



# Collaborations that Work: Making the San Diego Region a Leader in Solar Energy

NARC 2011 Annual Conference

Regional Solar Energy Best Practices

June 15, 2011



# San Diego's Regional Planning & Implementation

## SANDAG

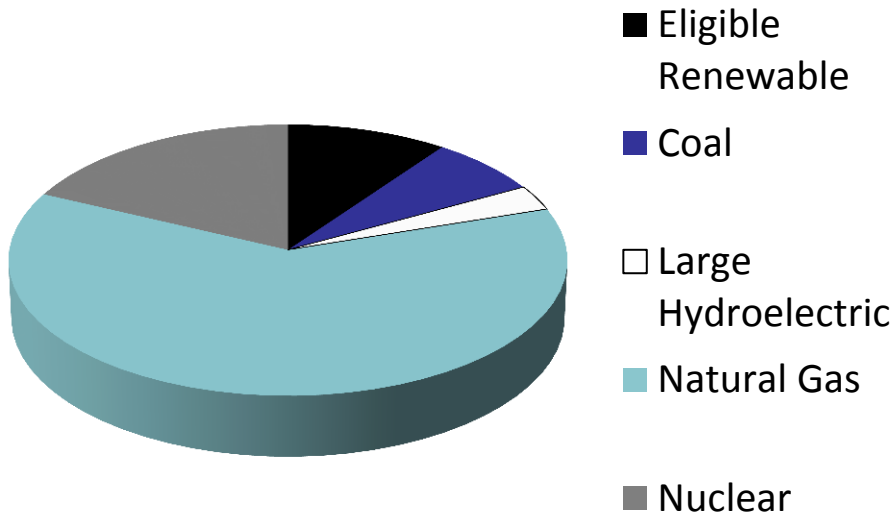
- Forum: Regional Energy Working Group (EWG)
- Regional Comprehensive Plan
- Regional Energy Strategy
- Energy Roadmap Program for Local Govts

## CA CTR for Sustainable Energy

- Independent nonprofit
- Outcome of '94 plan and EWG member
- Renewables, efficiency and transportation fuels focus
- Solar educator/program mgr.
  - Calif. Solar Initiative (CSI)
  - Multi-family affordable solar housing
  - Solar water heating

