

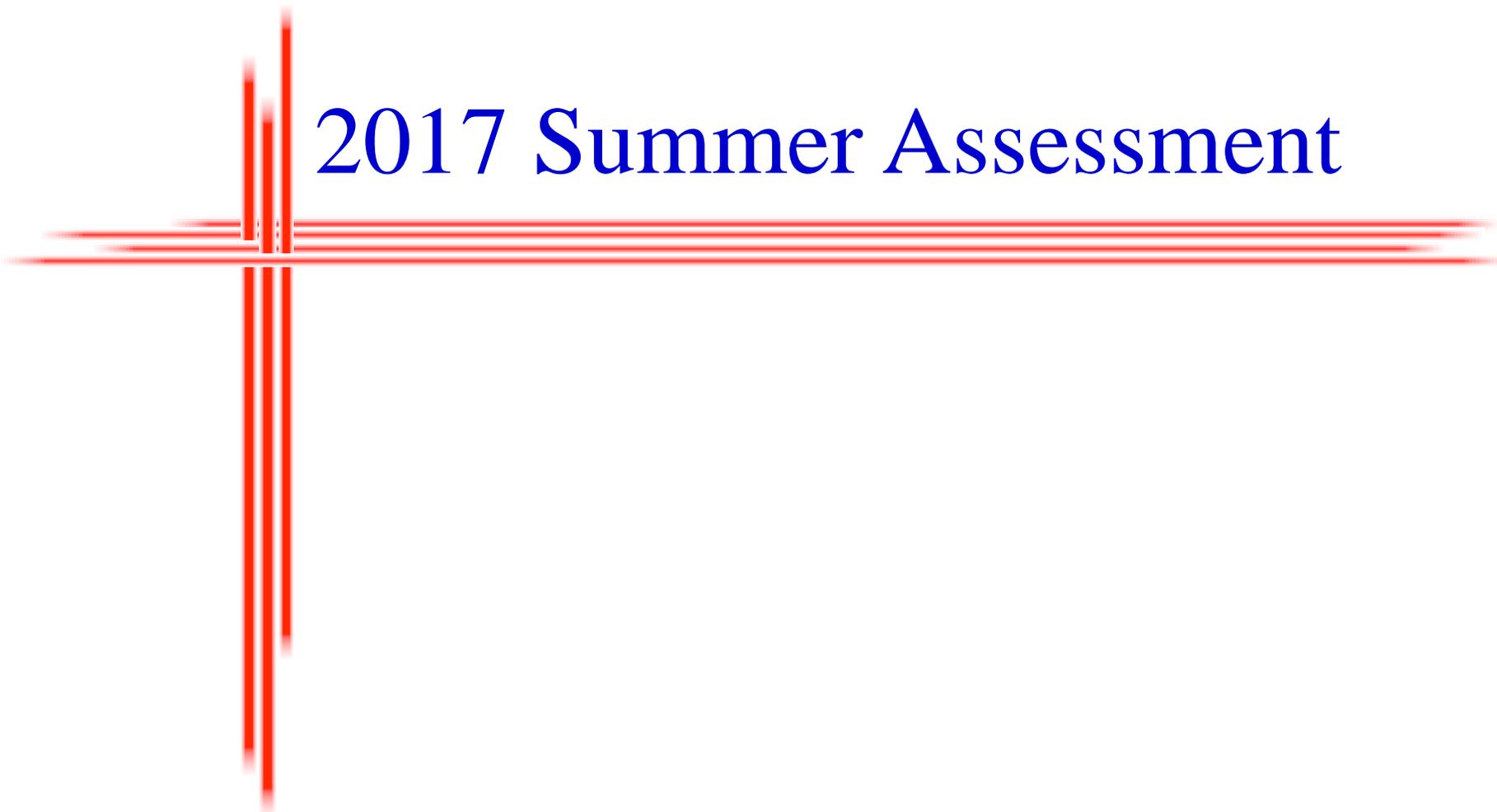
# **OE ENERGY MARKET SNAPSHOT**

## **National – Data Through May 2017**

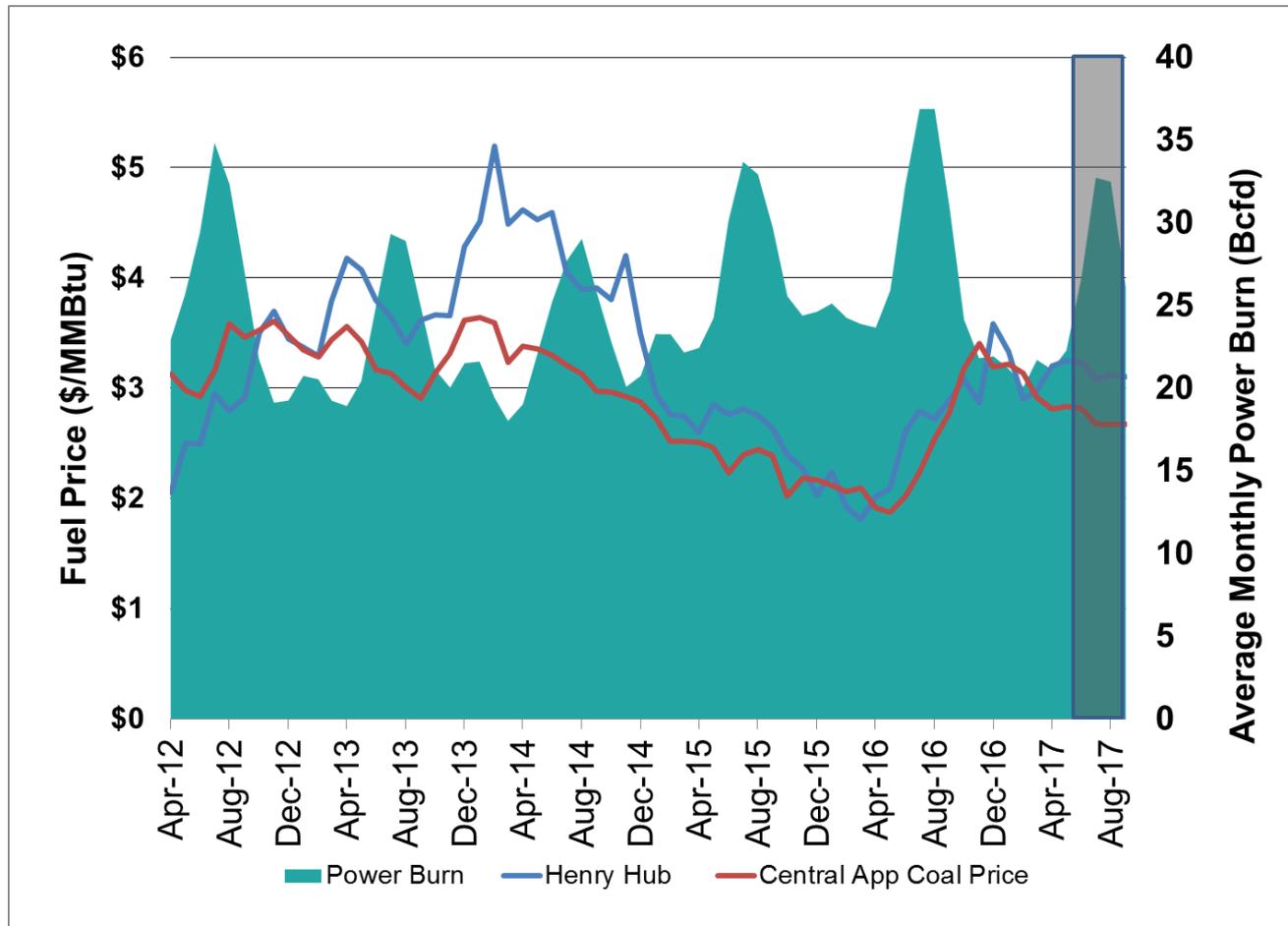
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Office of Enforcement  
Federal Energy Regulatory Commission  
June 2017

# 2017 Summer Assessment

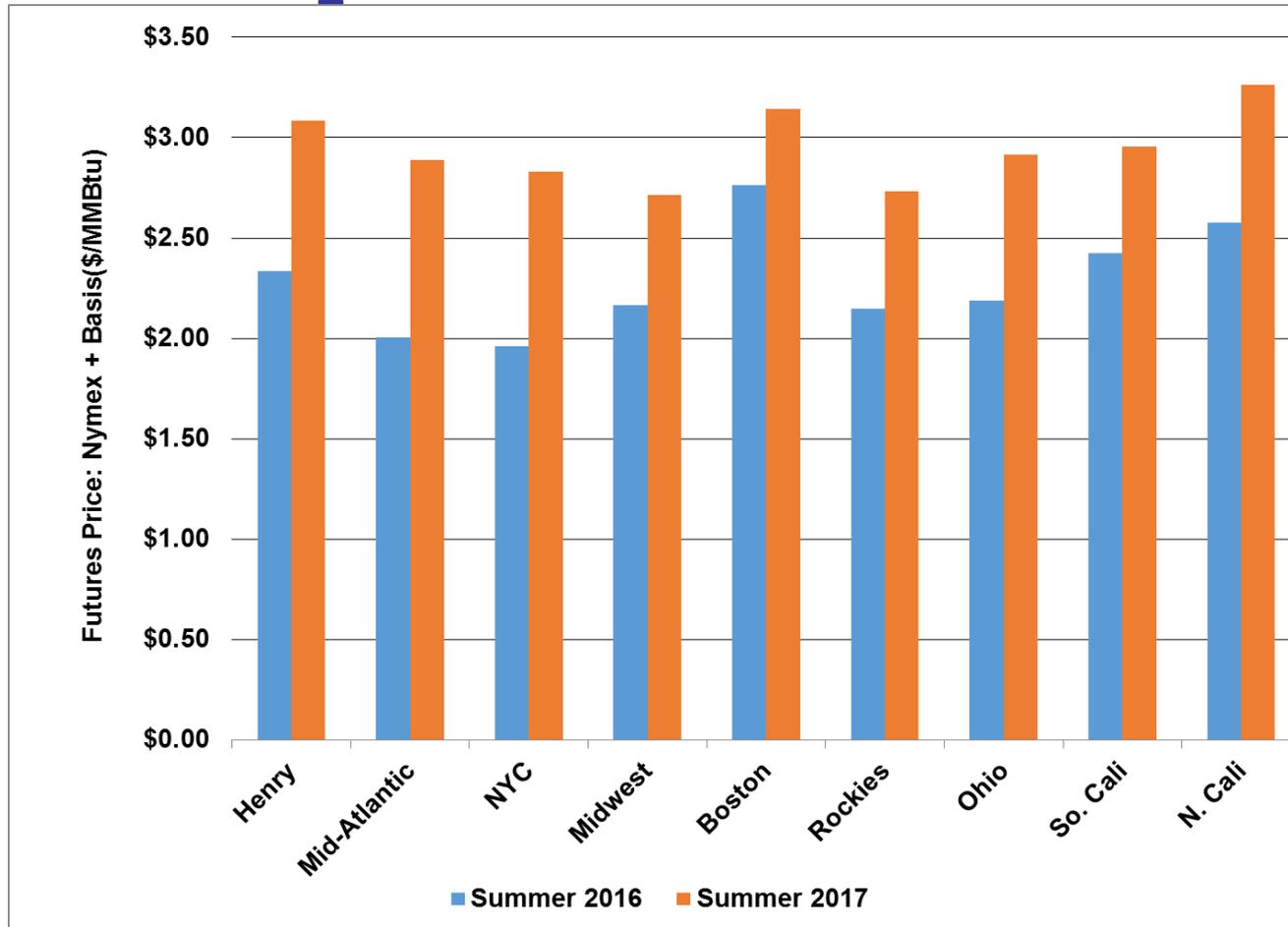
A decorative graphic consisting of several thick, parallel red lines. A vertical line runs down the left side of the page, and a horizontal line runs across the middle. They intersect to form a cross-like shape.

