California Public Utilities Commission
California's Long Term Resource Outlook

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Implementing The Energy Action Plan

- The Energy Action Plan adopted by CPUC and CEC is a roadmap for specific action items California investment is guided by the loading order:
  - Energy efficiency
    - Public education and outreach; new building and appliance standards; next funding cycle of IOU programs; focus on peak demand savings
  - Demand response
    - Consideration of advanced meter rollout for all IOU customers; consideration of new tariffs; integration with energy efficiency efforts
  - Renewables
    - 20% Renewable energy by 2010 and application of RPS to all LSEs; new transmission to access new projects; examining ability and impacts of moving to 33% by 2020 requirement
  - California Solar Initiative
    - Provides $2.9 billion in incentives between 2007 and 2017
  - Electricity adequacy and infrastructure
    - New generation; planning reserve margin for resource adequacy; streamlined transmission planning and expedited permitting; development of transmission corridors; continued distribution investment

Key Developments in CPUC Procurement Policy

- AB57 (PU Code 454.5)
  - Put IOUs back into the procurement business as of Jan. 1, 2003
  - Ensured that CPUC would establish policies and cost recovery mechanisms for procurement
  - Ensured IOUs cost recovery if procurement done in accordance with a pre-approved procurement plan
- PUC Implementation of AB57 began in 2002
  - 2002-2003 – Numerous decisions authorized PG&E, SCE, SDG&E to resume procurement
  - Jan-2004 Adopted procurement policy framework, including biennial LTPP Proceedings that follow the biennial IEPR proceeding schedule
  - Dec-2004 Approved first cycle 10-year of Long-Term Plans
  - Feb-2006 Start second cycle 10-year of Long-Term Plans

Long Term Procurement and Resource Adequacy

- State focus on Load Serving Entities (LSE)
- Two Pronged approach:
  - IOUs develop and follow procurement plans
  - LSEs make Resource Adequacy (RA) showings
- CPUC gets Resource Adequacy in the short term through the 1 year RA requirement/RA program
- Longer term, RA comes through procurement pursuant to Long Term Procurement Plans
- The two proceedings work in tandem to achieve the big picture goal of statewide Resource Adequacy over the long term

Long Term Procurement Plans and Resource Adequacy

- Long Term Procurement Plans ("LTPP"): Utilities procure against 10 year plans, filed bi-annually
  - LTPPs are a form of integrated resource plans
  - LTPP proceeding is the "**umbrella**" proceeding in which we consider, **in an integrated fashion**, all of the Commission's electric resource procurement policies and programs
  - Procurement plans incorporate EAP loading order: EE, DR, Renewables, Solar, plus new, existing, and/or repowered conventional generation
  - Opportunity for the Commission and parties to examine procurement policy on an **overall integrated basis**.
  - IOUs forecast demand and identify how they will meet needs

- Resource Adequacy ("RA"):
  - Utilities and other LSEs must acquire sufficient generating capacity to serve customers needs, plus a 15-17% reserve margin
  - Based on CEC demand forecast
  - Rules are coordinated with ISO market and operations

Long Term Procurement Goals

- Integrate EAP II Goals into LTPP
  - Are the IOUs following the Loading Order
  - How do the IOUs assess resource trade offs
  - Put the focus on Integrated Resource Planning
- Review Selected procurement practices & procedures; e.g., credit & collateral, independent evaluator, competitive solicitations, etc.
- Review 10-year Resource Plans
- Identify need for new resources
  - Assessment performed well in advance of need to avoid “just-in-time procurement”

Resource Need Determination

- Plans will identify the need for new resources (2007-2016)
- Establish the specifics of any need determination
  - Range of Need (e.g. 500-700 MW)
  - Timeframe (e.g. 2010-2012)
  - Location (e.g. x % in Local Areas)
  - Type of resource needed (Blackstart, quickstart, VAR support, wind integration, baseload/shaping/peaking)
  - Timeframe of RFO
- Establish the need on a system need and bundled customer basis
  - The Commission established a cost allocation mechanism that stays in place until it is replaced by subsequent Commission directives, therefore, LTPPs must look at both bundled and system need
  - LTPP Phase 2 decision will need to determine whether cost allocation mechanism is extended to next round of contracts

CPUC Long Term Planning Efforts Lead to New CA Capacity Additions

- **PG&E**
  - Commission approved contracts for **2,250** MW, online 2009-2010 (2004 LTPP)
  - Contra Costa 8 - **500** MW, online 2009
- **SCE**
  - Launched RFO in July 2006 for **1500** MW of new capacity, online 2007-2009 (2006 LTPP)
  - Announced intention to seek **500 MW** more through current RFO (2006 LTPP)
    - Long Beach Generation (**260 MW**) – Summer 2007 Track RFO (2006 LTPP)
    - SCE filed an Application seeking approval of **945 MW** from Fast Track RFO (2006 LTPP)
  - Peakers for 2007 -- **245** MW, online 2007 (4 of 5 units scheduled form operation by August 1)
- **SDG&E**
  - Announced new RFO for ~**250** MW in 2008 (2006 LTPP)
  - RFO released March 9, 2007 for later online dates (2006 LTPP)
  - Otay Mesa approved for completion - **583** MW, online 2009
- **Renewables (all 3 IOUs)**
  - Since 2002, CPUC has approved a minimum of **2,760** MW from RPS eligible resources
  - More MW coming as a result of ongoing 2005 and 2006 RPS solicitations
- **Not Yet Announced RFOs for New Generation**
  - Each IOU's LTPP must identify timeframe and MW of future New Gen RFOs (2006 LTPP)
  - CPUC will make need determination, likely targeting 2010-2012 timeframes (2006 LTPP)

What Does the Future Hold for CPUC Procurement?

