

Pricing Events – November & December 2007

February 7, 2007

MPWG



Agenda

1. Overview
2. Detail Discussion
 - High-price hours
 - Low-price hours
 - Negative MCP
 - MCP Volatility
 - Operating reserve activations
 - Emergency control actions
 - Market demand response programs
 - Administered Pricing
3. Wrap Up

- November Summary
 - Average Hourly Market Demand: 18,449 MW
 - Average Hourly Ontario Demand: 17,153 MW
 - Average HOEP: \$46.95
- Highlights
 - Highest 2007 monthly imports of 955 GWh (previous highest 794 GWh September)
 - Highest 2007 hourly imports of 2,617 MWh November 22, 2007
 - 2nd Lowest November Arithmetic Average HOEP of \$49.08 and Weighted Average HOEP of \$51.08. Lowest, November 2003 of \$40.45 and \$41.93 respectively.
 - Total Wind Generation for November, 107 GWh

- **December Summary**
 - Average Hourly Market Demand: 19,777 MW
 - Average Hourly Ontario Demand: 18,021 MW
 - Average HOEP: \$49.08
- **Highlights**
 - Record hourly exports of 3,438 MWh December 18, 2007 (previous highest 3,298 MWh July 15, 2007)
 - Record monthly exports of 1,306 GWh (previous 1,237 GWh July, 2007)
 - Highest 2007 hourly imports of 3,492 MWh December 20, 2007 (previous highest 2,617 MWh Nov 22, 2007)
 - Highest 2007 monthly Market Demand of 14,714 GWh (previous highest 14,553 GWh, August 2007)
 - Total Wind Generation for December, 119 GWh

Hours in which HOEP > \$200

- There were no hours in November in which the HOEP was above \$200
- There were no hours in December in which the HOEP was above \$200

- There were 10 hours in November where the HOEP was below \$20
 - All off peak hours
 - The lowest HOEP was \$4.77 and the average of these 10 HOEP values was \$9.51
- There were 78 hours in December where the HOEP was below \$20
 - There were 5 peak hours where the HOEP was below \$20
 - The lowest HOEP was \$2.83 and the average of these 78 HOEP values was \$10.94

- There was no Negative MCP in the month of November
- There was no Negative MCP in the month of December

