

Market Performance Report for March 2007



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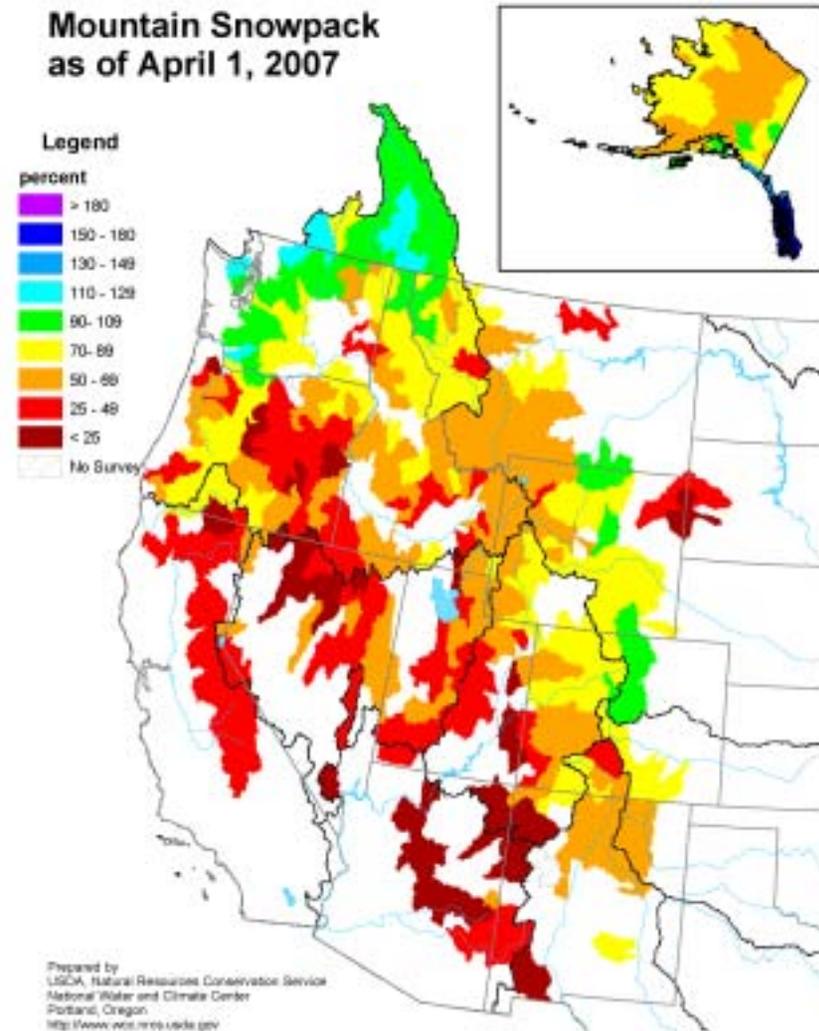
Board of Governors
General Session
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Market Highlights

- 🌐 West Coast snowpack was well below normal
- 🌐 On average, real-time dispatch prices were more volatile this March than usual.
- 🌐 Average total cost of Ancillary Services increased to \$0.58 in March from \$0.41 in February
- 🌐 Total inter-zonal congestion costs increased sharply to \$8.1 million in March from \$1.83 million in February

