

Southern California Edison Company

Preliminary Long-Term Procurement Planning Overview For The 2006 LTPP

Note: This is a preliminary draft overview. It should not be relied upon as a description of SCE's final procurement plan or its procurement processes. SCE reserves the right to modify its procurement plan, all components of its procurement plan, and its planning processes, approaches, objectives, scenarios and analyses from those set forth in this presentation.

October 12, 2006



This discussion will describe SCE's framework for procurement planning

Discussion Objectives

1. Provide an overview of procurement planning

- ◆ Context of planning in California
- ◆ SCE's proposed approach for the 2006 LTPP filing
- ◆ SCE's objectives in the LTPP phase of this proceeding
- ◆ SCE's proposed candidate implementation plans

2. Discuss SCE's resource planning analysis approach

- ◆ Identifying the need for the system and the portfolio
- ◆ Filling the resource gap
- ◆ Testing the robustness of a plan under uncertainty



The California LTPP process attempts to minimize the cost of generation and the risks to retail customers while complying with regulatory policy goals

Planning in California

Regulatory Framework

- ◆ Resource Adequacy Requirement
- ◆ Local Area Reliability Requirement
- ◆ Energy Action Plan Loading Order
- ◆ Demand Side Management Goals
- ◆ Renewable Portfolio Standard
- ◆ Greenhouse Gas Limitations
- ◆ Developing Timing and Approach for Direct Access Resumption

IOU Tradeoff Considerations

- ◆ Supply- vs. Demand-side
- ◆ Long Term vs. Short Term
- ◆ Peaking vs. Baseload
- ◆ Now vs. Later
- ◆ Local vs. Distant



SCE's 2006 LTPP filing will merge the contents of the long term resource plan and short term procurement plan into a single filing

IOU Procurement Authorization

- ◆ AB 57 and Commission decisions protect procurement made in accordance with a plan or approved by the Commission. In general, the procedure is:
 - IOUs file and obtain Commission approval of a procurement plan.
 - All transactions made in accordance with the up-front achievable standards of the AB57 procurement plan are deemed reasonable.
 - In addition, an IOU can seek Commission pre-approval of contracts / commitments that do not conform to the plan, and, once approved, those contracts will also be deemed reasonable.

- ◆ The **Implementation Plan** component of the procurement plan addresses a wide range of issues, and coordinates policies developed in a wide range of other proceedings.

- Supply side
- Demand side
- Environmental implications
- Transmission assumptions
- Financial risk & cost analysis

- ◆ The **Procurement Authority** component of the procurement plan contains the upfront achievable standards and criteria under which an IOU procures power. It establishes:

- Procurement limits
- Allowable rate of purchases & sales
- Approved products
- Procurement methods (RFOs, bilateral)



SCE intends to comply with the direction of the September 25, 2006 Scoping Memo

2006 LTPP Approach

- ◆ Volume 1 will 1) establish a range of procurement authority, including procurement processes, and 2) present candidate implementation plans with uncertainty analysis
- ◆ Volume 2 will address the feasibility of the candidate implementation plans, and other issues relevant to procurement
- ◆ The Energy Auction proposal and 50/50 cost-sharing allocation will be addressed separately according to the Scoping Memo timeline, and will not be addressed in this presentation today



SCE desires to achieve several goals in the LTPP phase of this proceeding

SCE Objectives

- ◆ Obtain CPUC approval to maintain SCE's flexibility to manage planning and procurement activities on behalf of our customers
- ◆ Maintain a regulatory structure that allows SCE to fully recover incurred costs from the customers for which the costs were incurred.
- ◆ Create an appropriate balance between low costs (subject to ratepayer risk tolerance) and pursuit of state policy preferences
- ◆ Ensure that the same rules and policies apply to all load-serving entities (IOUs, ESPs, CCAs) in their procurement activities
- ◆ Use the resource planning process as a means of synthesizing and coordinating policy objectives and to communicate an integrated policy vision internally and externally
- ◆ Provide a supporting foundation for existing and near-term initiatives



SCE is considering two candidate implementation plans to demonstrate a range of procurement outcomes


SCE's Two Plan Proposal

1: Required Case

- ◆ Describes a Plan that incorporates existing Commission policies and meets all the requirements of the Scoping Memo, such as
 - 20% RPS by 2010, 33% by 2020
 - 5% price responsive demand response by 2007 and beyond
 - 9 kWh EE cumulative from 2006-2013
 - AB32 and SB1368 compliant
 - CSI Targets

2: Balanced Policy Case

- ◆ Describes a Plan that assumes an optimal mix of resource assumptions subject to physical and economic viability while achieving state mandates over the long term, such as
 - Maximum deliverable renewables
 - Maximum cost effective EE
 - Maximum cost effective DR
 - GHG compliant
 - SCE's CSI forecast



