



**California ISO**

California Independent  
System Operator

# Market Performance Report

## For January 2006

Market Surveillance Committee  
February 27, 2006

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Director of Market Services



## Market Review

- January weather was generally mild. Loads were light in the first two weeks of the month, and further reduced by loss of load due to storms and flooding.
- New soft price cap of \$400 for real time imbalance energy effective January 14, 2006.
- Price exceeded the previous soft cap of \$250 in 24 of the total 5184 intervals or 0.46% from inception of new cap through January 31st.
- Real Time balancing energy market strongly decremental through January. Average in-sequence energy price declined sharply to \$45.77 from December's average of \$75.76
- Total decremental volume "increased" to -577.7 GWh from December's -438.8 GWh



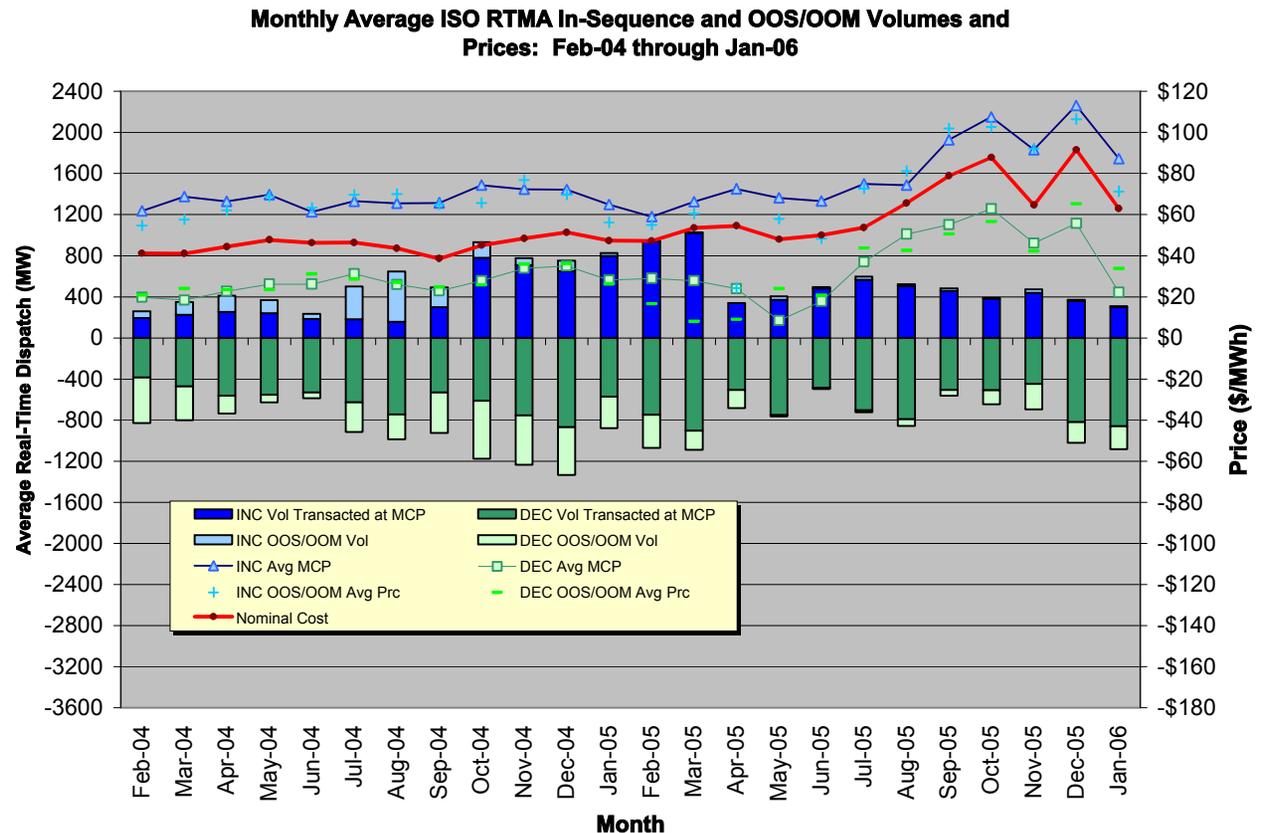
## Monthly Real Time Market Volumes and Prices

