OE ENERGY MARKET SNAPSHOT

National – Data Through March 2015

Office of Enforcement
Federal Energy Regulatory Commission
April 2015

Agenda

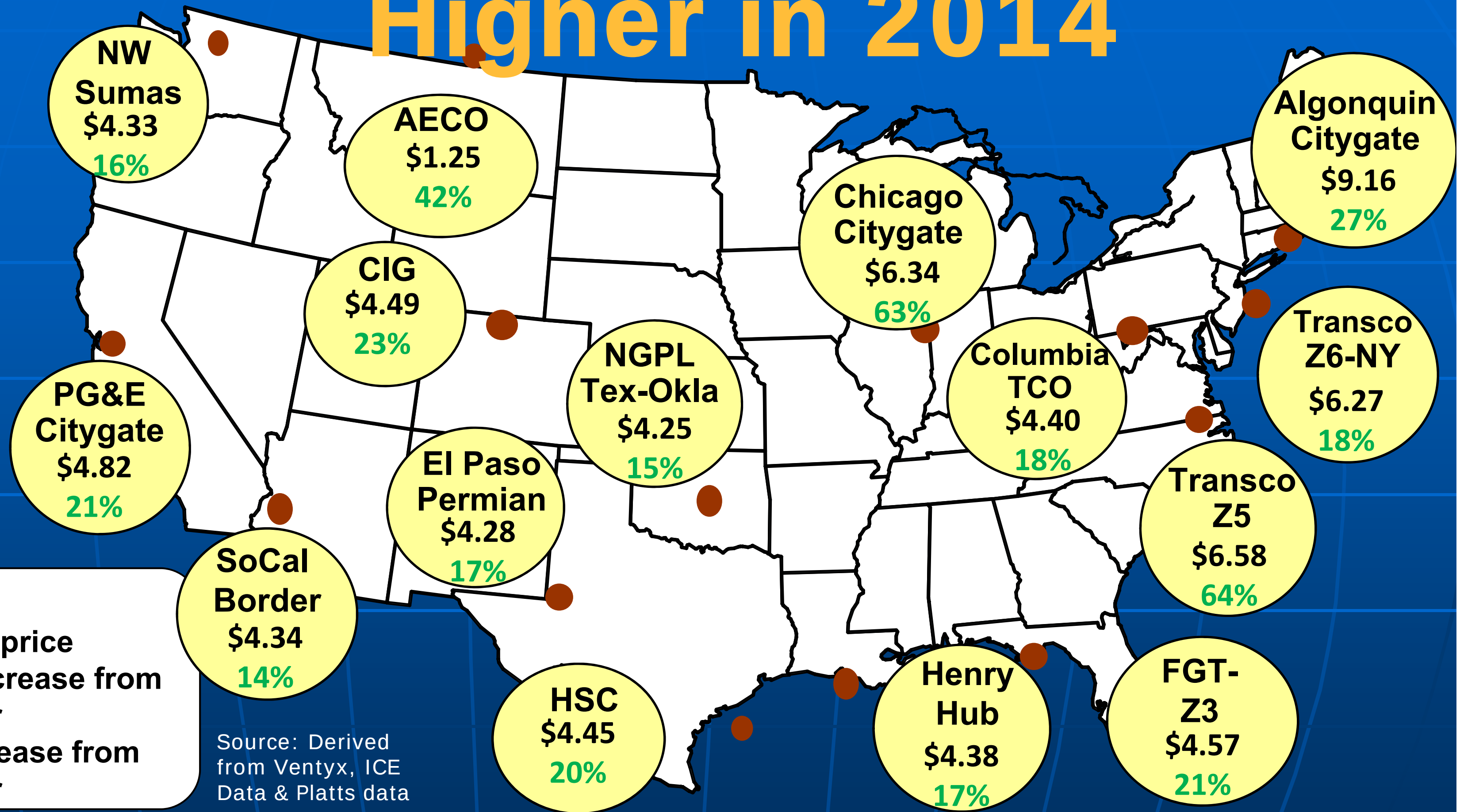
- 2014 State of the Markets
- National Slides
- Infrastructure Report

2014 State of the Markets Report

State of the Markets Highlights

- Extreme temperatures early in 2014 had lasting impacts
- Natural gas prices decline through the year, while oil prices plunge
- Natural gas production reaches new records and storage recovers
- Northeast natural gas prices disconnect from Henry Hub
- Organized markets continue to evolve: California ISO launches EIM, SPP begins DAY 2 Market, and Entergy joins MISO
- RTOs and utilities adjust to changing resource mix
- Markets performed well in early 2015 despite extreme weather

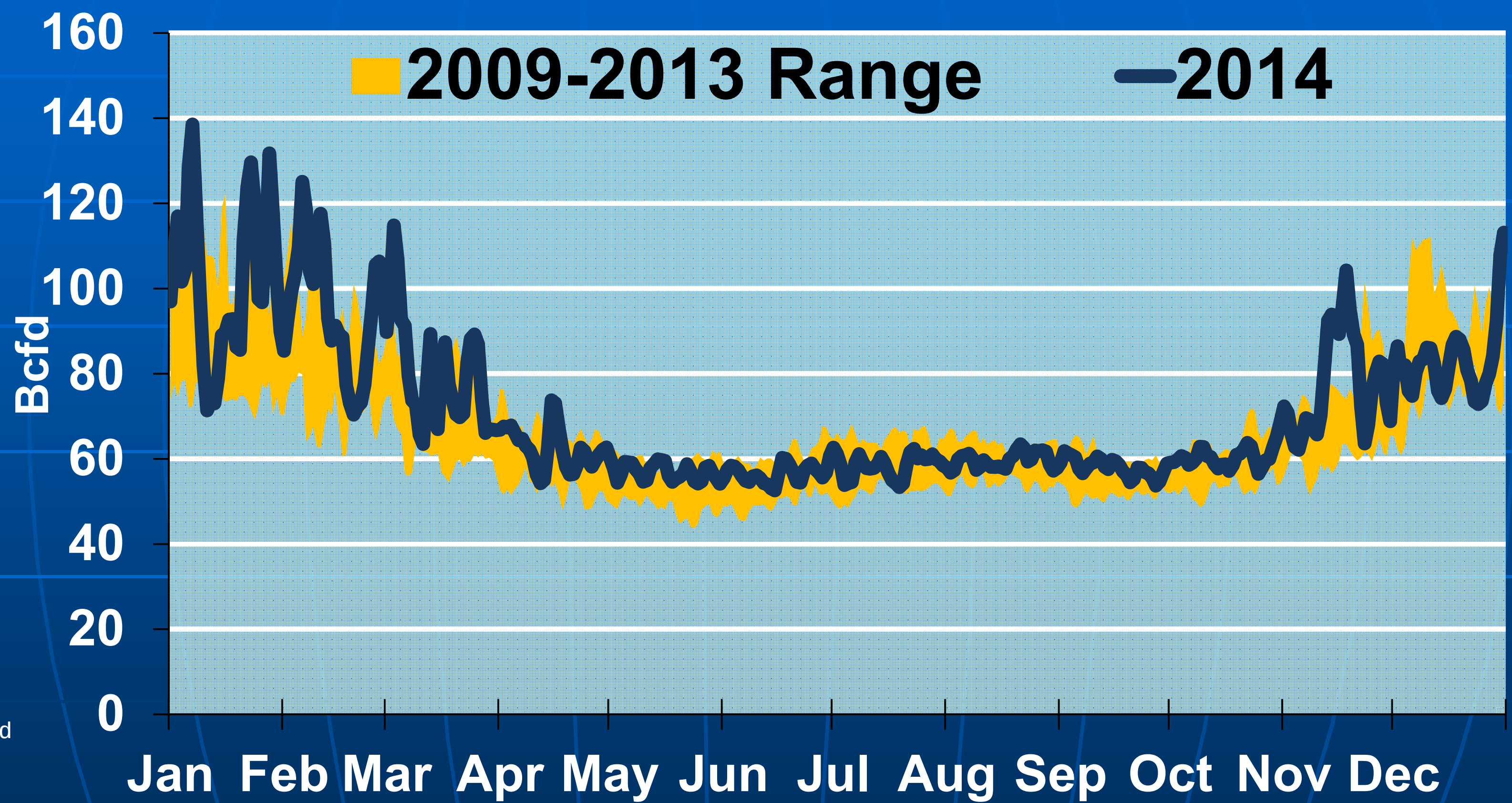
Average NG Spot Prices Higher in 2014



Pricing Point
BOLD – 2014 price
Green – % increase from previous year
Red – % decrease from previous year

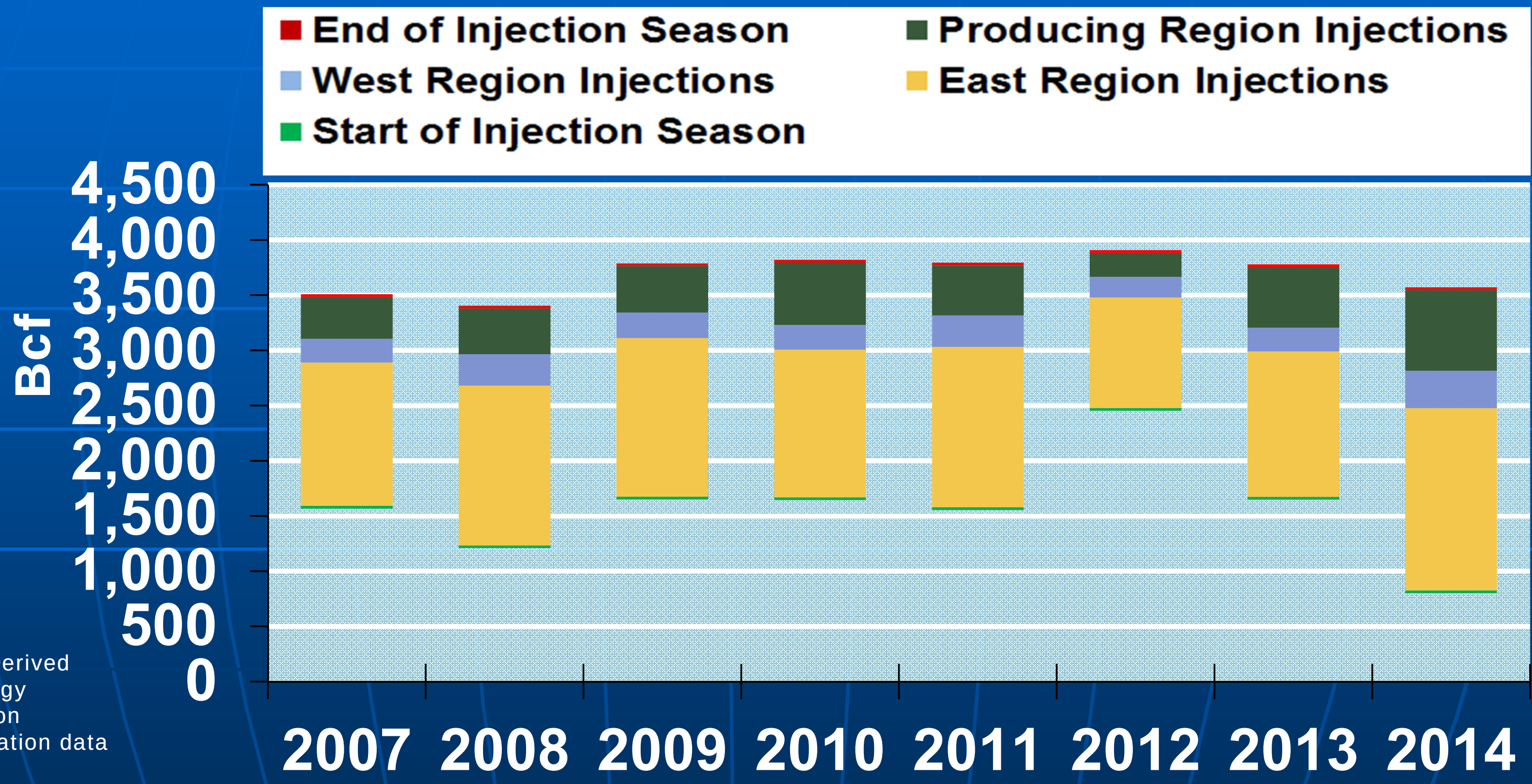
Source: Derived from Ventyx, ICE Data & Platts data

