

M POWER

Solar Photovoltaic (PV) Program Performance-Based Incentive For Systems Over 30kW

2009/2010 Program Details

MID offers a ten-year Performance-Based Incentive (PBI) for commercial, agricultural or industrial electric customers who purchase and install solar photovoltaic (PV) projects greater than 30 kilowatts and up to 1 megawatt (1,000 kW) in size. This program applies to existing electric customers / premises and is not applicable to new construction. MID reserves the sole right to periodically modify & amend program requirements and to determine if program eligibility criteria have been satisfied.

Program Overview

- **MID Incentive** - PBI is paid to customers in 10 consecutive annual payments based on the actual metered solar power produced at the rate of \$0.16 per kilowatt-hour (kWh). At the District's discretion, the first incentive payment may be based on the actual generation produced by the system on the six-month anniversary of the PV system's startup and then again at the 12-month anniversary. This incentive amount will be reduced no later than July 31, 2010. Customers are responsible for any special metering costs such as the need for mass-memory interval metering and/or phone line costs. Accrued incentive payment(s) are capped at 50% of eligible project costs and subject to funds availability.
- **Project Costs** - Only those portions of a solar PV generating system that convert the energy source to electricity and the related power conditioning and control systems are eligible to be covered by the MID Solar PV Program.

Eligible costs include:

- Installation costs including any applicable license fees, permit fees and sales taxes
- Engineering costs and design, not to exceed 10% of total system cost
- The following specific components and equipment: The photovoltaic cells, modules, mounting or tracking structures, wiring, inverters, performance meters, foundation (for free-standing system) and utility-required interconnection equipment.

Ineligible costs include:

- Equipment for storage of the electricity produced (such as batteries)
 - Cost of capital
 - Cost of tools
 - Tree trimming or other landscaping costs
 - Roofing, re-roofing, roof repairs or reinforcement
 - Relocating vent pipes, HVAC or other equipment
- **Other Incentives** - Incentives received from sources other than the MID Solar PV Program that lowers the cost of the PV system may affect the incentive amount applicants receive. If incentives are from other utility incentive programs, a State of California sponsored incentive program, or a federal government sponsored incentive program (other than tax credits). These incentives will be deducted from the actual and documented Project Cost as it relates to the MID criteria and the maximum accrued rebate will not exceed 50% of net Project Costs. Applicants are required to inform the District of any other incentives for which they have applied and/or may receive.
 - **Location** - The PV system must be permanently installed on the same premises where the Customer's electricity demand is located.
 - **PV System** - Maximum system size is 1,000 kW as measured by direct current (DC), before inverter, array size at Pacific Test Conditions (PTC) as listed on the California Energy Commission (CEC) website. The PV system must be intended to primarily offset part or all of the customer's annual electricity consumption at the premise where system is installed. Systems must be sized to produce no more than 100% of the customer's average annual energy consumption as shown on the MID billing records for the two years previous to the issuance of an approved Reservation. If the customer's account has less than a two-year history, an average will be calculated with available data at the District's discretion.

All major PV solar energy system components, including PV modules, inverters, and meters must be new and unused and must be included on the CEC's Eligible Equipment Lists, which may be found on the CEC website. The PV system must be installed in conformance with the manufacturer's specifications and in compliance with all applicable electrical and building code standards. All solar energy systems must have a minimum 10-year warranty to protect against defects and undue degradation of electrical generation output.

- **Interconnection** - The PV system must be connected to the MID electrical distribution grid and comply with the District's Net Metering and Electrical Interconnection Requirements.
- **Ownership** - Qualified PV systems must be customer-owned. PV systems installed through the use of leased agreements do not qualify for PV incentive monies. MID will not accept purchase power agreements (PPA) under this program. Customers may be required to sign an Affidavit confirming and attesting that PV systems are fully customer owned.
- **System Permanence** - Customers must certify that PV systems will be maintained and remain operational on the customers premise for a minimum twenty year period.
- **Environmental Attributes** - MID retains the rights of all environmental attributes accruing from PV projects receiving MID incentives including Renewable Energy Credits or REC.

