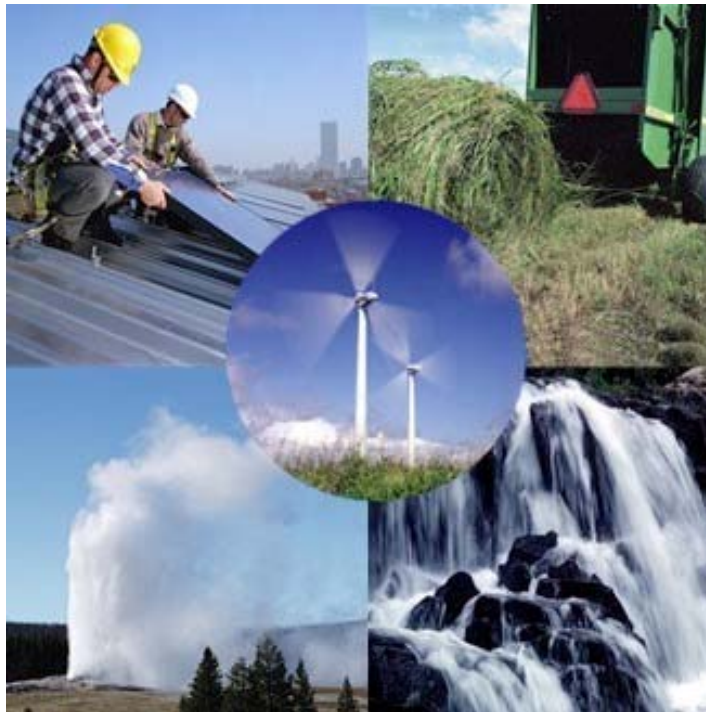


Meeting Society's Expectations for Clean Energy – The Big Policy Picture



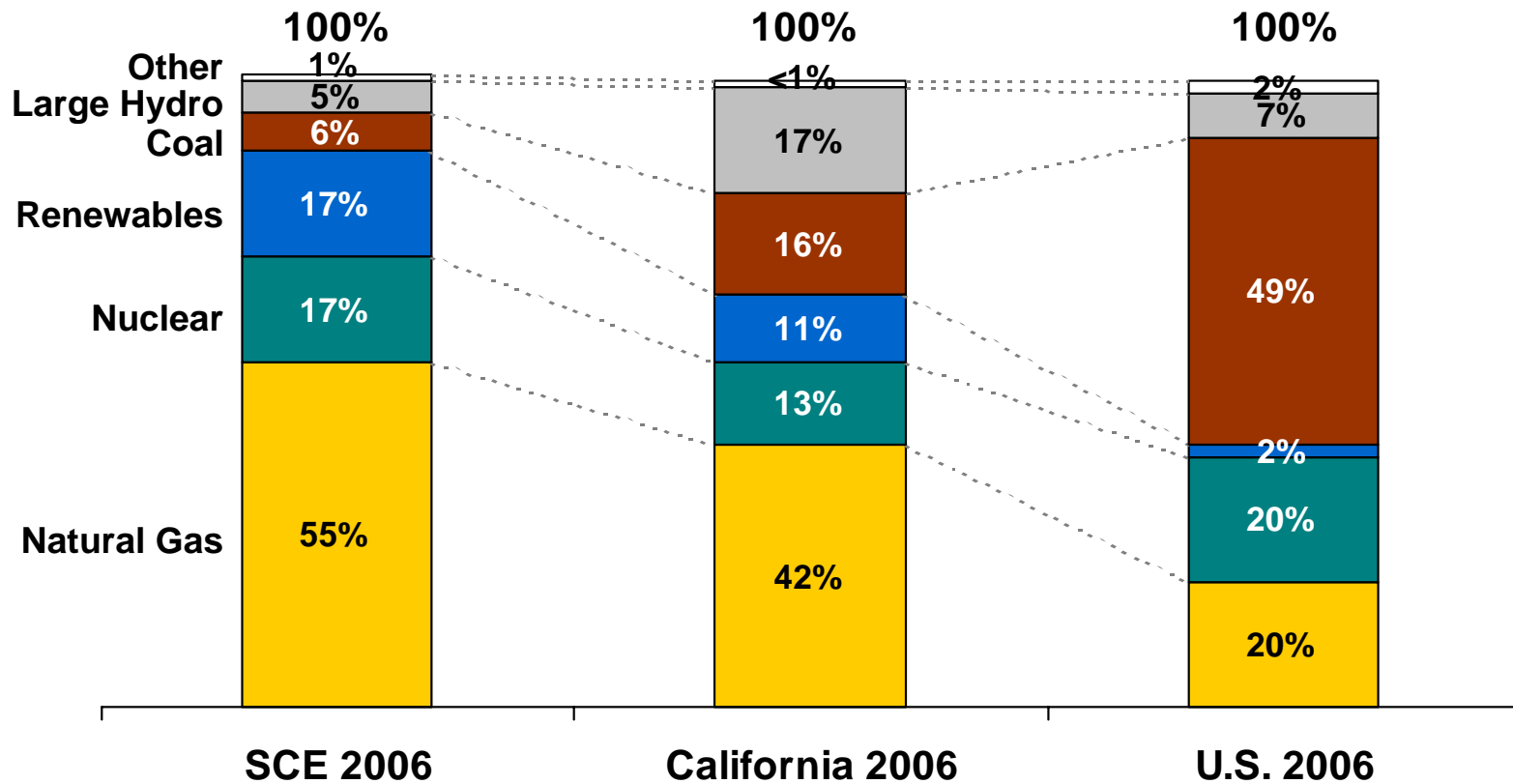
Stuart R. Hemphill
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Southern California Edison