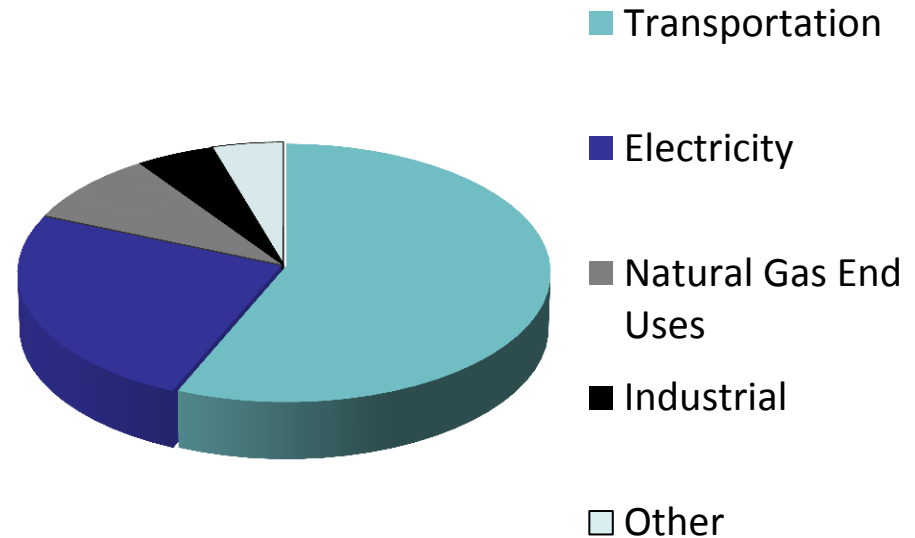
# Snapshot of the San Diego Region

## Electricity Sources



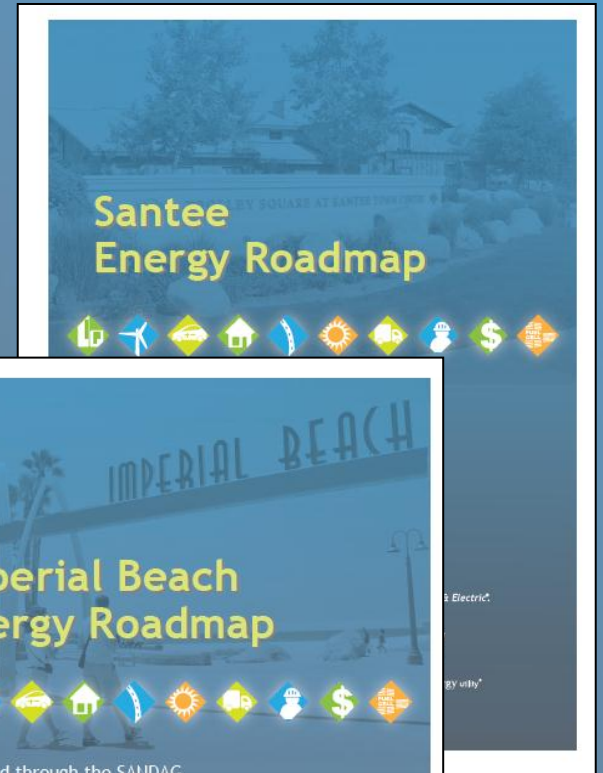
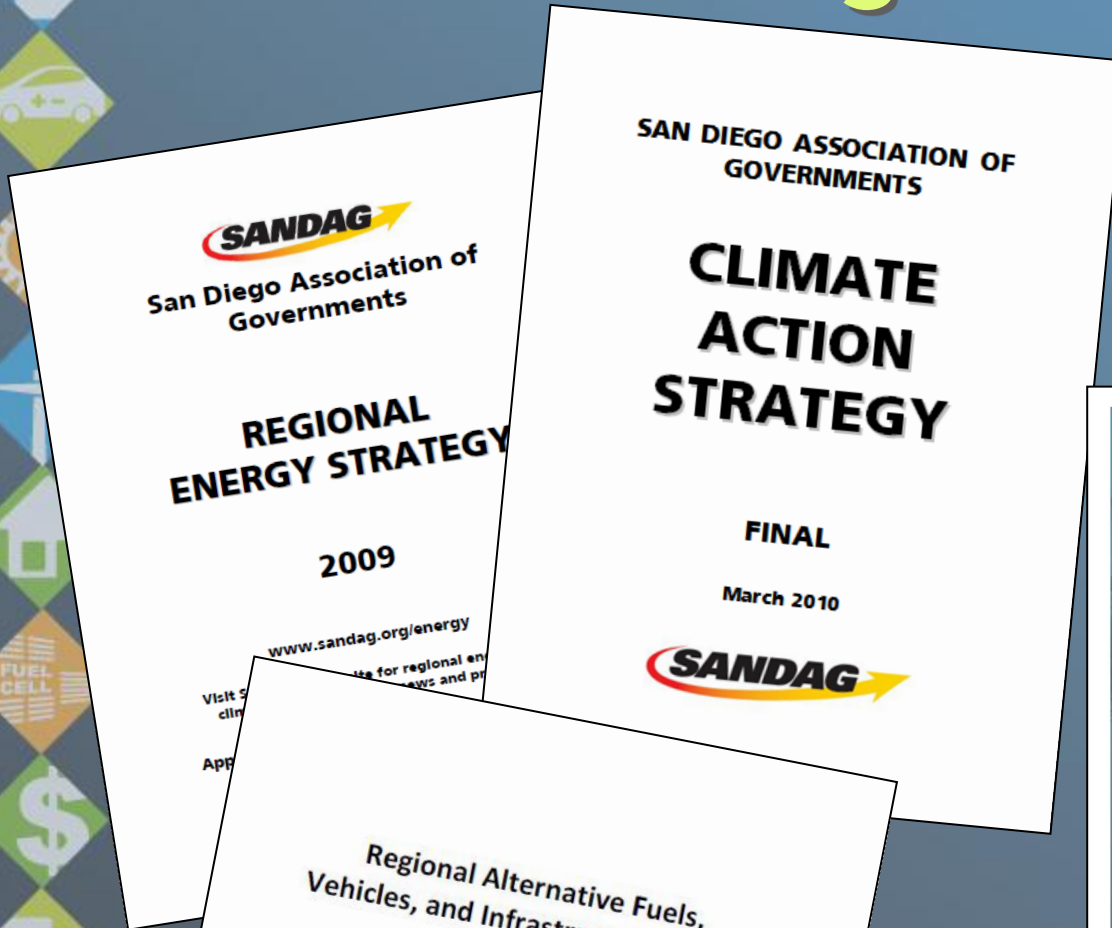
Source: San Diego Gas & Electric, 2010