# Natural Gas Futures Rise Relative to Coal



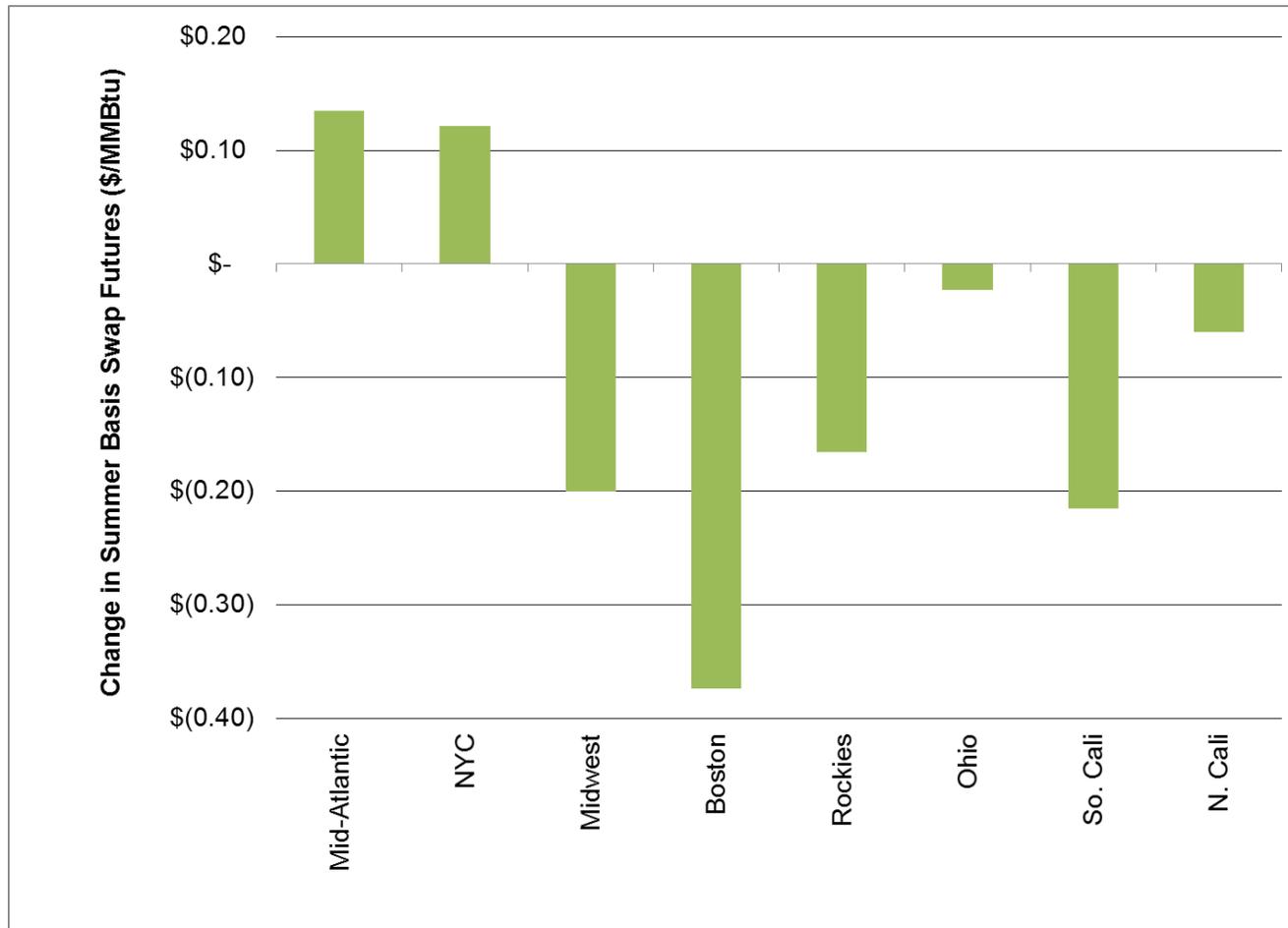
Source: Price data from NYMEX & ICE; Power burn from Bentek Energy