	<b>In-Seq. RT Dispatch</b>	<b>OOS/OOM Dispatch</b>	<b>Total Dispatch</b>
<b>PEAK</b>	\$ 45.77 /MWh (226.8) GWh	\$ 35.47 /MWh (142.8) GWh	\$ 43.46 /MWh (369.6) GWh
<b>OFFPEAK</b>	\$ 28.72 /MWh (190.9) GWh	\$ 33.34 /MWh (17.2) GWh	\$ 29.01 /MWh (208.1) GWh
<b>ALL</b>	\$ 38.92 /MWh (417.7) GWh	\$ 35.17 /MWh (160.0) GWh	\$ 38.30 /MWh (577.7) GWh



## Market Volume and Price

- Market volume increasingly decremental
- Average prices remain in line with gas costs
- Decremental prices declined somewhat relative to gas cost
- Increased decremental volume driving dec prices down.





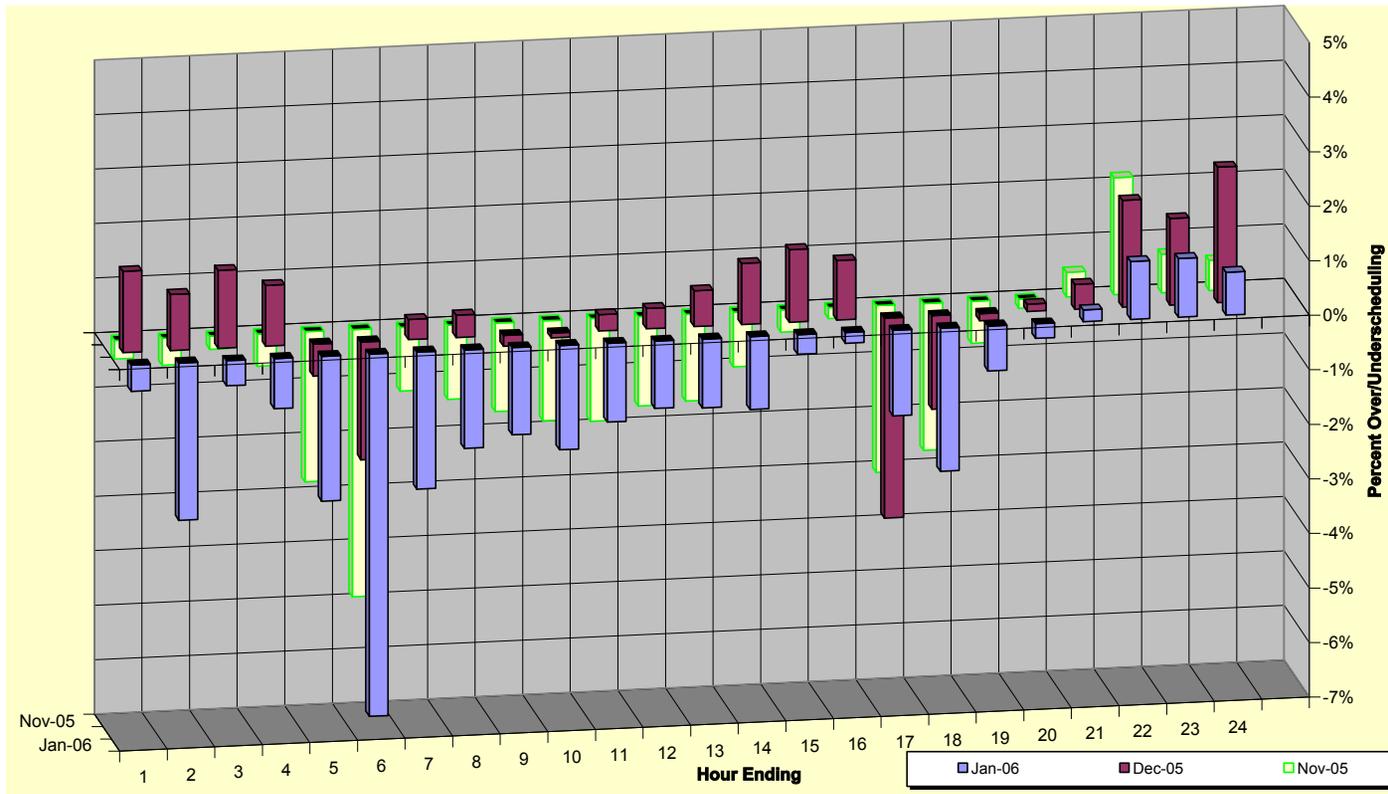
## Over- and Under-Scheduling

- Load schedules ran increasingly short of actual load as compared to previous months. Expected result would be larger incremental real time dispatch.
- Actual real time dispatch is strongly decremental over most intervals.
- Uninstructed energy appears to be pushing market toward decremental side.
- Investigation of the accuracy of RTMA required dispatch calculation is ongoing



