are not eligible for a rebate in this program. Sufficient detail must



be provided to program staff to separate these costs from eligible costs. The costs of any equipment for the storage of the electricity produced are not eligible. The cost of batteries and related battery system components (such as charge controllers, battery cables, battery enclosures, and battery monitoring equipment) are not eligible costs. Systems may be installed by the purchaser, but no labor costs are eligible if a system is installed by someone other than a licensed contractor as described above. No labor costs are eligible if the system and installation does not come with a full five year warranty. Other costs that are not eligible are items that are not typically required for a given eligible system installation. These ineligible costs include but are not limited to tree trimming, re-roofing, roof repairs or reinforcement, landscaping, or relocating vent pipes or moving other equipment.

A maximum of \$0.50 per watt will be used to determine the eligible portion of materials used for new parking structures, patio covers, carports, and other dual-use open-air structures where they also serve as the mounting structure for photovoltaic panels.

## **How Big Can My System Be?**

There is no minimum size or rated electrical output for systems to be eligible under this program if the purchaser receives distribution service from Pacific Gas & Electric Company, Southern California Edison Company, San Diego Gas & Electric Company or Bear Valley Electric Service. However, if the purchaser receives distribution service from a local publicly owned electric utility, the combined electrical output of all emerging renewable energy systems installed at the purchaser's site cannot exceed 10 kW. For small wind systems the combined electrical output of all wind turbines installed at one site cannot exceed 10 kW. For all other eligible emerging technologies, there is also no specific limit on the maximum rated electrical output of a system except as noted for customers of local publicly owned electric utilities. For all eligible systems regardless of technology, however, 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. This means that the expected production of electricity by the system should not exceed the historical or expected electrical needs of the electricity consumer at the site of installation by more than 100 percent. For example, if a purchaser's home or business where the system will be installed has used about 10,000 kilowatt hours (kWh) of electricity per year in the past, the generating system should be sized to produce no more 20,000 kWh per year (100 percent more than the historical need).

The Commission will determine the maximum size of eligible systems as follows: Any system that is 10 kW or less installed on grid-connected customer premises<sup>9</sup>

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<sup>9</sup> Systems installed at residential sites are considered installed with the intent of primarily offsetting all or part of the on-site load. A residential-sized system installed at a commercial site is almost certain to be installed with this intent, since commercial loads are typically larger than residential.

is clearly intended primarily to offset customer load at the premises. No calculation of usage is required for systems that are 10kW or smaller.

For systems that are greater than 10 kW, the Commission will calculate a “benchmark” production for the system using the following formula:

$$\text{Benchmark Energy Produced} = \text{System Capacity(kW)} \times 1050\text{kWh/year}^{10}.$$

This Benchmark Energy Produced (BEP) will be compared to the estimated annual consumption included on the Buydown Reservation Request Form. If the BEP is less than 200 percent of the estimated annual consumption, the full rebate requested will be reserved. If the BEP is greater than 200 percent of the estimated annual consumption, then the rebate reserved will be reduced by an amount equal to the ratio between the estimated annual consumption and the BEP.

The Commission will compare the estimated annual consumption to the consumption reflected on the electricity bill submitted with the reservation form. In cases where the estimated annual consumption appears to be inconsistent with the electricity bill submitted (for example, when the monthly consumption shown on the electricity bill is less than 8.5 percent of the estimated annual consumption), the Commission will request additional information from the applicant, and will not process the reservation until satisfactory information is received. In the case of applicants with new or expanded facilities, where there is no electricity bill to attach or where the existing electricity bill does not reflect the applicant’s expected expanded consumption, the applicant must submit an electricity bill when the system is complete or submit a signed statement by an architect, engineer or electrical contractor that the requisite electricity consumption is occurring or will occur at the site.

Applicants who are awarded Buydown Reservations based on new or expanded loads will be paid the full the amount of their Buydown reservation once they have

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The average annual residential electricity consumption in California is about 7000 kWh/yr. The maximum size of system that would primarily offset this average load, given conservative system production, is about 13 kW ( 200% \* 7000 kWh / (.12\*8760). Hence, assuming that systems 10 KW or less are intended to primarily offset on-site load is reasonable.

<sup>10</sup> The annual energy produced by a system is influenced by many factors, including the amount of insolation (sunlight) at a particular geographic location, the orientation (tilt and direction) of the system, the degree of cloud cover, any shading that affects the system, and cleanliness. The BEP calculation above estimates the amount of energy produced by a system with a relatively low 12% capacity factor; that is, a system with relatively poor location, orientation, etc. This represents a conservative estimate of the energy that will be produced by a system. Most systems, with more favorable characteristics, will produce a greater amount of energy. However, a system installed in a relatively poor location with the intent of offsetting the onsite load should not be rejected through the use of an optimistic or even an average estimate of energy production. Therefore, using the BEP calculation for a relatively poorly performing system allows these systems to be eligible, consistent with the intent of SB 90. Using this calculation for all systems minimizes the administrative cost of predicting the energy produced by the system in relation to the load at the site.

submitted a bill that is consistent with their new or expanded estimated consumption and have otherwise satisfied the requirements for requesting a Buydown payment. Applicants with systems 10 kW or less need only submit a bill verifying grid connection at the site of installation. For applicants with systems above 10 kW, the Commission will check the submitted electricity bill for usage consistent with the expected load, and calculate the appropriate buydown as described above. If the Commission calculates a reduced Buydown amount, the applicant may submit subsequent utility bills within the following twelve months to receive their full reservation amount, provided there are sufficient program funds available at that time to make an additional payment.

**Peak load capacity option:** A customer may submit documentable information that the proposed system is not greater than 200 percent of on-site peak demand, in kw, during any month. Documentable historical information can be a utility statement within the last 12 months. For a new customer load or addition to present load, documentable information can be a detailed energy use calculation, signed by a licensed electrical contractor.

## How Much is the Buydown?

The amount of a buydown will depend on the electrical size of your system (its rated electrical output in watts) in comparison to your electricity usage, the total eligible costs of your system, and the level of rebate available at the time your reservation is made or, if no reservation is made in advance, the level of rebate available at the time your system is purchased, installed, and the necessary buydown application forms and supporting documentation are submitted to the Commission.

The Commission will determine the buydown amount appropriate for your system when you submit a completed Reservation Request Form and the necessary supporting documentation. However, should you wish to calculate the approximate buydown amount that you will receive, the process to determine the buydown available to your system is as follows:

- 1) Determine the buydown level per watt and the percentage cap of system costs available for a system of your rated output.
- 2) Multiply your System Rated Output in watts by the applicable level of buydown payment per watt of output. (See Section 4 of "Instructions for Completing CEC 1890C-1 Reservation Request Form " to determine the System Rated Output for different types of generating systems.
- 3) Multiply the Total Eligible System Costs by the maximum percentage of system costs applicable for your size of system. (See "What Costs of a Generating System Are Eligible for the Buydown?" to determine your eligible system costs.)

- 4) If your system is sized appropriately in comparison to your electrical usage the lower of the amount resulting from #2 or #3 above will be the approximate buydown amount reservable for your system. The Commission will calculate your actual buydown reservation when you submit a completed Reservation Request Form.

## **Do Financial Incentives from Other Sources Affect the Amount of Buydown I Can Receive?**

Possibly. The exact answer will depend on the cost of your system and the level of available buydown payment. All financial incentives, except tax credits, that lower the cost of a generating system to the purchaser or lessee under this program must be subtracted from the otherwise eligible costs of the system before the buydown amount the system is determined. In other words, when calculating the total eligible system costs to request a buydown reservation or to claim a buydown payment, the total eligible system costs should be net of any incentives from any other source except tax credits. (See "How Do I Reserve a Buydown?").

Systems that receive incentives under the CPUC-approved Self Generation Program may not receive reservations or incentives from that program and the Buydown Program totaling more than \$4.50 per watt or 50 percent of net system costs, whichever is less.

Reservation requests for systems installed within the service territory of a local publicly owned electric utility with an incentive program that effectively lowers the cost of the system or its installation to the customer must include a letter from the utility. The letter must state whether the system has received or will receive an incentive from the local publicly owned electric utility for the system described in the reservation request. The letter must also include the amount of the buydown, rebate or cash incentive received from the utility, if any. Systems that receive incentives from a local publicly owned electric utility shall not receive reservations or incentives from that utility and the Buydown Program totaling more than \$4.50 per watt.