# Natural Gas Prices Rise Compared to Previous Summer



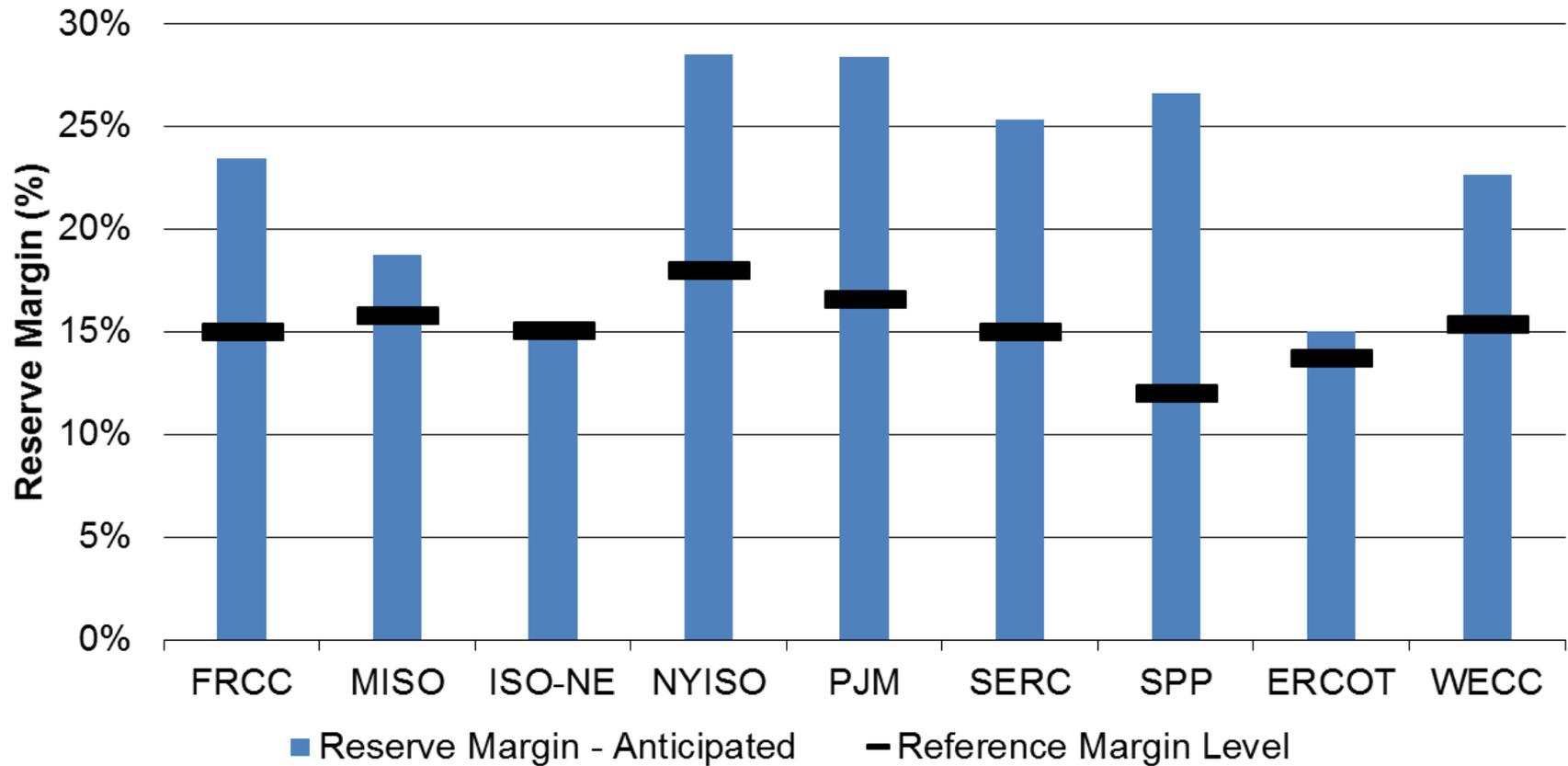
Source: NYMEX & ICE

# Summer Basis Swaps Narrow between Marcellus and Markets



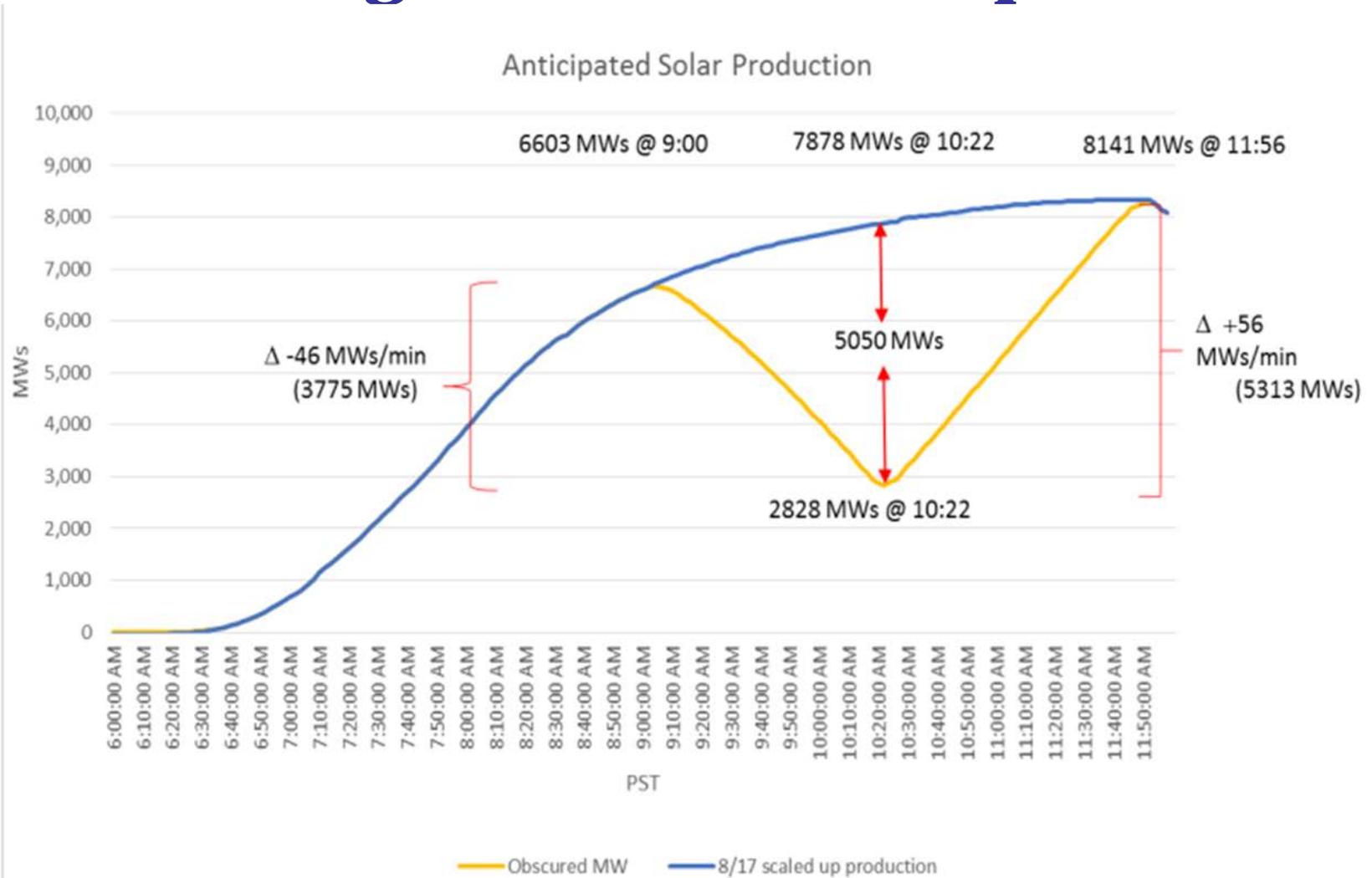
Source: NYMEX

# Reserve Margins Adequate in Most Regions

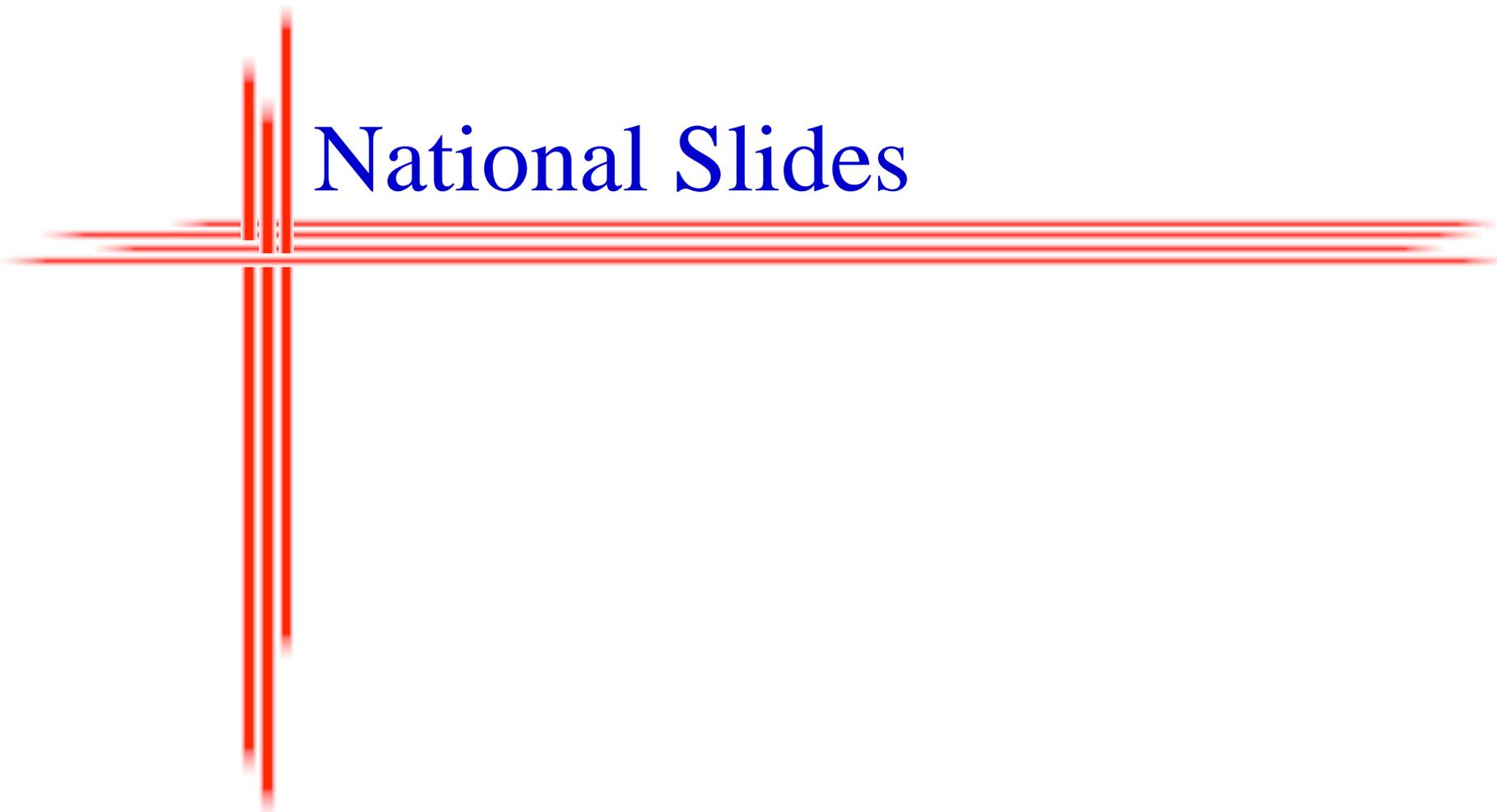


Source: NERC

# August 21 Solar Eclipse

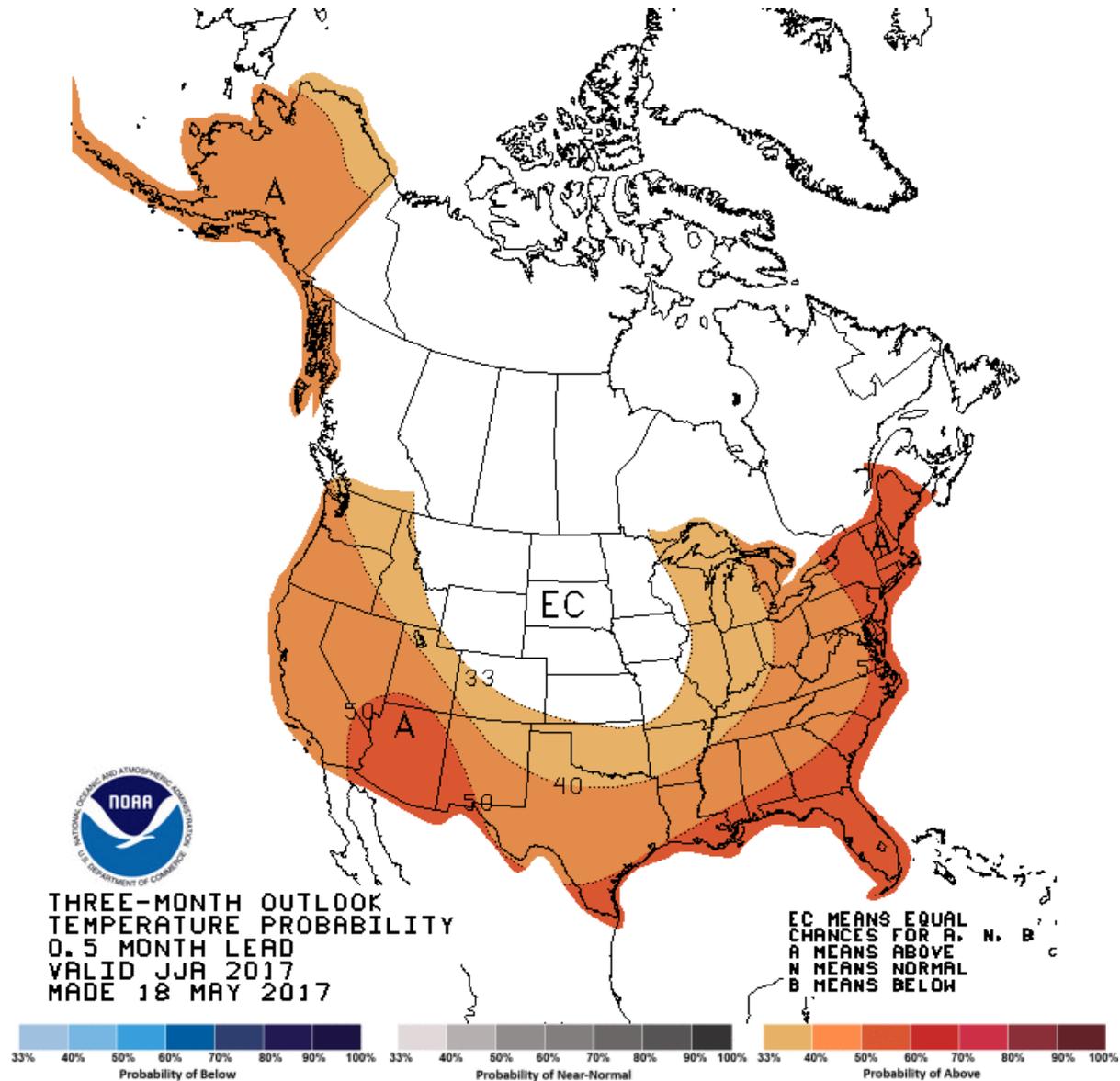


Source: California ISO



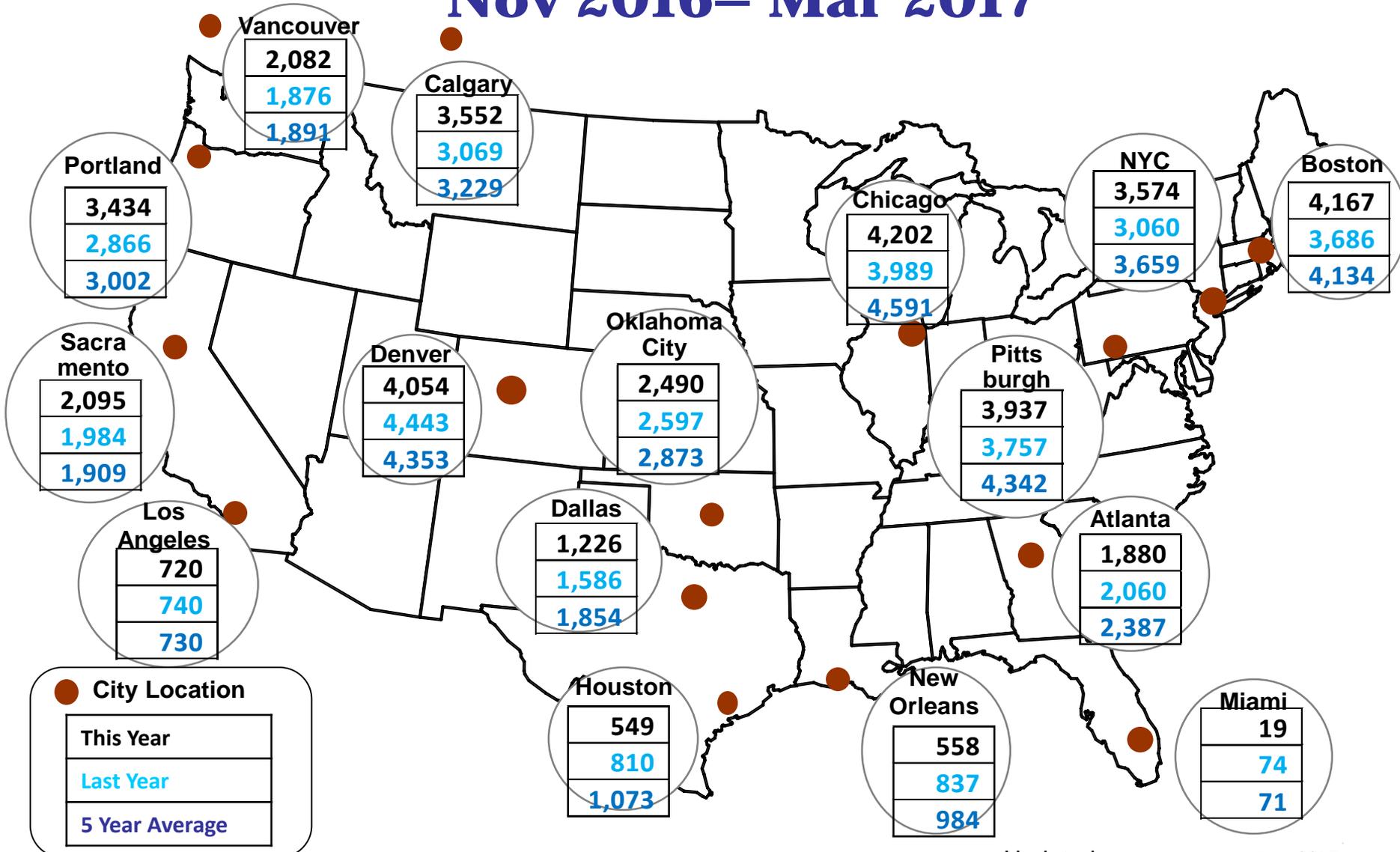
# National Slides

# NOAA June 2017 Through August 2017 Outlook



# Cumulative HDDs by City

## Nov 2016– Mar 2017



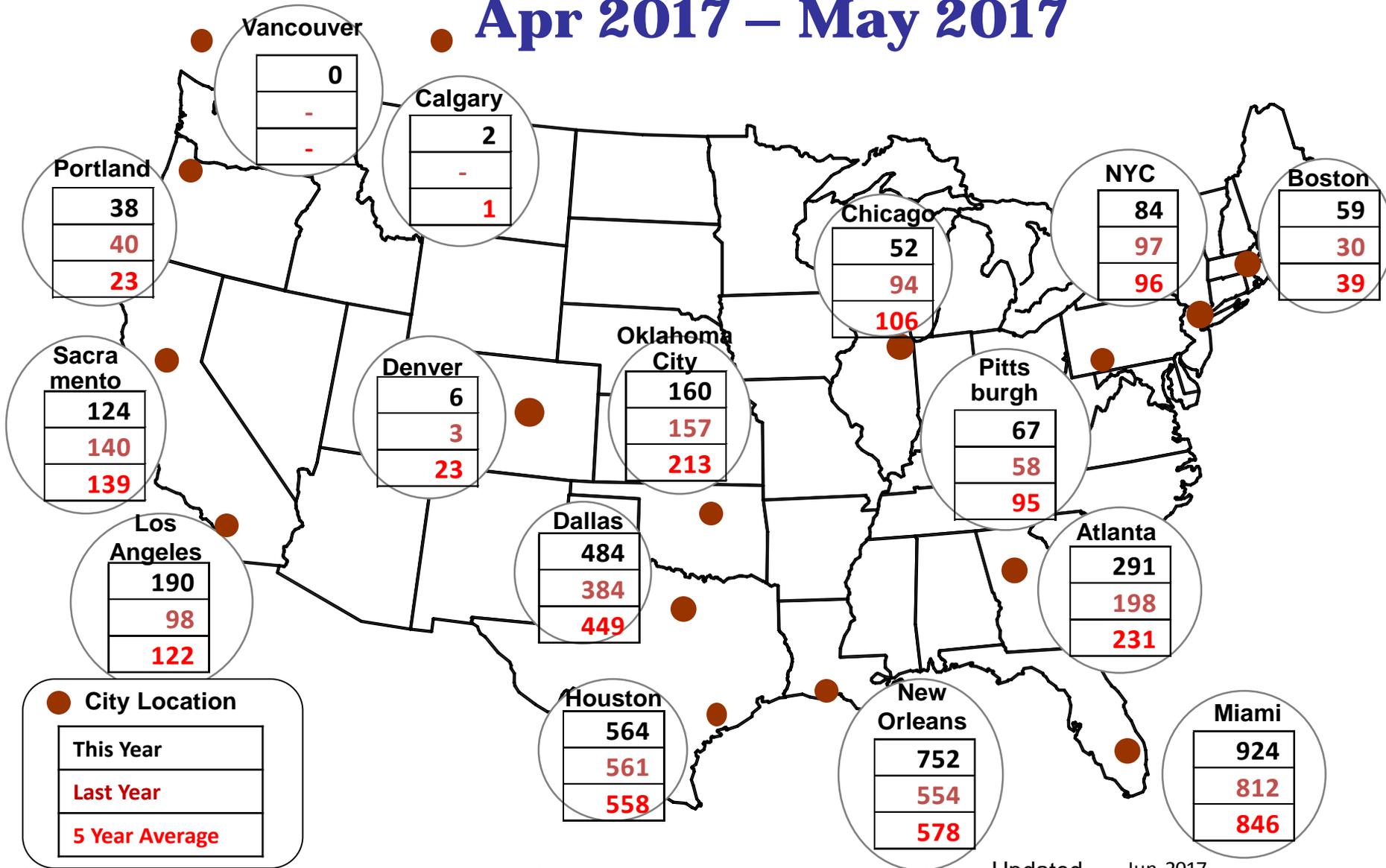
Source: Bloomberg Weather (daily data summed quarterly)

