

Multifamily Affordable Solar Housing (MASH) and Low Income Workshop



The slides for today's presentation can be downloaded/printed at www.pge.com/solareducation



Content

- Introduction
- Overview of California Solar Initiative (CSI)
- MASH Program
- Energy Partners Program
- CARE & FERA Programs
- Q&A Session



Objective

The purpose of this workshop is to provide an understanding of the MASH Program and PG&E's Low Income offerings. We will take you through the application process and also give an overview of some related low income programs and services PG&E offers.

*****Please note: This is not an instructional class on how to install solar*****

If you are interested in learning to install solar or getting into the solar industry, please visit the following websites for information:

Interstate Renewable Energy Council-Renewable Energy Training Catalog:

•<http://irecusa.org/trainingCatalog/>

The North American Board of Certified Energy Practitioners (NABCEP):

•<http://www.nabcep.org/certificates/entry-level-certificate-program/for-students>

Grid Alternative (non-profit providing hands-on training for volunteers)

•www.gridalternatives.org

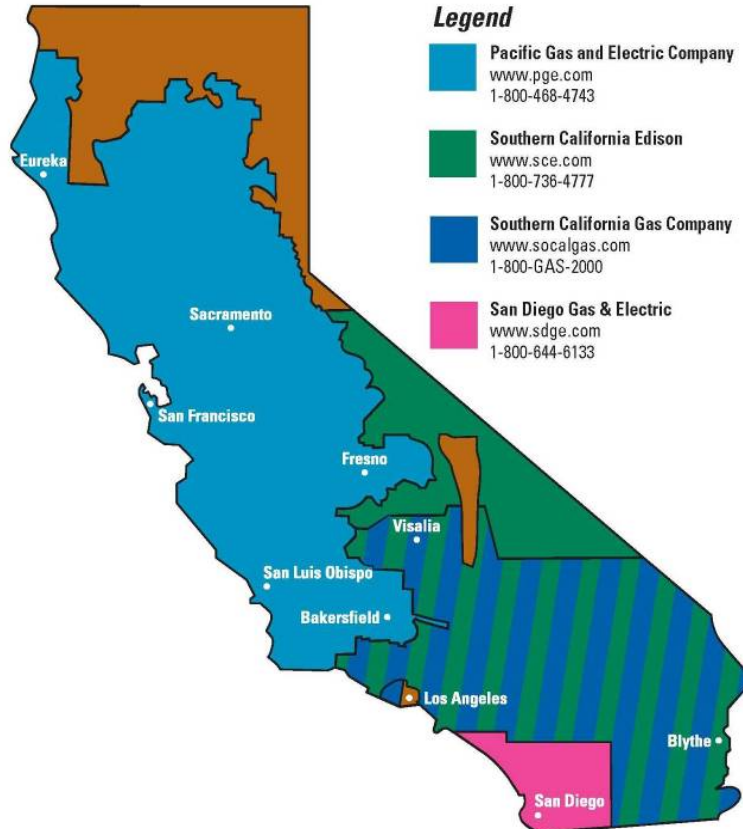
Also check with local community colleges and universities



About PG&E

What we do:

Deliver safe, reliable, and environmentally responsible gas and electricity to approximately 15 million Californians



