

**SACRAMENTO MUNICIPAL UTILITY DISTRICT
2004 COMMERCIAL PHOTOVOLTAICS PROGRAM
MASTER LIST APPLICATION**

INTRODUCTION

The Sacramento Municipal Utility District, hereinafter referred to as the District, is developing a master list of contractors qualified to market, sell, design, install, and maintain customer-owned, grid-connected, commercial-scale photovoltaic (PV) systems within the District's service area.

Contractors selected for the master list will be eligible to participate in the District's 2004 rebate program, which will offer a rebate of \$2.50 per watt for systems of 30 kW and larger. This rebate will supplement the incentive offered by the State of California's Self-Generation Incentive Program (SGIP) which is currently \$4.50/W or 50% of total project cost, whichever is less. (For further information about the SGIP, go to <http://www.pge.com/selfgen/>.) The SMUD incentive will be deducted from the total purchase price, and then the Self-Gen Program will cover half the remaining cost up to \$4.50/W.

The District has heretofore offered PV systems to its commercial customers at a below-market price by purchasing PV equipment and employing existing staff and installation technicians under contract to the District. The District believes these services are available from private contractors capable of serving the District's service territory and wishes to leverage those external capabilities by referring its customers to a select list of contractors capable of providing such services. The District believes that shifting its focus from providing turnkey systems to supporting the development of the private market is the best strategy for expanding PV market penetration within the District's service area. This result will not occur within a single year of operation, and the District regards 2004 as the first year in a multiyear effort to expand PV installations and develop increased customer awareness of the rewards of investing in this unique technology.

This master list application provides instructions to contractors for submitting their qualifications and establishes terms and conditions under which the District will evaluate and short-list contractors for each of the services. The District will evaluate the submittals, assess contractor competency and capability in providing each service or services, and generate a list of contractors to be relied upon in providing these services to District customers. The necessary forms for submitting all required information can be found at the end of this document.

Applications are due by 5:00 p.m. on Friday, November 21.

DESCRIPTION OF PROGRAM

The District's 2004 Commercial PV Program will focus on developing the private marketplace for commercial-scale PV systems by offering three types of incentives:

1. *Up-front capital buy downs* equal to \$2.50/W, to be used as a supplement to the SGIP.

2. **Net metering**, through which the District will pay the customer for the energy produced by the PV system at a retail rate based on the customer's rate class. Customers will not be paid for excess generation beyond what they consume.
3. **Marketing support**, consisting of targeted and ongoing promotion of the program based on the District's longstanding relationship with, and knowledge of, those commercial customers who might derive the greatest benefit from investing in a PV system. Such support will include customer visits by District account reps, use of District mailings, and a customer luncheon and vendor fair in early 2004.

Beyond these forms of assistance, participating contractors will bear the primary responsibility for finding prospective customers, closing sales, contracting with the customer, and installing systems within the guidelines set forth in this document. While the District hopes that its own program promotion will cause a certain number of customers to initiate calls to one or more contractors on the master list, it will be up to contractors to develop most of the sales leads.

Buy-down grants will be awarded on a first-come, first-served basis. Detailed procedures for submitting payment reservations and requests for payment will be presented and discussed in a contractor workshop to be held in December 2003.

The District will take ownership of all green tag credits generated by this program.

SCOPE OF SERVICES

Participating contractors will be responsible for the following services:

1. **Marketing and sales.** These functions include
 - locating promising sales prospects
 - explaining the economic and public benefits of investing in PV to customers who may have no previous understanding of this technology
 - closing sales
 - executing contracts.
2. **Design and installation.** These functions include
 - designing systems to deliver optimal performance for a given site (see below)
 - installing systems that meet the highest industry standards in terms of workmanship, reliability, and performance (see below)
3. **Permitting, grid interconnection, and metering.** These functions include
 - executing all permitting procedures with the local municipality
 - submitting interconnection applications and executing interconnection and metering agreements with the District
 - measuring and reporting system performance to the customer and the District

4. *Customer follow-up.* These functions include
- educating customer on how to monitor system performance during first year of operation
 - providing a timely response to operational problems during the five-year warranty period

QUALIFICATIONS AND CERTIFICATION

CONTRACTORS

To be eligible for the SMUD rebate, contractors must meet the following qualifications:

1. Have four years of experience designing, installing, and monitoring PV systems =10 kW in size *or* two years of such experience in addition to completion of a training program meeting SMUD standards.*
2. Have successfully installed at least ten grid-connected, three-phase PV systems =10 kW in size, including installation of system output monitoring capability. Contractors must provide (a) a list of the five most recent installations, including date installed, system size in kW, most recent 12-month kWh output, and monitoring hardware and software used; (b) a list of customers with contact information for references; and (c) written permission for SMUD to contact customers.
3. Be a licensed general contractor (B Class) or electrical contractor (Class C-10) in good standing in solar and electrical construction-related areas.
4. Meet insurance requirements as specified in “Insurance Requirements” section, below.
5. Provide assurance that they will be able to service and repair and monitor the system, if necessary, for the duration of the five-year warranty period. Contractors should be able to respond to service calls with two working days if a system is not producing power.

