

Market Performance Report for January 2008



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Manager, Market Information



California ISO
Your Link to Power

Board of Governors
General Session
March 26 - 27, 2008

Market Highlights

The full Market Performance Report is available at <http://www.caiso.com/179d/179ddbce22760.html>

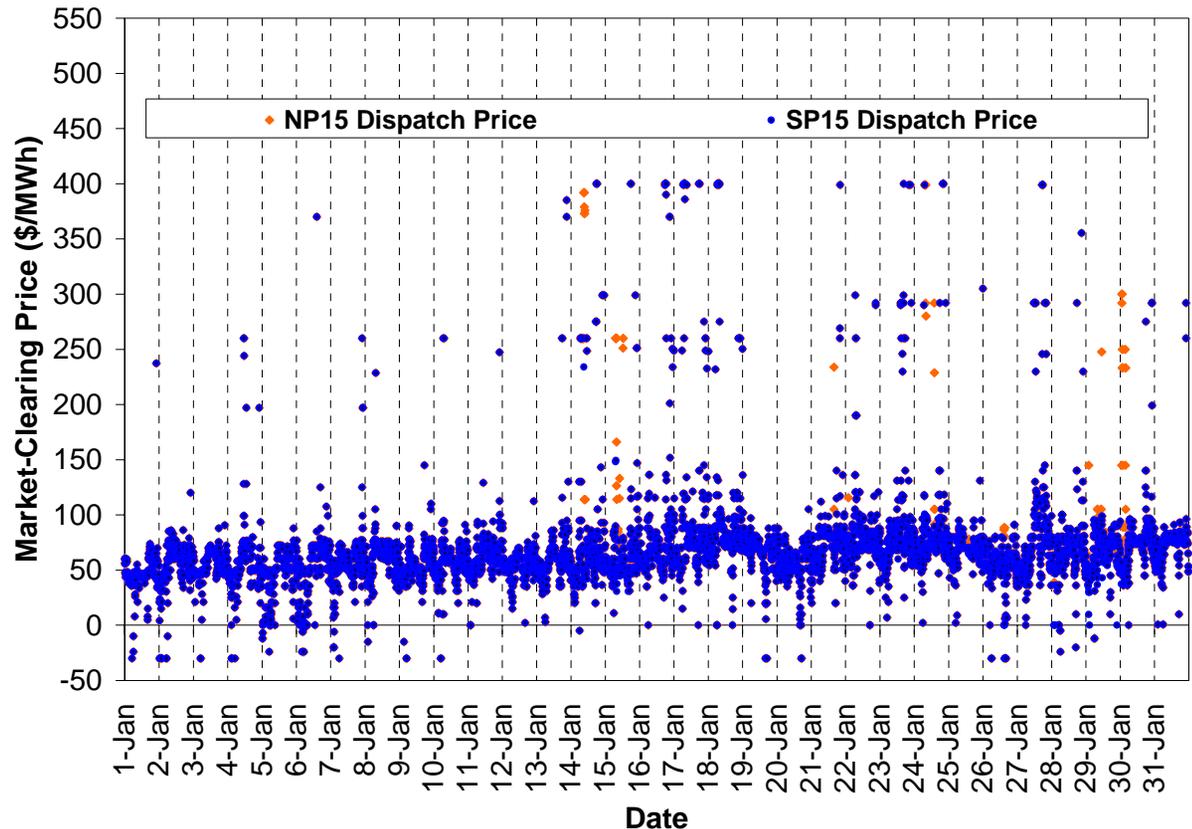
- 🌐 January was generally a quiet month
- 🌐 The Balancing Energy Market saw a significant increased number of price spikes
- 🌐 The Inter-zonal Congestion costs decreased sharply to \$6.1 million from December's \$12.6 million