Each Plan will describe a strategy for implementation, each will contain a list of actions and activities that the IOU could undertake under its procurement authority, and each will comport with legal statutes



SCE's planning and analysis approach will consider both the bundled customer and system perspectives

Analysis Approach

- ◆ SCE intends to apply the same general rules and direction as in previous resource plan filings
 - Identify the need
 - Prioritize resource additions consistent with the loading order
 - Meet minimum requirements
 - Optimize remaining need

- ◆ Include a mix of all the resources and products authorized by the Commission

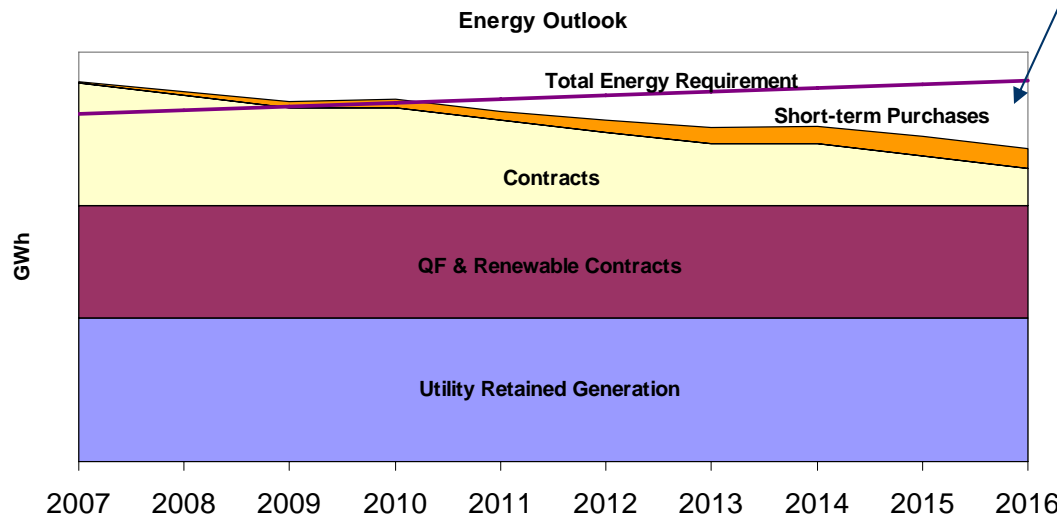
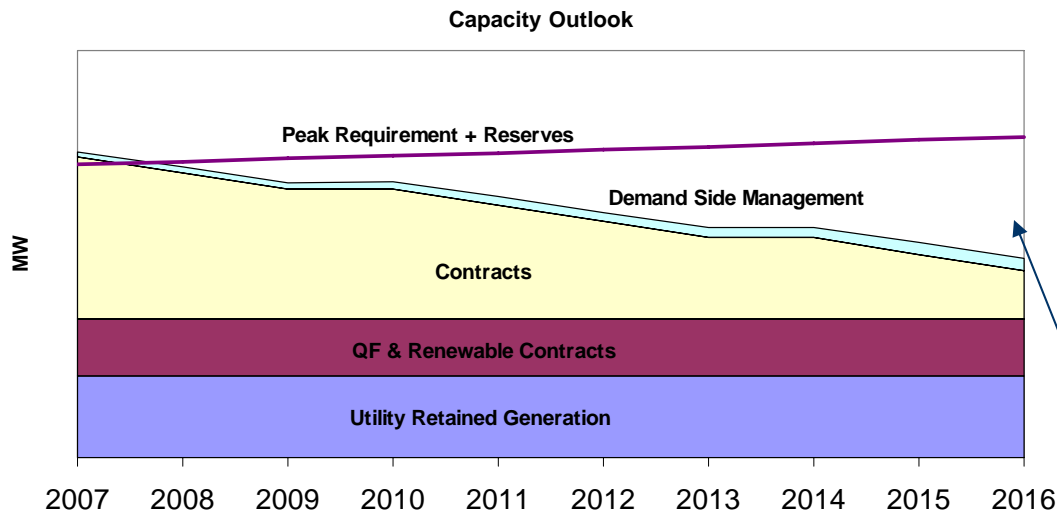
- ◆ SCE intends to analyze and integrate, as much as feasible, the physical needs of the system as well as the portfolio needs of the IOU
 - System-level based on the CEC's latest available analysis
 - System analysis limited to physical needs only (contractual needs of other LSEs are unknown to SCE)



SCE will analyze its future capacity and energy needs according to present-day resource commitments

Identifying the Need (Example)

ILLUSTRATIVE



The identified “**Resource Need**” is the common starting point for:

- 1) Procurement authority
- 2) Candidate implementation plans



SCE's planning process fills the resource need first according to State and CPUC policy preferences

