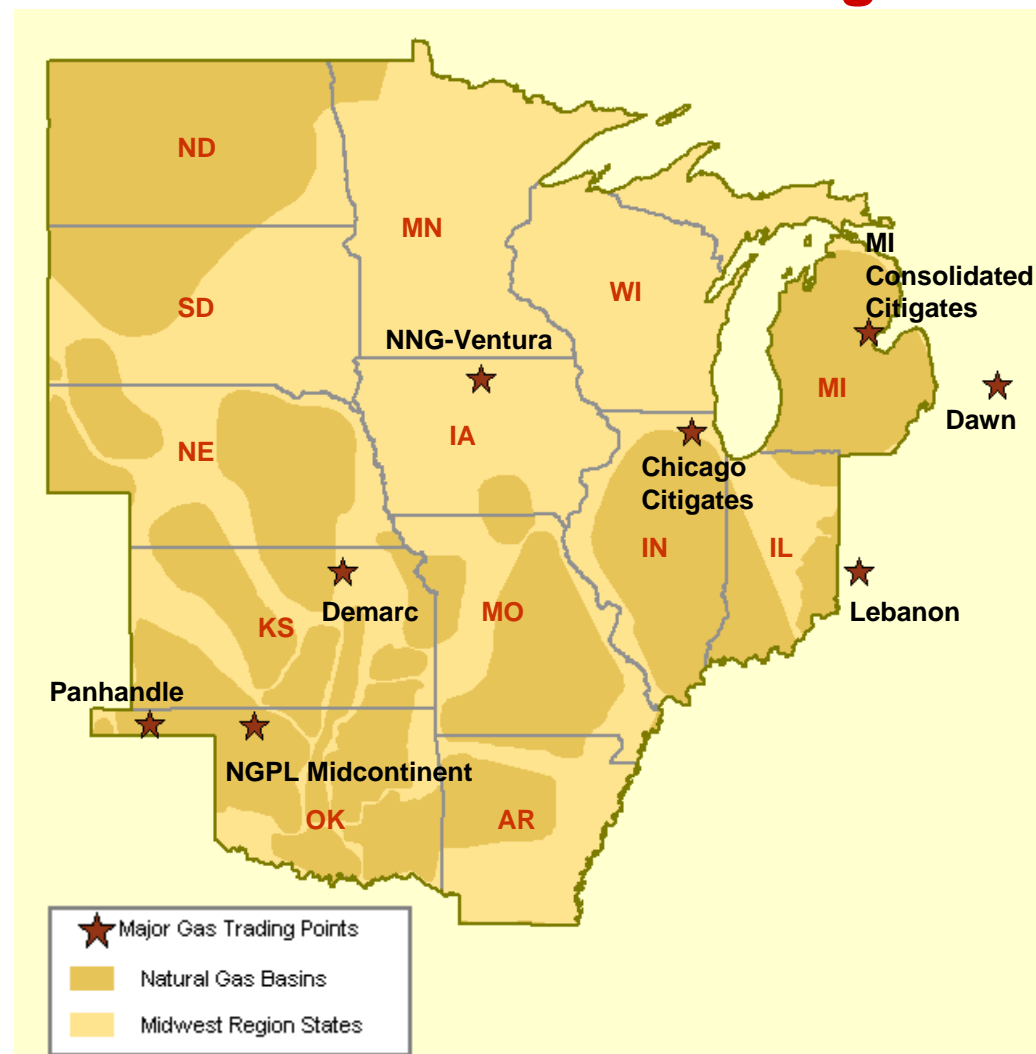


Midwest Natural Gas Market: Overview and Focal Points

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Midwest Natural Gas Region



Source: Velocity Suite Intelligent Map

Updated September 29, 2009 2014

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Overview:

Market Description

The Midwest has become a crossroads in the United States natural gas market. The addition of the Rockies Express Pipeline (REX) West (in-service January 2008) and REX East (in-service July 2009) has brought low-cost Rockies gas into and through the Midwest on the way to more premium Northeast markets. Additional pipeline expansions are planned over the next few years that will increase the ability to bring Rockies gas into the Midwest. Recent pipeline additions into the Southeast and Northeast have also increased the takeaway capacity out of the Midwest. This has led to more gas-on-gas competition between these regions and has tightened basis values across the country.

Seasonal space heat requirements strongly influence the structure of the Midwest gas market. Total Midwest gas demand can be as low as 8 Bcf/d on a mild spring or autumn day, or peak at over 21 Bcf/d during a prolonged cold snap due to robust heating demand. On an average annual basis, residential and commercial gas use accounts for about 60 percent of overall gas consumption. The region has over 150 gas storage facilities representing more than 3 Tcf of total storage capacity (almost 40% of US total). Much of this capacity is located near key citygates to meet peak day needs.