An exception is made for schools participating in the Solar Schools Program as described herein. Schools applying for the AGAERA incentive and meeting the requirements of the Solar Schools Program will receive a grant of 40% of eligible system costs in addition to the Buydown Rebate, provided funds are still available in their electricity service area.

## **What is the Maximum Buydown Amount Any Single Project Can Receive?**

For all generating systems eligible for this program, no single project can receive more than \$2,500,000 in total buydown payments. A "project" is defined to be "all

otherwise eligible generating systems installed during the term of this program at one physical site and serving the electrical needs of all real and personal property located at that site, where a site is a single parcel of real property plus any improvements.”

## **How Long Does My Reservation Last?**

The Reservation Confirmation and Claim Form will give the dollar amount of buydown reserved for the specified system size and proposed installation site. The Reservation will expire nine months after the date of issuance of the Confirmation and Claim Form for small systems (10 kW of rated output or smaller) and after eighteen months for all other system sizes (larger than 10 kW). A group of reservations in one location, such as for multiple homes in a new residential development, or for one customer at several locations, such as for multiple retail stores in a retail chain or for multiple schools in a single school district, which total 5030 kW or greater in aggregate will receive an 18 month reservation period. Extensions to these time periods may be granted at the Commission’s discretion, as noted in the following section. Systems not installed by the expiration date of the reservation may reapply for a buydown. Such reapplications will receive the level of buydown payment available at the time of reapplication, which may be a lower rate of payment than the originally reserved buydown.

## **Can My Installed System Be Different Than My Reservation?**

The Commission expects a system to be installed as described in the Reservation Confirmation, but recognizes that minor changes may result during installation and that substantive changes may be necessary in extraordinary circumstances. Minor changes, such as increases and decreases in the size of the system or changes in certified components of the system, do not require prior approval, but must be documented on the Reservation Confirmation and Buydown Claim form. The rebate amount is still subject to availability of funding, as discussed below.

### ***Substantive Changes***

Substantive changes, such as change of purchaser, location or expiration date of reservation, require prior approval by the Commission’s Renewables Committee and can be considered if requested in writing. Each request must describe the need for the change and must document the following:

1. Circumstances beyond the control of the reservation holder that prevent the system from being installed as described under the reservation.
2. Neither the holder, retailer or installer knew or had reason to know of the above circumstances (criteria 1) at the time the current reservation was issued.

3. The holder, retailer or installer has incurred documentable costs or expenses, either through the purchase of system equipment or by other construction costs expressly for the purpose of installing the reserved system, equaling no less than 25 percent of the reserved system's total cost, and said costs or expenses are unrecoverable unless the requested change is approved.
4. There are no other known obstacles in the way of completing the project.
5. The requested change would otherwise comport with all of the eligibility requirements of the Buydown Program.

A request to change the expiration date of the reservation must be limited to 3 months of additional time for reservations concerning single small systems and 6 months of additional time for all other system sizes and group reservations for multiple systems.

Any requests made within 30 days of the reservation expiration date shall include an explanation of why a more timely request was not possible under the circumstances. The Buydown Program Manager will notify requesting parties of a decision on their request within 30 days of the receipt of a complete request. Approval of a request for a change in purchaser location or expiration date will not change or modify any other reservation condition.

## **How A Change Affects the Buydown Amount**

If any change results in the installed system differing in its rated electrical output from the system originally specified in the Reservation Request Form, a new buydown payment amount will be recalculated. If the installed system is smaller in output and its eligible costs are lower than those originally specified in the Reservation Request Form, the new buydown amount will be determined using the same Buydown Program parameters of buydown per watt of system output and maximum buydown as a percentage of eligible system costs that were used to calculate the originally reserved buydown amount.

On the other hand, if the installed system is larger or more expensive than that originally specified for the reservation, we will provide the maximum allowable rebate available at the time the claim form is submitted. There are several factors that preclude or limit our ability to increase a rebate, including: 1) No additional funds are available at the original rebate level; 2) No additional funds are available within a size category at the original rebate level; and 3) We may be unable to increase the project size above 10kW or 100kW because of legislatively mandated minimum funding levels for projects up to 10kW (60 percent of funds) and for projects up to 100kW (75 percent of funds).

## **Special Requirements for Leased Systems**

To ensure that leased systems are not prematurely removed from the site of installation, leased systems must remain at the original site of installation for a period not less than five years. The lease agreement must specify a lease term of no less than five years and must limit the lessor's remedies, in the event of breach, to monetary damages. The lease agreement may not permit the lessor to remove the system from the original site of installation because of the lessee's default or breach of the lease agreement. In addition, the lease agreement must clearly demonstrate that the program rebate benefits the lessee by directly and exclusively reducing the lease payments for the eligible system.

In determining the total cost of leased systems, the Commission will not consider any finance, interest, insurance, or maintenance costs or any lease processing fees.

As with purchased systems, only new and unused system components and equipment are eligible for funding under the Buydown Program.

The rebate for leased systems will be paid to the retailer of the system or to the lessor as the system purchaser. The rebate will not be paid to the lessee.

## **Special Requirements for the Solar Schools Program.**

Pursuant to Interagency Agreement No. R500-02-006, the Commission and the California Power Authority have established the Solar Schools Program to provide a higher level of funding for public schools to encourage the installation of photovoltaic generating systems at more school sites. The Solar Schools Program is a subset of the Buydown Program and is funded by the Commission's Emerging Renewable Resources Account and the Attorney General's Alternative Energy Retrofit Account (AGAERA).

The Solar Schools Program provides up to 90% of the cost of an eligible photovoltaic generating system. The Emerging Renewable Resources Account will provide up to 50% of this amount, the AGAERA up to 40%, and the qualifying school or school district the remaining balance. To further assist schools, the remaining balance may be financed through a loan from the Commission's Energy Efficiency Financing Program<sup>11</sup> or through a loan from another public agency.

The Solar Schools Program is limited to public schools, kindergarten through 12<sup>th</sup> grade, that receive electric distribution service from Pacific Gas & Electric Company (PG&E), Southern California Edison (SCE), or San Diego Gas & Electric

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<sup>11</sup> For information on the Commission's Energy Efficiency Financing Program see the Commission's web site at [www.energy.ca.gov/efficiency/financing](http://www.energy.ca.gov/efficiency/financing), or contact Virginia Lew (916) 654-3838.

Company (SDG&E). To be eligible for funding a school must have installed high efficiency fluorescent lighting (T8 lamps and electronic ballasts) in at least 80% of its classrooms or have implemented other energy efficient measures with equivalent or greater energy savings as determined by the Commission. A school must also establish a curriculum tie-in plan to educate students on benefits of solar energy. The California Power Authority, in conjunction with the California Department of Education (CDE), has established minimum requirements for curriculum tie-in plans that must be satisfied. The CDE must approve a curriculum tie-in plan in writing. The CDE requires that at a minimum the curriculum tie-in plan explains how the photovoltaic generating system will be incorporated into the education plan of the participating school. The plan must outline the involvement of teachers and students, and indicate what will be done and by whom (named and with contact information). Contact **Steve Newsom at the California Department of Education at (916) 322-2482 (Fax: 916 323-5726)** for further information regarding the requirements and review process for approval of curriculum tie-in plans.

Funding under the Solar School Program is available only for photovoltaic generating systems that satisfy the requirements of the Buydown Program. In addition, the total cost to purchase and install the system may not exceed \$8.50 per watt as described herein. (See "Instructions for Completing CEC 1890 C-1 Reservation Request Form" for instructions for calculating a system's total rated output in watts.) If the total cost of the system and installation exceeds \$8.50 per watt, the system is not eligible for the higher level of funding under the Solar Schools Program, but may still qualify for funding under the Buydown Program. The Commission will only consider eligible system and installation cost as described earlier herein.

Funding under the Solar Schools Program is limited to \$153,000 per qualifying school district on a total expenditure of \$170,000.<sup>12</sup> In addition to the funding cap per district, AGAERA funds are limited by electric service territory and are proportionally allocated to the service territories of PG&E, SCE and SDG&E based on the electric power sales of these utilities. The initial allocation of AGAERA funds is 45% to schools in PG&E's service territory, 45% to schools in SCE's service territory, and 10% to schools in SDG&E's service territory. The initial allocations may be adjusted during the course of the Solar School Program as needed, and funds from one utility service territory may be reallocated to another utility service territory if funds go unused.