## Over- and Under-Scheduling

Scheduling Deviations: Three-month Comparison  
Hourly Profiles: November 05 through January 06





## Prices Exceeding \$250

- Prices over \$250 in 21 dispatch intervals, equal to \$250 in 3 intervals. Total number of intervals is 5184 from 1/14/06 through 1/31/06.
- Most instances short, tend to cluster around hour-to-hour ramping intervals and times of rapid load change.
- More extended occurrences on 1/24/06 and 1/31/06 involved increases in real time dispatch of over 3000 MW during the hour.
- January 26 event likely due to loss of real time load data due to ICCP (EMS) failure from LSE at that time.



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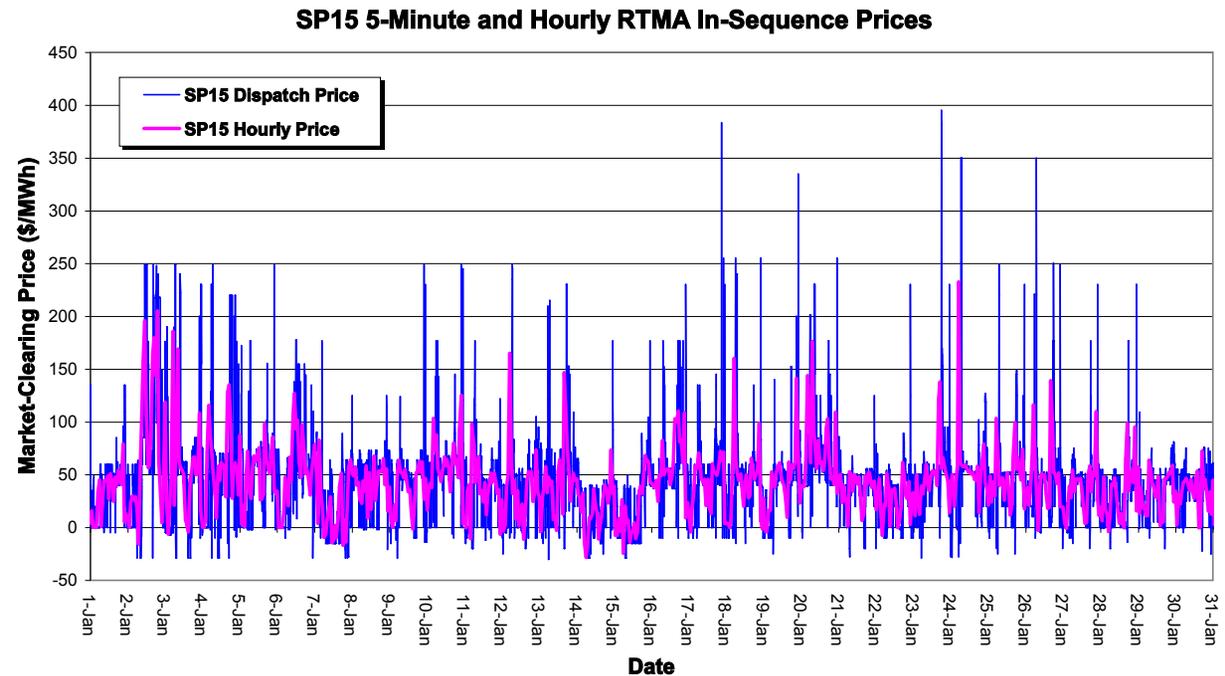
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System Conditions for Intervals Priced Above \$250								
Date	Hour	Interval	5-minute Change in Dispatch	Hourly Change in Dispatch	5-minute Price	Hourly Price	5-minute Total MW	System Total MW
1/17/2006	22	1	1329.24	1755.96	\$383.25	\$72.28	688.08	28939.04
1/17/2006	23	1	767.16	1887.36	\$255.00	\$63.20	371.64	26861.11
1/18/2006	6	11	462.00	1878.48	\$255.00	\$63.77	209.64	23669.23
1/18/2006	23	1	1004.40	1592.88	\$255.00	\$98.55	753.36	26955.03
1/19/2006	23	1	774.72	1263.48	\$335.00	\$141.08	1429.08	27400.89
1/20/2006	24	1	704.40	1061.04	\$255.00	\$109.10	230.52	25125.64
1/23/2006	18	10	1252.08	3961.32	\$395.00	\$121.43	178.92	31143.63
1/23/2006	18	12	72.60	3961.32	\$384.30	\$121.43	198.20	31413.6
1/24/2006	7	6	764.76	3447.12	\$350.00	\$232.67	211.56	25693.66
1/24/2006	7	7	384.48	3447.12	\$350.00	\$232.67	596.04	25971.09
1/24/2006	7	8	195.12	3447.12	\$350.00	\$232.67	791.16	26377.58
1/24/2006	7	9	250.32	3447.12	\$350.00	\$232.67	1041.48	26587.81
1/24/2006	7	10	271.68	3447.12	\$350.00	\$232.67	1313.16	26706.12
1/24/2006	7	11	120.84	3447.12	\$350.00	\$232.67	1434.00	26763.13
1/24/2006	7	12	-281.64	3447.12	\$350.00	\$232.67	1152.36	26867.31
1/26/2006	7	10	259.20	3447.12	\$350.00	\$115.81	450.24	26507.39
1/26/2006	18	9	310.08	2796.00	\$250.00	\$139.39	689.04	30854.95
1/26/2006	18	10	233.04	2796.00	\$250.00	\$139.39	922.08	31113.19
1/26/2006	18	11	191.28	2796.00	\$250.00	\$139.39	1113.36	31176.24
1/31/2006	7	7	410.52	3162.60	\$400.00	\$240.07	-452.40	25746.26
1/31/2006	7	9	321.48	3162.60	\$400.00	\$240.07	180.96	26336.7
1/31/2006	7	10	352.32	3162.60	\$400.00	\$240.07	533.28	26511.46
1/31/2006	7	11	249.48	3162.60	\$400.00	\$240.07	782.76	26610.94
1/31/2006	7	12	83.76	3162.60	\$400.00	\$240.07	866.52	26710.23