U.S. NG Demand Sets New Record



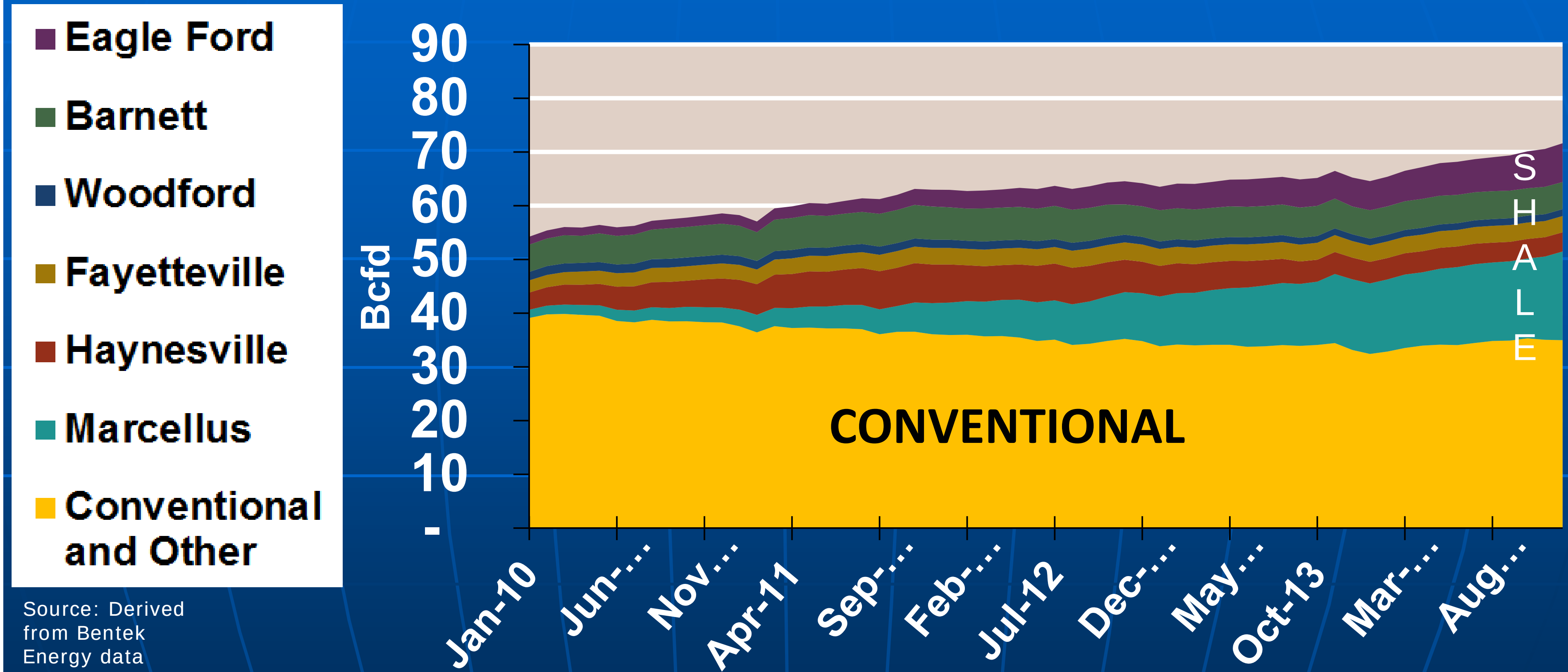
Source: Derived from Bentek Energy data

Record Injections Replenished NG Storage



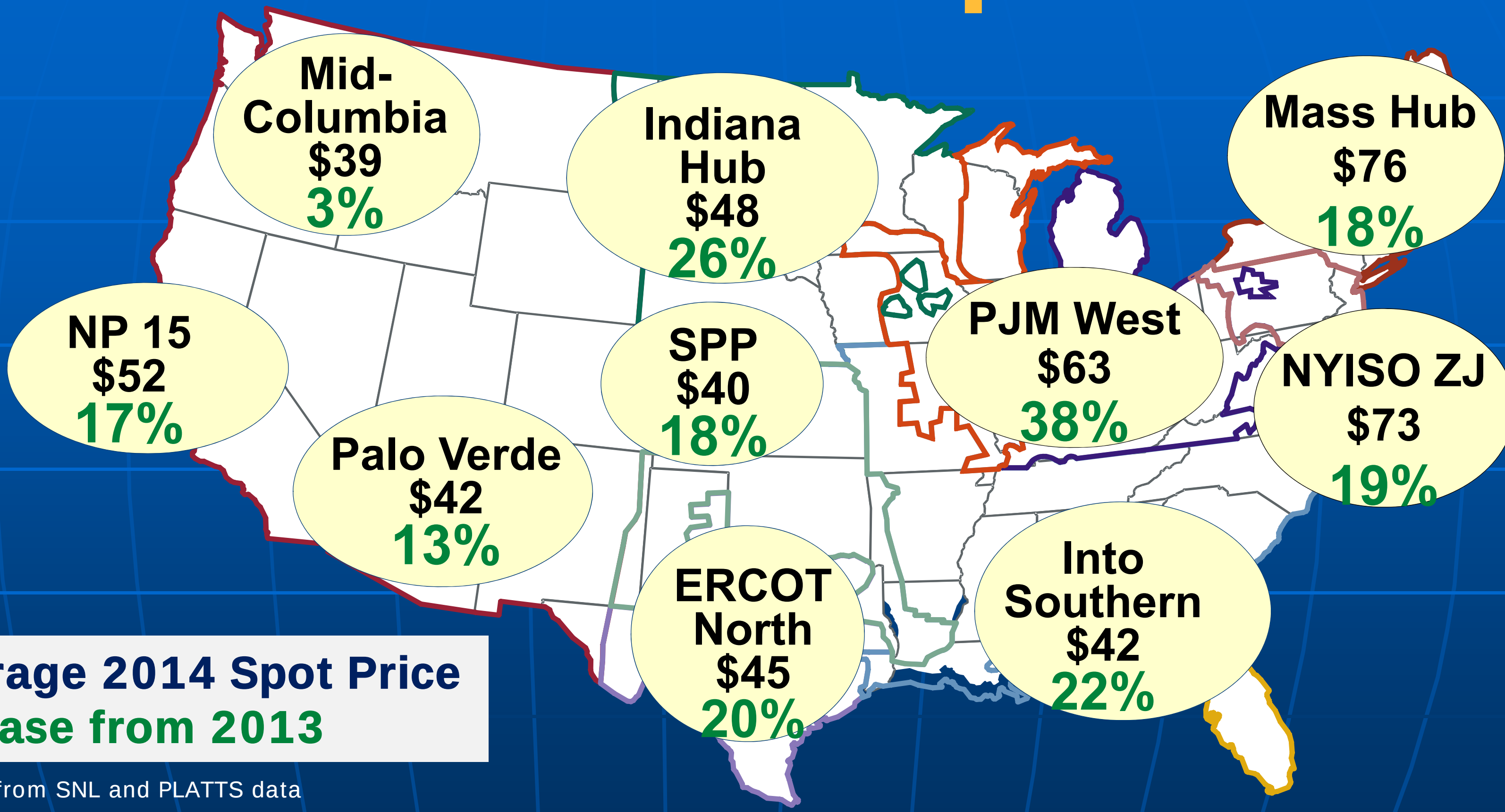
Source: Derived from Energy Information Administration data

NG From Shale Drives 2014 Production Records



Source: Derived from Bentek Energy data

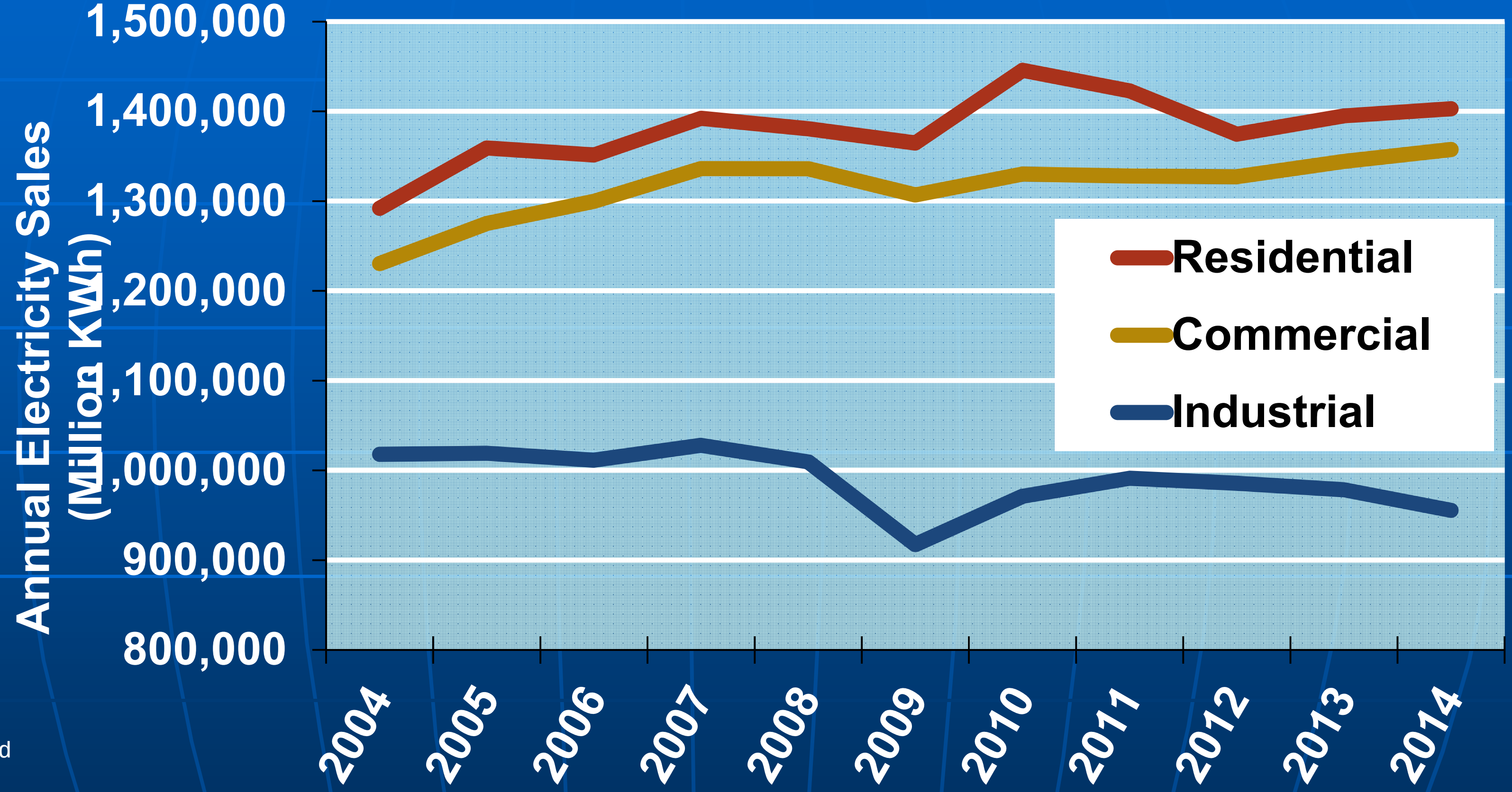
On-Peak Day-Ahead 2014 Electric Spot Prices



$ = Average 2014 Spot Price
% Increase from 2013

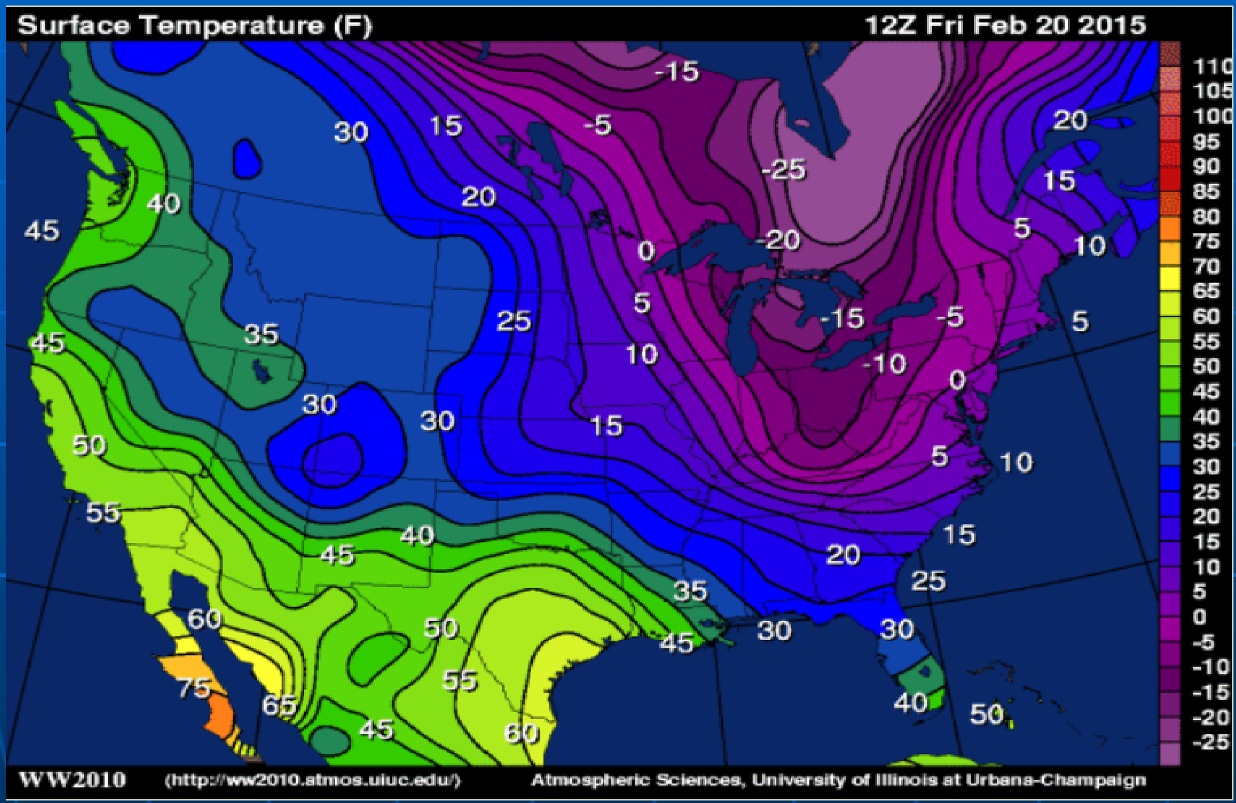
Source: Derived from SNL and PLATTS data

