

2006 Long-Term Procurement Plan Overview

December 21, 2006



SCE Introductions

Resource Planning			
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Summary Overview

- SCE intends this Procurement Plan to govern its procurement from 2007-2016
- SCE has incorporated all of the procurement-related authority granted to it under AB 57 and prior CPUC decisions in developing this filing
- In this proceeding, SCE is asking the CPUC for the following:
 - Approval of the "Best Estimate" resource plan;
 - Approval of SCE's proposed procurement volume and rate limits;
 - Approval of specified modifications to SCE's AB 57 Procurement Plan;
 - Approval of additional requirements necessary to implement AB 1576 when repowers are being pursued as part of SCE's procurement plan;
 - Approval of an increased collateral capacity limit; and
 - Approval of a process for IOUs to apply for and recover costs for new generation.



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What is SCE's Plan?

- Strategic Objectives
 - Obtain Commission approval of a Procurement Plan that provides clear, up-front and achievable procurement standards and maintains SCE's flexibility in managing planning and procurement activities on behalf of its bundled service customers;
 - Create an appropriate balance between low costs (subject to customer risk tolerance) and pursuit of state policy preferences;
 - Ensure that the same rules and policies apply to all load-serving entities in their procurement activities;
 - 4. Maintain a regulatory structure that allows SCE to fully recover costs from those customers on whose behalf the costs were incurred;
 - Communicate an integrated policy vision internally and externally; and
 - 6. Provide a supporting foundation for existing and near-term initiatives while recognizing that significant policy determinations relating to retail competition, GHG controls, and a durable framework to support new generation remain in flux.



What is SCE's Plan?

- Tactical Objectives
 - Expand EE to achieve ~9 bkWh of cumulative energy reduction by 2016;
 - Expand SCE's DR capability to ~2,000 MW of peak demand reduction by 2016;
 - Deploy AMI in 2009 to achieve ~800 MW peak demand reduction by 2016;
 - 4. Increase the use of distributed generation through the California Solar Initiative (CSI) program;
 - 5. Increase SCE's renewable energy portfolio in accordance with SB 107;
 - Implement several transmission upgrade projects for reliability and renewable resource development;
 - 7. Complete the development of the Devers-Palo Verde #2 transmission line by summer 2009;
 - 8. Advance a centralized capacity market in California;

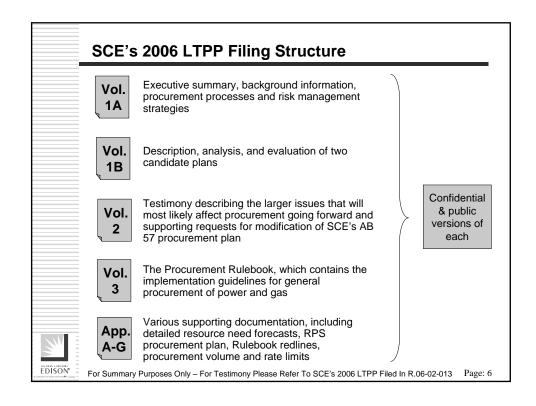


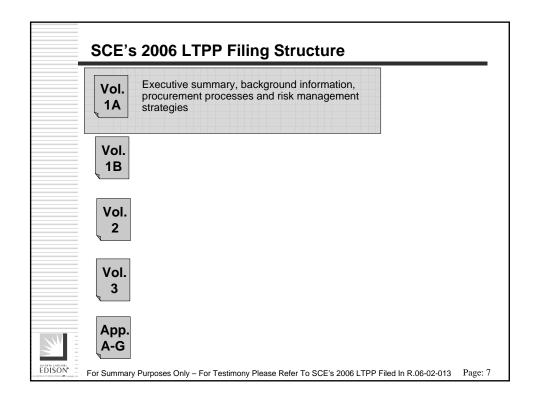
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What is SCE's Plan?

- Tactical Objectives (continued)
 - Replace SONGS steam generators in the 2009-2010 timeframe:
 - 10. Develop up to 250 MW of dispatchable capacity on behalf of all customers;
 - 11. Undertake development activities in support of future new generation;
 - 12. Seek Commission determination of key policy issues (Volume 2);
 - 13. Balance SCE's portfolio by primarily adding new short- and medium-term commitments to balance a portfolio dominated by long-term commitments;
 - 14. Avoid over-utilization of utility balance sheet as a result of over-contracting; and
 - 15. Achieve needed changes in procurement planning.