## Real Time Balancing Energy Prices

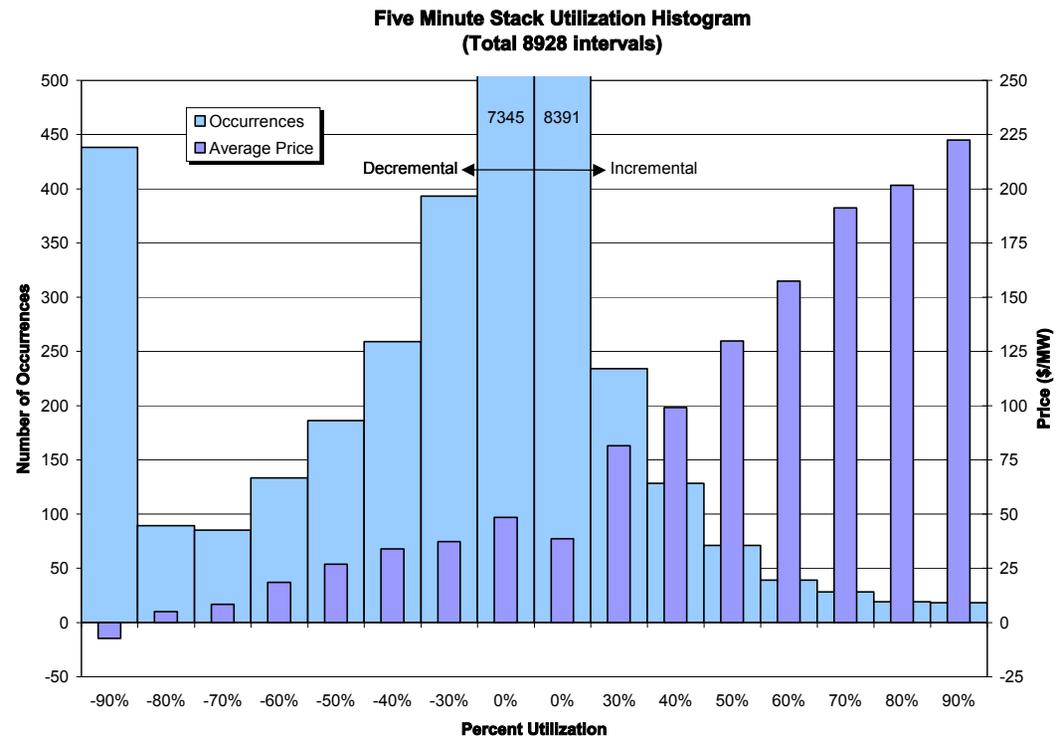
- Price events are evident.
- Pink price is hourly weighted average of five-minute prices.
- Hourly prices are significant since load deviations are settled at hourly prices.