An extensive network of pipelines transports gas from nearly all major supply basins in North America to this region. Gas flows in the region have seen some changes lately. Imports from Canada have been falling due to an overall decline in production from traditional western Canadian gas basins. Supplies from the West and the aforementioned pipeline additions from the Rockies have increased substantially and serve as baseload volumes; swing gas comes from the Gulf and has been displaced more and more by growing Rockies imports. The power sector's annual share of gas use is less than 10 percent since natural gas is generally not the marginal fuel. Nevertheless, gas use by generators has been growing as in other regions of the U.S.

Geography

States covered: Arkansas, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota, and Wisconsin.

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Major Trading Hubs

Chicago Citygates, Dawn, Lebanon (Ohio), Michigan Consolidated, NGPL Midcontinent, Northern Natural Ventura, Northern Natural Demarcation, Panhandle Eastern.

Pipeline Flows

Average Daily Rockies Deliveries to the Midwest:

2005: 2.2 Bcf/d

2006: 2.4 Bcf/d

2007: 2.7 Bcf/d

2008: 3.8 Bcf/d

2009: 4.2 Bcf/d (Jan- June)

Major Pipelines: Rockies Express, Trailblazer, Cheyenne Plains, and Colorado Interstate Gas carry approximately 4.2 Bcf/d from the Rockies to the Midwest.

Average Daily Midwest Deliveries to the Northeast:

2005: 0.9 Bcf/d

2006: 1.0 Bcf/d

2007: 1.0 Bcf/d

2008: 0.9 Bcf/d

2009: 0.9 Bcf/d (Jan-June)

Major Pipelines: ANR and Panhandle carry most of the gas from the Midwest to the Northeast.

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Imports and Exports

Average Daily Imports from Canada into the US:

2005: 4.2 Bcf/d

2006: 4.0 Bcf/d

2007: 3.6 Bcf/d

2008: 3.2 Bcf/d

2009: 2.4 Bcf/d (Jan- June)

Major Importers: Alliance and Northern Border pipelines flow the majority of the gas from Canada to the Midwest.

Major Exporters: Vector and Great Lakes are the principal pipelines that export gas from the Midwest to Canada.

Contact Information

For specific issues regarding the Midwest Natural Gas Region please contact one of the following Analysts:

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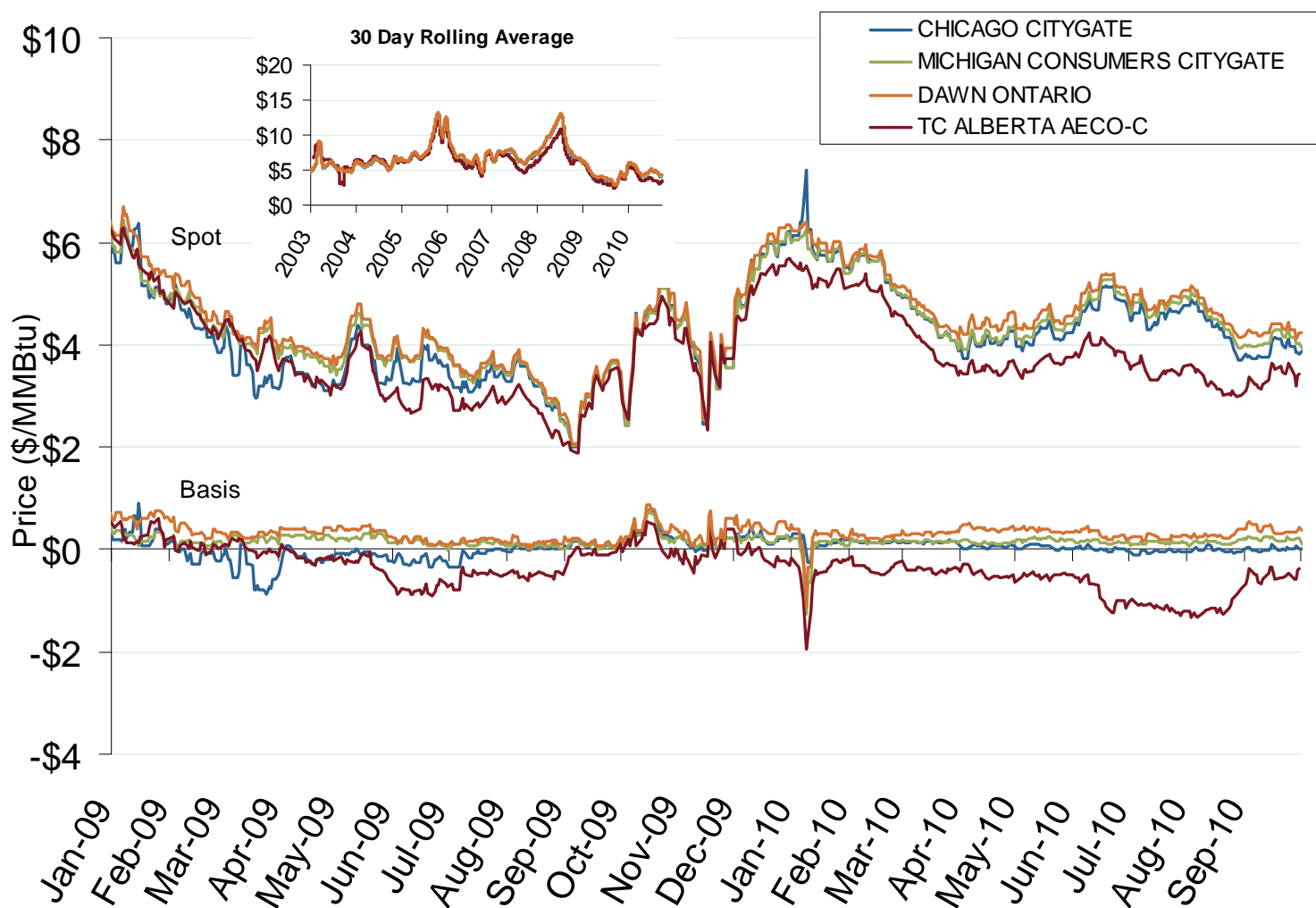
Annual Average Spot Hub Prices