Since the 2004 LTPP, several policy and market changes have impacted, and may in the future impact, procurement



Recent Policy Developments

- Adoption of resource adequacy and local area requirements
- Upcoming implementation of MRTU
- Adoption of CCA rules
- Expanding solar installations through CSI
- 95% Day-Ahead scheduling rule
- Phasing-out RMR
- · Adoption of GHG policies
- EAP II's 33% RPS goal by 2020



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Several policy issues related to procurement are still pending resolution



For the planning

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be approved

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Decisions Pending

- Three advice filings pending before the Commission
 - Update to volume limits and ratable rates
 - Elimination of the "Risk Screen" methodology (approved 12/14/06)
 - Authorize an additional brokerage
- QF avoided cost proceeding (R.04-04-025)
- FERC's implementation of EPAct 2005 / PURPA purchase obligation
- Energy Auction mechanism pursuant to D.06-07-029
- SCE's Petition to Modify D.06-07-029
 - Up to 500 MW of up to 20 year contracts in addition to 1,500 MW of up to 10 year contracts presently authorized
- Phase II of RAR proceeding (R.05-12-013)



SCE provides detailed descriptions of its procurement processes, transaction planning, and execution



Procurement Processes

- Demand Forecasting
 - Develop long-term demand forecast for procurement planning
 - Develop short-term demand forecast for daily least-cost dispatch process
- Energy Planning
 - Utilize forecast and current portfolio to determine RNS/RNL and customer risk
 - Evaluate offers in an RFO
 - Measure portfolio risk
- Energy Contracts
 - Procure mid- to long-term capacity and energy needs
 - Adjust short-term position, as necessary
 - Procure natural gas, as necessary
- Operations
 - Schedule power with the CAISO according to least-cost dispatch
 - Conduct real-time generation operations



SCE has made reference to these activities in its Procurement Rulebook

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SCE uses a combination of public market data and proprietary modeling to generate its price forecasts



Price Forecasting

- Electricity Price Forecasting
 - Short-term price forecasts are based on a blend of market based power prices
 - Long-term fundamental power price forecasts utilize a simulation model
- Gas Price Forecasting
 - Similar to electricity price forecasting
 - Forward price forecasts are provided by consultants



SCE evaluates contracts under the least-cost/best-fit framework subject to various constraints



Contracts Evaluation

- Electricity & A/S
 - Least-cost evaluated under a net present value model
 - Best-fit evaluated as a mathematical optimization for contract selection with procurement "fit" constraints
- Debt Equivalence, Collateral, Credit Risk, GHG
 - Debt equivalence set at 20% in accordance with D.04-12-048
 - Adders are assessed for
 - Requiring SCE collateral
 - Counterparties not meeting credit terms
 - · GHG emissions
 - Transmission



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SCE does not have specific dates for launching future RFOs, but typically conducts at least one non-renewable competitive solicitation per year



RFOs

- Current/Recent RFOs
 - August 2006 New Generation RFO
 - Track 1: Online by Summer 2007*
 - Track 2: Online by Summer 2010
 - Track 3: Online by Summer 2013
 - August 2006 All Source RFO
 - 2005 Renewables RFP
 - 2006 Renewables RFP
 - Natural Gas RFO completed in July 2006
- Future RFOs are driven by:
 - Integration of successful bids in current RFOs
 - Regulatory requirements
 - Market forces and bundled customer requirements



* SCE signed and submitted to the Commission for approval a 10-year contract with Long Beach Generation LLC to repower a portion of its Long Beach facility by next summer. A.06-11-007.