In order to accommodate the process for approving school projects, as well as the additional time needed for doing so, the Solar School Program uses a two-stage rebate reservation process. The first stage is the issuance of a preliminary rebate reservation, which is issued based on evidence of school eligibility and

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<sup>12</sup> The Solar Schools Program provides 90% of net system costs up to the equivalent of 20kW per school district. As total system cost must not exceed \$8.50 per watt, the maximum available incentive per school district is \$153,000 (20kW x \$8.50/Watt x 1,000W/kW x 90%).



commitment and expires six months from the date of issuance. The preliminary rebate reservation allows the Commission to set aside program funds while providing schools time to solicit project bids, secure a system vendor, installer, and/or contractor, and start the process for securing the necessary approvals. The second stage is the application for a rebate reservation. In order to be approved, the reservation request and accompanying paperwork must meet the requirements of the Buydown Program specified herein. After the system has been installed, the school must submit a claim for payment and accompanying final paperwork (See "How do I Request a Buydown Payment?").

Schools that do not meet the requirements of the Solar Schools Program may still apply for funding under the Buydown Program.

## How Do I Reserve a Buydown?

The amount of the buydown payment may change during the term of the program. Consequently, most sellers and buyers of generating systems will want to be certain of the amount of buydown payment they will be receiving before ordering and installing the generating equipment. To obtain a buydown reservation, you must submit the following items:

1. **Reservation Request Form (CEC-1890C-1)** - The Reservation Request Form must be signed by the purchaser. It also must be signed by the seller or installer if the rebate is to be paid to the seller or installer. (A blank copy of the Reservation Request Form is included with this guidebook).
2. **Proof of Agreement to Purchase** - Proof of an agreement to purchase and install the proposed generating equipment may be shown by submitting a "letter of intent," "purchase order," or "proof of down-payment," as defined in the "Definitions" section towards the end of this guidebook. An agreement for the installation is not needed if the system is not installed professionally. As explained earlier in this guidebook, the costs of any equipment for the storage of the electricity produced (ie. batteries and related system components) are not eligible for a buydown and should be clearly identified. Estimated installation material costs for owner-installed systems may be submitted with the reservation request provided that they are accompanied by a completed and signed "Owner Installed Miscellaneous Cost Statement" (CEC-1890 C-1b) included in the appendix to this guidebook.
3. **Proof of Agreement to lease** - For leased systems, the proof of agreement to lease must contain two sections. It must contain the proof of agreement by the lessor to purchase the system from the seller as described in item 2 above. It must also contain the lease agreement between lessor and lessee and identify the physical address of the system, the quantity, make, and model of major system components, the lease term or duration, terms of payment, the total cost of the lease itemized so as to identify the capital cost and any financing,

interest, insurance or maintenance cost and any fees, the total amount to be paid by the lessee over the term of the lease, indication that the rebate benefits the lessee by directly and exclusively reducing the lease payments for the eligible system, and the signatures of both the lessor and lessee.

4. **Proof of utility interconnection** - If the installation location currently has electrical service, the proof of utility grid interconnection should show that the site receives electrical distribution from an eligible service provider (i.e. utility bill showing address of installation site). If the installation location is a new facility and there is no electricity bill to attach, the applicant must submit a signed statement acknowledging that a utility bill or utility interconnection agreement must be provided before a buydown payment will be made on a completed system. Alternately, the applicant can submit a signed statement by an architect, engineer or electrical contractor that the requisite electricity consumption will occur at the site.
5. **Vendor Data Record (Form STD-204)** - This form must be completed by the person or business entity receiving the rebate payment. This person or entity is identified as the "Payee" on the Reservation Request Form, CEC 1890-1. (Note, a person or entity identified as the "Payee" on the Reservation Request Form, which has previously submitted a complete STD-204 form with prior applications, may reference the prior STD-204 form in lieu of submitting a new form.
6. **Applicants of Local Publicly Owned Electric Utilities** - Reservation requests for systems installed within the service territory of a local publicly owned electric utility that has its own program for funding distributed generation systems must include a letter from the utility stating whether the system has received or will receive any incentive from the program that effectively lowers the cost of the system or its installation to the customer. The letter must also include the amount of the incentive, if any.

**New Housing Developments:** To obtain a buydown reservation for a new housing development where the sum of individual installed systems will total 30 kW or more, you may submit the following items instead of submitting a separate application for each address:

1. **One Reservation Request form** (CEC-1890C-1) for the entire new housing development. The Reservation Request form must be signed by the homebuilder (purchaser) and the seller (retailer) of the electricity generation system. The form must indicate the payee for all of the rebates in the housing development, the retailer name and address; installer name, contractor license class and number, and address; homebuilder name; expected utility provider; and generating system technology. The Reservation Request form must refer to the master purchase agreement for a list of the physical addresses of the systems; the quantity, make and model of the electricity generating equipment and inverters to be installed at each address; the PTC power rating, total

output, peak inverter efficiency, system rated output; and the total cost of system, other incentives, battery-related costs, total eligible system cost and buydown requested for each address,

2. **One Master purchase agreement** for the entire new housing development. The master purchase agreement must contain the following information: signature of homebuilder (purchaser) representative, seller (retailer), and installer (unless a letter or installation agreement for each subcontractor stating the price charged for specified homes in the housing development is provided); a list of the physical addresses of the systems; the quantity, make and model of the electricity generating equipment and inverters to be installed at each address; the PTC power rating, total output, peak inverter efficiency, system rated output; the total cost of the system, other incentives, battery-related costs, and total eligible system cost and buydown requested for each address,
3. **Vendor Data Record** (STD-204) as referenced in Item 5 above.
4. **Building permit and final inspection signoff** (at time of payment) - submit a copy of the electronic building permit record (or building permit) showing final inspection signoff for the housing development or an interconnection agreement listing all of the addresses at which the utility confirms that an eligible electricity generation system was correctly installed. See "How do I request a buydown payment?" for additional paperwork required at the time payment is claimed.

**Solar Schools Program:** To apply for the Solar Schools Program, schools or school districts must submit the following items.

1. **Solar Schools Program preliminary reservation request form** (CEC 1890 C-1c) Complete the Solar Schools Program preliminary reservation request form included in the appendix of this guidebook. The preliminary reservation request form must be submitted with one or more school board resolutions of support, documentation of the school's installation of energy efficient lighting or other comparable energy efficient measures, and written confirmation of an approved curriculum tie-in plan. Fax the form and required attachments to (916) 653-2543 ATTN: Solar Schools Program or mail to California Energy Commission, 1516 Ninth Street, MS-45, Sacramento, CA 95814-5512. Each of the required attachments is addressed separately below.
  - a. **School Board Resolution(s).** Provide one or more board resolutions stating support for the solar project, energy efficiency project, and curriculum tie-in plan for the school at which the photovoltaic system will be installed. Resolution(s) must state the school district's intent to install an eligible photovoltaic system at the specified site, to solicit bids for the purchase and installation of said system, and to limit the total cost of the system and installation to no more than \$8.50 per watt. The resolution(s) must also state that the school district's capability and commitment to

oversee and pay for the operation and maintenance (internally or with 3<sup>rd</sup> party contract) of any photovoltaic system funded through the Solar Schools Program.

**b. Evidence of Energy Efficiency Lighting.** Provide evidence that at least 80 percent of the school's classrooms use high efficiency fluorescent lighting (T8 lamps and electronic ballasts) or that the school has implemented other energy efficient measures with equivalent or greater energy savings as determined by the Commission. Checking the box in Section 5 of the Solar Schools Program preliminary reservation request form (CEC 1890 C-1c) and signing this form is sufficient to show the use of high efficiency fluorescent lighting (T8 lamps and electronic ballasts) in at least 80 percent of the school's classrooms. Additional evidence is required if other energy efficient measures with equivalent or greater energy savings have been installed. For further information, please contact **Virginia Lew at the Commission at (916) 654- 3838.**

**c. Approval of Curriculum Tie-in Plan** – Submit a copy of the letter from the California Department of Education (CDE) confirming approval of the school's curriculum tie-in plan with the Solar Schools Program Preliminary Reservation Request Form.