Updated

Jun-2017

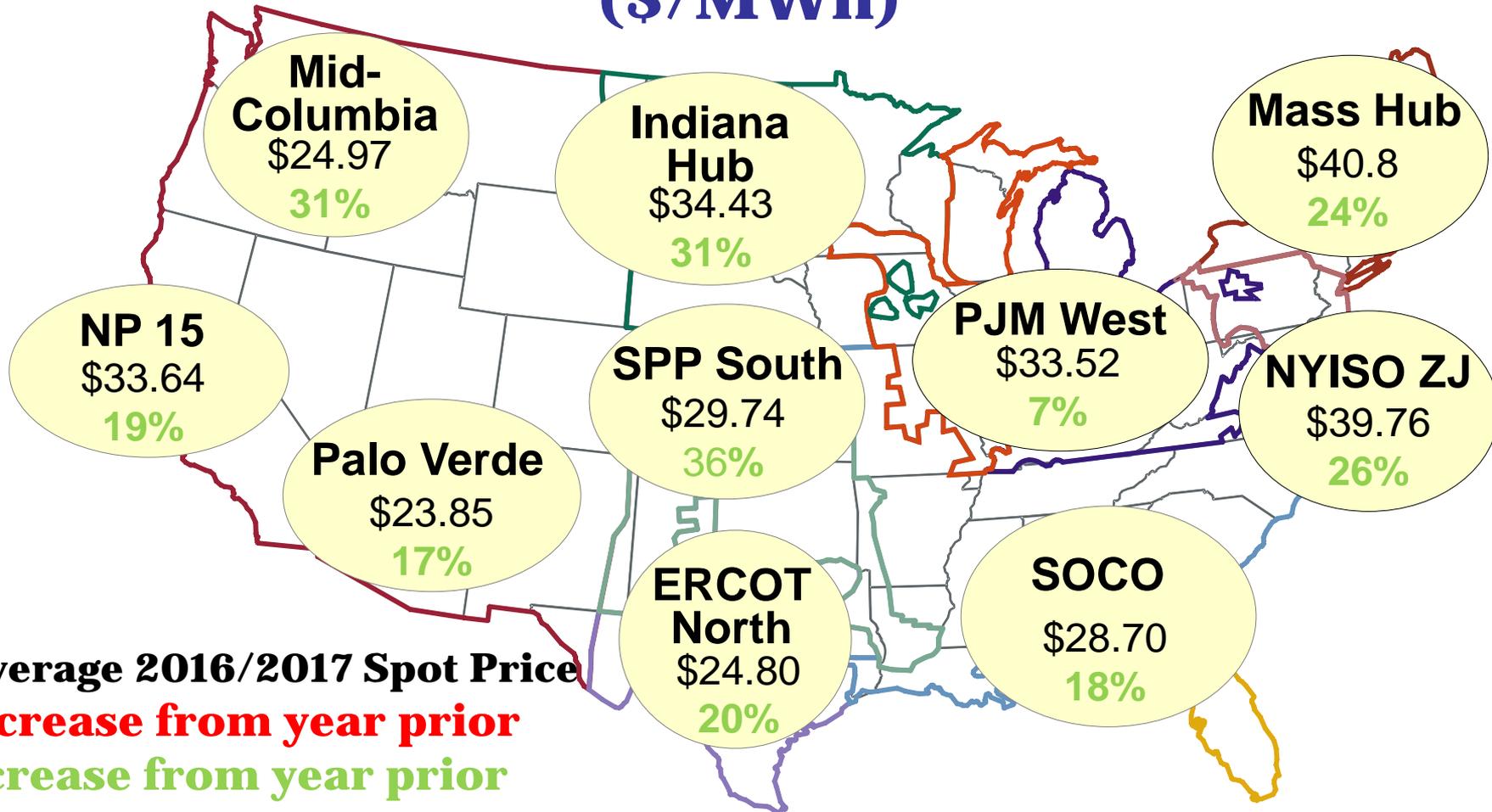
# Cumulative CDDs by City

## Apr 2017 – May 2017



Source: Bloomberg Weather (daily data summed quarterly)

# Nov2016-Mar2017 Spot Power Prices (\$/MWh)



**\$ = Average 2016/2017 Spot Price**

**% Decrease from year prior**

**% Increase from year prior**

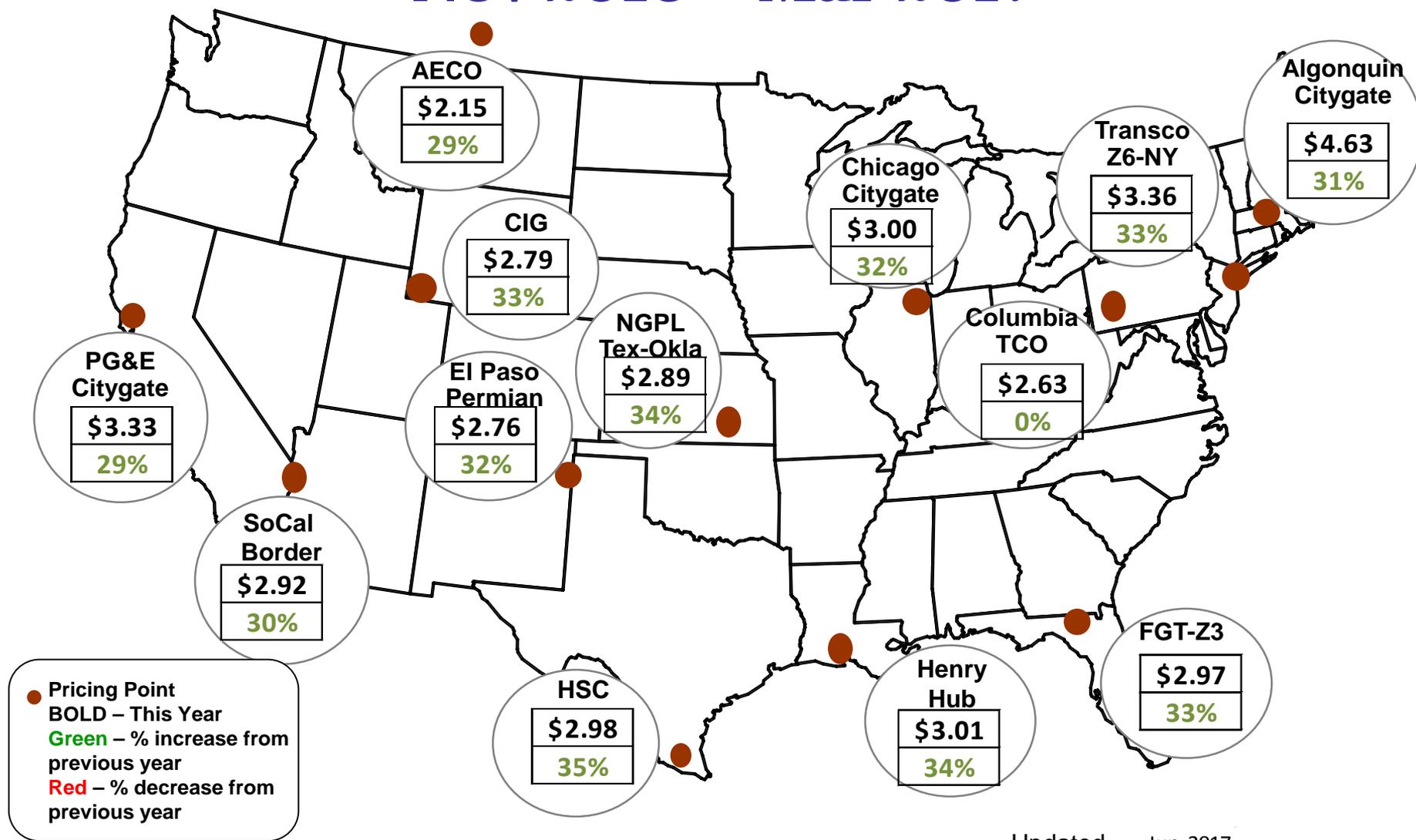
**\* Average On-Peak Day-Ahead from November to March**

**SPP Price is an average of the North and South Hubs**

**Source: RTO/ISO and ICE Data**

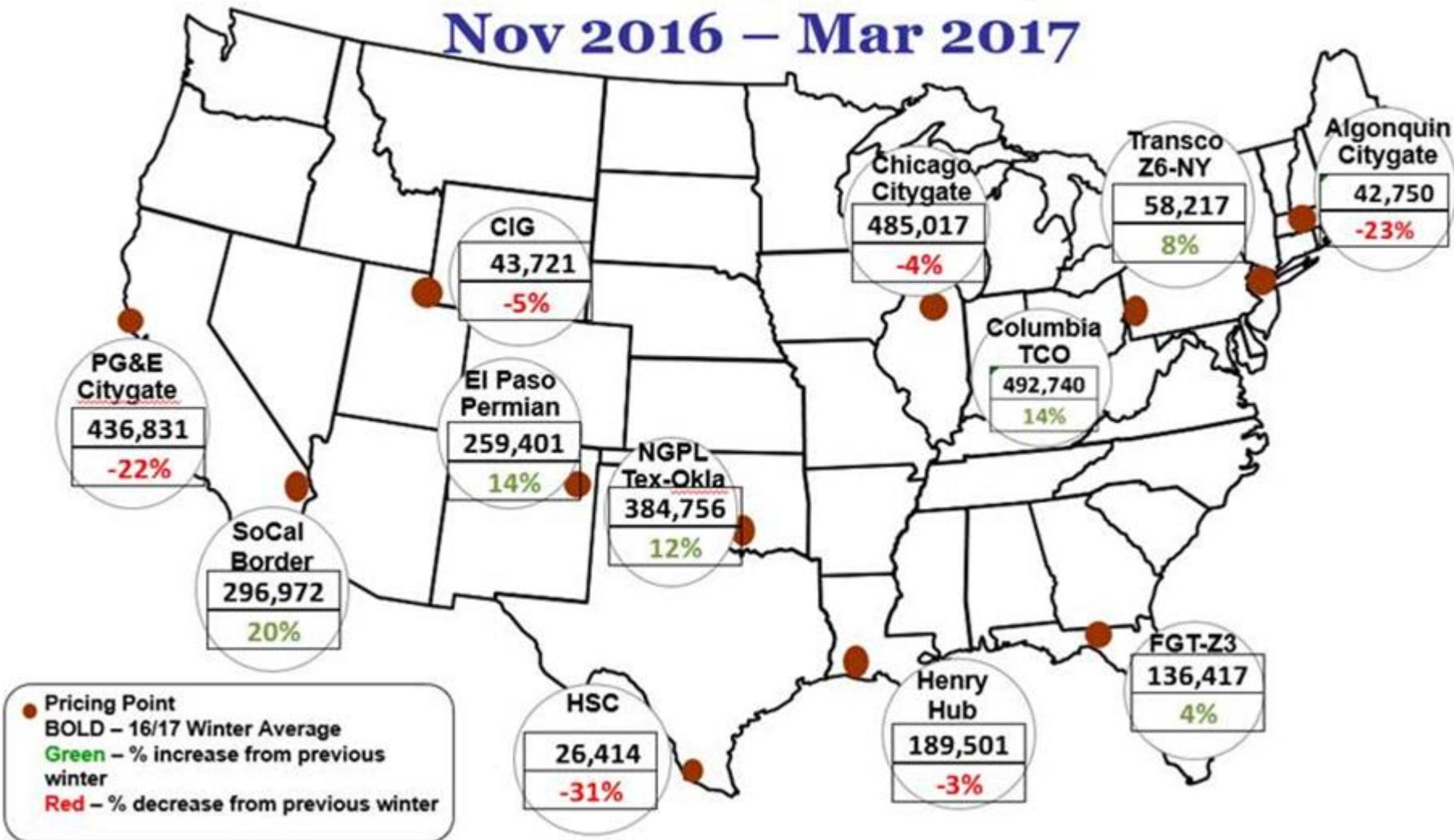
# Spot Natural Gas Prices Average (\$/MMBtu)