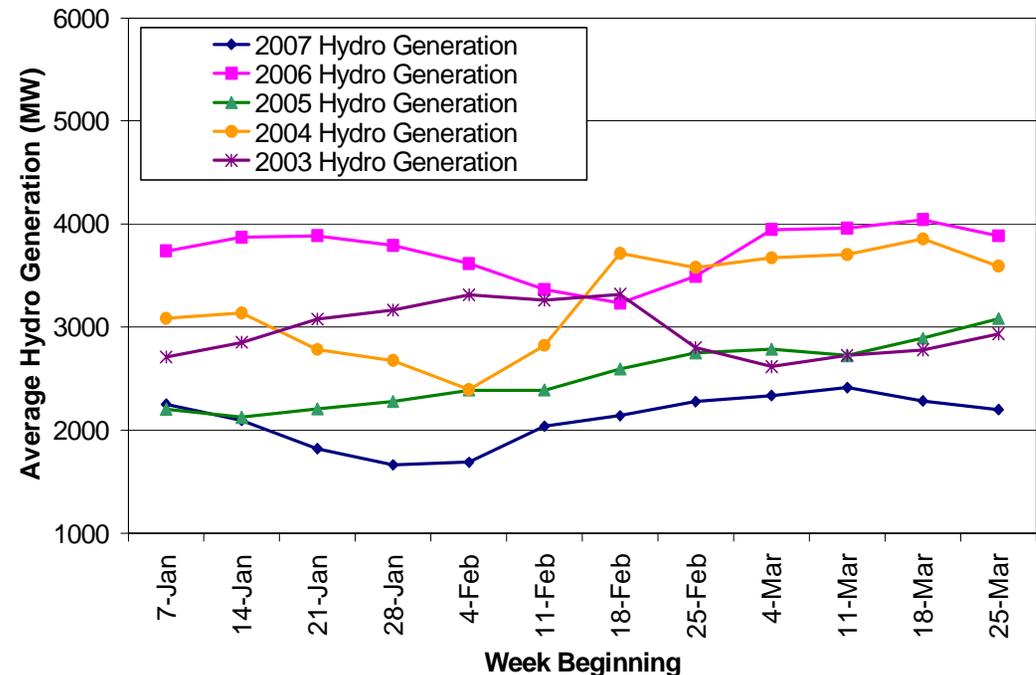
Hydroelectric Generation Capacity

- ❶ Winter snowpack levels in most areas of California and Oregon were far below average as of April 1.
- ❷ The overall shortage of hydro capacity will require greater reliance on non-hydro resources during the coming summer months.



