

Department of Market Monitoring Presentation to the Board of Governors

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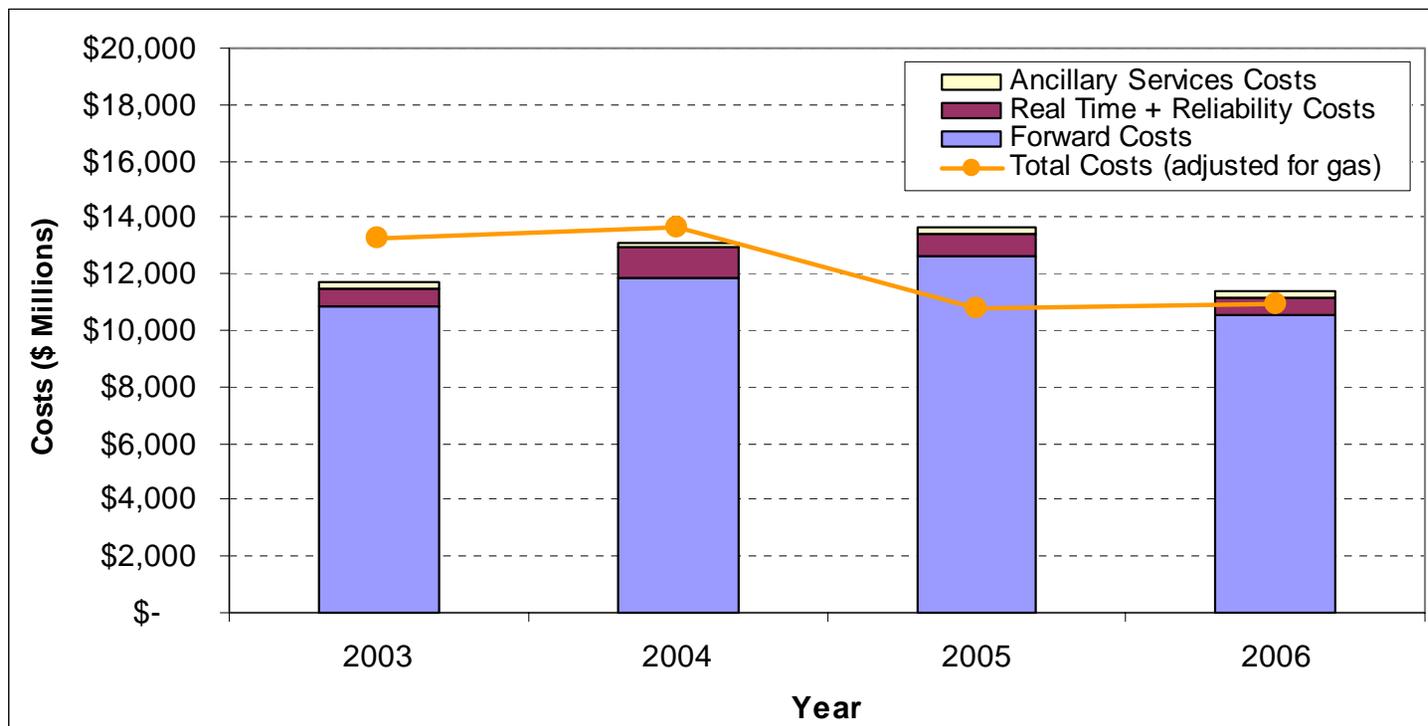
ISO Board of Governors
April 18-19, 2007

2006 Market Highlights

- **Wholesale markets stable and competitive.**
- **Estimated wholesale cost to load declined 16%.**
- **Generation additions moderate in 2006, but 2007 net additions projected to slightly outpace load growth.**
 - Spot market revenue still inadequate.
 - CPUC RA and procurement planning critical for new investment.
- **Significant market events in 2006 addressed in report:**
 - Operational and market challenges from high hydro in spring.
 - Resource Adequacy implemented in June.
 - High loads in June and record-setting peak loads in July.