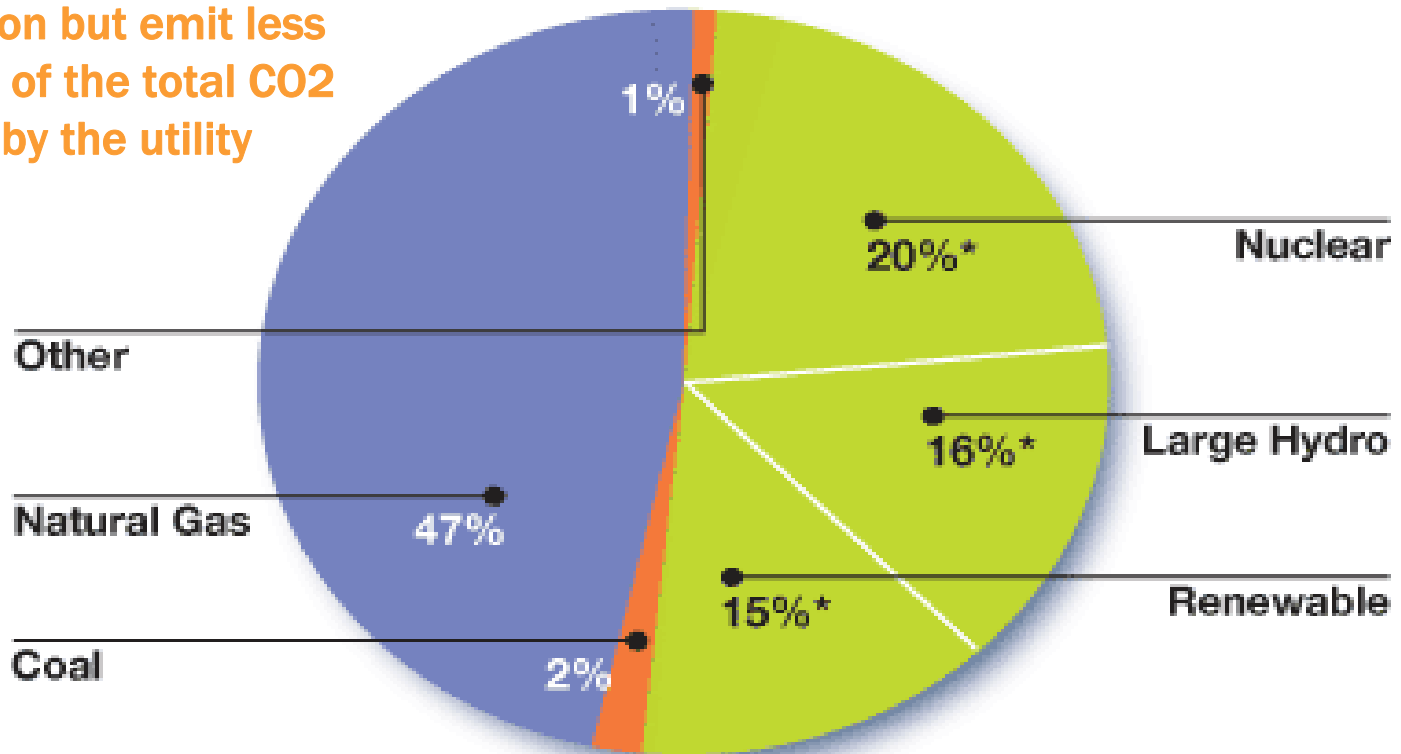
Employees	19,800
Electric and gas distribution customers	5.1 MM electric 4.2 MM gas
Electric transmission circuits	18,610 miles
Gas transmission backbone	6,136 miles
Owned Electric generation capacity	6,000+ MW
Total Peak Demand	20,000 MW



PG&E 2009 PROJECTED POWER MIX

We serve 5% of the U.S. population but emit less than 1% of the total CO₂ emitted by the utility sector.

*These resources are climate neutral and/or renewable



Note: Power mix includes all PG&E-owned generation plus all of PG&E's power purchases.