Annual Average Day Ahead Prices (\$/MMBtu)						
	2005	2006	2007	2008	2009	5-Year Avg
Chicago Citygate	\$8.43	\$6.55	\$6.83	\$8.79	\$3.92	\$6.90
Dawn	\$8.75	\$6.84	\$7.12	\$9.12	\$4.24	\$7.21
MichCon Citygate	\$8.72	\$6.77	\$7.02	\$9.02	\$4.09	\$7.13
AECO	\$6.92	\$5.48	\$5.70	\$7.36	\$3.33	\$5.76
Northern Ventura	\$7.92	\$6.31	\$6.62	\$8.28	\$3.86	\$6.60

Midwest Natural Gas Market: Spot Prices and Basis

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Midwestern Day-Ahead Hub Spot Prices and Basis

Source: Derived from *Platts* data.

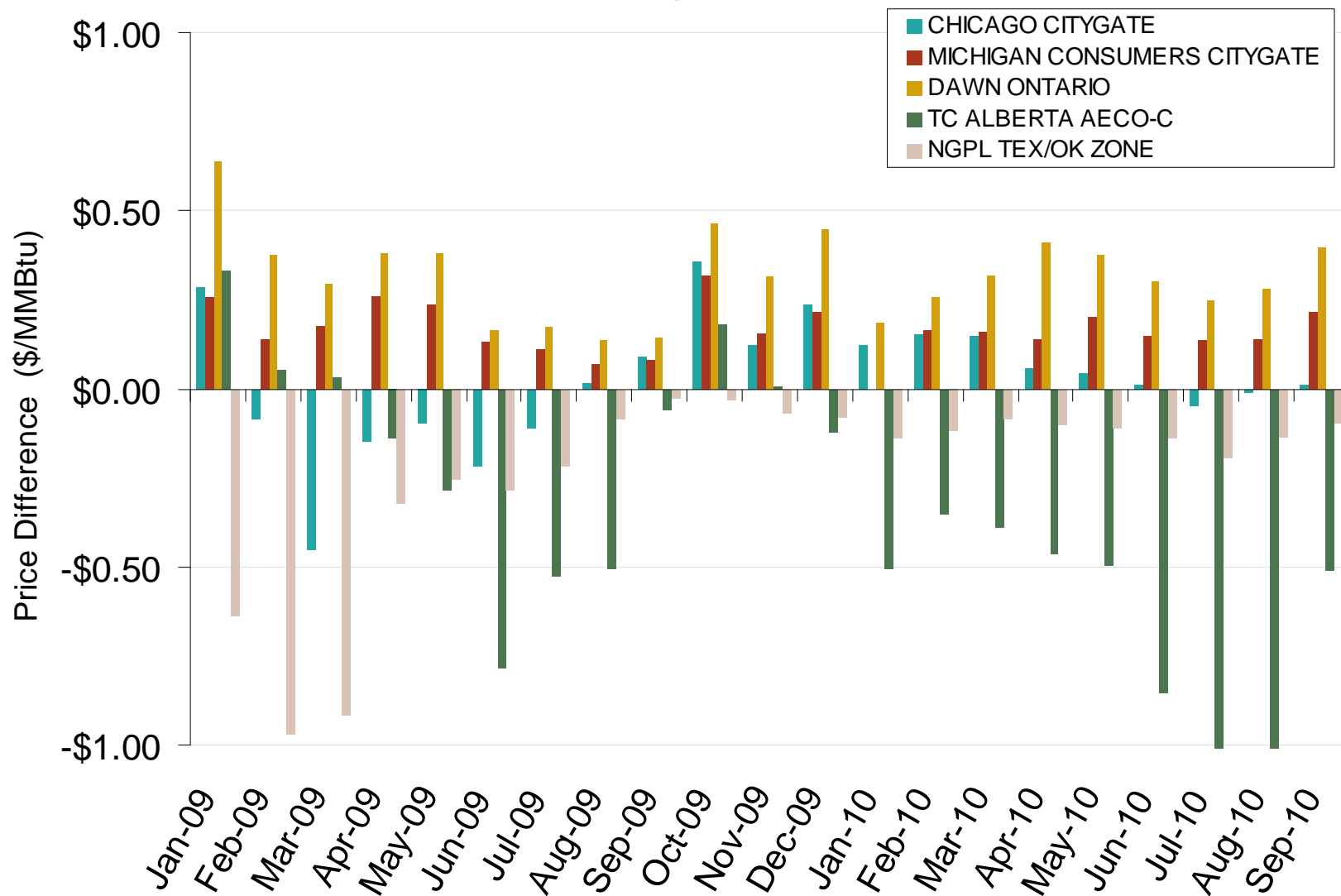
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2016