SYSTEMS

Equipment. All systems shall

1. Meet the eligibility requirements set forth in the CPUC Self-Generation Incentive Program.
2. Be U.L. listed.

* Types of training programs may include but are not limited to (1) industry in-house training programs (e.g., manufacturers), (2) dedicated independent training programs (e.g., Florida Solar Energy Center), (3) apprenticeship training programs (e.g., National Joint Apprenticeship Training Committee), (4) community colleges, and (5) vocational/technical training courses.

3. Be approved by the California Energy Commission (CEC). (To find out which systems are approved by the CEC, please visit their website at <http://www.energy.ca.gov/> or call 1-800-555-7794.)

Performance

1. System design will optimize annual delivered energy through reduction of all potential losses, including:
 - Shading, including impact on portions of strings that could cause voltage mismatch or inverter input to fall.
 - Voltage mismatch caused by variations in module or string output; module should be selected to optimize performance of the inverter, considering both low- and high-temperature conditions.
 - Wire losses of the total run, which should be kept below 3% through proper wire sizing.
2. Peak AC output and annual kWh delivered will be estimated by the contractor and provided to the customer and to SMUD. Actual annual kWh delivered will be read from the system output meter, adjusted for variations in annual insolation, and be made available to the customer and to SMUD one year after project completion.

Warranties

The contractor shall provide a written warranty, which provides the following minimum guarantees.

1. Equipment shall be free from all defects in workmanship and materials for at least 5 years from the date of final system acceptance by SMUD. The warranty shall cover all labor for any repairs resulting from equipment defects or contractor workmanship.
2. Manufacturer warranty for the power control unit (inverter) shall cover a minimum of 5 years against manufacturer's defects.
3. Manufacturer warranty for the photovoltaic modules shall cover a minimum of 20 years against degradation of performance below 80% of original output under standard test conditions (STC).

INSURANCE REQUIREMENTS

<u>TYPE OF COVERAGE</u>	<u>MINIMUM COVERAGE LIMITS</u>	
Commercial General Liability (CGL) ISO form CG 2001 10 93, or other form acceptable to District.	Bodily Injury, Property Damage Or Combined Single Limit (CSL)	Occurrence \$ <u>1,000,000</u> Aggregate \$ <u>1,000,000</u>
Business Automobile Liability (BAL) Including coverage for claims arising from ownership, operation, loading and unloading of owned, hired, leased, non-owned, and /or borrowed private passenger and commercial vehicles.	Bodily Injury, Property Damage Or Combined Single Limit (CSL)	Individual \$ <u>1,000,000</u> Accident \$ <u>1,000,000</u>
Environmental Impairment Liability (EIL) Including coverage for claims arising from handling, abatement, and transport of pollutants including asbestos and lead paint.	Bodily Injury, Property Damage Or Combined Single Limit (CSL)	Occurrence \$ <u>0</u> Aggregate \$ <u>0</u>
Aircraft Liability Including passengers.	Bodily Injury, Property Damage Or Combined Single Limit (CSL)	Occurrence \$ <u>0</u> Aggregate \$ <u>0</u>
Professional Errors and Omissions Liability (E&O)	BI, PD, Financial Losses Or Combined Single Limit (CSL)	Each Claim \$ <u>0</u> Aggregate \$ <u>0</u>
California Statutory Workers' Compensation Including Employer's Liability (and United States Longshoremen & Harborworkers, where applicable).	Bodily Injury and Illness Or Combined Single Limit (CSL)	Employee \$ <u>1,000,000</u> Aggregate \$ <u>1,000,000</u>
Crime or Fidelity Coverage Including fraud, theft, dishonesty and disappearance.	Financial Loss	Each Claim \$ <u>0</u> Aggregate \$ <u>0</u>
Fiduciary	Financial Loss	Each Claim \$ <u>N/A</u> Aggregate \$ <u>N/A</u>
Other		\$ <u>N/A</u> \$ <u>N/A</u>

