

The IESO Administered Markets May-October 2006

Briefing to the Market Pricing Working Group on the MSP's 9th Monitoring Report
March 1, 2007



- Market worked well according to its design
- Hourly prices reflected underlying market forces
- No evidence of abuse of market power or gaming
- The effects of the hybrid market via Global Adjustments are becoming more apparent

- Average prices lower than levels seen a year ago, \$45.26/MWh, \$30/MWh lower than summer 2005
 - Lower Ontario demand caused principally by moderate weather as well as reduction in wholesale demand
 - Higher levels of supply, particularly nuclear generation
 - Moderating fuel prices, natural gas prices receded
- After taking into account the Global Adjustment's effective price to consumers is only \$10 lower than the summer of 2005

- Load consumption down by 2.9 TWh over the previous period (330 MW average)
- Forced outage rates have declined continuously since 2003
- Supply has increased from a year ago with over 700 MW of new generation
- HOEP among lowest prices in surrounding markets: NY, PJM, MISO and New England
- New record demand of 27,005 MW, load appears to be getting “peakier”
- Market uplifts continue to fall

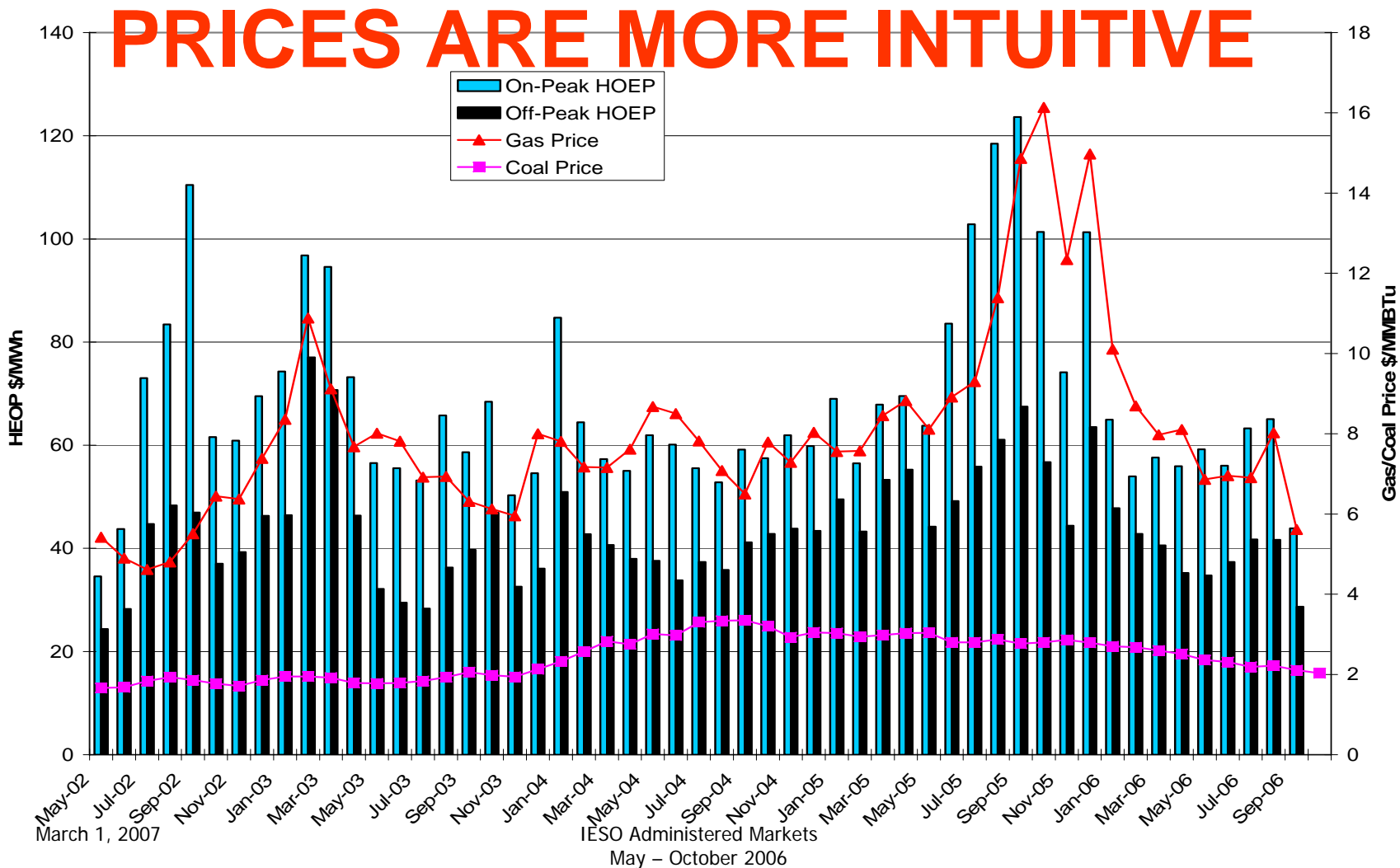
**Table 1-3: HOEP and Load-Weighted Average HOEP
May–October, 2005 and 2006**

Year	HOEP	Weighted HOEP	Dispatchable Load Weighted HOEP**	Other Wholesale Load Weighted
2005	\$75.44	\$80.97	\$70.29	\$75.40
2006	\$45.26	\$48.24	\$43.12	\$45.37

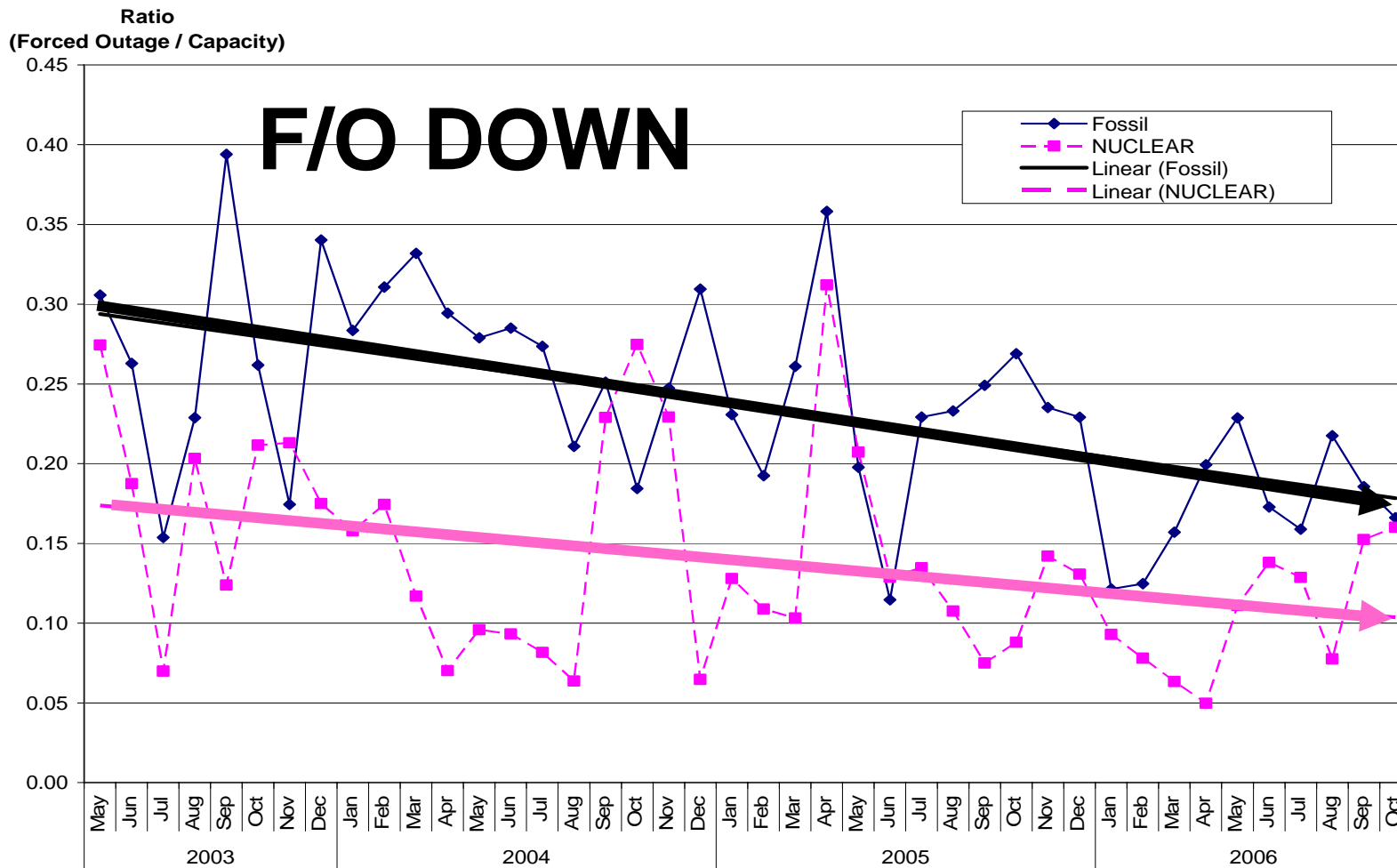
**** DL payment has OR payment subtracted**