**2. Reservation Request form and accompanying paperwork** - Before the expiration of the preliminary reservation, a school must apply for a rebate reservation by submitting a reservation request form (CEC-1890C-1), proof of agreement to purchase the specified system, proof of utility interconnection to PG&E, SCE, or SDG&E showing the physical address of the school, STD-204 form, and documentation of other incentives (if any) as described above. In addition to the requirements specified above, the proof of agreement to purchase must clearly specify that the total cost of the system and installation does not exceed \$8.50 per watt and must itemize all labor and equipment included in the purchase price.

Additional blank forms can be obtained by calling the Commission Call Center at 1-800-555-7794 or from the Commission Website at:

<http://www.consumerenergycenter.org/buydown>

**It is preferred and suggested that the form be delivered by FAX to (916) 653-1435.** If sent by mail, it should be addressed to:

**Emerging Technologies Buydown Program**  
California Energy Commission  
Accounting Office  
1516 - 9th Street, MS-2  
Sacramento, CA 95814-5512.

No buydown money will be reserved until all information and documentation required for the Reservation Request Form is received by the Commission.

Reservation Request Forms will not be processed if they are not complete, legible, or accompanied by the supporting documentation. In this case the Commission will request the needed information in order to process the request form and will provide the submitting party 30 days in which to respond with the information. If the information is not submitted within this time the Reservation Request Form will be returned to the submitting party and not processed further unless resubmitted with the required information.

## **Instructions for Completing CEC 1890C-1 Reservation Request Form**

**Section 1:** Provide the name, address and business phone number of the seller (retailer) of the system. Also include a telefax phone number to have the buydown Reservation Confirmation Form returned by telefax. If there is no telefax number provided, the Reservation Confirmation will be mailed to the seller's address. If the purchaser (customer) is requesting the buydown be paid to the purchaser rather than to the seller, the purchaser may enter the seller's name, address, and phone numbers in Section 1. If the purchaser is buying system components from more than one seller, Section 1 may be left blank.

**Payee I.D. Number:** Every retailer (or purchaser, if the purchaser will be receiving the buydown payment) must have a Payee I.D. Number assigned to them before a buydown payment can be made under this program. This will be assigned by the Energy Commission Accounting Office. If the retailer will be receiving the buydown payment and has been previously assigned an I.D. Number by the program, enter it at the top of Section 1. If the purchaser is to receive the buydown payment, the purchaser's Payee I.D. Number should be entered at the top of Section 3. If this is the first Reservation Request Form you are submitting, please also submit a Vendor Data Record Form (STD. 204), a copy of which is included in the Forms section of this guidebook. 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) as required by the State Revenue and Taxation Code, Section 18646, and Internal Revenue Code, Section 6109. Form STD 204 must be on file with the Commission before any payments can be made. If you have any questions about this form, please contact the Franchise Tax Board at 1-800-852-5711.

When you receive your first buydown Reservation Confirmation Form acknowledging the amount of a buydown reservation, your Payee I.D. number will be printed on the top of this form and this Payee I.D. Number should be used on all future Reservation Request Forms that you submit.

**Section 2.** Provide the installer's name, address and other information, if different from the seller of the equipment, and the California license class and number of the installing contractor. See "What Generating Systems are Eligible for Buydowns?" to be sure that the installer has the appropriate class of contractor's license. If the purchaser intends to install the system, write "Owner Install" in the space provided for the contractor's license class and number.

**Section 3.** Provide the name and daytime phone number of the purchaser or lessee of the system. Provide the street address or other description of the physical location where the system is to be installed. Insert the name of the utility or electrical service provider who currently provides electrical distribution services to the site where the system is to be installed, and attach a copy of a monthly statement or bill showing electrical distribution service to the installation site, if service presently exists. Provide the prior 12 months consumption of electricity at the premises where the system is to be located. This information can be obtained by summing up the usage from the monthly utility bills or by contacting the utility serving the premises. Designate whether the buydown payment is to go to the retailer or purchaser or lessor. If the purchaser will be receiving the payment, a Payee I.D. Number will be required. See the instructions for Section 1, above, for information on how to obtain a Payee I.D. Number and how to include Form STD 204 with this reservation request in order to be issued a Payee I.D. Number, if you do not presently have one. Your Payee I.D. Number should be entered at the top of Section 3.

**Section 4.** Program Information: Indicate whether the purchaser or others have issued Buydown Reservations for eligible generating systems installed or to be installed at the Physical Address identified in Section 3 of this form. Identify the Buydown Reservation numbers and the size of any such generation systems for which Buydown Reservations have been issued.

**Section 5.** Program Information - Generating System: **Check appropriate technology box.**

***For Photovoltaic Systems***

Enter the manufacturer's name, model number and number of photovoltaic modules that your system will contain. Only photovoltaic modules that have been certified by a nationally recognized testing laboratory are eligible for the Buydown Program. Enter the "PTC" (not STC) rating of the modules. PTC ratings can be obtained from the module manufacturer. The Commission will maintain a list of certified modules and their PTC ratings which can be obtained via fax by calling 800-555-7794 or through the Commission's Website at <http://www.consumerenergycenter.org/buydown>.

Enter the manufacturer, model and peak inverter efficiency of the inverter in your system. Inverters must likewise be certified by a nationally recognized testing

laboratory and a list of certified inverters can also be obtained from the Energy Commission.

Multiply the Total Module Output by the Peak Inverter Efficiency to determine the System Rated Output and enter the output in the box provided.

### ***For Fuel Cells Using Renewable Fuel***

Enter the manufacturer's name and model number. Eligible fuel cells must be certified to meet all of the requirements of the American Gas Association, No. 8-90. For the System Rated Output enter the manufacturer's continuous duty AC rated output in watts (not kilowatts). A list of eligible fuel cells and their power output can be obtained via fax by calling 800-555-7794 or through the Commission's Website at: <http://www.consumerenergycenter.org/buydown>.

### ***For Small Wind Turbines***

Enter the manufacturer's name and model number. Eligible wind turbine models must have demonstrated one year of reliable operation to be eligible for this program. For the Wind Turbine Power Output enter the highest electrical output from the manufacturer's power output curve for wind speeds up to 30 mph or less. A list of eligible wind turbines and their power output can be obtained via fax by calling 1-800-555-7794 or through the Commission's Website at: <http://www.consumerenergycenter.org/buydown>.

For wind turbines that use an inverter to produce AC power and for interconnection to the electric grid, enter the manufacturer, model and peak inverter efficiency of the inverter. Inverters must be certified by a nationally recognized testing laboratory and a list of certified inverters can also be obtained from the Energy Commission. Multiply the Wind Turbine Power Output by the Peak Inverter Efficiency to determine the System Rated Output and enter the output, as measured in watts, in the box. The System Rated Output cannot exceed 10,000 watts (10kW) and be eligible for a buydown. Additionally, total wind electricity generating capacity at a single customer site cannot exceed in total 10,000 watts of System Rated Output.

### ***For Solar Thermal Systems***

Enter the manufacturer's name and model number. Eligible models of solar thermal systems must have demonstrated one year of reliable operation to be eligible for this program. Enter the AC power output of the system, as measured in watts, in the box for System Rated Output. A list of eligible solar thermal electric systems and their PTC ratings can be obtained via fax by calling 800-555-7794 or through the Commission's website at: <http://www.consumerenergycenter.org/buydown>.

**Section 6.** System Cost: Enter the total purchase price of all eligible components on the line next to Cost of System. Do not deduct any amount expected to be received from this Buydown Program. See "What Costs of a Generating System are Eligible for the Buydown?" in this guidebook for a definition of what system components are eligible for the buydown and can be included in this total.

**Section 7.** Public schools or school districts applying under the Solar Schools Program must complete Section 7. Provide the name of your school district. Use the boxes in Section 7 to indicate which (if any) of the additional funding opportunities you are applying.

Enter the amount of any other incentives and their source. Subtract any amount entered on "Less Other Incentives" from the Cost of System to determine the Total Eligible System Costs. If the amount entered as Total Eligible System Costs differs from the purchaser's price of the system as shown on the accompanying copy of the purchase order or letter of intent, a written explanation of the difference must accompany the submission of this form.