- Number 1 goal: Move the procurement decisions/actions further out in the future to avoid just in time procurement activity
- Create a “Procurement Rulebook”
- 2006 LTPPs will include greenhouse gas forecasts for its ten-year resource plan and a discussion of compliance with the Commission’s GHG policies – both current and potential
  - How this impacts procurement decisions
- Expect to see a merging of LTPP as it exists today with the increasing carbon constraints – AB32 cap
- Longer term Resource Adequacy requirement – Possibly a capacity market mechanism
- Further integration of planning tools – LTPP, multi year RA requirements
- Continually looking to increase the effectiveness of Commission procurement policies and procedures
- Continued cooperation between the CEC and the CPUC

Backup Slides

California's Regulated Infrastructure

Electricity

- 11.1 Million Customers
- $19 Billion Revenue
- 25,600 Miles of Transmission Lines
- 215,100 Miles of Distribution Lines
- More than 200 Generating Units*

Natural Gas

- 10.6 Million Customers
- $9.4 Billion Revenue
- 9,365 Miles of Transmission Lines
- 92,452 Miles of Distribution Lines

Contracts Approved from PG&E Application (D.06-11-048)

Line No.	Facility	Size (MW)	Purpose	Contract Type	Operational Date	Plant Type	Term
1	Calpine Hayward	601	Long-Term Need	PPA	June 2010	Combined cycle	10
2	EIF Firebaugh	399	Long-Term Need	PPA	August 2009	Combustion turbine	20
3	EIF Fresno	196	Long-Term Need	PPA	September 2009	Combustion turbine	20
4	Starwood Firebaugh	118	Long-Term Need	PPA	May 2009	Combustion turbine	15
5	Identity Confidential	116	Long-Term Need	PPA	May 2009	Reciprocating engine	20
6	E&L Westcoast Colusa	657	Long-Term Need	PSA	May 2010	Combined cycle	life of asset
7	Long-Term Need	2,087					
8	Wartsila Humboldt	163	Humboldt	EPC	May 2009	Reciprocating engine	life of asset
9	Total	2,250					

2250 MW resulting from the Commission's 2004 LTPP process

Climate Change Implementation

- Emissions Performance Standard - SB 1368 (Perata)
  - CPUC adopted decision January 25, 2007 to meet February 1, 2007 deadline
  - Working with CEC to ensure consistency with their standard to be adopted by June 30, 2007 for municipal utilities
  - Participating in CEC workshops in January and soliciting input from CEC, ARB, CalEPA, and CAISO prior to finalizing CPUC decision

- Greenhouse Gas Cap - AB 32 (Nunez/Pavley)
  - Held proceeding kickoff for Phase 2 of GHG rulemaking on November 28, 2006
  - Scoping memo released on February 2 with inquiry to proceed in 2007/2008
  - Volunteering to be venue for development of recommendations to ARB for electricity and natural gas sectors
  - Encouraging municipal utility participation in CPUC proceeding on equal footing with IOUs to develop comprehensive and consistent set of recommendations
  - Coordinating with CEC, ARB, CalEPA and CAISO on policy development

Resource Adequacy

- Resource Adequacy objectives:
  - Facilitate development of new generating capacity and retention of existing generating capacity that is economic and needed
  - Equitably allocate the cost of generating capacity and prevent the shifting of costs between customer classes
  - Minimize enforcement requirements and costs.

What counts toward Resource Adequacy Requirement

- LSE must procure qualifying resources to meet their RAR
- RAR is calculated using an LSE's forecast load by month, plus a reserve margin of 15-18%, for a total of 115% of forecast load
- LSE forecast load is based on a 1 in 2 year and is baselined against the CEC forecast
- LSEs file their forecast load and the CEC performs a plausibility adjustment
- RAR is a capacity requirement, not energy. Units must be in CAISO database and are subject to a must offer obligation
- Imports based on an allocation of import capacity
- Dispatchable Demand Response programs, if paid by the public use charge are allocated to all LSEs
- Intermittent (e.g. Wind) and energy limited resources using PUC adopted counting rules

Local Resource Adequacy Requirement

- Decision 06-06-064 adopted Local RAR
- Local generation must be subject to CAISO Must Offer Obligation
- LSEs Local RAR based on load shares in the IOUs service territories
- Reliability level for 2007 set at Category C (N-1-1/N-2) level recommended by CAISO
- Implementation coordinated with CAISO RMR selection
  - Initial LRAR filings due September 22 to inform (minimize) CAISO RMR procurement
  - Final filings due October 31
- Challenge: LRAR procurement of (former?) RMR units
- ISO backstop procurement follows, if necessary