

Clean Energy Finance for the San Diego Region

Greening Your World...

Andrew McAllister
Director of Programs
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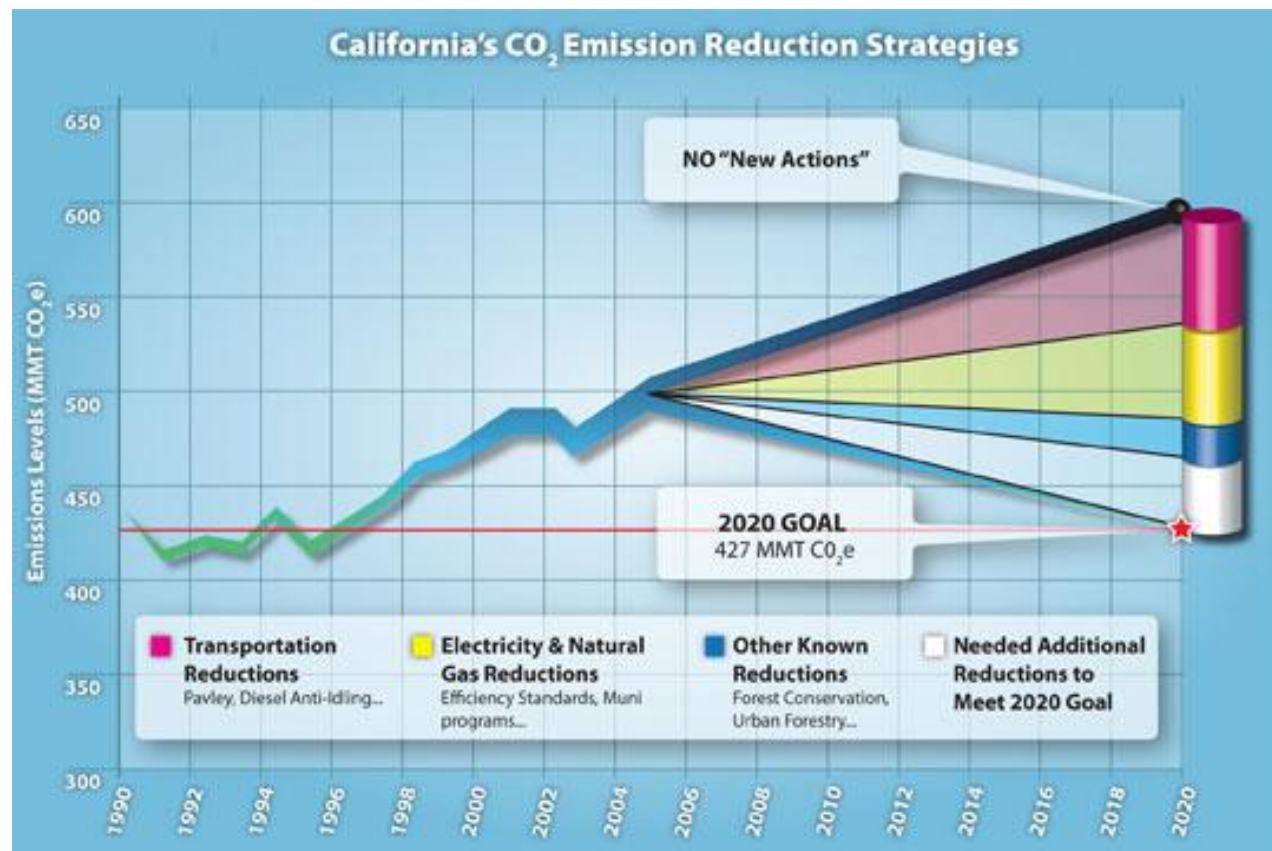
Center for
Sustainable Energy
CALIFORNIA

Basic Messages to LGs

- This is a once-in-a-generation opportunity to change BAU in how our communities use energy.
- Energy-related stimulus \$\$: 80M+ to SD region.... Can we leverage stimulus for long-term impact?
- Need to develop a low-energy professional “ecosystem.”
- Reserve some \$\$ for longer-term activities: revolving funds, program planning, evaluation.
- Cities benefit from regional coordination
 - Collaborate, pool resources with other jurisdictions
 - Context: SANDAG and the Regional Energy Strategy
- **Financing is key component of long-term game plan**

The challenge: climate & energy

- AB32 CO₂ reduction goals by 2020 require aggressive action
- Clean energy improvements in existing built environment are paramount



The Challenge: Adoption & Costs

- Current adoption rates of clean energy projects will not come close to meeting CA's 2020 greenhouse gas goals
 - CPUC Target: 13 million residential retrofits by 2020
- Property owners are accustomed to paying utility bills in simple monthly increments
- A primary barrier to adoption: **upfront cost**

Current Tools for Cities

- Permitting Desk – leverage contact with property owner, contractors
- Informational Resources, Education, Social Marketing
- Technical and Process Assistance
- Local Building Codes
- Local Rebates and Incentives
- **Upfront cost barrier remains**

Solution: Property Assessed Clean Energy (PACE) Programs

Voluntary Program allows property owners to install solar and energy efficiency projects with little or no upfront cost. Costs repaid on property tax bills over up to 20 years.