## Greenhouse Gas Inventory



Source: Energy Policy Initiatives Center, University of San Diego School of Law, 2008

# SANDAG Energy and Climate Change Planning




# Regional Energy Strategy

## Solar/Renewable Energy Targets

Technology	2008 Level	2030 Base Target	2030 Stretch Target
Rooftop solar PV	49 megawatts	844 megawatts	970 megawatts
Number of homes this could power:	31,850 homes	548,600 homes	630,500 homes

Milestones	2010	2020	2030
% renewables in utility's supply (includes large-scale solar)	20%	33%	45%

1 Megawatt can power about  
650 homes in San Diego



# Meeting Solar/Energy Goals through Regional Collaboration

- California Center for Sustainable Energy
- San Diego Gas & Electric (local utility)
  - Energy Roadmaps for local governments
- SANDAG Energy Working Group
  - Elected representation and diverse energy stakeholders
  - Universities, Enviro Orgs., Chambers, EDCs, Airport and Port Authorities, etc...

# Who We Are

501(c)(3) non-profit with a mission to help lead and support our transformation to an efficient, clean, low-carbon energy economy

## Program Implementation

- CA Solar Initiative (PV and Thermal), SGIP – DG in SDG&E service territory
- Analyze and develop solar and EE programs for municipal and utility partners
- Clean Vehicle Rebate Project, Airport Vehicle Rebate Program
- Energy Upgrade California – integrated statewide program – IOU and munis
- Advice and Technical Assistance Center for Urban Forestry - CALFIRE

## Clean Energy Technical Assistance

- Local governments, school districts and other public entities
- Private entities, companies and non-profits

## Education and Market Support

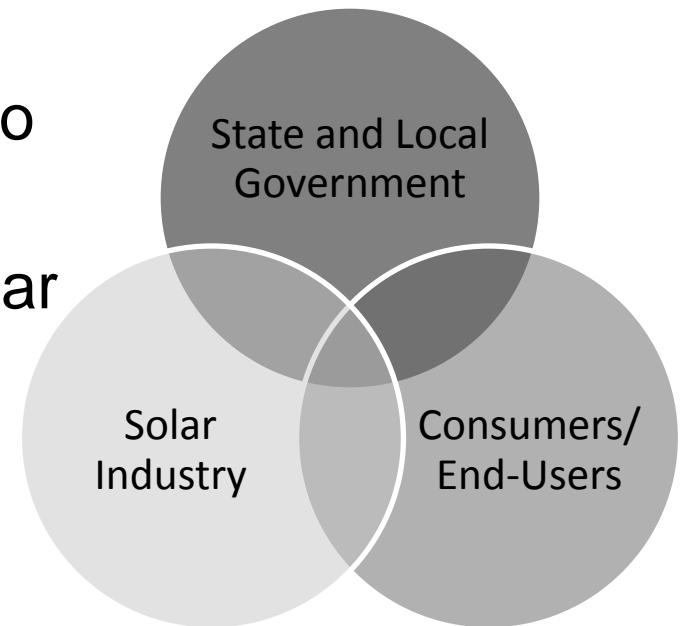
- Contractors, manufacturers and other industry stakeholders
- Decision-makers: homeowners, facility managers and business leaders