Market Indicators

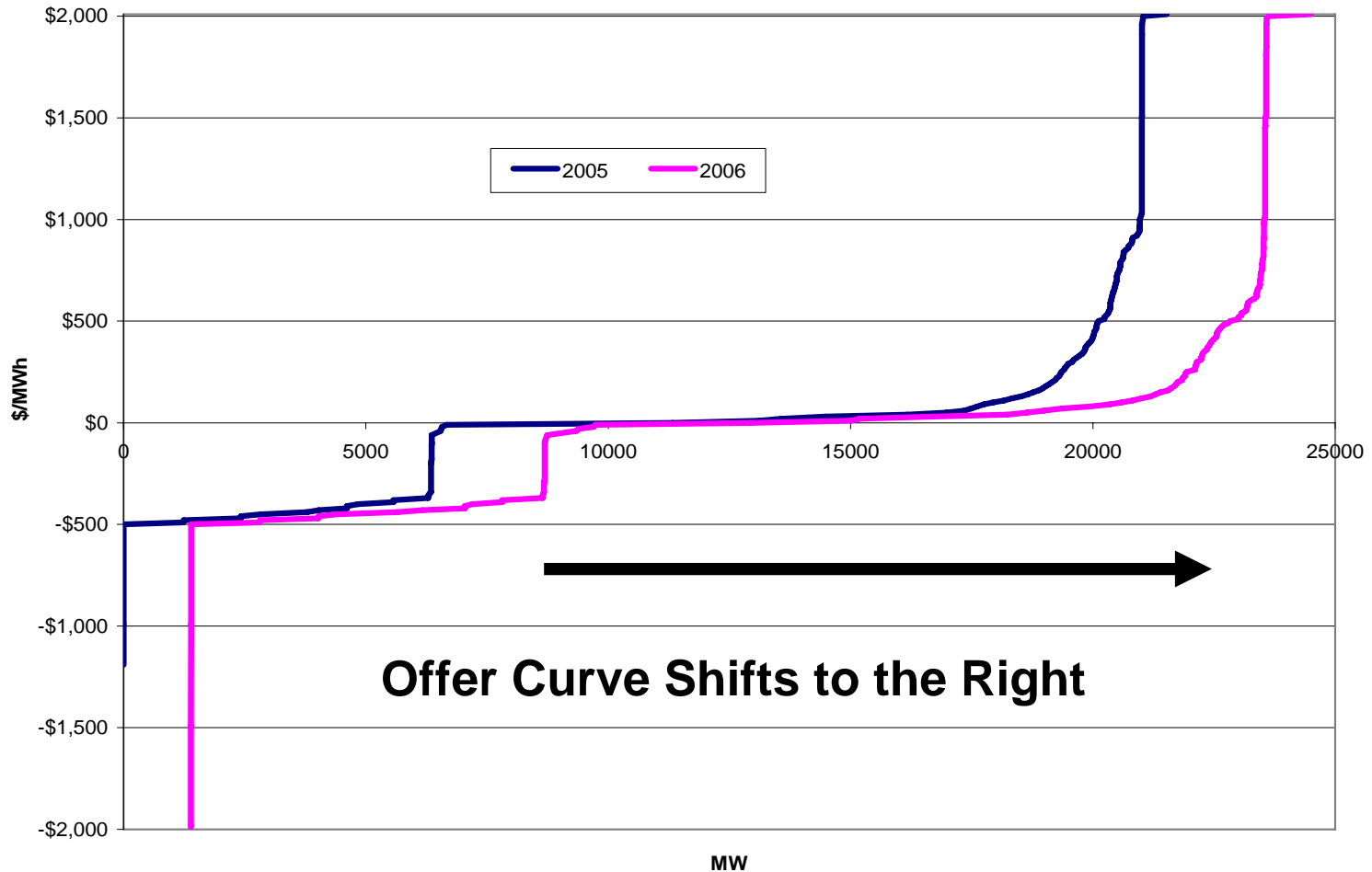
Average Fossil Prices and HOEP Since Market Opening