November 29, 2007

Agenda

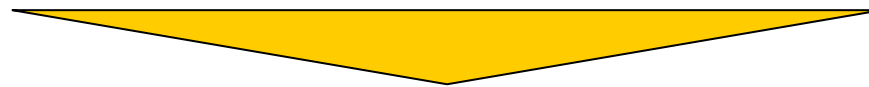
- What's Driving California's Interest in Renewables?
 - Current Reliance on Natural Gas
 - Policy limiting reliance on Coal
 - Climate Change Policy
 - State Law Setting Renewable Energy Goals
- California Renewable Portfolio Standard basics
 - Overall goals
 - Eligibility
 - Compliance
- SCE's Approach to Procuring Renewable Energy

Power Mix Comparison: SCE, California and U.S.



Greenhouse Gases Emission Performance Standard

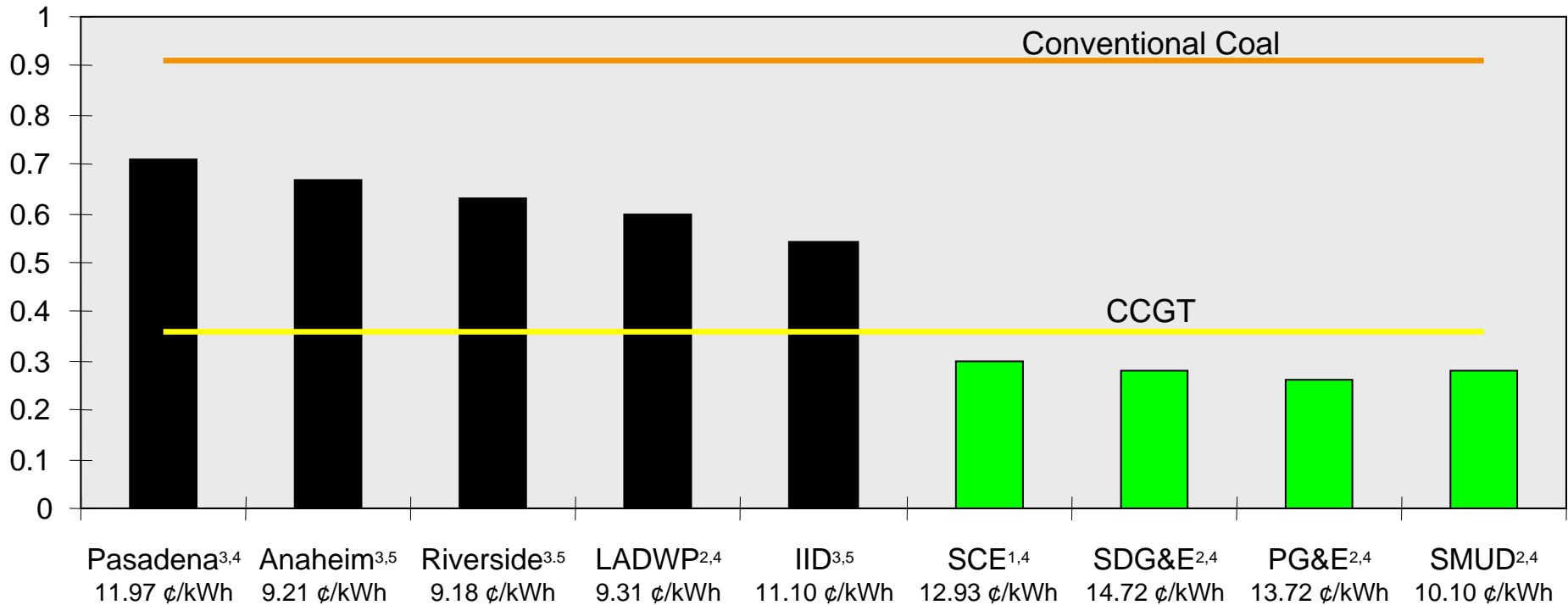
- Codified in law in 2006 (Senate Bill 1368)
- Prohibits any retail seller of electricity from entering into long-term financial commitment from resources that have higher greenhouse gas emissions profiles than a new, natural gas fired combined cycle facility
 - Precludes ownership and 5+ year contracting
 - Applies to baseload facilities only
 - Does not apply to municipal utilities
- Despite the law's exclusion, the major municipal utilities have reversed decisions that would have resulted in additional new coal generating facilities