Electricity Demand Flat in 2014



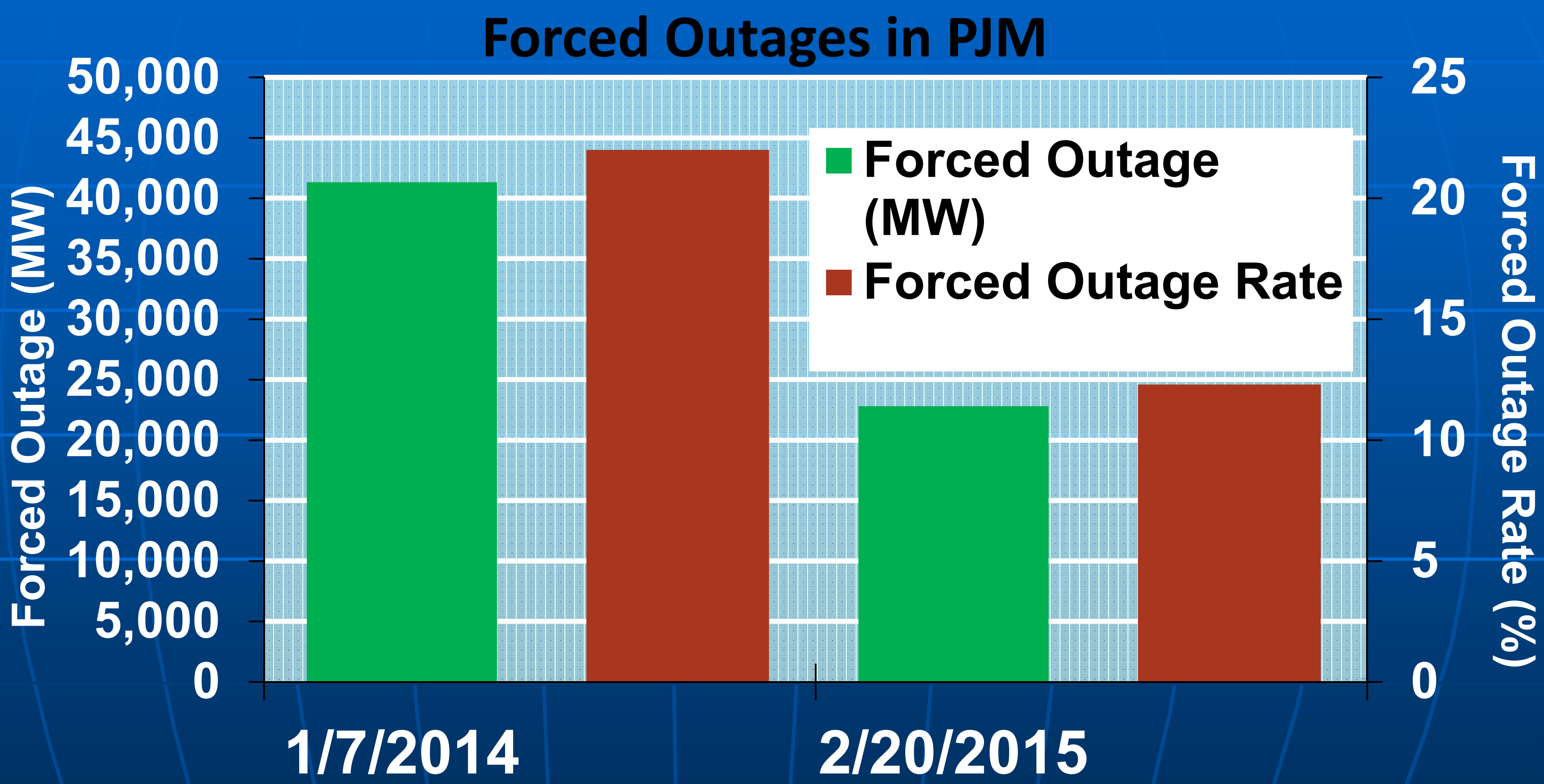
Source: Derived from EIA data

Extreme Weather Tests Energy Markets in 2015



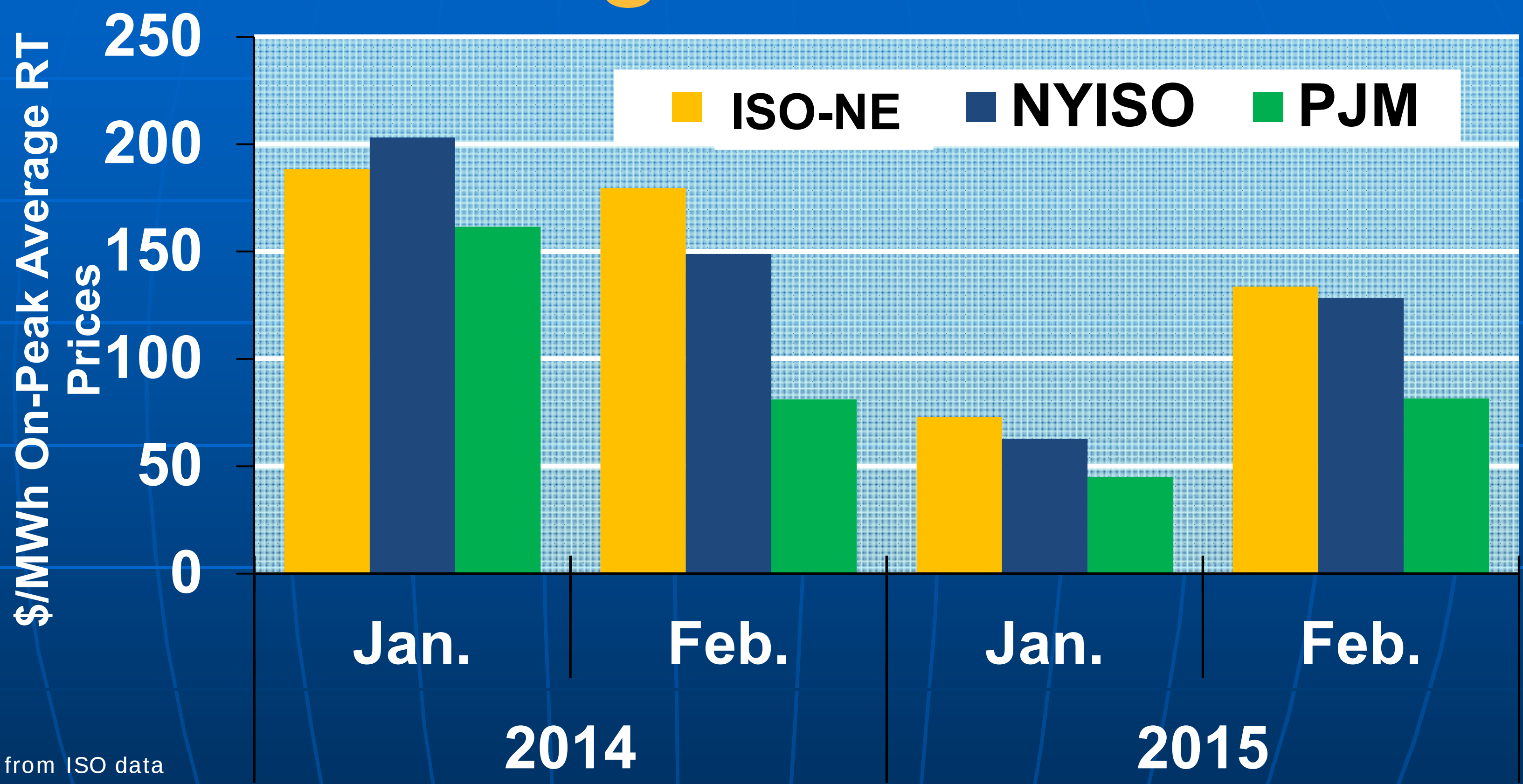
Source: The University of Illinois WW2010 Project

Market Readiness Moderates Weather Impact



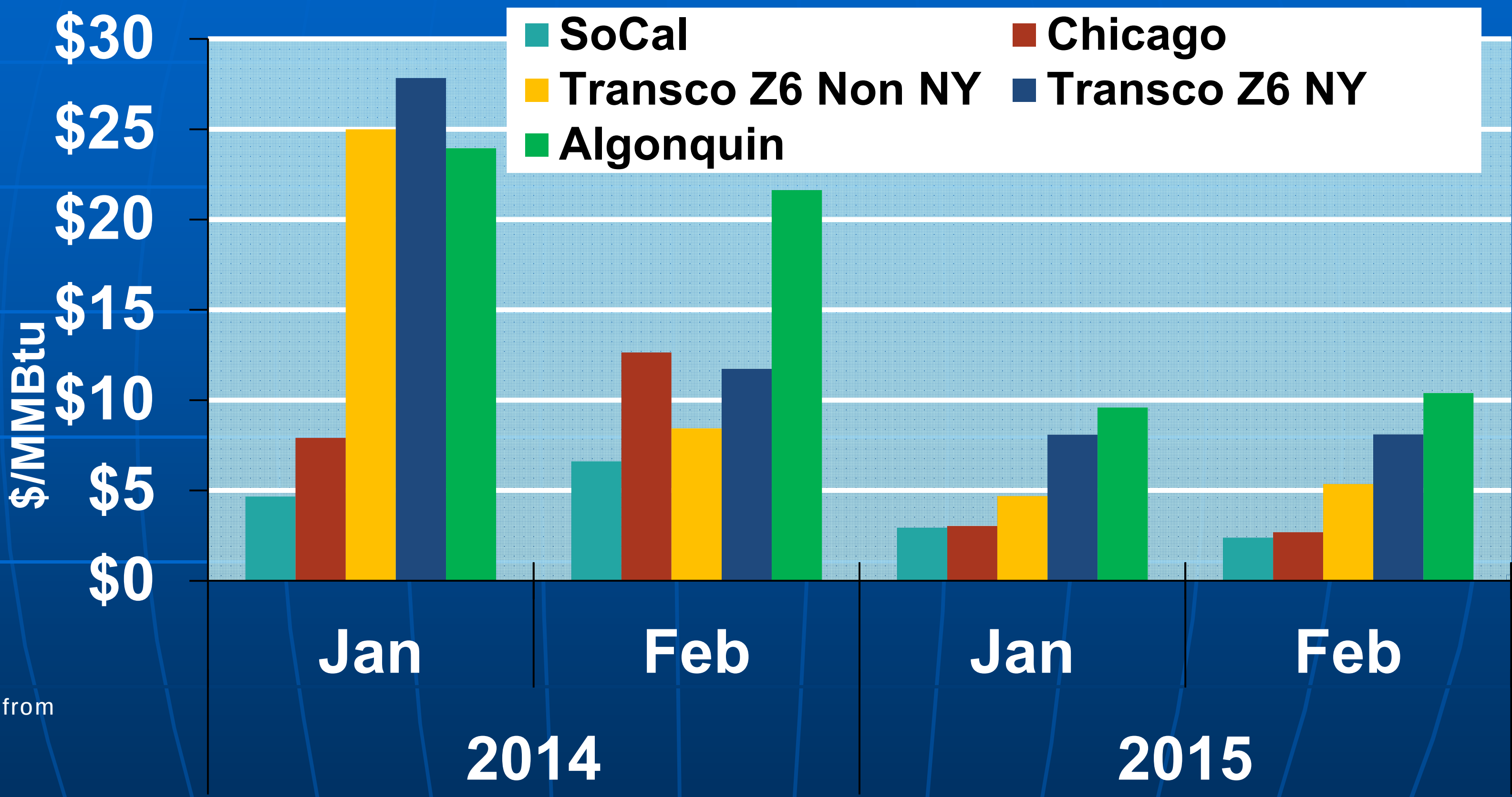
Source: Derived from PJM data

Markets Perform well During 2015 Winter



Source: Derived from ISO data

Winter 2015 NG Prices Lower than in 2014



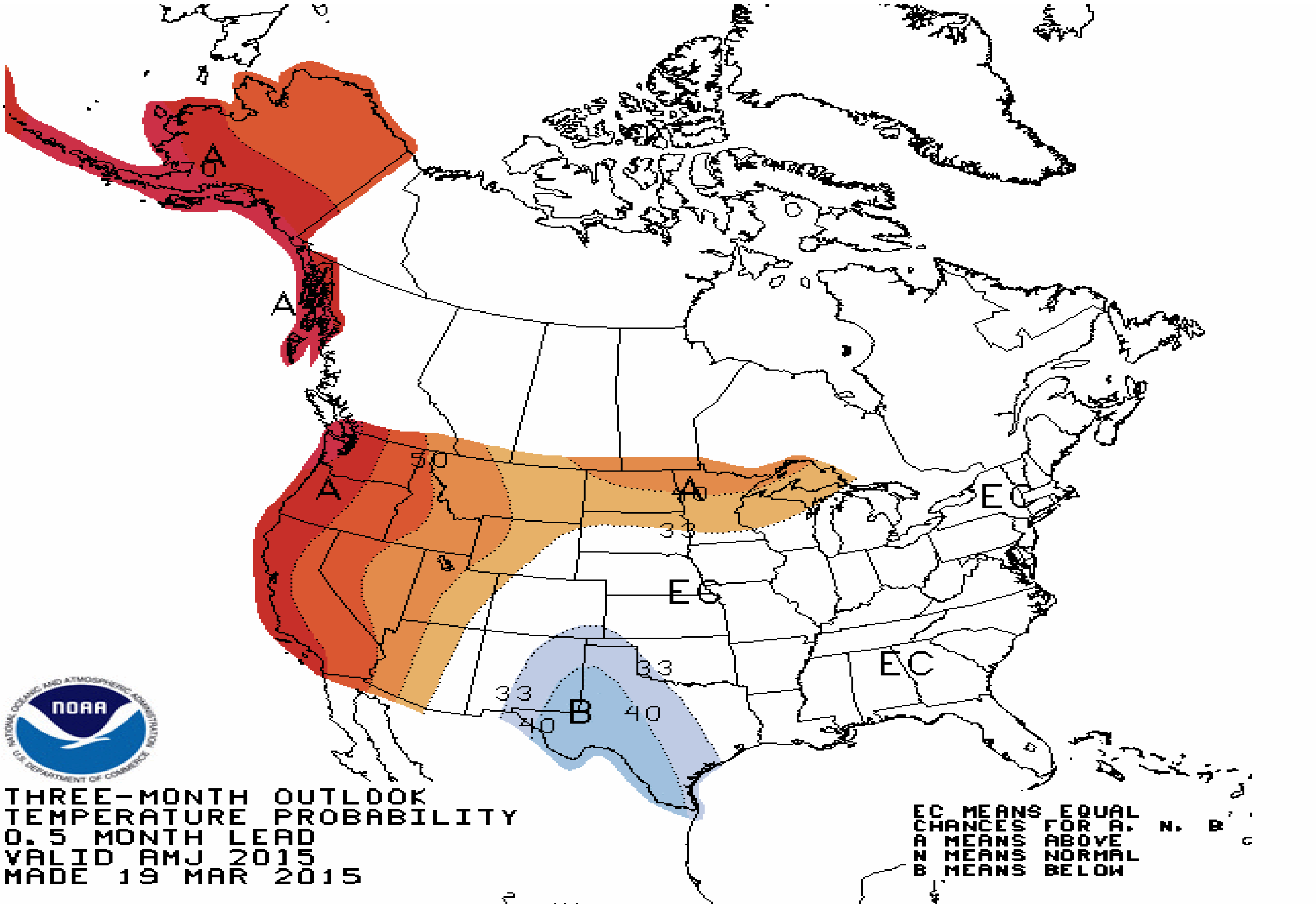
Source: Derived from Intercontinental Exchange data

2015 State of the Markets Report

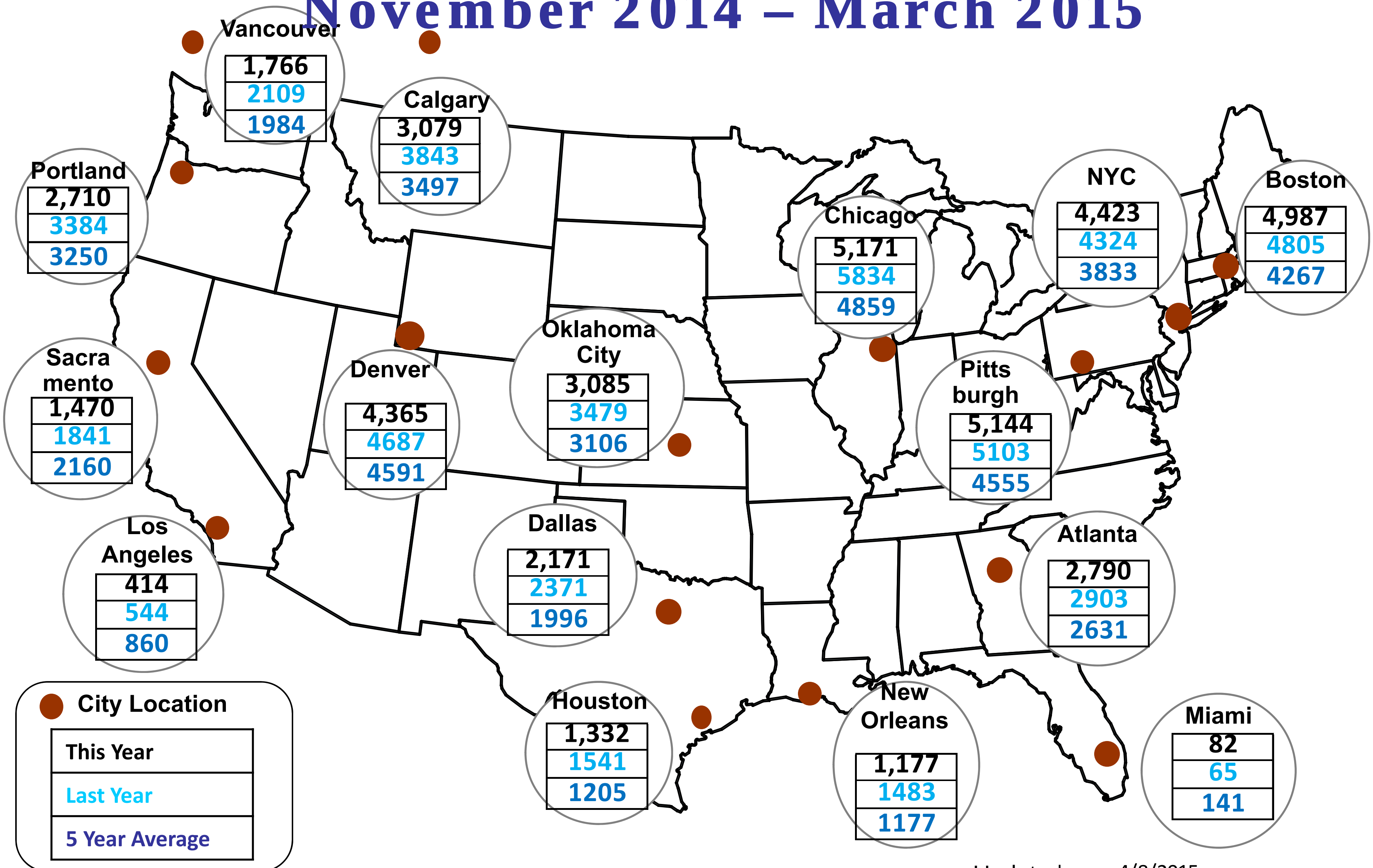
http://www.ferc.gov/market-oversight/reports-analyses/st-mkt-ovr/2014-som.pdf