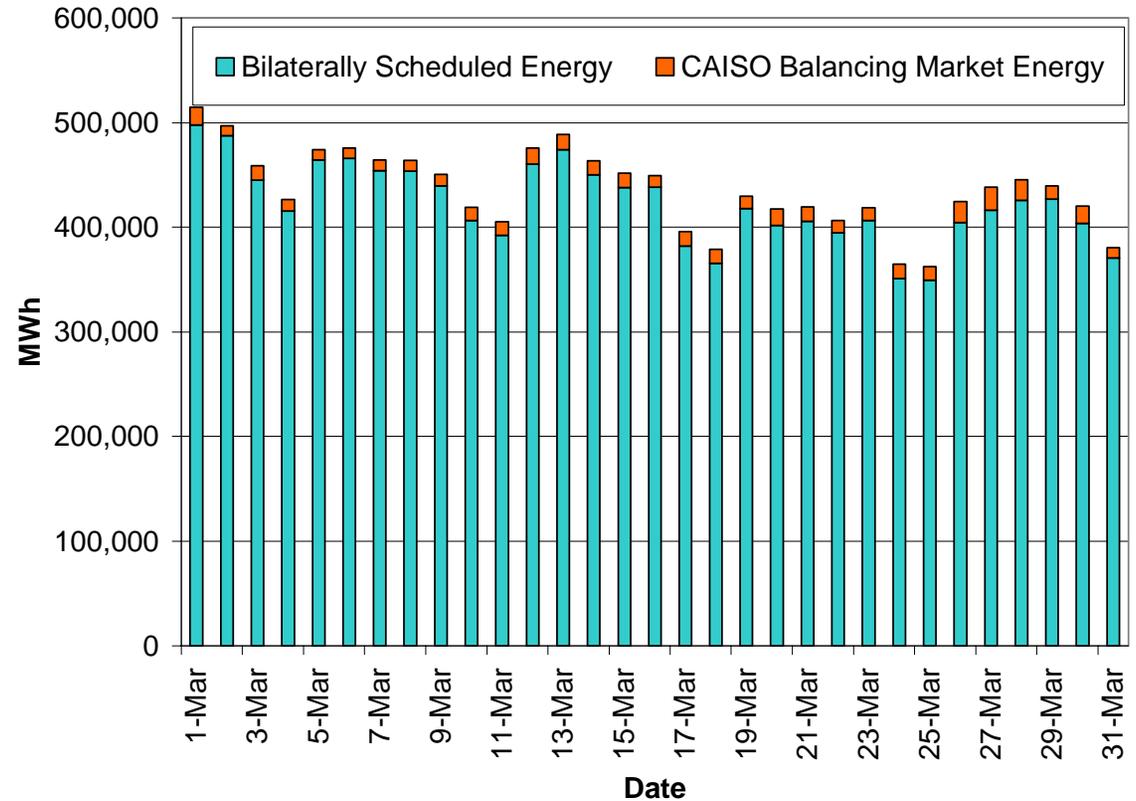
Hydroelectric Generation Capacity

- 2007 hydro generation has been averaging slightly above 2,000 MW daily, about half the levels of one year ago.
- Generators are conserving available hydro capacity for the peak summer months.
- Hydro generation levels typically peak during the month of June.



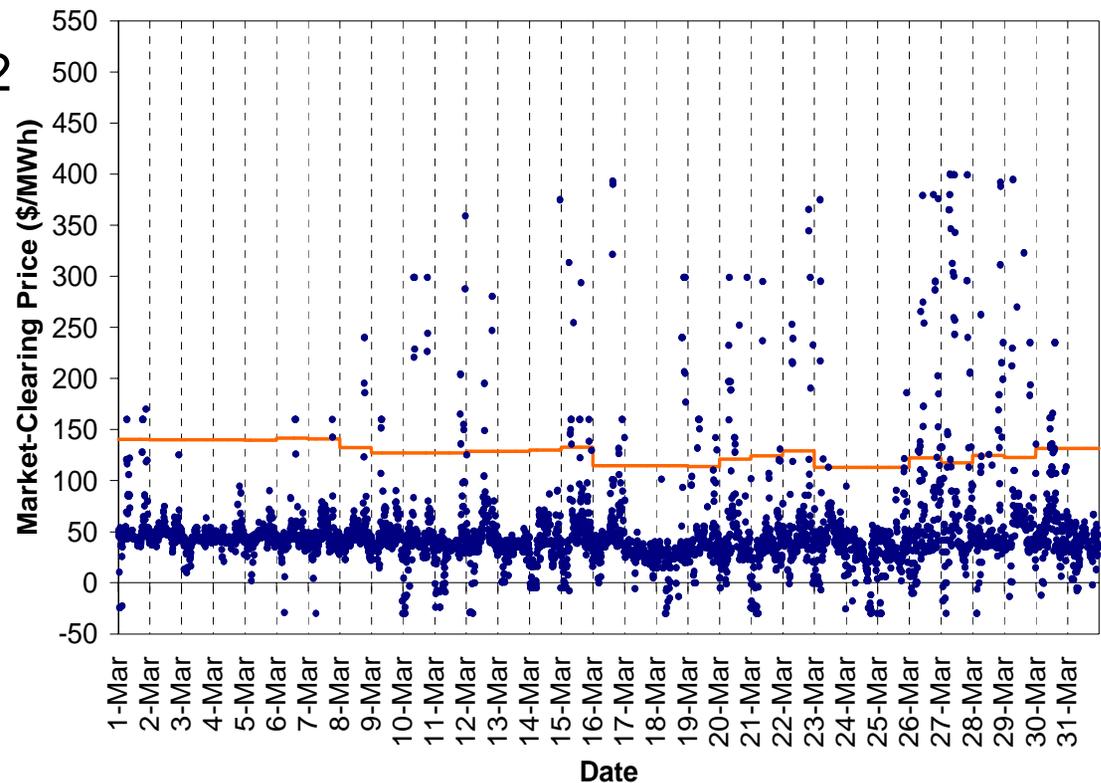
Balancing Energy Perspective

- Red bars are balancing energy vs. total market volume.
- Balancing energy made up 3.1% of total energy consumed in March.