The practical result of this law is:

- No investment or contracting for conventional coal resources
- Consideration of coal facilities with carbon sequestration
- Expanded reliance on natural gas-fired generation

CA Utility Carbon Intensity and Average Retail Cost (metric tons CO₂ / MWh & cents / kWh)



1. Estimated carbon intensity based on the following assumptions:

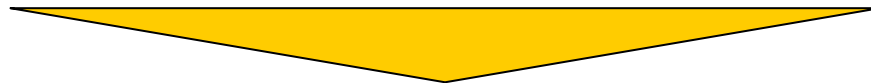
- Coal used for electricity generation has a carbon intensity rate of 0.907 mt/MWh
- Natural gas electrical generation assumed to be from conventional NG units with a carbon intensity rate of 0.544 mt/MWh

2. Source for prices: CEC Utility-wide weighted avg. retail electricity prices for 2005. Other munis had avg. price of 9.51 ¢/kWh

3. Source for prices: Based on 2006 EEI Data for Utilities and 2005 Sales, Revenue data from Muni's websites for Munis

California Global Warming Solutions Act of 2006

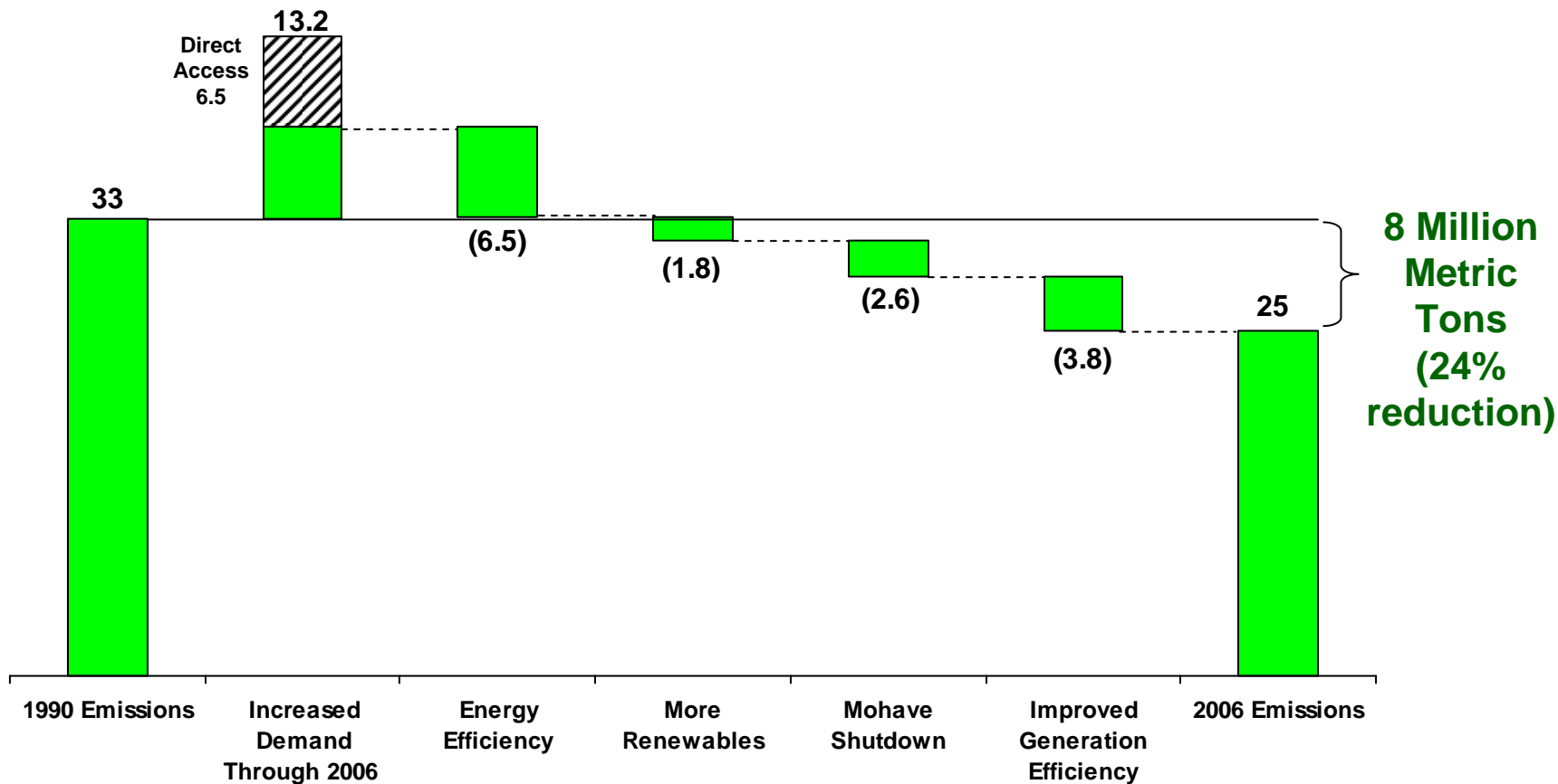
- Codified in law in 2006 (Assembly Bill 32)
- Establishes a statewide greenhouse gas cap for 2020 based on 1990 emissions
 - Represents 25 percent reduction
- Sets a goal of reducing emissions to 80 percent below 1990 levels by 2050
- A combination of regulation, market mechanisms, and alternative compliance approaches is expected



Most California policymakers view renewables as a significant means of achieving these goals

Change in SCE Emissions from 1990 to 2006

CO₂ Emissions (million metric tons)



California's Renewables Portfolio Standard (RPS)