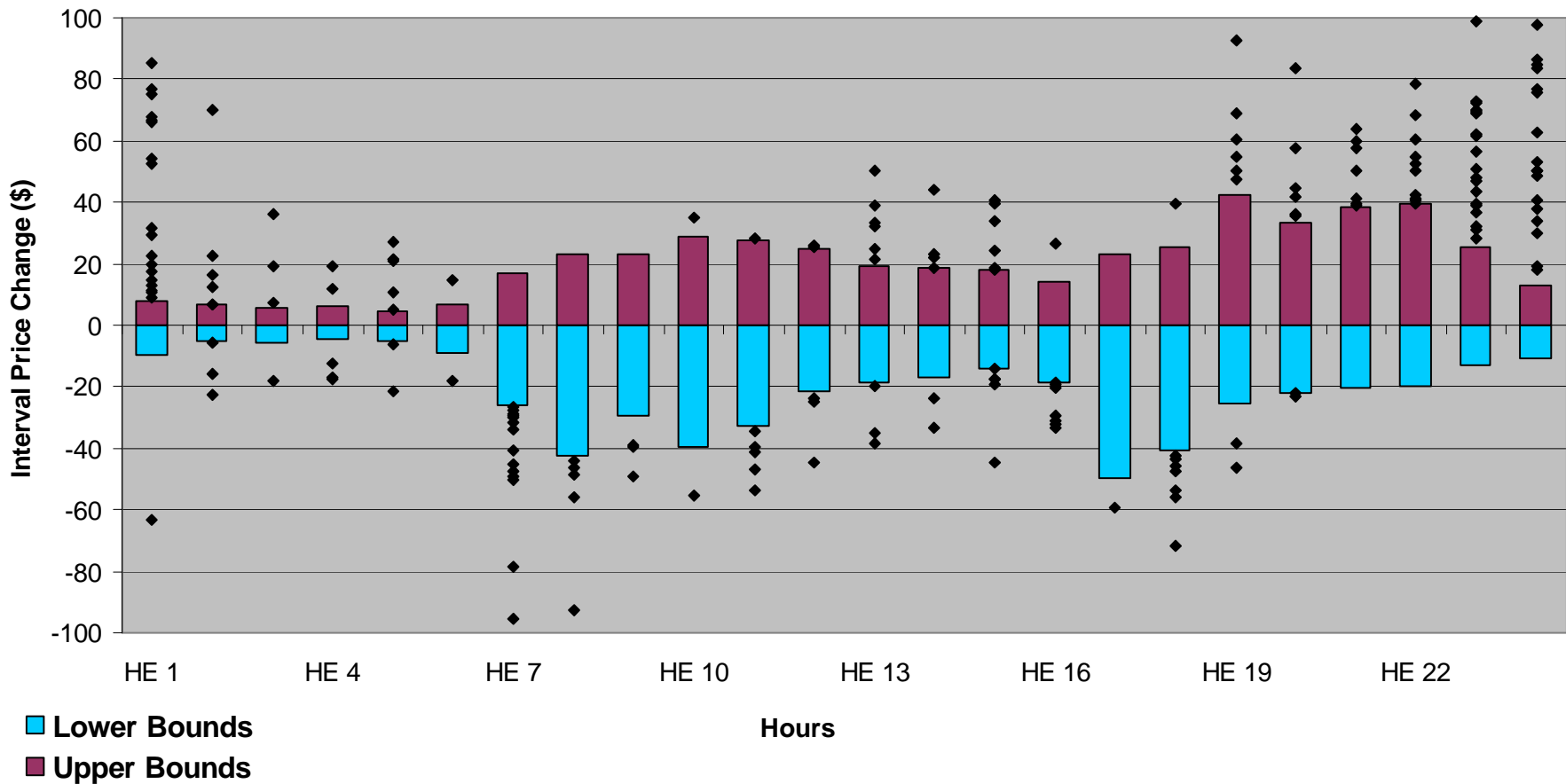
- The following slides show MCP volatilities as measured by interval to interval price changes
- Hourly upper and lower bounds based on historic values were applied to current data to flag significant interval to interval fluctuations
- The bounds, which represent 95% of historic interval to interval changes, were created based on 4 years of prior MCP data with respect to the current months of interest
- The number of significant interval to interval price fluctuations are represented by those points that lie outside these bounds



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On Demand.