Monthly Market Performance Metrics through January 2008

Monthly Metrics	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Avg
Average Gas Price	\$7.26	\$6.53	\$7.19	\$7.27	\$6.89	\$6.14	\$5.93	\$5.73	\$6.80	\$7.05	\$7.00	\$7.78	\$6.80
Average On-Peak Contract Price	\$64.25	\$54.90	\$64.78	\$75.04	\$68.47	\$71.76	\$71.40	\$59.64	\$71.89	\$64.21	\$70.41	\$76.90	\$67.80
Average Real-Time Price	\$51.25	\$41.75	\$50.24	\$59.14	\$54.85	\$55.84	\$62.44	\$47.22	\$56.59	\$56.95	\$62.84	\$70.64	\$55.81
No. of Price Spikes Over \$250	50	131	203	101	77	79	167	10	93	72	122	192	108
Costs Incurred over \$250 (percent)	13%	24%	33%	22%	18%	14%	24%	3%	27%	16%	29%	28%	21%
AS Cost (\$ per MWh)	\$0.41	\$0.58	\$0.38	\$0.74	\$0.59	\$1.16	\$0.78	\$0.58	\$0.47	\$0.56	0.5	0.45	\$0.60
RA Unit Commitment Costs (\$M)	\$1.6	\$1.3	\$2.1	\$1.9	\$3.4	\$4.8	\$3.2	\$2.9	\$4.3	\$5.0	\$5.0	\$7.0	\$3.5
FERC Unit Commitment Costs (\$M)	\$0.3	\$0.7	\$0.1	\$0.0	\$1.4	\$1.4	\$1.4	\$0.8	\$3.8	\$0.6	\$0.1	\$0.0	\$0.9
Inc OOS Redispatch Costs (\$M)	\$1.6	\$1.1	\$1.7	\$1.5	\$1.2	\$2.1	\$1.2	\$1.2	\$4.5	\$2.0	\$3.1	\$3.4	\$2.1
Dec OOS Redispatch Costs (\$M)	\$0.3	\$0.4	\$0.3	\$0.7	\$0.3	\$0.4	\$0.5	\$0.3	\$2.5	\$2.5	\$1.2	\$2.3	\$1.0
Total Interzonal Congestion (\$M)	\$1.8	\$8.1	\$5.0	\$12.5	\$4.5	\$4.2	\$3.1	\$4.3	\$12.9	\$10.3	\$12.3	\$6.1	\$7.1