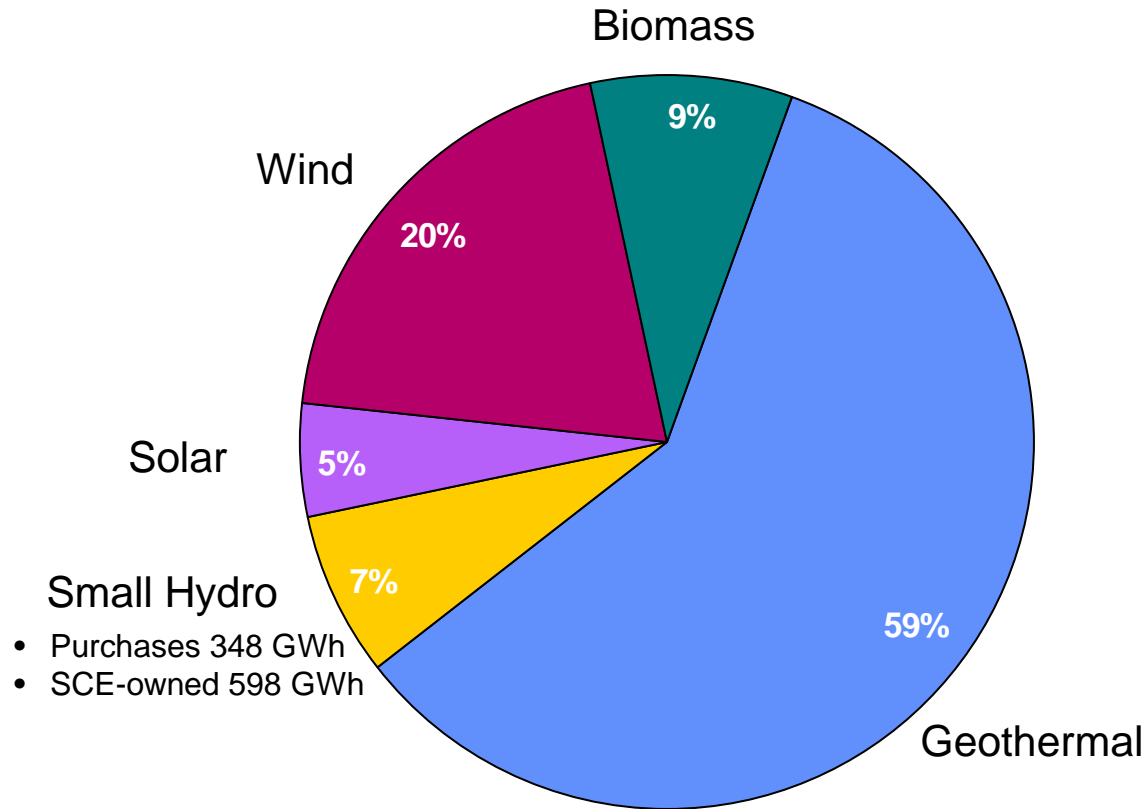
- Requires retail sellers of electricity to demonstrate, by 2010, that 20 percent of their customers' energy needs are produced by eligible renewable resources
 - Excludes municipal utilities
 - Renewable energy is to be increased by at least one percent each year
 - Broader goals, such as 33 percent by 2020 are being considered
- Eligible renewable resources include:
 - Biomass
 - Geothermal
 - Hydro projects less than 30 MW
 - Solar
 - Wind
- Acceptable approaches to procure renewable energy
 - Competitive solicitations
 - Bilateral contracts
 - Utility-owned renewable energy projects
- Compliance enforcement includes:
 - Potential for penalties (5 cents/kWh up to \$25 million per year)
 - Flexible compliance (banking and earmarking)

SCE's Position in the Renewable Market

- **Since the 1980s, SCE has been the nation's leader in renewable procurement**
 - SCE buys about 13 billion kWh per year, more than any other utility, which represents about 1/6 of the nation's renewable energy
 - SCE buys over 90 percent of the solar energy produced in the U.S.
- **SCE continues to lead the way in renewable procurement**
 - Since 2002, SCE has conducted 4 solicitations for renewable power and is completing a fifth
 - SCE has signed 30 new contracts, representing annual deliveries of up to 16 billion kWh
 - SCE has worked with counterparties to develop creative commercial terms to meet counterparty needs while balancing customer cost and risk
- **SCE leads the development of much-needed transmission**
 - SCE will advance \$1.8 billion to construct transmission to access 4,500 MW of Tehachapi wind resources
 - SCE proposed to study the feasibility of building transmission to access resource rich areas in Western Nevada, Mammoth Lakes, the Salton Sea area, and San Bernardino County