Midwest Natural Gas Market: Average Basis to Henry Hub

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Midwestern Monthly Average Basis Value to Henry Hub

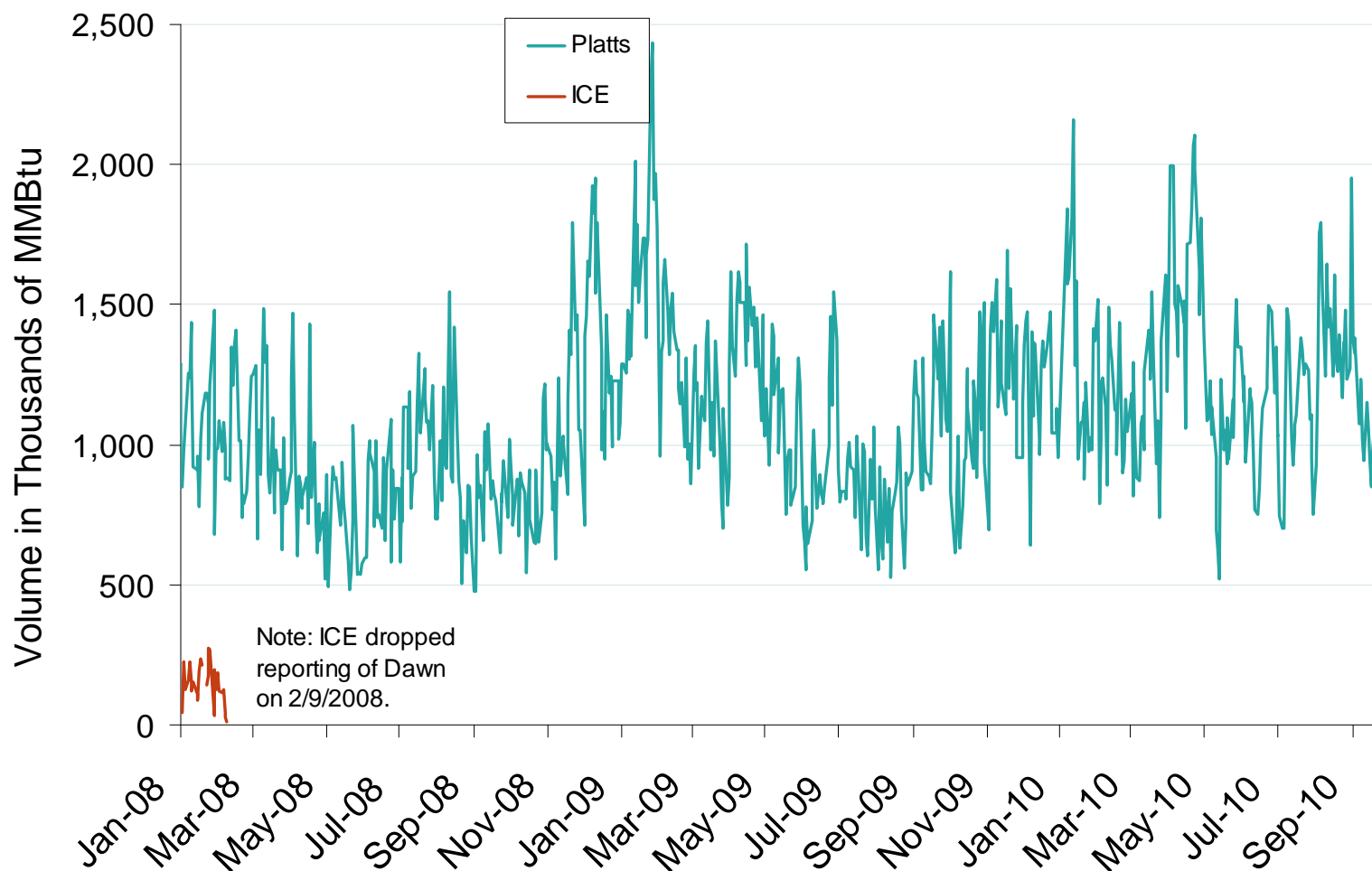


Source: Derived from *Platts* data.

Updated October 7, 2010

2017

Midwest Natural Gas Market: Trading Volumes at Dawn

Federal Energy Regulatory Commission • Market Oversight • www.ferc.gov/oversight**Published and Traded Daily Spot Volumes at Dawn**Source: Derived from *Platts* and *ICE* data.