## Policy Support

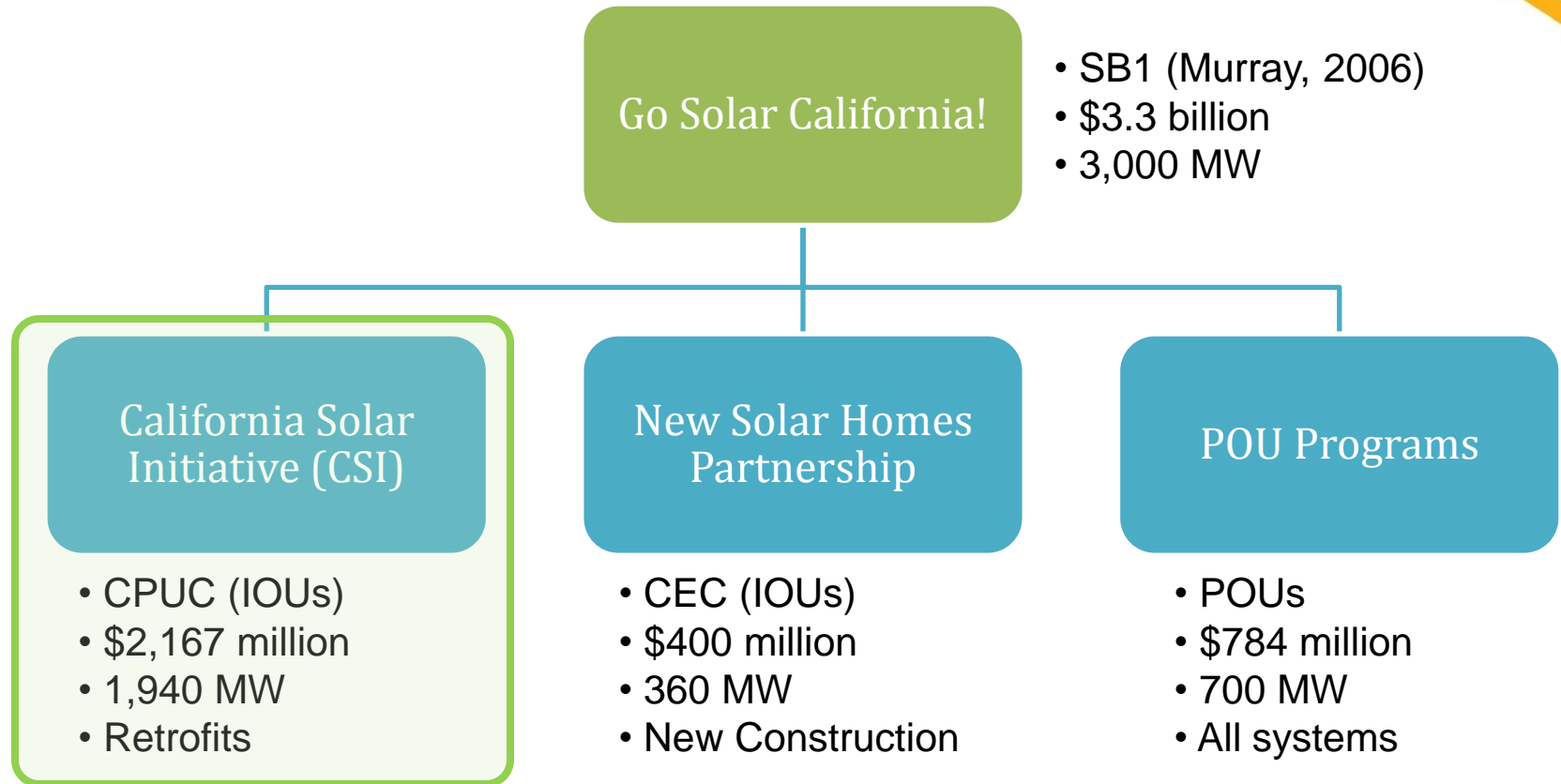
- Regional planning, legislative & regulatory support, workforce development, forum facilitation