California Solar Initiative (CSI) and Low Income Background



SB 1

CPUC
(CA Public Utilities Commission)

CEC
(California Energy Commission)

*Retrofit Residential
Retrofit Commercial
Commercial New Construction*

*Retrofit Low
Income*

*Residential New
Construction*

1. California Solar Initiative (CSI)

Low Income Solar (LISP)

4. New Solar Homes Partnership (NSHP)

2. MASH

3. SASH

Program Administrators

Grid Alternatives

Program Administrators

PG&E

SCE

CCSE

PG&E

SCE

SDG&E

BVES



CSI Background and History

- January 2007: Go Solar California campaign was launched
 - SB 1 was signed into law in 2006 to authorize the program
 - \$3.3 billion aimed at installing 3,000 MW of grid-installed solar
 - CSI, NSHP are part of Go Solar California
 - CSI covers all non-residential projects and existing residential projects in IOU territories -1,940 MW goal
 - NSHP covers new construction – 400 MW goal



Low Income Solar Program Background

- The Low Income Solar Program will provide education and incentives for installing solar PV systems in eligible low income structures (single-family homes and multifamily housing).
- \$216 M (10% of the ratepayer funded CSI Budget) was set aside for Low Income Solar
- There are two distinct programs:
 - \$108M for Single Family Affordable Solar Housing Program (SASH)
 - Administered statewide by GRID Alternatives
 - \$108M for Multifamily Affordable Solar Housing Program (MASH)
 - Administered by PG&E, SCE and CCSE



MASH Program Goals

- **Stimulate adoption of solar power** in the affordable housing sector
- **Improve energy utilization** and overall quality of affordable housing through application of solar and energy efficiency technologies
- **Decrease electricity use and costs** without increasing monthly household expenses for affordable housing building occupants
- **Increase awareness and appreciation** of the benefits of solar among affordable housing occupants and developers



MASH Eligibility

- Project site must be within service territory and receive retail electric service from Pacific Gas and Electric (PG&E), Southern California Edison (SCE) and San Diego Gas and Electric (administered by the CCSE)*
- Retrofit Residential Multifamily Projects that meet the definition of low income residential housing per Public Utilities Code 2852
- Must have an occupancy permit of 2 years or more
 - ❖ If you are working on a major rehab, check with New Solar Homes Partnership for eligibility

*Municipal electric utility customers, please check with your provider for any solar incentives or CSI updates.

** New construction residential projects are eligible under the New Solar Homes Partnership Program

MASH Eligibility Ctd

- Must use new and eligible equipment approved on CEC list
 - New inverter not required, new panels can be added to an existing inverter
- Minimum System Size of 1 kW
- Maximum System Size of 5 MW
 - Incentives will be capped to the **First** MW
- System size: production must be \leq previous 12 month usage history (kWh)
 - Documentation can be provided for added load: new appliances, added square footage, etc.
 - Residential system 5-9.9 kW in size, square footage can be used (2 watts x square feet = maximum CEC-AC system size)



MASH Incentive Structure

There is one type of MASH Incentive:

Expected Performance-Based Buydown (EPBB) - one time, up-front payment based on an estimate of the system's future performance

<u>Three levels of incentives</u>		
Track 1A: Common Load Offset	Track 1 B: Tenant Load Offset	Track 2: Grant-style incentives
\$3.30/Watt	\$4.00/Watt	\$/Watt Varies

MASH Incentives are not subject to a MW Trigger

Virtual Net Metering (VNM)

- New Tariff available to MASH participants
- Credits from a single solar system at a Site are allocated across multiple accounts
- The Investor Owned Utilities (IOUs) filed a proposed VNM tariff on 2/13/09
 - Advice Letter was approved on June 8, 2009
- MASH Decision directed CPUC to consider expansion of VNM to all multitenant buildings



MASH Program Status and Statistics

- Track 1 launched February 17, 2009
 - 134 active applications (as of October 19)
 - 6.8MW; \$24M
 - \$8.5M in available funding
- Track 2 launched its first cycle on July 1, 2009. Successful projects will be awarded in Q4 2009

Before Applying

Application Terminology:

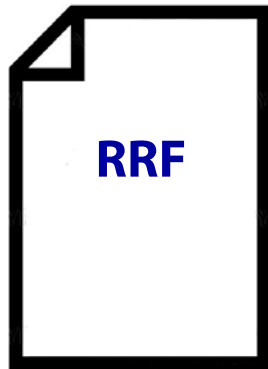
- **Host Customer:** the utility customer of record (person listed on the bill) at the location where the generating equipment will be located. If there are multiple utility customers (tenants and owner), the building owner may be the Host Customer for a MASH application.
- **System Owner:** the owner of the generating equipment at the time the incentive is paid.
- **Applicant:** is the entity/person that completes and submits the CSI Program application and serves as the main contact person for the CSI Program.
- **Project Site:** the physical site where the system is going to be installed as listed with PG&E.