Application Process

Step 1 - Review the Application / Qualification Standards

To be eligible for Photovoltaic System Rebate Program incentives, qualifying MID customers and their vendor and/or installer partners must meet all the requirements as set forth in this Application Package. Customers should carefully review the entire Photovoltaic Rebate Program Application Package. Photovoltaic systems require a considerable financial investment and are not suitable for all customers. Customers are advised to seek out information about PV/solar technology and how to go about choosing a PV system.

An "MID Educational Guide to PV Technology" is available upon request. It is available by calling the MID PV Program Coordinator at 209-526-7455. It can also be found at the MID website. Additional useful websites and links are listed at the MID website.

Step 2 – Complete and Submit the Reservation Request Application

To qualify for the MID PBI Incentive Program, the customer (or contractor/ integrator) must first submit a PV Project Reservation Form to MID.

The following items must be submitted with the PV Project Reservation Form:

- Single Line Diagram of proposed PV system including system module and inverter details.
- Detailed Site Drawing showing the specific (building) location of array(s) and inverter(s).
- Shading Analysis Report (Solar Pathfinder or equivalent technology). Report should show projected annual PV project generation.
- A copy of the signed contract between the customer and PV contractor / vendor / integrator.
- Affidavit of Sole Ownership
- Energy Efficiency Disclosure Agreement
- Commitment Agreement (if needed, (see Energy Efficiency Disclosure Agreement form for details)

Send the Reservation Form along with the additional attachments to:

Modesto Irrigation District
Attn: Mike Zweifel – Energy Services
P.O. Box 4060
Modesto, CA 95352-4060

Step 3 - Approval from Modesto Irrigation District

Once MID reviews and approves a project, the District will issue a "Project Confirmation Letter" to the customer. Customers will have 270 days from the date of the Letter to complete the proposed project. Projects not completed within the 270 day period run the risk of receiving a reduced incentive amount. The California Solar Initiative requires that incentive values decline over a 10 year period.

Step 4 - Final PV System Inspection

Once a PV project is completed, MID will verify that the PV system was installed as specified in the initial Reservation Form documentation and that the system meets MID Electrical Interconnection Requirements.

Step 5 - Final PV System Approval and Payment

After the PV project has passed local building department and MID electrical inspection, the following documents must be submitted to MID:

- Copy of approved local building department permit
- Two signed original copies of MID Electrical Interconnection and Net Metering Agreements
- Copy of itemized final sales invoice
- PV System Components and Warranty

Program Qualification Standards

Participating MID customers (Applicants) must fulfill all Program Qualification Standards and guidelines to be eligible for program incentives. MID reserves the sole right to: 1) periodically modify and amend Program Qualification Standards and 2) determine if program eligibility criteria have been satisfied. PV systems must be owned by the MID customer receiving the incentive and documentation verifying ownership is required.

Contractors and Installation - Codes & Standards

PV systems must be installed by licensed California contractors in accordance with rules and regulations adopted by the State of California Contractors' Licensing Board and must in all cases be installed in conformance with manufacturer's specifications and with all applicable electrical and other codes and standards. Contractors must possess, or employ subcontractors who possess an A, B, C-10 or C-46 license.

Certified Components or Systems

All PV system components must be new and not have been previously placed into service at another location. All PV modules must be certified by a nationally recognized testing laboratory as meeting the requirements of the Underwriters Laboratory Standard 1703, and must appear on the latest California Energy Commission (CEC) certified Photovoltaic Modules list. All inverters must be certified as meeting the requirements of UL 1741 and appear on the latest California Energy Commission certified inverter list. The CEC list of approved modules and inverters can be found at:

<http://www.consumerenergycenter.org/erprebate/equipment.html>

Array Orientation

The orientation of the solar array (modules) must be between 90 degrees (true East), and 270 degrees (true West). An exception to this requirement is for flat roof installations with a tilt angle of less than 5 degrees.

Grid Connection / Installation Details

Qualifying PV systems must be grid-connected. This means that the PV system must be electrically connected (on the customer's property) to the MID electric system serving the customer's load. The interconnection of the customer's PV system must comply with all applicable electrical codes and MID inter-connection requirements. The PV system must offset the customer's energy use by supplying electricity otherwise supplied by MID.