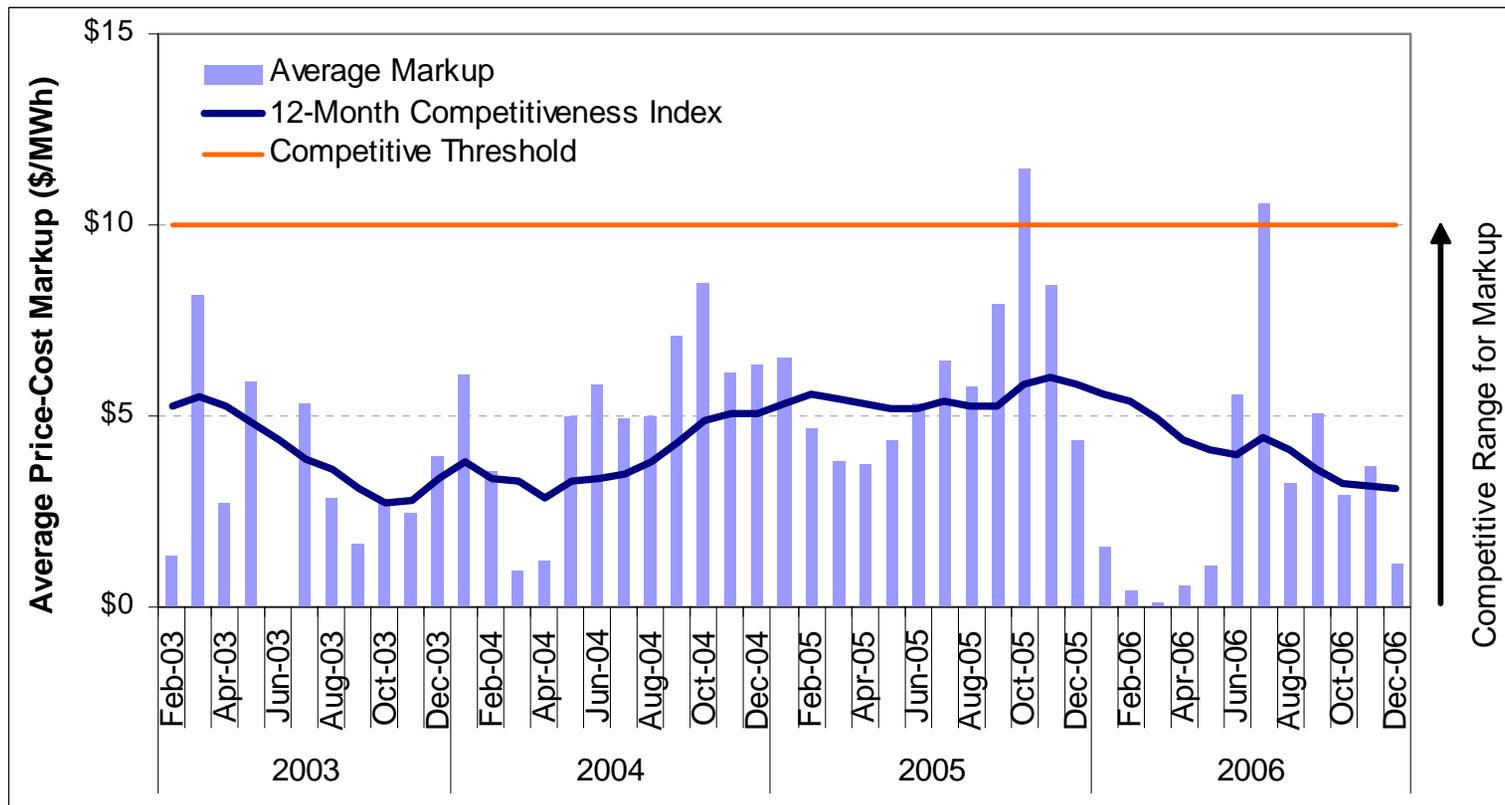
Review of Market Performance

- **Estimated total wholesale energy and A/S costs declined 16%.**
 - Forward energy costs declined 16%.
 - Real-Time and Reliability energy costs declined 24%.
- **When adjusted for changes in natural gas prices, 2006 costs were comparable to 2005.**