SCE's 2006 Renewable Resources

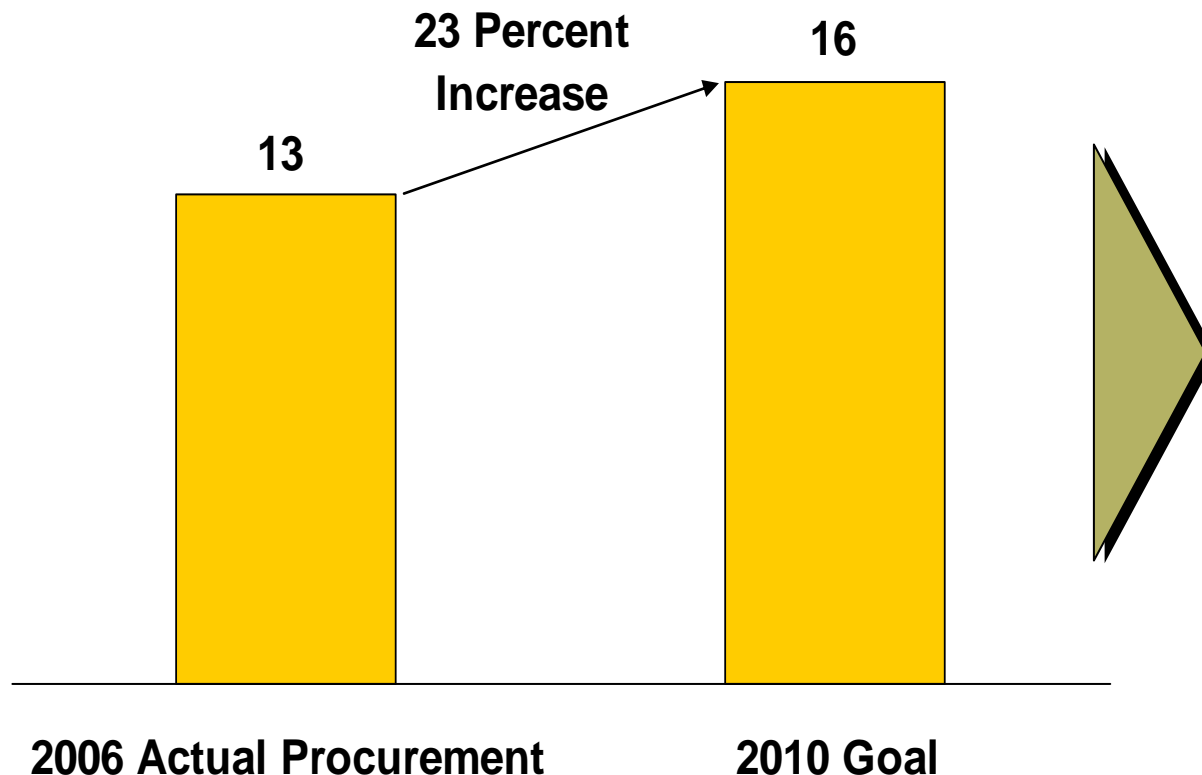
100% ~ 13 Billion kWh



• 2006 renewable procurement ~ 17%

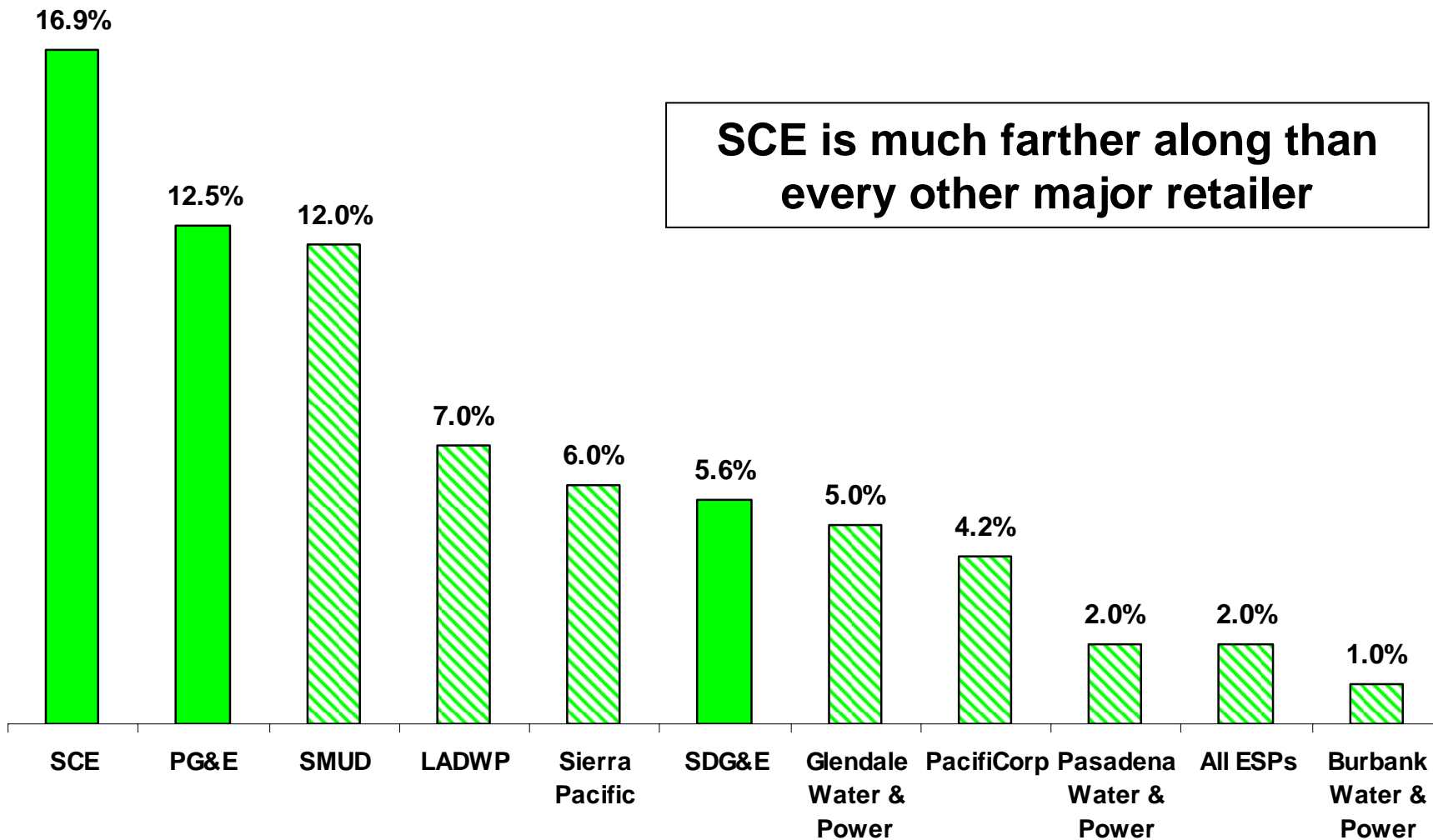
- Purchases 348 GWh
- SCE-owned 598 GWh

Renewable Energy Goals In Billion kWh



- SCE unlikely to meet delivery goals, primarily due to
 - Transmission
 - Unexpectedly high customer demand
- SCE intends to demonstrate compliance through
 - Continued, aggressive procurement efforts
 - Use of flexible compliance rules

RPS Status for Major IOUs, Munis, and ESPs (2006)

