



IMM Monthly Market Metrics Report May 2008

Presented to:

Midwest ISO Board of Directors
Markets Committee

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Independent Market Monitor

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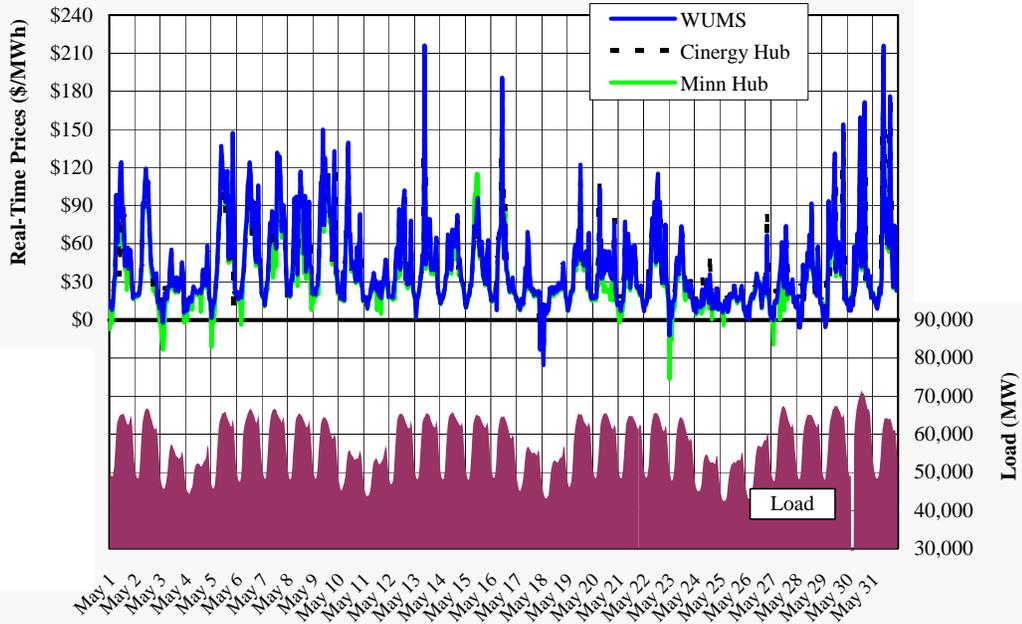
Midwest ISO Energy Prices

- Load was unusually low in May, averaging just over 57 GW per hour.
 - ✓ Average load in May was 3 percent lower than in April.
 - ✓ Only one day exhibited load levels above 70 GWs.
- Although loads decreased only slightly from April, average hub prices declined by nearly 25 percent because:
 - ✓ A sizable amount of supply returned from planned outages; and
 - ✓ The increased supply and lower demand caused coal-fired resources to set prices more frequently.
- There was very little congestion during May due in part to the moderate loads.
- There was one ARC event called during the month for temporary shortages in ramp capability.

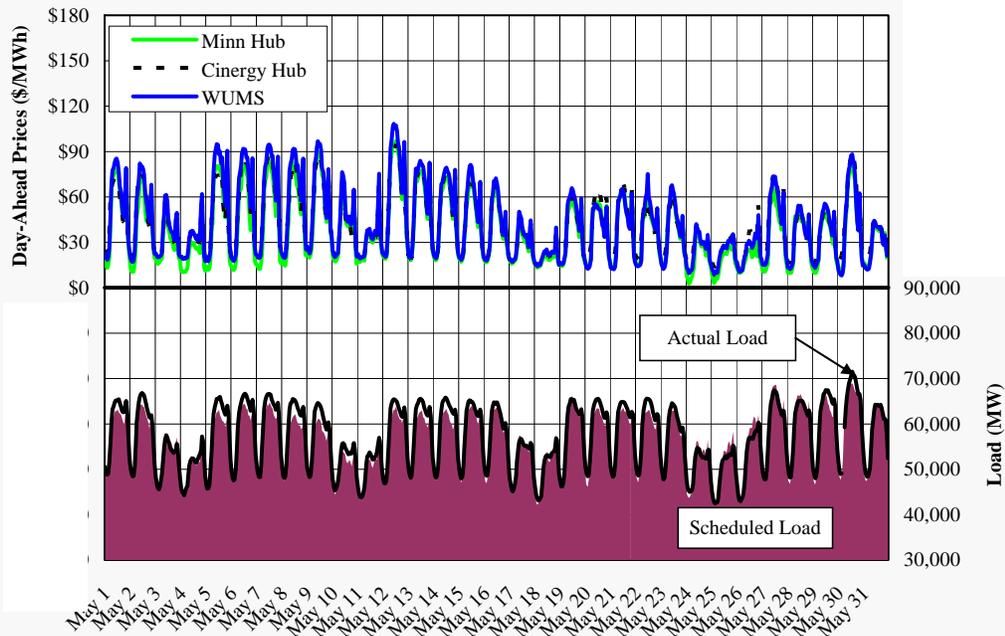
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Real-Time Midwest ISO Energy Prices May 2008