# CCSE SD Regional Role in Solar

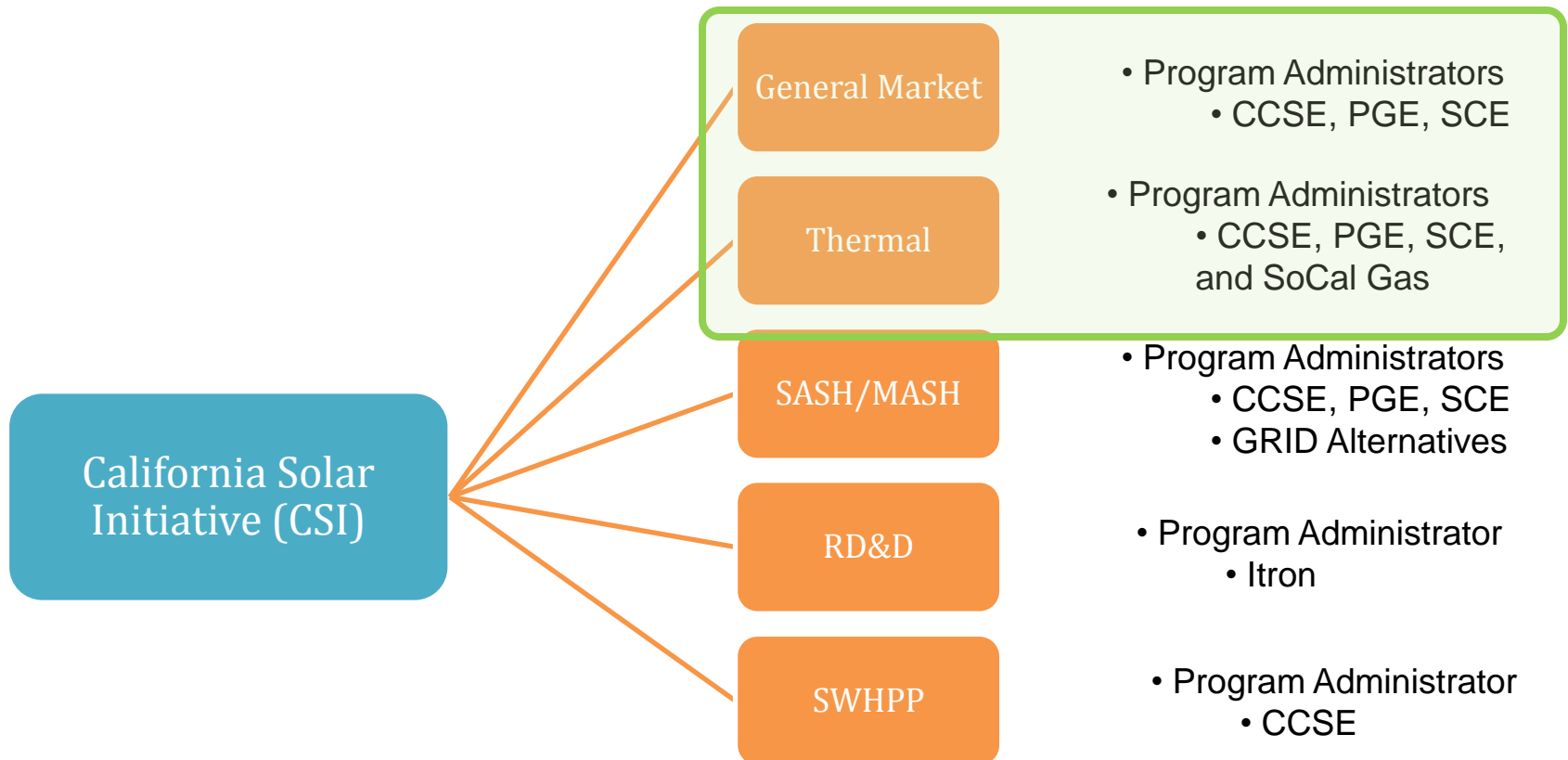
- California Solar Initiative (CSI)
- Solar America Communities with the City of San Diego
- Technical advice and assistance to municipalities, school districts etc.
- Work at the intersection of key solar market participants
  - Facilitate dialogue and information sharing
  - Inform policymakers on industry developments
  - Educate consumers



