

# Santa Monica's Energy Programs

## Solar Santa Monica

April 19, 2012



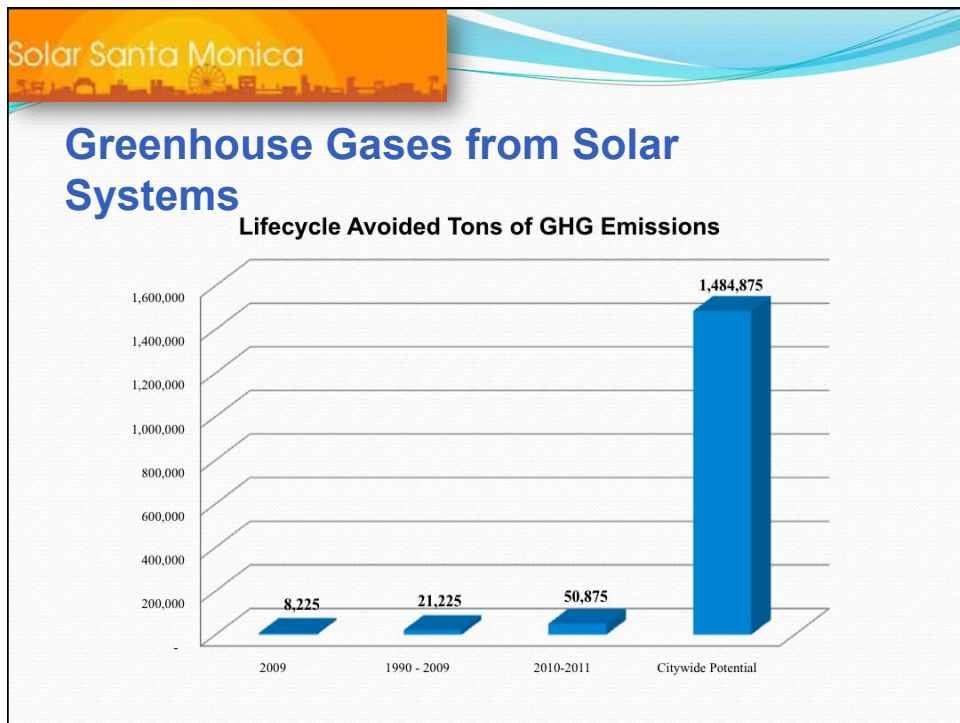
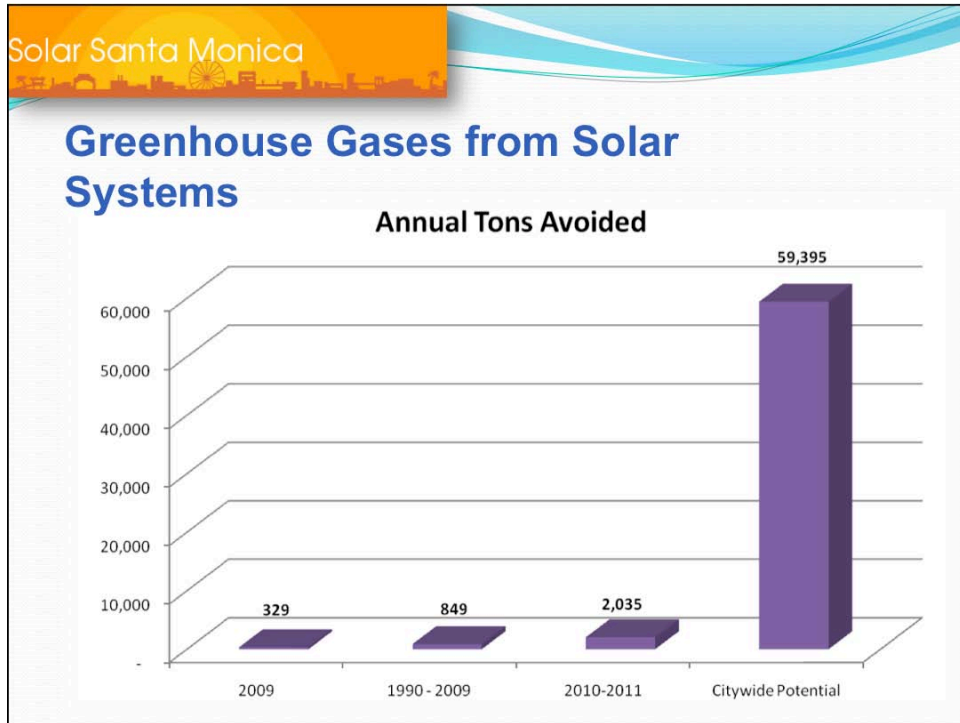
## Sustainability/GHG Goals and Targets