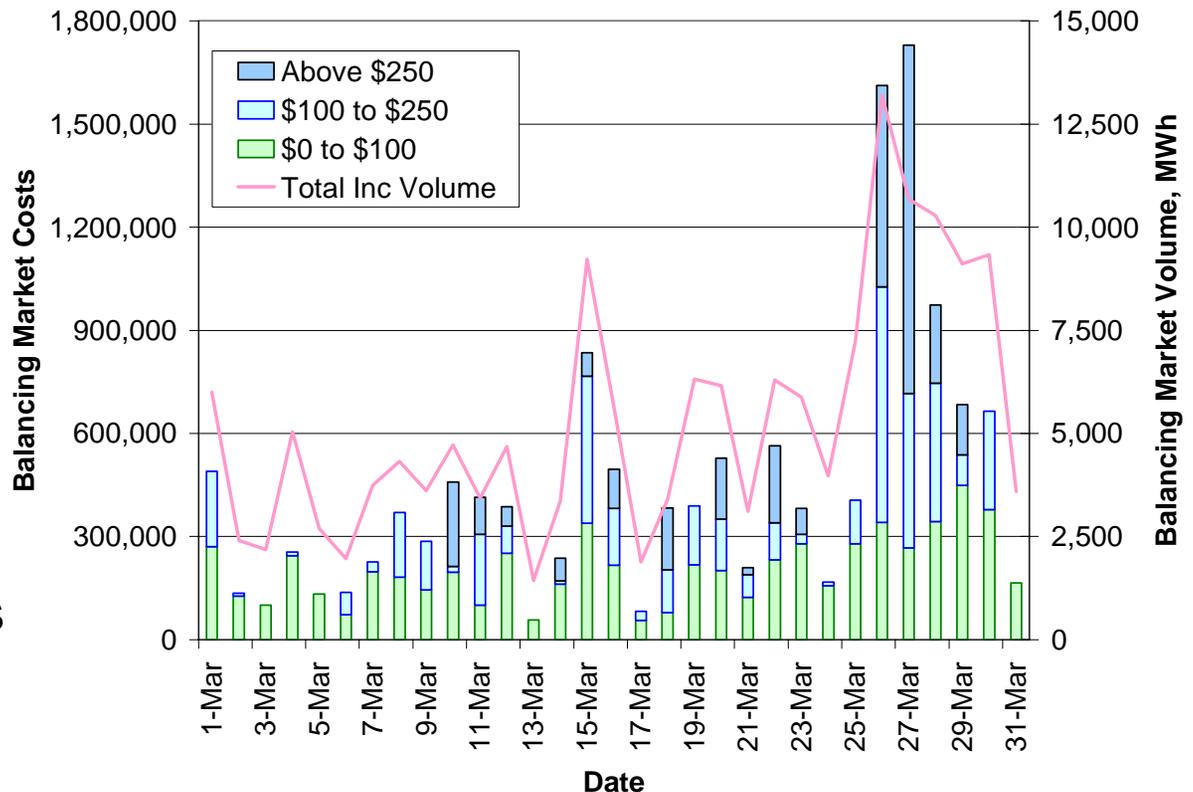
Real Time Balancing Energy Prices

- Real-time dispatch prices were more volatile this March exceeding \$250 on 131 occasions (1.5% of the time) versus 50 in February and 42 in March 2006.
- Grid events associated with the Pacific DC Intertie being forced out-of-service (March 26th through March 28th), and persistent unscheduled transmission flows were primary contributing factors