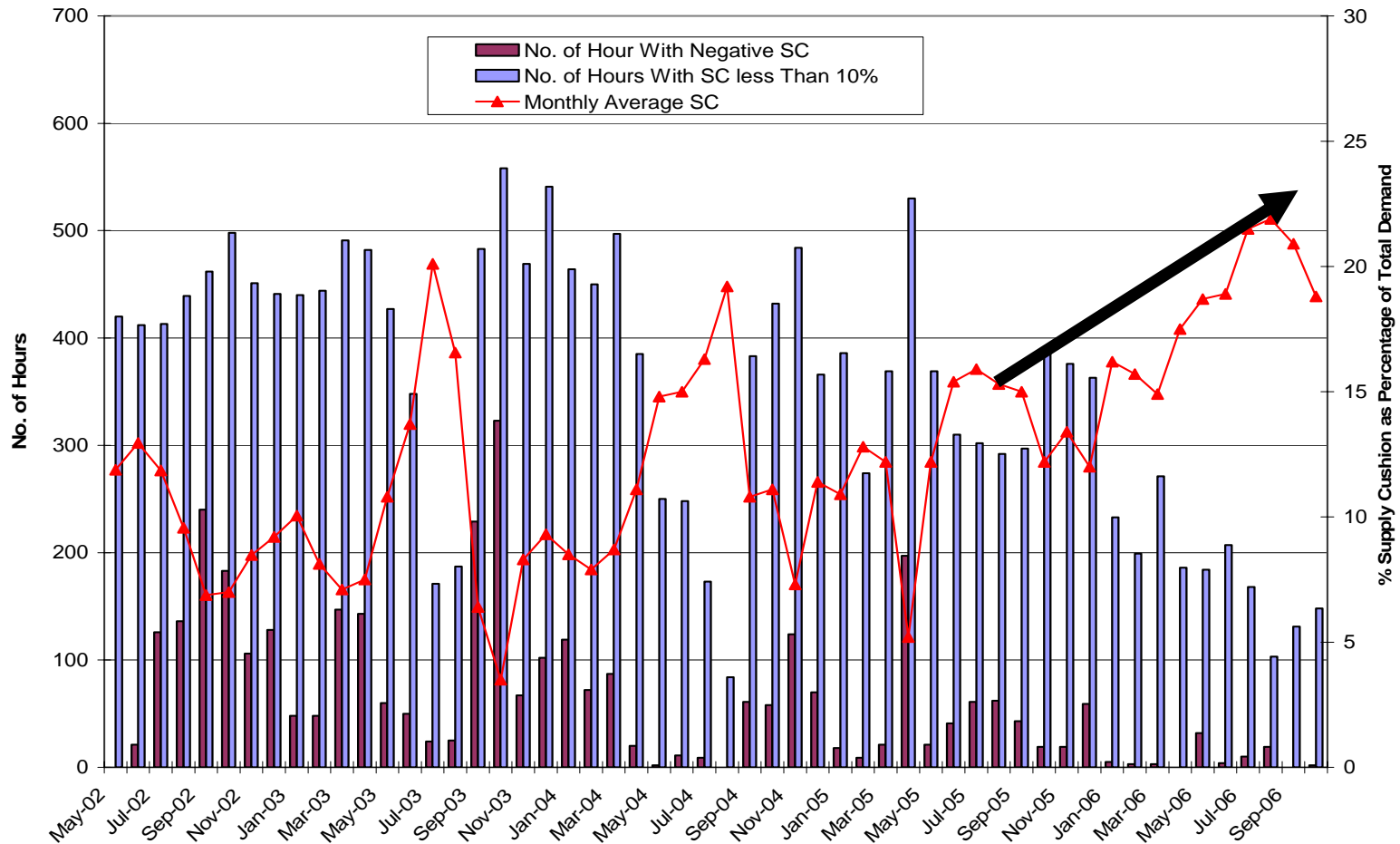


Forced Outages Relative to Total Capacity by Fuel Type

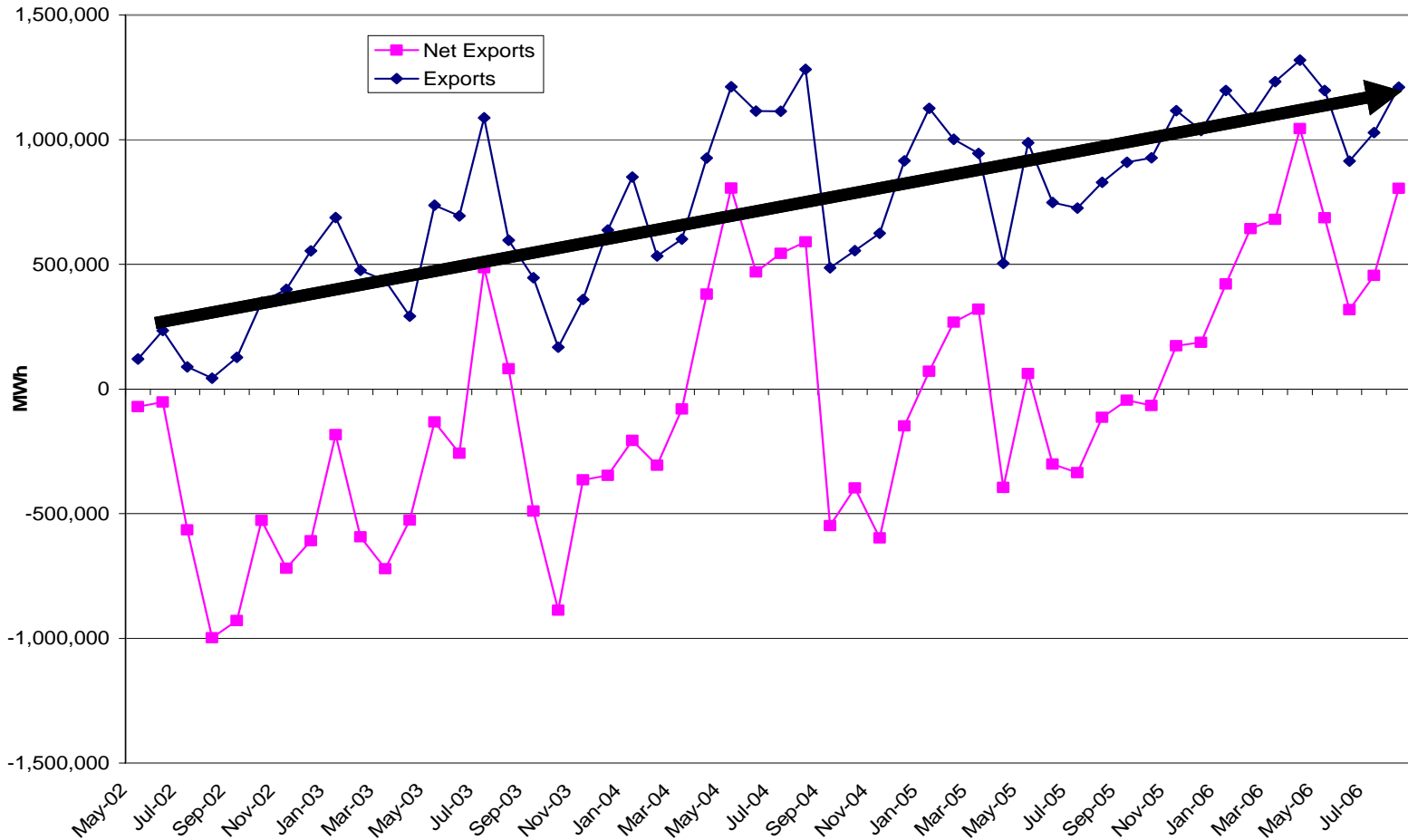


Increased Supply – Offer Curve





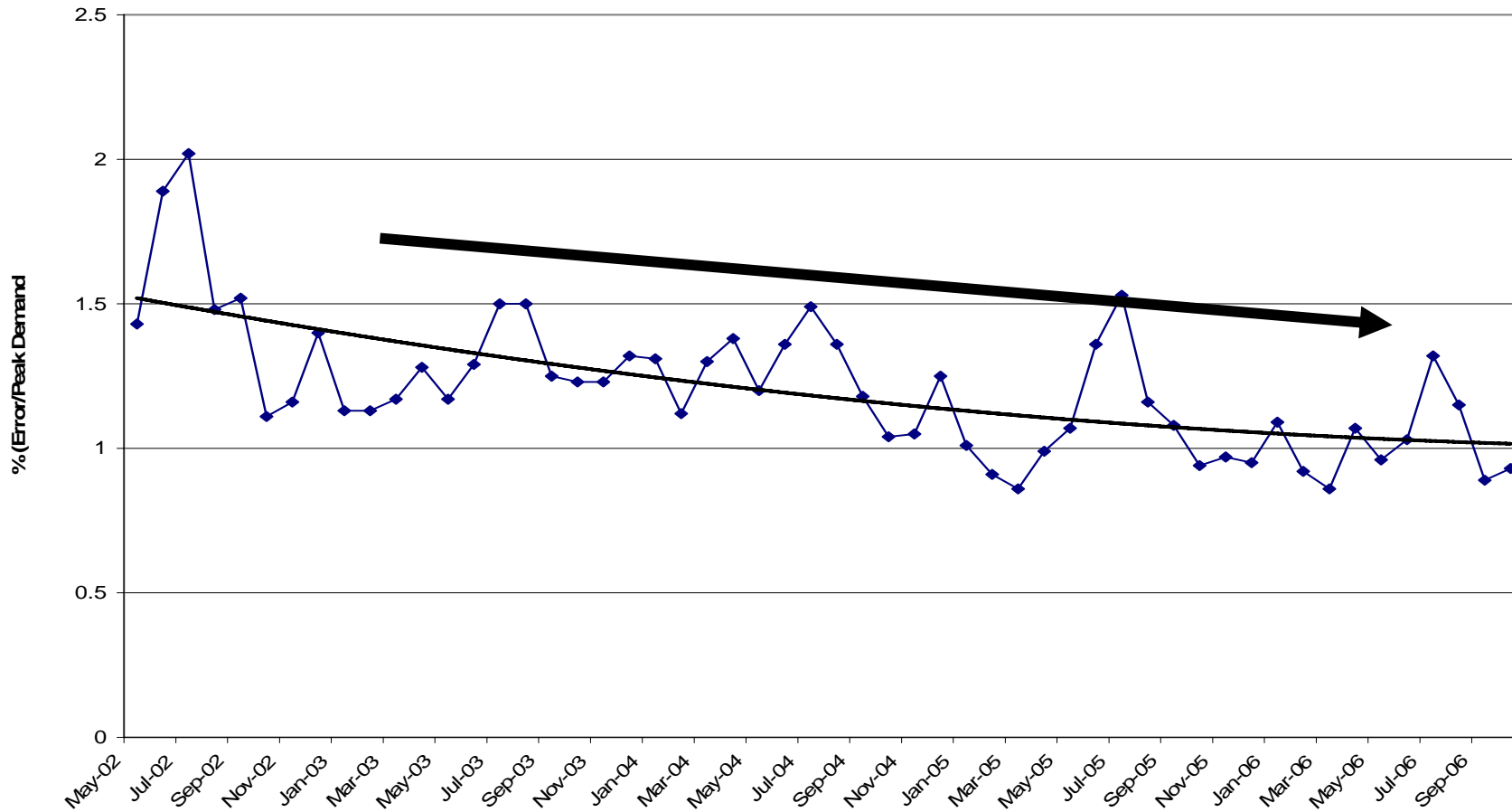
Exports and Net Exports Since Market Opening