National Slides

NOAA Apr 2015 Through Jun 2015 Outlook



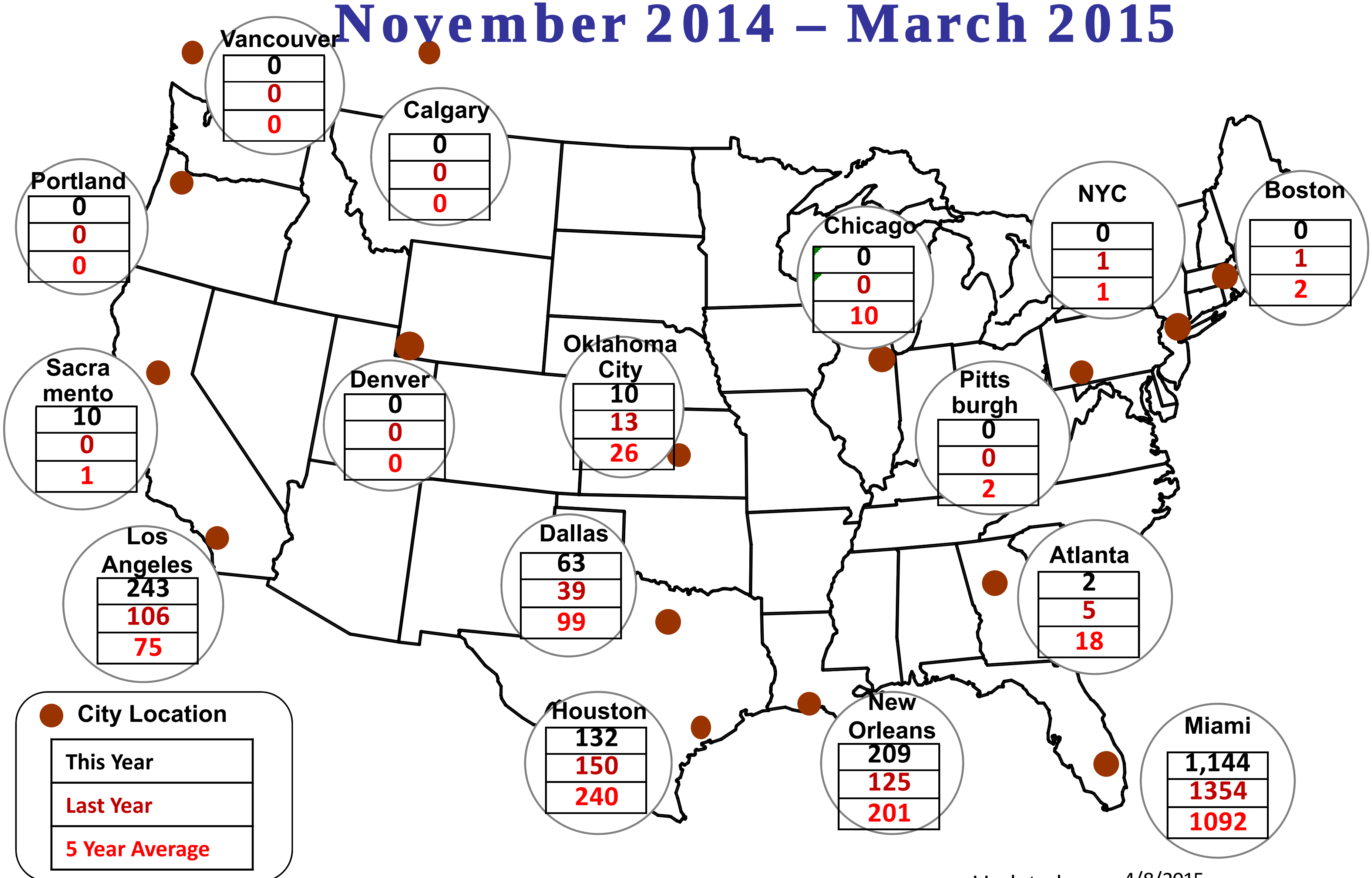
Cumulative HDDs by City
November 2014 – March 2015



Source: Bloomberg Weather (summed daily)

Updated 4/8/2015

Cumulative CDDs by City
November 2014 – March 2015



Source: Bloomberg Weather (summed daily)

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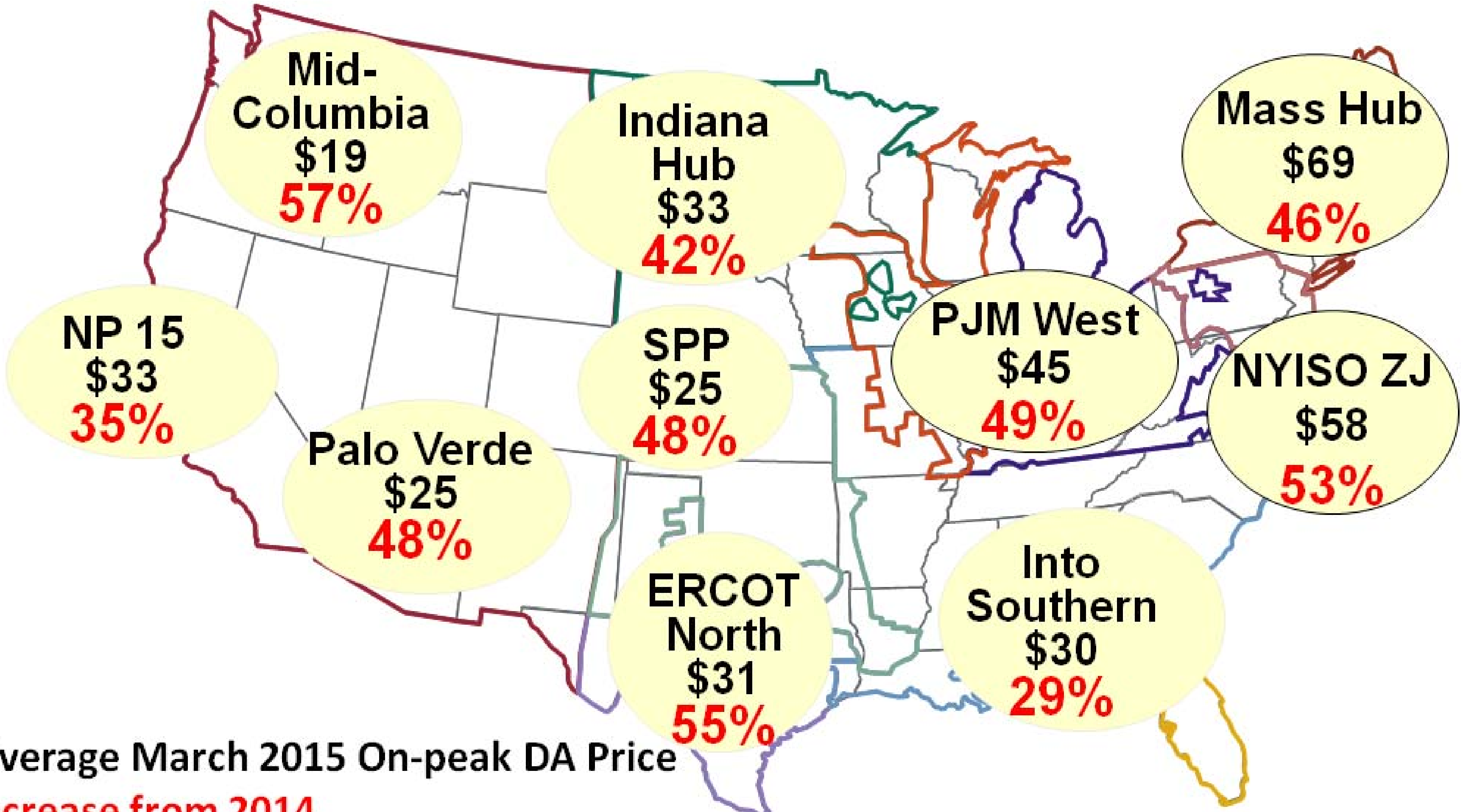
Spot Power Prices
Average Monthly ($/MWh)

March

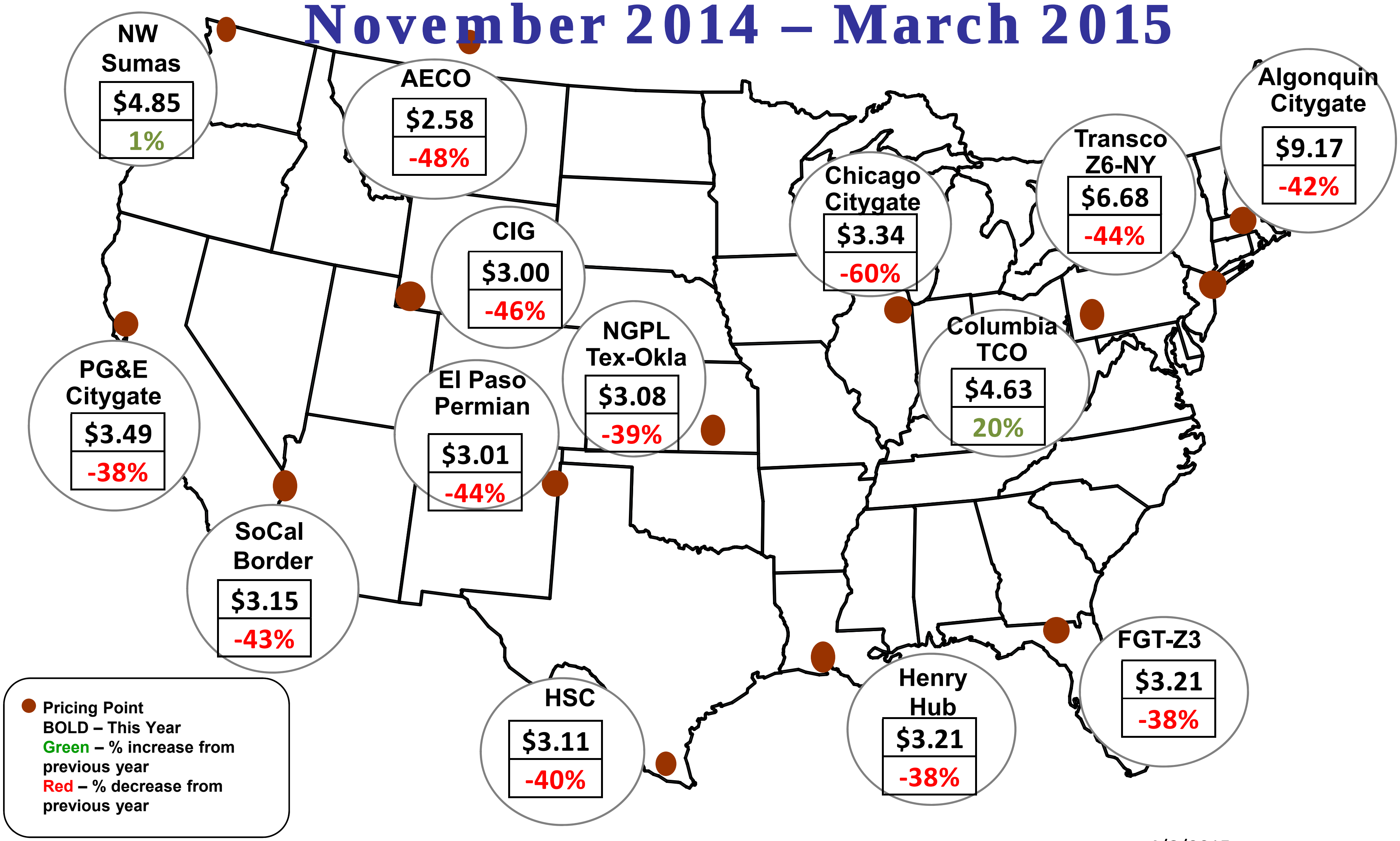


$ = Average March 2015 On-peak DA Price

% Decrease from 2014

Source: Derived from ISO/RTO and SNL Data

Spot Natural Gas Prices Average ($/MMBtu) November 2014 – March 2015



Source: ICE

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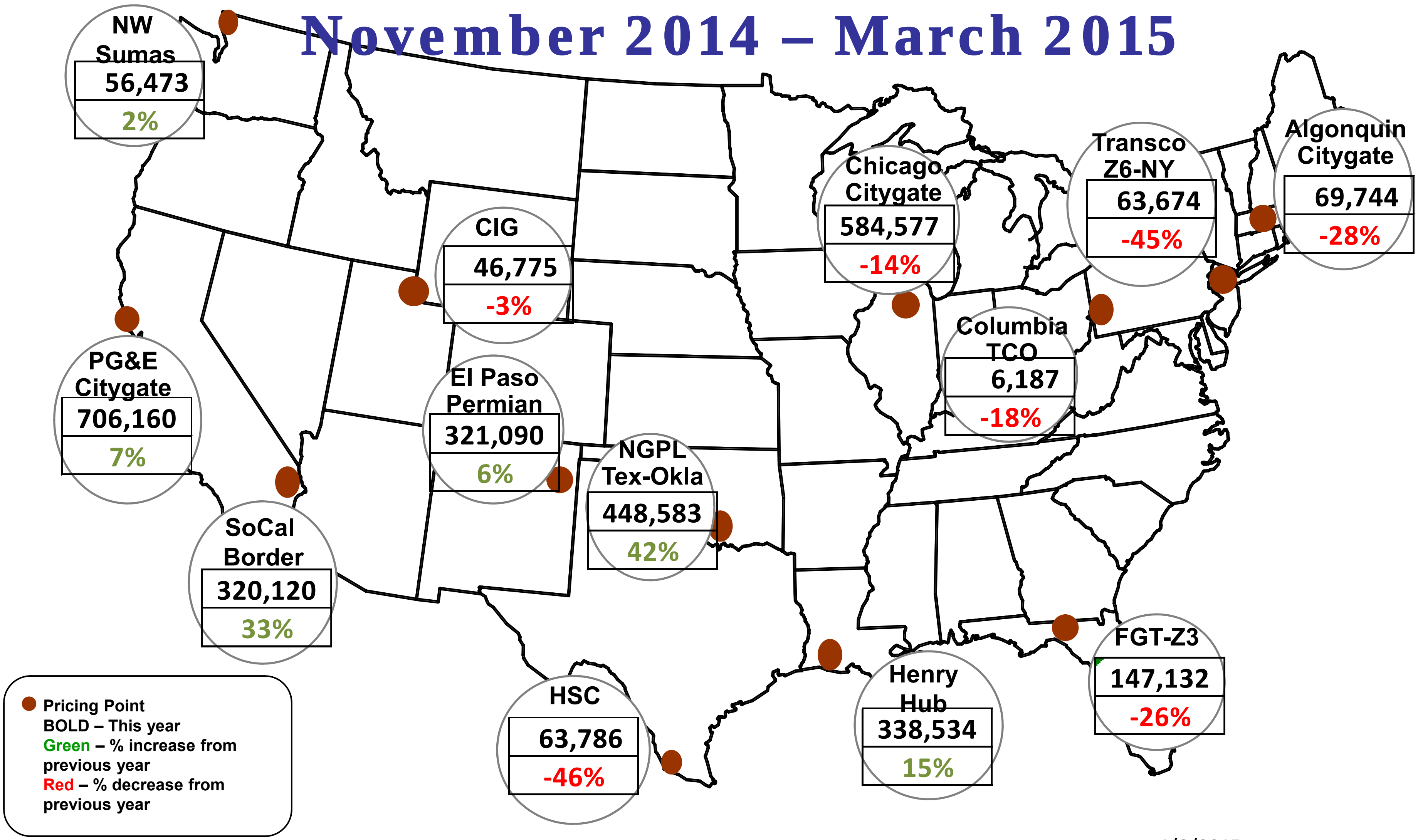
Spot Natural Gas Trading Volumes Average (MMBtus) November 2014 – March 2015