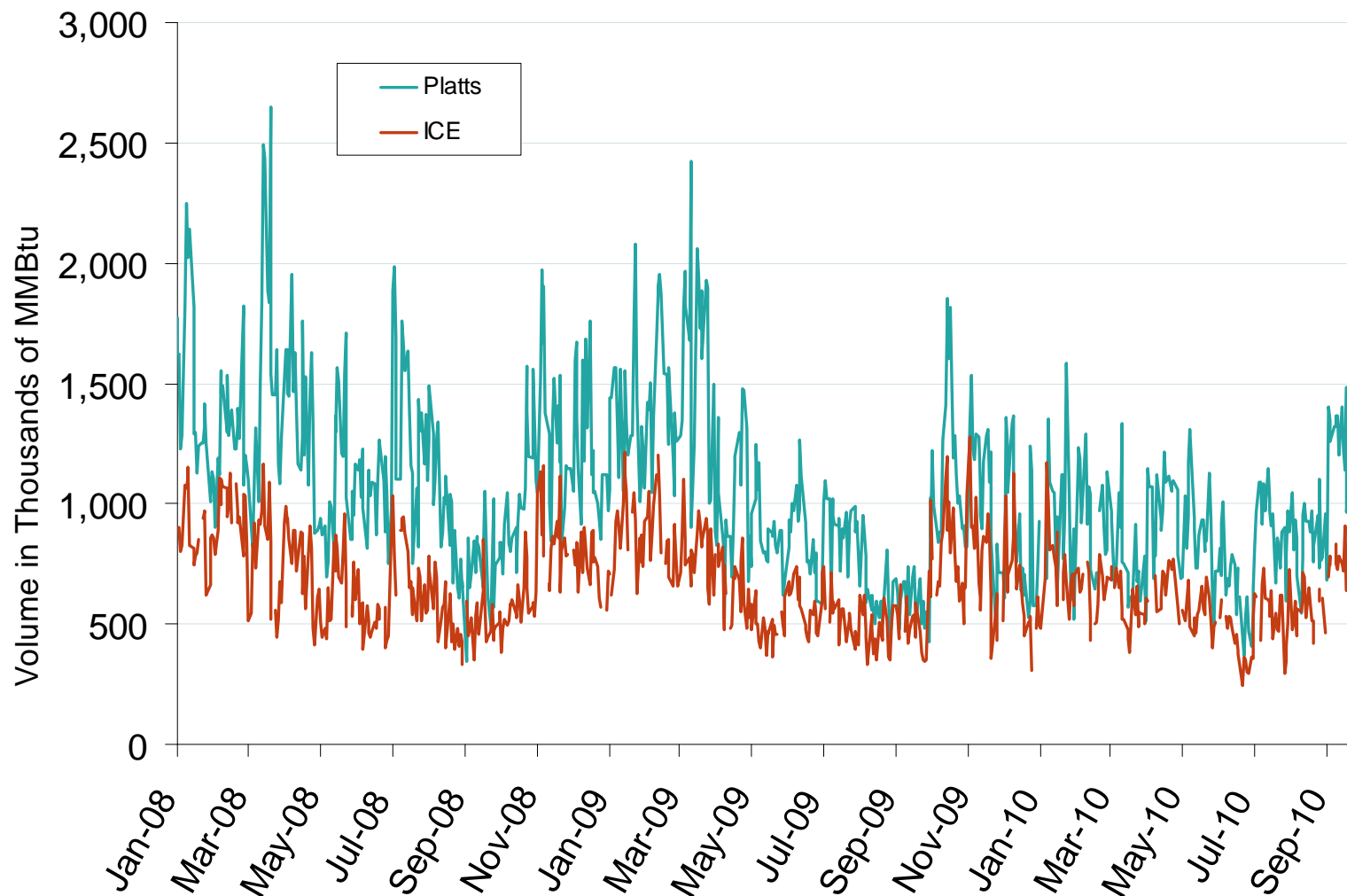
Updated October 7, 2010

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Midwest Natural Gas Market: Trading Volumes at Chicago Citygates

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Published and Traded Daily Spot Volumes at Chicago Citygates

Source: Derived from *Platts* and *ICE* data.