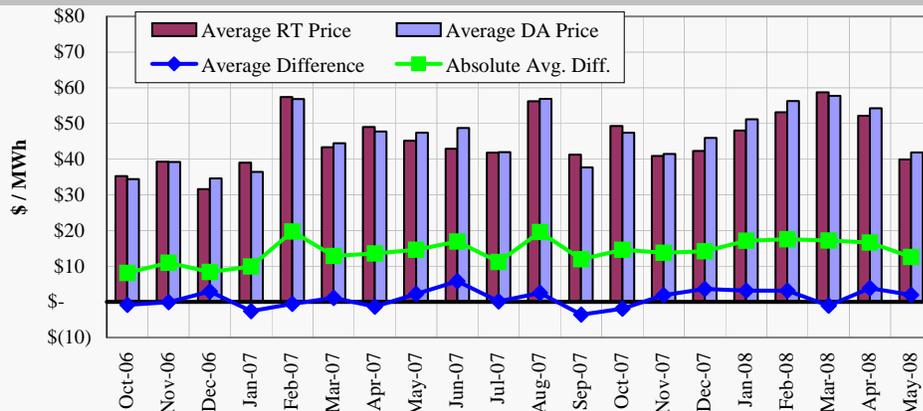
Day-Ahead Midwest ISO Energy Prices May 2008



Day-Ahead to Real-Time Price Differences

- The next figure shows the day-ahead to real-time price convergence at the Cinergy Hub (the table shows other locations).
- May showed a slightly larger day-ahead price premiums than April.
 - ✓ In general, the market has tended to exhibit day-ahead price premiums due to the lower price volatility in the day-ahead market and the higher RSG allocations to real-time purchases.
 - ✓ The average day-ahead premium in May was consistent with the average price differences that have prevailed in recent months.
 - ✓ Likewise, the absolute average price differences were also comparable to the results in recent months.
 - ✓ May had one of the highest levels of day-ahead load scheduling of any month and unusually high levels during peak hours.

Day-Ahead and Real-Time Price Convergence



		Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08
Average	Cinergy	-2%	0%	9%	-7%	-1%	3%	-3%	5%	13%	0%	1%	-9%	-4%	1%	9%	7%	6%	-2%	4%	5%
	Michigan	-3%	-6%	9%	-7%	-1%	1%	-2%	1%	15%	3%	6%	-5%	-3%	2%	10%	7%	7%	-1%	4%	3%
	Minnesota	3%	7%	6%	6%	1%	1%	2%	2%	8%	4%	6%	-7%	-4%	3%	15%	11%	11%	-2%	5%	6%
	Wisconsin	4%	0%	6%	0%	0%	5%	-3%	0%	12%	0%	7%	-4%	0%	1%	7%	1%	8%	-3%	7%	5%
Absolute	Cinergy	23%	28%	27%	25%	34%	30%	28%	32%	39%	27%	35%	29%	30%	34%	34%	36%	33%	29%	32%	31%
	Michigan	24%	31%	28%	26%	35%	29%	28%	33%	42%	29%	35%	30%	31%	32%	34%	36%	32%	29%	33%	33%
	Minnesota	44%	42%	45%	40%	41%	39%	34%	42%	52%	38%	44%	37%	39%	37%	46%	38%	35%	34%	35%	37%
	Wisconsin	33%	31%	37%	32%	34%	31%	28%	39%	47%	31%	37%	35%	37%	35%	41%	36%	35%	31%	33%	32%



Midwest ISO Fuel Prices

- The next figure shows coal, natural gas, and oil prices from January 2007 through May 2008.
- Natural gas prices continued a steady rise to nearly \$12 per MMBTU in May.
 - ✓ Gas prices averaged \$11.30 for the month which was increase of 11 percent from April and more than 60 percent over the past 12 months.
- Power River Basin prices have declined slightly in May.
- Illinois Basin Coal prices continued to rise in May.
 - ✓ Illinois Basin coal rose 10 percent from April to an average of \$2.52/MMBTU for the month.
 - ✓ Over the past 12 months, Illinois Basin coal prices have risen by more than 120 percent.
 - ✓ This increase is primarily due to the increased demand for coal in the world market.