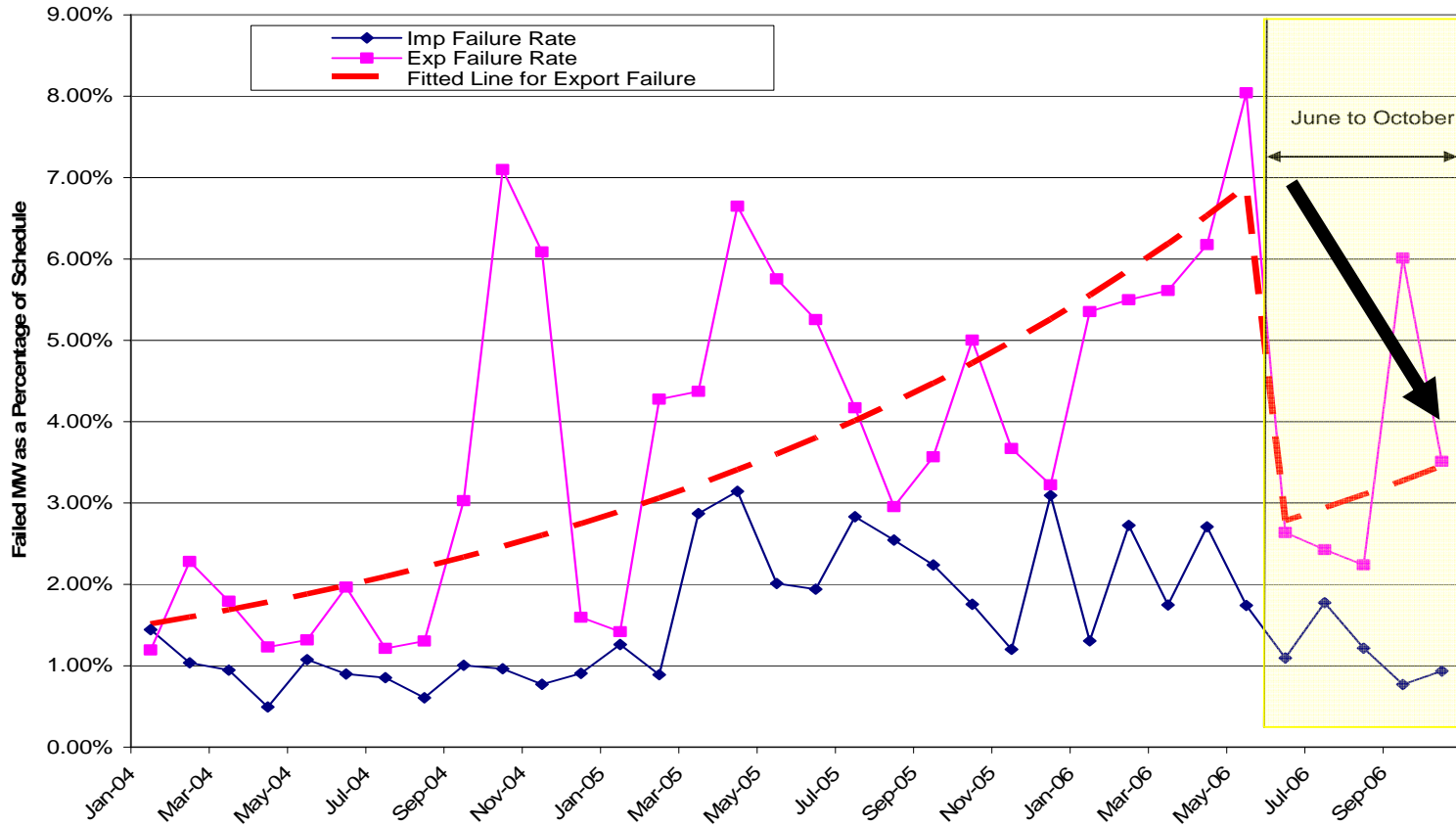
March 1, 2007

IESO Administered Markets
May – October 2006

Absolute Average Monthly One Hour Ahead Forecast Error (% of Peak Demand)



Transaction Failures in Participants' Control

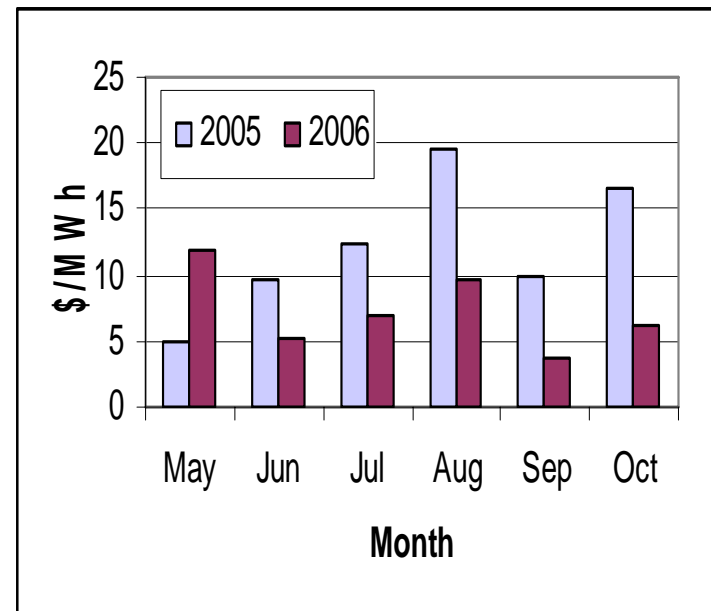
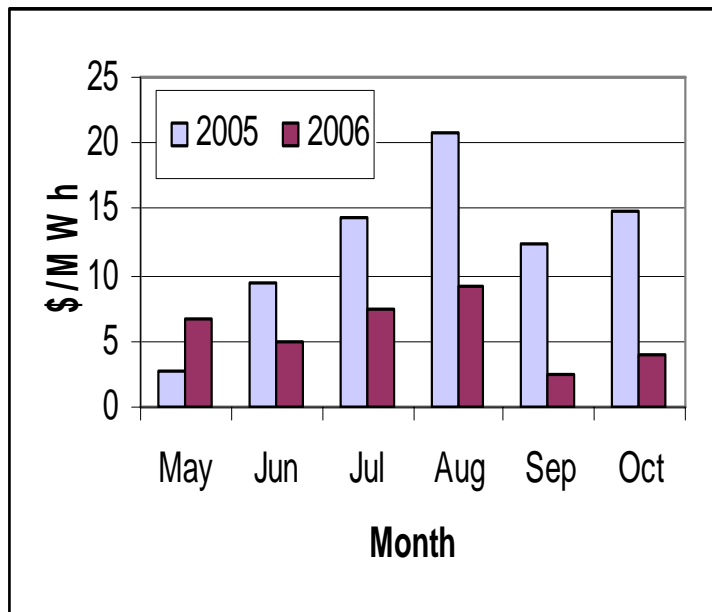