Portfolio Design Approach

- ◆ First, SCE includes loading-order resources such as EE, DR, renewables and D-Gen
 - One case to match Commission goals
 - One case to maximize available & cost-effective loading-order resources

- ◆ Then SCE includes resources to meet certain other requirements
 - Renewable Portfolio Standard
 - Local area reliability resources requirement
 - Resource adequacy requirement
 - AB32 and SB1368 requirements



Beyond cost-effective loading order resources, SCE's long-term planning approach requires assumptions for future uncommitted resources

Portfolio Design Approach (con't)

- ◆ Beyond the loading order and other requirements, SCE seeks to optimize its portfolio with the appropriate balance of conventional supply-side resources
 - Varying performance attributes (baseload, intermediate, and peaking)
 - Varying commitment horizons (long-, medium- and short-term)
 - Varying deliverability qualities (limited energy or year-round availability)
 - Varying environmental attributes (CO₂ tradeoffs)
 - Varying reliability attributes (local area, distant)

- ◆ Build out optimization
 - Specific generation technologies exhibit different total costs depending on capacity factor (i.e. CTs are lower costs at low capacity factors vis-à-vis CCGTs)
 - Load duration curve is used to approximate optimal capacity factors for different technologies depending on cost profiles.

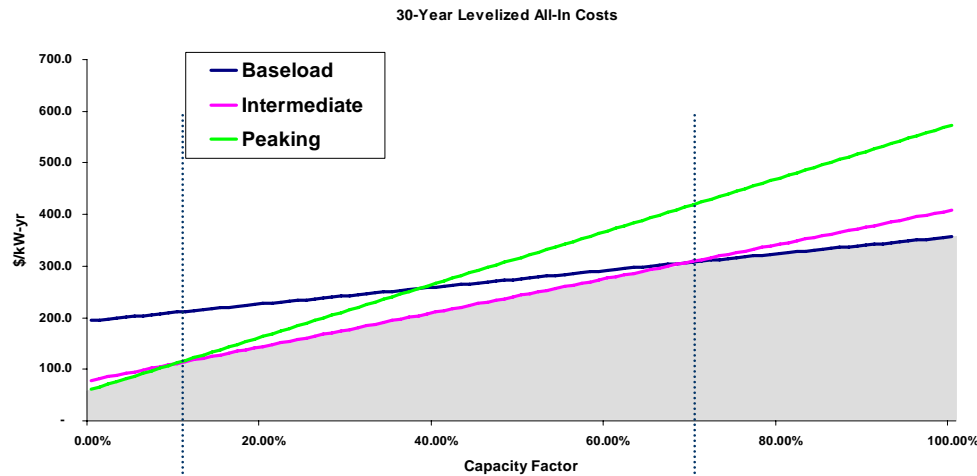
- ◆ To the extent feasible, SCE tries to align the ideal mix of future uncommitted resources with known existing, planned, and proposed resources



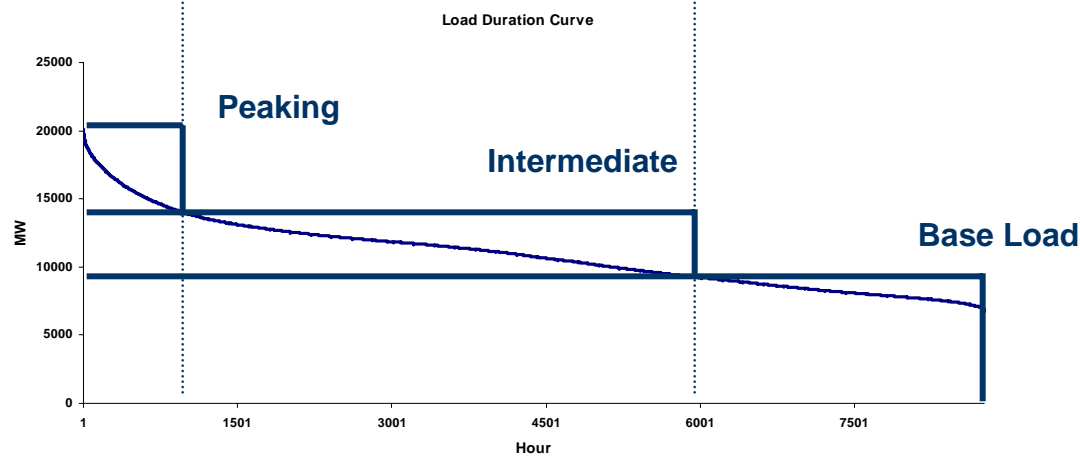
Composition of portfolio is determined by matching generation economics with the a load duration curve on an annual basis

Portfolio Design Approach (con't)

ILLUSTRATIVE



Economics determines what type of plant to run under various capacity factors.



