



# Market Update

Presentation to  
Market Surveillance Committee  
May 24, 2005

Douglas Bergman  
Market Monitor

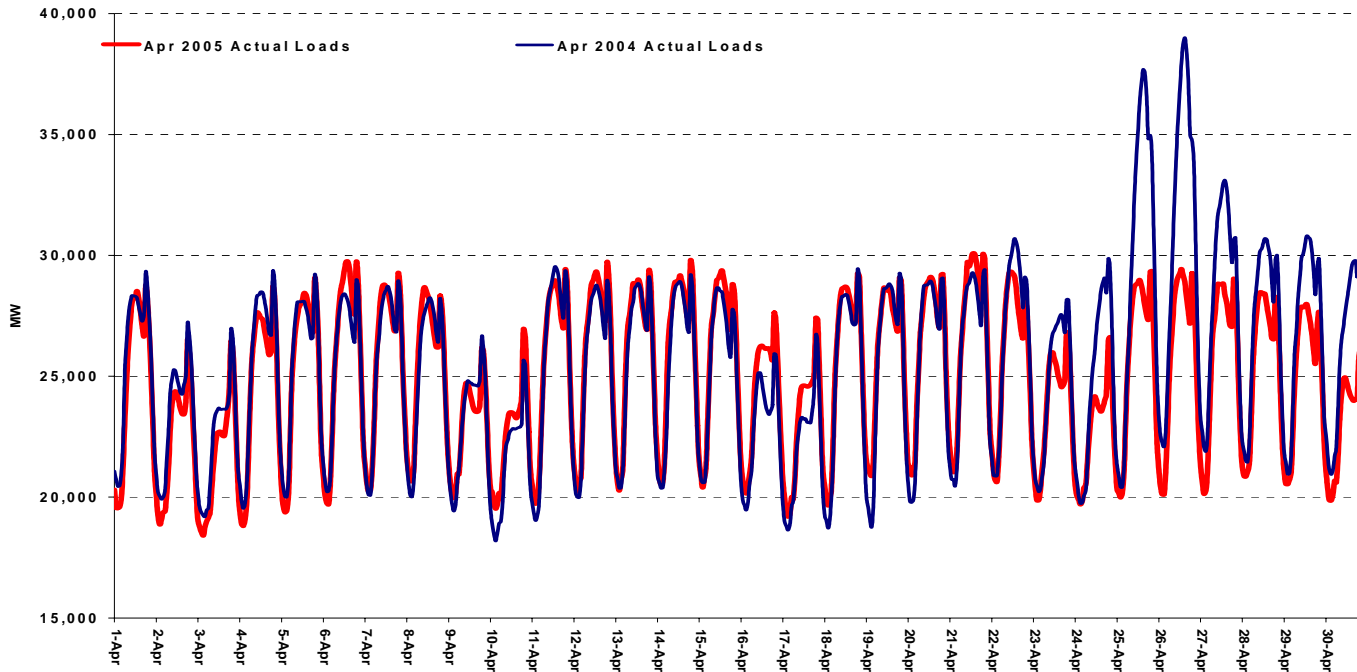


## ***Awash with Power***

- **Weak Demand**
  - Loads relatively low due to mild weather
- **Strong Supply**
  - Hydro runoff season; generate or spill
  - Thermals ramping during contract shoulder hours
  - Uninstructed energy
- **Results:**
  - Overgeneration, despite slight underscheduling
  - Real-time decrementation



**Moderate loads in April, averaging 24,892 MW.  
 April 1-22, 2005: Avg. was 0.4% below 2004 level.  
 Comparison of Loads: Apr-05 to Apr-04**



	2004	2005	Pct. Chg.
Peak Load (MW)	38,997	30,084	-22.9%
Avg. Energy (MW)	25,445	24,892	-2.2%