### Adoption of 2010 Sustainable City Plan Targets

- 25% of City electricity will come from renewable sources
- 1% of City electricity will come from clean, distributed generation sources

### Greenhouse Gas Emission Reduction Targets

- At least 30% below 1990 levels by 2015 for City operations
- At least 15% below 1990 levels by 2015 citywide



Solar Santa Monica

<b>Net Lifecycle Savings</b>		
	Estimated Lifecycle Savings per kW	Total Lifecycle Savings
2009	27,343	\$6,600,019
1990 - 2009	13,672	\$20,110,777
2010-2011	13,672	\$48,260,395
Citywide Potential	13,672	\$1,408,164,500

City of Santa Monica

Solar Santa Monica

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A City-Sponsored Energy Program

**GET STARTED**

SIGN UP to receive our **Newsletter**

**Solar Santa Monica**  
Now in its third year!

- ▶ A free service offered by the City of Santa Monica
- ▶ Serves Santa Monica residents and businesses
- ▶ Energy efficiency and solar energy education

**For Contractors:**  
To be listed on our Contractor Network, join one or both of the lists below.

1 Preferred Solar

## List of Free Services

**For Homeowners:**

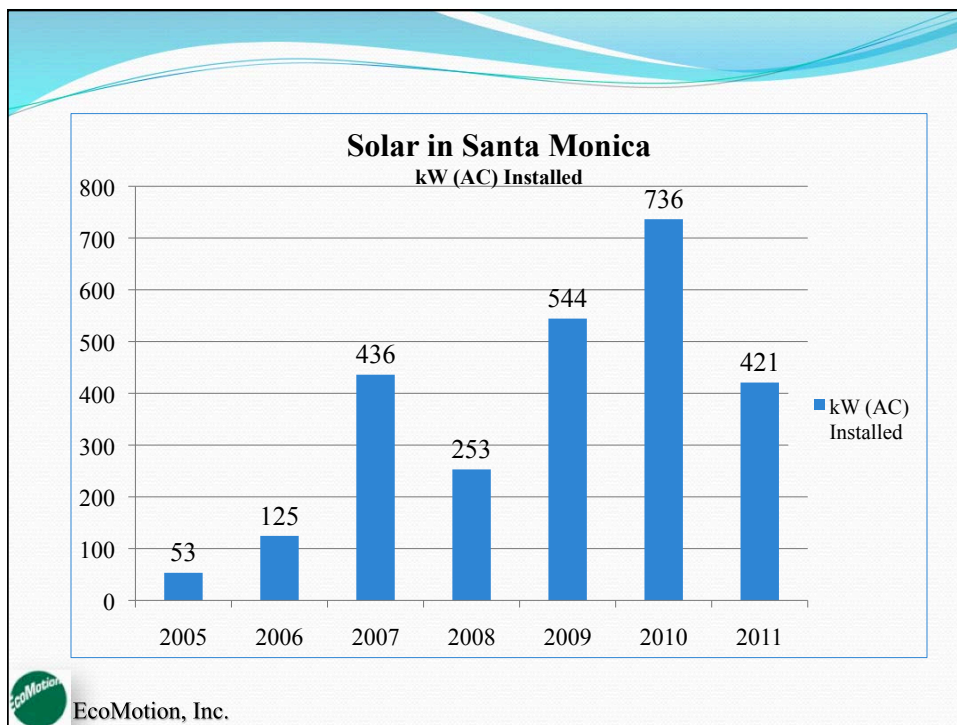
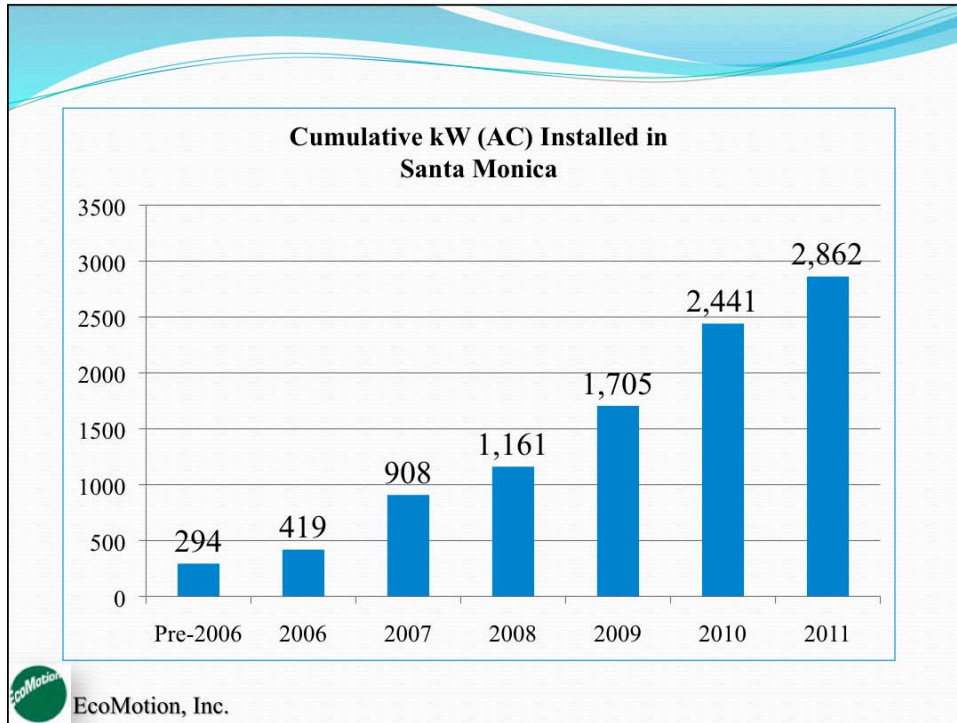
- Online Energy Survey
- Solar Potential Finder/Cost Estimation
- Referrals to over 17 energy efficiency contractors and 24 local solar contractors
- Bid Comparison Service

