

Overview of SCE's Renewable Programs



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Agenda

- ❑ California's Current and Future Renewable Energy Goals
- ❑ Overview of SCE's Renewable Programs
- ❑ California Solar Initiative – “Retail”
- ❑ How SCE Procures Renewable Energy – “Wholesale”
- ❑ Keys to a Successful Proposal
- ❑ Conclusion

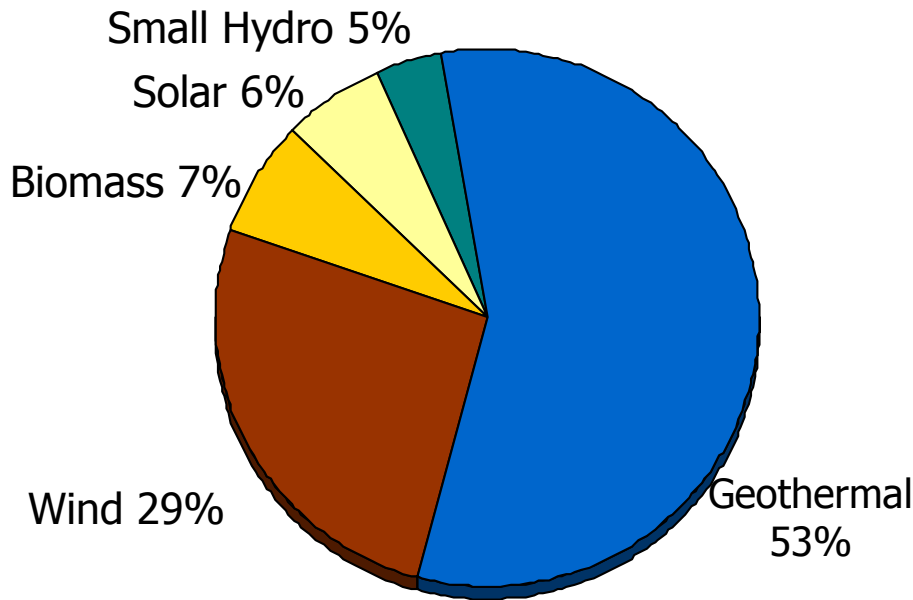
California's Current Renewable Energy Goals

- ❑ Senate Bill x 1 2 increases California's renewables goal to 33%
 - Targets: 20% (average) 2011-2013; 25% by 2016; 33% by 2020 and annually thereafter.
 - CPUC has not established implementation details.
- ❑ California Governor Jerry Brown has proposed development of an additional 12,000 MW of distributed generation (DG)

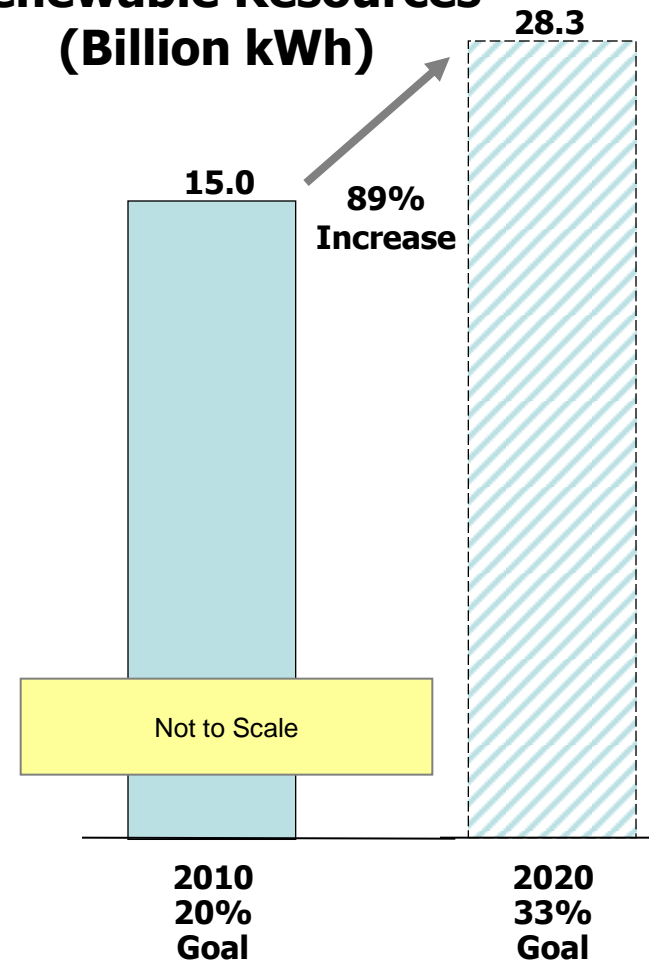


SCE Delivers More Renewable Energy Than Any Company In The U.S.