3 Step Application Process

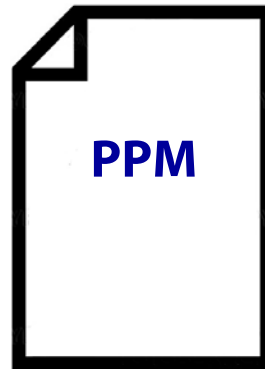
3 Step Application

Step 1. Reserve Funding



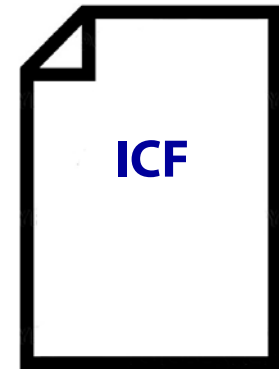
Submit
Reservation Request
Form

Step 2. Show Progress



Submit
Proof of Project
Milestone

Step 3. Claim Incentive



Submit
Incentive Claim
Form



Step 1 of 3: Reservation Request Required Documents

1. Completed Reservation Request Form and Program Contract with Original Signature
 - Application listing the customer, installer, project site, requested incentive amount, etc
2. Documentation of an Energy Efficiency Audit (or Title 24 documentation or other exemptions)
 - Can be done on PG&E website, phone, onsite or mail
3. Printout of EPBB Tool Calculation (www.csi-epbb.com)
 - Each array requires a separate printout to determine correct incentive
4. Documentation of Low Income Status
 - Any documentation to demonstrate that the building meets the definition of low income per CPUC Code 2852
5. Proof of occupancy greater than 2 years
6. Energy Efficiency Disclosure Form



Step 1 of 3: Reservation Request Required Documents, IF APPLICABLE

If annual kWh on EPBB Calculator > previous 12 month usage history

6. Electrical System Sizing Documentation

- Square footage, list of new equipment/appliances with the wattage and expected use, or engineer calculations



Step 2 of 3: Proof of Project Milestone Required Documents

1. Completed Proof of Project Milestone Checklist

- The purpose of this checklist is to assist in the completion of information materials required for review of Proof of Project Advancement

2. Copy of Executed Agreement of Solar System Purchase and Installation

- Purchase/installation contract between involved parties

3. Copy of Request For Proposal (RFP) of Solicitation

- Notice to Invite Bids, of similar solicitation issued for the installation, lease, and/or purchase of the system proposed for the project

If System Owner is different than Host Customer

4. Copy of executed alternative System Ownership agreement

- Listing involved parties, terms, length of time, signatures, etc.

If applicable

5. Revised EPBB Calculation Printout (if applicable)

- If the proposed system has changed at all please submit a new EPBB calculation printout



Step 3 of 3: Incentive Claim Required Documents

1. Complete Incentive Claim Form and Original Signatures

- Application indicating installed equipment and final incentive amount

2. Final Project Cost Breakdown Worksheet

- Itemized listing of project cost for modules, inverters, installation, etc.