**For Business Owners:**

- In-person Site-check
  - An energy specialist will assess the utility bills, appliances, the building envelope, electronics, heating and air conditioning, lighting, water and safety.
- Bid Comparison Service

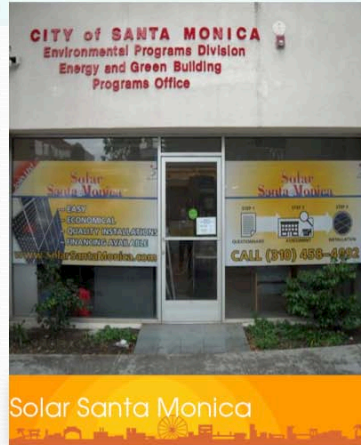
Solar Santa Monica - 1212 5th Street, First Floor - (310) 458-4992 - [www.solarsantamonica.com](http://www.solarsantamonica.com)

Solar Santa Monica			Lantana Solar Analysis								
Lantana Solar System Comparison - March 1, 2010											
<b>West: 61 kW</b>			5% Utility Inflation			6.7% Utility Inflation			10% Utility Inflation		
	Gross Cost	Net Cost	IRR	Payback	25 yr Savings	IRR	Payback	25 yr Savings	IRR	Payback	25 yr Savings
\$5.50/ watt	\$335,332	\$46,665	13.40%	5.1 yrs	\$879,466	14.70%	5 yrs	\$1,115,416	17.30%	4.9 yrs	\$317,966
\$6.50/ watt	\$396,302	\$67,702	11.30%	6.3 yrs	\$873,835	12.80%	6.1 yrs	\$1,042,083	15.20%	5.8 yrs	\$1,801,764
\$7.50/ watt	\$457,271	\$88,739	9.60%	7.7 yrs	\$868,205	10.90%	7.3 yrs	\$1,104,154	13.60%	6.8 yrs	\$1,796,133
<b>Center: 52 kW</b>			5% Utility Inflation			6.7% Utility Inflation			10% Utility Inflation		
	Gross Cost	Net Cost	IRR	Payback	25 yr Savings	IRR	Payback	25 yr Savings	IRR	Payback	25 yr Savings
\$5.50/ watt	\$285,540	\$39,736	13.20%	5.2 yrs	\$729,744	14.90%	5.1 yrs	\$925,634	17.10%	5 yrs	\$1,500,127
\$6.50/ watt	\$337,457	\$57,649	11.00%	6.4 yrs	\$724,950	12.30%	6.2 yrs	\$863,190	15.00%	5.9 yrs	\$1,495,332
\$7.50/ watt	\$389,373	\$75,562	9.40%	7.8 yrs	\$720,155	10.70%	7.5 yrs	\$916,044	13.40%	6.9 yrs	\$1,490,537
<b>South: 170 kW</b>			5% Utility Inflation			6.7% Utility Inflation			10% Utility Inflation		
	Gross Cost	Net Cost	IRR	Payback	25 yr Savings	IRR	Payback	25 yr Savings	IRR	Payback	25 yr Savings
\$5.50/ watt	\$934,865	\$130,096	11.10%	5.9 yrs	\$1,909,287	12.40%	5.8 yrs	\$2,421,720	15.00%	5.5 yrs	\$3,924,555
\$6.50/ watt	\$1,104,841	\$188,745	9.10%	7.6 yrs	\$1,893,589	10.40%	7.3 yrs	\$2,217,277	13.00%	6.8 yrs	\$3,906,857
\$7.50/ watt	\$1,274,816	\$247,393	7.50%	9.2 yrs	\$1,877,891	8.90%	8.8 yrs	\$2,390,324	11.50%	8 yrs	\$3,893,159
<b>South at Full Occupancy and switch TOU-8 Option R: 170 kW</b>			5% Utility Inflation			6.7% Utility Inflation			10% Utility Inflation		
	Gross Cost	Net Cost	IRR	Payback	25 yr Savings	IRR	Payback	25 yr Savings	IRR	Payback	25 yr Savings
\$5.50/ watt	\$934,865	\$130,096	13.80%	5.0 yrs	\$2,540,610	15.10%	4.9 yrs	\$3,224,194	17.70%	4.8 yrs	\$5,217,171
\$6.50/ watt	\$1,104,841	\$188,745	11.60%	6.1 yrs	\$2,524,912	12.90%	5.9 yrs	\$3,205,496	15.60%	5.6 yrs	\$5,201,473
\$7.50/ watt	\$1,274,816	\$247,393	9.90%	7.4 yrs	\$2,509,214	11.30%	7.1 yrs	\$3,189,798	13.90%	6.6 yrs	\$5,185,775
<b>South at Full Occupancy and switch TOU-8 Option R: 61 kW</b>			5% Utility Inflation			6.7% Utility Inflation			10% Utility Inflation		
	Gross Cost	Net Cost	IRR	Payback	25 yr Savings	IRR	Payback	25 yr Savings	IRR	Payback	25 yr Savings
\$5.50/ watt	\$335,332	\$46,665	18.40%	4.3 yrs	\$1,376,012	19.70%	4.3 yrs	\$1,744,214	22.30%	4.2 yrs	\$2,824,057
\$6.50/ watt	\$396,302	\$67,702	15.80%	4.8 yrs	\$1,370,381	17.20%	4.8 yrs	\$1,738,583	19.80%	4.7 yrs	\$2,818,427
\$7.50/ watt	\$457,271	\$88,739	13.80%	5.5 yrs	\$1,364,750	15.20%	5.4 yrs	\$1,732,953	17.90%	5.1 yrs	\$2,812,796
<b>IMAX: 165 kW</b>			5% Utility Inflation			6.7% Utility Inflation			10% Utility Inflation		
	Gross Cost	Net Cost	IRR	Payback	25 yr Savings	IRR	Payback	25 yr Savings	IRR	Payback	25 yr Savings