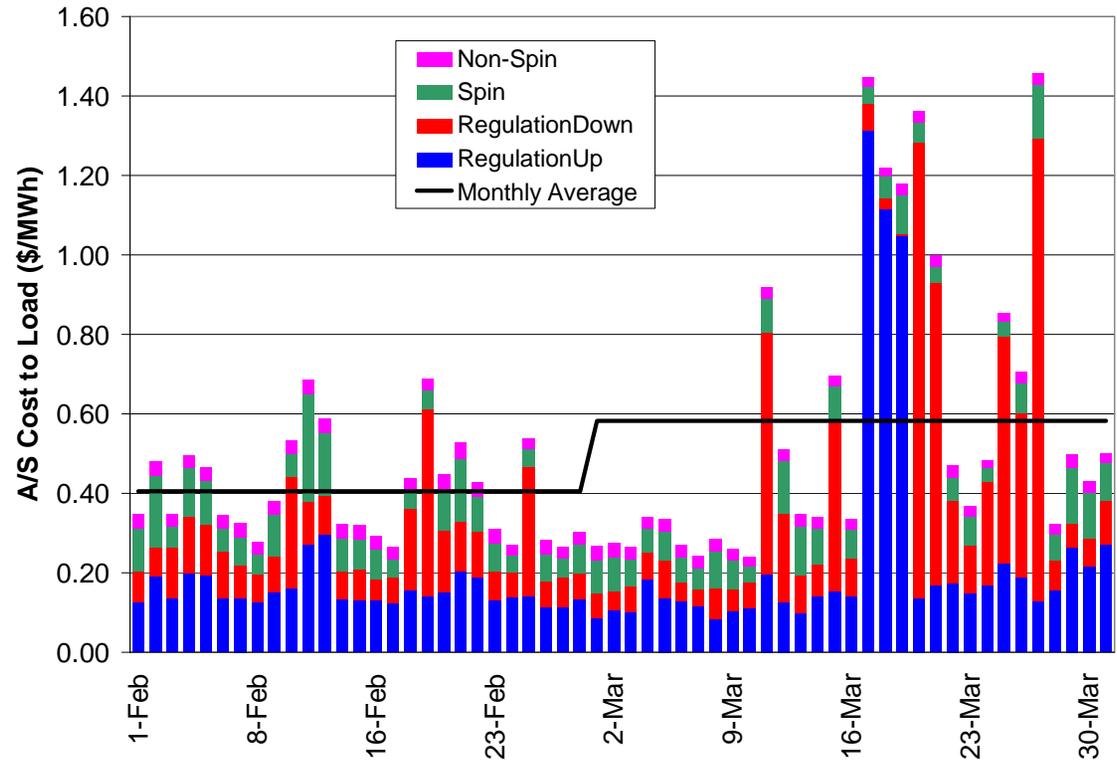
Cost of Balancing Energy

- Figure shows cost of energy vs. market clearing price.
- Total expenditures over \$250 exceeded 50% on only two days in March -- the 10th and the 27th.
- 45.6% of expenditures occurred at prices less than \$100 while 23.7% were transacted at prices greater than \$250.



Ancillary Services Markets

- Monthly average cost per MWh increased to \$0.58 in March from February's \$0.41 due to higher prices for Reg Up and Down.
- High Reg Up prices due to congestion on the Mead and PACI branch groups between March 17th and March 19th.
- High Reg Down prices resulted primarily from slim offers and high accepted bids on the 20th and 21st.