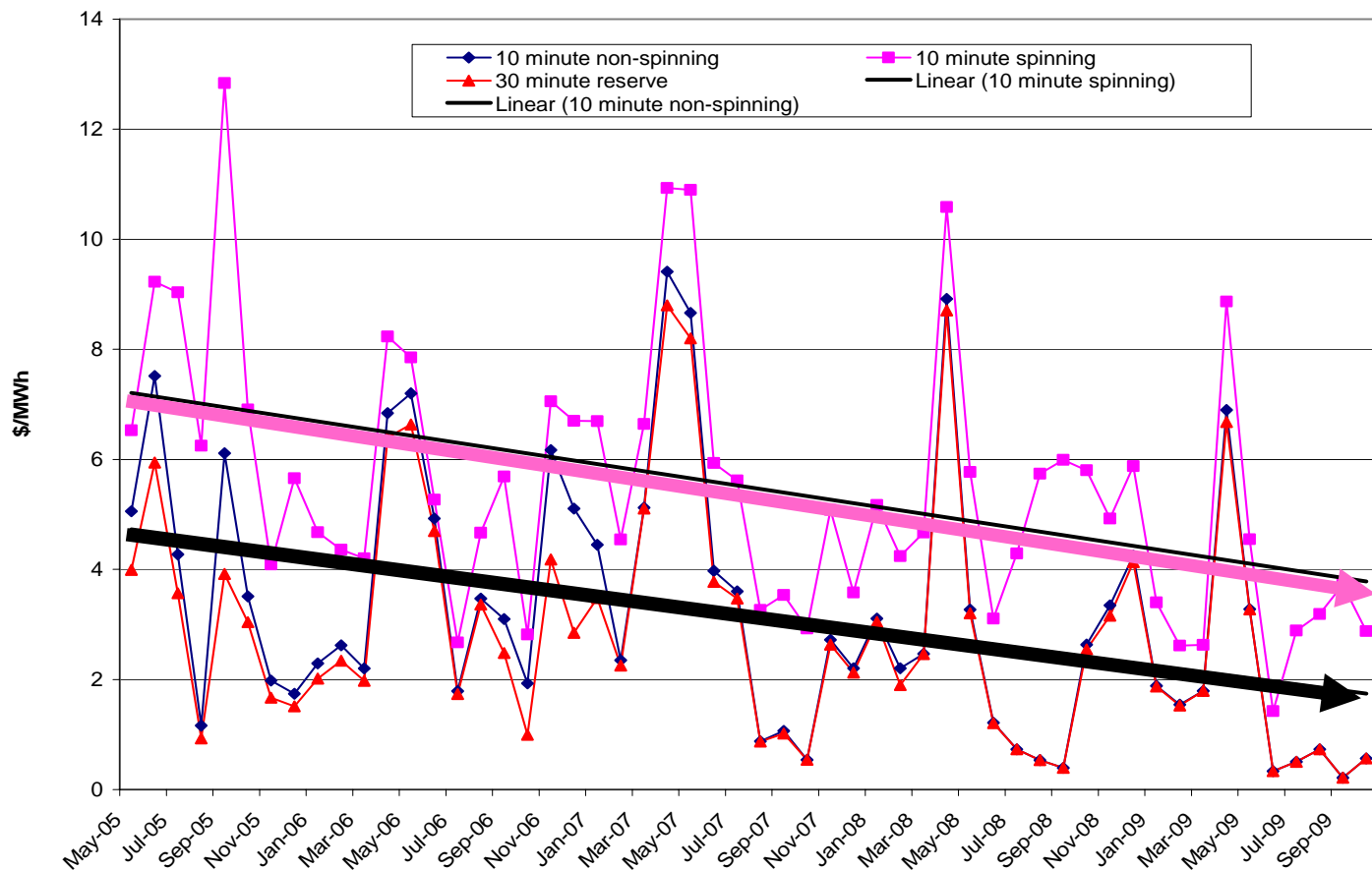
Average Pre-Dispatch Price Differences 3 and 1-Hour Ahead to Real-Time

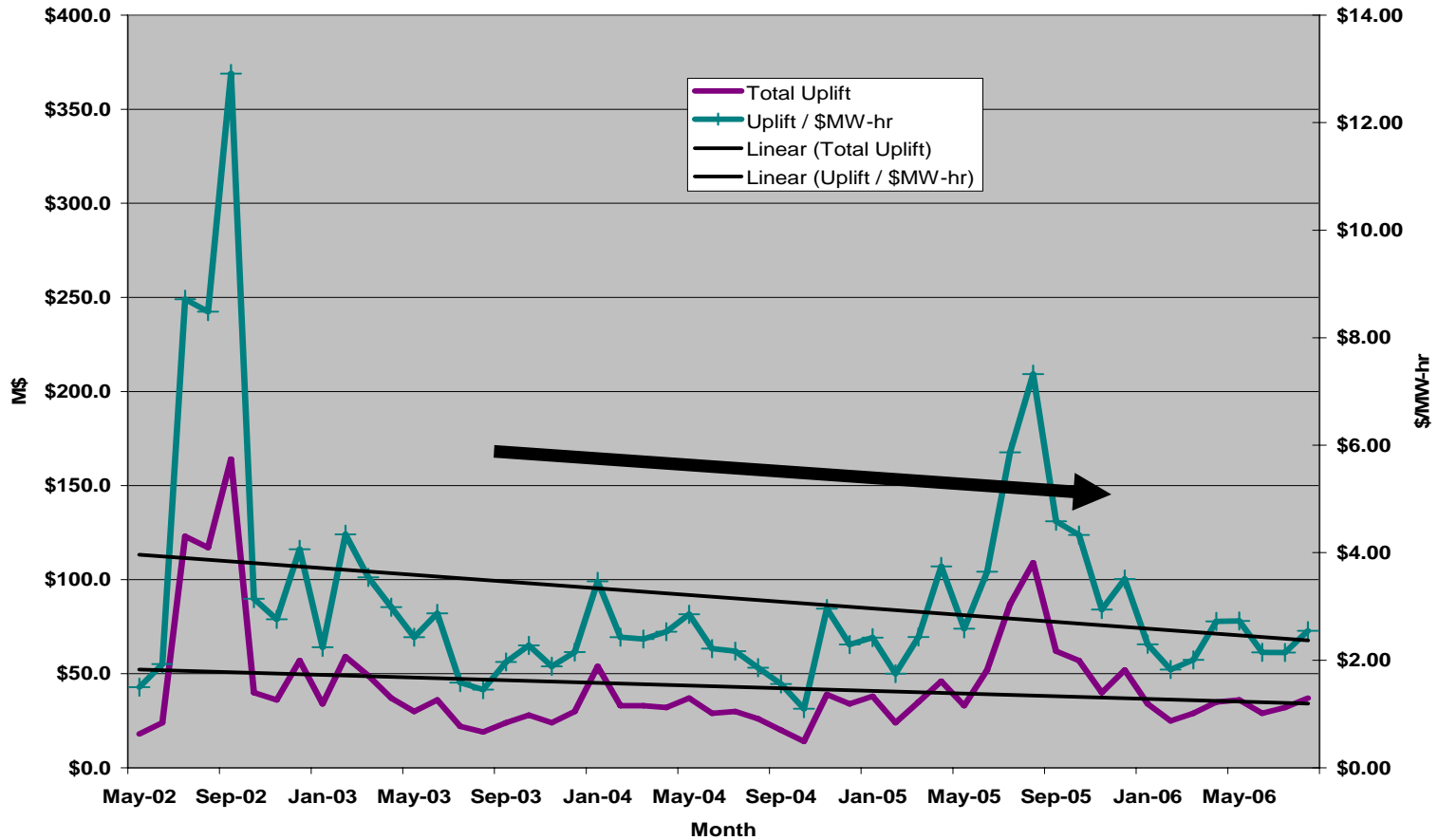
(three hour ahead price difference)