MID requires the installation of a visible, lockable disconnect switch to be installed between the PV system and the MID Distribution System. The switch must be clearly labeled "PV System Disconnect" and should be located on the alternating current (ac) side of the inverter and before and within 12 feet of the customer's service panel in a readily accessible location.

PV equipment receiving program incentive is intended to be in place for the duration of its useful life. Systems must be secured to a permanent surface. Any indication of system portability may deem system ineligible for program incentives.

MID also requires the installation of a simple "A" Base Meter Socket Adapter on the alternating current side of the inverter. MID will install (at no cost to the customer) a meter that will allow the District to measure the generation output of the PV system.

Warranties

Retailers of PV systems must provide a minimum 10-year warranty against breakdown or degradation of electrical output of more than 10% from their originally rated electrical output. 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. Copies of the full warranty(ies) must be received by MID in order to process a PV System Rebate. MID does not guarantee any materials or workmanship; acceptance of such is customer's responsibility.

Generating System Output /Rebate Incentive

The Performance-Based Incentive (PBI) Program incentive is based on the qualifying PV system’s actual generation output over a ten-year period in the form of ten consecutive annual payments. At the District’s discretion, the first incentive payment may be made based on the actual generation produced by the system on the six-month anniversary of the system’s operation and then again at the 12-month anniversary. Thereafter, payments will be made based on the PV system’s annual kilowatt-hour (kWh) generation.

EXAMPLE REBATE CALCULATION:

A 50kW roof-mounted PV system is installed on a commercial building and begins operation on March 12th. Assuming that MID agrees to a first incentive payment at the six-month anniversary, a meter reading will be taken from the generation meter on or about September 12th. The meter reading indicated that the PV system has produced 55,125 kWh of electricity. Based on the PBI incentive approved at the time of system completion (\$.16 per kWh), the first incentive is calculated as follows:

55,125kWh X \$.16 = \$8,820.00

EXAMPLE ACCRUED REBATE CALCULATION:

Eligible costs = \$200,000. Maximum accrued rebate = \$100,000.				
Year 1	60,000 X \$.16 = \$ 9,600		Year 6	75,000 X \$.16 = \$12,000
Year 2	75,000 X \$.16 = \$12,000		Year 7	80,000 X \$.16 = \$12,800
Year 3	78,000 X \$.16 = \$12,480		Year 8	82,000 X \$.16 = \$13,120
Year 4	69,000 X \$.16 = \$11,040		Year 9	Rebate capped at \$ 3,840
Year 5	82,000 X \$.16 = \$13,120		Year 10	No Rebate

Required MID Electrical Interconnection Net Metering and Agreements

MID Customers installing PV systems must complete and enter into an Electrical Interconnection Agreement with the District. This Agreement contains important technical terms and conditions pertaining to the design, construction, operation and maintenance of PV systems necessary to insure safety and power quality. The Interconnection Agreement may contain additional requirements not stated within these Qualification Standards in accordance with the law. MID may modify such application from time to time as deemed necessary by the District.

Completion and submittal of an MID “Net Metering Payment Agreement” is required. Net metering allows your electric meter to spin forward when power flows from MID into your home and backwards out onto the grid when your PV system is generating more electricity than your home is using. Net metering allows customers with PV systems to be credited on a one-for-one basis for all kilowatt-hours of energy generated and pay only for the “net” amount of energy consumed. Under MID’s net-metering rule, customers only pay for the “net” amount of energy consumed over an annual 12-month period. MID will not pay for excess generation greater than the customers’ actual annual electric usage.

The MID Net Metering and Electrical Interconnection Agreements can be downloaded at the following web link within the MID website: <http://www.mid.org/services/tariffs/default.htm>

Renewable Energy & Environmental Credits

As a condition of MID system inter-connection, customer agrees that MID retains all rights and ownership to “renewable energy credits” (RECs) or certificates for greenhouse gas emissions and other future “renewable” and/or “environmental” credits or certificates for as long as the customer’s PV system is interconnected to the MID distribution system. MID may trade and/or utilize these credits as deemed necessary and valuable for the benefit of all MID ratepayers.



Questions? Call (209) 526-7455
MID web site: www.mid.org