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Midwest ISO Fuel Prices



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Net Load Scheduled in the Day-Ahead Market

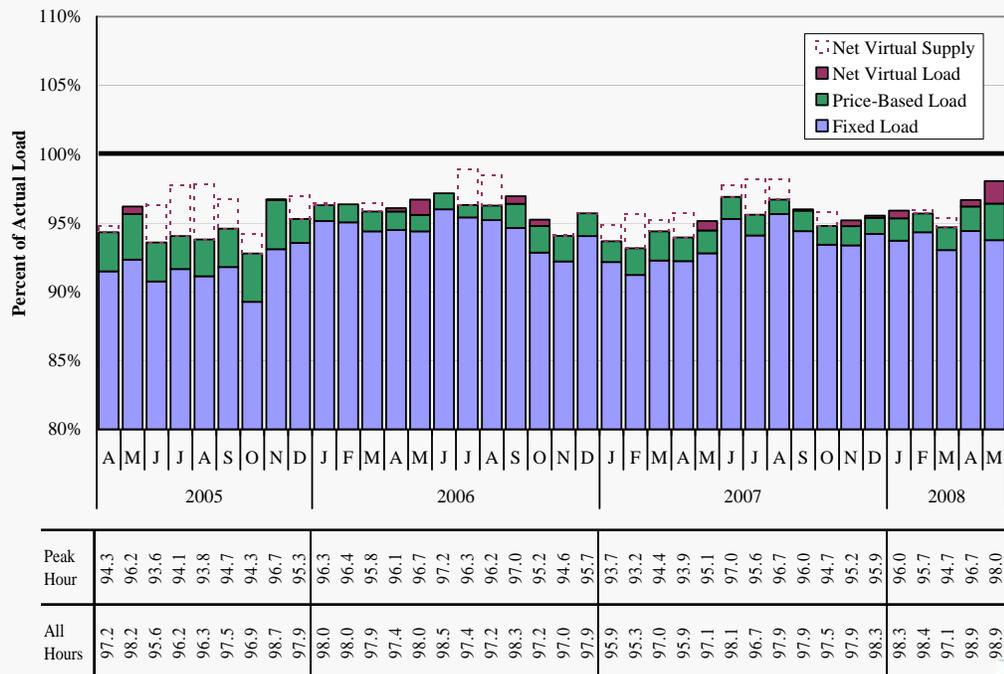
- The following figures show variation of the net load scheduling metric during the daily peak hour.
 - ✓ The net load scheduled day ahead is a key driver of RSG because low levels can compel MISO to commit peaking resources to satisfy the increased load in real-time.
- The figure shows that over the past 12 months, the net day-ahead load scheduling levels in peak hours have remained steady between 95 and 98 percent.
- Net load scheduling in May was the highest since the start of the market:
 - ✓ Net load was scheduled at 98 percent in the daily peak hours; and
 - ✓ At nearly 99 percent in all hours.
- This high level of net load scheduling contributed to reduced dispatch of peaking resources and lower RSG levels.