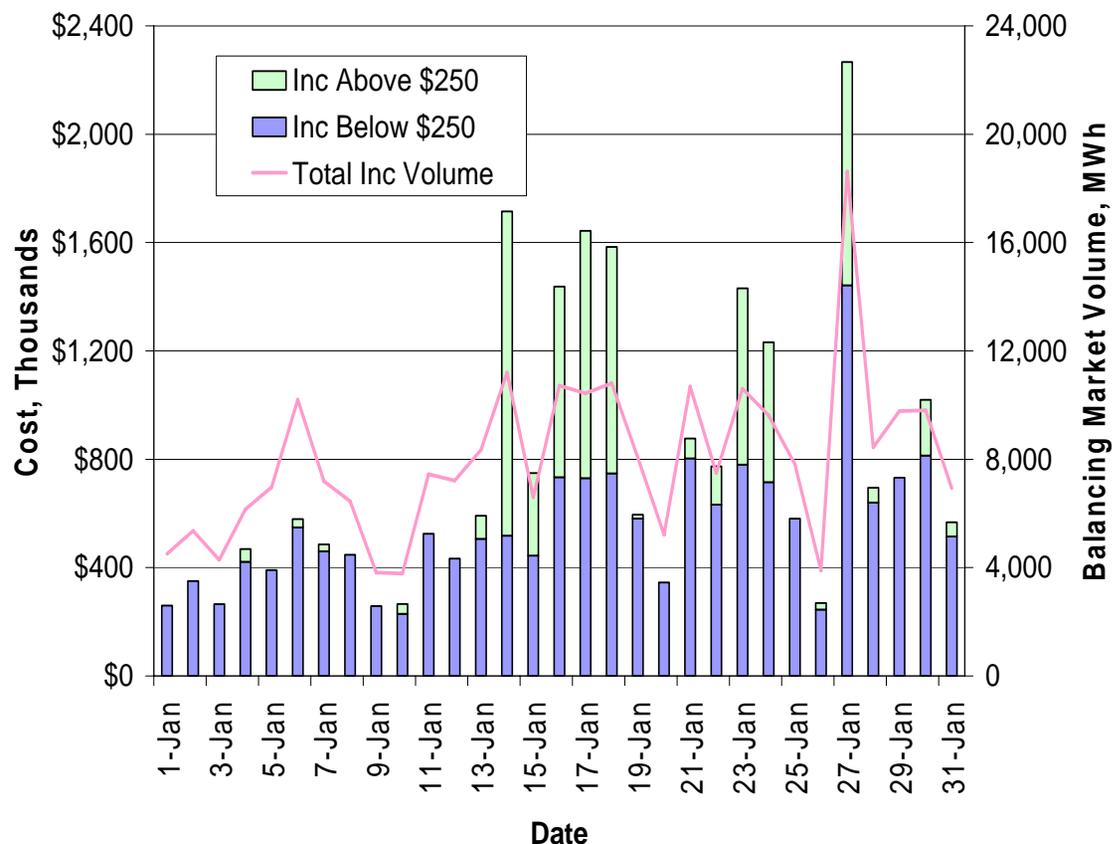
Real Time Balancing Energy Prices

- There were 192 intervals of prices over \$250, an increase over December's 122 intervals
- A significant number of price spikes occurred during the second half of the month, and were driven by planned and unplanned system events



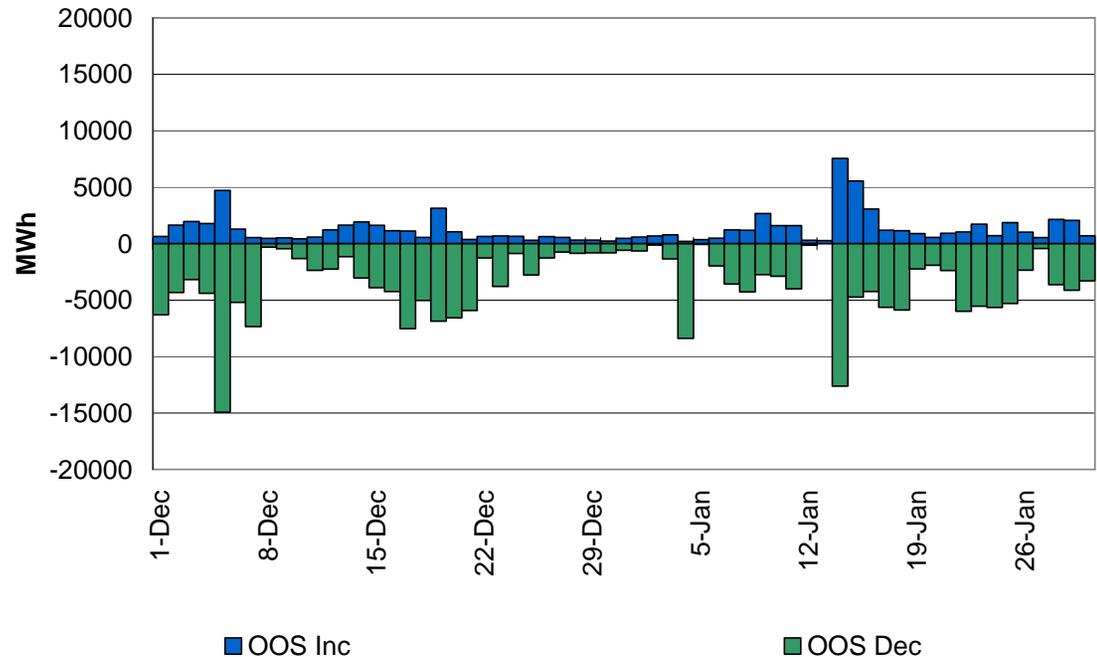
Cost of Balancing Energy

28 percent of all incremental energy expenditures were incurred at prices greater than \$250, slightly down from 29 percent in December



Cost of Out of Sequence Energy

- Incremental dispatch volumes increased by 38 percent in January driven primarily by intrazonal congestion in the Humboldt area
- Decremental dispatch costs of \$2.3 million were mostly driven by congestion at Imperial Valley transformer banks