Source: ICE

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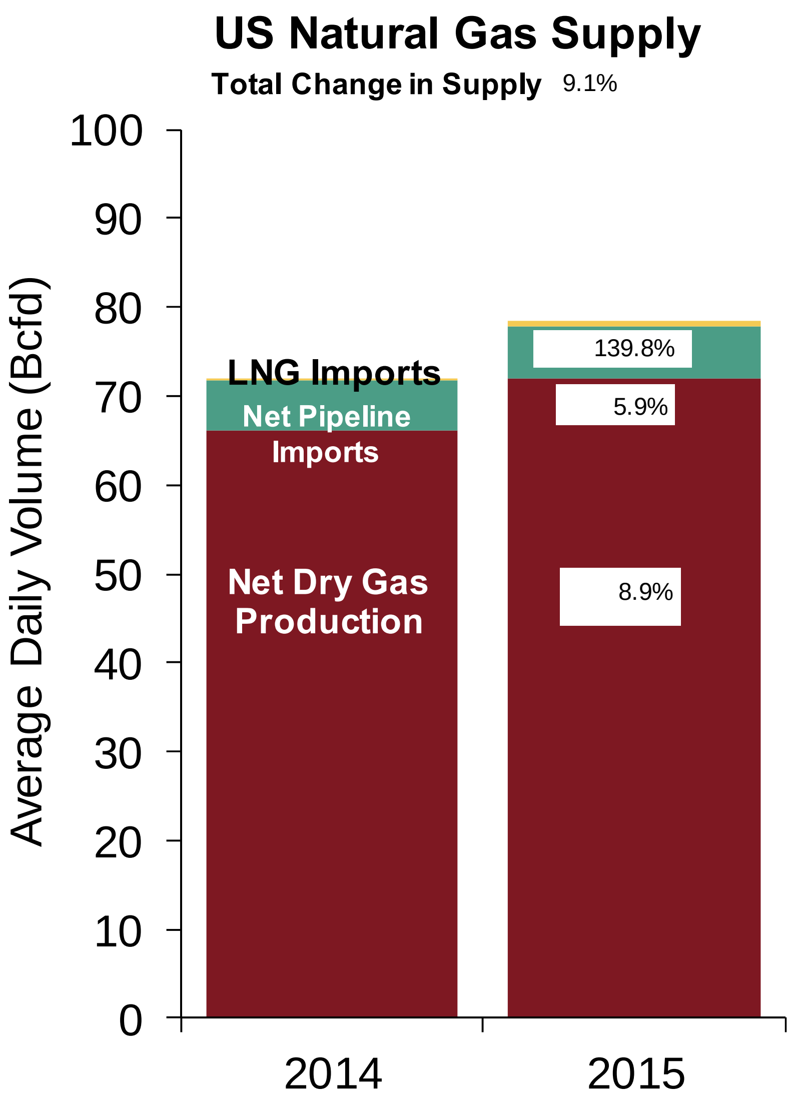
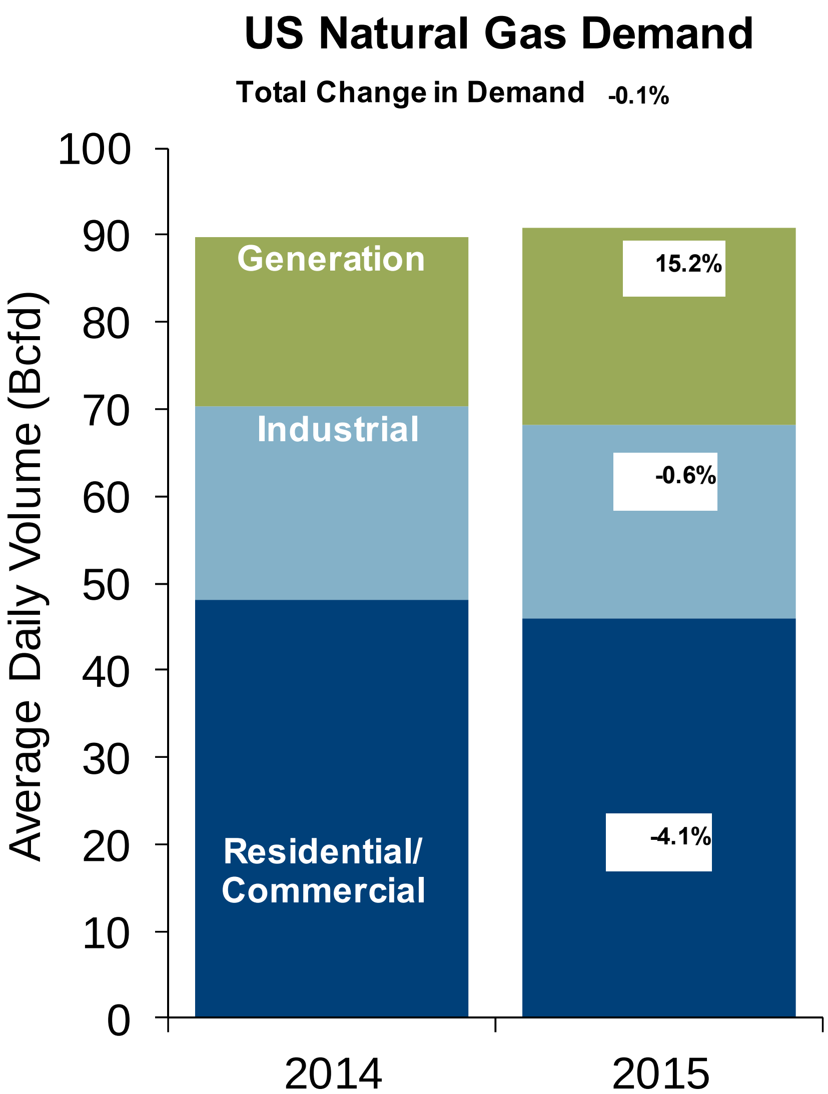
U.S. NG Supply and Demand Year to Date - Mar 2014 vs. Mar 2015





Note: Balance includes all amounts not attributable to other categories.
Source: Derived from *Bentek Energy* data

Updated: April 2014

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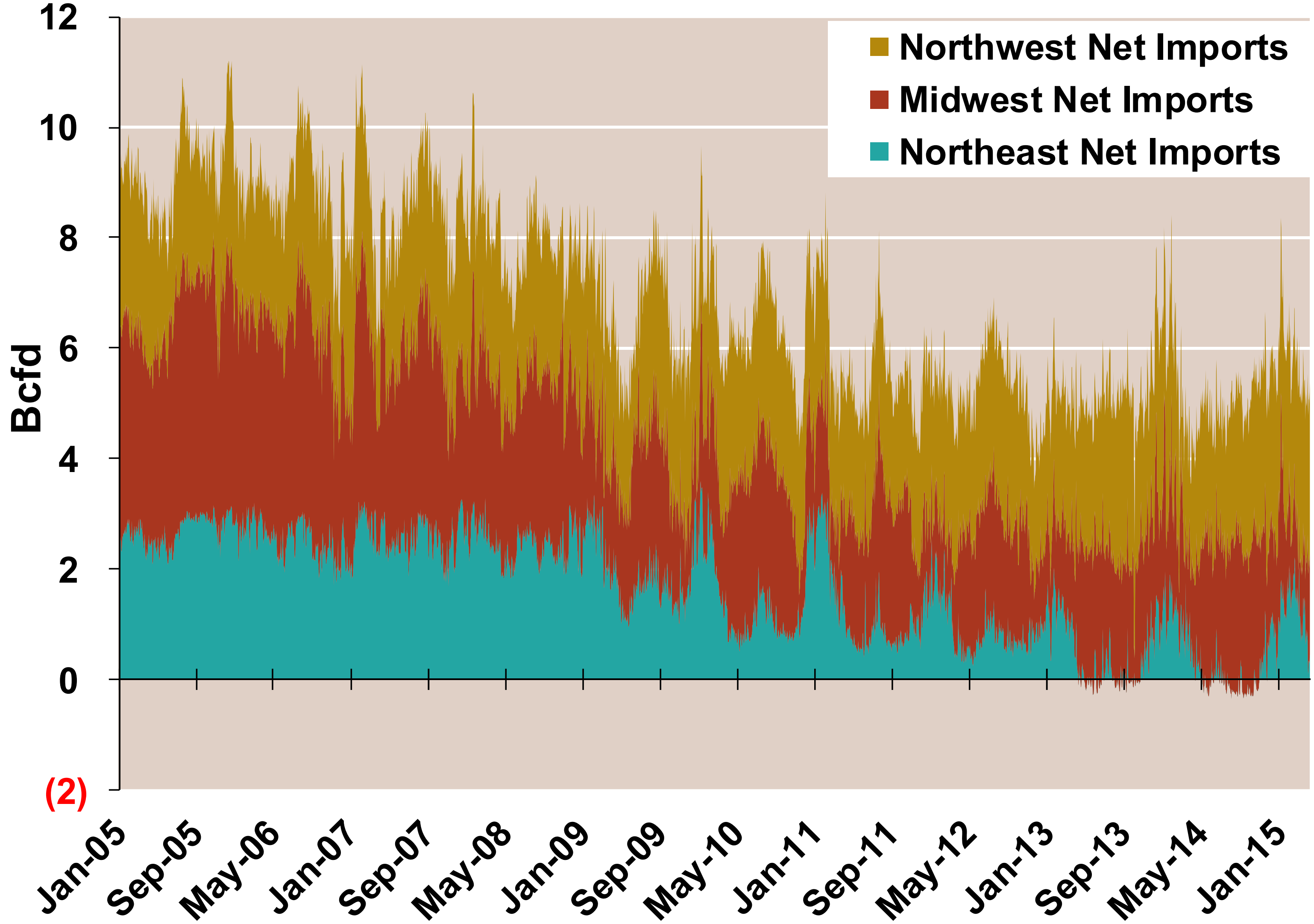
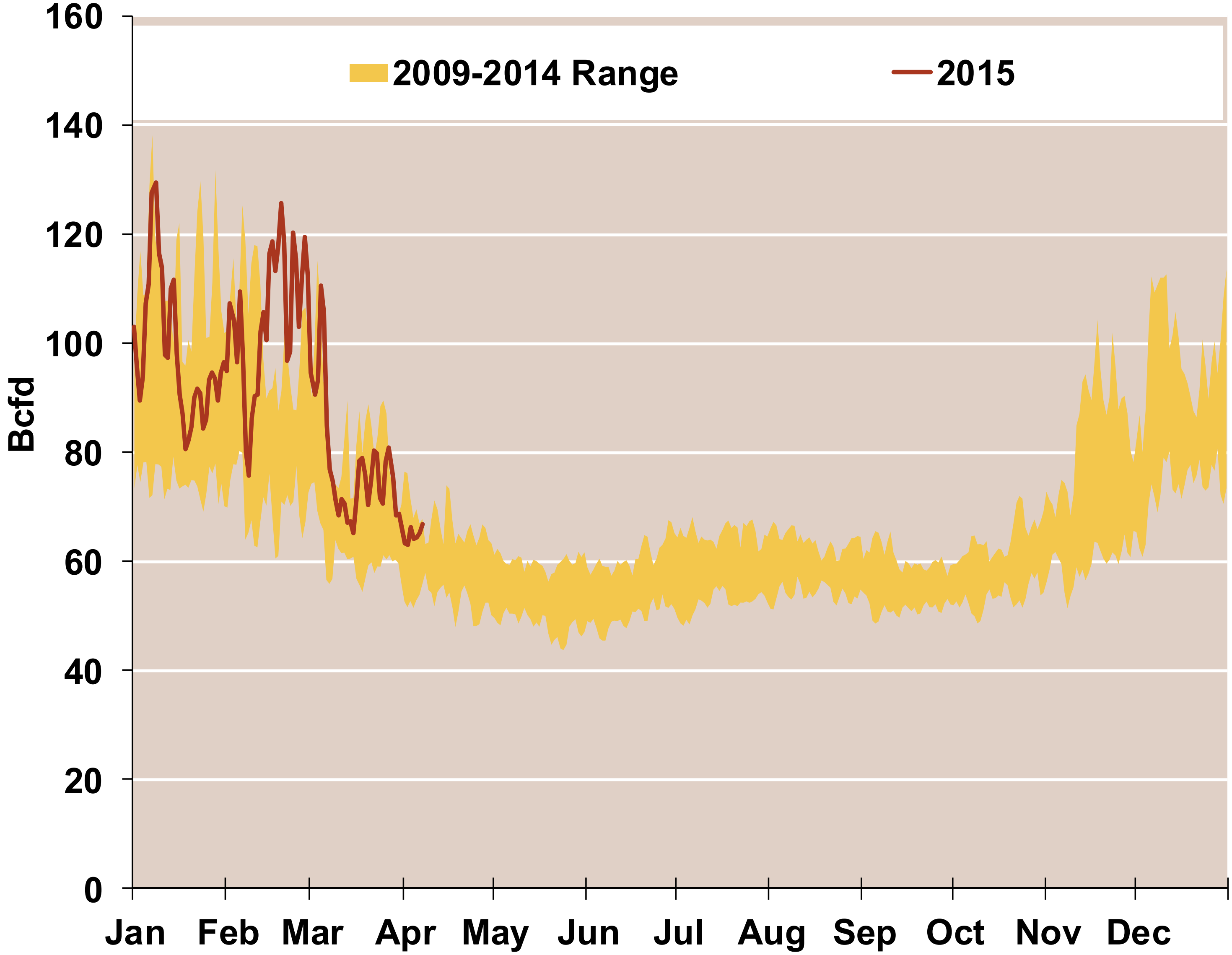
Regional Imports from Canada



Source: Derived from *Bentek Energy* data

Updated: April 2014

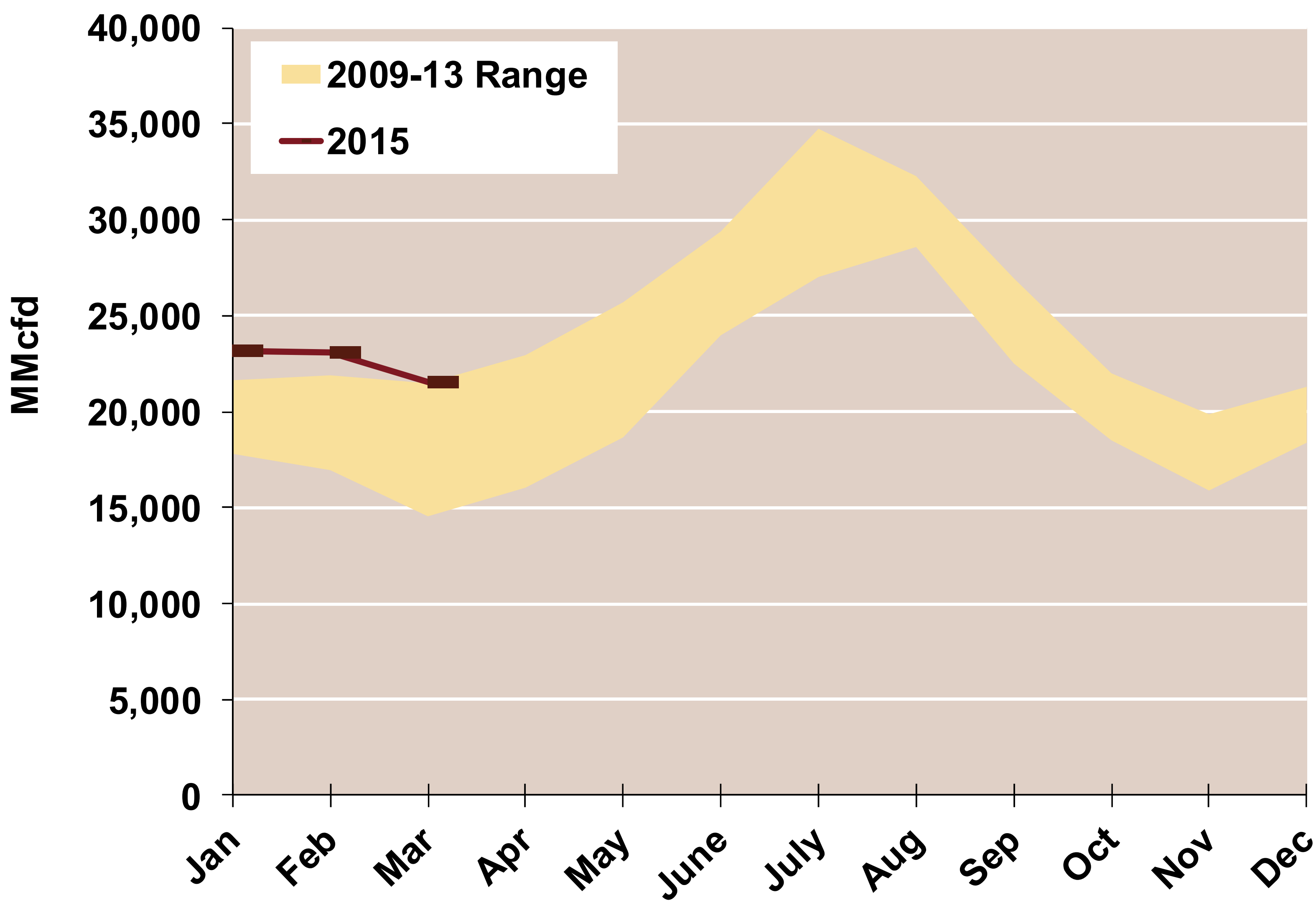
Total U.S. Natural Gas Demand All Sectors



Source: Derived from *Bentek Energy* data, derived from interstate pipeline flow and modeled data.