Capacity factor optimization is matched with load profile to determine optimal number of MW to build for each plant classification.



SCE's evaluation of the candidate implementation plans will be consistent with the Scoping Memo direction (p20 of outline)

Evaluation Approach

- ◆ Analysis will be based on a limited number of scenarios that appropriately address procurement-related uncertainties and risk
- ◆ Results will examine relative impacts on customer cost, financial risk, system reliability, and environmental implications
- ◆ Analysis will assume a combination of
 - Scenarios – to capture market paradigm shifts
 - Stochastics – to capture short-term volatility effects & long-term drift

SCE has not yet determined to what extent scenarios and stochastics will be applied



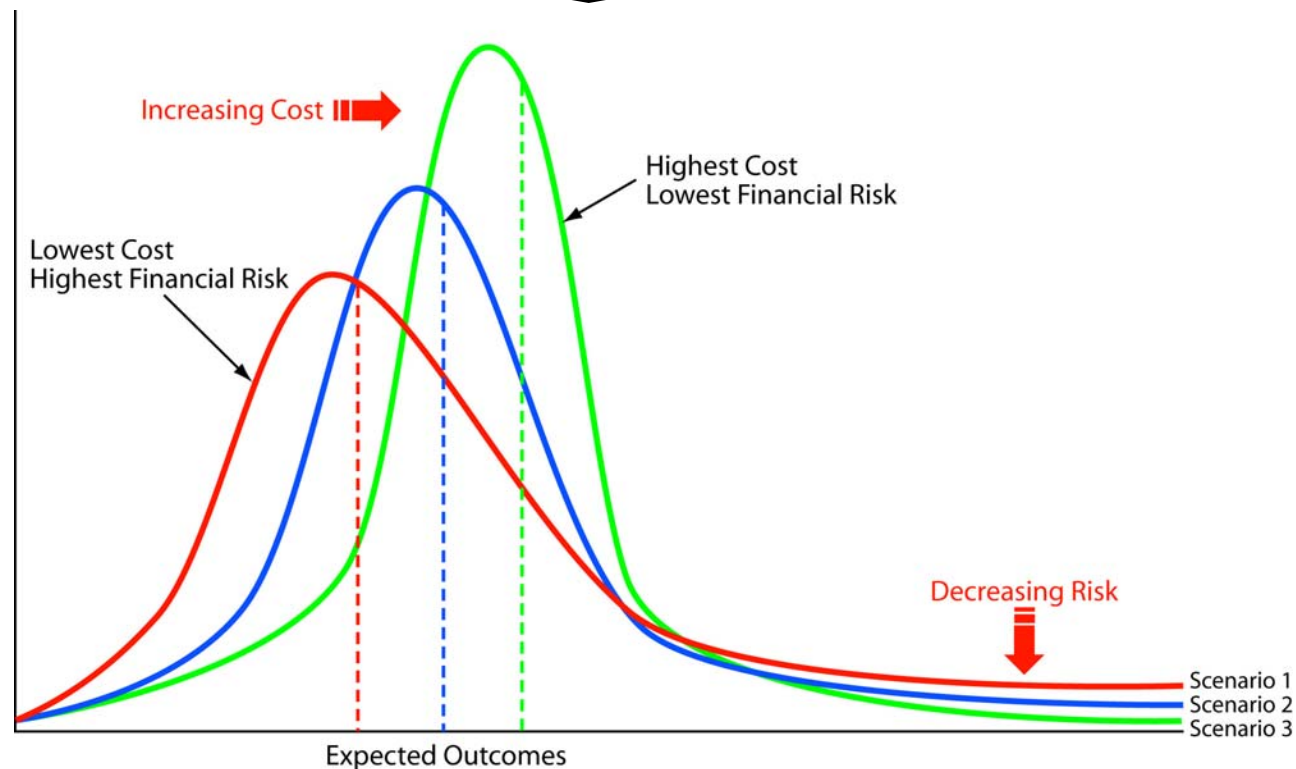
SCE can test impacts on its portfolio costs and other key parameters (e.g. unserved energy) through stochastic analysis

Analysis Illustration

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Stochastic Parameters For Each Scenario

- ◆ Load
- ◆ Gas
- ◆ Power Price



PRELIMINARY DRAFT - SUBJECT TO CHANGE



SCE will use its plan to procure for our customers, subject to Commission approval, and consistent with Commission rules

Conclusion

- ◆ SCE's procurement plan will:
 - (1) put forth a need assessment to determine the physical needs in our part of the system
 - (2) guide how SCE fills out its portfolio to meet the energy and capacity needs of its bundled customers
 - Establish our existing AB57 up-front and achievable standards and replace any existing standards