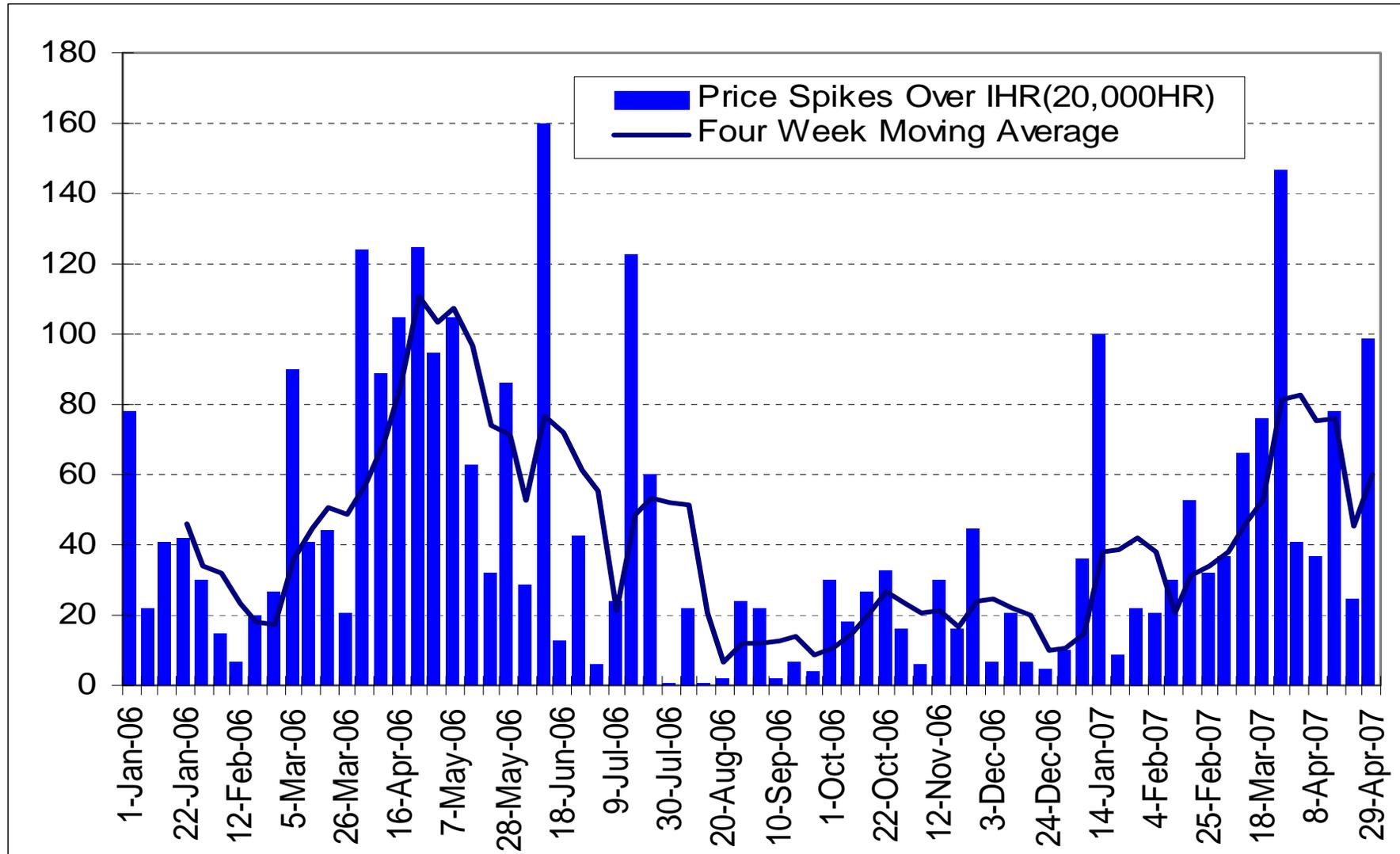


	Average Required (MM)				Weighted Average Price (\$/MM)			
	RU	RD	SP	NS	RU	RD	SP	NS
Feb 07	370	357	826	808	\$ 10.94	\$ 8.87	\$ 2.78	\$ 1.07
Mar 07	374	356	722	719	\$ 16.84	\$ 16.79	\$ 2.76	\$ 1.03
	1.0%	-0.4%	-12.6%	-11.0%	54.0%	89.2%	-0.6%	-3.8%

Inter-zonal Congestion Costs

- Total inter-zonal congestion costs increased to \$8.1 million in March from \$1.83 million in February. This is well above the average monthly cost over the past 12 months of \$4.7 million, and also above the March 2006 total of \$2.16 million.
- 58% of the total cost occurred on Pacific AC Intertie (PACI) and 28% on Nevada-Oregon Border (NOB).
- Congestion on PACI was largely driven by over-scheduling, scheduled maintenance on transmission lines, and by transmission de-rates motivated by outages.
- The congestion on NOB occurred throughout most of March, and was largely due to over-scheduling and derates on PACI.

Price Spike Patterns Over The Long Term



Inc Balancing Energy Costs Over The Long Term