Updated: April 2014

U.S. Natural Gas Consumption for Power Generation



Source: Derived from *Bentek Energy* data

Updated: April 2014

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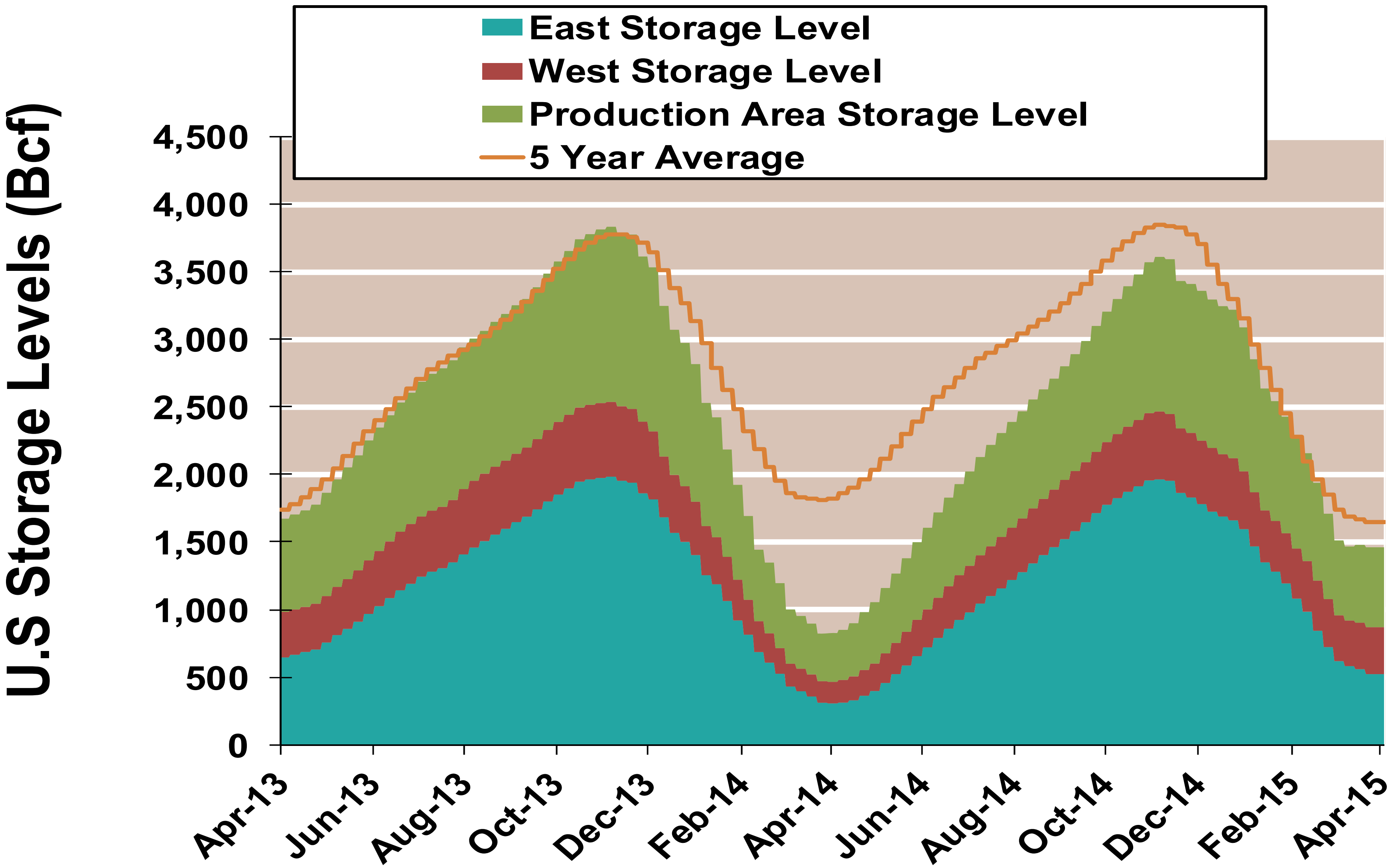
EIA National Storage Inventories by Region



Notes:

Source: Derived from Bloomberg Data

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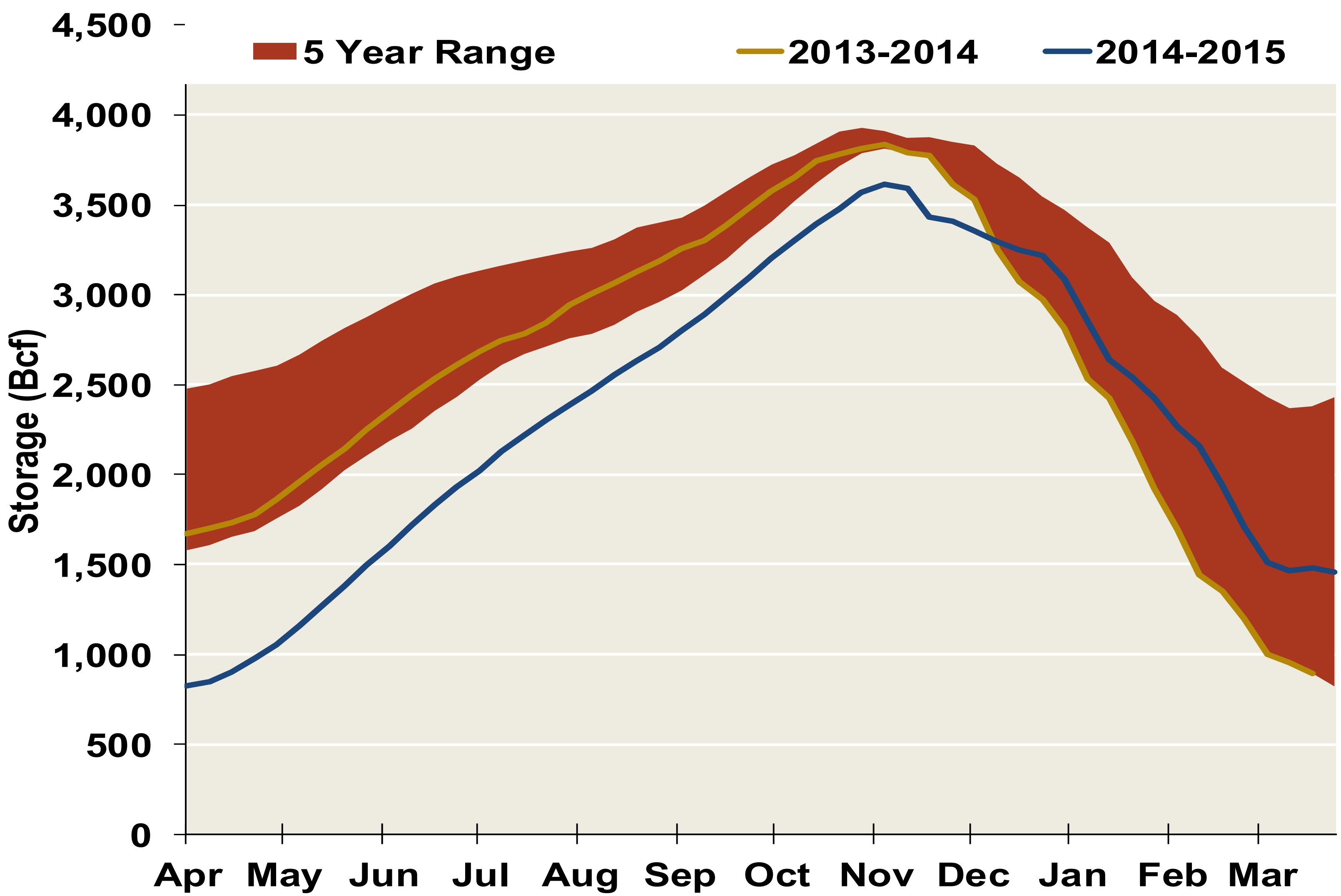
EIA National Storage Inventories



Notes:

Source: Derived from Bloomberg Data

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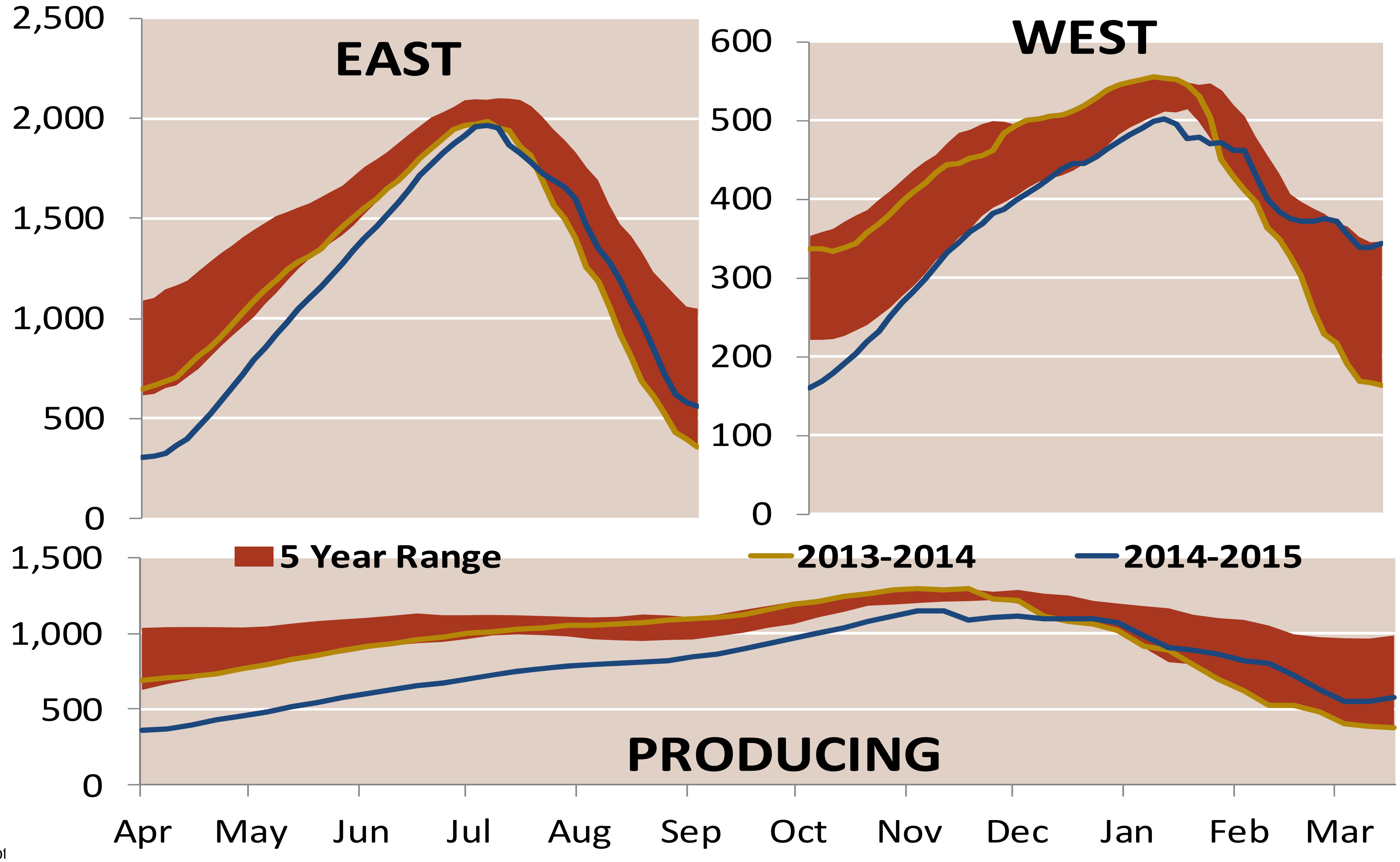
EIA Regional Storage Inventories

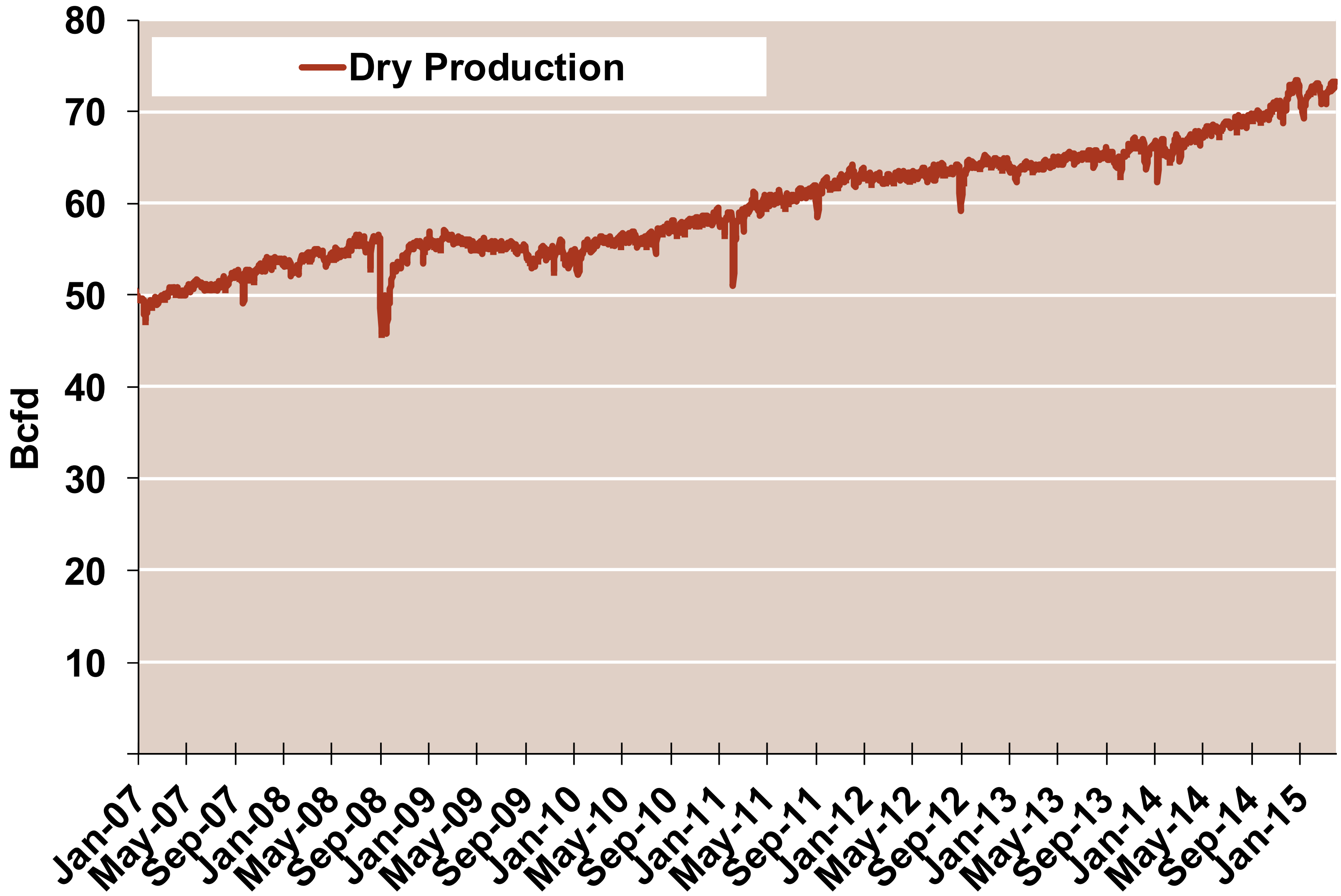


Not

Source: Derived from Bloomberg Data

Update 4/8/2015

Monthly U.S. Dry Gas Production – Lower 48 States



Note: Prior to July 2010, chart was derived from a combination of *EIA* and *Bentek Energy* data
Source: Derived from *Bentek Energy* data

