

Control Action Operating Reserve Update on 2007 Experience/Impacts

Market Pricing Working Group
October 29, 2007

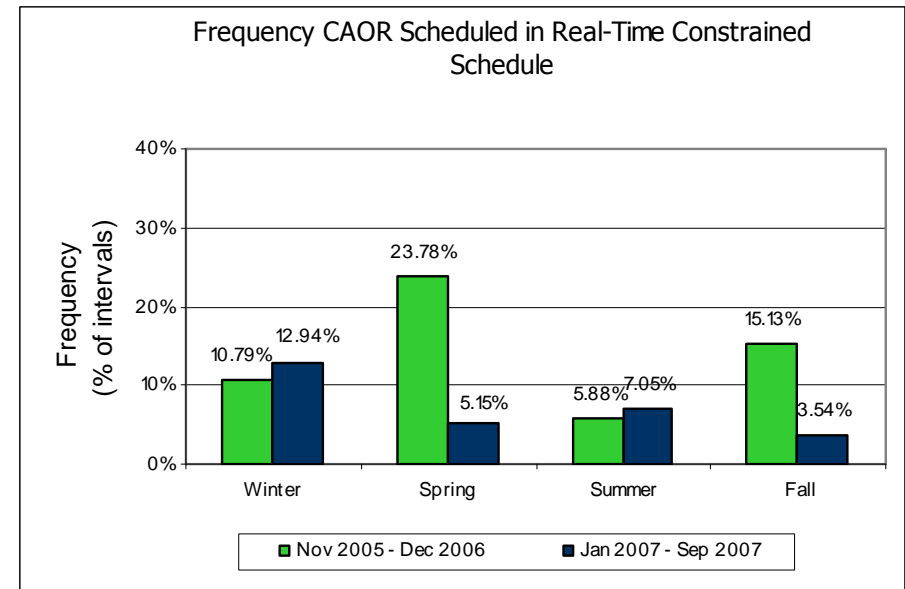
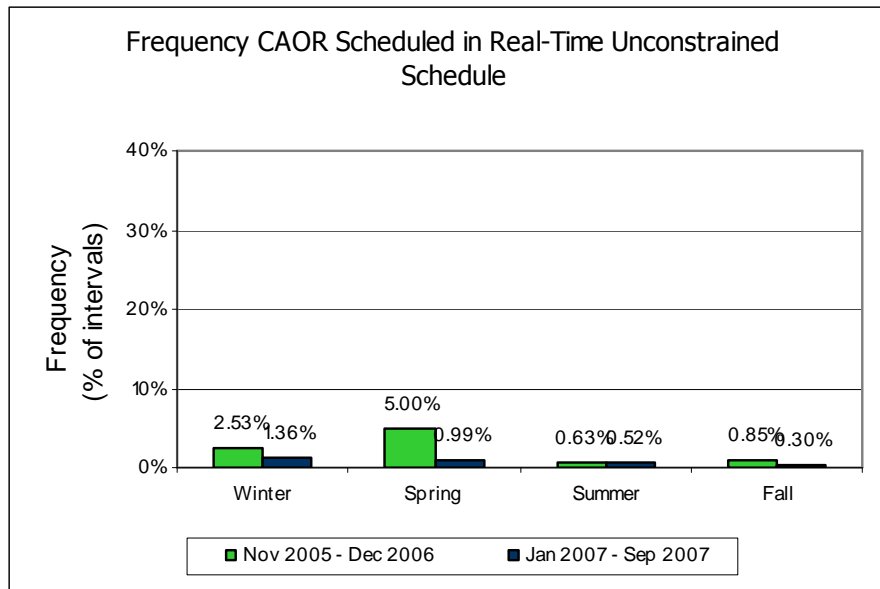


- Review of CAOR changes
- Scheduling of CAOR January – September 2007
- Reliability and Price Impacts
- Proposed Conclusions

	Prior to November 23, 2005	Since November 23, 2005
Amount	400 MW	Additional 400 MW
Price	10N @ \$30.10/MWh 30R @ \$30.00/MWh	200 MW @ \$75/MWh for 10N 200 MW @ \$100/MWh for 10N
Timeframe	Pre-dispatch and real-time	Real-time
All CAOR offers have an associated energy offer price of \$2,000/MWh		