Buydown Requested: The Commission will determine the amount of the buydown your system is eligible to receive and that will be reserved for you based on the data indicated on this form and the supporting documentation submitted with the form. This amount will be reserved for you and identified in the Reservation Confirmation and Claim Form that will be returned to you to confirm your reservation of a buydown payment. You may, however, wish to enter (in the box labeled "Buydown Requested") the amount of buydown you are anticipating based on the available buydown level, caps on buydown amounts and the costs and output of your system. To estimate the amount of this buydown before receipt of the confirmation, applicants can call 1-800-900-3594 to receive information on the currently available buydown amounts per watt of System Rated Output and the maximum percentage of Total Eligible System Costs for small, medium and large systems. The applicant can use this information to calculate two numbers: first, the buydown amount per watt multiplied by their System Rated Output and second, the maximum percentage times the Total Eligible System Costs. (See "How Much Is the Buydown?") The smaller of these two calculations should be your reserved buydown amount.

Both the retailer and the purchaser should read the Declaration section and both must sign and date this section. In particular, the section of this guidebook titled "How Big Can My System Be?" should be consulted to ensure that the expected electrical generation of the system is appropriately matched to the customer's electrical needs. If the purchaser is requesting the reservation directly, only the purchaser portion needs to be filled out.



## Instructions for Completing STD-204, Vendor Data Record

***Note: The Vendor Data record needs to be filled out by the party that will be receiving the rebate payment. If the retailer is to receive the rebate payment, this form should contain the information pertaining to the retailer. If the purchaser is to receive the rebate payment, this form should contain the information pertaining to the purchaser.***

As stated on the reverse side of the Vendor Data Record form (STD 204):

"The State of California requires that all parties entering into business transactions that may lead to payment(s) from the State must provide their Taxpayer Identification Number (TIN) as required by the State Revenue and Taxation Code, Section 18646 to facilitate tax compliance enforcement activities and to facilitate the preparation of Form 1099 and other information returns as required by the Internal Revenue Code, Section 6109. The TIN for individuals and sole proprietorships is the Social Security Number (SSN).

Because the Commission issues checks to retailers and customers participating in the Buydown Program, it is required to collect taxpayer identification information on the payee, that is, the party that will receive the check. Customers participating in the Buydown Program may wish to consider the possibility of designating the retailer as the payee in order to mitigate potential income tax implications.

1. **Return Form To** - Already completed by the Commission
2. **Vendor information** - Please enter your business name and address; if you are a sole proprietor, enter the owner's full name. If you are a purchaser requesting the buydown payment in your name, enter your name and address instead of the retailer's.
3. **Vendor Entity Type** - Please check the box corresponding to the appropriate entity type. If you are a purchaser requesting the buydown payment in your name check the box appropriate for you rather than the retailer.
4. **Vendor's Taxpayer ID Number** - Please enter your federal ID number. If you are an individual/sole proprietor, please enter your social security number. If you are a purchaser requesting the buydown payment in your name enter your federal ID number or social security number rather than the retailer's.
5. **Vendor Residency Status** - Please check the appropriate box corresponding to your residency status. If you are a purchaser requesting

the buydown payment in your name check the box appropriate for you rather than the retailer.

6. **Registering Signature** - The registration must be signed by an authorized representative or officer such as the Chief Executive Officer or Chief Financial Officer if the vendor or purchaser is a corporation, or by the business owner or purchaser, if you are a sole proprietor or individual.

## **Submitting the Reservation Request Form**

The CEC-1890C-1, the STD-204, and a copy of the purchase order or letter of intent, should be telefaxed to the Energy Commission at (916) 653-1435 or mailed to: **Emerging Renewables Buydown Program**, California Energy Commission, Accounting Office, 1516 9th Street, MS-2, Sacramento, CA 95814-5512.

For more information on how to apply for a buydown reservation, please call **800-555-7794** during normal business hours.

## **How Do I Request a Buydown Payment?**

Once an eligible generating system has been placed in service, a claim for payment of the appropriate buydown amount can be made. A generating system is "placed in service" when it is completely installed and is operational, that is, capable of producing electricity in the manner and in the amounts for which it was designed. To request buydown payment, use Form CEC-1890C-2, Reservation Confirmation and Claim Form. A copy of this form is included with this guidebook. If you requested a buydown reservation, however, you will already have this form since it was sent to you to confirm the amount of the buydown reserved for your system. If you did not request a buydown reservation in advance, you may request a buydown payment by submitting Form CEC-1890C-2, as instructed below, along with a completed Form CEC-1890C-1; building permit; final inspection signoff; final sales invoice, evidence of utility interconnection; full 5-year warranty for equipment and installation; and Form STD-204 (Vendor Data Record).

### ***CEC-1890C-2, Reservation Confirmation and Buydown Claim Form and associated final paperwork requirements***

1. Both retailer and purchaser must read, sign and date the Buydown Claim portion of Form CEC 1890C-2. If the purchaser alone applied for and is to receive the buydown, only the purchaser need sign the Buydown Claim Form.
2. Any changes or modifications to the information provided on a previously submitted Reservation Request Form (CEC 1890C-1) must be noted in the space provided. If additional space is required to note such changes or modifications, additional pages can be attached to this form. If changes or

modifications are noted, the applicant must also attach to this Claim Form a new Reservation Request Form containing the corrected information. Changes in the Total Eligible Systems Cost or the System Rated Output or other information may affect the amount of the buydown.

3. A copy of the building permit and a copy of the final inspection signoff (if separate) required for the installation of the system must also accompany the submission of this form. The name and address on the building permit must match that shown under the Confirmation of Buydown Reservation section of this form, if a reservation was previously granted for this system. For new housing developments where the sum of the system rated output of individual installed systems is greater than 30 kW, please submit a copy of the electronic building permit record (or building permit) showing final inspection signoff for the housing development or an interconnection agreement listing all of the addresses at which the utility confirms that an eligible electricity generation system was correctly installed. Public schools are not required to obtain building permits or final inspection signoff from local authorities. Instead, schools must provide documentation of California Division of State Architect (DSA) approval for the installed system. Systems installed on schools must meet DSA guidelines for solar system installations, including structural support. Contact DSA at (916) 445-8100 for further information.
4. A copy of the final sales invoice showing the total cost of the system and the actual price paid by the purchaser for the installed system must accompany this form. If either amount is different from the figures shown on any purchase order or letter of intent previously submitted with a Reservation Request Form, please explain any difference. Actual price paid will be used for calculating the buydown amount. The final sales invoice must also show the physical address of the installation and the quantity, make, and model of the panels, wind turbines, and inverters actually installed. A master statement of payment may be submitted for new housing developments where the aggregate output of installed systems is 30kW or more. The master statement must indicate the total cost of each system, the amount paid, and the quantity, make, and model of major components (i.e., panels, wind turbines, and inverters) actually installed at each of the addresses for which the homebuilder is claiming payment.
5. A copy of a recent utility bill or interconnection agreement for electrical distribution service to the address of the installed system must also be submitted with this form, if a copy was not originally submitted with a Reservation Request Form.
6. If the buydown payment is being claimed for a system that had not previously been issued a buydown reservation per Form CEC 1890C-1, the buydown Claim Form must also be accompanied by a completed and signed CEC-1890C-1, Reservation Request Form. (See "How Do I Reserve a Buydown?" for information on how to obtain and complete these forms.)

7. If the Reservation Confirmation and Claim Form submitted does not have a Payee I.D. Number printed on it in the upper right corner, the applicant must enter their previously issued Payee I.D. Number in this space. If applicant has not been issued a Payee I.D. Number, the applicant should submit an STD-204, Vendor Data Record, along with the claim form. (See “How Do I Reserve a Buydown?” for information on how to obtain and complete this form.)
8. Proof of Warranty -All reservation holders applying for payment must submit written proof of at least a five-year warranty. For systems installed by a licensed contractor, the warranty must be a full warranty, as defined by federal statute, for the entire system. For systems not installed by a licensed contractor, i.e., owner-installers, the warranty must be at least a limited warranty, as defined by federal statute, for the major components of the system, including the prime mover (i.e., where appropriate, PV panels, wind turbine, fuel cell system or solar thermal system) and, where applicable, the inverter.