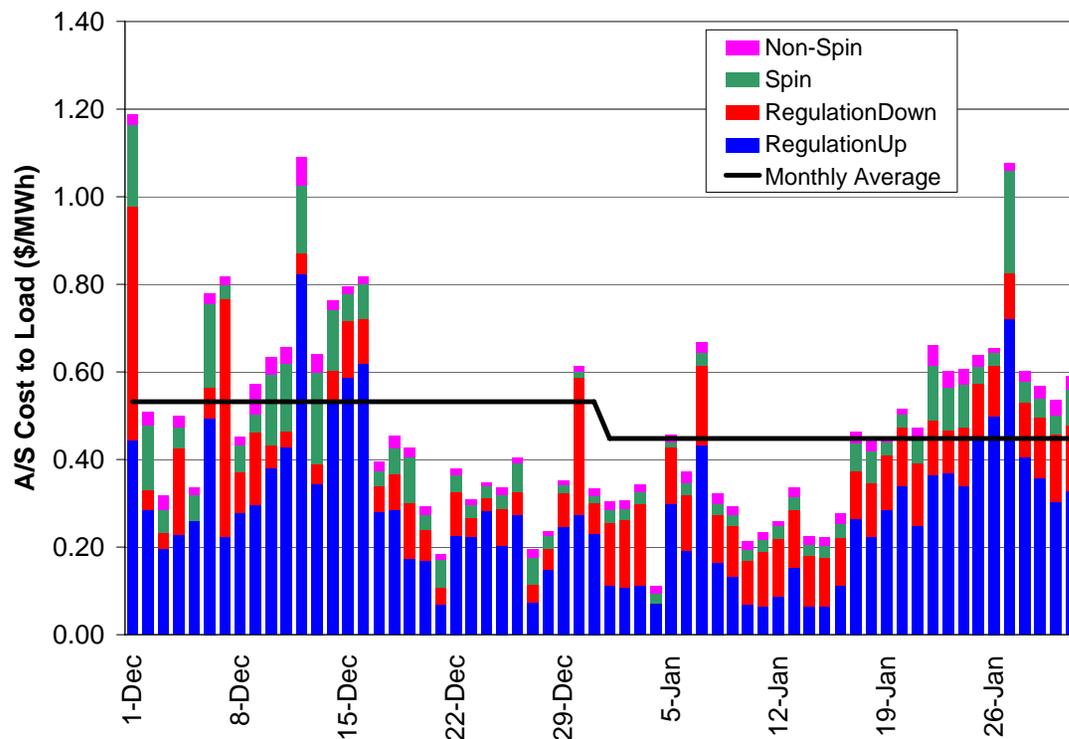


Daily OOS MWh – December 2007 and January 2008

Ancillary Services Markets

Weighted average prices declined in January for all services except Reg Down, where there was a sharp decline in under-\$5 bids.

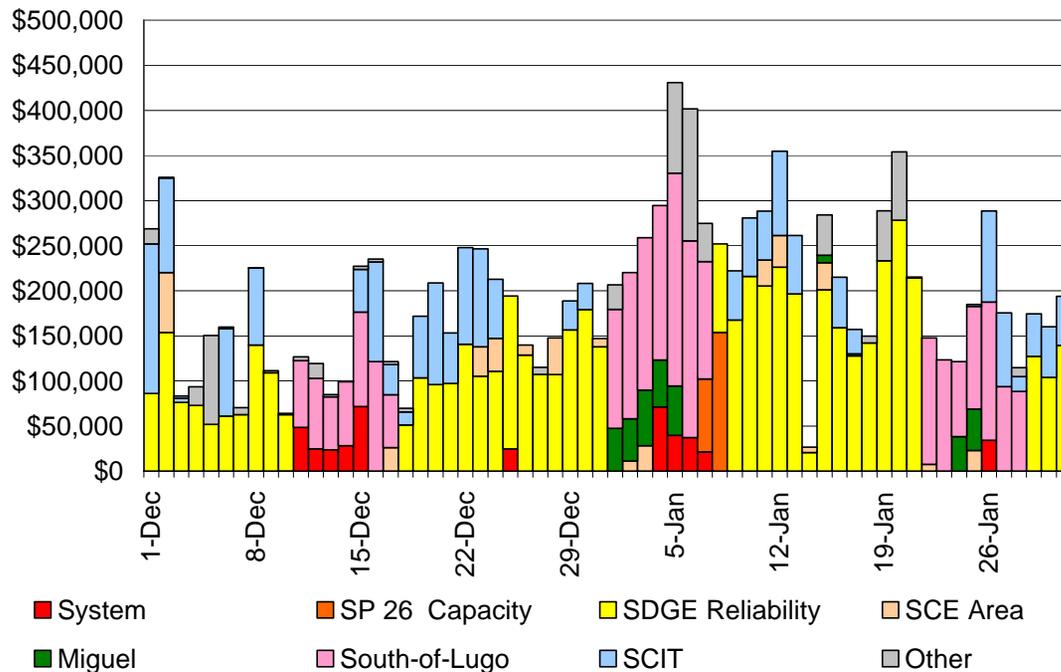
The monthly average cost-to-load of Ancillary Services decreased to \$0.45/MWh in January from December's \$0.53/MWh