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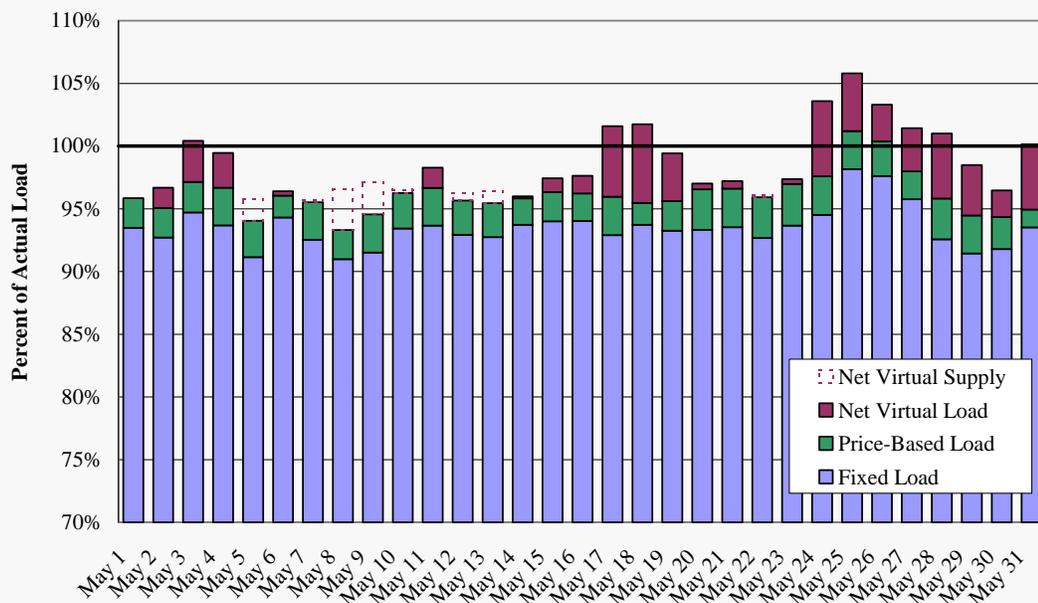
Net Load Scheduled in the Day-Ahead Market



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Net Load Scheduled in the Day-Ahead Market Peak Daily Hour, May 2008



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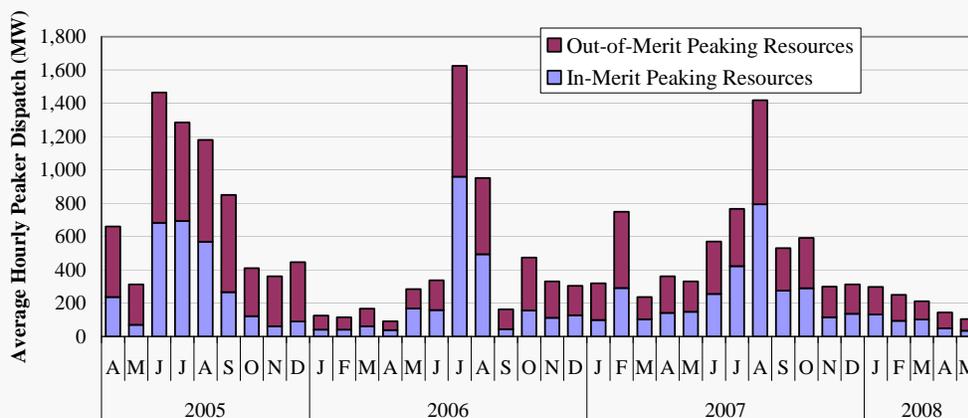
Real-Time Dispatch of Peaking Resources

- The following figure shows the real-time dispatch of peaking resources, separately indicating the share of these peaking resources that were in-merit and out-of-merit (offer price higher than the LMP).
- Dispatch of peaking resources was lower than it has been in more than two years due to:
 - ✓ The supply and demand conditions discussed above; and
 - ✓ Limited congestion during the month.
- Overall, 33 percent of peaking resources dispatched were in-merit, which is not surprising given the low-priced market conditions during the month.

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Peaking Unit Real-Time Merit Status



Out-of-Merit

MW	424	242	782	592	611	585	290	300	356	85	74	106	52	117	179	665	457	119	317	218	58	177	219	61	458	133	220	182	316	344	625	254	302	184	56	176	56	166	156	110	95	69
%	64	78	53	46	52	69	70	83	80	68	64	64	57	41	53	41	48	73	67	66	58	69	61	56	61	55	55	45	44	48	51	61	56	56	56	63	52	66	67			