## ***Growth rate between 0 and 2 percent when excluding unseasonable 2004 spring heat wave***

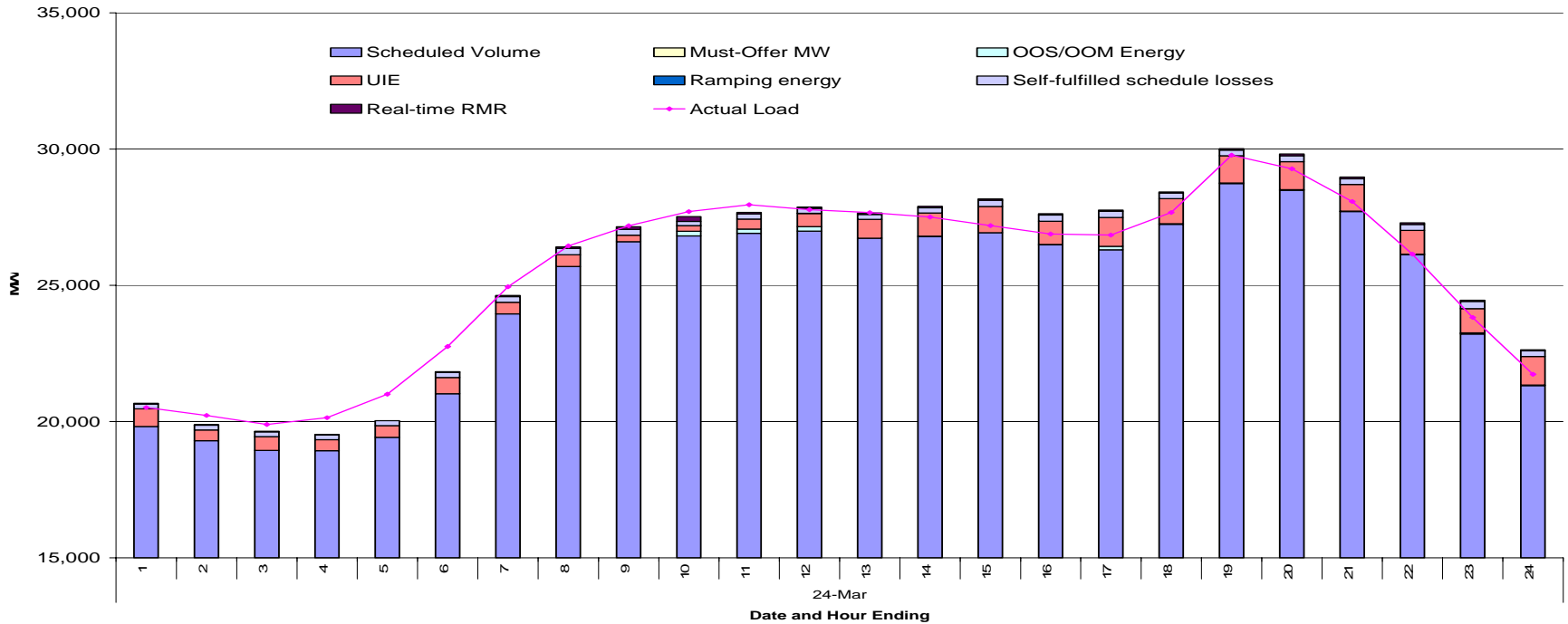
### ***Load Growth Rates Compared with Same Month Prior Year***

	<u>Avg. Hrly. Load</u>	<u>Avg. Daily Peak</u>	<u>Avg. Daily Trough</u>	<u>Monthly Peak</u>
May-04	7.3%	7.7%	5.5%	2.5%
June-04	6.6%	6.9%	6.1%	-4.7%
July-04	0.7%	0.3%	1.9%	4.0%
August-04	1.0%	0.6%	0.6%	5.2%
September-04	3.4%	3.5%	3.4%	10.1%
October-04	-1.4%	-2.8%	1.5%	-5.9%
November-04	4.2%	3.9%	3.9%	6.6%
December-04	4.4%	4.1%	6.5%	3.4%
January-05	1.8%	2.8%	1.2%	5.0%
February-05	1.5%	1.8%	2.2%	0.3%
March-05	-2.3%	-2.2%	-0.6%	-5.2%
April-05	-2.2%	-3.6%	-0.3%	-22.9%