	Average Required (MW)				Weighted Average Price (\$/MW)			
	RU	RD	SP	NS	RU	RD	SP	NS
Dec 07	393	360	843	806	\$ 20.67	\$ 8.18	\$ 2.45	\$ 0.79
Jan 08	373	356	884	824	\$ 17.57	\$ 9.65	\$ 1.46	\$ 0.74
	-5.0%	-1.1%	4.9%	2.3%	-15.0%	17.9%	-40.4%	-6.1%

Unit Commitment Costs

- Total costs climbed to \$7 million in January from \$5.1 million in December
- Less than \$100,000 of FERC MOO
- RA due to SDGE Reliability (40%) and South-of-Lugo (30%)

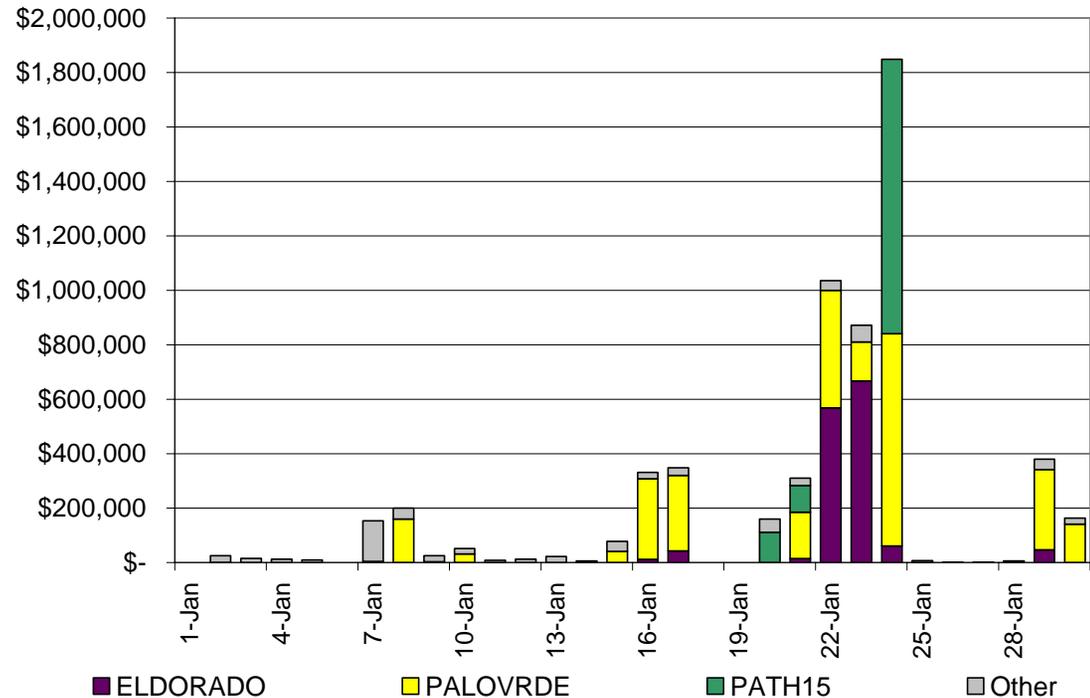


**Resource Adequacy Commitment Costs
– December 2007 and January 2008**

Inter-zonal Congestion Costs

Decreased sharply to \$6.1 million in January 2008 from \$12.5 million in December 2007

Between January 22 and January 24 Palo Verde and El Dorado branch groups were derated for scheduled maintenance