Benefits to the Property Owner

PACE removes many of the financial hurdles to installing solar systems and energy efficiency upgrades

- No upfront cost to the property owner
- Payments fixed for 20 years
- Customer chooses contractor/installer
- Property tax transfers to the new owner when property is sold
- Utility bills decrease due to energy savings
- No credit scores required

Benefits to Cities and Counties

Property Assessed Clean Energy Finance: a powerful, low-risk tool for cities and counties

- Helps LGs meet energy & climate goals
- Program costs can be paid out of bond proceeds
- No liability or other exposure to LG's general fund
- Mechanism well known to LGs and bond market
- Transformative – promotes “green” economy, finance

Legal Authority

- Charter Cities – Community Facilities District (Special Tax Code)
 - Berkeley, San Francisco
- All Cities and Counties – Contract Assessment District (AB811)
 - Palm Desert, California Communities, Sonoma

PACE Goes National

Programs Launched

Palm Desert., CA

Berkeley, CA

Boulder County, CO

Sonoma County, CA

Programs Announced

San Diego, CA

San Francisco, CA

Solana Beach, CA

California Statewide

State Legislation

California (passed)

Colorado (passed)

New Mexico (passed)

Maryland (passed)

Virginia (Gov. desk)

Texas (conference)

Nevada (committee)

Oregon (committee)

Vermont (committee)

Arizona (committee)

New York (committee)

San Diego Region Activity

- RFPs – plans to roll out in Q4 2009:
 - **San Diego:**
 - Stage 1 RFQ done; Stage 2 invite-only RFP in process
 - Focus on solar and basic EE; ~600 homes to start; contractor will influence design
 - **Solana Beach:**
 - RFP closed, in evaluation
 - Covers EE + Solar
- California Statewide AB 811 Program
 - High level of interest / cities gathering information, options

California Statewide AB 811 Program

- California Statewide Community Development Authority
 - Joint Powers Authority of 350+ cities, 58 Counties
 - Renewable Funding and RCB Capital selected to develop, finance and administer
 - “California FIRST” Program
 - Cities and counties “opt-in”, but can customize/brand

California FIRST: San Diego Region



Founding Co-Sponsors:



California FIRST: Process

City or county “opts-in” to California FIRST Program

Property owners voluntarily sign-up for financing and install energy projects

Proceeds from Clean Energy Bond provided to property owner to pay for energy project

Property owner repays bond through property tax bill over ~20 years

California FIRST: Timeline

- **May – July**
 - City or County Resolution – Joining California FIRST
 - Work sessions with LGs
- **July – September**
 - Program Resolutions and Formation
- **October**
 - Program Launch (initial communities)
 - Education & Marketing
 - Application & Contract
 - Installation & Funding

PACE – What's Next?

- SB 279 (Hancock)
- Coordinating with Existing Programs
- Leveraging ARRA Funds
- Creating Energy Efficiency Standards, Packages and Metrics

San Diego Solar Map [draft]

San Diego Solar Map - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://sd.solarmap.org/index_v2.9.php

San Diego Solar Map
SOLAR ACTIVITY AROUND THE CITY

Map | Satellite | Hybrid

Welcome | Tools | News & Info

Legend

Solar Installations

- On Small Residential & Commercial (<10 kW)
- On Large Residential (>10 kW)
- On Large Commercial (>10 kW)
- On Government/Non-Profit
- On Areas with Detailed Solar Estimates

Off Installed PV by Zip Code

- 0-83 kW
- 84-236 kW
- 237-460 kW
- 461-789 kW
- > 789 kW

Dont see your installation on the map?

Zoom to address

Enter your address

Zoom In

Get Detailed Solar Estimate

Detailed rooftop estimates have been completed for three areas in San Diego. To retrieve these estimates:

1. Select the Area:
2. Click on the rooftop

About | Contact Info | Got Solar? | Disclaimers | Photo Gallery | How To Use This Site