## Nov 2016 – Mar 2017



# Spot Average Natural Gas Trading Volumes (MMBtus)

## Nov 2016 – Mar 2017



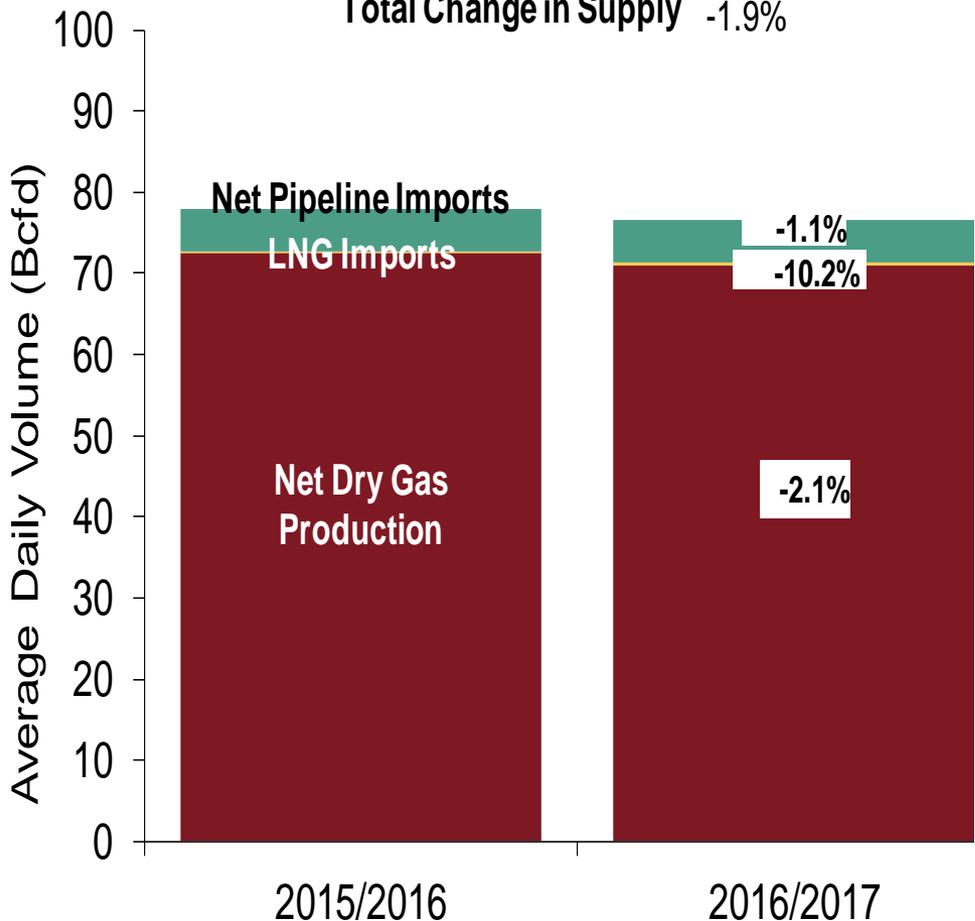
Source: Bloomberg and ICE

## U.S. NG Supply and Demand

### Nov 2015 – Mar 2016 vs Nov 2016 – Mar 2017

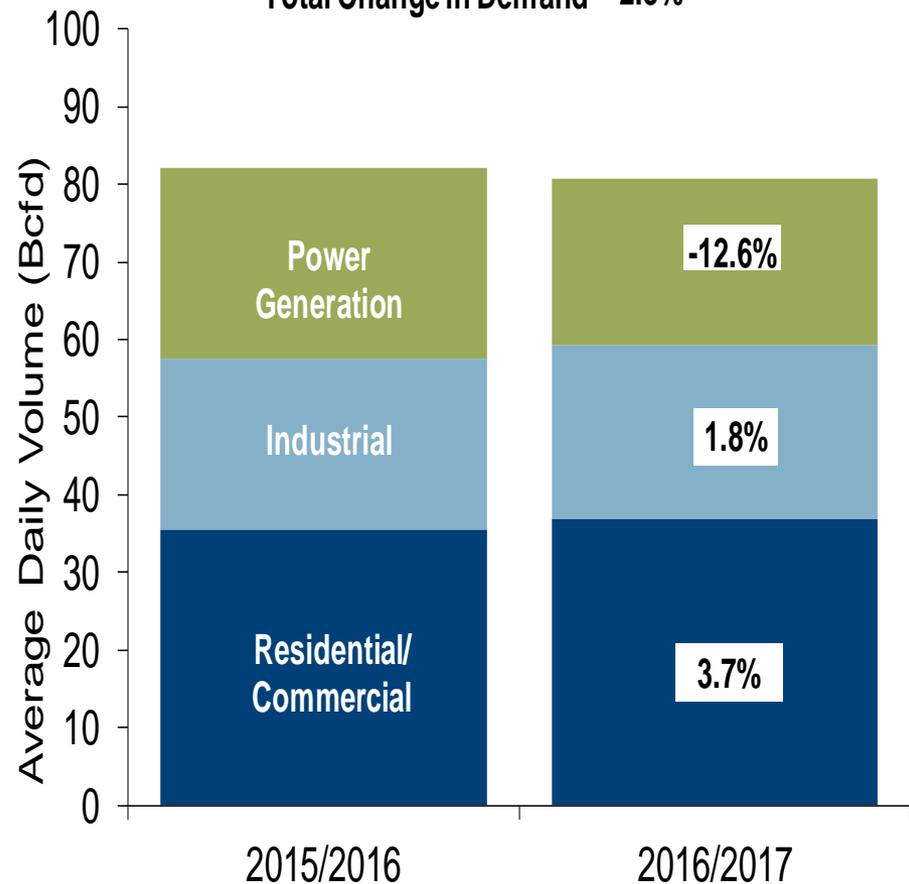
US Natural Gas Supply

Total Change in Supply -1.9%



US Natural Gas Demand

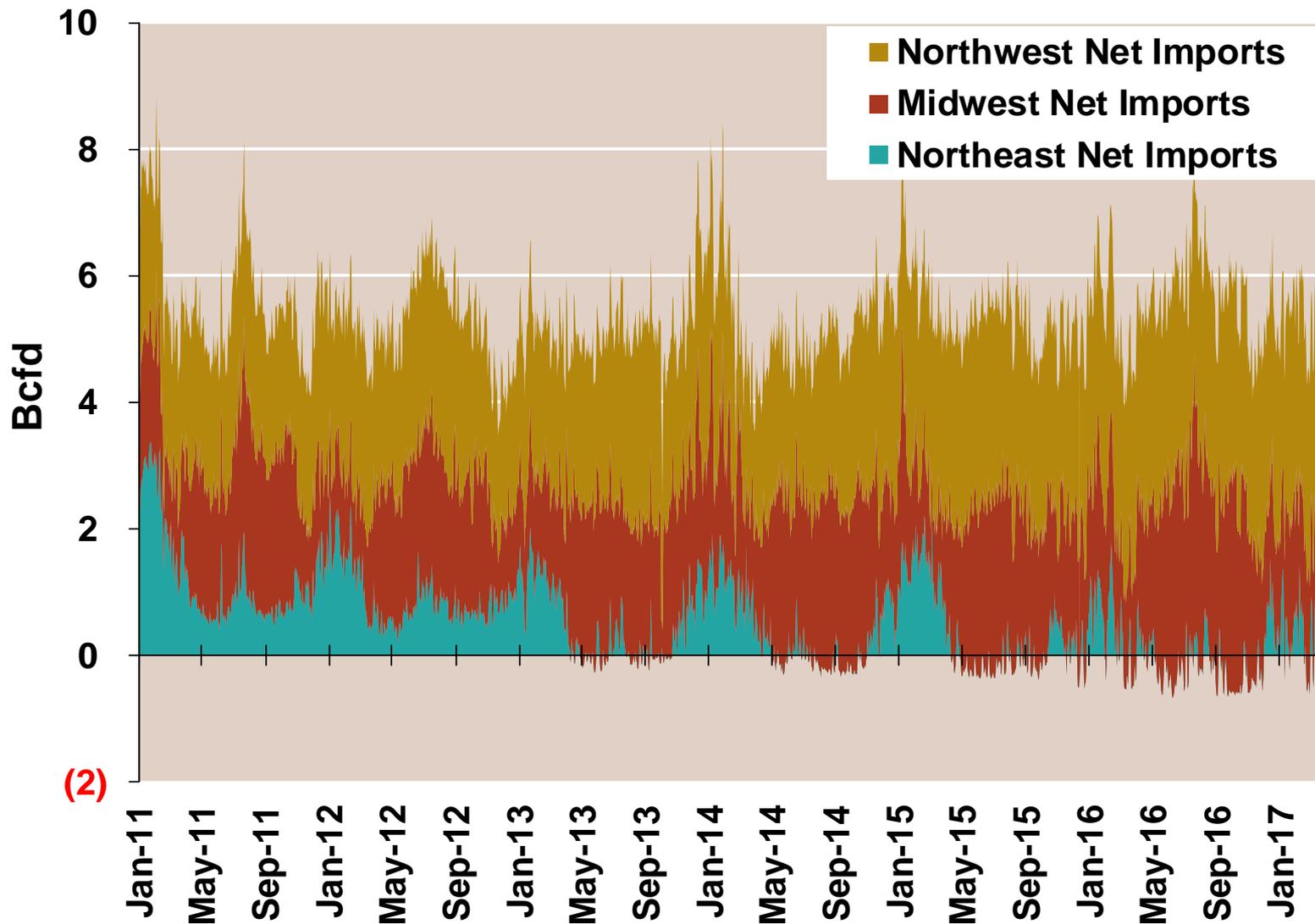
Total Change in Demand -2.8%



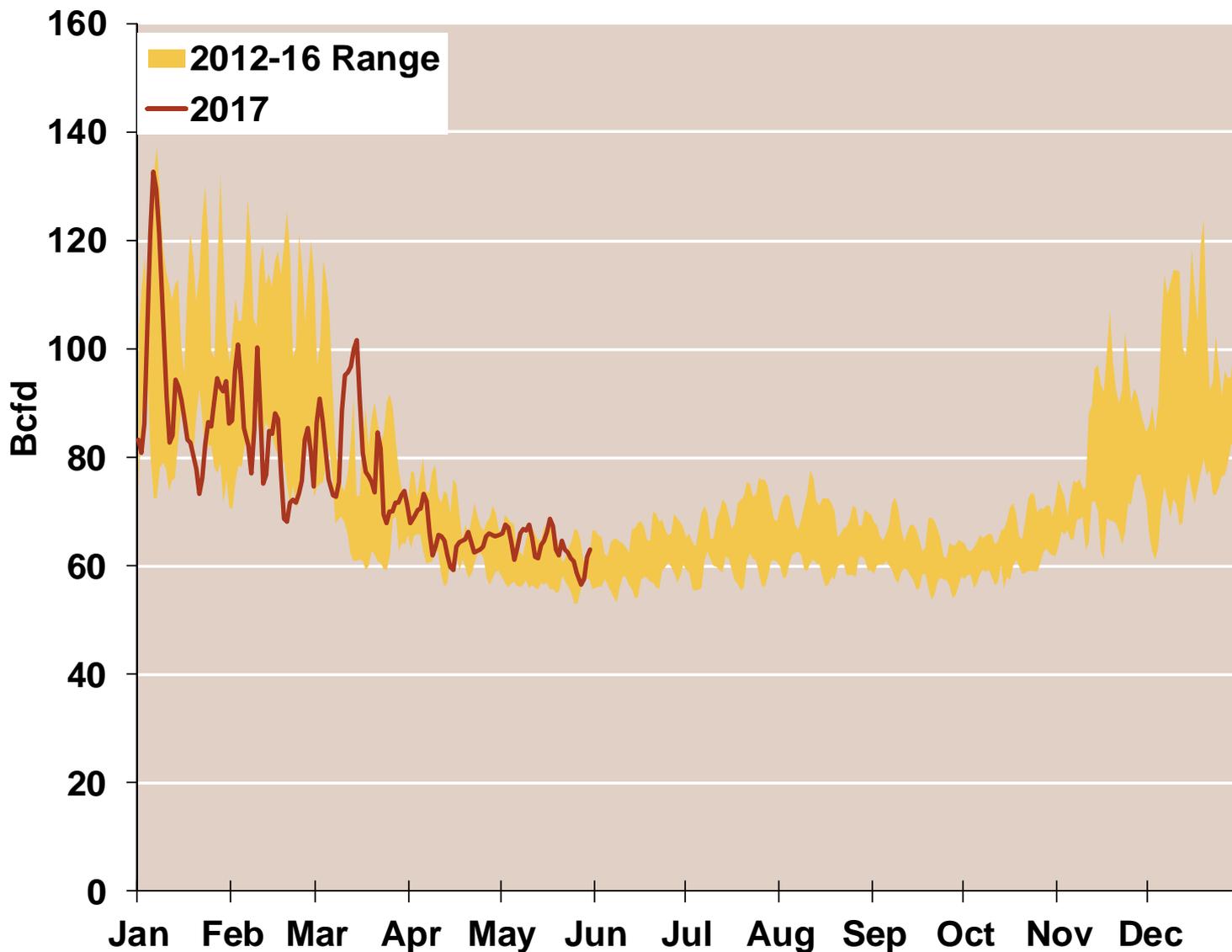
Note: Balance includes all amounts not attributable to other categories.