# CSI in Context



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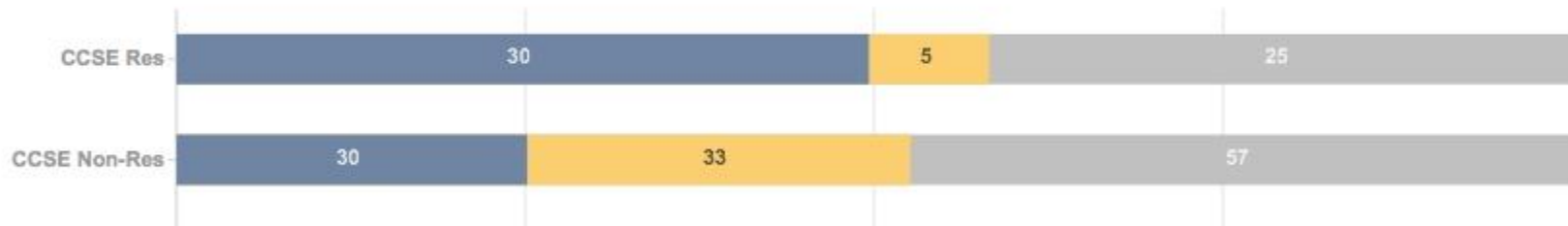


# CSI – Regional and State Focus

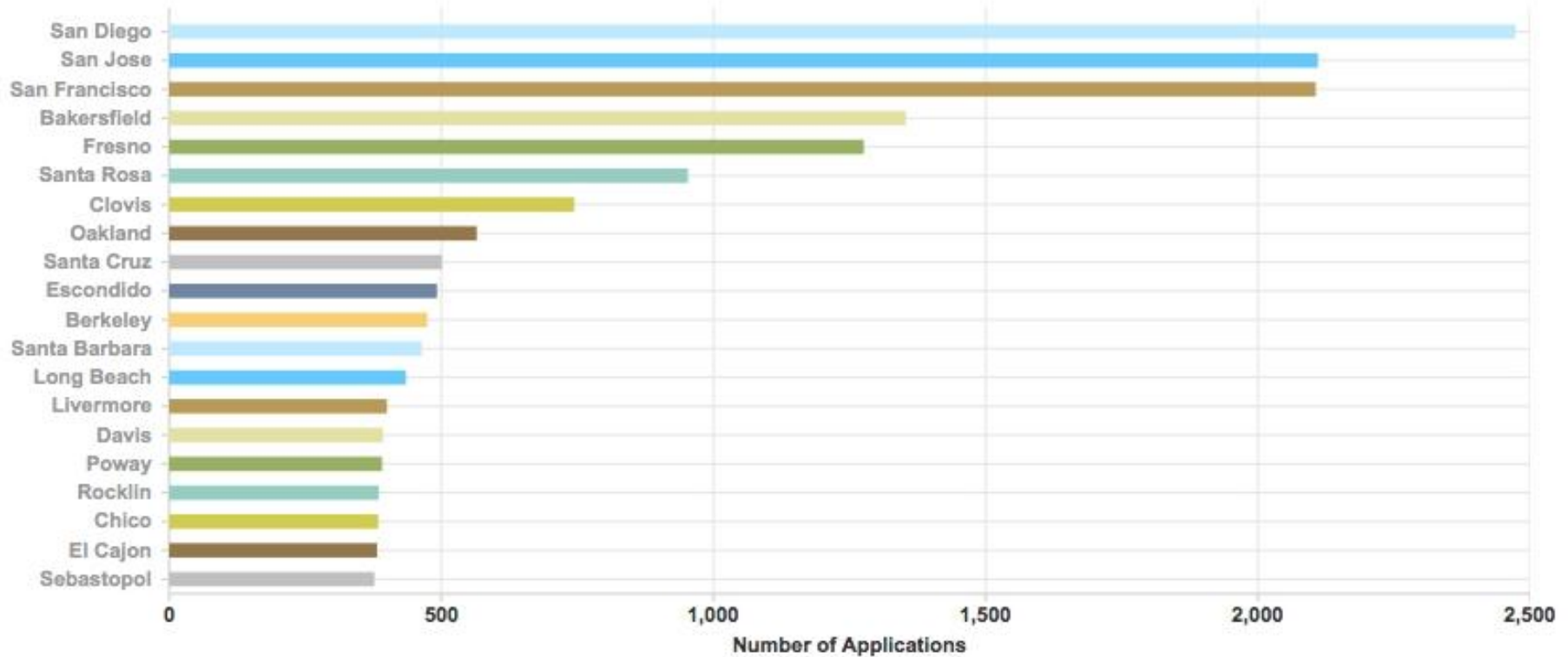
- Significant focus on regional needs
  - Variation across state in the range of activities
  - Focused on the needs of the local marketplace
- Limited, but important statewide coordination
  - Focused on brand consistency
  - Covers activities with cross jurisdictional scope
  - CPUC Oversight (M&O Plan Review, Weekly Calls)