SCE's maximum capacity procurement authority is based on the difference between its capacity requirement and available capacity

Vol. 1A

Capacity Procurement Limits

- Available capacity follows adopted RA protocols
- The capacity requirement is based on three components:
 - 117% of the peak bundled customer forecasted load
 - +850 MW n-1 generation contingency
 - +1,100 MW load contingency
- SCE analyzes procurement limits under four Direct Access scenarios

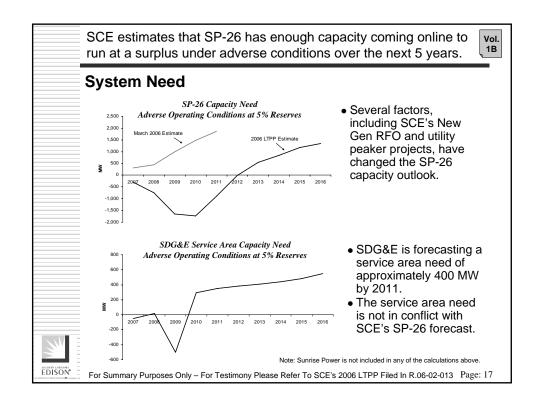
Capacity limits should contain sufficient contingency margin to allow SCE to purchase additional capacity for unexpected events

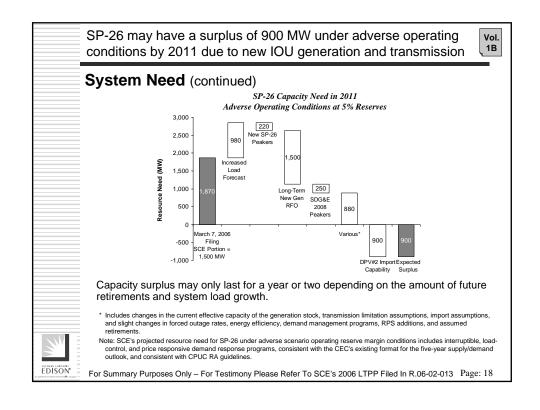


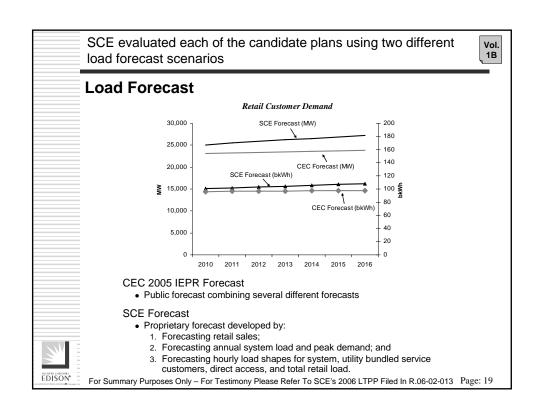
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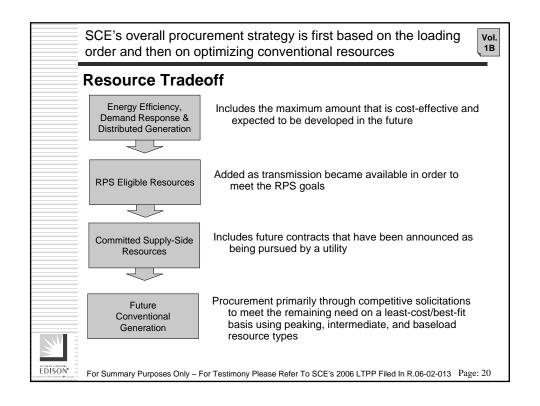
Vol. 1A Vol. 1B Description, analysis, and evaluation of two candidate plans. Vol. 2 Vol. 3 App. A-G For Summary Purposes Only – For Testimony Please Refer To SCE's 2006 LTPP Filed In R.06-02-013 Page: 15

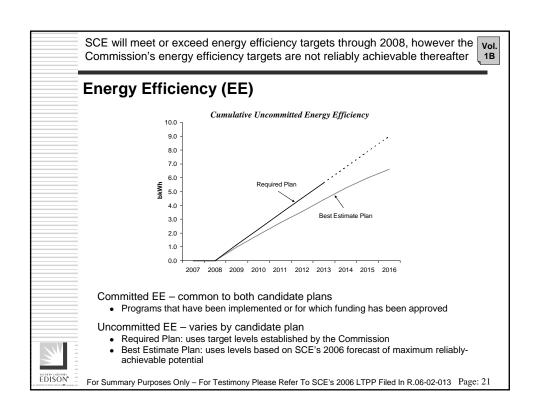
Candidate Plans			
	The Required Plan	The Best Estimate Plan	
	Incorporates existing Commission policies and meets all the requirements of the Scoping Memo.	Assumes a mix of resource assumption subject to the loading order and physica and economic viability while achieving regulatory goals over the long-term.	
	Distinguishing Assumptions > 20% RPS by 2010 > 33% RPS by 2020 > Commission's energy efficiency goals of 11.5 bkWh by 2016 _[II] > 5% of system peak in price responsive DR by 2007 and beyond > 805 MW CSI by 2016	Distinguishing Assumptions > 20% RPS by 2011 > 20% RPS continues thru 2016 > Maximum cost-effective and reliably achievable energy efficiency > Maximum cost-effective and reliably achievable demand response > 805 MW CSI by 2018	
	SCENARIOS	SCENARIOS	
	1) CEC Load Forecast	1) CEC Load Forecast	
	2) SCE Load Forecast	2) SCE Load Forecast	