2010 Renewable Resources
14.5 Billion kWh
19.3% of SCE's portfolio



Renewable Resources
(Billion kWh)



SCE's Solar Programs



For Commercial/Industrial Customers



For Residential Customers

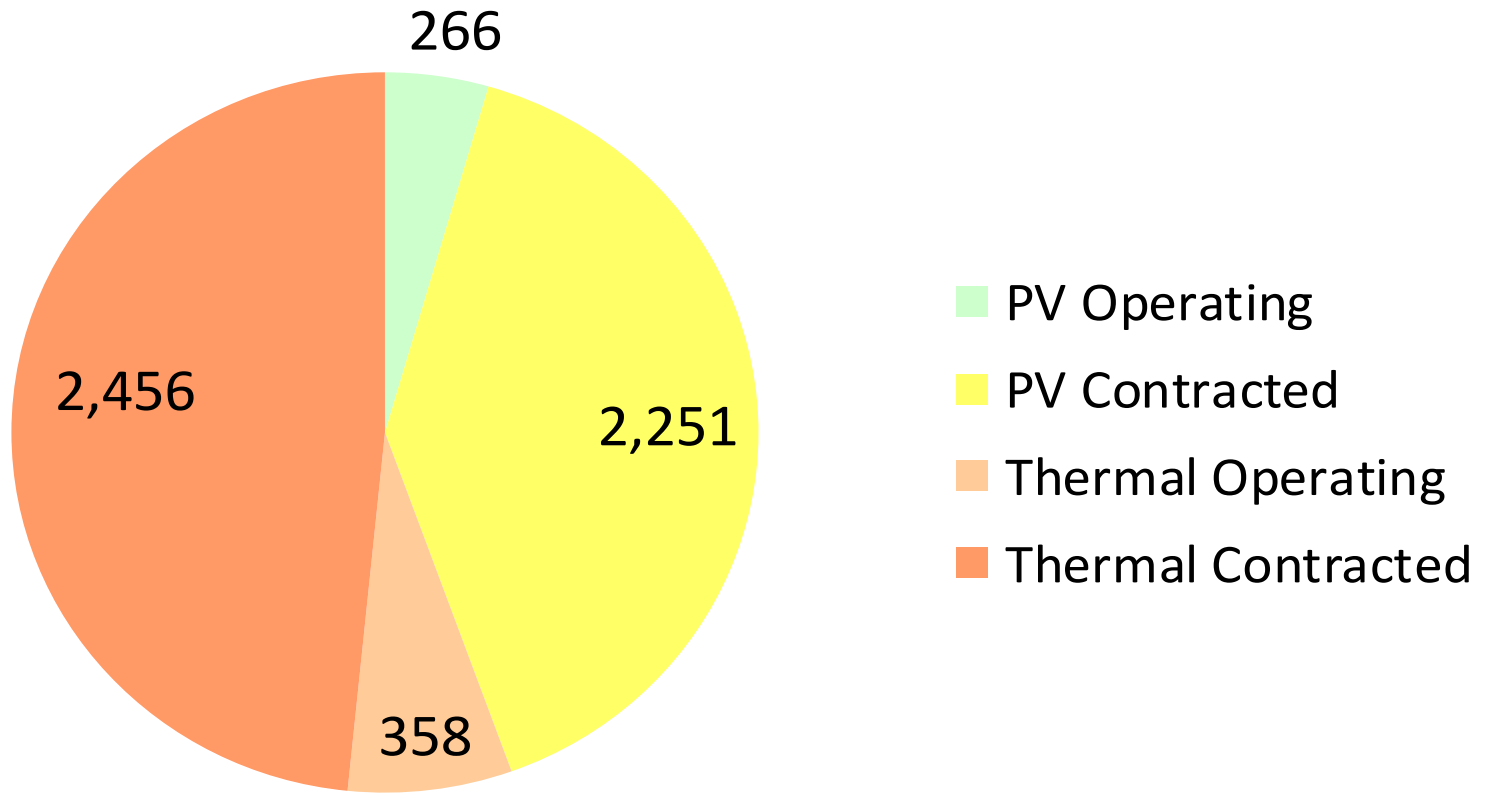


For Independent Power Producers

Over 5,300 MWs of Solar



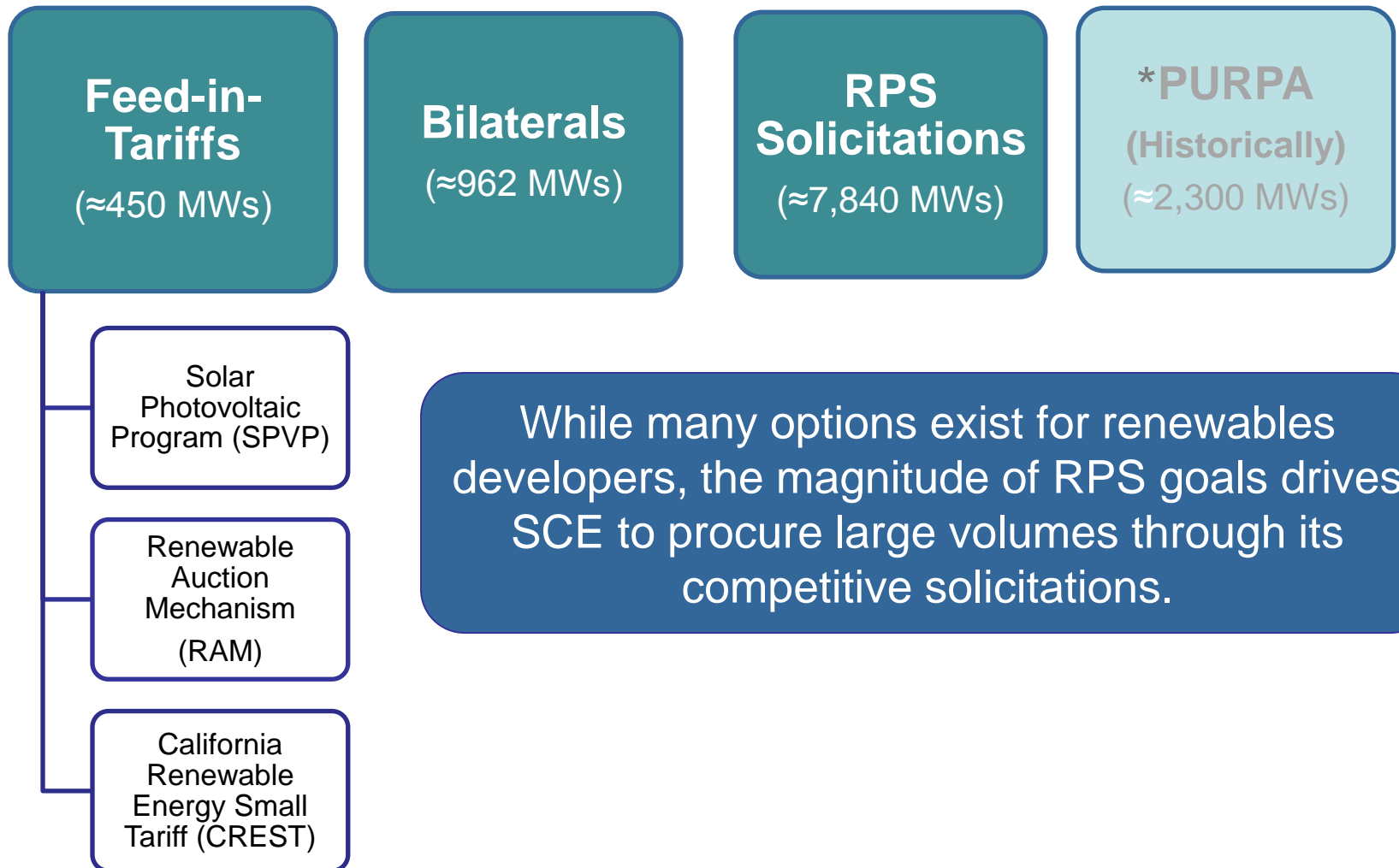
Solar (MW Capacity)