MCP Volatility – November Hourly Price Bounds

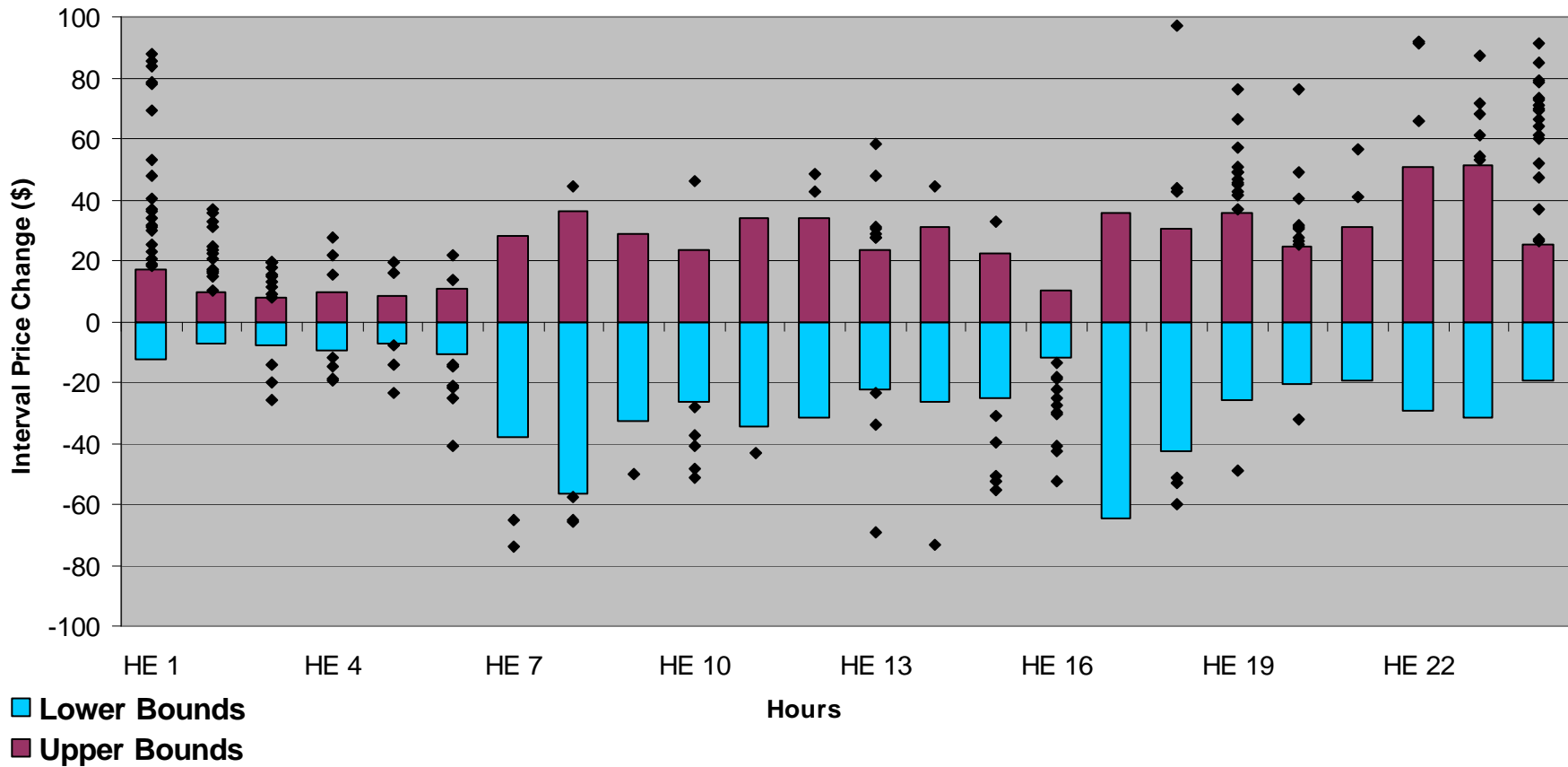
November Bounds





MCP Volatility – December Hourly Price Bounds

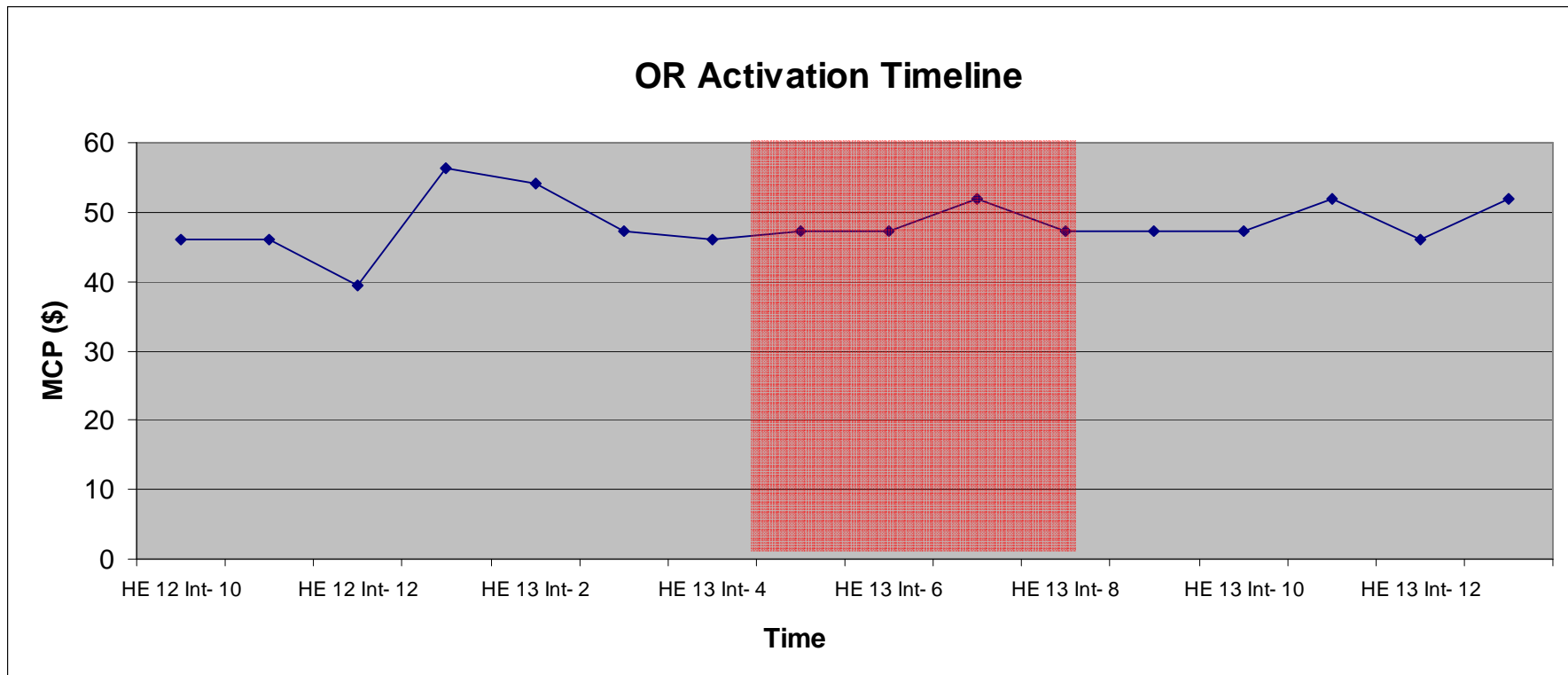
December Bounds



- In November 2007 there were 199 interval to interval changes that fell outside the bounds of the benchmark
- This represented 2.30% of the total number of interval to interval changes for the month, indicating this month experienced volatility consistent with recent values
 - July 2007 – 2.71%
 - August 2007 – 1.53%
 - September 2007 – 3.10%
 - October 2007 – 4.89%