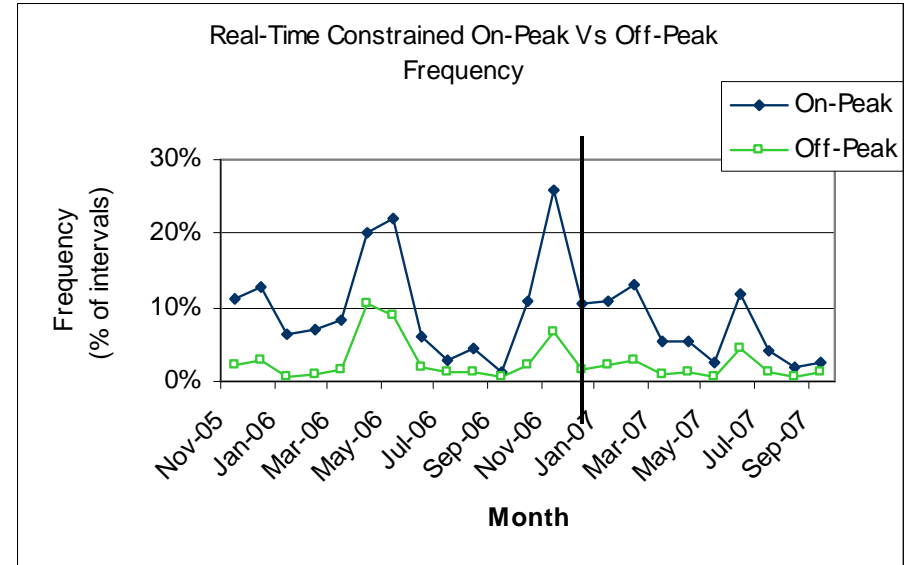
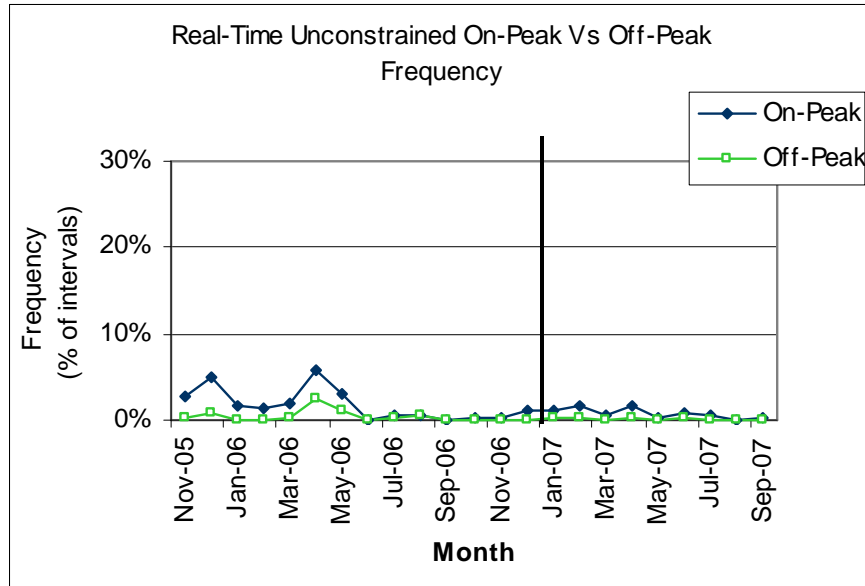
- Rationale for additional 400 MW of CAOR:
 - To further reduce instances of counter-intuitive pricing
 - Offered only in real-time to reduce likelihood of planning for reliance on Emergency Control Actions
- Also eliminated practice of reducing operating reserve (OR) requirement when a shortage was expected