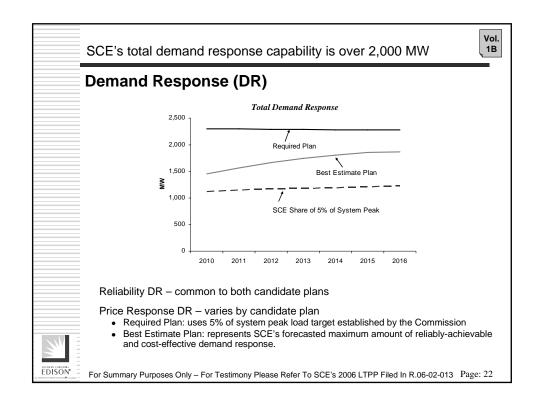


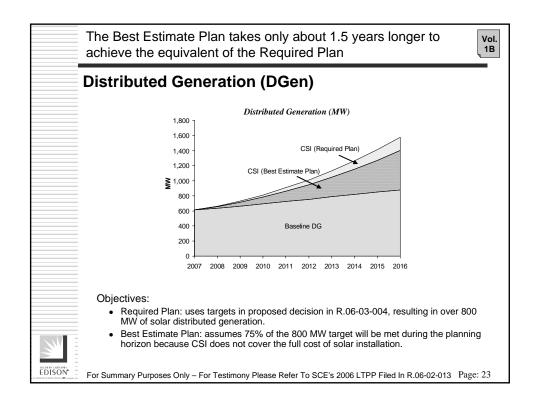


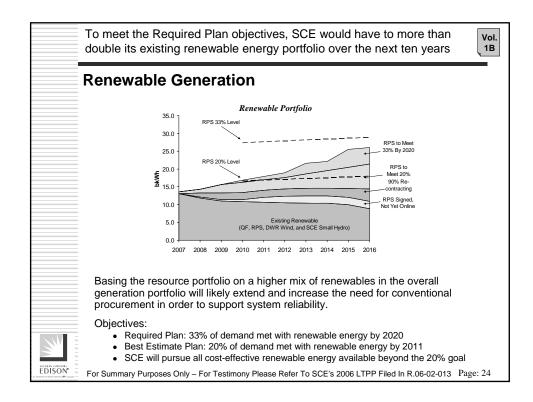


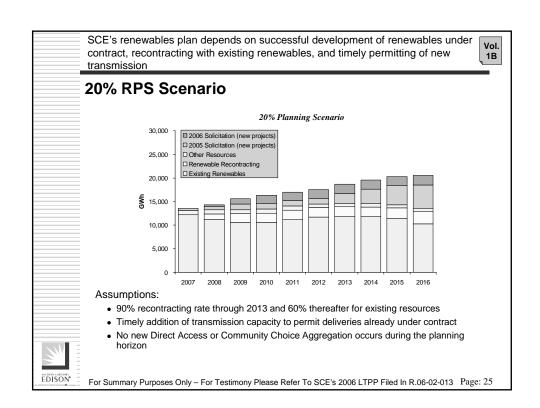


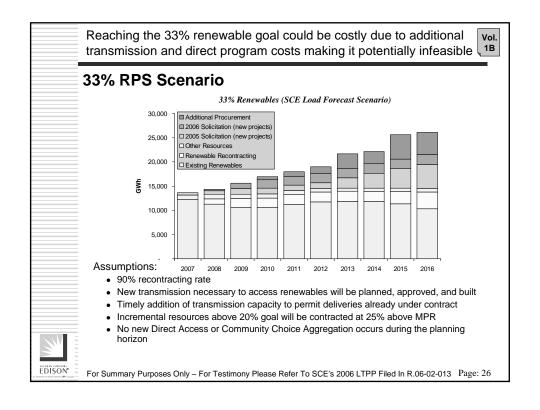


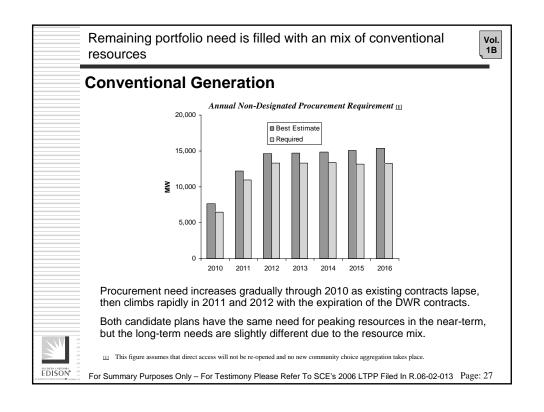


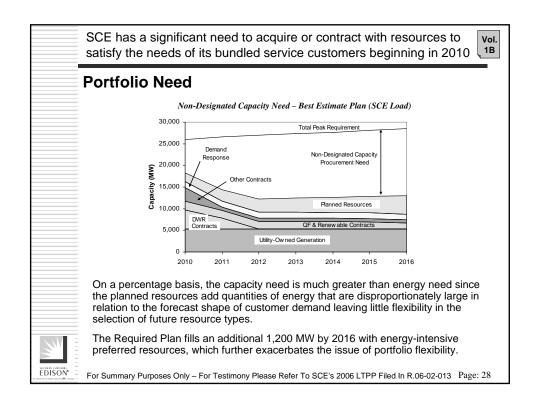


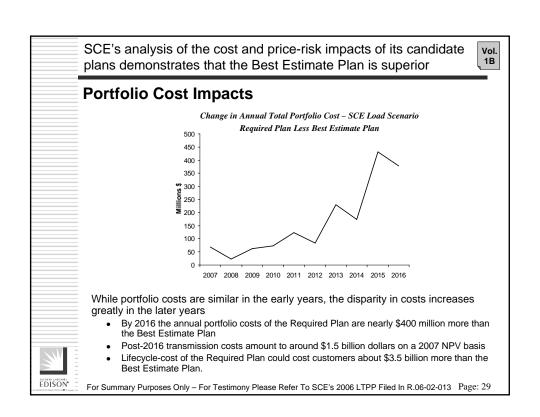


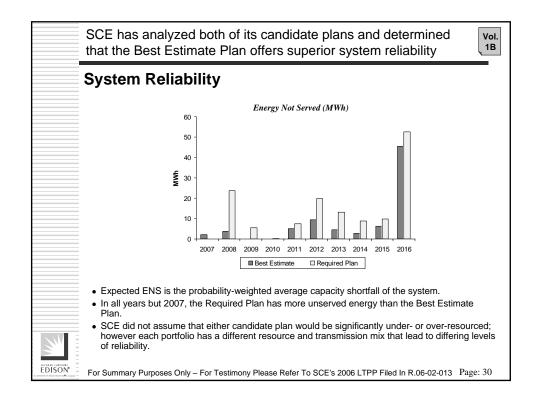


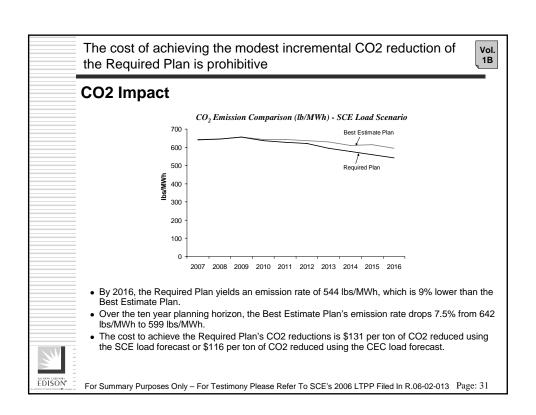


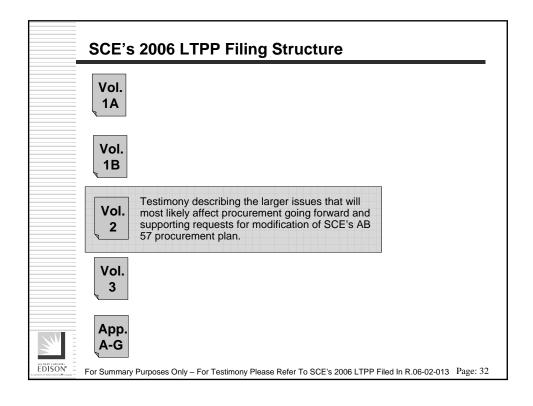


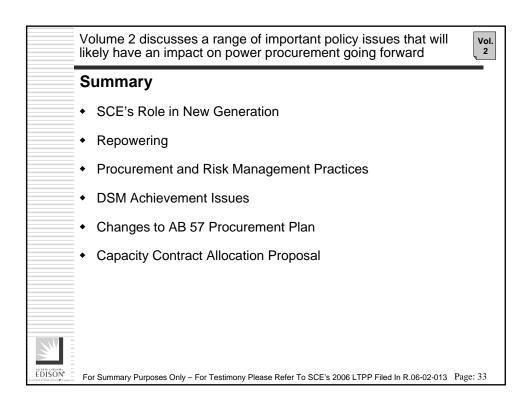












There are some circumstances in which it makes sense for the utility to consider owning generation to ensure certain needs are met



SCE's Role in Generation

- SCE is concerned over emerging issues such as SP-26 resource need, local area reliability, greenhouse gases, and IOU financial stability
 - Proposed solutions are transitional and require long-term resolution to achieve a durable, self-sustaining energy market structure
- SCE would target specific needs of the system (grid stability, environmental sensitivity) and utility customers (price risk)
 - Grid reliability to maintain a reliable grid
 - Fuel diversity to limit risks from fuel and GHG uncertainty
 - Market backstop to mitigate physical and/or financial market failures
- Any utility proposal should be through a CPCN process
 - Traditional cost-of-service ratemaking