California Solar Initiative (CSI) – “Retail”

- ❑ Pays incentives to business & home owners who install and operate eligible solar technologies to offset their own electricity needs:
 - Photovoltaic (PV) (both commercial & residential)
 - Roof-mounted, ground-mounted and building-integrated
 - Non-PV (typically commercial installations)
 - Flat-plate solar thermal, parabolic trough, evacuated tube,
 - Solar Water Heating incentive program
- ❑ Goals:
 - Statewide goal of 3,000 megawatts (MW) of solar-produced, grid-connected electricity by Dec. 31, 2016
- ❑ Results to Date:
 - 17,333 Applications for CSI Incentives totaling 352.6 MW
 - Incentive amount reserved or paid is: \$617M

How SCE Procures Renewable Energy

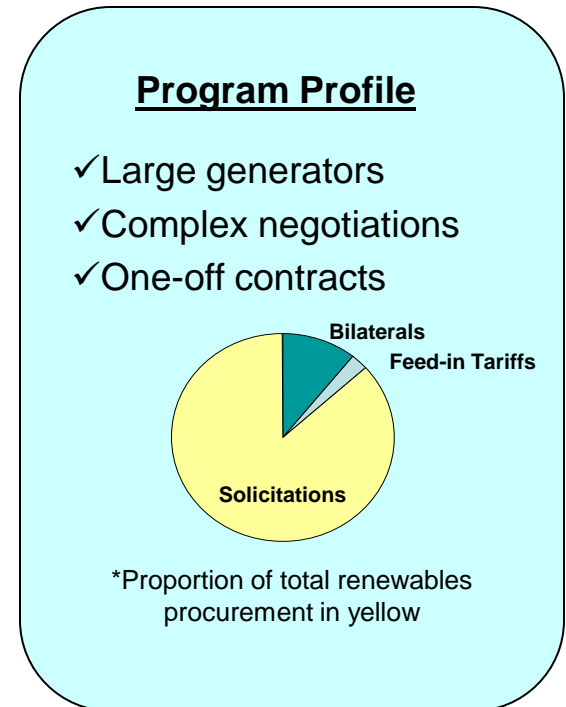


*PURPA - Public Utility Regulatory Policies Act

Figures are current as of January 14, 2011

Renewables Portfolio Standard (RPS) Solicitations

- ❑ SCE conducts solicitations for renewables projects and is in the process of negotiating contracts from its eighth competitive solicitation
- ❑ Competitive solicitations are a preferred method of renewable energy procurement
- ❑ “Least-cost best-fit” and qualitative criteria are used in the evaluation process



¹ Request for Proposals

² California Public Utilities Commission

www.sce.com/renewrfp



RPS Proposals Are Evaluated On Two Key Dimensions

Benefit-Cost Calculation of “Renewable Premium”

- Least cost/best fit includes:
- Capacity and energy benefit
 - Transmission cost
 - Debt equivalence
 - Contract price
 - Integration costs

Qualitative Evaluation

- Project viability
- Transmission status
- Developer experience
- Delivery timeframe
- Resource diversity
- Technology viability



Various Feed-In-Tariff Programs Accommodate Smaller Projects

California Renewable Energy Small Tariff (CREST)

- ❑ All renewable technologies
- ❑ Total program cap of 248 MW
- ❑ Feed-in Tariff up to 1.5 MW
- ❑ Legislative/regulatory mandate

• 3 Contracts
• 3 MW

Solar PhotoVoltaic Program (SPVP)

- ❑ Solar technology
- ❑ Total program cap of 250 MW auctioned over 5 years
- ❑ Most installations on rooftops
- ❑ 1-2 MW Contracts
- ❑ CPUC Mandated