### ***Submitting a Claim Form***

The completed claim form must be submitted to the Commission’s Accounting Office by mail **by 5:00 p.m. on or before the date specified in your buydown reservation, together with copies of the building permit, final invoice, proof of warranty and utility bill. Claim forms that are not complete, legible or received by the date specified in your buydown award reservation will be returned to you along with a written notice stating the reasons why your claim was rejected.** All required forms and supporting documentation shall be mailed to: **Emerging Renewables Buydown Program**, California Energy Commission, Accounting Office, 1516 9th Street, MS-2, Sacramento, CA 95814-5512. Except as noted, the required forms can not be submitted by telefax as original signatures are required to process buydown payments. If necessary to verify compliance with the expiration date of a reservation, completed claim forms may be submitted by telefax to (916) 653-1435, provided the original forms are subsequently submitted by mail.

The Commission intends to make incentive payments within 30 days of receipt of a completed claim form. Payment will be made to the retailer or purchaser, as designated on the Reservation Request Form (Form CEC-1890C-1), and will be mailed to the address provided by the recipient on the Vendor Data Record (Form STD-204), which they previously submitted to the Commission.

Also, forward the original Reservation Request Form with the original signatures on it to the Commission’s Accounting Office if this original form was not submitted at the time of your initial application (i.e. if you submitted your initial Buydown Reservation Request Form by telefax.)

## **Assignment of Buydown Payment**

The designated payee of the buydown payment may assign their right to receive the payment to a third party by completing the Reservation Payment Assignment Form, CEC-1890 C-3, and submitting it with their Reservation Confirmation and Claim Form, CEC 1890C-2, to the address noted above. The Reservation Payment Assignment Form may not be submitted by telefax as original signatures are required to process the assignment. Payees that assign their buydown payment to a third party will still be reported as the recipients of said payments for tax purposes and issued informational tax returns to the extent required by law.

## **Removing System**

It is expected that systems receiving rebates from the Buydown Program remain in operation at the original site of installation for the duration of the system's useful life. This maximizes the benefits to the end-use consumer and the state and ensures program funds are used as intended by eligible consumers and at eligible sites.

Applicants must state their intent to keep systems funded through the Buydown Program at the original site of installation. The Commission will not approve reservations or make buydown payments to applicants who fail to state this intent.

If a system funded through the Buydown Program is removed for any reason, the purchaser must notify the Commission in writing.

## Definitions

**California in-state electrical corporations** -- Pacific Gas and Electric Company, San Diego Gas and Electric Company, Southern California Edison, and any other electrical corporations contributing funds to the Emerging Renewable Resources Account of the Renewable Resources Trust Fund.

**commercially available** -- complete generating systems based on a designated emerging technology are available for immediate purchase under typical business terms and deliverable within a reasonable period of time.

**electrical corporation** -- see Section 218 of the Public Utilities Code

**final purchase invoice** -- a statement prepared on the retailer's letterhead or standardized form that identifies the purchaser, the generating equipment that was purchased, including the make, model and quantity of major equipment components and the equipment's electrical output, the itemized cost to the purchaser of major equipment components and any installation, the total cost of the system and installation charged by the retailer, and the total amount and date paid by the purchaser to the retailer. Labor cost invoices must include sufficient information to identify the work done as part of the contract.

**full-scale** -- of a scale or size equal or comparable to the scale at which commercially available generating systems are being sold or are expected to be sold.

**full five year warranty** -- a written warranty given by the retailer of eligible equipment to the purchaser of such equipment, and which complies with the conditions and definitions of 15 U.S.C. Sections 2301 et seq., and which shall be transferable to any subsequent purchaser during the five year duration, and which must include and provide for the labor to remove and replace any defective components, except where the warrantor did not provide for the original installation of the equipment as part of the original purchase transaction.

**grid connected** -- The condition whereby the generating system serves and is electrically connected to electrical load(s) that are also connected to and served by the local utility electrical grid. The delivery, or ability to deliver, any portion of the generating system's output into the utility electrical grid is not required, nor must the loads served be only AC loads. The generating system needs only to be capable of serving electrical loads that would otherwise be served by the local utility grid. The generating system's physical interconnection to the local utility electrical grid may be located on either side of the electrical meter used to measure the quantity of electrical energy supplied to the customer from the local utility electrical grid. The interconnection must comply with any applicable electrical codes and interconnection requirements. The system offsets the customer's energy use either directly, by supplying electrical energy otherwise supplied by local utility electrical grid, or indirectly, by supplying electrical energy to the local utility electrical grid which is then available for use by the customer or others.

**in-state renewable generation** -- biomass, solar thermal, photovoltaic, wind, geothermal, small hydropower of 30 megawatts or less, waste tire, digester gas, landfill gas, and municipal solid waste generation technologies, as described in the Policy Report on AB

1890 Renewables Funding, including any additions or enhancements thereto, that are produced in facilities located in this state and placed in operation after September 26, 1996, or that were operational prior to that date, and that are also certified under Section 292.207 of Title 18 of the Code of Federal Regulations as a qualifying small power production facility either located in California, or that began selling electricity to a California electrical corporation prior to September 26, 1996, under a Standard Offer Power Purchase Agreement authorized by the California Public Utilities Commission.

**investor-owned utility** -- a utility that is organized as a tax-paying business, whose properties are managed by representatives elected by shareholders.

**kilowatt (kW)** -- one thousand watts. A unit of measure for the amount of electricity needed to operate given equipment. A typical home using central air conditioning and other equipment might have a demand of 4-6 kW on a hot summer afternoon.

**kilowatt hour (kWh)** -- the most commonly-used unit of measure telling the amount of electricity consumed over time. It means one kilowatt of electricity supplied for one hour. A typical California household consumes about 500 kWh in an average month.

**landfill gas (LFG)** -- gas produced by the breakdown of organic matter in a landfill (composed primarily of methane and carbon dioxide).

**letter of intent** -- a document signed by a prospective purchaser and seller which describes the generating equipment to be purchased including the make and model of major equipment components and electrical output, and the payment terms of such purchase, including the itemized costs of major equipment components and any installation costs, the total cost of the system, the amount to be paid by the purchaser, the location of installation, and which is subject to only limited conditions, such as the ability to secure a specified buydown rebate level or amount.

**local publicly owned electric utility** -- as defined in Public Utilities Code section 9604, subdivision (d), and which includes a municipal utility district, a public utility district, an irrigation district, or a joint powers authority made up of one or more of these entities.

**municipal utility** -- a local publicly owned (customer-owned) electric utility that owns or operates electric facilities subject to the jurisdiction of a municipality, as opposed to the California Public Utilities Commission.

**new and unused** -- not having been previously placed in service.

**owned by electrical corporations or local publicly owned electric utilities** -- generating systems purchased, owned, and operated by electrical corporations or local publicly owned electric utilities and, if installed on a customer's premises, the power produced by such systems does not offset the power consumed by the customer or otherwise directly benefit the customer. Systems purchased by electrical corporations or local publicly owned electric utilities and which in turn are leased or sold to customers or, if installed on a customer's premises, offset the customer's electricity consumption and are operated to the benefit of the customer as if owned by the customer are not considered as owned by such electrical corporations or local publicly owned electric utilities for the purposes of this program.

**peak inverter efficiency** -- the highest measured efficiency over the operating range of the inverter and where the measured efficiency is the ratio of power output to power input expressed as a percent.

**photovoltaic (PV)** -- a technology using a semiconductor that converts light directly into electricity.

**placed in service** -- installed, operational and capable of producing electricity.

**primarily offset(s) part or all** -- annual electricity generation expected from the generating system shall not exceed 200 percent of the historical or current needs for electricity at the installation site.

**Project** -- all otherwise eligible generating systems installed during the term of this program at one physical site and serving the electrical needs of all real and personal property located at this site, where a site is a single parcel of real property plus any improvements.

**Proof of Down-Payment** - a document demonstrating that at least 10% of the installed system cost has been paid by the purchaser to the seller and includes or is accompanied by additional documentation that identifies the generating equipment being purchased or leased, the make and model of major equipment components, the itemized cost of the major equipment and any installation, the total cost of the system, the amount to be paid by the purchaser, the payment terms and other conditions of sale or lease, and the location where the equipment is to be installed.

**PTC** -- PVUSA Test Conditions (PTC) are defined as follows: 1000 watts/square meter plane of array (POA) irradiance for flat-plate photovoltaic modules or 850 watts/ sq.meter direct normal irradiance for concentrating photovoltaic or solar thermal systems with 20 degrees Centigrade ambient air temperature and 1 meter/second wind speed.

