



## Affordable Housing and Solar

Multifamily Affordable Solar Housing

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## Multifamily Affordable Solar Housing (MASH)

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# MASH Program Overview & Goals



# MASH Program Overview

- The new MASH program, administered through the California Solar Initiative, was launched in March 2009
- MASH rebates further reduce the price of solar on affordable housing projects
- Combined with Federal incentives, you can save 75% or more!
- Affordable housing developers and building owners are racing to qualify for this limited new pool of funds
- There has never been a better time to power your building with clean, renewable energy and to reduce your ongoing electricity costs significantly!

# Four Goals of the CSI MASH Program

1. Stimulate adoption of solar power in the affordable housing sector.

2. Improve energy utilization and quality of affordable housing through adoption of energy efficiency and solar technologies.

3. Decrease electricity usage and costs without increasing monthly household expenses for building occupants.

4. Increase awareness and appreciation of the benefits of solar among affordable housing developers and occupants.

# MASH Program Incentives



# MASH Program Incentives

## MASH REBATES

MASH REBATES	
<b><u>Track 1A</u></b> Solar PV System Offsetting Common Load	<b><u>Track 1B</u></b> Solar PV System Offsetting Tenant Load
Common rooms, laundry rooms, hallways and other communal electricity load	Tenant individual dwelling units
Available Now	Available Now
\$3.30/Watt (AC)	\$4.00/Watt (AC)

# Utilities Administering MASH



# Utilities Administering MASH

MASH is a California program—incentives are available to customers in the following utility districts

	Pacific Gas & Electric (PG&E)
 <p>SOUTHERN CALIFORNIA <b>EDISON</b><sup>®</sup> <small>An EDISON INTERNATIONAL<sup>®</sup> Company</small></p>	Southern California Edison (SCE)
 <p>Center for <b>Sustainable Energy</b> CALIFORNIA</p>	San Diego Gas & Electric (SDG&E) Administered by California Center for Sustainable Energy for SDG&E

# MASH Budget by Utility

MASH Budget [in 000's]	PG&E	SCE	CCSE (SDG&E)	Total
Budget %	43.7%	46%	10.3%	100%
Track 1 (A&B)	\$33M	\$35M	\$8M	\$76M
Track 2	\$9M	\$9M	\$2M	\$20M
Administration	\$5M	\$6M	\$1M	\$12M
Total Budget	\$47M	\$50M	\$11M	\$108M

Source: energycenter.org

- \$108 million in total
- Funds divided across 3 utilities and are expected to go quickly
- PG&E has \$33M, SCE has \$35M and SDG&E has \$8M

# Who Qualifies for MASH



# Who Qualifies for MASH



- Eligible electricity customers of PG&E, SCE and SDG&E may receive incentives through the MASH Program if they meet the definition of “low-income residential housing” set forth in the Public Utility Code 2852.
- Both for-profit companies and nonprofits can benefit.
- According to the California Public Utilities Commission, approximately 50 percent of low income households in California (2 million households) live in multifamily dwellings that may meet the definition of low income residential housing.

# Low Income Residential Housing Eligibility

- Residential housing financed with
  - low-income housing tax credits
  - tax-exempt mortgage revenue bonds
  - general obligation bonds or local, state, or federal loans or grants
  - The facility must also meet the definition of low-income households as set forth in Section 50079.5 of the Health and Safety Code.
- A residential complex in which at least 20 percent of the total units are sold or rented to lower income households, as defined in Section 50079.5 of the Health and Safety Code
- Housing units targeted for lower income households are subject to a deed restriction or affordability covenant with a public entity that ensures that the units will be available at an affordable housing cost, as defined in Section 50052.5 of the Health and Safety Code, or at an affordable rent, as defined in Section 50053 of the Health and Safety Code for a period of at least 30 years.

# What Buildings Are Good for Solar & MASH?

1. High electricity bill
2. Best roof is southeast to southwest facing, with plentiful sun
  - If your roof is flat, SolarCity can position the solar array to the optimal direction, regardless of building orientation
  - Do any necessary re-roofing before installing solar
  - Roofs with very little shading from trees or obstructions are optimal
3. Meet eligibility requirements of Low Income Residential Housing

# Making Solar Affordable



# Making Solar Affordable

- Before MASH, solar was not viable for most affordable housing developers or building owners.
- Not so with MASH! Now you can save 75% or more off the price of a solar system.
- Whether you purchase the system or finance it with SolarCity, the economics are extremely compelling.
- You can realize immediate savings on your electricity bills and achieve full payback on your solar system in just a few years.