## Five minute capacity utilization

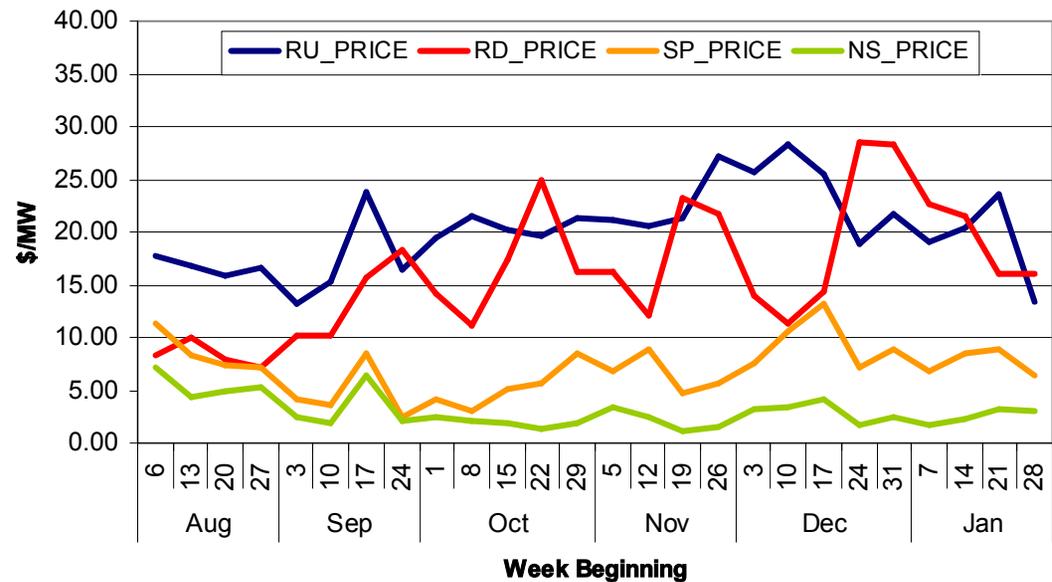
- Decremental stack utilization was below 30% in 7345 intervals
- Incremental stack utilization was below 30% in 8391 intervals
- Relatively large incidence of decremental capacity shortage (438 intervals over 90%)
- Only 18 intervals of incremental stack utilization over 90%





## Ancillary Services Markets

- Ancillary services cost to load decreased by 10 cents to \$0.91 per MWh from December's \$1.01. All incremental service prices fell, Regulation Down price rose.
- Increased capacity shortage over December in Regulation Up and Regulation Down, due to water management issues and local congestion





## MLCC, Congestion and OOS

- Must-Offer procurement primarily motivated by South of Lugo mitigation (57%) and Southern California Import Transmission (SCIT) (38%).
- OOS Incremental dispatch primarily to address Victorville-Lugo constraints (78% of costs)
- Decremental OOS distributed among various issues.
- Congestion costs primarily related to Eldorado and Palo Verde Maintenance.



## Market Services Initiatives

- Continue close monitoring of price behavior
- Monitor Ancillary Service market behavior following February price cap adjustment
- Investigate recent diminution of regulation capacity bids with respect to maintenance and transmission issues
- Implemented new market reporting of daily and monthly market performance