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Real-Time RSG Payments

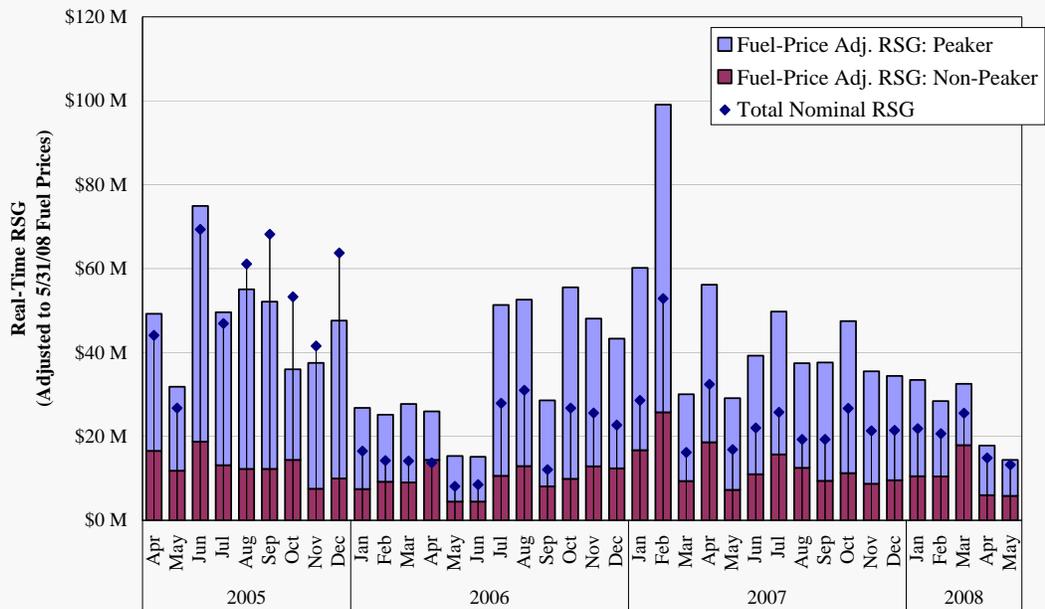
- The next two figures show RSG payments made to peaking units and other units on a nominal basis, and adjusted for changes in fuel prices.
- The first figure shows RSG payments in the real-time market.
 - ✓ RSG payments in May were less than April and significantly less than previous months.
 - ✓ The decrease in peaking resource dispatch (which tends to lower RSG) were offset by higher fuel prices (which tends to raise RSG).
 - ✓ In May, the share of real-time RSG paid to peaking resources was very high as expected.
- The second figure shows day-ahead RSG levels for May, which continued to be much lower than in the real-time market.
- The third figure shows daily real-time RSG costs incurred by region, indicating:
 - ✓ Compared to prior months the share of RSG is paid to generators in the NCAs (Minnesota and WUMS) declined relative to other regions.
 - ✓ This consistent with low levels of congestion-related RSG during the month.