**Uninstructed plus scheduled energy more than meets actual load;  
Real-time market has balanced overwhelmingly in the decremental direction**

## Actual load vs. non-RTMA generation: March 24, 2005

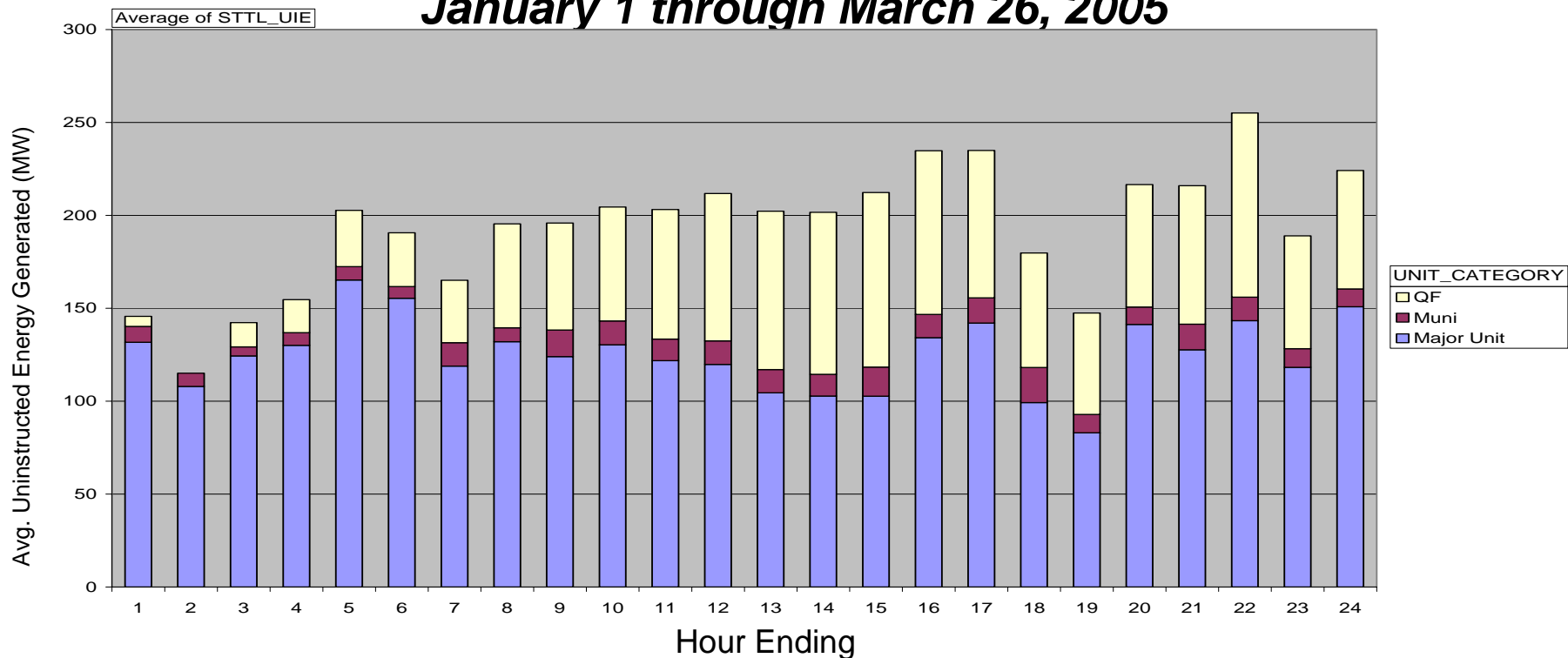


Uninstructed energy values are available on a 45-day lagged basis.