Review of Market Performance

■ 12-month Market Competitiveness Index



Generation and Load Growth

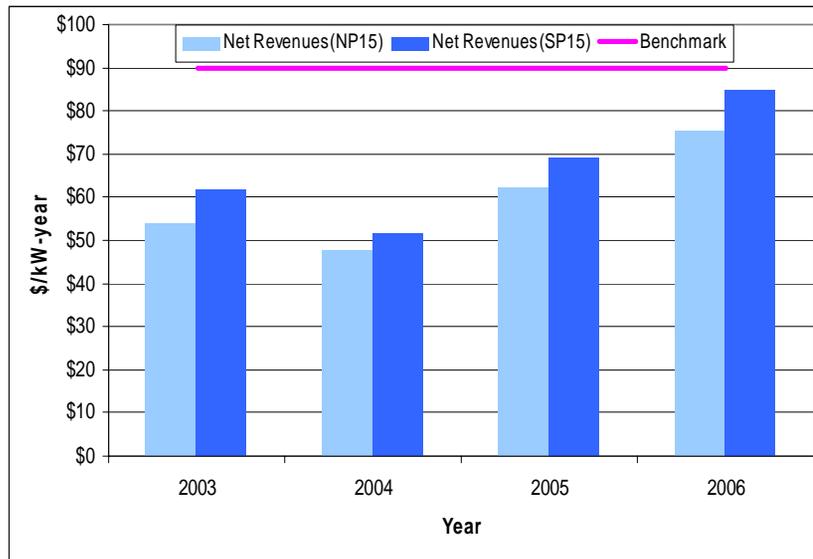
- In 2006, generation retirements exceeded additions for the first time since 2001 with a net decline in generation of roughly 900 MW.
- Projections for 2007 – no retirements and 1,500 MW of new capacity.
- For 2001 – 2007 cumulatively:
 - System net generation outpaced load growth by 4,100 MW (66%).
 - SP15 net generation is just keeping pace with load growth.

	2001	2002	2003	2004	2005	2006	Projected 2007	Total Through 2007
SP15								
New Generation	639	478	2,247	745	2,376	434	1,348	8,267
Retirements	0	(1,162)	(1,172)	(176)	(450)	(1,320)	0	(4,280)
Forecasted 2% Load Growth	148	500	510	521	531	542	553	3,305
Net Change	491	(1,184)	565	48	1,395	(1,428)	795	682
NP26								
New Generation	1,328	2,400	2,583	3	919	199	136	7,568
Retirements	(28)	(8)	(980)	(4)	0	(215)	0	(1,235)
Forecasted 2% Load Growth	389	397	405	413	422	430	439	2,895
Net Change	911	1,995	1,198	(414)	497	(446)	(303)	3,438
ISO System								
New Generation	1,967	2,878	4,830	748	3,295	633	1,484	15,835
Retirements	(28)	(1,170)	(2,152)	(180)	(450)	(1,535)	0	(5,515)
Forecasted 2% Load Growth	537	897	915	934	953	972	991	6,199
Net Change	1,402	811	1,763	(366)	1,892	(1,874)	493	4,121

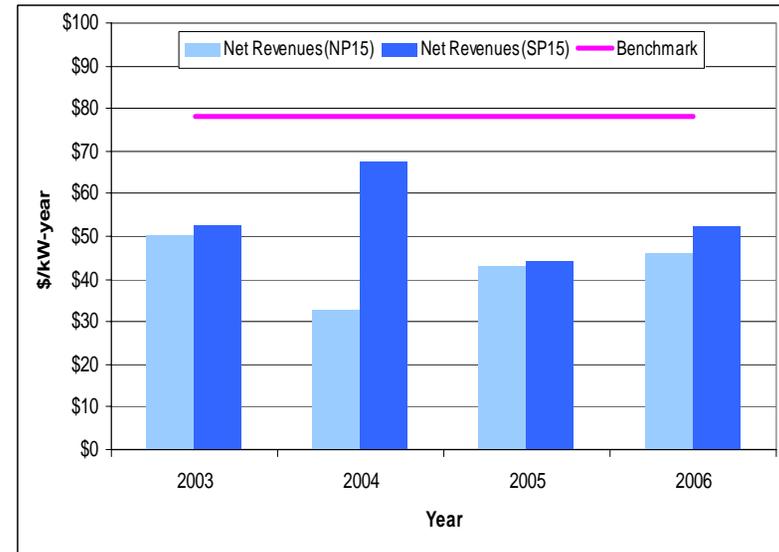
Revenue Adequacy

- Net revenue from spot market participation inadequate, but improving.