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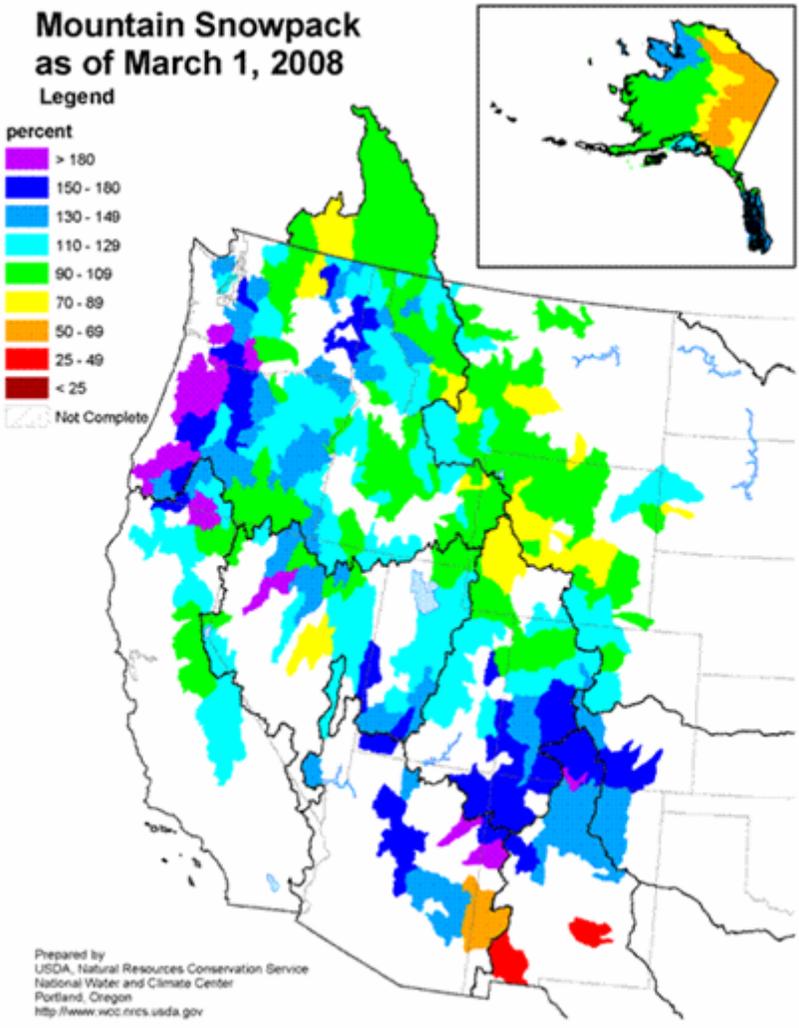
- 🌐 February was a quiet month
- 🌐 Weighted average prices increased for all Ancillary Services except Non-Spin, which remained unchanged
- 🌐 The Inter-zonal Congestion costs decreased sharply to \$1.9 million from \$6.1 million in January

Monthly Market Performance Metrics through February 2008

Monthly Metrics	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Avg
Average Gas Price	\$6.53	\$7.19	\$7.27	\$6.89	\$6.14	\$5.93	\$5.73	\$6.80	\$7.05	\$7.00	\$7.78	\$8.31	\$6.88
Average On-Peak Contract Price	\$54.90	\$64.78	\$75.04	\$68.47	\$71.76	\$71.40	\$59.64	\$71.89	\$64.21	\$70.41	\$76.90	\$77.52	\$68.91
Average Real-Time Price	\$41.75	\$50.24	\$59.14	\$54.85	\$55.84	\$62.44	\$47.22	\$56.59	\$56.95	\$62.84	\$70.64	\$66.07	\$57.05
No. of Price Spikes Over \$250	131	203	101	77	79	167	10	93	72	122	192	192	120
Costs Incurred over \$250 (percent)	24%	33%	22%	18%	14%	24%	3%	27%	16%	29%	28%	26%	22%
AS Cost (\$ per MWh)	\$0.58	\$0.38	\$0.74	\$0.59	\$1.16	\$0.78	\$0.58	\$0.47	\$0.56	0.5	0.45	0.63	\$0.62
RA Unit Commitment Costs (\$M)	\$1.3	\$2.1	\$1.9	\$3.4	\$4.8	\$3.2	\$2.9	\$4.3	\$5.0	\$5.0	\$7.0	\$4.0	\$3.7
FERC Unit Commitment Costs (\$M)	\$0.7	\$0.1	\$0.0	\$1.4	\$1.4	\$1.4	\$0.8	\$3.8	\$0.6	\$0.1	\$0.0	\$0.0	\$0.9
Inc OOS Redispatch Costs (\$M)	\$1.1	\$1.7	\$1.5	\$1.2	\$2.1	\$1.2	\$1.2	\$4.5	\$2.0	\$3.1	\$3.4	\$3.0	\$2.2
Dec OOS Redispatch Costs (\$M)	\$0.4	\$0.3	\$0.7	\$0.3	\$0.4	\$0.5	\$0.3	\$2.5	\$2.5	\$1.2	\$2.3	\$2.5	\$1.2
Total Interzonal Congestion (\$M)	\$8.1	\$5.0	\$12.5	\$4.5	\$4.2	\$3.1	\$4.3	\$12.9	\$10.3	\$12.3	\$6.1	\$1.9	\$7.1