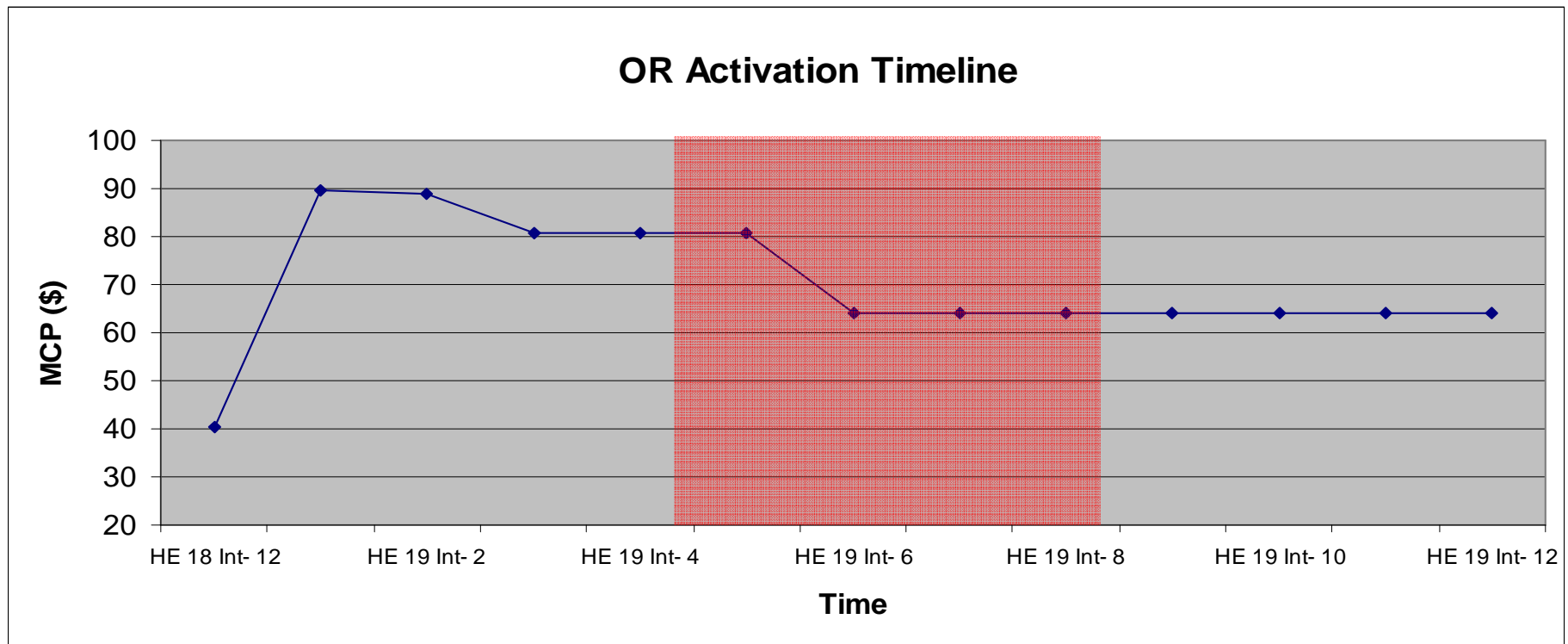
- In December 2007 there were 176 interval to interval changes that fell outside the bounds of the benchmark
- This represented 1.97% of the total number of interval to interval changes for the month, indicating this month experienced volatility consistent with recent values
 - August 2007 – 1.53%
 - September 2007 – 3.10%
 - October 2007 – 4.89%
 - November 2007 – 2.30%

- 26 hours with OR activations
- Largest Reserve activation occurred on November 13 at 13:22
 - 600MW of OR were activated
 - Result of a boiler trip at a large generating unit
 - OR was activated for 13 minutes



December Operating Reserve Activations

- 28 hours with OR activations
- Largest Reserve activation occurred on December 2 at 19:19
 - 500MW of OR was activated
 - Resulting from the loss of a large generating unit
 - OR was activated for 20 minutes



- There were no Emergency Control Actions reported for November and December

- There were no IESO Demand Response Programs activated for November and December

- In November there were 6 instances where Administered Pricing was required
 - inaccurate input of data accounted for 37 intervals
 - planned outages accounted for 5 intervals

- In December there were 16 instances where Administered Pricing was required
 - inaccurate input of data accounted for 28 intervals
 - planned outages accounted for 8 intervals
 - a market tool problem accounted for 63 intervals
 - <http://www.ieso.ca/imoweb/marketdata/marketSummary.asp>

- There were no hours in November where the HOEP was above \$200
- There were 10 hours in November where HOEP was less than \$20
- There were 26 OR activations in November

- There were no hours in December where the HOEP was above \$200
- There were 78 hours in December where the HOEP was less than \$20
- There were 28 OR activations in December