(one hour ahead price difference)

PRE-DISPATCH MORE REFLECTIVE OF REAL_TIME







The Report has identified several issues that have impacts upon the market

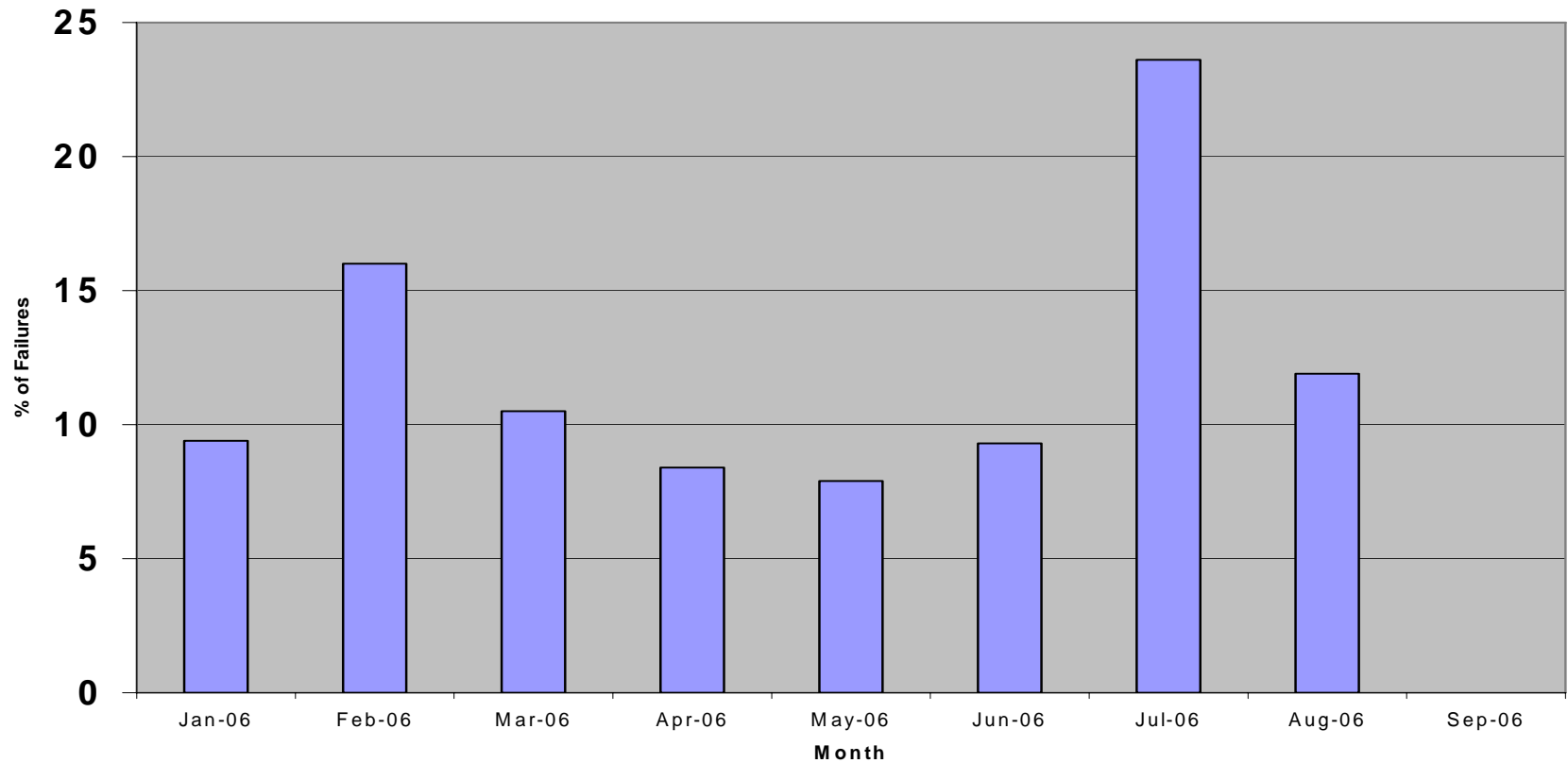
- Shared Activation of Reserve similar to the emergency import issue reduces market demand and thus the MCP
- Inefficient exports continue to be of concern although the % has reduced slightly
- Different inter-tie scheduling limits between Ontario and New York caused up to 25% of the export failures
- While uplifts associated with the market continue to fall other uplifts are growing at a faster rate

Percentage of Export Energy to New York Privately Efficient and Socially Efficient

