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Midwest ISO Overview:
ATC Customer Meeting

August 20, 2009

Agenda

- Overview – July 2009
- Dashboard
- Selected Slides
- Questions

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July 2009 Overview

Overview:

- July 2009 is one of the coolest July's on the NOAA record with an average temperature of 4.25° F below the long term July average. As a result, the Midwest ISO market was characterized by lower demand and lower prices.
- The peak load of 82,635 MW was set on July 28th in HE15. The average load in July was down by 1.11% from June and was 14.53% lower than July 2008.
- Coal prices remained steady this month; while gas prices declined slightly and oil prices rose when compared to June

Markets:

- Monthly hourly average Day-Ahead and Real-Time prices for July 2009 were the lowest since market start at $23.08/MWh and $22.67/MWh respectively. Both Day-Ahead and Real-Time prices were approximately 62% lower than July 2008 levels and 12% lower than June 2009 levels.
- Monthly average Real-Time Regulation, Spinning and Supplemental Reserve MCPs also continued to decline at $11.34/MWh, $2.70/MWh and $0.32/MWh respectively, lower than those in both May and June.

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July 2009 Overview (cont'd)

Markets (continued):

- Net virtual profits decreased to $0.54/MWh in July, influenced by:
  - A significant decline in virtual supply profits and a slight drop in virtual demand profits
  - A substantial decrease in both cleared virtual demand and supply volumes, in contrast to the increases observed in June
  - An improvement in price convergence between the Day-Ahead and Real-Time markets
- Both cleared virtual demand and virtual supply volumes lag behind all other months of 2009 except for February, while virtual demand volume also lags behind March

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July 2009 Overview (cont'd)

Markets (continued):

- The rate of return on investments for BUY FTRs in the Monthly FTR auction for July was a loss of 15.8%, influenced by a significant decline in the share of dollars received from the Day-Ahead market. There was a more than 50% decline in congestion collections due to lower temperatures which contributed to less demand and less congestion.
  - Over the past thirteen months, there has been a positive simple return on investment of 8.45%.

Operations/Reliability:

- On a monthly average basis, the Real-Time Unit Commitment Performance scores continued to exceed target levels.
  - There were three days where the daily score for all hours was below excellent or good. The performance on those days can be attributed to load forecast error resulting from thunderstorm activity, with a contributing factor on one of the days from unexpected wind generation.
- July RSG for both Day-Ahead and Real-Time were lower than levels observed in June.

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July 2009 Overview (cont'd)

Operations/Reliability (continued):

- Weather related input data errors as well as wide-spread thunderstorms throughout the footprint resulted in the Day-Ahead Mid-Term Load Forecast error exceeding the threshold for four days this month.

Transmission Services:

- There was an uptick in the number interconnection requests, which is not surprising given a deadline to get in the queue this month, but no deadline to complete milestones to continue or withdraw.
- The late TSR report was for 1000+ MW out of Manitoba to Minnesota and Wisconsin. Customers were involved and participated in the study, which is now moving to a facilities study.

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Dashboard

Operational Excellence									
Metric	Current Month Indicator	Previous 3 Month Indicators			Metric	Current Month Indicator	Previous 3 Month Indicators		
	Jul-09	Jun-09	May-09	Apr-09		Jul-09	Jun-09	May-09	Apr-09
Absolute DA-RT Price Convergence	●	●	●	●	Tie Line Error	●	●	●	●
Day-Ahead Load Cleared from Real-Time	●	●	●	●	Control Performance - BAAL	●	●	●	●
Monthly Average Virtual Profitability	●	●	●	●	Control Performance - CPS1	●	●	●	●
FTR Funding	●	●	●	▼	Control Performance - CPS1 (12 month rolling)	●	●	●	●
FTR Monthly (BUY) Auction Profitability	TBD	NA	NA	NA	Unit Commitment Efficiency	●	●	●	●
Headroom	●	●	●	●	ARS Deployment	●	●	●	●
Real-Time Unit Commitment Performance - All Hours	●	●	●	●	NERC Violations	●	●	●	●
Real-Time Unit Commitment Performance - Peak Hour	●	●	●	●	Fuel Normalized RSG per RT MWH Served	●	●	●	●
Day-Ahead Mid-Term Load Forecast	■	●	●	NA					
Short-Term Load Forecast	●	●	●	NA					

Customer Service									
Metric	Current Month Indicator	Previous 3 Month Indicators			Metric	Current Month Indicator	Previous 3 Month Indicators		
	Jul-09	Jun-09	May-09	Apr-09		Jul-09	Jun-09	May-09	Apr-09
Application Availability	●	●	●	●	Monthly Transmission Queue	●	●	●	●
UDS Solution Percentage	●	●	●	●	System Impact Study Performance	●	●	●	●
Day-Ahead Posting Time	●	●	●	●	Generation Queue Progress and Status	■	●	●	●
Transmission Settlements Accuracy	●	●	●	●	Settlement Disputes	●	●	●	●

● - Expected ■ - Concern/Monitor ▼ - Review

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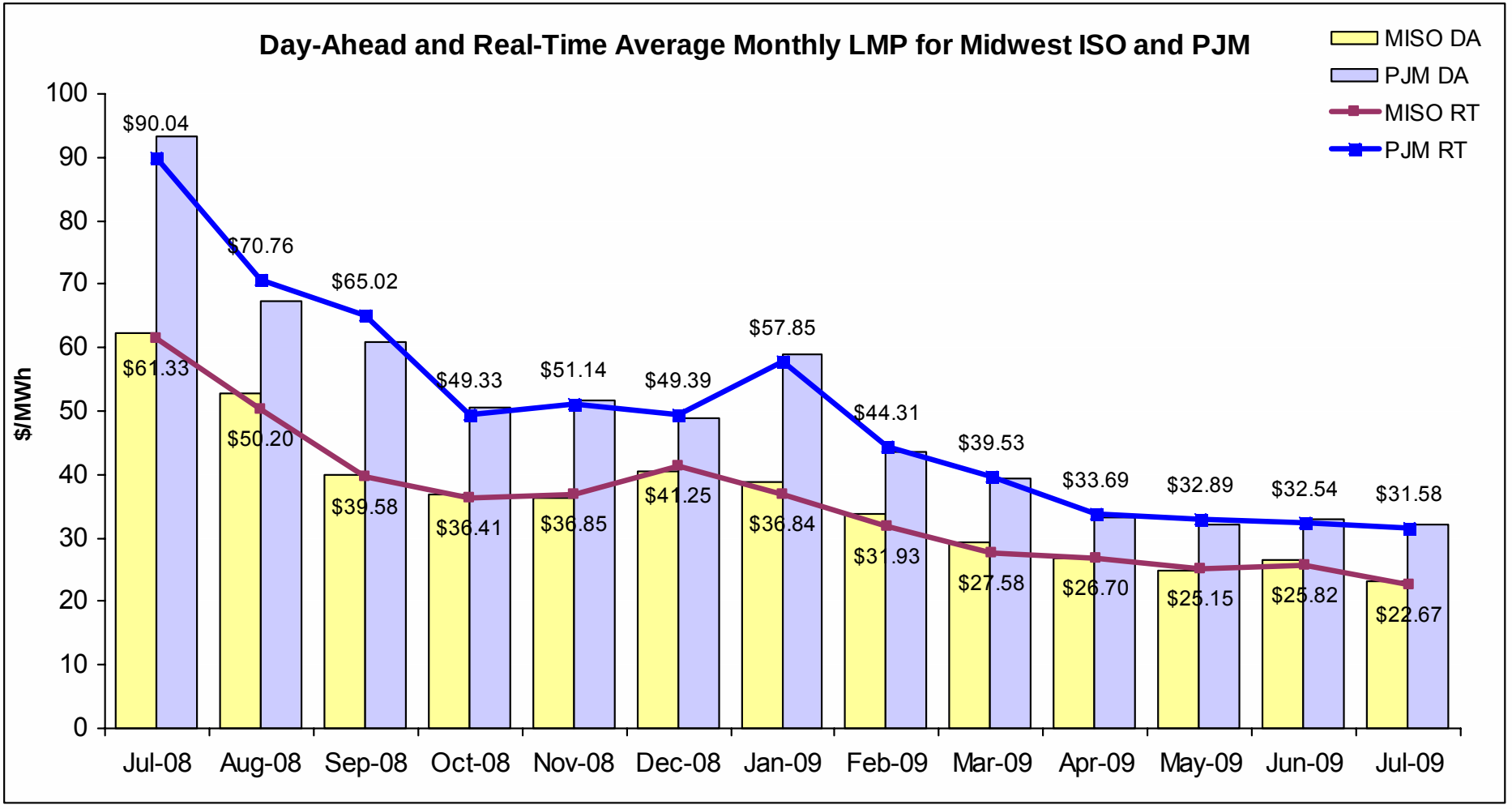
Pricing