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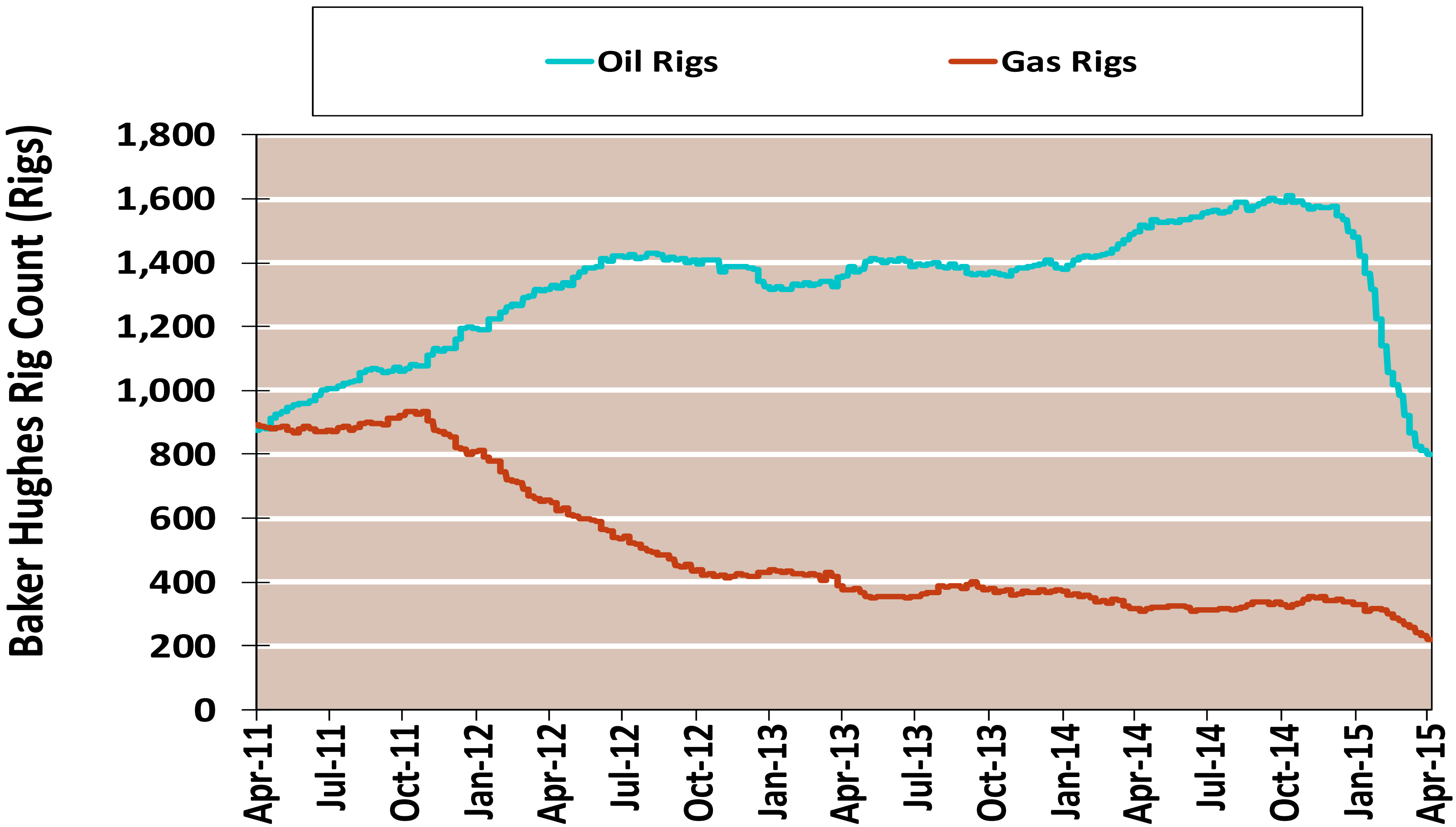
Rigs by Type



Notes:

Source: Derived from Bloomberg data

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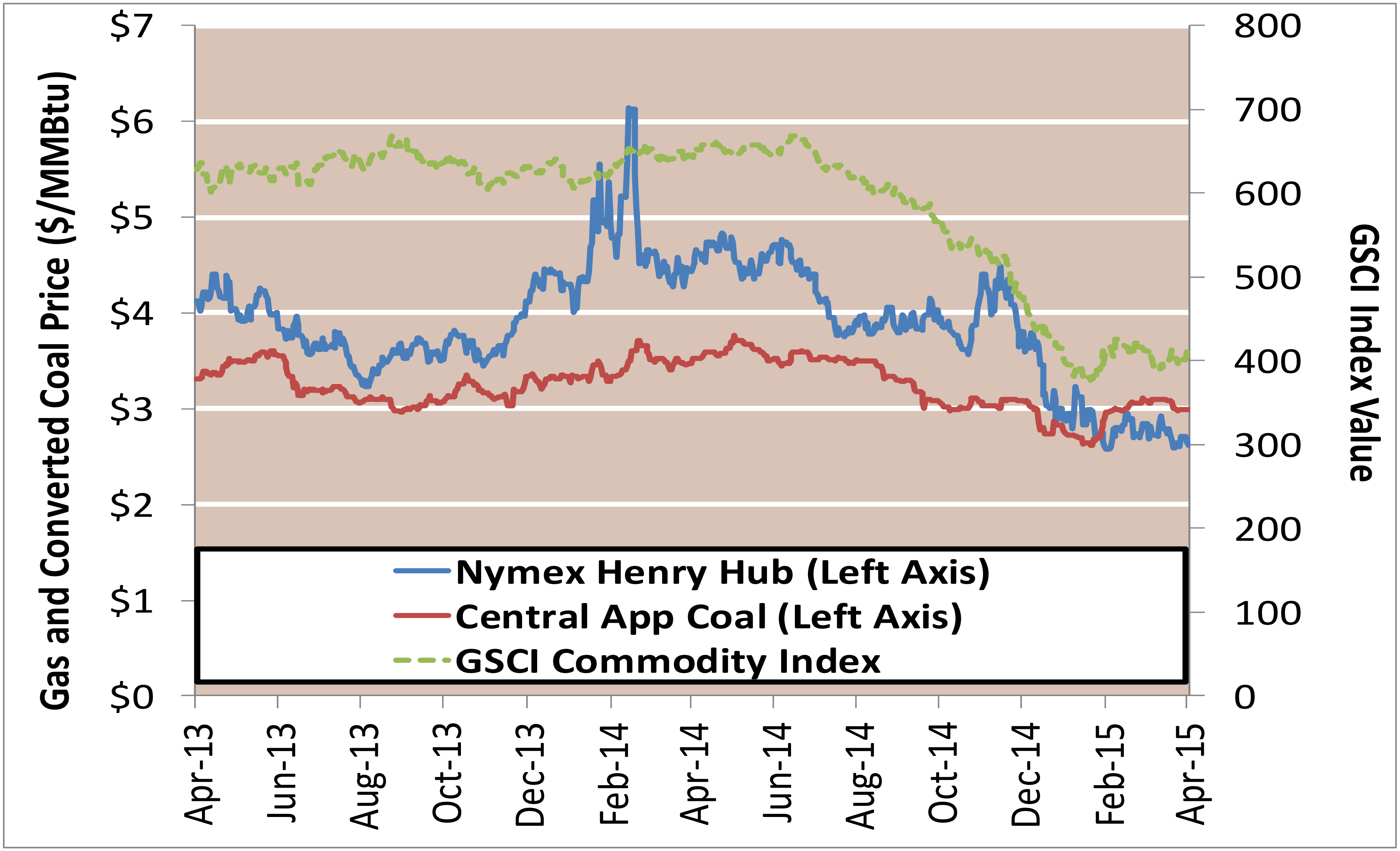
Gas vs Coal



Notes:

Source: Derived from Bloomberg data

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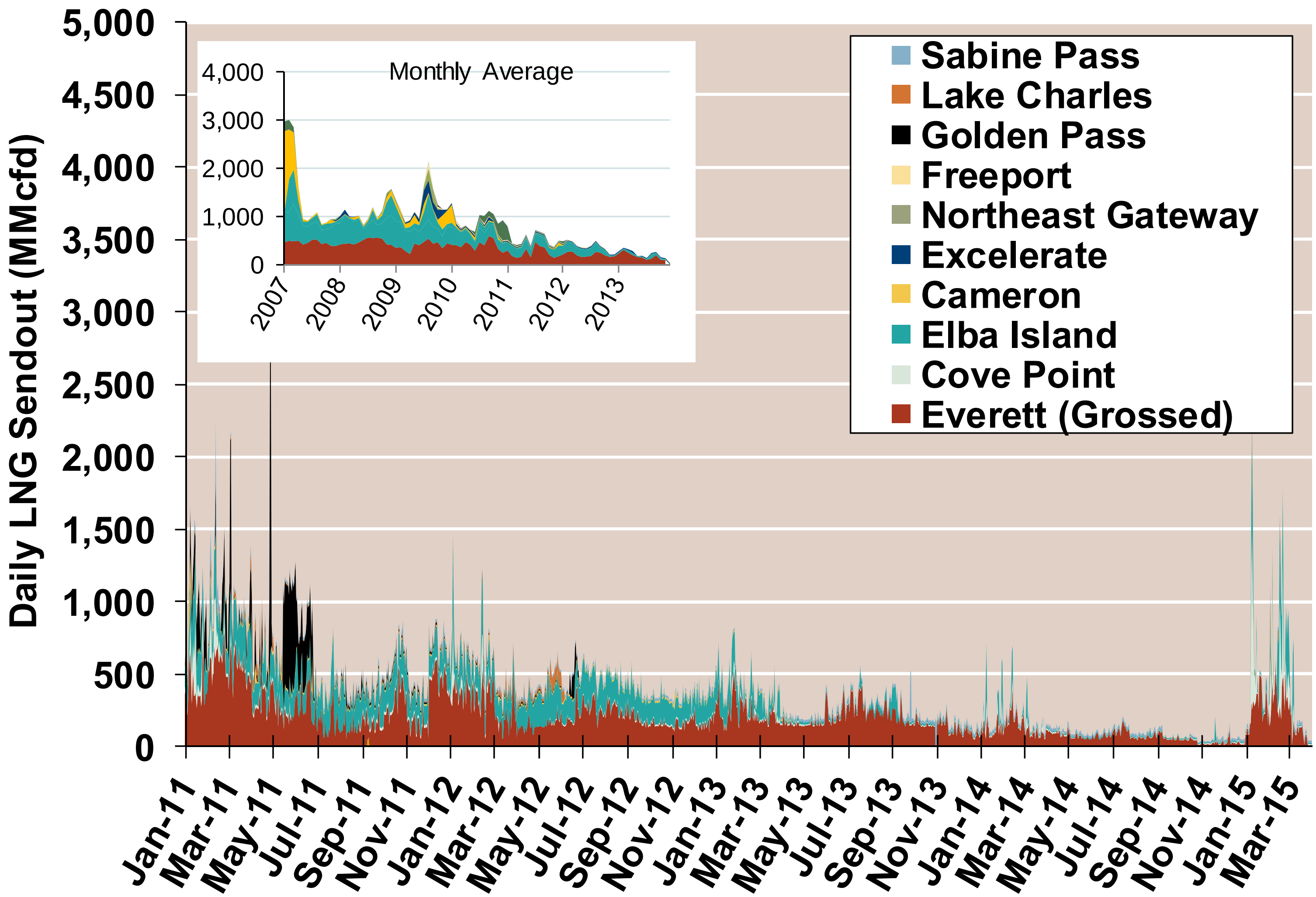
Daily Gas Sendout from Existing U.S. LNG Facilities



Notes: Everett data includes flows onto the AGT and TGP interstate lines, plus estimates of flows to the Mystic 7 power plant, Keyspan Boston Gas, and LNG trucked out of the terminal. Excludes flows to the Freeport LNG which flows via intrastate pipelines and flows to the Mystic 8 and 9 power plants.

Source: Derived from *Bentek Energy* data

Updated: October 2014

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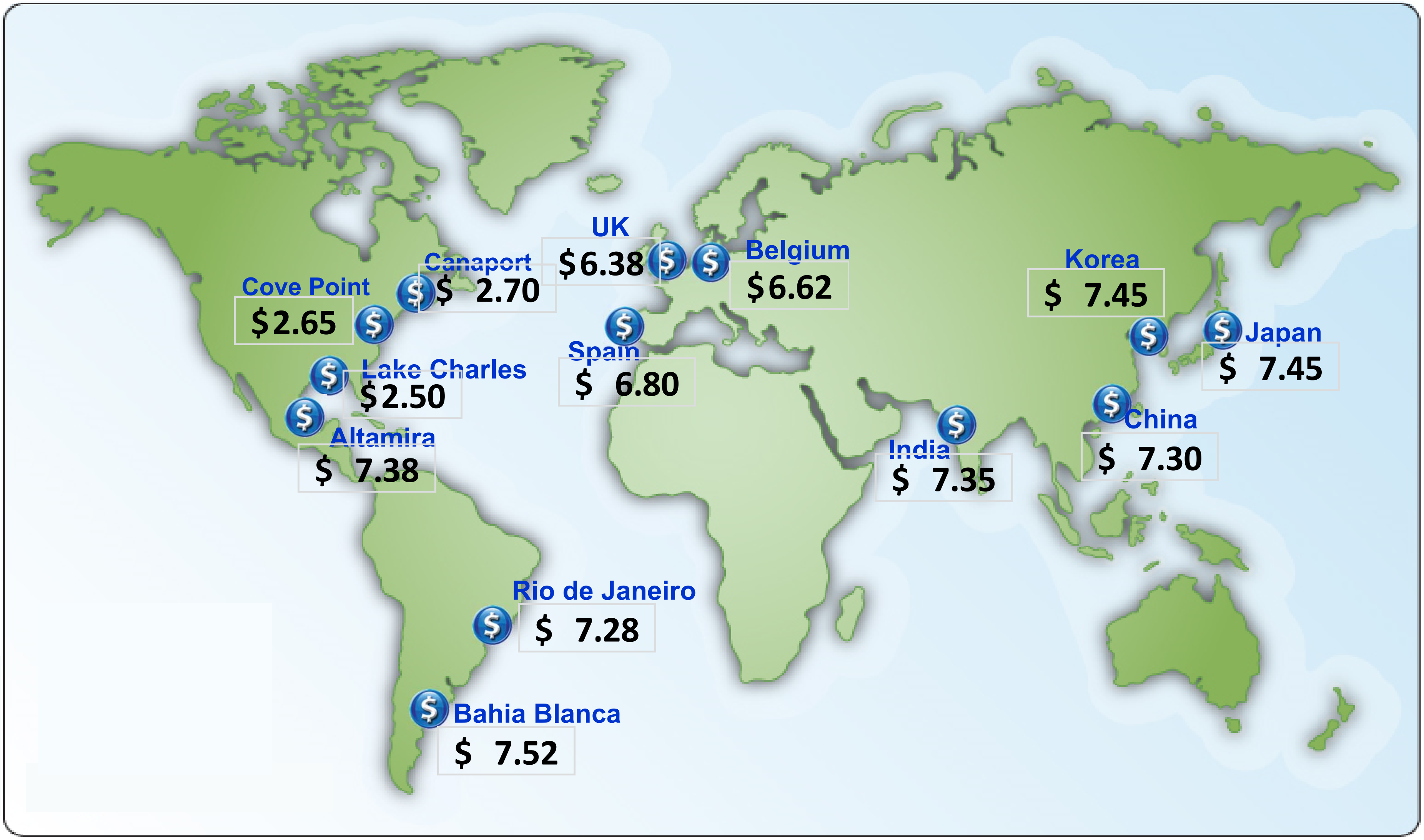
World LNG Estimated March 2015 Landed Prices