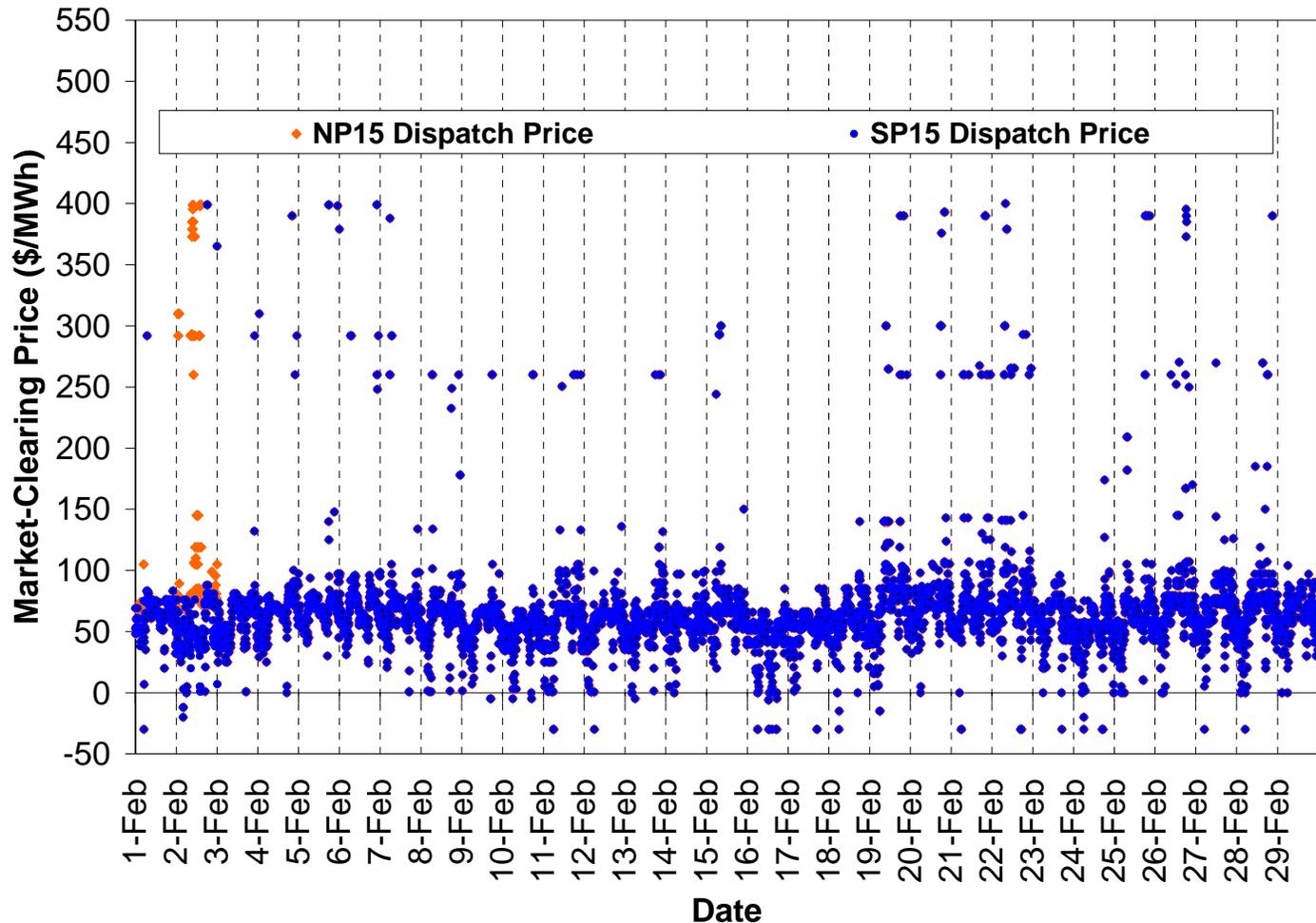
Western Snowpack 2008

- ❶ Snow pack levels are above average
- ❷ Less pressure on Gas prices



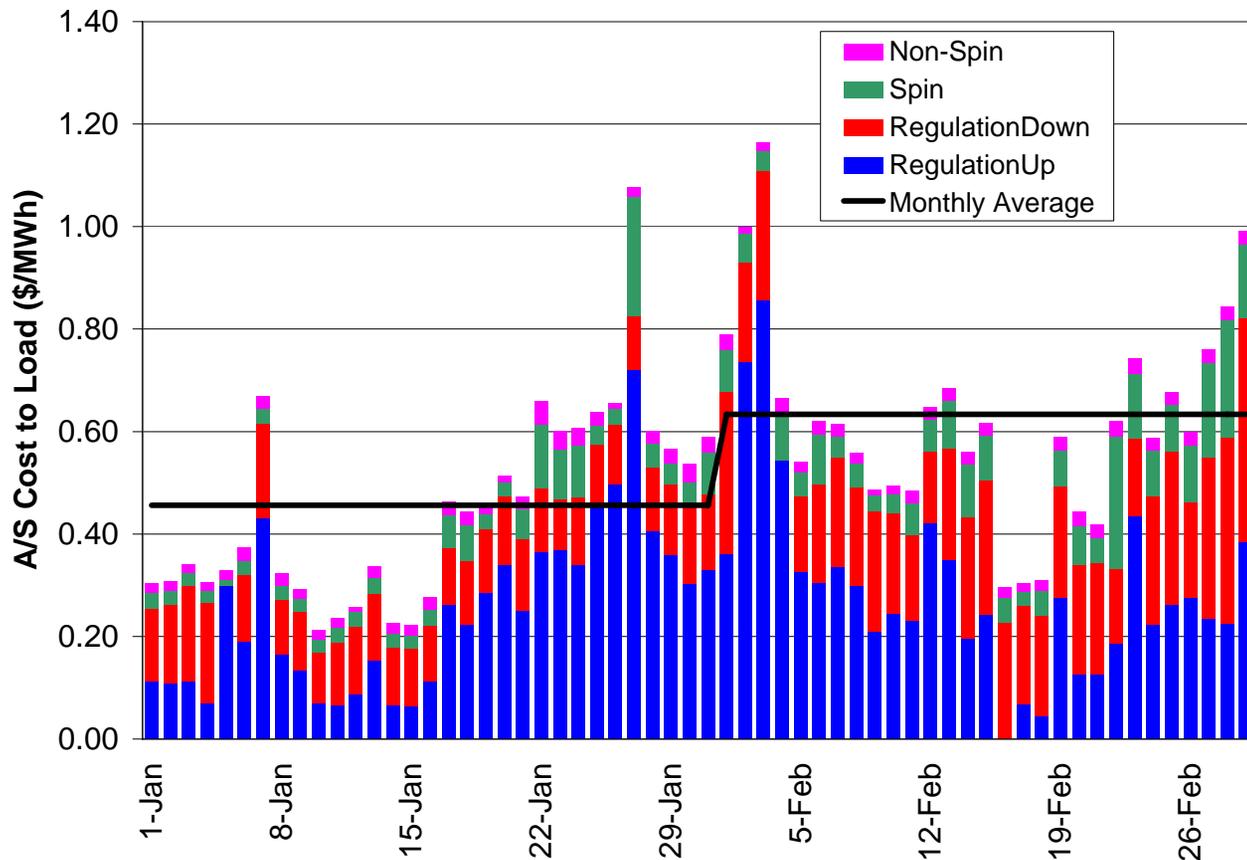
Real Time Balancing Energy Prices

192 intervals of prices over \$250, unchanged from January's 192 intervals



Ancillary Services Markets

Weighted average prices increased for all services except Non-Spin which remained unchanged



	Average Required (MW)				Weighted Average Price (\$/MW)			
	RU	RD	SP	NS	RU	RD	SP	NS
Jan 08	373	356	884	824	\$ 17.57	\$ 9.65	\$ 1.46	\$ 0.74
Feb 08	373	357	801	808	\$ 19.99	\$ 16.09	\$ 2.78	\$ 0.74
	0.0%	0.2%	-9.4%	-1.9%	13.8%	66.8%	90.7%	0.0%

Inter-zonal Congestion Costs

 Total inter-zonal congestion costs decreased sharply to \$1.9 million in February from \$6.1 million in January

Daily Total Inter-Zonal Congestion Costs