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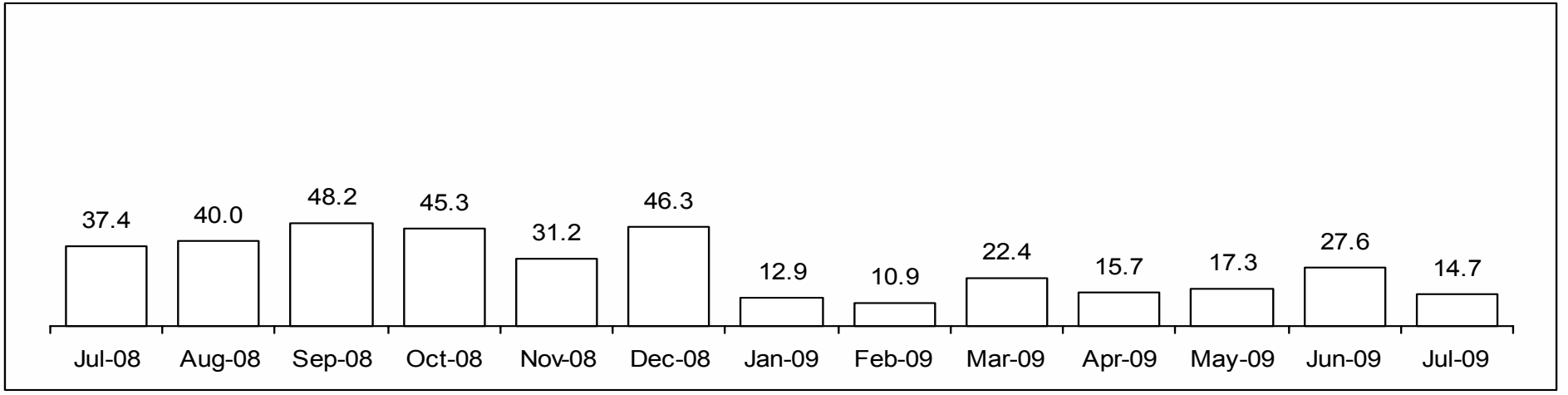
Note: MISO System-Wide based on the monthly hourly average of the hubs.

Source: Midwest ISO Market Analysis Department

Day-Ahead Congestion Collections

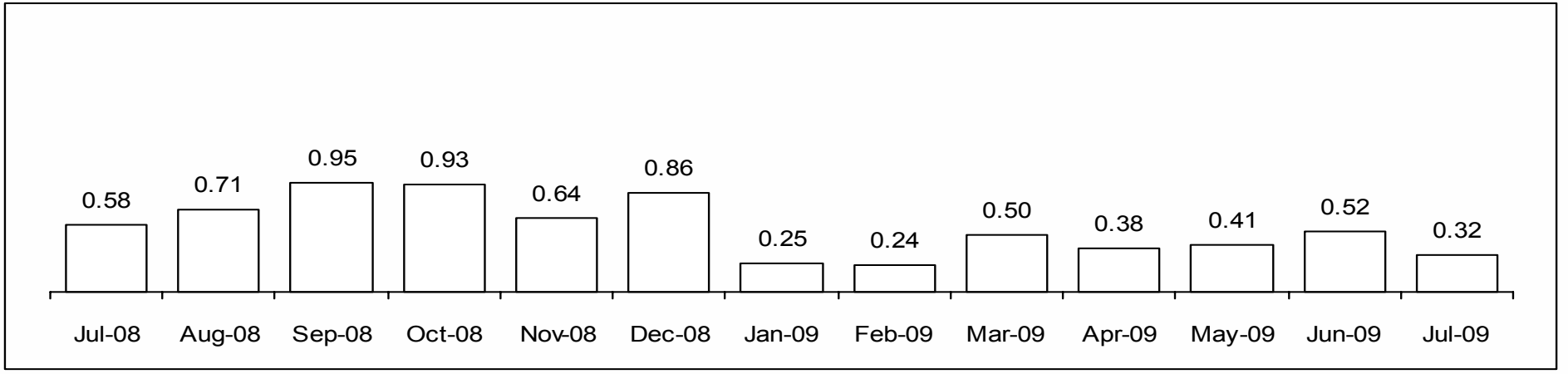
Day-Ahead Market Congestion Collections

$ in millions



Normalized* Day-Ahead Market Congestion Collections

$/MWh



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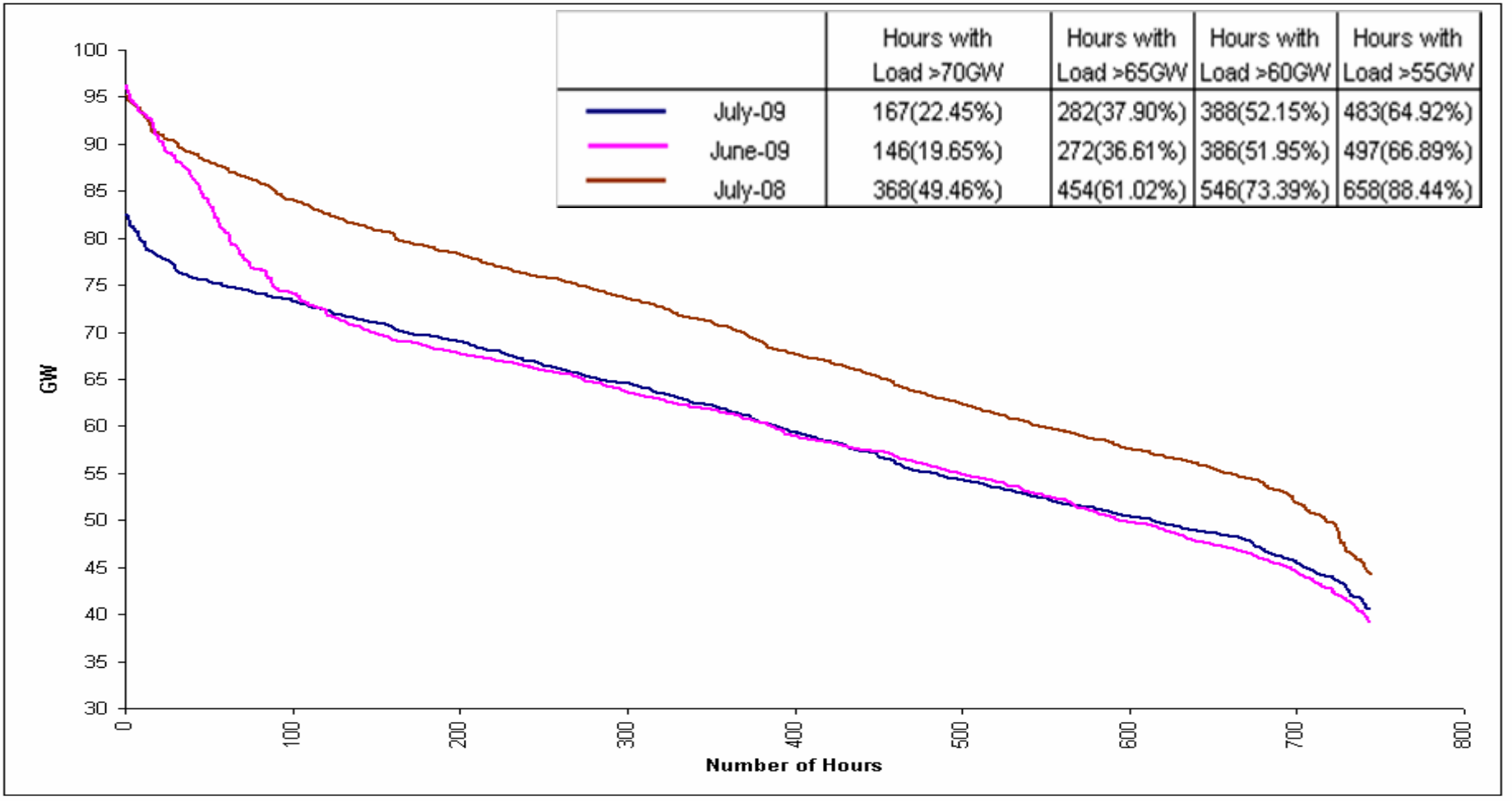
* Normalized using Day-Ahead load