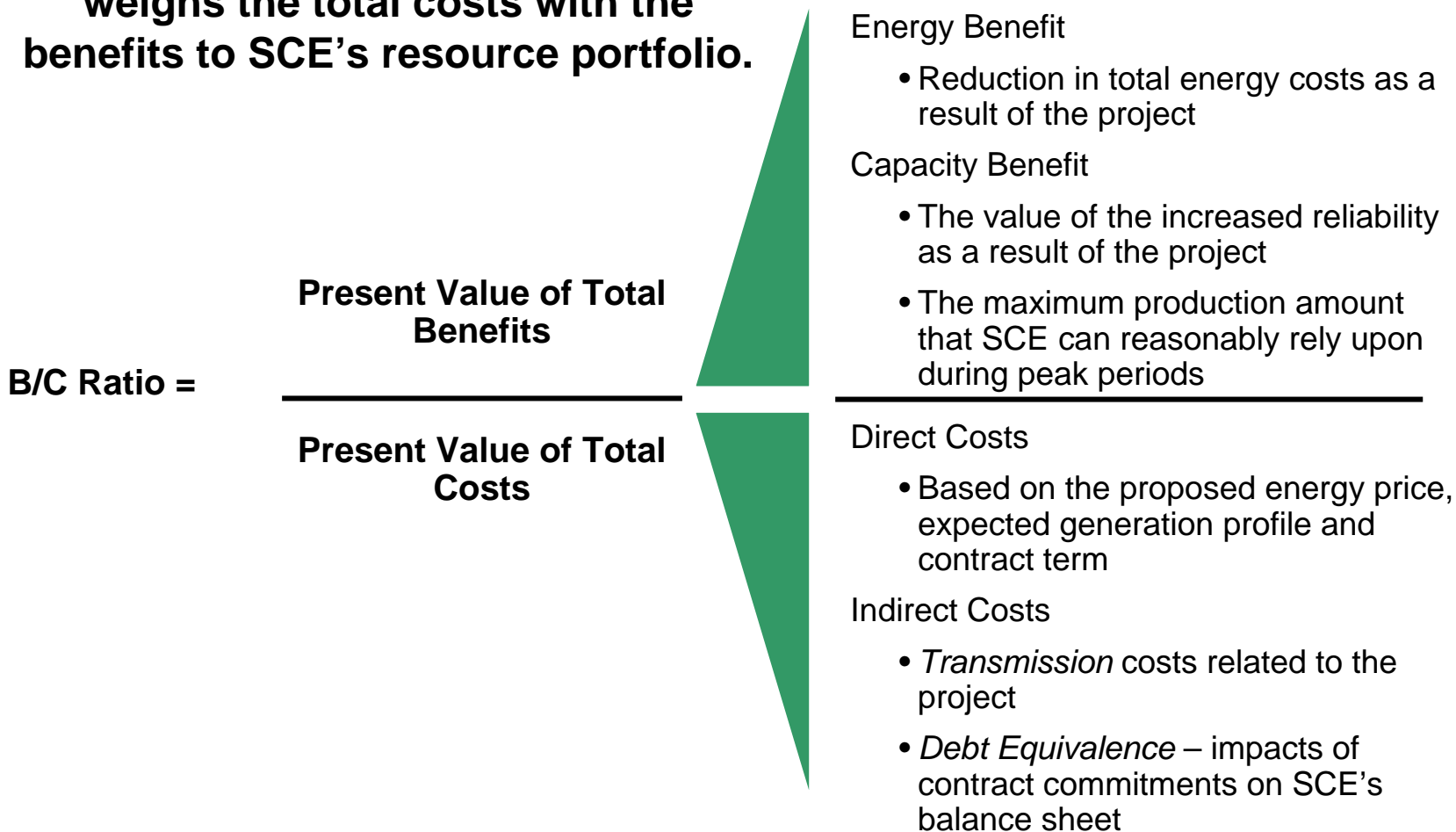


Solicitation Process and Indicative Timeline

<i>Timeline</i>	<i>Event</i>
January	SCE releases the Request For Proposals (“RFP”); Hosts bidders conference.
	Sellers provide Notice to SCE of their intent to submit Proposals.
March	SCE receives hardcopies of Sellers’ Proposals.
May	SCE advises all Sellers on the status of their Proposals relative to SCE’s Short List.
Q3-4	SCE and Sellers complete the final Power Purchase and Supply Agreements.
Q4	SCE submits the final Power Purchase and Supply Agreements to the CPUC for approval.
	The CPUC resolution approving the final Power Purchase and Supply Agreements becomes final and non-appealable.

Bid Evaluation Approach

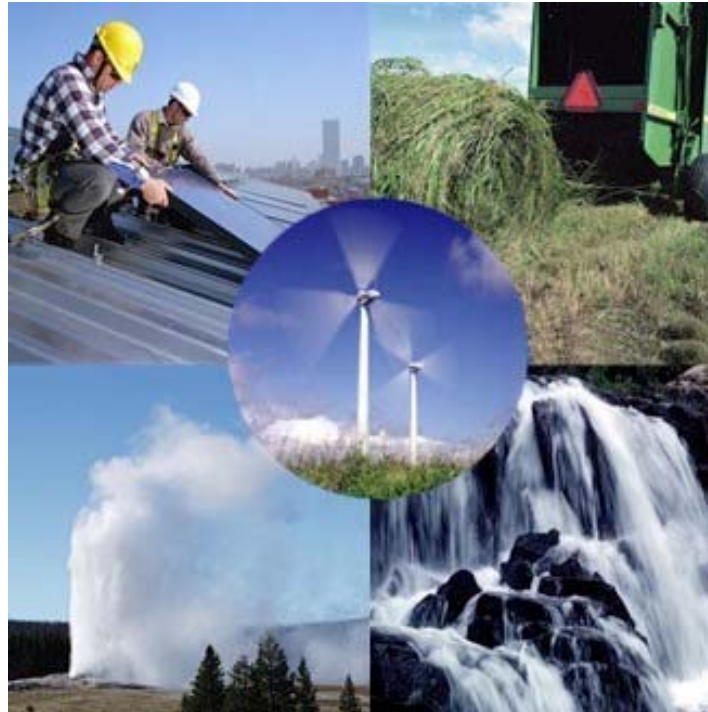
Proposals are ranked based on a benefit-to-cost (B/C) ratio that weighs the total costs with the benefits to SCE's resource portfolio.



Solicitation Factors of Success

- Competitively priced proposal
 - Projects that qualify for federal subsidies have an advantage
 - On-peak deliveries produce higher benefits, yielding higher benefit/cost ratios
 - Federal subsidies include Production Tax Credits (for wind) or Investment Tax Credits (for solar)
- 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
 - Plan to deliver into CAISO grid
 - Strong financial backing
 - Realistic on-line dates and forecasted operating performance
- Thoughtful edits to Pro Forma Contract
 - Demonstrates major issues between buyer and seller to execute contract
 - Gives some indication to the time required to develop and execute contract

Questions



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