3. Copy of Executed Performance Monitoring & Reporting Service Contract and Performance Data Provider Letter

- Performance Meter make, model & serial number; name of provider; terms & conditions; etc.
- Communication to the performance meter should be completed prior to ICF

Or If exempt:

3. PMRS Cost Cap Exemption Documentation

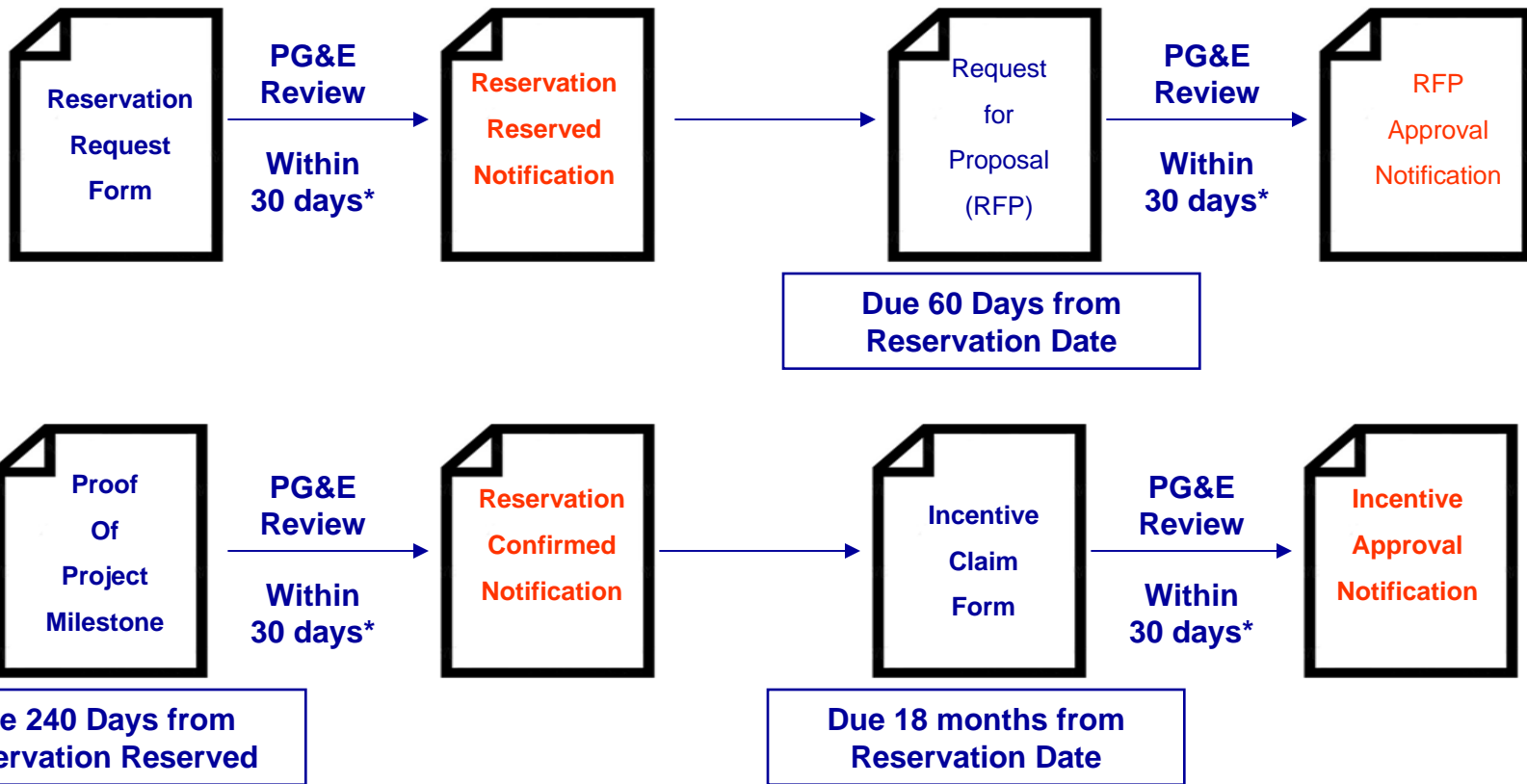
- Same as above or If exempt, copy of quote from eligible PMRS provider showing cost

If applicable:

4. Revised EPBB Calculation Printout

- Required if installed equipment is different than proposed equipment in Reservation (Step 1)

3 Step Process and Timeframe



***Please note: Timeframes are approximate.
Missing or Incorrect information/documents cause indefinite delays.**



How to Apply

- **Download forms from website**
www.pge.com/lowincomesolar
- **Coming Soon**
 - **Access online database PowerClerk**



Energy Partners Program

PY2009-2011 Energy Partners Measures

Qualifying Energy Partners participants receive free energy services and measures, including: energy education, weatherization and energy efficient appliances.