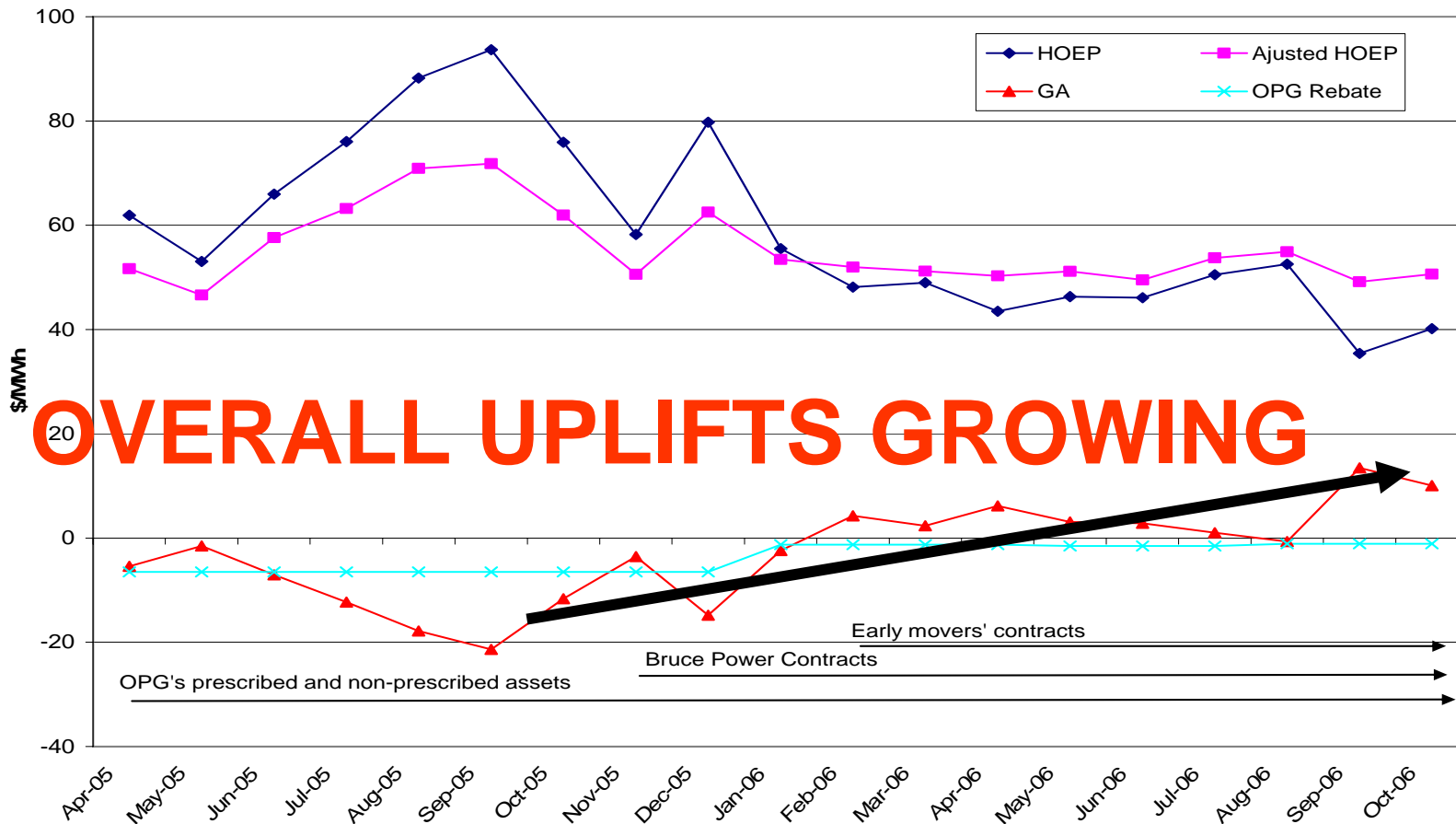


Difference in Scheduling Limits Between NY and Ontario Causes Inter-tie Failures

% of NY Security Export Failures Caused by Incorrect Limits



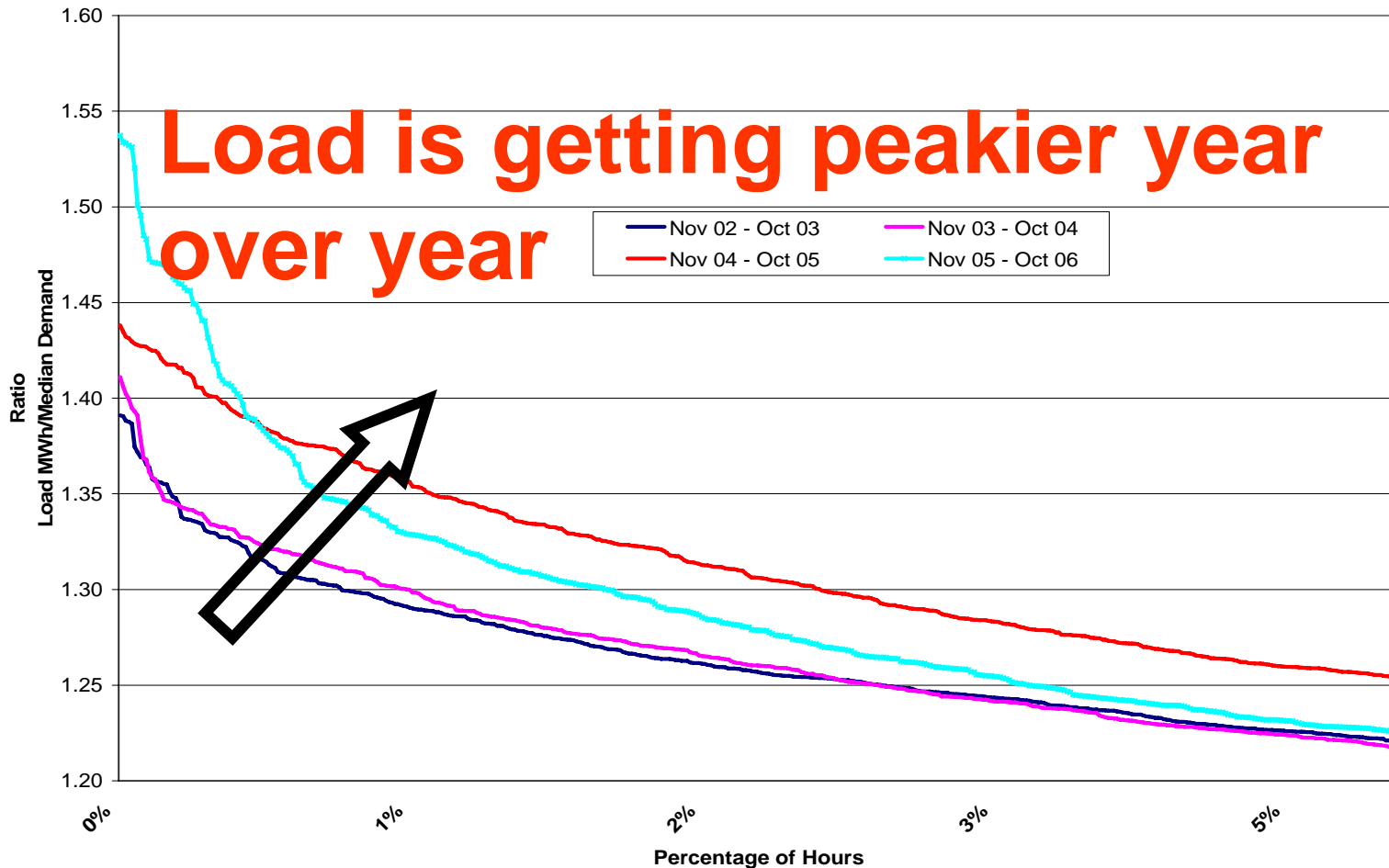
Monthly Average HOEP and Adjustment Components