# Example Pricing Scenarios



# Traditional Approach—Buy Your Solar System

[50 kw Example—Assuming a For-Profit Facility Owner]

Solar System Size	50kW
<u>System Cost Before Incentives</u>	<u>\$325,000</u>
<u>Tax Incentives</u>	<u>Less Tax Incentives</u>
Less Dept. of Treasury Grant (or ITC)	– \$97,500
Less MASH Rebate (After Tax)	– \$93,738
Less Depreciation Tax Savings	– \$91,000
Total Incentives	<u>\$282,238</u>
<u>System Cost After Incentives</u>	<u>\$42,762</u>
Amount Reduced	87%
Annual Reduction in Utility Bill	\$13,750
Payback	4 years

A solar power station is customized for your facility so terms may vary based on system size, rebates and utility rates.

# Traditional Approach—Buy Your Solar System 50 kW Example

- In this 50kW example, save 87% off the price of the solar system after rebates and government incentives
- Save money every month on electricity bills
- Pay off the solar system in just 4 years



# Interested in Financing?

- Don't have the cash and/or
- Can't take advantage of the tax benefits?
  - No tax liability to offset
  - Non-profit/government
- Ask about SolarCity's **Power Purchase Agreement (PPA)**
- Ideal for nonprofit/government and building owners who can not use federal tax benefits or depreciation

# Financing Option—Power Purchase Agreement (PPA)

- No cash down, receive savings from Day 1
- SolarCity finances and owns the system, claims the incentives
- Financing structure used commonly in energy industry
- Pay-as-you-go plan
- You lock in energy prices for 15 years
- SolarCity responsible for maintaining the system

# Finance Your System with a PPA [50 kw Example]

Solar System Size	50kW
<b><u>System Cost*</u></b>	<b><u>\$181,000</u> (After MASH rebate)</b>
<u>Power Purchase Agreement</u>	<u>PPA</u>
PPA Rate (\$/kWh)	\$0.10
Escalator of PPA Rate	0.00%
PPA Term	15 Years
Annual Reduction in Utility Bill**	\$13,750
<b>Annual Payments Made to PPA</b>	<b><u>\$6,875</u></b>
Net Reduction in Electricity Costs	\$6,875

\* Assumes system cost if purchased by a nonprofit / government organization after MASH rebate.

\*\* Assumes \$0.20/kWh current electric average rate.

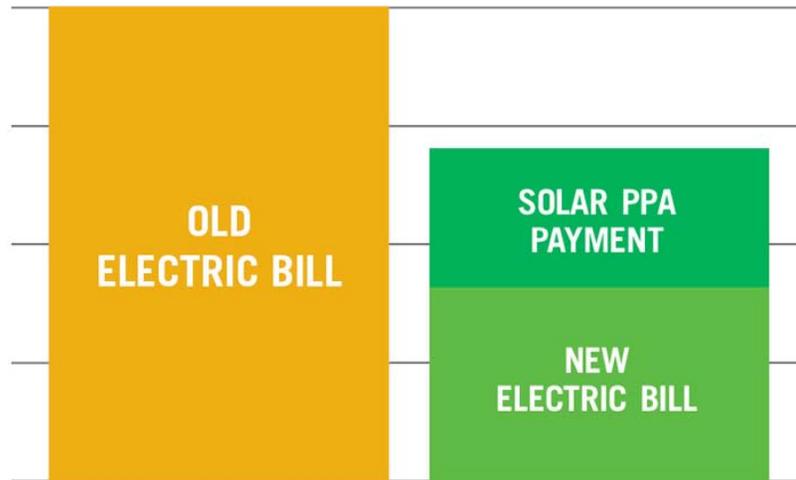
A solar power station is customized for your facility so terms may vary based on system size, rebates and utility rates.