Source: Midwest ISO Data Management Department

MISO Load* Duration Curve



*ICCP Load data

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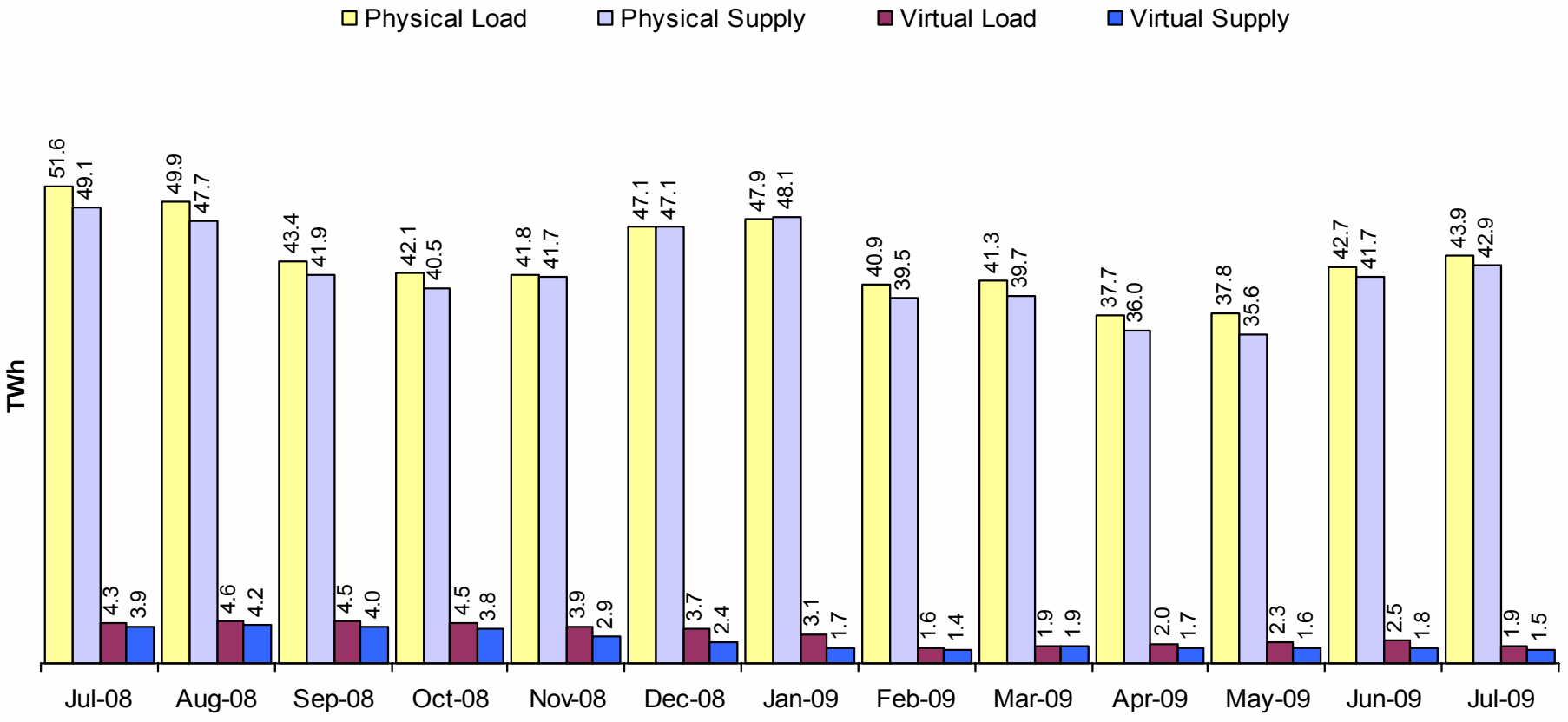
Source: Midwest ISO Market Analysis Department

Day-Ahead Cleared



$ in Billions

3.94	3.16	2.09	1.81	1.74	2.18	2.05	1.47	1.28	1.07	1.02	1.29	1.12

Day-Ahead Cleared Load Value (includes virtuals)

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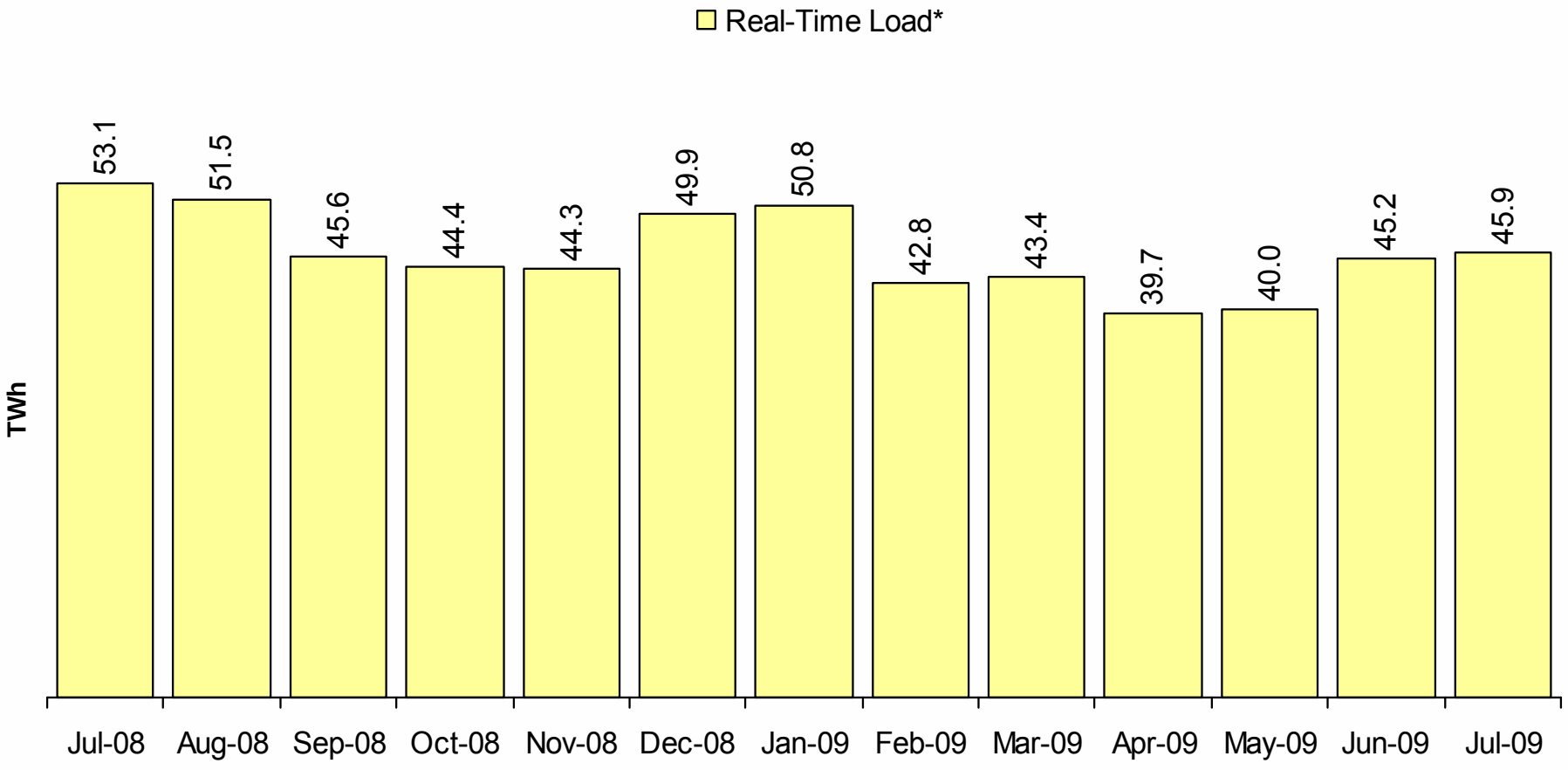
Source: Midwest ISO Market Analysis and Data Management Department