 - 100% recovery of all prudently-incurred costs
 - If exceed a cost cap, trigger a reasonableness review for additional costs
 - Utility right-to-decline a CPUC-approved CPCN if the CPUC changes SCE's request



At this time, SCE has not reached a state that might require SCE to acquire utility-owned generation instead of purchasing generation

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Any analysis of new generation would be incomplete without addressing impacts to an IOU's credit quality



Financial Impacts of Contracting

- The CPUC has recognized the imputation of debt equivalence in the 2004 LTPP & 2005/2006 Cost of Capital proceedings
- Essentially, the impacts of contracting are factored into the credit analysis
 of a utility
- For 2006, SCE's debt equivalence was estimated at \$1.5 billion
- Recent and proposed credit and accounting changes could dramatically amplify the negative impacts on credit ratios and the balance sheet
 - S&P proposed methodology changes
 - FASB changes in accounting rules



Higher debt equivalence levels could seriously impact SCE's ability to maintain an investment grade rating

SCE is burdened by ever-increasing levels of collateral capacity, resulting in possible higher costs and lower supply security



Financial Impacts of Contracting (continued)

- Similar to debt equivalence impacts, insufficient collateral capacity could lead to potential downgrade by rating agencies and leave customers without guaranteed capacity needed to meet load
- Essentially, collateral reflects a party's exposure to the amount of loss suffered if a counterparty were to default on a contract
 - SCE must have credit capacity to post under current contracting terms
- SCE received CPUC approval for a \$1.4 billion collateral limit
- As additional contracts are signed, SCE is requesting an increase to its collateral capacity to \$2.0 billion
- SCE presents analysis to show potential collateral exposure based on illustrative contracting scenarios through 2016



Possible risk mitigation solutions include resource diversification or elimination of collateral requirements

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Per the 2006 GRC Decision, SCE's Project Development Division (PDD) is undertaking activities to support new generation



Evaluation of Sites & Technologies

- The passage of AB 32 and SB 1368 may require introduction of new, cleaner generation technologies at appropriate locations
- It is unclear whether the market would provide for such investment due to the risks and potentially high capital & operating costs
- If the CPUC agrees that IOUs should follow this path, the costs of investment should be borne more broadly than just bundled customers
 - Otherwise, strong disincentive to consider investment of this type