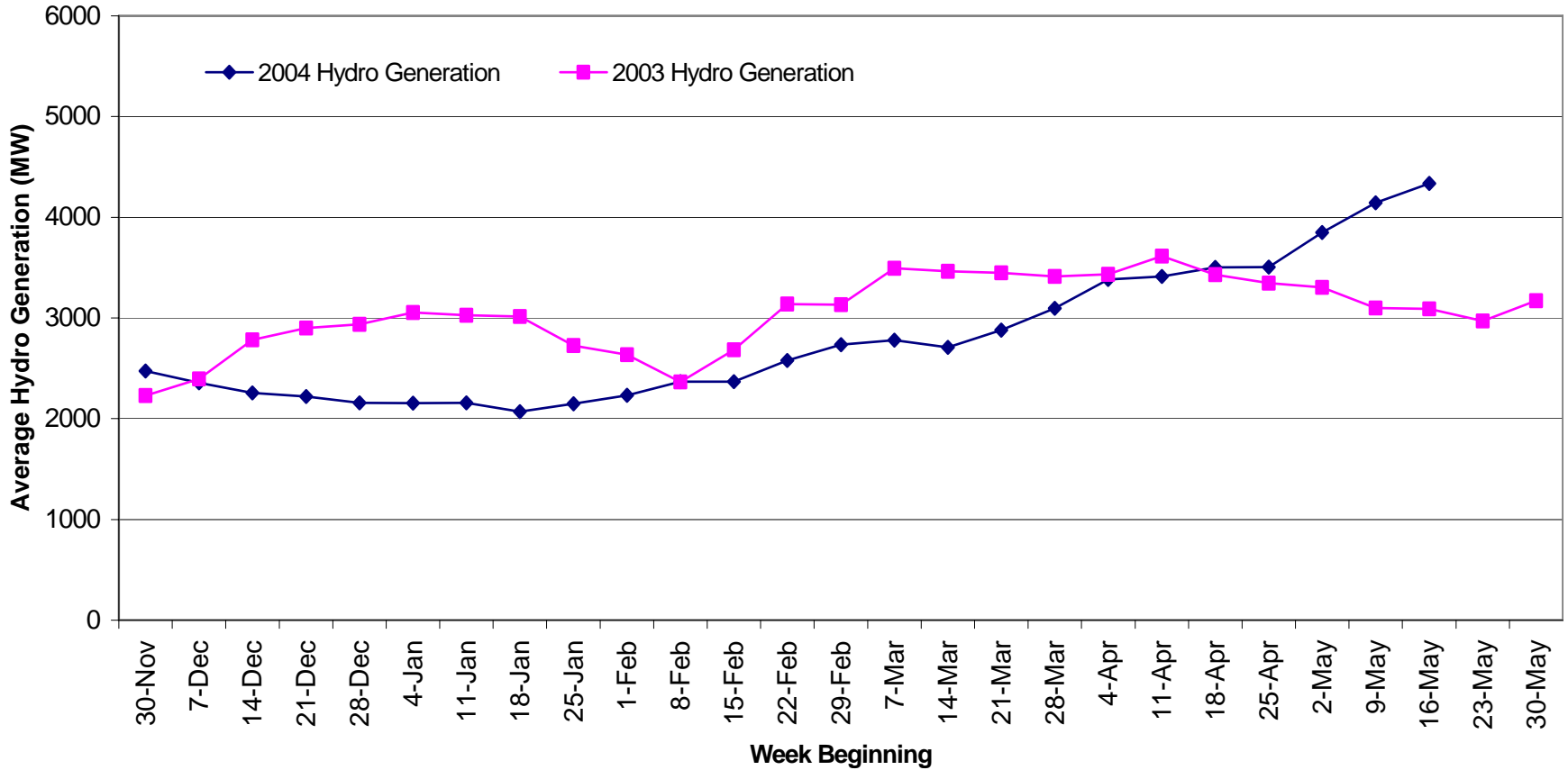
**Uninstructed deviations largely contributed by qualifying facilities (QF), unmodeled output of "Major" (merchant and utility-owned) units.**