**purchase order** -- a document signed by the seller and buyer constituting an agreement, which identifies the generating equipment to be purchased or leased, including the make and model of major equipment components and electrical output, the purchaser or lessee, the location where the equipment is to be installed, the itemized cost of major equipment components and any installation, the total cost of the system, the amount to be paid by the purchaser or lessee, and the payment terms and other conditions of sale or lease.

**sewer gas** -- gas produced by the anaerobic decomposition of sewage

**solar thermal** -- the conversion of sunlight to heat and its concentration and use to power a generator to produce electricity.



## **Forms and Samples**

CEC 1890C-1- Reservation Request Form (All technologies)

CEC 1890C-1b - Owner-Installed Estimated Cost Statement

CEC 1890C-1c – Solar Schools Program Preliminary 6-Month Reservation Request Form

STD 204 - Vendor Data Record

CEC 1890C-2 - Reservation Confirmation and Claim Form.

CEC 1890C-3 Reservation Payment Assignment Form

# Reservation Request Form

## Emerging Renewables Buydown Program



For detailed instructions on completing this form, please see Volume 3 of the Guidebook for the Renewable Energy Program. Guidebook requests can also be made on the Web Site at [www.consumerenergycenter.org/buydown](http://www.consumerenergycenter.org/buydown) or by calling the California Energy Commission's Call Center at **1-800-555-7794**

Completed forms can be faxed to: **(916) 653-1435** or mailed to: **Emerging Renewables Buydown California Energy Commission 1516 9th Street, MS-2 Sacramento, CA 95814-5512**

<p><b>Payee Designation:</b> Buydown Payment should be sent to:</p> <p><input type="checkbox"/> Seller (Retailer)      <input type="checkbox"/> Purchaser</p>	<p><b>5. Generating System</b></p> <p><input type="checkbox"/> PV      <input type="checkbox"/> Fuel Cell  <input type="checkbox"/> Small Wind      <input type="checkbox"/> Solar Thermal</p> <p>Manufacturer _____</p> <p>Model Number _____</p> <p>Number of Units: _____</p> <p>PTC Power Rating: _____ Watts</p> <p>Total Output: (Number of Units x PTC Power Rating) _____ Watts</p> <p>Inverter Manufacturer _____</p> <p>Inverter Model Number _____</p> <p>Peak Inverter Efficiency: _____ %</p> <p>System Rated Output: Total Output x Peak Inverter Efficiency <span style="border: 1px solid black; padding: 2px;">_____</span> Watts</p>	<p><b>CEC Review</b></p> <hr/>
<p><b>1. Seller (Retailer)</b></p>		
<p>Payee ID: Name: Address:  Business: (    )      Fax: (    ) Email:</p>		
<p><b>2. Installer</b></p>		
<p>Name: Address:  Contractor License Class &amp; Number: Business: (    )      Fax: (    )</p>		
<p><b>3. Purchaser or Lessor</b></p>		
<p>Payee ID: Name: Physical Address Of System:  Phone: (    )      Fax: (    ) Email: Utility Provider:    <input type="checkbox"/> PG&amp;E    <input type="checkbox"/> SCE    <input type="checkbox"/> SDG&amp;E    <input type="checkbox"/> BVE                           <input type="checkbox"/> Other _____</p>	<p><b>6. System Cost</b></p> <p>Cost of System: (before California Buydown)      \$ _____</p> <p>Less Other Incentives: Source:      \$ _____</p> <p>Less Battery and Related Costs:      \$ _____</p> <p>Total Eligible System Cost:      \$ _____</p> <p><b>Buydown Requested:</b>      \$ _____</p>	<p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p>
<p><b>4. Program Information</b></p>	<p>CEC Review</p>	
<p>How did you hear about our program? Have you previously applied for funding rebates from the Buydown Program?    <input type="checkbox"/> yes    <input type="checkbox"/> no    If yes, reservation # _____</p>		

**Declaration:** The undersigned declare under penalty of perjury that 1) the information provided in this form is true and correct to the best of my knowledge, 2) the above described generating system is intended primarily to offset part or all of the purchaser's electrical needs at the site of installation, 3) the purchaser intends to operate system at the site of installation for its useful life or the duration of the lease agreement, 4) the site of installation is located within service territory of an eligible electric utility, and 5) the purchaser has received a copy of this completed form.

<p><b>Seller (Retailer)</b></p> <p>Print Name _____</p> <p>Signature _____</p> <p>Date _____</p>	<p><b>Purchaser</b></p> <p>Print Name _____</p> <p>Signature _____</p> <p>Date _____</p>
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**IMPORTANT:** Attach a signed copy of the purchase order or letter of intent, a copy of a monthly electricity statement and a vendor data record (STD-204). Schools applying under the Solar Schools Program must provide a copy of a fixed price contract. The reservation request will not be processed without the required attachments.

## “OWNER-INSTALLED” ESTIMATED COST STATEMENT EMERGING RENEWABLE BUYDOWN PROGRAM

I, the undersigned, understand that the costs submitted as “estimates” will only be used to reserve a dollar amount for the Buydown Program. This is in addition to a separate purchase order, letter of intent or proof of payment for the major system components as specified in the current guidebook for this program.

If the project is “owner-installed,” only system equipment and material costs are eligible for the program; no labor or workmanship costs are eligible. Ineligible labor costs include, but are not limited to the labor associated with, pouring concrete, laying wire, digging trenches, trimming trees, painting, performing electrical work, and installing panels, turbines or inverters.

If I later decide to have the project installed professionally, a licensed contractor must install it, as defined by the Emerging Renewable Resources Account Guidebook, and the project must be fully warranted for five years.

I also understand that costs that do not pertain directly to the functioning of a typical system are not eligible. Ineligible costs include, but are not limited to, tools, decorative signs, mileage, buildings, decorative structures, carports, fences and landscaping.

When the project is complete, all itemized invoices and receipts must be submitted to the Buydown Program for verification. Only costs that are actually incurred and documented, as opposed to estimated, will be used in determining the rebate payment.

Below are the miscellaneous eligible estimated costs for this project.

Description	Estimated Cost	Actual Cost
Permit Fees		
Material for Foundation – (cubic yards of concrete _____ )		
Material for Wire Run – (length of wire run (ft) _____ )		
Equipment Rental – (type of equipment rented _____ )		
Utility Electrical Interconnection Fee		
Miscellaneous Material Costs		

By signing below, I understand these statements, and the above costs are my best estimate for the project being installed for the Buydown Program.

Purchaser's Name: \_\_\_\_\_  
 Installation Address: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_



# Solar Schools Program Preliminary Reservation Request Form

For detailed instructions on completing this form, please see Volume 3 of the Guidebook for the Renewable Energy Program. Guidebook requests can also be made on the Web Site at [www.consumerenergycenter.org/buydown](http://www.consumerenergycenter.org/buydown) or by calling the California Energy Commission's Call Center at 1-800-555-7794

Completed forms can be faxed to: (916) 653-2543 or mailed to: **Emerging Renewables Buydown California Energy Commission**  
1516 9th Street, MS-45  
Sacramento, CA 95814-5512