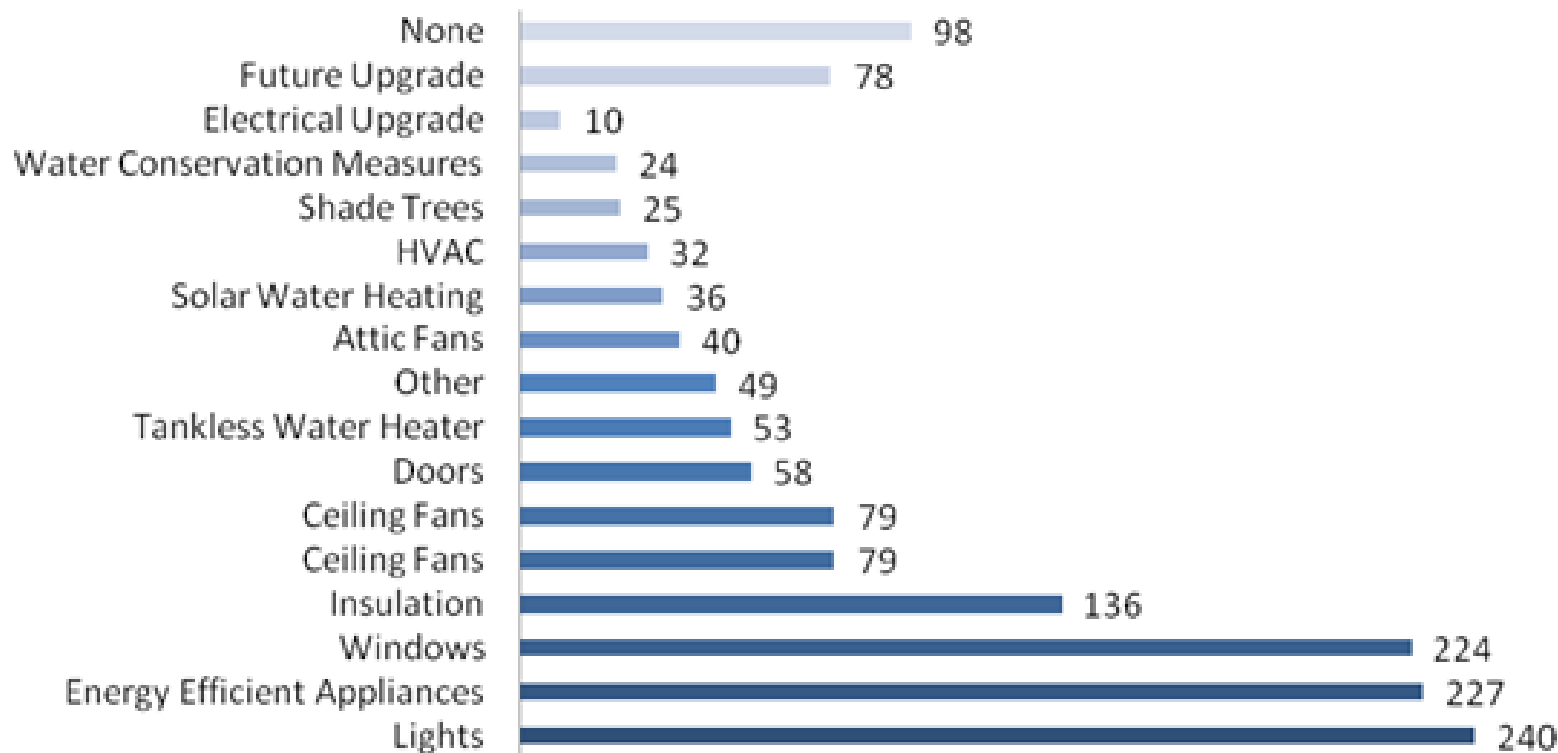
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Solar and Energy Efficiency: Natural Partners

- CCSE survey of solar customers in SDG&E territory (N = ~5000)
- 614 respondents
- 85% of respondents have installed or plan to install at least 1 EE upgrade



Did you do any energy efficiency upgrades before or in conjunction with your solar installation? (multiple responses possible)



Are you more conscious of your energy use after installing your solar system?



Marketplace Evolution needed

- Solar installers generally not providing broad EE services
- Programs moving towards integration – by fiat and common sense
- Nascent “performance optimization” ecosystem needs “stimulus!”
- Customers need help with EE value proposition, and execution
- **Streamlined, robust financing program key for broad adoption**



Thank You!

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California FIRST: Overview

Statewide program offering clean energy municipal financing, making it easy for cities and counties to provide this service to property owners



City or County
“opts-in”

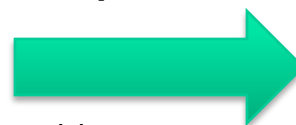


Founding Co-Sponsors:



- Creates financing district
- Provides complete admin
- Provides upfront capital through bond sales

\$\$ Upfront



\$\$ Repaid
on **tax bill**



- Identifies work & chooses contractor
- Applies for financing
- Repays financing over 20 years as a line item on the property tax bill
- **Repayment obligation transfers with ownership**

About CCSE

- Independent non- profit 501 (c)(3) organization
- Core activities
 - **Technical assistance** on all things energy, for:
 - Local governments, other public entities
 - Private entities: companies and non-profits
 - Market support: contractors, manufacturers and other industry stakeholder
 - **Program Administration:** State and utility programs promoting clean generation, energy efficiency, alternative fuel vehicles
 - **Energy Policy:** Regional support; legislative & regulatory analysis
 - **Education:** efficiency, renewables, climate, green building, transportation
- Emphasis on serving local jurisdictions, energy
- www.energycenter.org