Real-Time Cleared



$ in Billions

3.54	2.76	1.86	1.61	1.64	2.06	1.84	1.34	1.15	1.02	1.01	1.20	1.06

Real-Time Cleared Value

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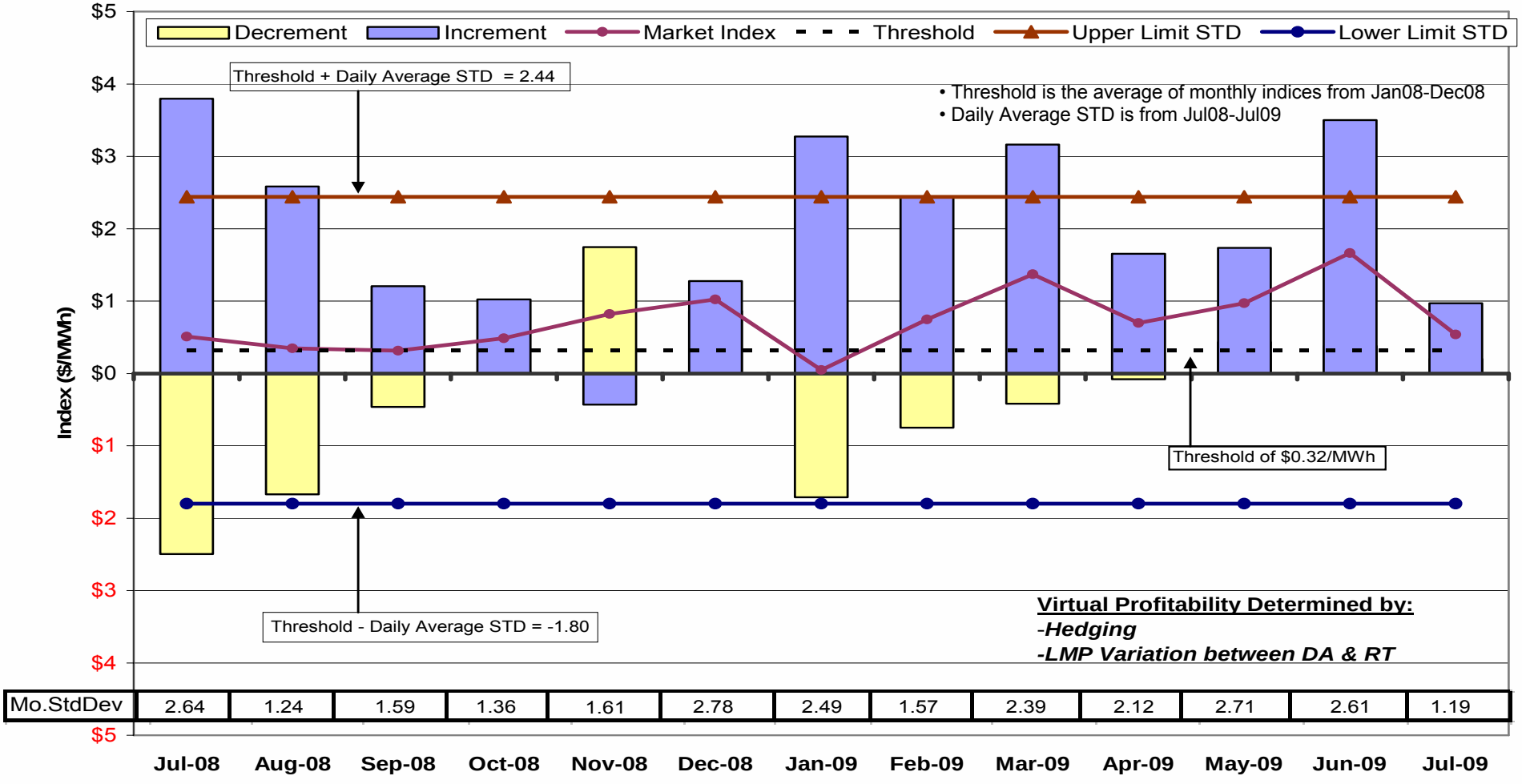
**Real-Time Load is the sum of hourly peak UDS load.*

Source: Midwest ISO Data Management Department

Monthly Average Gross Virtual Profitability

Midwest ISO Cleared Virtual Market Profit Index*



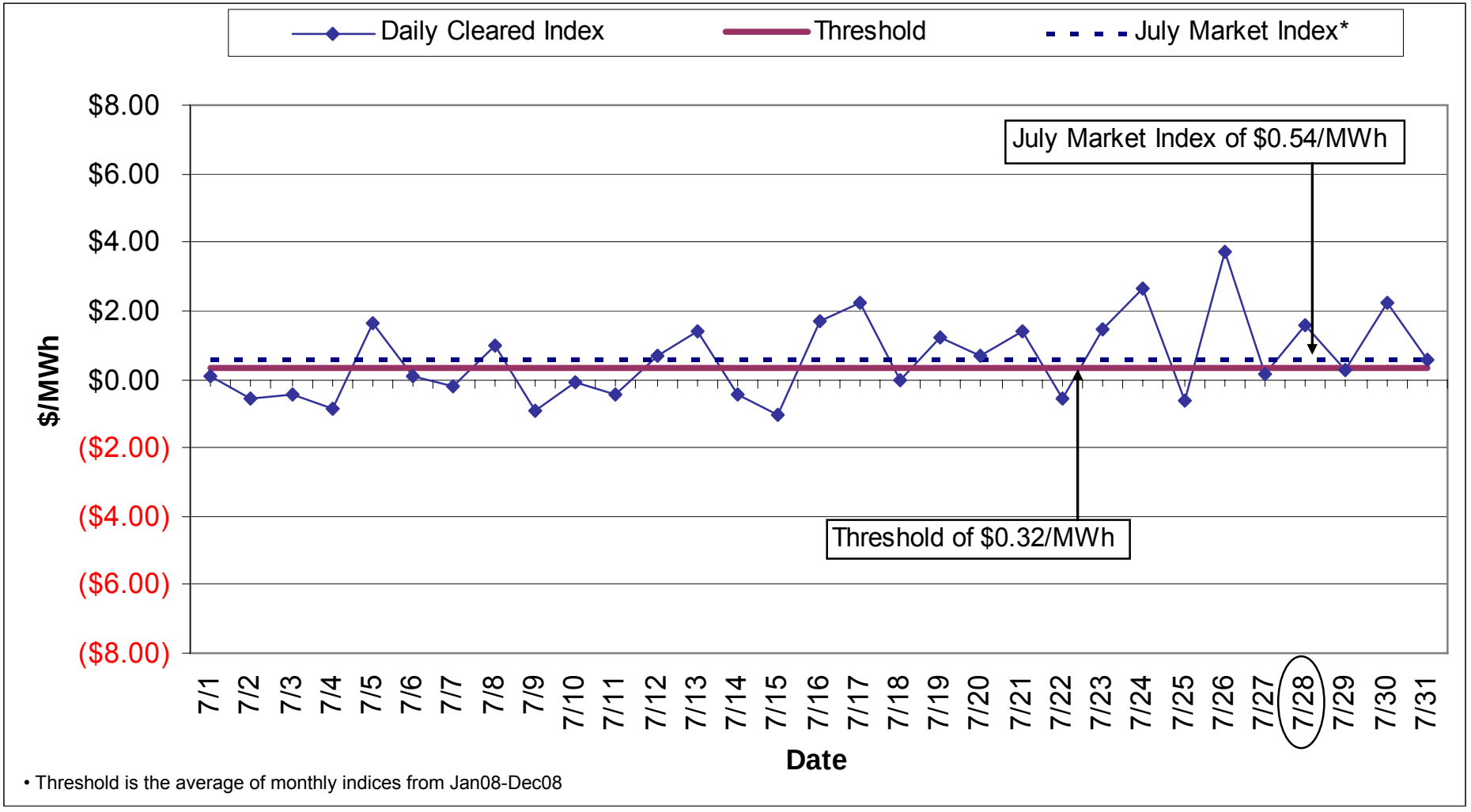
*The virtual profitability market index is defined as the sum of profits/losses for all cleared virtual transactions divided by the volume (MWh) of total cleared transactions.

* Virtual profits/losses are calculated by multiplying the cleared virtual MW and the imbalance between RT LMP and DA LMP for a cpnode, then summed across all cpnodes, all hours.

Source: Midwest ISO Market Pricing Department

Daily Gross Virtual Cleared Profitability

Peak Day: 7/28/2009 Peak Hour = HE 15



• Threshold is the average of monthly indices from Jan08-Dec08

*The virtual profitability market index is defined as the sum of profits/losses for all cleared virtual transactions divided by the volume (MWh) of total cleared transactions.