## Settled Uninstructed Energy, by Ownership Type and Time of Day: January 1 through March 26, 2005





## ***Hydro season in full swing; many units must generate or spill*** **Approximate Weekly Average Hydro Generation within ISO Control Area: 2005 v. 2004 Hydro Seasons \***

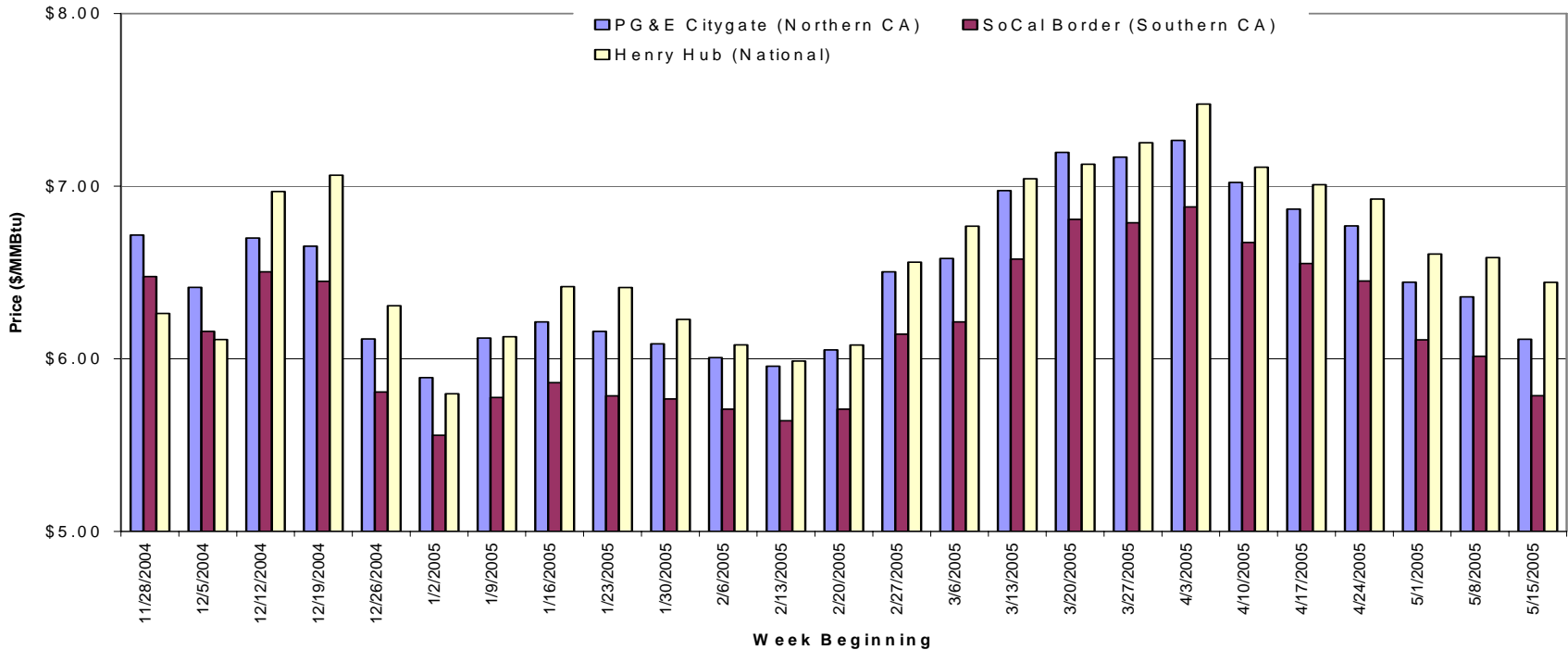


\* Through 5/17/05



**Natural gas prices have fallen to 2005 lows in May; High prices in early April despite strong storage conditions**

**Regional weekly-average natural gas prices through 5/17/05**

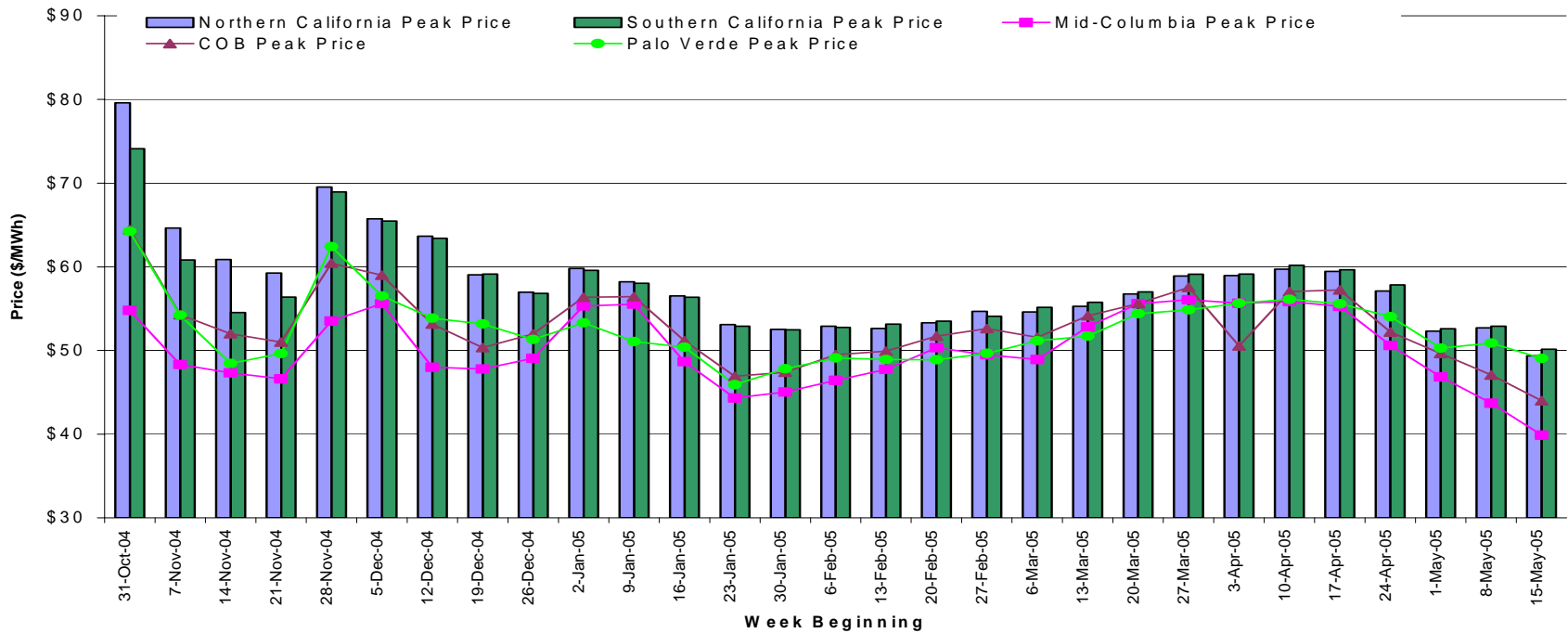






**Bilaterals follow gas trend in April, and even lower in May due to hydro-bolstered supply**

## Regional Day-Ahead Forward Electric Prices Weekly Averages through 5/17/05





## *Real-Time Prices*

- MCP often negative in April and May, frequently reaching  $-\$25/\text{MWh}$
- Rapid price swings, e.g. from  $-\$25$  to  $\$170/\text{MWh}$  in a single interval



## ***Prices below \$0: DEC insufficiency***

- Heavy decrementation during ramp periods (6-7 a.m., 7-8 p.m., 10-11 p.m.), especially morning ramp
  - Hydro runoff, UIE provide plenty of energy
  - Thermals ramp up to schedule, usually below minimum load; cannot be decremented
- Result: few units available for DEC