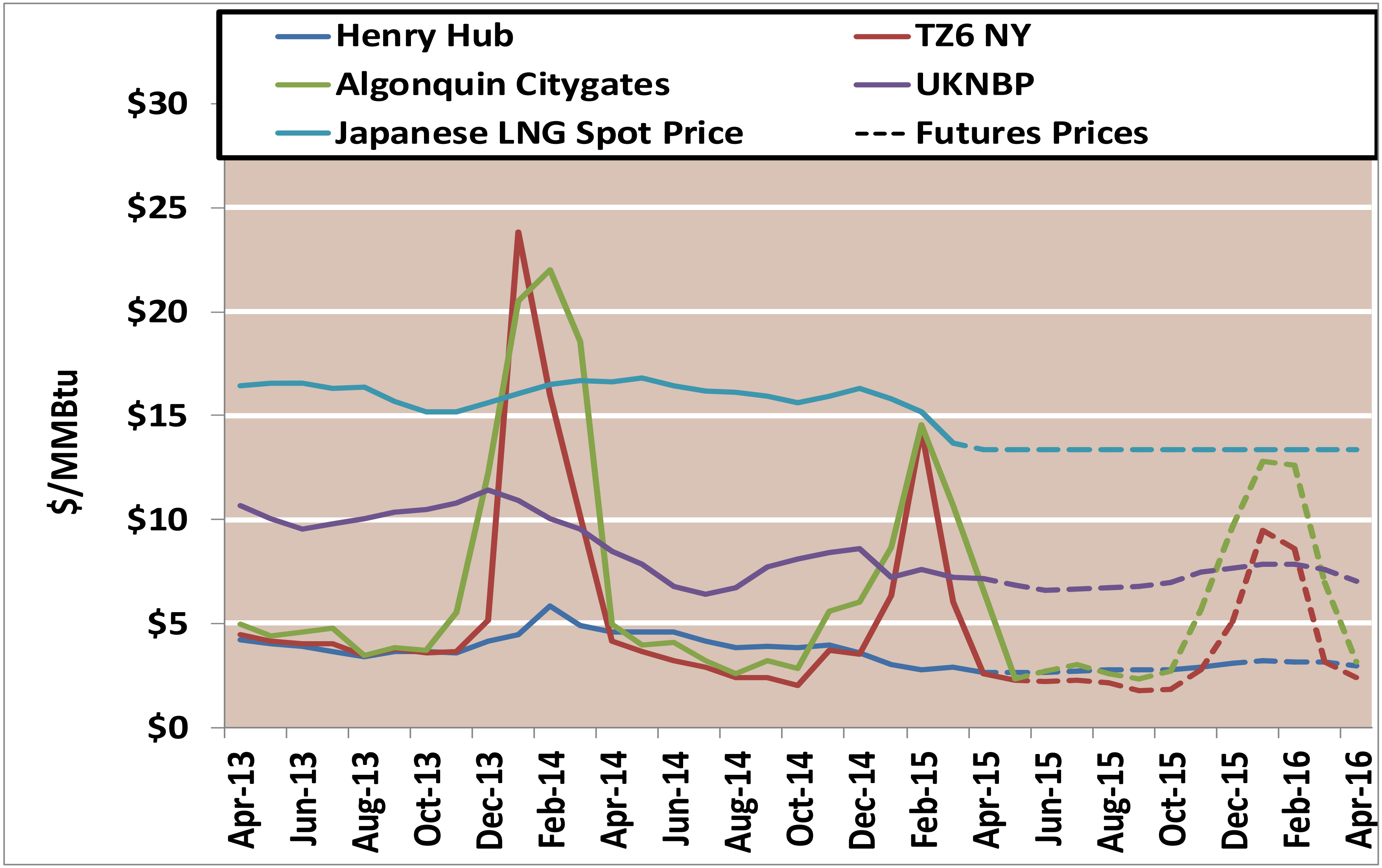


Source: *Waterborne Energy, Inc*. Data in $US/MMBtu

Note: Includes information and Data supplied by IHS Global Inc. and its affiliates ("IHS"); Copyright (publication year) all rights reserved.

Updated April 2014

Historical and Future World Gas Prices



Notes:

Source: Derived from Bloomberg data

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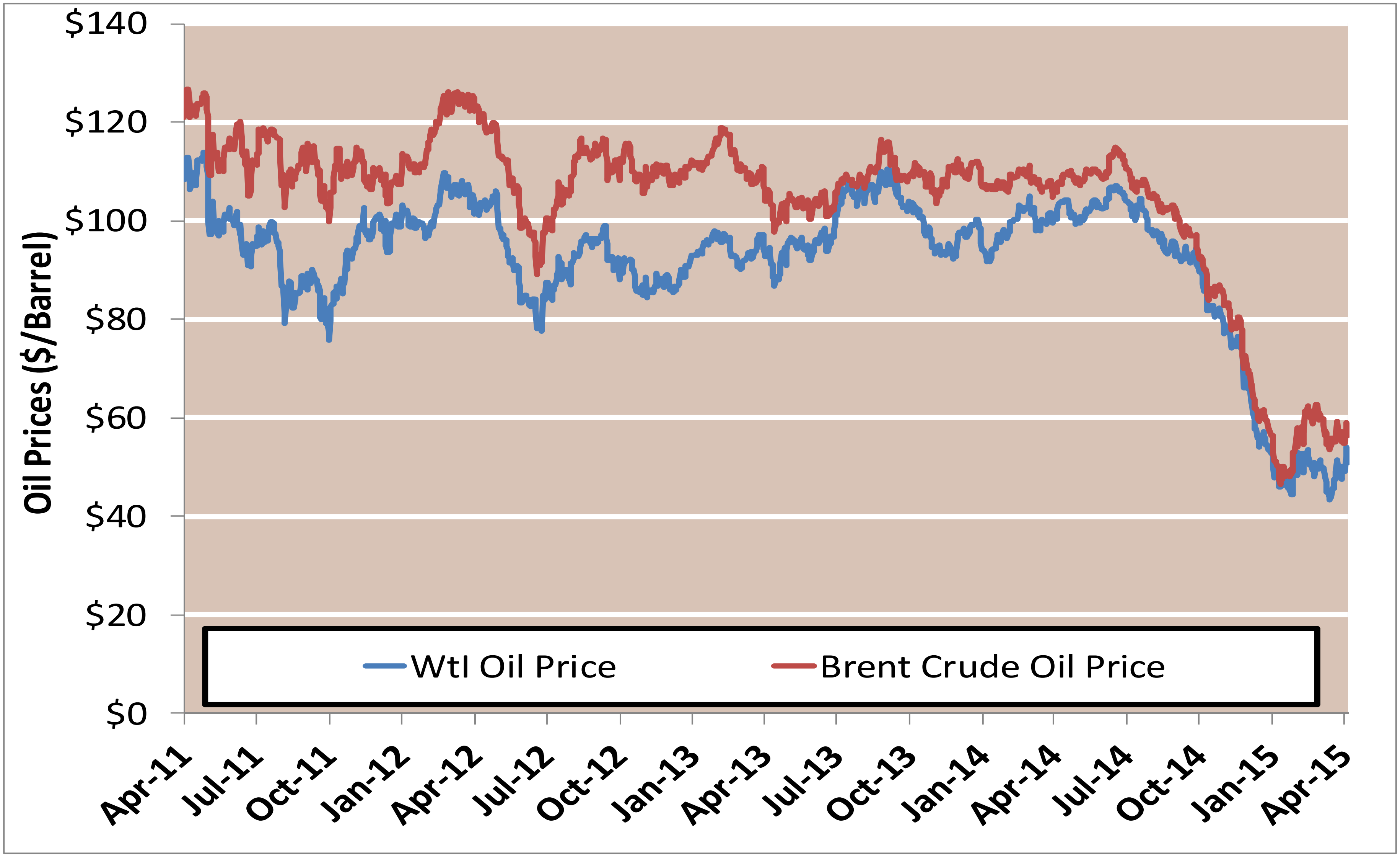
WTI vs Brent Crude Oil Price



Source: Derived from Bloomberg data

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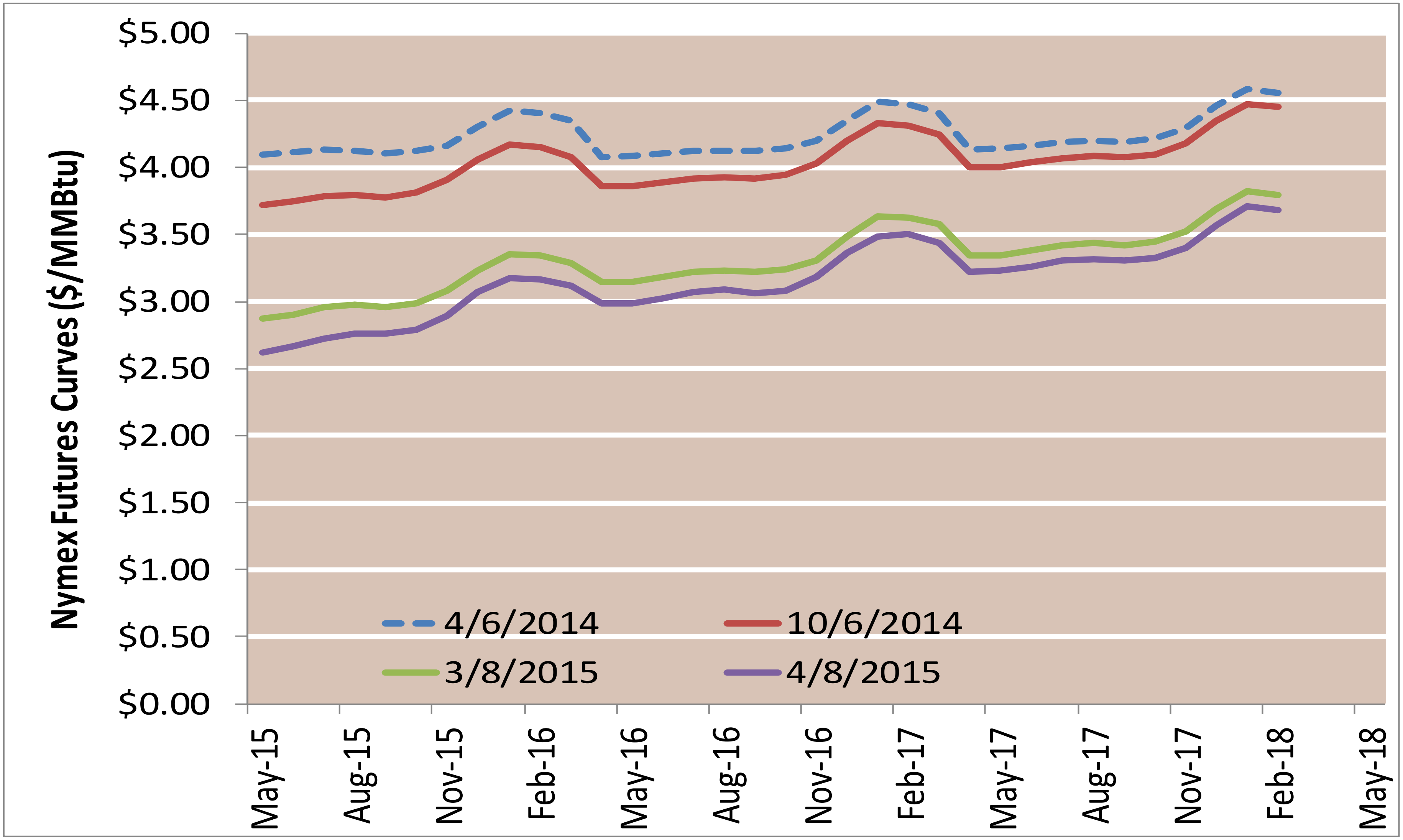
Nymex Futures Curves



Source: Derived from Bloomberg data

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Infrastructure Report

Natural Gas Highlights

Natural Gas Activities in March 2015

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
Pipeline						
Placed in Service	3			529.0	21.7	21,500
Certificated	5			864.0	101.4	90,554
Proposed	13			12,409.0	684.2	694,996
Storage						
Placed in Service	1	1.7	0.0			0
Certificated	0	0.0	0.0			0
Proposed	0	0.0	0.0			0
LNG (Import & Export)						
Placed in Service	0	0	0			0
Certificated (Import/Export)	0	0	0			0
Proposed (Export)	4	37.90	6,320			0

Electric Generation Highlights

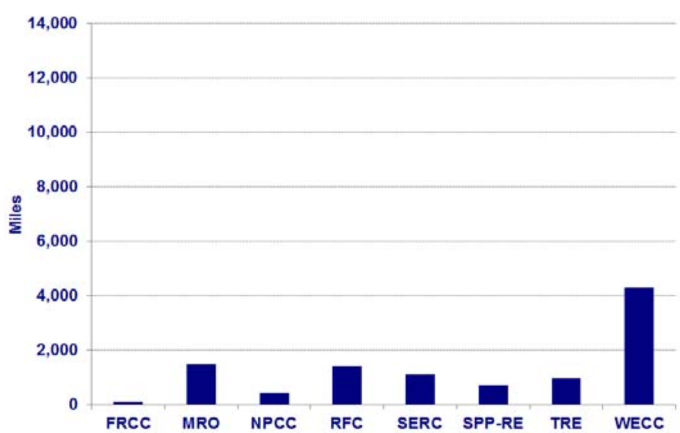
New Generation In-Service (New Build and Expansion)

	March 2015		January – March 2015 Cumulative		January – March 2014 Cumulative	
Primary Fuel Type	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)	No. of Units	Installed Capacity (MW)
Coal	0	0	0	0	0	0
Natural Gas	2	176	5	302	7	159
Nuclear	0	0	0	0	0	0
Oil	0	0	0	0	1	1
Water	1	21	1	21	2	7
Wind	1	98	8	647	16	633
Biomass	0	0	0	0	20	72
Geothermal Steam	0	0	1	45	3	30
Solar	0	0	30	214	69	680
Waste Heat	0	0	0	0	1	40
Other	0	0	0	0	3	1
Total	4	295	45	1,229	122	1,623

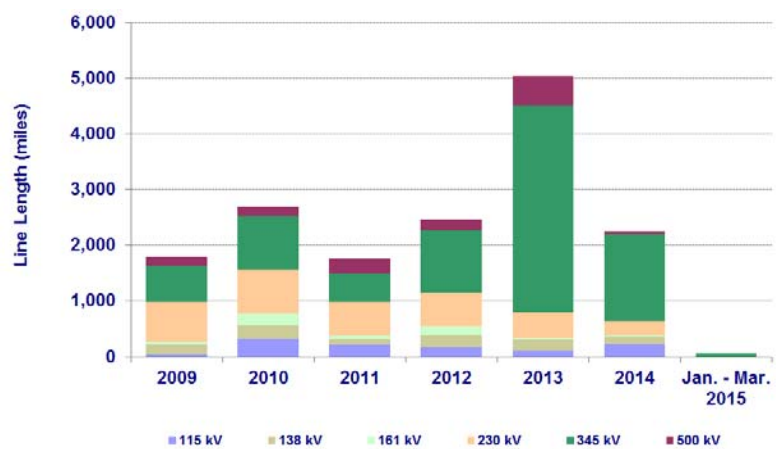
Electric Transmission Highlights

	Transmission Projects Completed				Proposed Transmission Projects In-Service by March 2017	
Voltage (kV)	March 2015	March 2014	January – March 2015 Cumulative	January – December 2014 Cumulative	High Probability of Completion	All
	Line Length (miles)					
≤230	5.0	44.0	5.0	642.9	4,050.3	7,383.9
345	0.0	64.8	58.7	1,547.8	3,318.7	5,579.5
500	0.0	0.0	0.0	62.0	3,175.3	9,403.6
Total U.S.	5.0	108.8	63.7	2,252.7	10,544.3	22,367.0

Transmission Projects with a High Probability of being completed by March 2017



New Transmission Projects by Voltage



Infrastructure Report

Office of Energy Projects Energy Infrastructure Update

http://www.ferc.gov/legal/staff-reports.asp

(see “Energy Infrastructure” tab)