# CSI in the San Diego Region

- Goal: 180 MW rooftop solar by 2016
  - 1/3 to goal with just under 60MW installed
  - 38MW in pending applications
  - Region has a strong showing in residential and non-residential installations

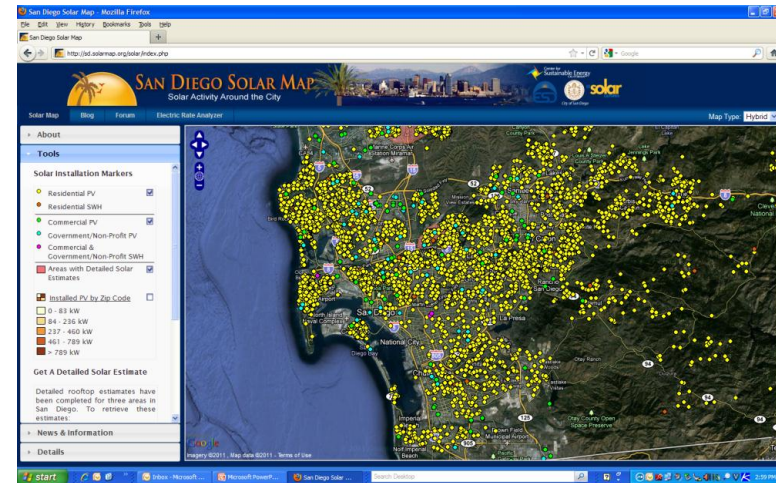


# San Diego Region in Comparison



# Regional Collaboration is Key

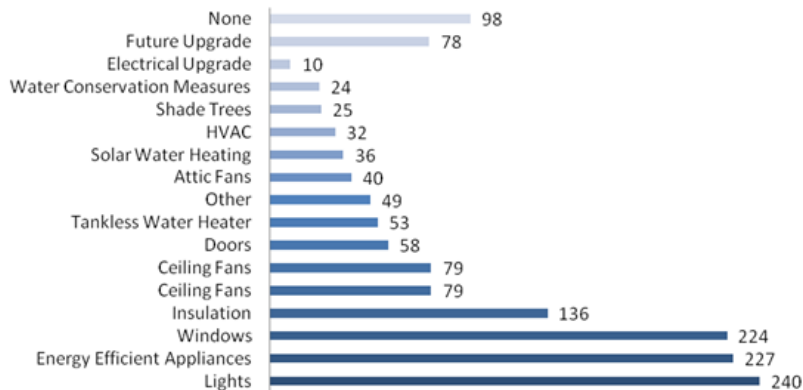
- Engage industry and technical stakeholders
- Support Solar America Communities activities
- Advocate for solar-friendly policy
- Keep networks informed
- Monitor the market
- Coordinate with related programs and technologies
  - photovoltaics and thermal
  - energy efficiency
  - transportation



# Coordinate with Energy Efficiency

- Better Buildings and other Federal Support
- Whole House Retrofits and Solar Together
- Find EE savings with commercial and municipal buildings before going solar

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



**City of San Diego**

**(n = 615)**

**85% did or plan to do  
at least one EE measure**

# Thank you

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