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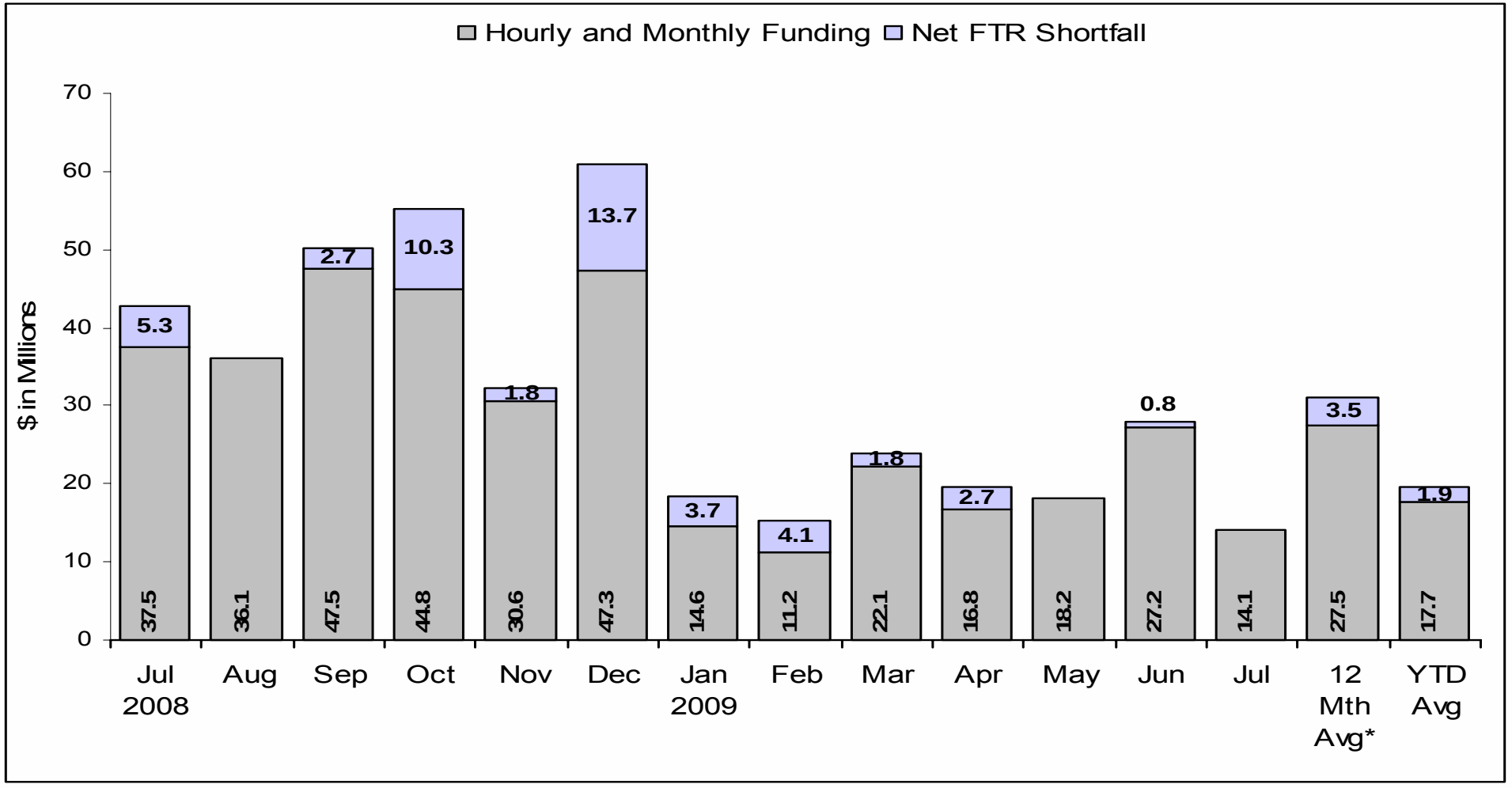
Source: Midwest ISO Market Pricing Department

FTR Funding



Date of Extraction: Aug 08, 2009. Values may continue to change until the S-105 is complete.

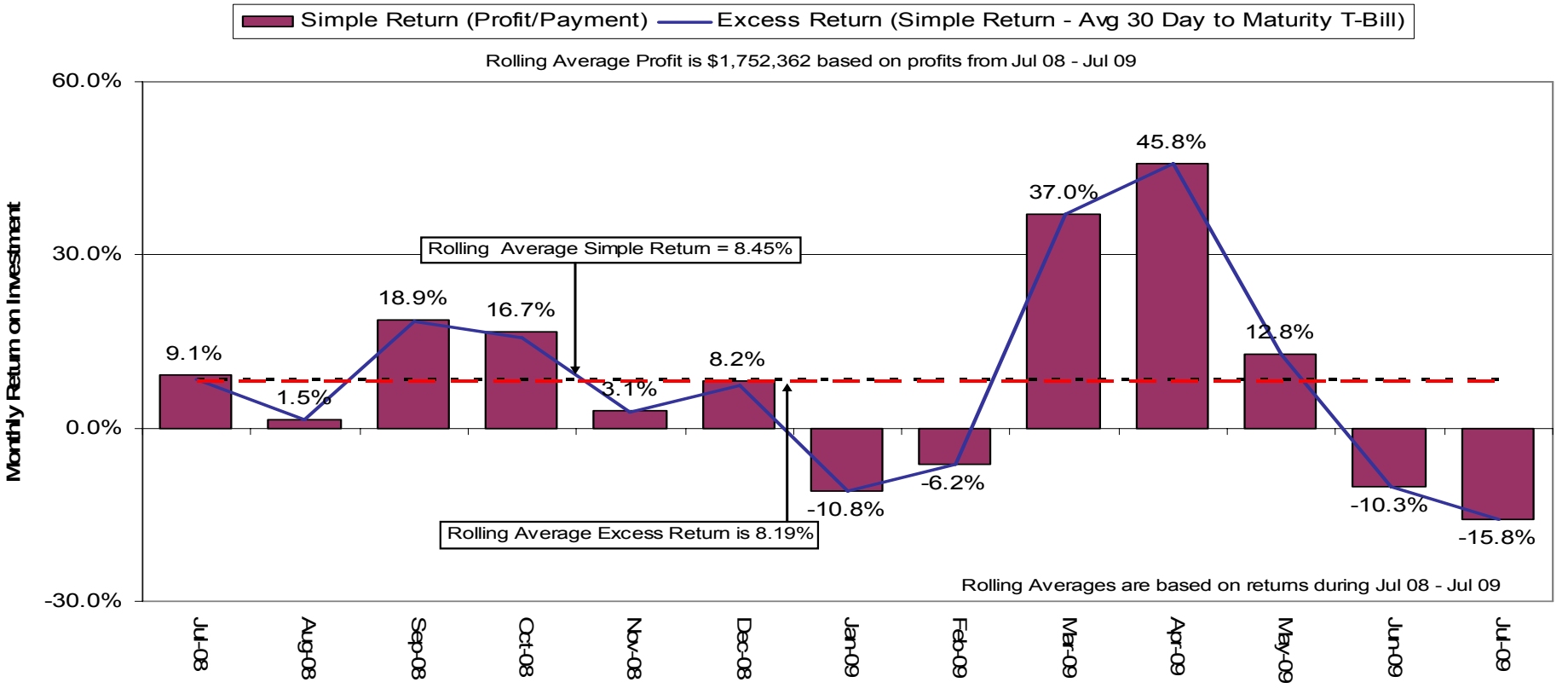
87.6%	100.0%	94.5%	81.3%	94.5%	77.5%	79.9%	73.1%	92.5%	86.2%	100.0%	97.1%	100.0%	89.7%	89.8%

Monthly Funding Factor

*Aug08-Jul09

Source: Midwest ISO Market Analysis Department and the Market ECF Report

FTR Monthly Auction (BUY) Return on Investment



	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09
FTR Count	3,277	4,046	3,928	4,708	3,951	4,002	4,281	3,968	3,912	4,199	4,044	3,769	4,176
Profit	$1,909,580	$396,090	$4,036,508	$4,521,762	$545,807	$2,298,640	-$1,925,847	-$1,075,310	$5,793,671	$7,687,467	$2,111,879	-$1,832,579	-$1,686,966
Volume	38,790	52,699	45,839	53,173	44,230	45,559	57,883	47,814	43,351	49,146	42,126	38,624	36,997
Congestion Rent	$35,485,792	$37,333,540	$47,229,394	$44,068,127	$30,469,725	$45,361,759	$12,500,800	$10,339,768	$22,055,465	$15,149,948	$16,507,374	$26,043,665	$14,306,475

Date of Extraction: Aug 08, 2009. Values may continue to change until the S-105 is complete.