• 28 Contracts
• 42 MW

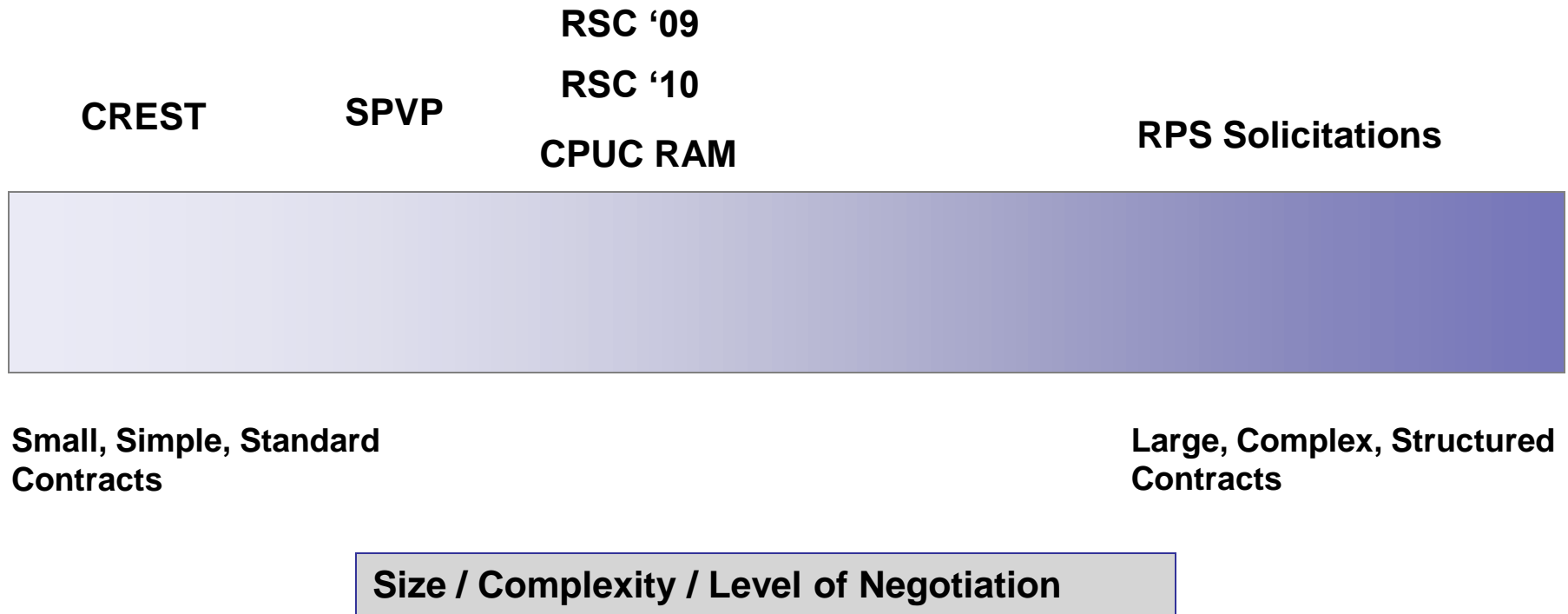
Renewable Auction Mechanism (RAM)

- ❑ All renewable technologies
- ❑ Total program cap of 259.4 MW
- ❑ 1-20 MW Contracts
- ❑ Cap of 65 MW (+ or – 20 MW) per program
- ❑ CPUC Mandated