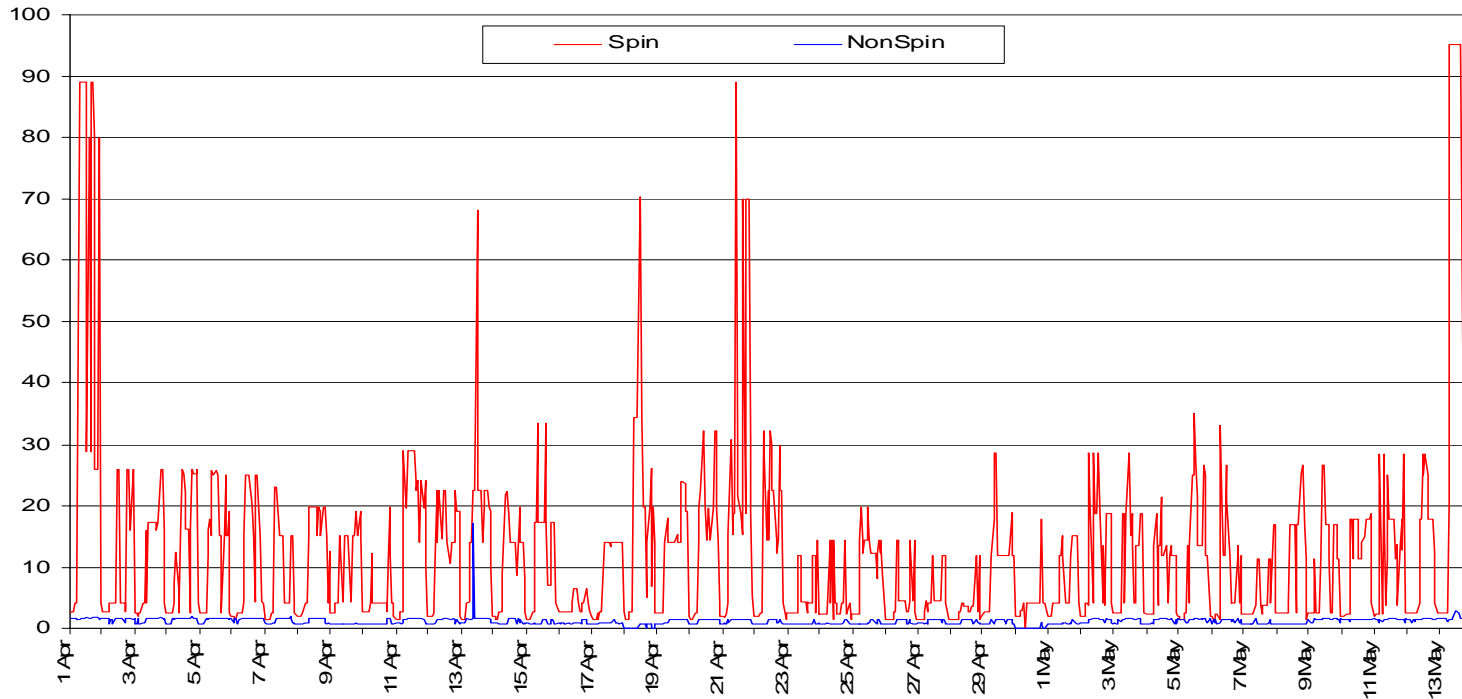
## *Prices below \$0*

- Some hydro bidding near zero for water management
- One unit bidding  $-\$25/\text{MWh}$  to avoid dispatch
  - Involves a manual process
- Rapid swings may result in high prices next interval
  - Load fluctuates due to weather and daylight; not well synchronized to hourly generation schedules



## *Hydro runoff steers units away from A/S provision and toward generation; A/S bid insufficiency and price spikes result*

### ***A/S Spin and Non-Spin Prices: 1-Apr through 15-May 2005***





**Must-Offer compensation payments continue to decline; few outages**

## Minimum-Load Cost Compensation: Monthly Totals through April 2005