# Example Pricing Scenario—SolarPPA [50 kW]

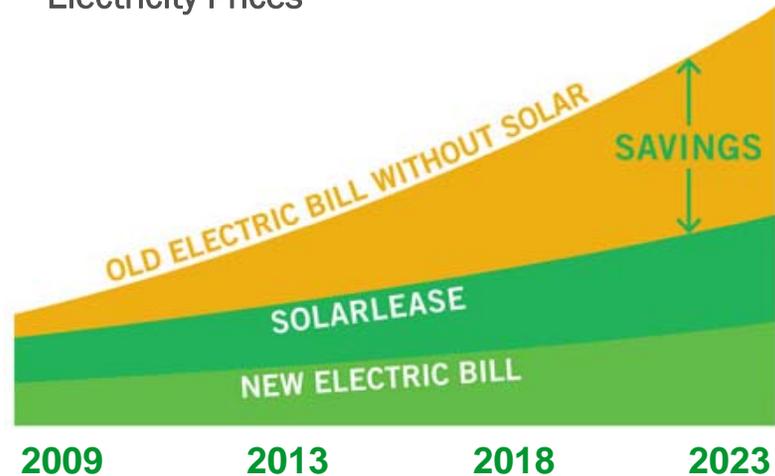
Monthly Savings		
	Before Solar	SolarPPA
Utility Bill	\$2,000	\$854
SolarPPA Payment		\$573
Total Monthly Cost	\$2,000	\$1,427
Net Monthly Savings		\$573

Benefits Over 15 Years	
Estimated Savings Over 15 Years	\$250,902
Net Present Value	\$124,268
Payback	Immediate

Save Money On Electricity Every Month



Protect Your Business From Rising Electricity Prices



# How a Power Purchase Agreement Works

1. Immediate payback and no upfront cost

SolarCity can claim all incentives and depreciation, which lowers PPA cost

2. Reduced electricity spending

$(\text{Solar PPA} + \text{New Lower Electricity Bill}) < \text{Old Utility Bill}$

3. Lock in your electricity rates for the next 15+ years

Protect against utility rate escalation and uncertainty

4. SolarCity owns the system and is responsible for maintenance

Since you only pay as system produces energy, interests are aligned

# Frequently Asked Questions About MASH



## FAQ—What rebates are available now under MASH?

- MASH Track 1A & 1B Are Immediately Available
  - Track 1A Rebate = \$3.30/watt (AC) for a solar system that offsets common area load
  - Track 1B Rebate = \$4.00/watt (AC) that offsets individual tenant loads
  - The full rebate amount is paid once the system is installed and turned on.

## FAQ—Can I Apply for Both Track 1A & Track 1B?

- Yes, you can apply for both 1A to offset common load and 1B to offset tenant load on your building.
- The solar system for the common area must be sized so that it offsets part or all of the electrical needs of common areas.

## FAQ—Can MASH be combined with other incentives?

- Yes, if you are a commercial entity
  - The federal government allows a credit of 30% of your system cost off your federal taxes or you can get a non-taxed grant
  - Taxable entities can depreciate the system using a 5-year MACRS\* schedule with a 1<sup>st</sup> year bonus depreciation
- SolarCity will prepare a full financial analysis of your solar project, including annual cost savings, payback calculations and cash flow analysis.
- We'll even complete the rebate paperwork on your behalf!

\*Modified Accelerated Cost Recovery System (MACRS)

# SolarCity Case Studies





System Size	49kW
Installed	09/22/2008
Type	Flat Roof
Location	Los Angeles, CA
Industry	Multi-Unit Housing

## Morgan Place



System Size	13kW
Installed	10/24/2008
Type	Flat Roof
Location	San Francisco, CA
Industry	Multi-Unit Housing

## Valencia Gardens



System Size	97kW
Installed	08/25/2008
Type	Flat Roof
Location	San Jose, CA
Industry	Multi-Unit Housing

## Curtner Gardens



System Size	280kW
Installed	Under Construction
Type	Spanish Tile
Location	Lancaster, CA
Industry	Multi-Unit Housing

## Arbor Court, Arbor Gardens, Essex House and Executive Suites

# Limited Time Incentive

- Cash or PPA—Financials are extremely compelling!
- MASH funds are limited, so it makes financial sense to act fast to reserve your share before other developers and building owners lay claim to the funds for their projects
- \$108M total budget expected to be consumed this year
- Rebate reservations are already being reserved at CSI!
- This is the best return on solar available in the United States



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