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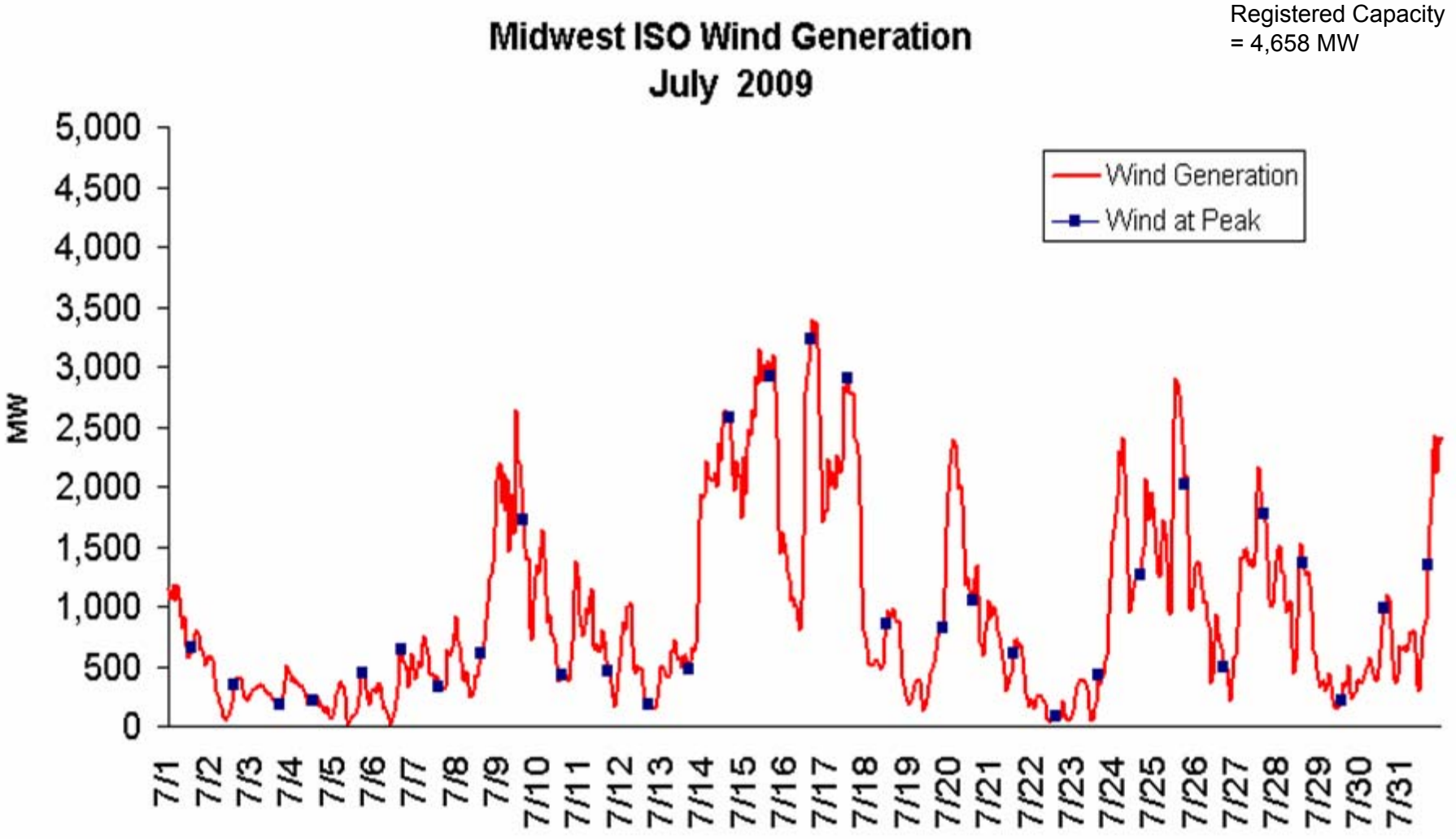
The document titled "Item B4b Metrics for FTR Monthly Auction Market.pdf" is available in the March 2009 AC meeting materials.

Source: Midwest ISO Market Analysis Department

Wind Utilization

Registered Capacity
= 4,658 MW



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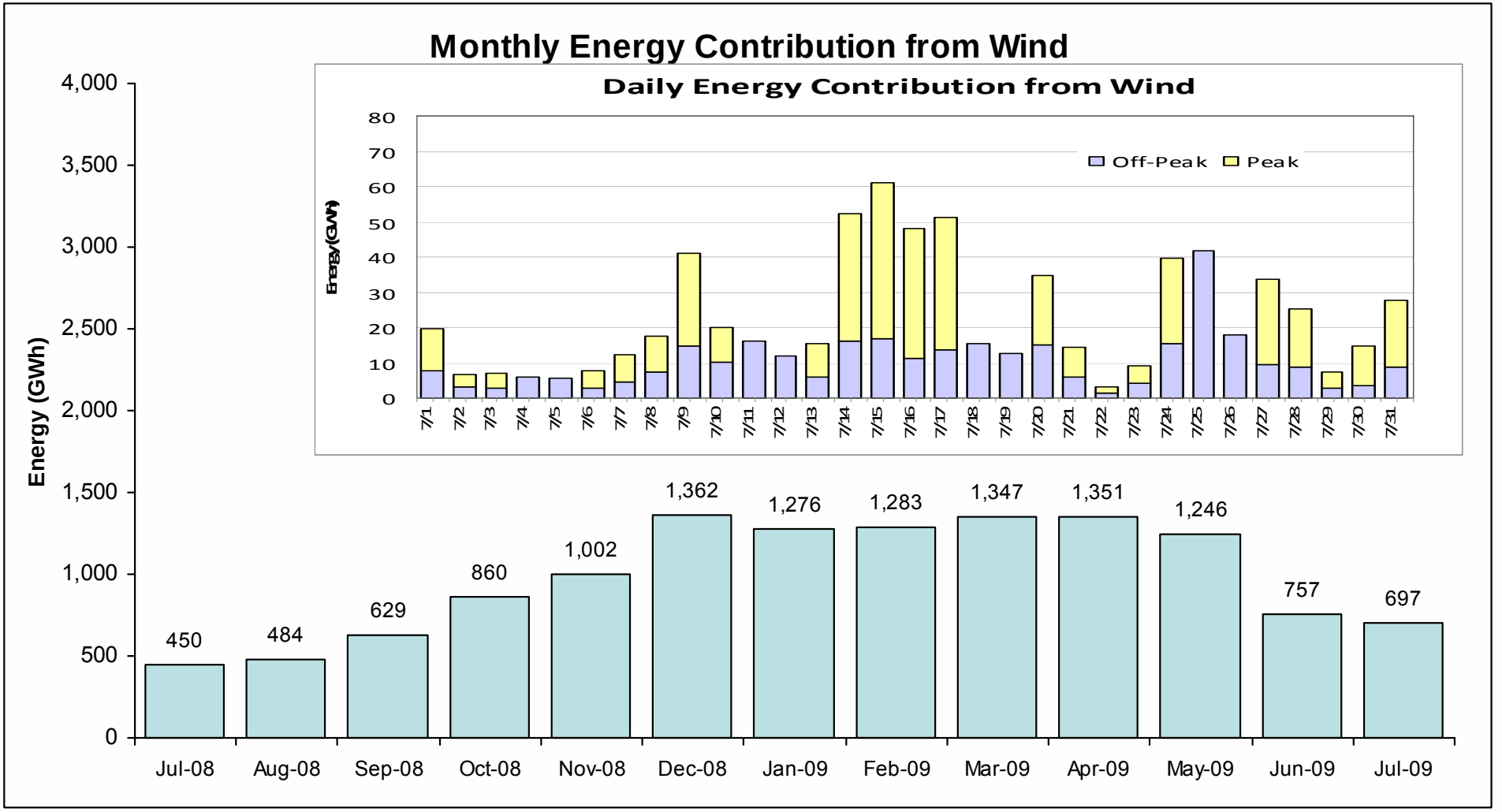
Source: Midwest ISO Real-Time Operations Department