Scheduling of CAOR: Frequency in Real-Time

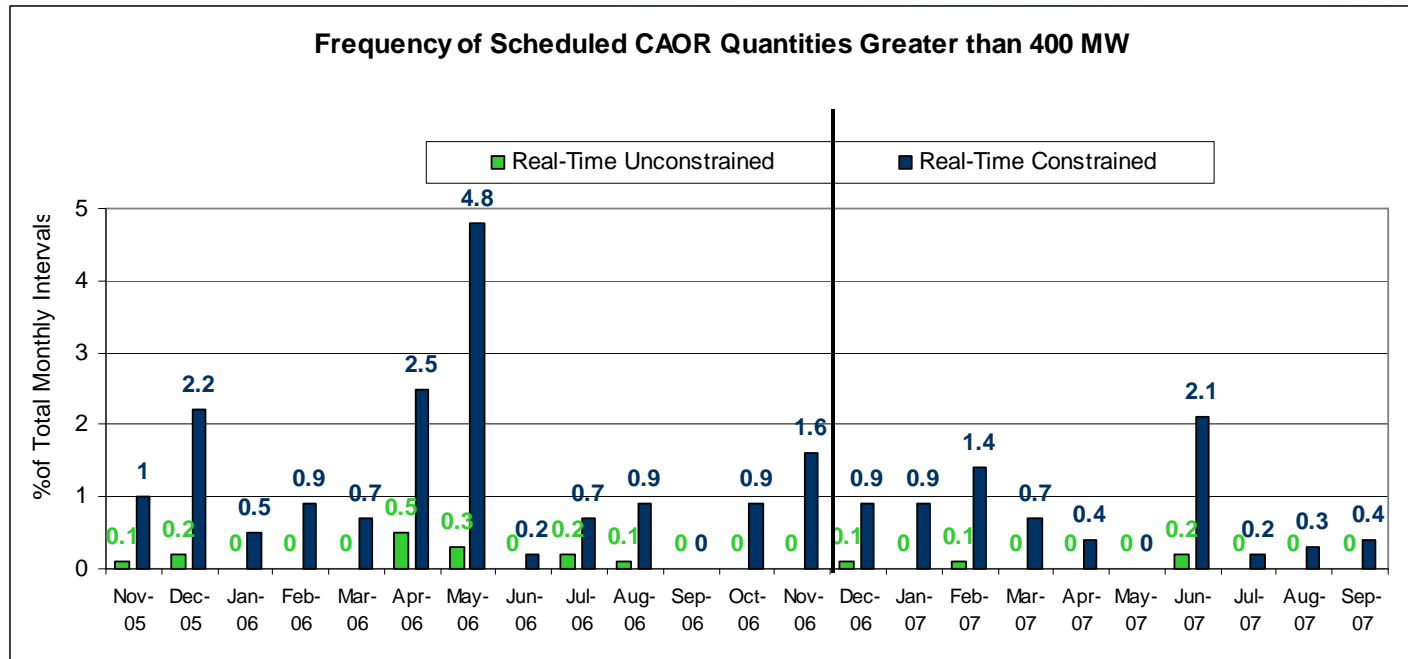


- Relatively higher frequency in winter due to typical OR providers providing energy during winter evening peak

- Scheduling of CAOR less frequent in 2007 than in previous years
 - Better supply/demand balance
- Patterns of CAOR scheduling in 2007 compared with previous experience
 - Consistent as more frequently scheduled in constrained schedule than unconstrained schedule
 - Inconsistent seasonally, as freshet was not as pronounced this year



- CAOR scheduled more frequently in on-peak than off-peak
 - June: Heavy rainfalls and on June 12, 2007 a 500kV line tripped, resulting in significant generation loss. Concurrently, demand was exceeding forecast by over 1000MW.



- Additional 400 MW of CAOR scheduled infrequently:
 - Unconstrained schedule: 168 intervals, or 0.1 % of time
 - Constrained schedule: 2,120 intervals, or 1.7% of time
- June 12th event
- Heavy rainfalls in June

- No reliability concerns identified by IESO regarding the scheduling of CAOR
- AI 36-1:
 - IESO to determine at what level of scheduling of Control Action Operating Reserve would the IESO have reliability concerns.
 - The amount of MW's is not an issue regarding the use of CAOR
 - The only reliability concern arises if it interferes or blocks more reliable energy dispatch in PD/RT (such as imports or ramp limited units). Offer prices have not created cause for concern.

- Scheduling of CAOR working as expected and intended
- No need to change current CAOR regime at this time due to:
 - Infrequent scheduling
 - No reliability concerns identified
- No further reporting to MPWG
 - Ongoing, independent monitoring (MSP)
 - Market operations monitors reliability impact
 - If a problem is identified by either group above, the IESO will take action