Combined Cycle



Combustion Turbine



- Must engage in longer-term contracting to cover fixed costs.
- Resource Adequacy revenues in 2006 will have supplemented spot market net revenues.
- Local requirements for RA in 2007 onward will provide additional contracting revenues.

Significant Market Events in 2006

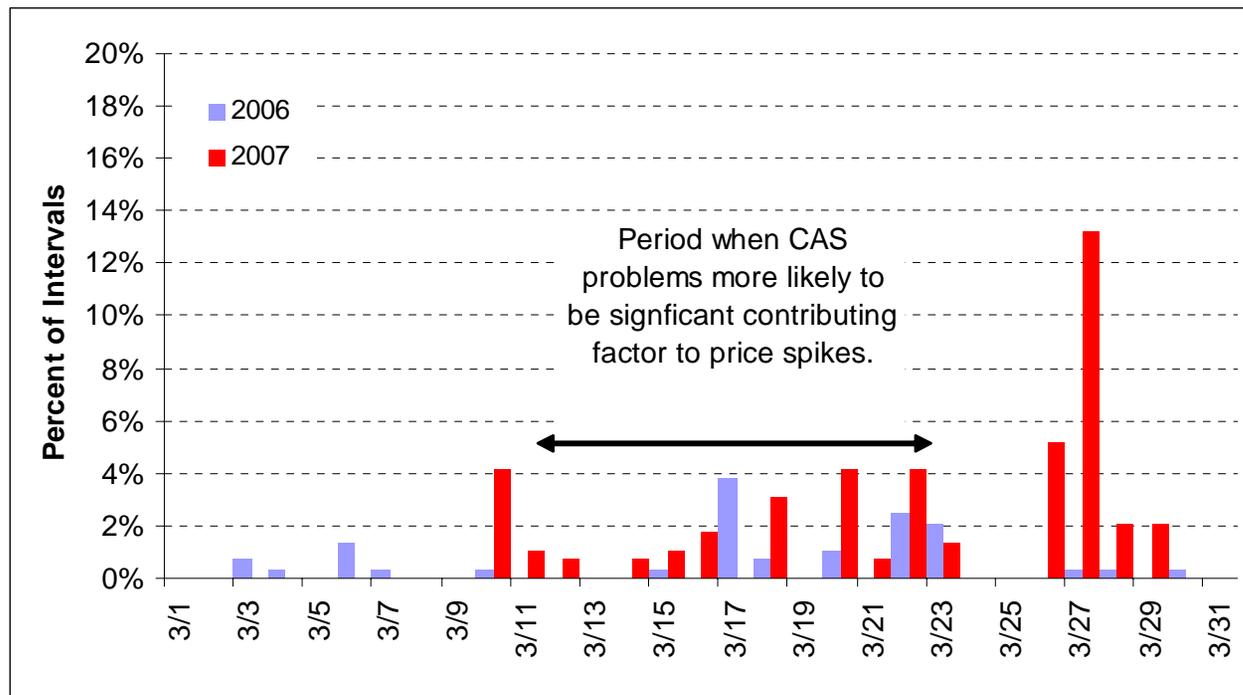
- **Spring Hydroelectric Production**
 - High degree of unscheduled flow - contributed to divergence between pre-dispatch prices and real time prices.
 - Higher frequency of bid insufficiency in Regulation markets.
 - Higher price volatility in Real Time energy and Ancillary Service markets.

- **CPUC Resource Adequacy program implemented in June.**

- **July Heat Wave**
 - Forced outage rate remarkably low.
 - Real Time Market prices well below day-ahead bilateral prices.
 - Ancillary Service prices followed day-ahead bilateral prices.
 - Ancillary Service markets experienced high frequency of bid insufficiency during the higher-load days.

March 2007 Market Software Issue

- Most likely impacted period is March 12 to March 23.
- Moderate increase in price spikes over this period.



- Several factors may contribute to spikes: software issue, unscheduled energy flows, transmission outages, declines and uninstructed deviation.
- Not possible to isolate impact of software issue on prices.