New program. Previously known as the RSC.
RSC totals:
• 24 Contracts 224 MW

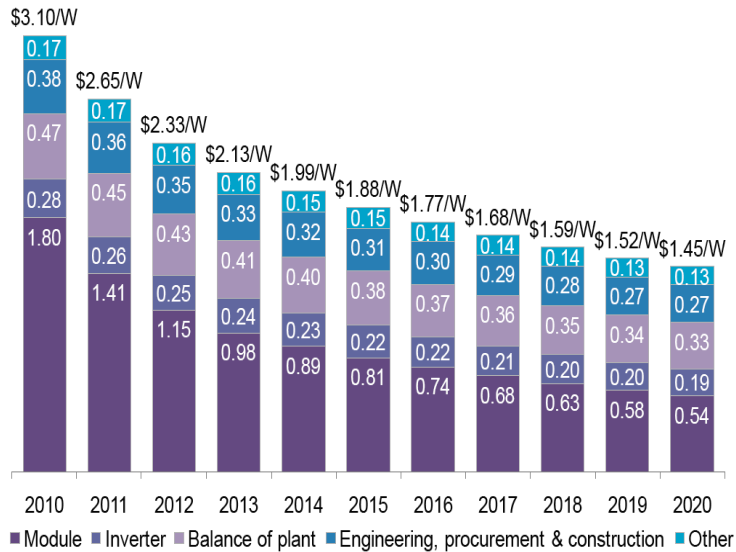


Program Flexibility = More Renewable Energy



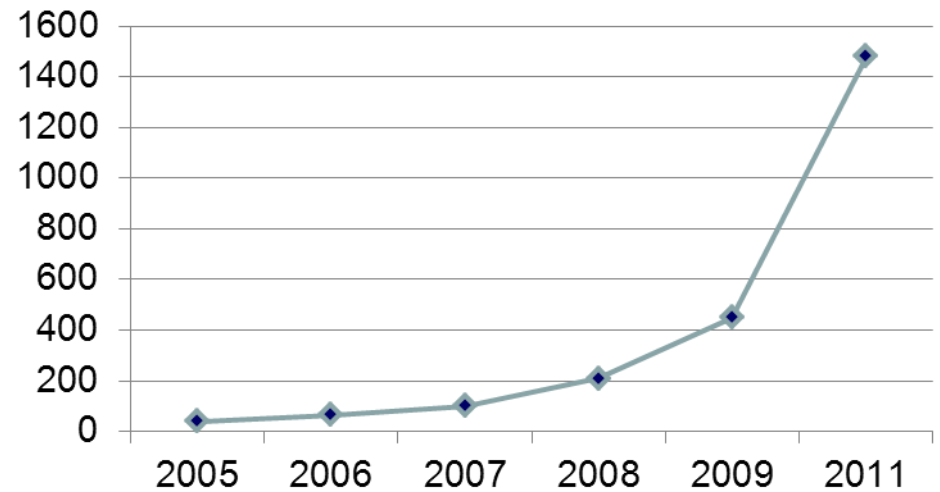
SCE's Solicitation Trend / PV Cost Forecast

UTILITY SCALE PV SYSTEM PRICE FORECAST



Source : Bloomberg PV Experience Curve 2/3/2011

Approximate Number of Bids Received in SCE's RPS Solicitations



Keys To A Successful Proposal

- ❑ Clearly articulate your proposal and any unique characteristics
 - SCE recognizes that many projects and project sponsors may have unique issues to resolve or provisions to negotiate
 - SCE is willing to work with project sponsors through these issues, but must prioritize available internal resources in order to maximize progress toward RPS goals

- ❑ SCE routinely assesses and prioritizes projects likely to reach conclusion quickly
 - Key issues identified and “meeting of the minds” achieved
 - Willingness of counterparty to commit resources to negotiate final terms

- ❑ Thoughtful input to term sheet

Keys To A Successful Proposal (cont.)

- ❑ Competitively priced proposal
 - Projects that qualify for federal tax credits have an advantage
 - On-peak deliveries produce higher benefits, yielding higher value
- ❑ Early place in the interconnection queue
 - Provides priority for completing studies
 - Allows for earlier interconnection, which can potentially avoid future transmission upgrade costs
 - Helps bidders better understand their interconnection costs
- ❑ Demonstrated signs of a viable project
- ❑ Site control
 - Permitting status
 - Strong financial backing

Conclusion

- ❑ To date,¹ SCE has signed 94 renewable contracts with maximum renewable energy deliveries of 27.9 billion kWh (most of which resulted from solicitations)
- ❑ SCE conducts annual solicitations for renewable projects and launched its 2011 competitive RPS solicitation on May 13, 2011, and its RAM solicitation on September 21, 2011
- ❑ Solar appears to be very competitive with other renewable technologies at this time in the market
- ❑ Solar is expected to be an increasingly important part of meeting the state RPS goals in the near to mid term

¹ As of December 9, 2011



Back up Information

Governor Jerry Brown's Clean Energy Jobs Plan*

- Build 12,000 MW of localized electricity generation
 - Rooftop solar up to 2 MW
 - Solar projects up to 20 MW
 - Feed-in-Tariffs for DG up to 20 MW
- Build 8,000 MW of large-scale renewables and necessary transmission lines
- Develop more CHP projects
 - An additional 6,500 MW
- Develop energy storage
- Create new efficiency standards for new buildings
- Make existing buildings more efficient
- Adopt stronger appliance efficiency standards
- Appoint a renewable energy jobs czar