These policies, with the exception of Workers' Compensation, Employer's Liability, and E&O coverages, shall name SMUD, its directors, officers, agents, representatives, and employees as additional insureds as respects work performed pursuant to or incidental to this contract. Severability of interests (cross liability) and waiver of subrogation clauses shall be included. Pursuant to the terms of this contract, insurance effected or procured by Contractor shall not reduce or limit Contractor's obligation to indemnify and defend SMUD for claims made or suits brought which result from or in connection with the performance of this contract. These coverages, when written on an occurrence form, shall be maintained during the entire term of the contract. Coverages written on a claims-made form, and all E&O and EIL coverages, shall be maintained during the entire term of the contract and further until one year following termination and acceptance of all work under the contract. Insurers shall be rated A-/VIII or better by A.M. Best, or shall be otherwise acceptable to SMUD. Insurers need not be admitted by the State of California.

CONTRACTOR WORKSHOP

Contractors selected for the program will be required to attend a contractor workshop on **Wednesday, December 3, 2003**, from 10 a.m. to noon at the SMUD Customer Service Center. The workshop will cover essential program procedures and required forms and will, with input

from participating contractors, establish ground rules that will enable contractors and the District to work effectively as business partners. Items to be covered are as follows:

1. Applying for incentive payments.
 - Reserving payment
 - Claiming payment
2. Design review and final inspections
3. Interconnection procedures
4. Payment process

MASTER LIST APPLICATION FORMS

Contractors interested in participating in SMUD's Commercial PV Program must submit the following paperwork:

- Form #1 – Company Data and General Description of PV Experience/Training
- Form #2 – List of Five Most Recent Installations
- Form #3 – List of Licensed Contractors
- Form #4 – Certificates of insurance.
- Form #5 – Written permission for SMUD to contact customers to assess their satisfaction with the installation.

Applicants may include any form of documentation to substantiate their qualifications, including letters from customers, design plans, and photographs of completed installations

Send forms and related information to:

***Sacramento Municipal Utility District
Attn: Adel Suleiman, Program Manager
Commercial Photovoltaics Program
P.O. Box 15830, MS. A102
Sacramento, CA 95852-1830***

Form #1

Company Data and Description of PV Experience

Please provide basic company data and PV experience as requested below. It is permissible to attach existing company literature in lieu filling out the form so long as all requested information is included.

Contractors must have four years of experience designing, installing, and monitoring PV systems =10 kW in size *or* two years of such experience in addition to completion of a training program meeting SMUD standards. They must have successfully installed at least ten grid-connected, three-phase PV systems =10 kW in size, including installation of system output monitoring capability.

Name of Company _____

Name of Head of Company _____

Street Address/P.O.B. _____

City, State, and Zip _____

Phone Number and E-Mail Address _____

Number of Years Installing PV Systems _____

Number of =10kW Installations and Monitoring Systems Installed _____

Training Program(s) Completed by Personnel Who Will Work on SMUD Projects

Form #2

List of Five Most Recent Installations

Using the form on the next page, please list the five most recent installations, including date installed, system size (kW), output over the past 12 months, monitoring hardware and software used, and a list of customers with contact information for references.

	System #1	System #2	System #3	System #4	System #5
Company Name					
Mailing Address					
Contact					
Contact Phone & E-Mail					
Date Installed					
Size (kW)					
KWh Output (last 12 mos.)					
Monitoring Method					

Contractors working on SMUD projects must be licensed by the California Department of Consumer Affairs, Contractors State License Board, under Chapter 9 of Division 3 of the Business and Professions Code of the State of California. Contractors must hold State Contractor Licenses B or C-10.

Please list below the licensed contractors who will be working on SMUD projects and have each of them sign the form.

<u>Name</u>	<u>Licenses Held</u>	<u>Signature</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Master-listed contractors shall arrange for the delivery of a certificate of insurance completed by its insurance carrier, agent, or broker certifying that at least the minimum insurance coverages required in the section “Insurance Requirements” (above) are in effect and specifying whether the liability coverages are written on an occurrence form or a claims-made form, and that the coverages will not be cancelled or changed without thirty (30) days advance written notice to the SMUD program manager.

I hereby give Sacramento Municipal Utility District permission to contact the customers named on Form #2 in order to enquire about their satisfaction with the PV installation described on Form #2.

Signature

Name (Please Print)

Position

Date