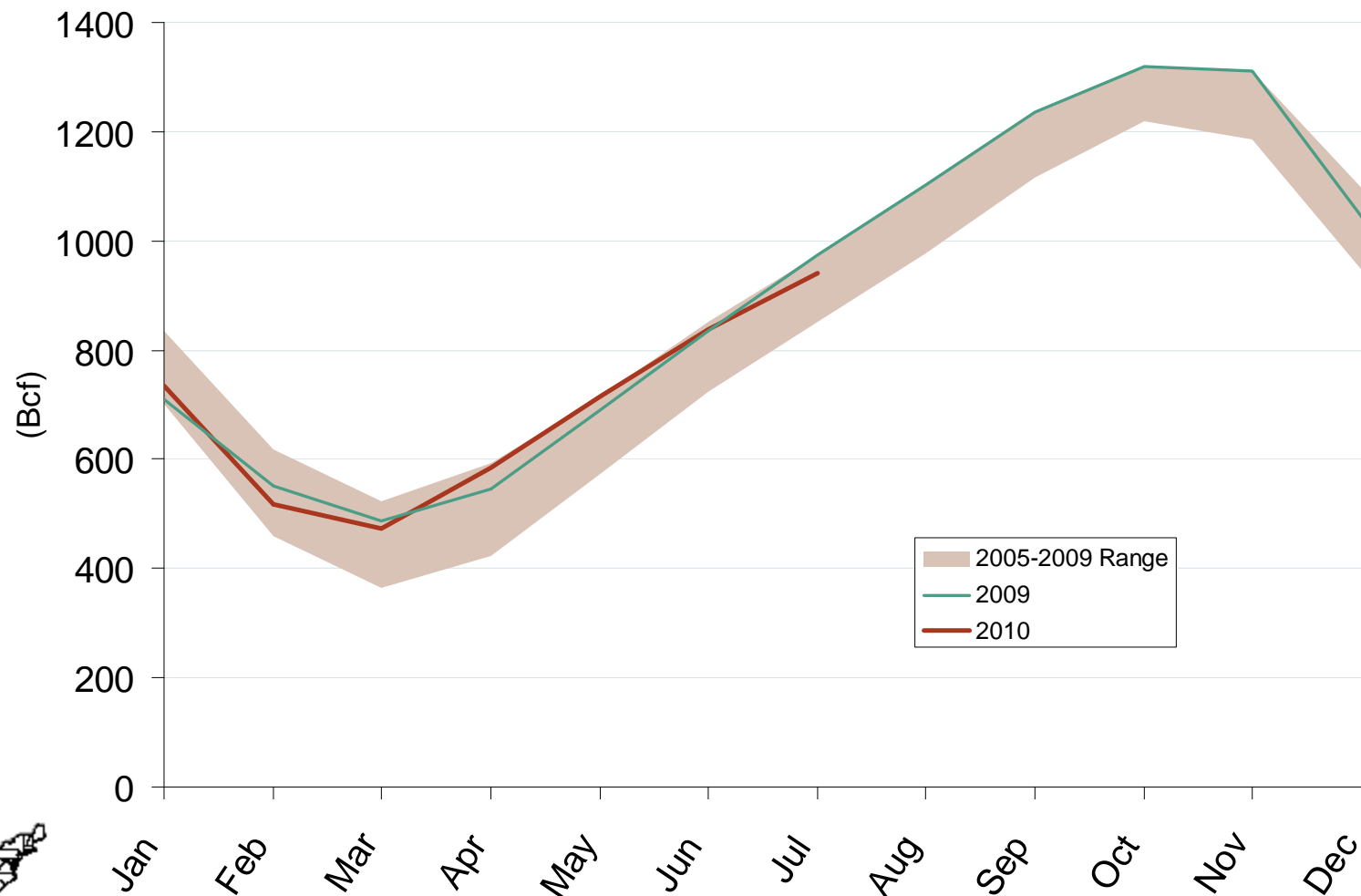
Updated October 7, 2010

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Midwest Natural Gas Market: Storage Inventory

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Midwest Region