- Hard-Wired Compact Fluorescent
Porch lights
- Interior Hardwire Compact
Fluorescent lamps
- Screw-in Compact Fluorescent
lamps
- Occupancy Sensors
- Torchieres
- Refrigerator Replacement
- Evaporative Coolers
- Central Air Conditioners
- Window/Wall Air Conditioners
- Central AC Tune Up
- Furnace repair/replacement (home-
owners only)
- Water Heater repair/replacement
(home-owners only)
- Energy Education
- Hot Water Conservation Measures
 - Faucet Aerators
 - Pipe Wrap
 - Low Flow Showerheads
 - Water Heater Blankets
- Air Infiltration Measures
 - Door Weather-stripping
 - Caulking
 - Outlet Gaskets
 - Evaporative Cooler Covers
 - Minor Home Repairs
- Duct Testing and Sealing
- Attic Insulation
- Clothes Washers
- Microwaves (pilot measure)



CARE & FERA Programs



CARE Program

- California Alternate Rates for Energy
- Provides a 20% monthly discount on energy bills for income-qualified households
- Mandated by the CPUC



CARE-Eligible Customers

- Single-family households
- Sub-metered tenants
- Non-profit group living facilities
- Agricultural group living facilities
- Migrant farm-worker housing centers



FERA Program

- Family Electric Rates Assistance
- Provides a monthly discount on electric bills for income-qualified households of three or more persons
- Mandated by the CPUC
- Managed in partnership with the CARE Program



CARE/FERA Income Guidelines

Effective June 1, 2008 to May 31, 2009

Size of Household	CARE	FERA
1 – 2	\$30,500	Not Eligible
3	\$35,800	\$35,801 - \$44,800
4	\$43,200	\$43,201 - \$54,000
5	\$50,600	\$50,601 - \$63,200
6	\$58,000	\$58,001 - \$72,400



PG&E Classes & Webinars

Tue, Oct 27 6:00 pm- 8:00 pm - Solar Power Basics for Residential Customers - Belmont

Tue, Oct 27 12:00 pm - 1:00 pm - Solar Billing - Online

Fri, Oct 30 9:00 am - 4:30 pm Solar Water Heating Systems - SF PEC and Online

Mon, Nov 2 11:00 am - 12:00 pm Path to Energy Savings - Residential New Construction - Online

**Tue, Nov 3 9:00 am - 4:30 pm - Basics of Photovoltaic (PV) Systems for Grid-Tied Application
Eureka**

Tue, Nov 3 11:00 am - 12:00 pm - Guide to Using PowerClerk – Online

**Wed, Nov 4 11:00 am - 12:00 pm - Path to Energy Savings - Existing Res and Small Comm -
Online**

Wed, Nov 4 12:00 pm - 1:00 pm - Your Path to Energy Savings - Large Commercial - Online

Thu, Nov 5 12:00 pm - 1:00 pm - Solar for the Entrepreneur - Online

For a complete list of classes, please visit www.pge.com/solarclasses



Resources

Applications:

www.pge.com/lowincomesolar

To request marketing materials:

solar@pge.com

EPBB Calculation Tool:

www.csi-epbb.com

California Energy Commission:

www.gosolarcalifornia.ca.gov



Resources Ctd

LIEE:

www.pge.com/energypartners

MF Retrofit:

www.pge.com/multifamily

CARE:

www.pge.com/care



Questions