Wind Utilization

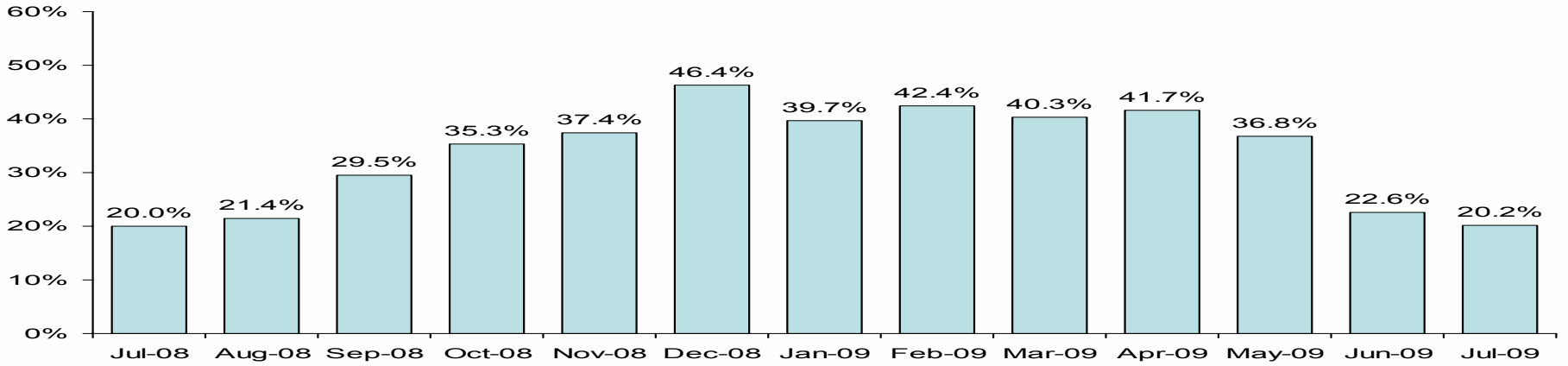


**2008 data is based on Settlements and 2009 data is actual ICCP data*

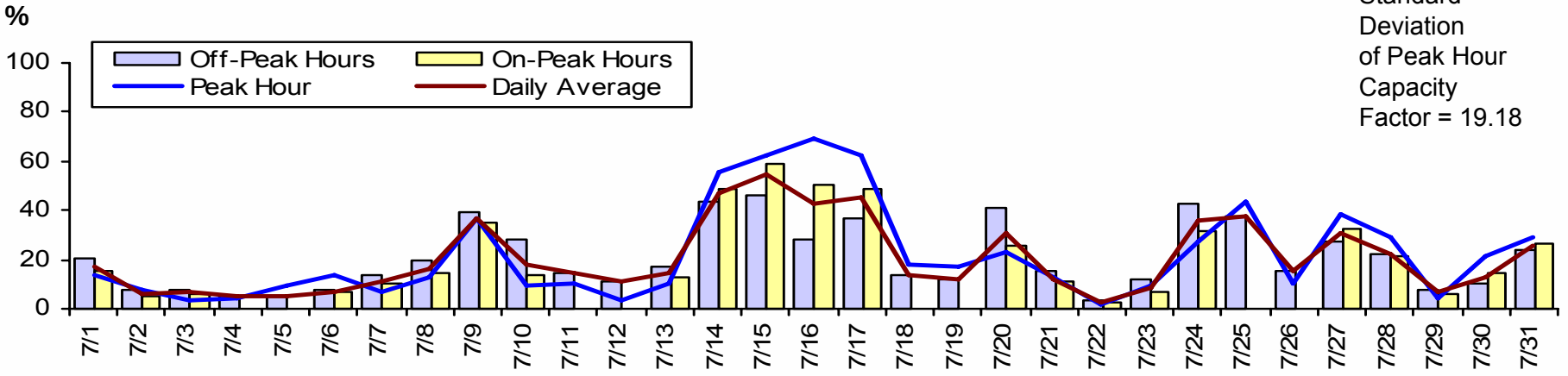
Source: Midwest ISO Data Management Department

Wind Utilization

Monthly Wind Capacity Factor*



Daily Wind Capacity Factor*



Standard Deviation of Peak Hour Capacity Factor = 19.18

* Wind Capacity factor is calculated by dividing actual generation by the installed capacity.

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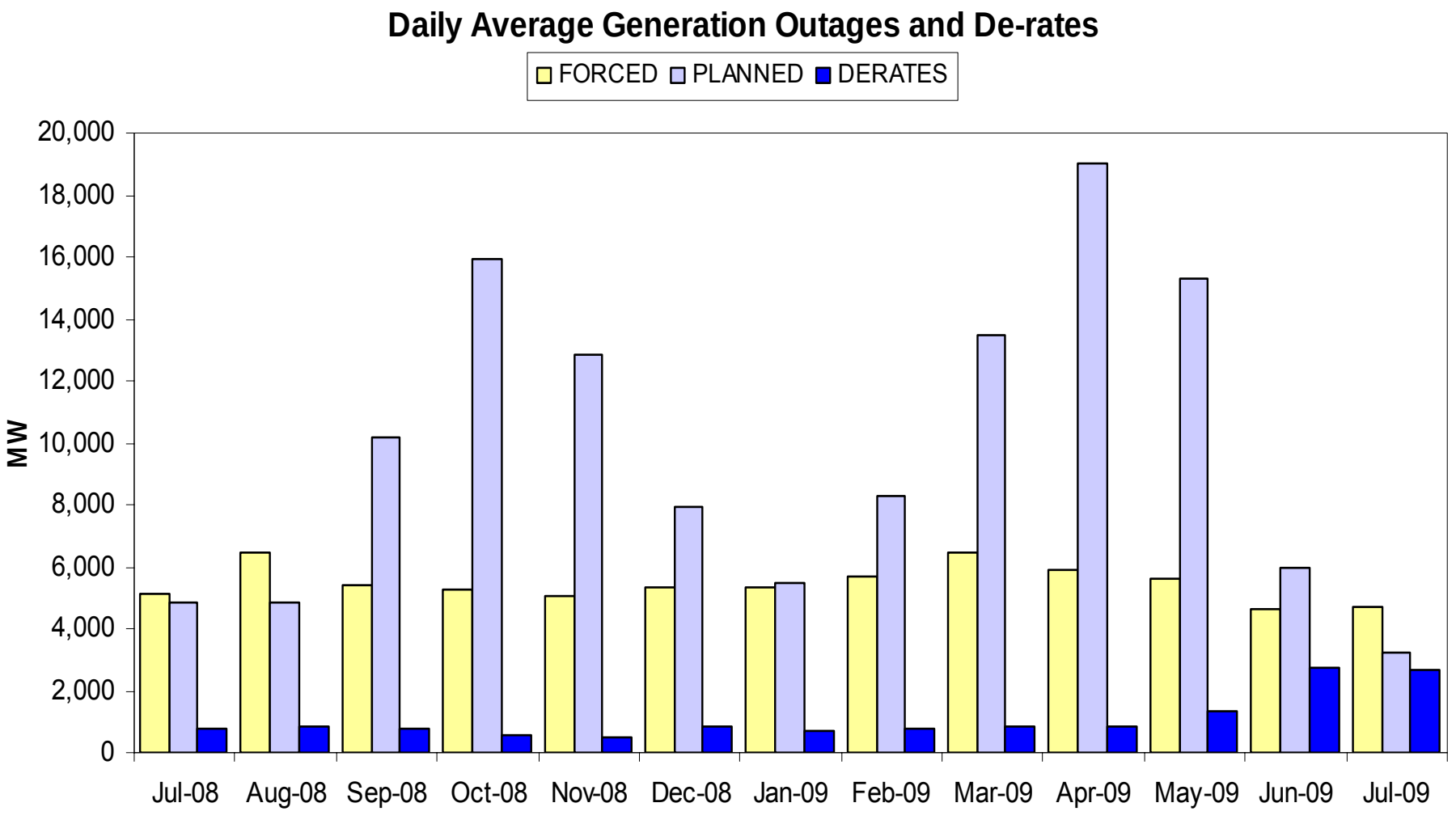
- Weekends are considered Off-Peak.

Source: Midwest ISO Real-Time Operations Department

Outages



Date of Extraction for July data was Aug 6, 2009.

* Forced Outages include Emergency, Forced and Urgent
* Planned Outages include Construction, Future Equipment (MISO internal), and Maintenance

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**De-rates after June 1, 2009 are based on limits observed in Real-Time and may reflect normal seasonal de-rates in addition to de-rates for maintenance or other operating conditions.*

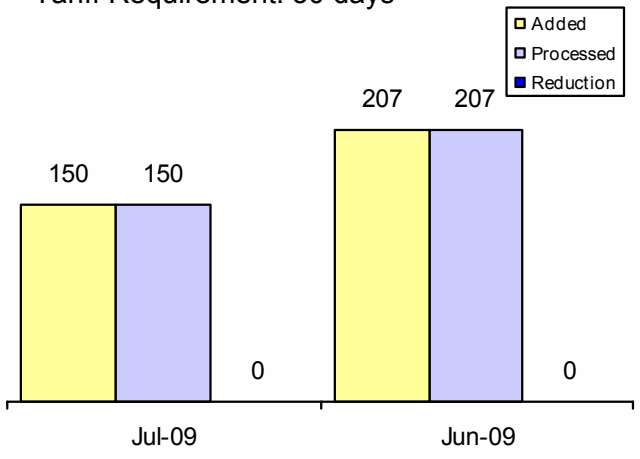
Source: MISO Outage Scheduler Application