Underground Working NG In Storage

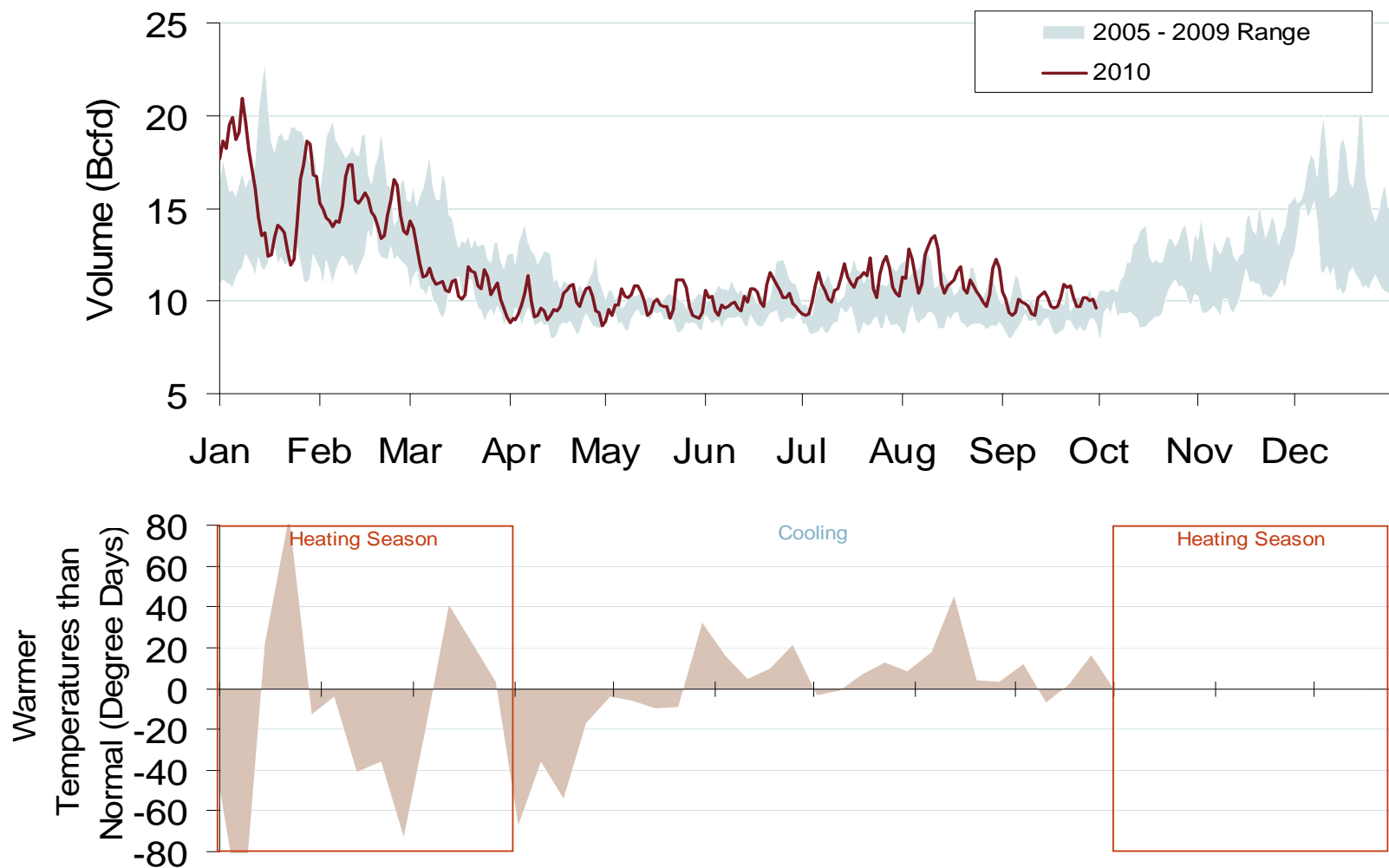


Source: Derived from EIA. Due to a change in methodology, as of October '09 KY and OH are no longer in the SE region, and AR, KS, and OK have been added.