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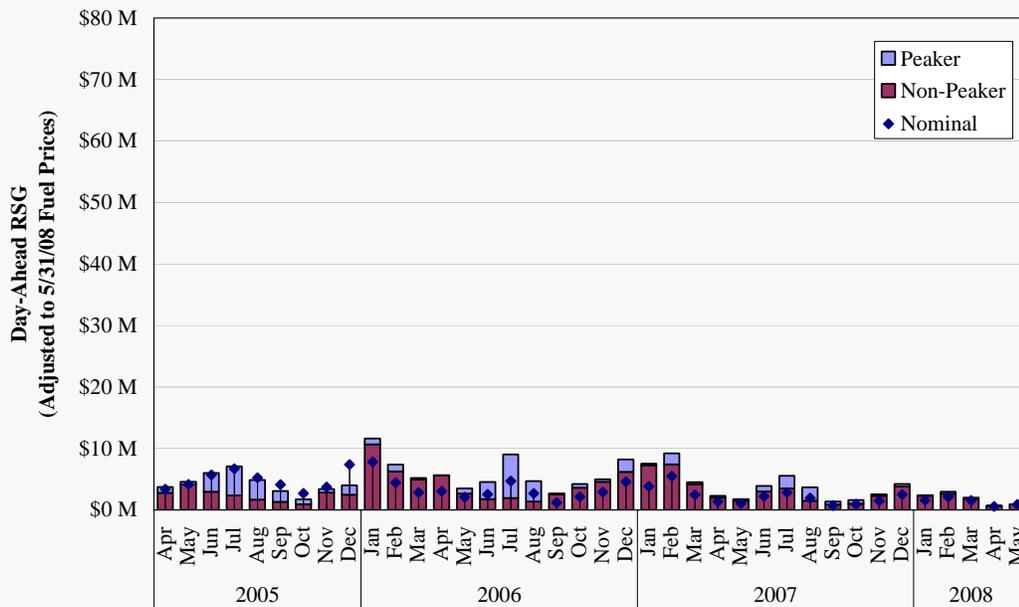
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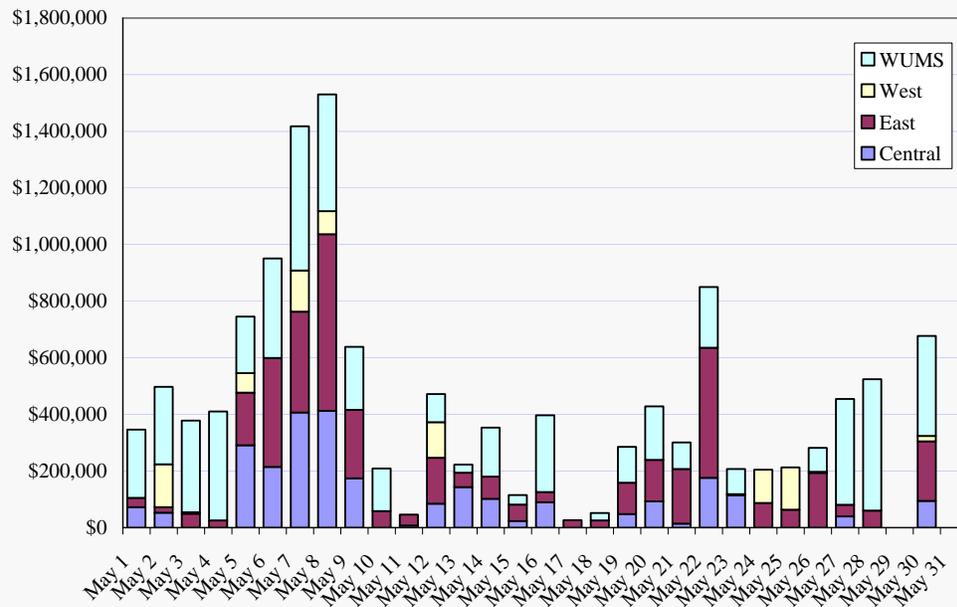
Monthly Real-Time RSG Payments



Monthly Day-Ahead RSG Payments



Regional Daily Real-Time RSG Payments May 2008



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Potential Economic Withholding: Output Gap

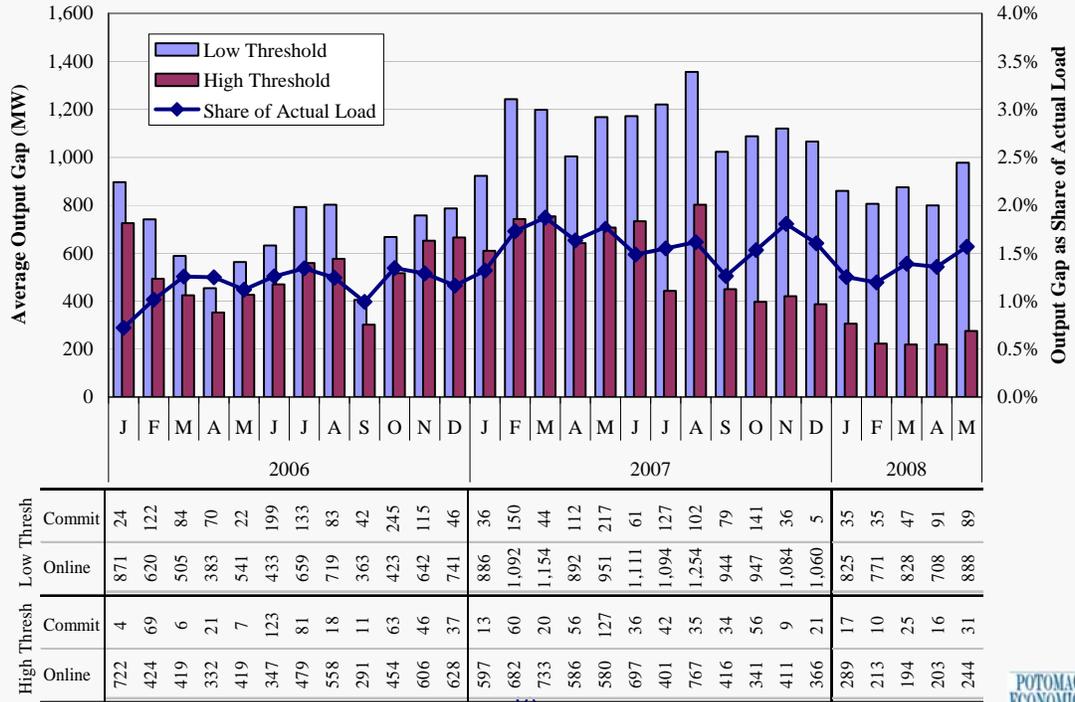
- The next two figures show the output gap levels used to screen for economic withholding.
- The first figure shows the output gap under two thresholds (mitigation threshold, one-half of mitigation threshold).
 - ✓ The output gap levels increased slightly in May.
 - ✓ The modest increase in output gap levels over the past 17 months (as compared to 2006) is primarily due to the lower NCA thresholds in Minnesota, which cause more resources to fail the output gap screen.
 - These thresholds are periodically recalculated and were lowered in February.
 - ✓ No other significant changes in participant offer conduct has occurred in recent months.
- The second figure shows output gap by day. While there is a steady baseline level, some days show elevated levels that we routinely investigate.
- Our monitoring of the output gap levels on an hourly basis has not raised significant competitive concerns.