<p><b>Payee Designation:</b> Reserve rebate for: <input checked="" type="checkbox"/> School District</p>	<p><b>3. Utility Provider</b> Electric Utility Provider: <input type="checkbox"/> PG&amp;E <input type="checkbox"/> SCE <input type="checkbox"/> SDG&amp;E</p>	<p><i>CEC Review</i></p> <hr/>
<p><b>1. School District</b> District Name: Contact Person: Mailing Address:  Business: ( ) Fax: ( ) Email:</p>	<p><b>4. Program Information</b> How did you hear about our program? Have you previously applied for funding rebates from the Buydown Program? <input type="checkbox"/> yes <input type="checkbox"/> no If yes, reservation # _____</p>	
<p><b>2. Participating Schools</b></p> <p>School Name: Address: Business: ( ) Fax: ( ) Email: Estimated size of photovoltaic system: _____Watts.</p> <hr/> <p>School Name: Address: Business: ( ) Fax: ( ) Email: Estimated size of photovoltaic system: _____Watts.</p> <hr/> <p>School Name: Address: Business: ( ) Fax: ( ) Email: Estimated size of photovoltaic system: _____Watts.</p>	<p><b>5. Statement of Energy Efficient Measures</b> In each of the participating schools identified on this form and attached list (if any):</p> <p><input type="checkbox"/> 1. At least 80% of the classrooms use high efficiency fluorescent lighting (T8 lamps and electronic ballasts).</p> <p><input type="checkbox"/> 2. Other energy efficient measures with equivalent or greater energy savings to Item 1 (as determined by the Commission) are in use (documentation attached).</p>	
	<p><b>6. System Cost</b> We understand that in order to qualify for the full rebate amount for each of the participating schools identified on this form and attached list (if any) the total cost for each photovoltaic system and installation will not exceed \$8.50 per watt.</p> <p><b>Maximum cost of system (watts x \$8.50):</b> \$ _____</p> <p><b>Solar Schools incentive requested (90%):</b> \$ _____</p>	
	<p><b>7. Information for Additional Schools</b></p> <p><input type="checkbox"/> See attached for information on other schools submitted with this application (name, address, phone, estimated size of system, signature of school official).</p> <p><b>NOTE: Sum of all new systems installed in school district may not exceed 20kW or equivalent (i.e., \$153,000) to be eligible for the Solar Schools Program.</b></p>	
<p><b>Declaration:</b> The undersigned declare under penalty of perjury that 1) the information provided in this form is true and correct to the best of my knowledge, 2) the generating system/s for which the above noted incentives are sought is/are intended primarily to offset part or all of the purchaser's electrical needs at the site of installation, 3) the site of installation is located within service territory of an eligible electric utility, and 4) the purchaser has received a copy of this completed form.</p>		
<p style="text-align: center;"><b>School District Representative</b></p> <p>Print Name _____ Title _____ Signature _____ Date _____</p>	<p style="text-align: center;"><i>CEC Review</i></p>	

**IMPORTANT: Attach the following: (1) a signed copy of the board resolution(s) indicating support for the solar project and intent to purchase a photovoltaic system; (2) a copy of a monthly electricity statement; (3) evidence that energy efficient measures equivalent to the use of high efficiency fluorescent lighting in 80 percent of the school's classrooms; and (4) CDE letter of approval for curriculum tie-in plan. This form will not be processed without the required attachments.**



### **ARE YOU A RESIDENT OR A NONRESIDENT?**

Each corporation, individual/sole proprietor, partnership, estate or trust doing business with the State of California must indicate their residency status along with their vendor identification number.

A corporation will be considered a "resident" if it has a permanent place of business in California. The corporation has a permanent place of business in California if it is organized and existing under the laws of this state or, if a foreign corporation has qualified to transact intrastate business. A corporation that has not qualified to transact intrastate business (e.g., a corporation engaged exclusively in interstate commerce) will be considered as having a permanent place of business in this state only if it maintains a permanent office in this state that is permanently staffed by its employees.

For individuals/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 which 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.

For withholding purposes, a partnership is considered a resident partnership if it has a permanent place of business in California. An estate is considered a California estate if the decedent was a California resident at the time of death and a trust is considered a California trust if at least one trustee is a California resident.

More information on residency status can be obtained by calling the Franchise Tax Board at the numbers listed below:

From within the United States, call ..... 1-800-852-5711  
From outside the United States, call ..... 1-916-854-6500  
For hearing impaired with TDD, call .... 1-800-822-6268

### **ARE YOU SUBJECT TO NONRESIDENT WITHHOLDING?**

Payments made to nonresident vendors, including corporations, individuals, partnerships, estates and trusts, are subject to withholding. Nonresident vendors 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 vendor are \$1500 or less for the calendar year.

A nonresident vendor may request that income taxes be withheld at a lower rate or waived by sending a completed form FTB 588 to the address listed below. A waiver will generally be granted when a vendor has a history of filing California returns and making timely estimated payments. If the vendor activity is carried on outside of California or partially outside of California, a waiver or reduced withholding rate may be granted. For more information, contact:

Franchise Tax Board  
Withhold at Source Unit  
Attention: State Agency Withholding Coordinator  
P.O. Box 651  
Sacramento, CA 95812-0651  
Telephone: (916) 845-4900  
FAX: (916) 845-4831

**If a reduced rate of withholding or waiver has been authorized by the Franchise Tax Board, attach a copy to this form.**

### **PRIVACY STATEMENT**

Section 7(b) of the Privacy Act of 1974 (Public Law 93-5791) requires that any federal, state, or local governmental agency which requests an individual to disclose his 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.

The State of California requires that all parties entering into business transactions that may lead to payment(s) from the State must provide their Taxpayer Identification Number (TIN) as required by the State Revenue and Taxation Code, Section 18646 to facilitate tax compliance enforcement activities and to facilitate the preparation of Form 1099 and other information returns as required by the Internal Revenue Code, Section 6109. The TIN for individual and sole proprietorships is the Social Security Number (SSN).

It is mandatory to furnish the information requested. Federal law requires that payments for which the requested information is not provided be subject to a 31% 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 business.

Please call the Department of Finance, Fiscal Systems and Consulting Unit at (916) 324-0385 if you have any questions regarding this Privacy Statement. Questions related to residency or withholding should be referred to the telephone numbers listed above. All other questions should be referred to the requesting agency listed in Section 1.



# RESERVATION CONFIRMATION AND CLAIM FORM EMERGING RENEWABLE BUYDOWN PROGRAM

Reservation Number \_\_\_\_\_

Payee ID Number \_\_\_\_\_

## CONFIRMATION OF BUYDOWN RESERVATION

This is to confirm that \_\_\_\_\_ has been granted a reservation of \$\_\_\_\_\_ for a \_\_\_\_\_ Watt generating system to be installed at \_\_\_\_\_ . This reservation of incentive will expire on \_\_\_\_\_. The generating system must be placed in service and the claim form below, including all appropriate documentation, must be faxed or postmarked by this expiration date or this reservation will be voided. This reservation is non-transferable and the generating system must be installed on the premises and sold to the purchaser listed above and as submitted on the original Reservation Request Form.

## BUYDOWN CLAIM

The undersigned declare under penalty of perjury that the following statements are true and correct: (1) an electrical generating system meeting the terms and conditions of the California Energy Commission's Emerging Renewable Resources Buydown Program has been installed and is operating satisfactorily as of the date stated below; (2) the rated electrical output of the generating system and the physical location of the system are as stated above under Confirmation of Buydown Reservation; and (3) except as noted below, there were no changes in the information regarding the seller, installer, purchaser, generating system specifications, installation location, or price from that information provided in the Reservation Request Form originally submitted by the undersigned. (List any changes, exceptions or modifications to the information provided in your Reservation Request Form. Attach a separate sheet if necessary)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

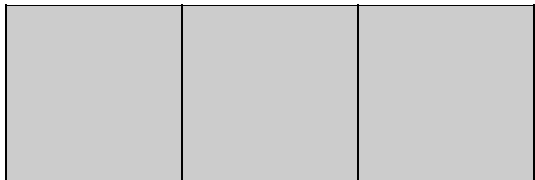
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Seller (Retailer)	Purchaser
Signature: _____	Signature: _____
Print _____	Print _____
Date: _____	Date: _____

**Attach copies of 1) the building permit showing final inspection signoff, 2) the final purchase invoice 3) a recent utility statement showing electrical service at the installation location, and 4) a full 5-year warranty.**





## RESERVATION PAYMENT ASSIGNMENT FORM EMERGING RENEWABLE BUYDOWN PROGRAM

Reservation Number \_\_\_\_\_

Payee ID Number \_\_\_\_\_

**Reservation Information**

Payee Name: \_\_\_\_\_

Payee Address: \_\_\_\_\_

Payee Contact: \_\_\_\_\_

Payee Phone #: \_\_\_\_\_

**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 Renewable Buydown Program to the following individual or entity:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone #: \_\_\_\_\_

I request that payment be forwarded to this individual or entity at the address noted and that proof of payment 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 Renewable Buydown 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 Account Office. Such notice shall be provided to: Emerging Renewable Buydown Program, California Energy Commission, Accounting Office, 1516 9<sup>th</sup> Street, MS-2, Sacramento, CA 95814-5512.

Executed on: \_\_\_\_\_

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**A completed Reservation Payment Assignment Form must be submitted with the Reservation Confirmation and Claim Form (CEC 1890C-2) at the time of the payment request. The Reservation Payment Assignment Form may not be submitted by telefax, as original signatures are needed to process assignment requests.**