Transmission Services

Monthly Transmission Queue

Average days in queue: Less than 1 day

Tariff Requirement: 30 days

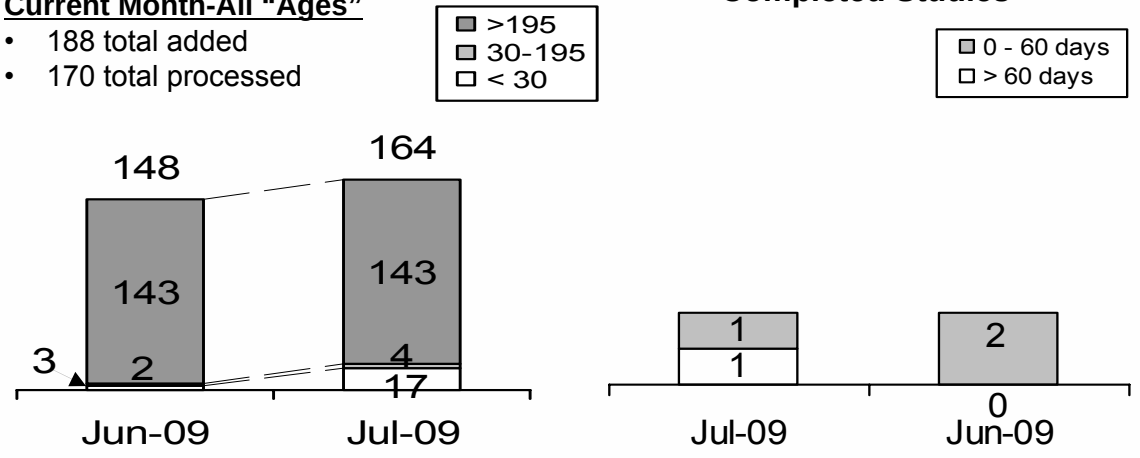


Yearly Transmission Queue*

# of Requests in Study

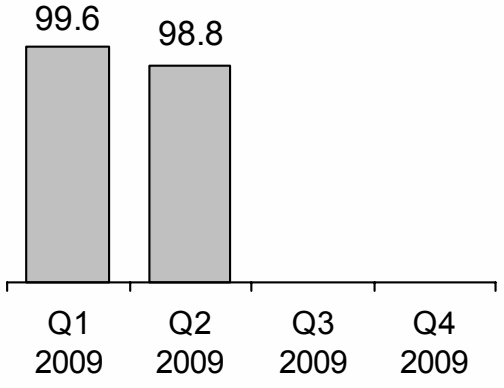
Current Month-All "Ages"

- 188 total added
- 170 total processed



MTEP

% of project $ on-track



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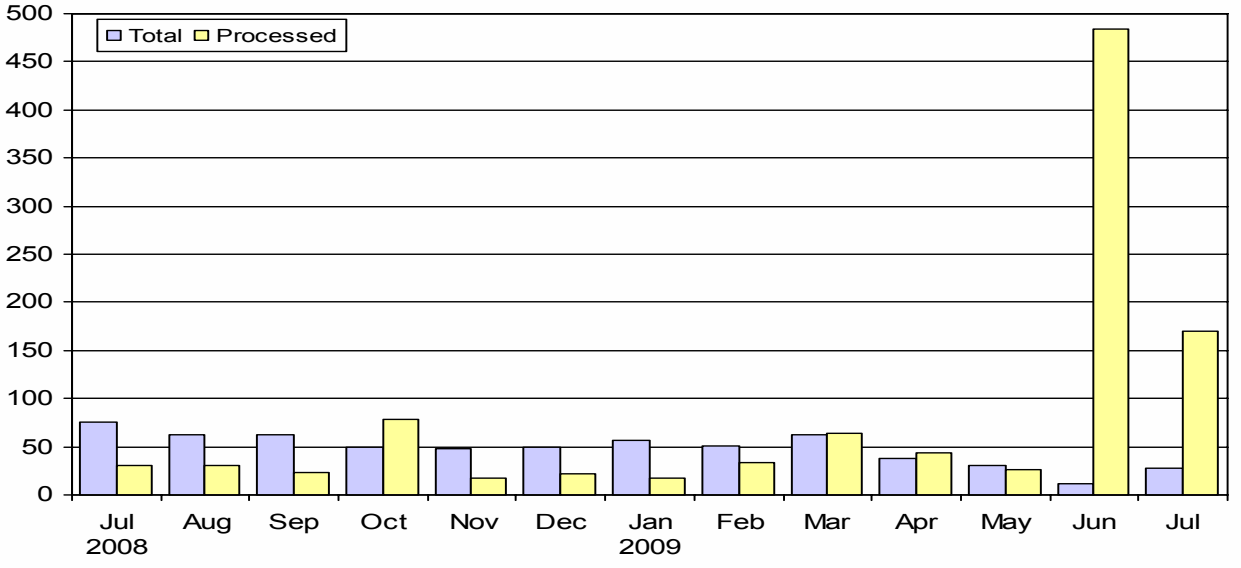
Long Term Transmission Service Requests* *(excludes abnormally difficult requests)*

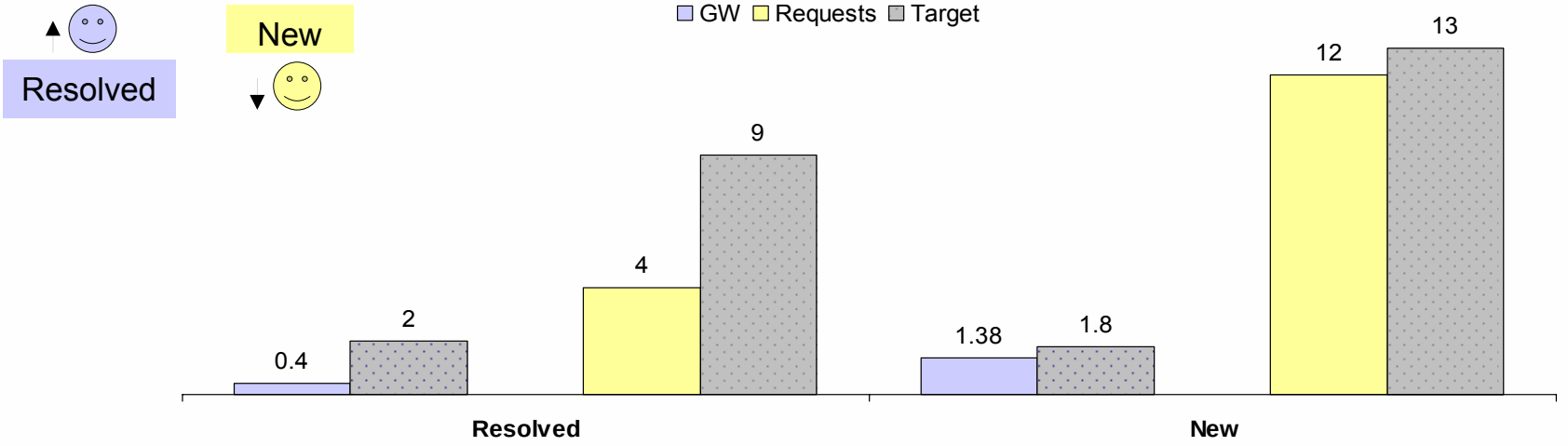


**June Data includes MidAmerican Transition efforts*

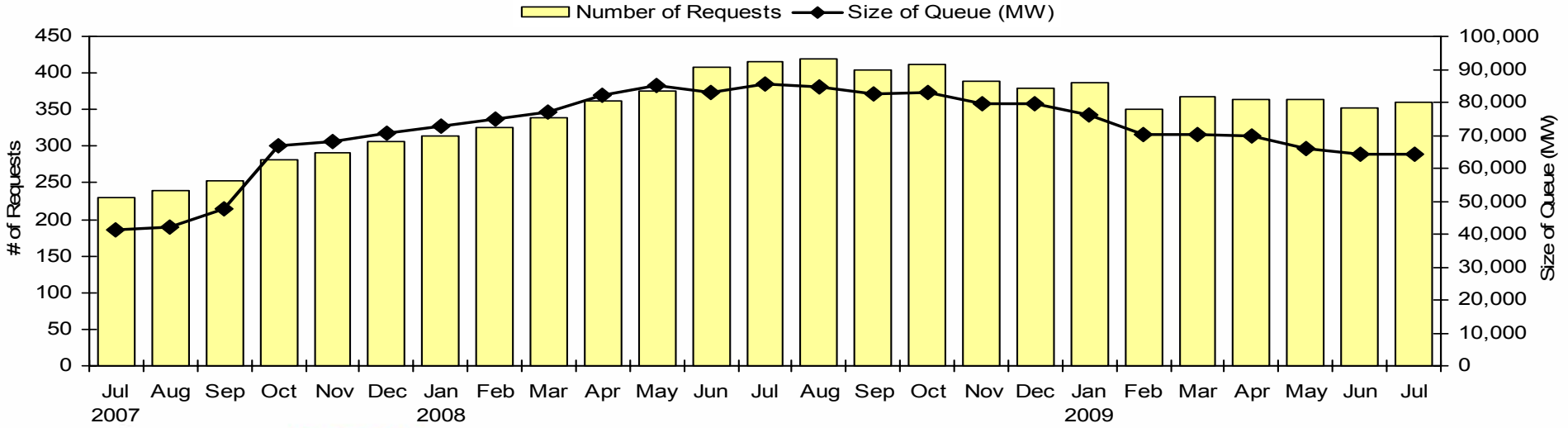
Source: Midwest ISO Transmission Planning Department

Transmission Services

Generation Interconnect Queue – Progress*



Generation Interconnect Queue – Status*



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**June Data includes MidAmerican Transition efforts*

Source: Midwest ISO Transmission Planning Department

Questions

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