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Monthly Output Gap

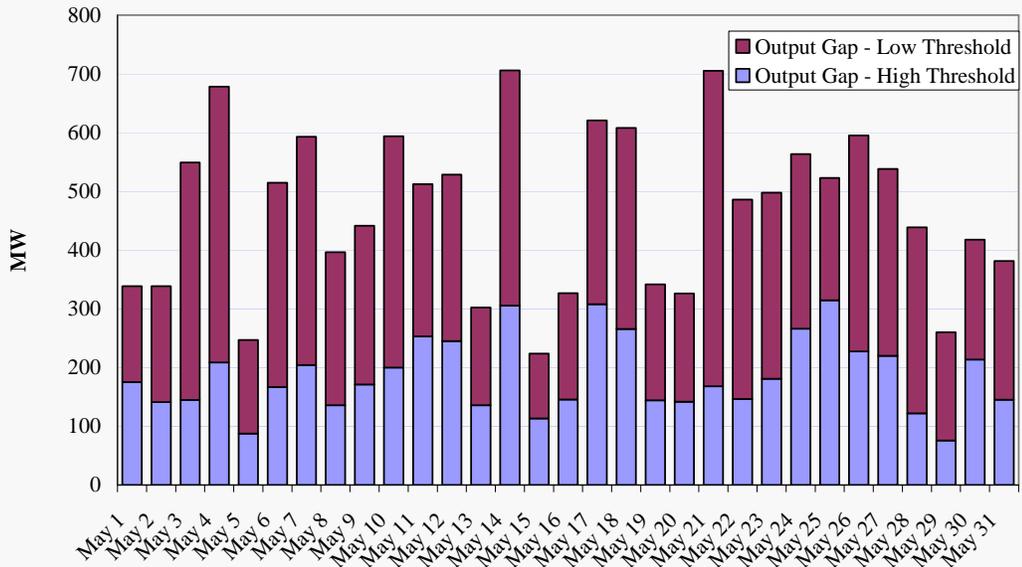


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Peak Hour Output Gap May 2008



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Submittals to External Entities and Other Issues

Submittals to External Entities

- On May 20, submitted a response to a FERC data request regarding transmission congestion in NCAs.
- We presented the 2007 State of the Market Report to FERC staff in late May.

Other Issues

- The Markets Committee requested that we evaluate the current proposals to use a Real-Time Sufficiency Tool (“RTST”).
 - ✓ The RTST is proposed to be used to target load shedding to insufficient LSEs when shedding is necessary.
 - ✓ An insufficient LSE is one whose available designated network resources do not cover their load obligations.
- We recommend the Midwest ISO not support the current RTST proposal because:
 - ✓ The insufficient LSE may not cause the need to shed load for many reasons; and
 - ✓ The current proposal can cause forced outages to result in targeting load shedding. This linkage will like result in an inefficient increase in costs to consumers in the Midwest through higher bilateral capacity prices (Module E);
- We have consulted with MISO staff regarding a modified proposal that would base targeted load shedding on LSE’s sufficiency on a month-ahead basis.