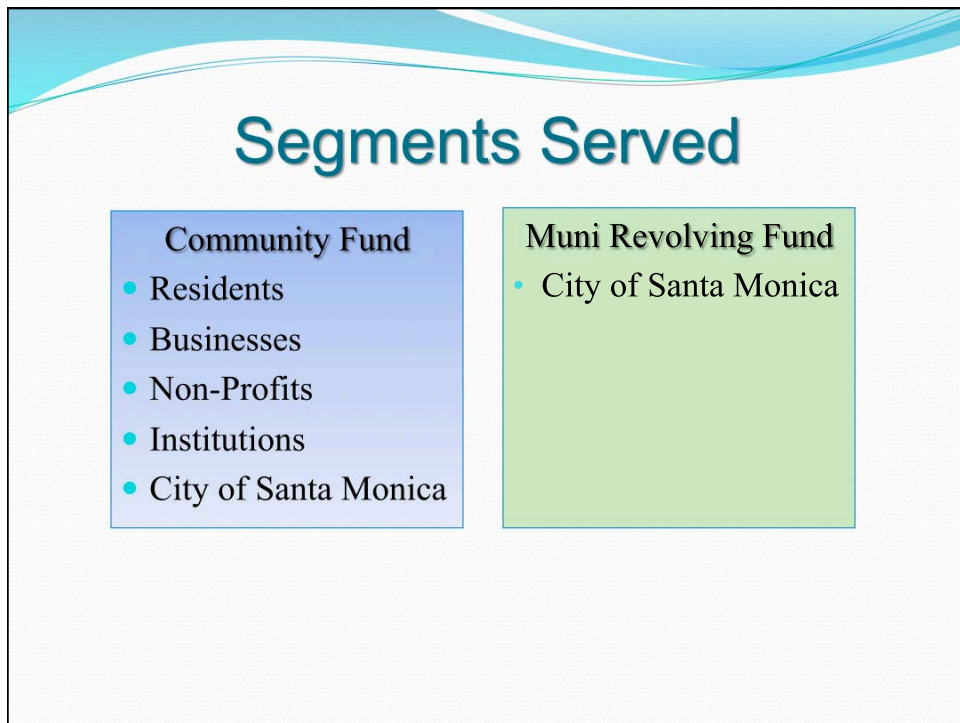
# Funding Solar Santa Monica

- **Diminishing budget**
- **Looking for ways to self-sustain**
  - **Enterprise income**
    - **Selling services**
      - Shading analyses
      - Bid comparisons
      - Project management for larger projects (Lantana)
    - **Earning points**
      - **Tapping the Spread!**



## Introducing....

The Community Solar Fund  
and  
The Municipal Facilities  
Revolving Loan Fund



## Eligible Technology for Both Funds:

- HVAC
- Lighting
- Building Envelope
- Energy Management Controls
- Fleet Upgrades
- Renewable Energy
- Etc.

## The Community Solar Fund

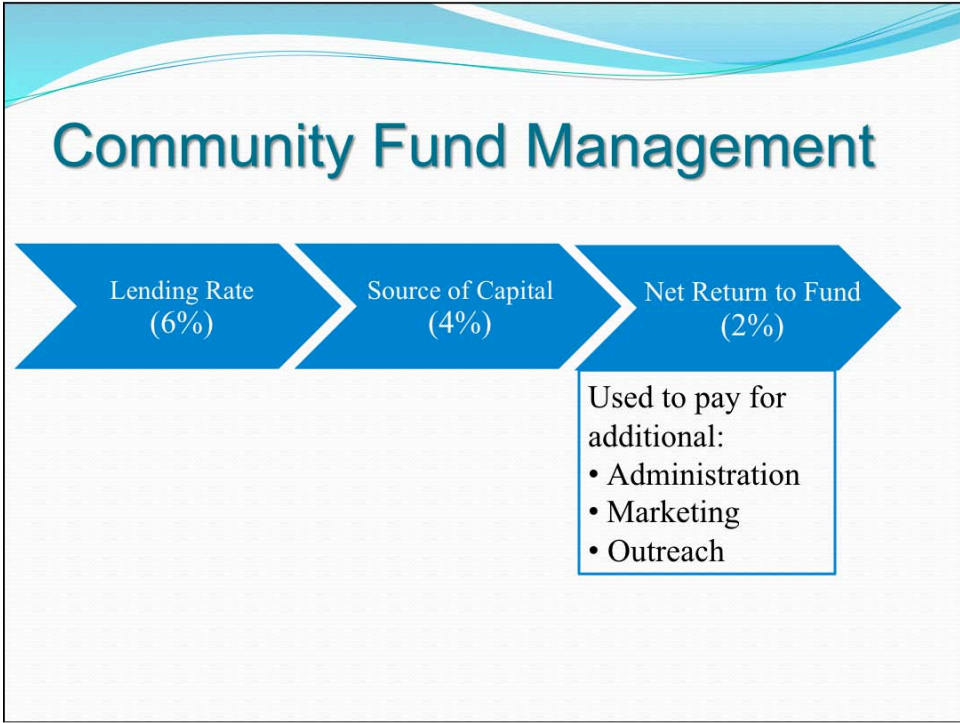
### Free Market



### Community Solar Fund







## Muni Facilities Revolving Loan Fund Sources of Capital:

- Revolving Fund Growth (energy savings measures)
- Savings from PPA Leases or ESCO Arrangements
- Grants
- Community Solar Fund
- Rebates and Incentives
- City Funds

## Municipal Facilities Revolving Loan Fund