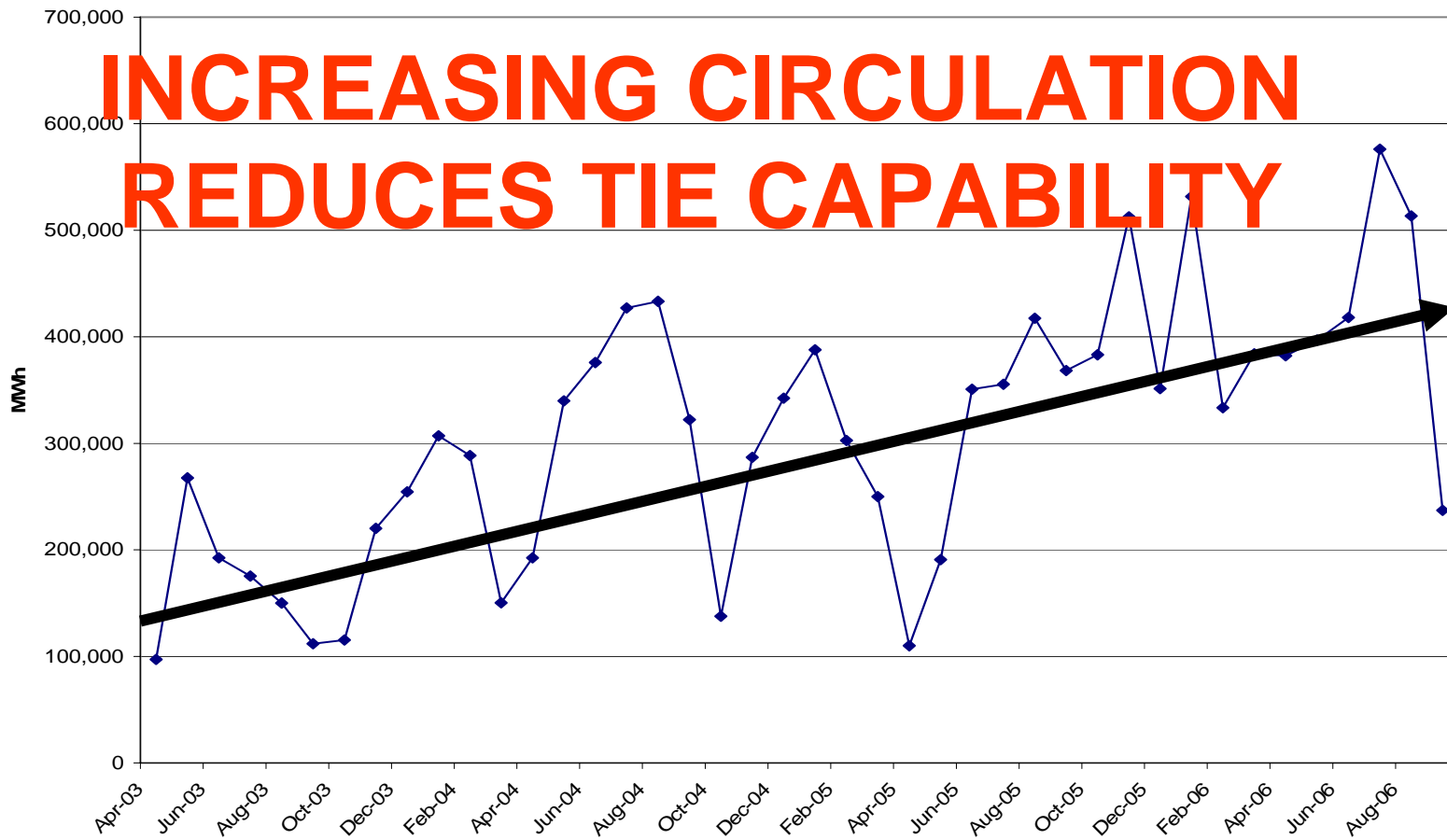
The report has identified several issues that may have an impact upon reliability:

- Peak Demand is growing faster than the median demand, the load is getting peakier
- Observing increased constrained off imports / exports with one of the factors being increasing loop flow
- Major transmission outages that bottle quick start generation (typically hydroelectric) will not be signalled in the unconstrained schedule (MCP)

Highest 5 Percentage of Hours Normalised to Median Load

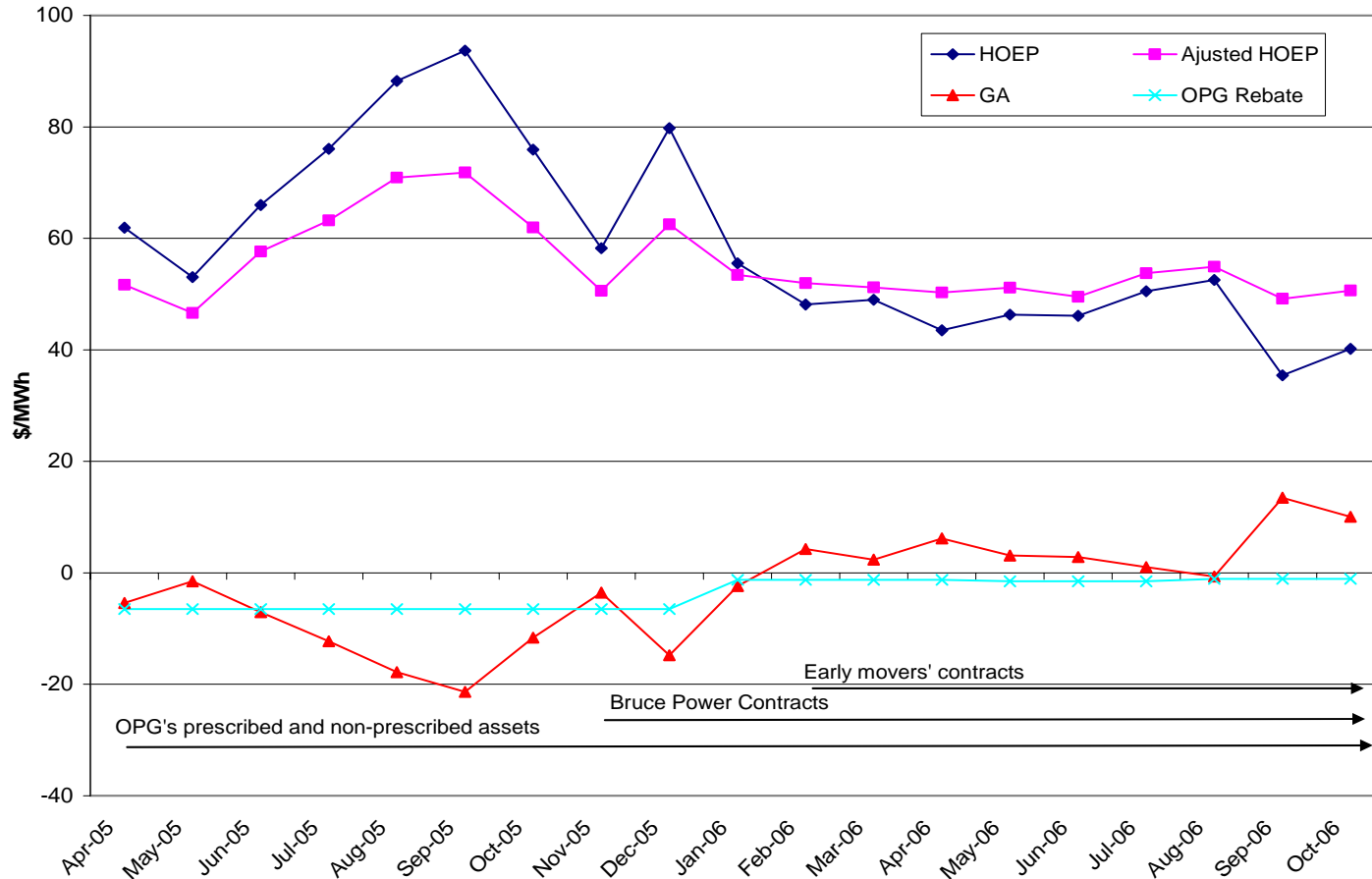


Positive Lake Erie Circulation Pre-dispatch Projection



- Panel is observing that the Global Adjustment is dampening the typical consumer's exposure to the month to month volatility in the HOEP
- The "effective price" that Ontario loads pay or ultimately pay is the HOEP plus or minus the Global Adjustment minus the OPG Rebate.
- For wholesale loads, the adjustment occurs at the end of the month and is based on their actual consumption during the period.
- For RPP customers, the adjustment is delayed and applied to future consumption.
- Recent trend seems to be for effective price to be higher than HOEP

Monthly HOEP versus Effective HOEP



- The spot market continues to have a central role to play in ensuring that consumption, investment and dispatch decisions in Ontario's new hybrid market are efficient.
- Spot market prices should provide an accurate reflection of underlying supply and demand conditions
- Uniform price construct continues to cause inefficiencies
 - Most apparent in terms of exports as their value can be easily quantified
 - The uniform price construct subsidizes some loads at the expense of others
- Changes in the design of the spot market, such as locational pricing would increase the quality of the signals provided to planners and regulators as well as to producers and consumers
- Now is a good time to make these changes.