SCE believes the time frame for development of these sites & technologies is long-term, and this work has commenced

With additional requirements, SCE is supportive of repowering as envisioned by AB 1576

Vo 2

Repowering

- SCE believes that the requirements of the AB 1576 protocols should be adopted in this proceeding to fully implement repowers (partial list)
 - Acquire an AFC from the CEC
 - Adhere to a cost-of-service arrangement
 - Provide full scheduling and dispatch control to the utility
 - Include performance incentives
 - Allow recovery of fixed costs from <u>all</u> customers
 - Grant CPUC access to relevant books and records
- To date, repowers have been able to compete in the competitive "all-source" procurement process
- Going forward, SCE is suggesting a dual path pursuant to its adopted AB-57 procurement plan that involves a separate AB 1576 bid submittal, when requested by a utility



There should be no special "set-aside" for AB 1576 facilities

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Per the Outline, SCE discusses issues related to the competitive procurement process



Procurement Practices

- Transparency
 - The Confidentiality OIR requires more disclosure than ever before
 - Use of an Independent Evaluator boosts confidence (reduces skepticism)
 - Use of a Procurement Review Group provides additional review
- Timing
 - RFOs are widely distributed
 - There are times when a specific RFO is required to fulfill a particular need
 - RFO timelines are generally consistent with industry standards
- Fairness
 - SCE considers the term of the contract, not the value beyond the contract term
 - SCE routinely conducts bidders' conferences
 - SCE attempts to negotiate mutually acceptable terms
- Credit/collateral terms
 - Collateral is required to protect customers against supplier default
 - It is nonsensical to require the IOU to post collateral to itself



SCE's RFOs have been conducted in an appropriately competitive manner

SCE is very concerned about any attempt to standardize utility hedging strategies



Risk Management Practices

- Risk profiles vary significantly for each utility due to different drivers on procurement costs and risks associated with those costs
 - Technology/fuel mixes are different
 - Must-take obligations are different
 - Commitment horizons are different
 - Counterparties are different
 - Service areas are different
- Coordinating hedging strategies may be subjected to collusion charges
- SCE does recommend some changes to the utilities' measure of risk
 - Modify TEVaR to be at 95% rather than 99%
 - Revisit SCE's Consumer Risk Tolerance of 1.25 ¢/kWh
 - Update the DWR Gas Supply Plan annually, and update SCE's procurement plan gas ratable rates at the same time



It would not make sense to require all IOUs to hedge the same way

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SCE is requesting changes to its Procurement Rulebook to clarify the intent of the existing CPUC procurement rules



Rulebook Changes

- Clarify the definitions of short-term, mid-term and long-term transactions
- Clarify existing rules regarding transactions executed through a Commission pre-approved broker
- Clarify the Commission's "strong showing" standard
- Clarify the definition of a "non-standard product"
- Add gas transport receipt point rights as an authorized product
- · Clarify the use of the term "duration"



More specific details on these changes in Appendix 'F'

DSM targets should be aggressive, but should also be realistic, cost-effective, and reliably achievable for planning purposes



DSM Issues

- Demand Response (DR)
 - Current DR targets are too high in the near-term and include only price responsive programs
 - Most customer groups are unable to participate in these programs
 - AMI will ultimately enable participation by all SCE customers
 - Actions by the CAISO and the CPUC seek to increase reliability-based demand response (which conflict with the price responsive goals)
- Energy Efficiency (EE)
 - SCE believes that the current goals for SCE's service territory need to be updated because they are not reliably achievable after 2008
 - Over time, the annual level of achievable EE will diminish due to saturation of high efficiency technologies
 - SCE's forecast is based on more current data and is far more detailed and robust than the analysis performed in the process of developing the EE targets in D.04-09-060



The CPUC should revisit EE and DR targets in their respective proceedings

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SCE makes a proposal for allocating the net costs of new gen capacity contracts and associated capacity for RA credit



New Gen Capacity Contract Allocation

- Use the 12 monthly coincident peak method to allocate the net costs of capacity among rate groups
 - Net cost of capacity is defined as the difference between the total contract costs and the energy rights auction proceeds
 - Recovery through a non-bypassable per-kWh delivery charge
 - Establish a balancing account
- RA capacity credit will be allocated in proportion to the share of the net costs that the LSE customers pay