Updated October 7, 2010

2023

Daily Midwest Natural Gas Demand All Sectors



Source: Derived from Bentek Energy and Weekly NOAA data.

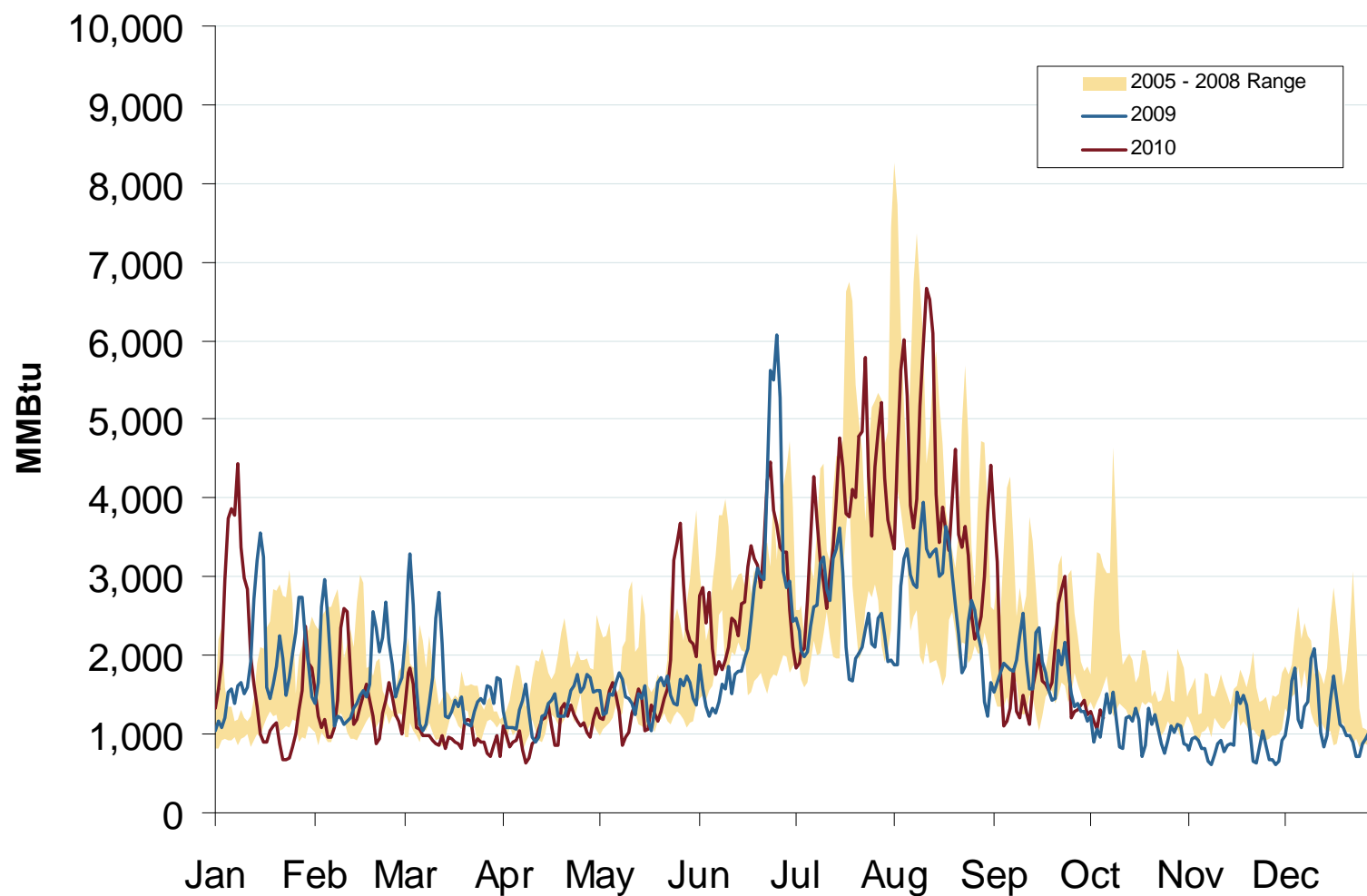
Updated October 7, 2010

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Midwest Natural Gas Market: NG Consumption for Power Generation

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Midwest Natural Gas Consumption for Power Generation



Source: Derived from Bentek Data

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