Source: Derived from Bentek Energy data

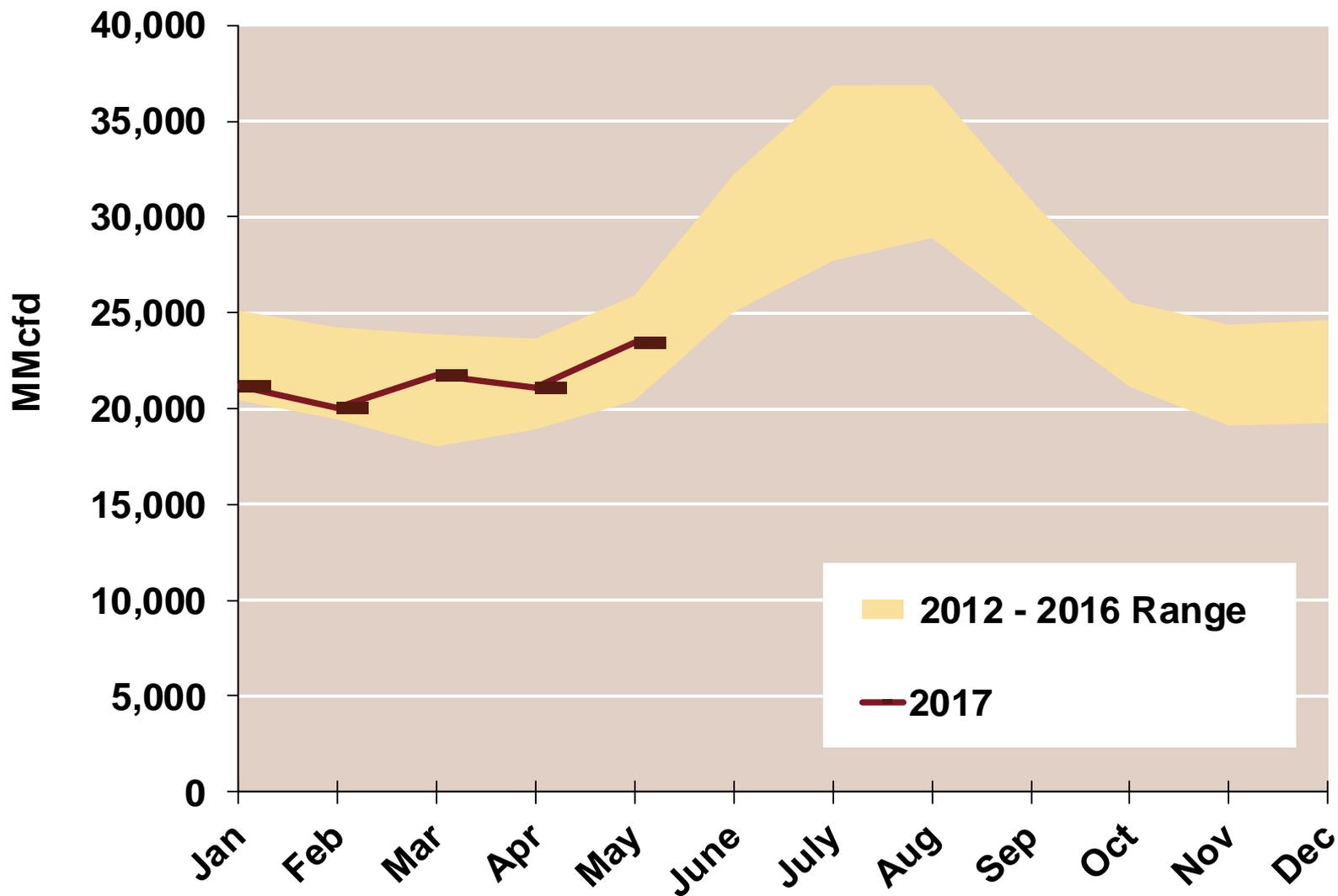
## Regional Imports from Canada



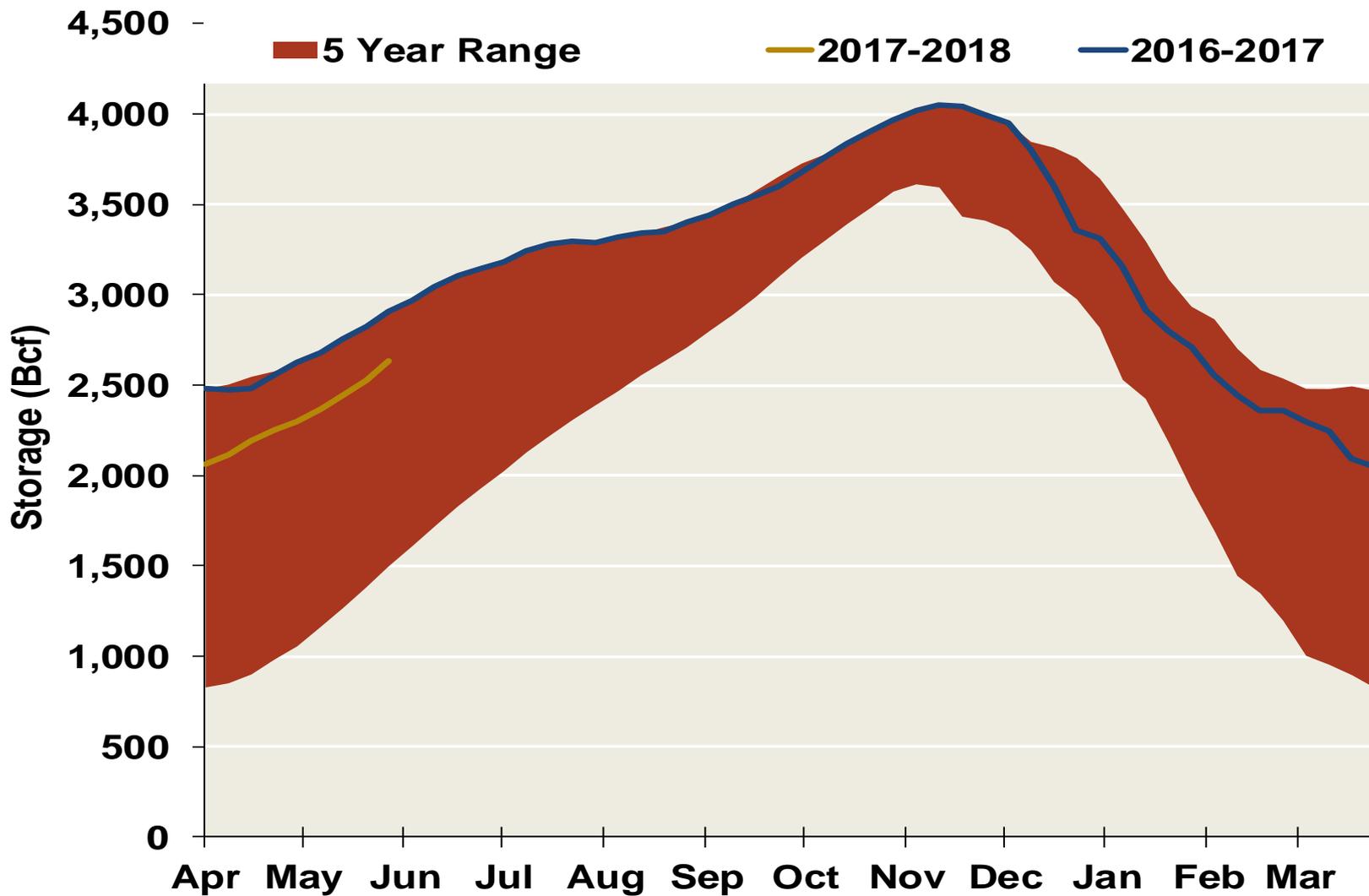
## Total U.S. Natural Gas Demand All Sectors



## U.S. Natural Gas Consumption for Power Generation



## EIA National Storage Inventories

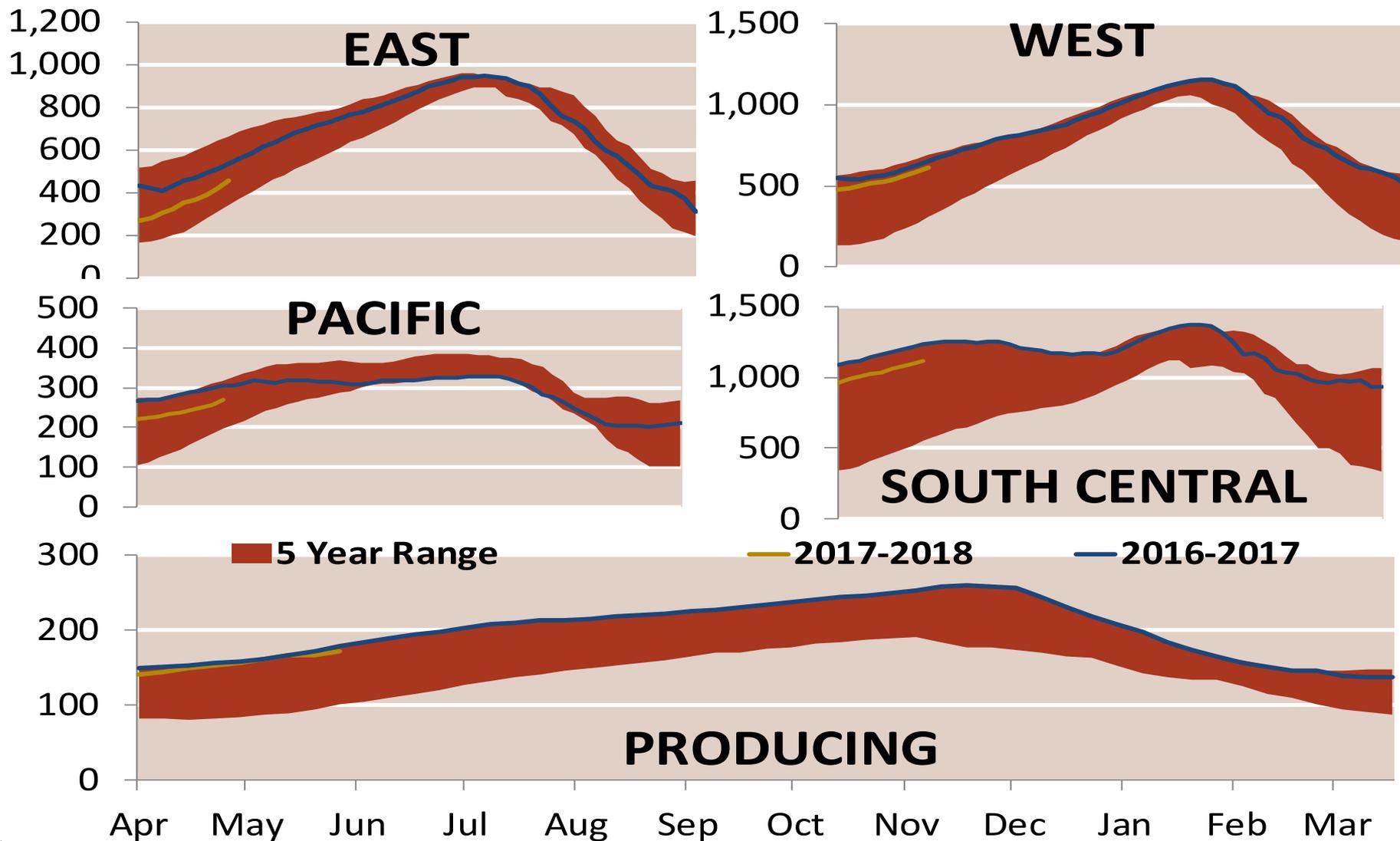


Notes:

Source: Derived from Bloomberg Data

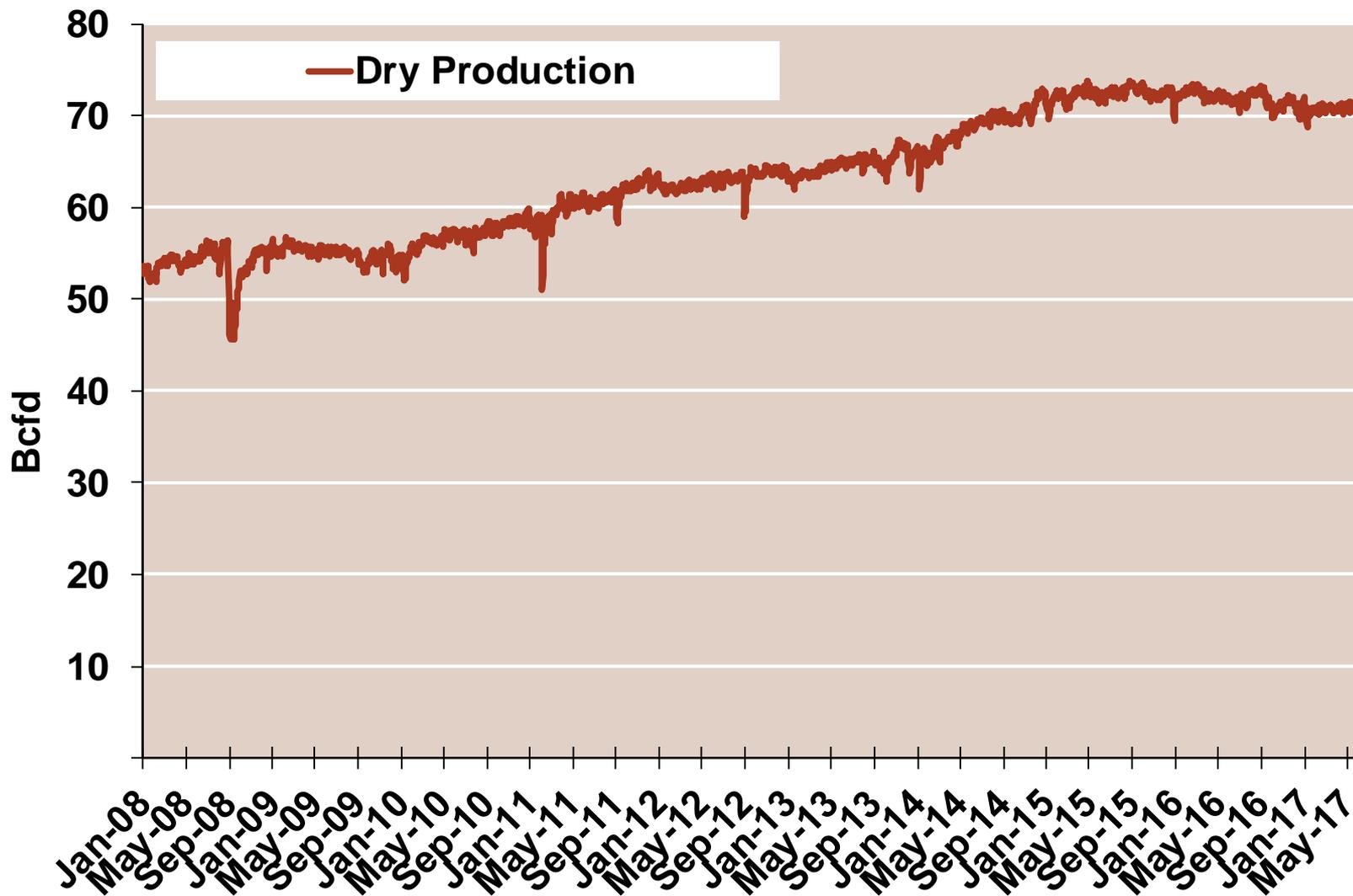
Updated Jun-2017

## EIA Regional Storage Inventories



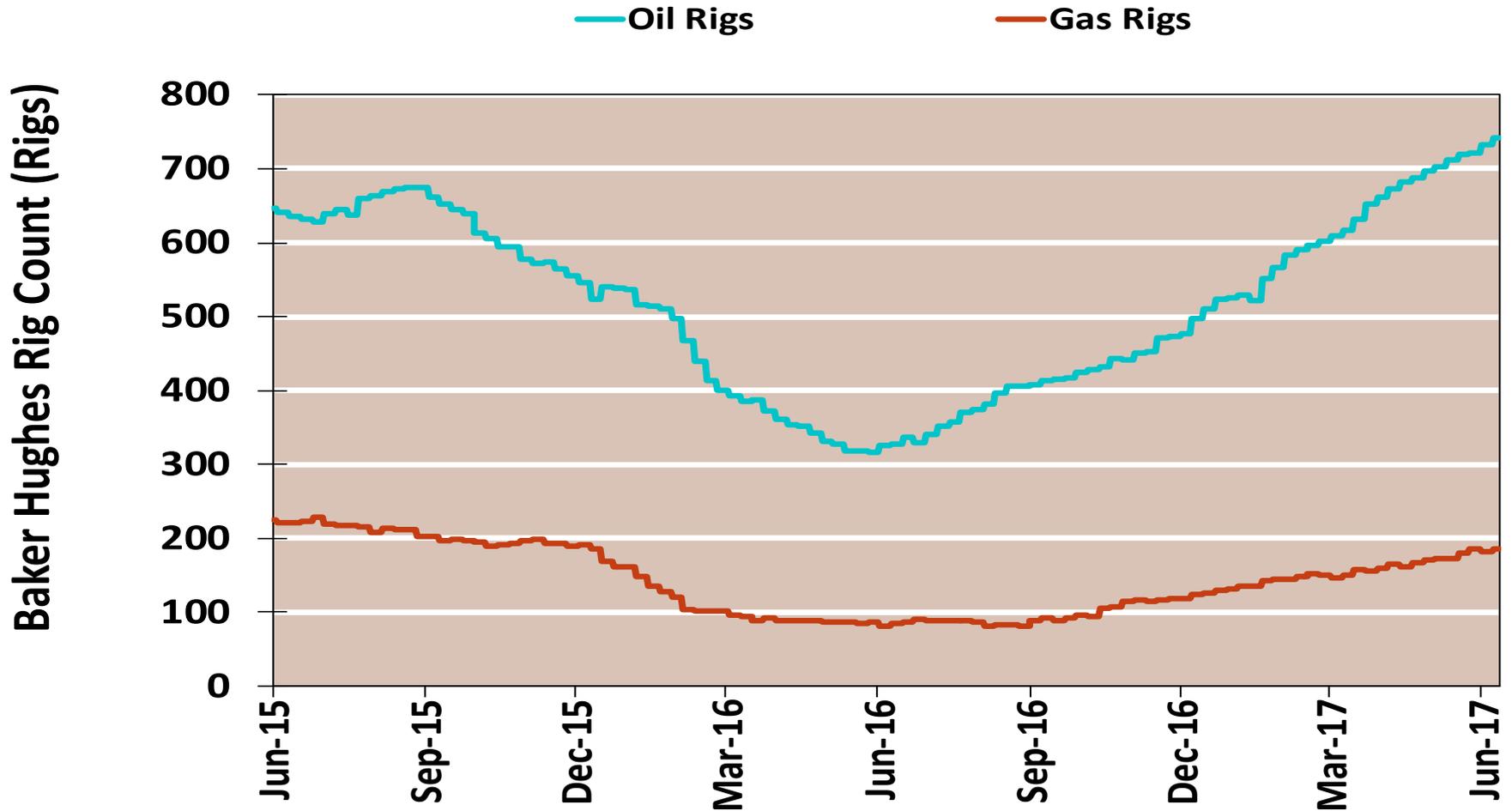
Not

## 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

## Rigs by Type

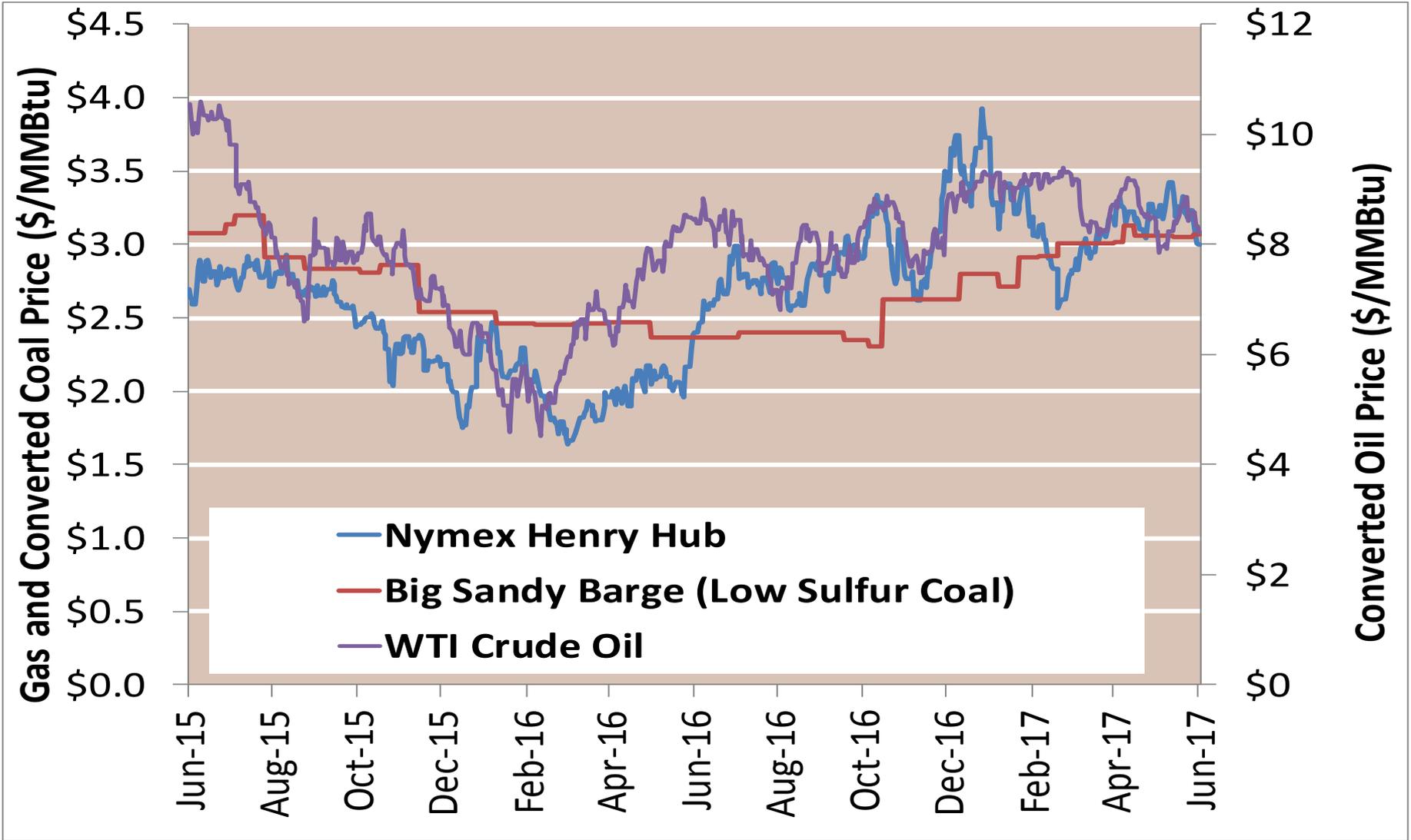


Notes:

Source: Derived from Bloomberg data

Updated Jun-2017

### Competing Fuels

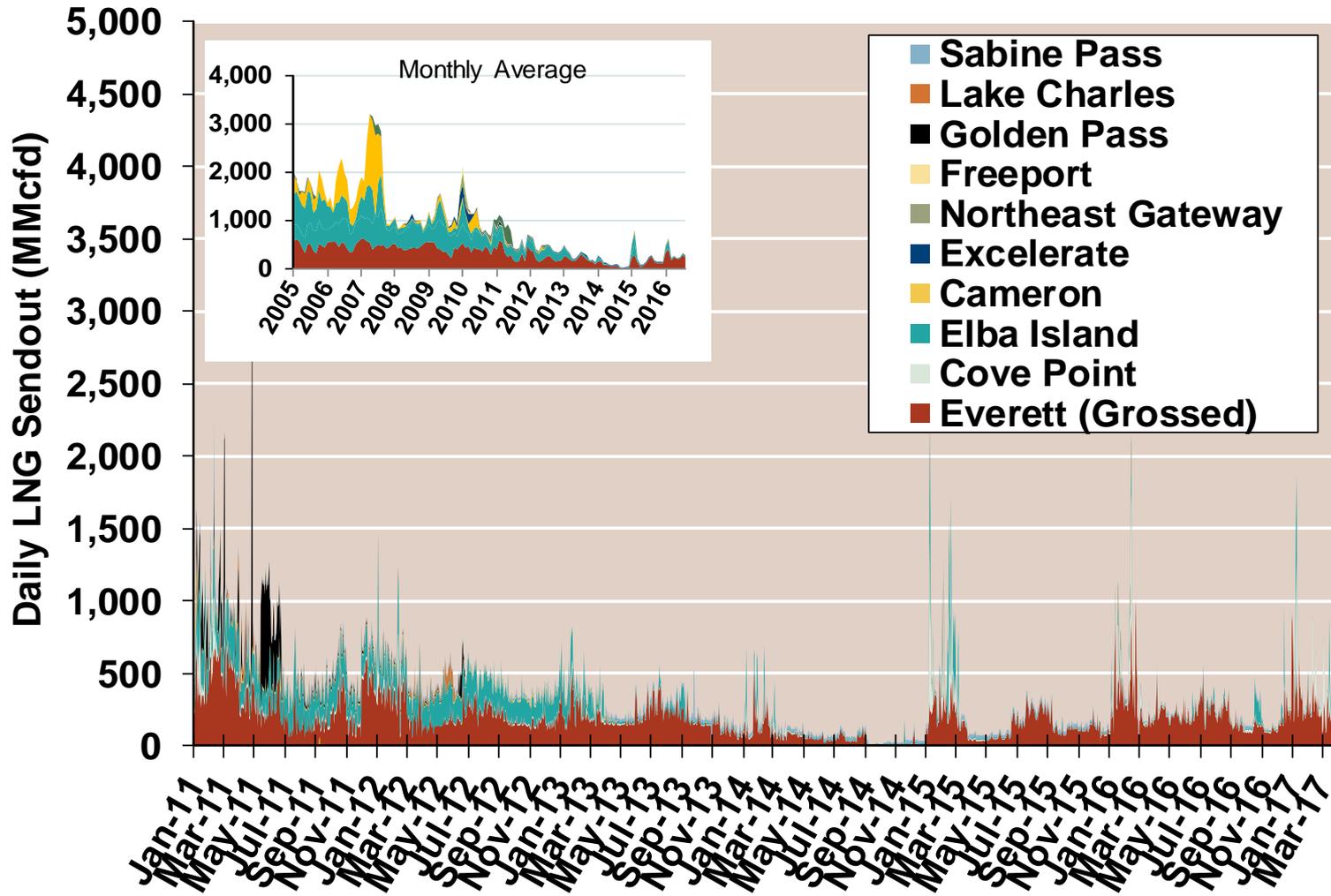


Notes:

Source: Derived from Bloomberg data

Updated Jun-2017

## Daily Gas Sendout from Existing U.S. LNG Facilities

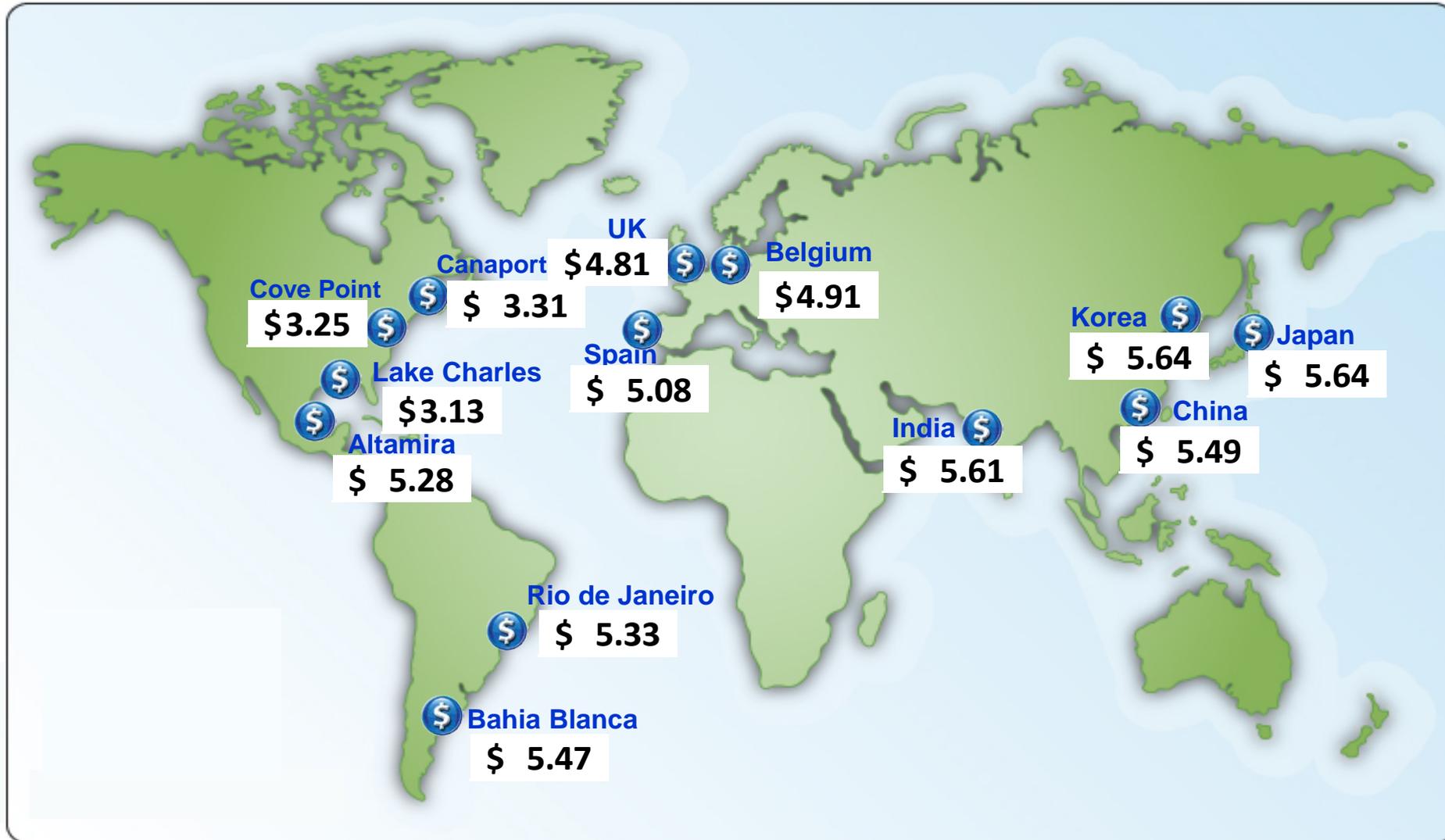


Notes: Everett data includes flows onto the AGT and TGP interstate lines, plus estimates of flows to the Mystic 7 power plant, Keyspan Boston Gas, and LNG trucked out of the terminal. Excludes flows to the Freeport LNG which flows via intrastate pipelines and flows to the Mystic 8 and 9 power plants.

Source: Derived from *Bentek Energy* data

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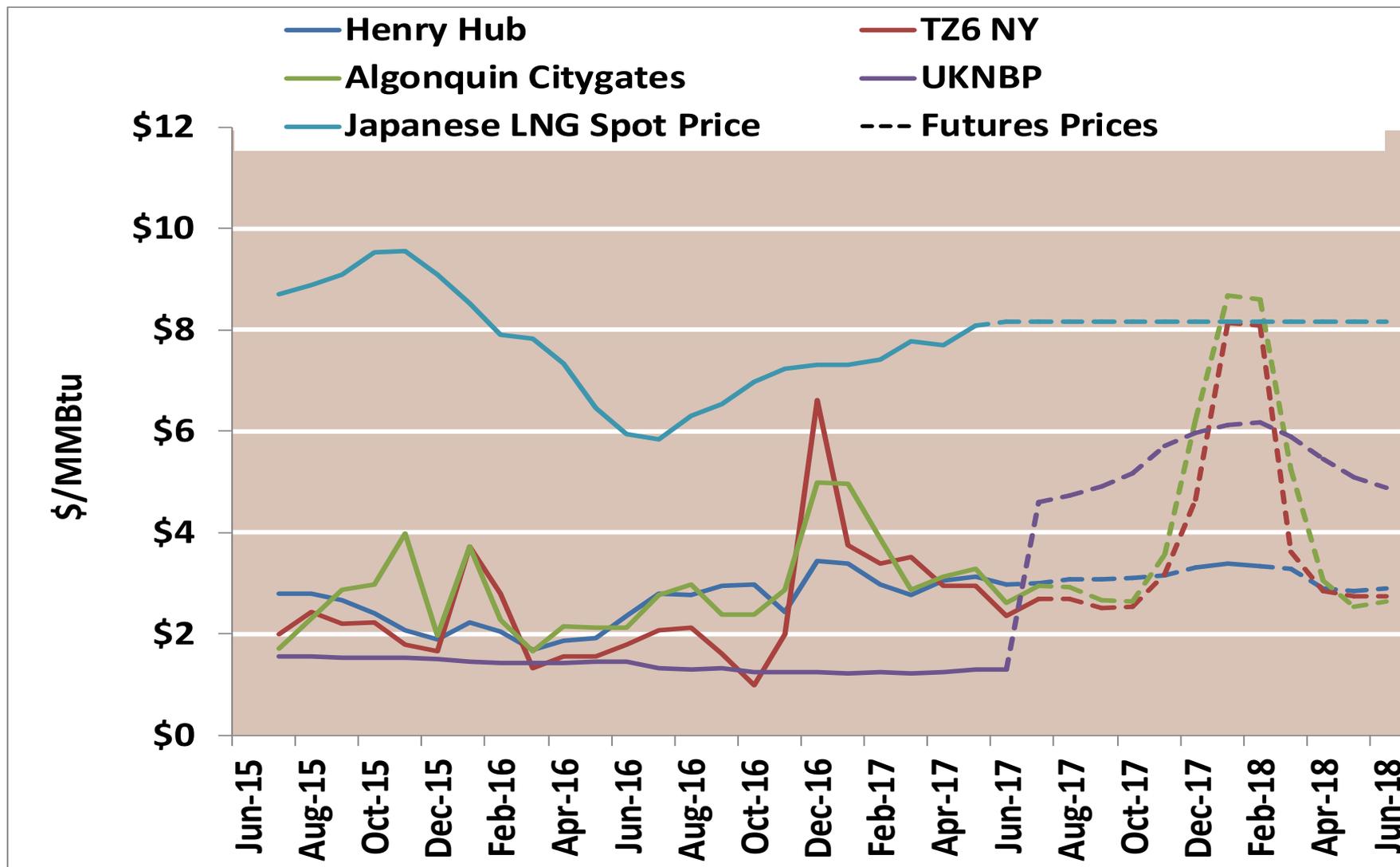
## World LNG Estimated Landed Prices: May 2016



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. Landed prices are the monthly average of weekly trades from the prior month.

## Historical and World Gas Futures Prices

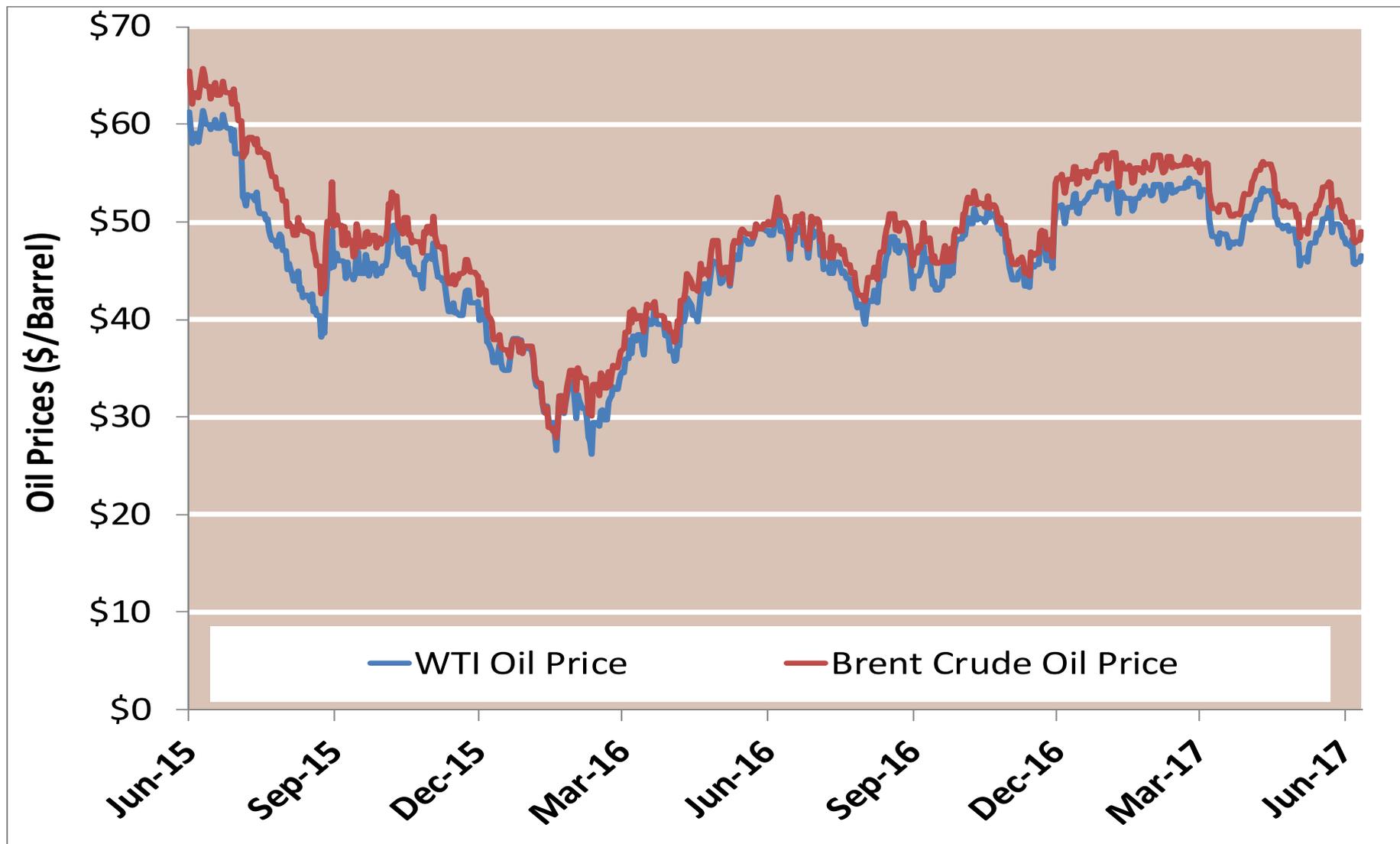


Notes:

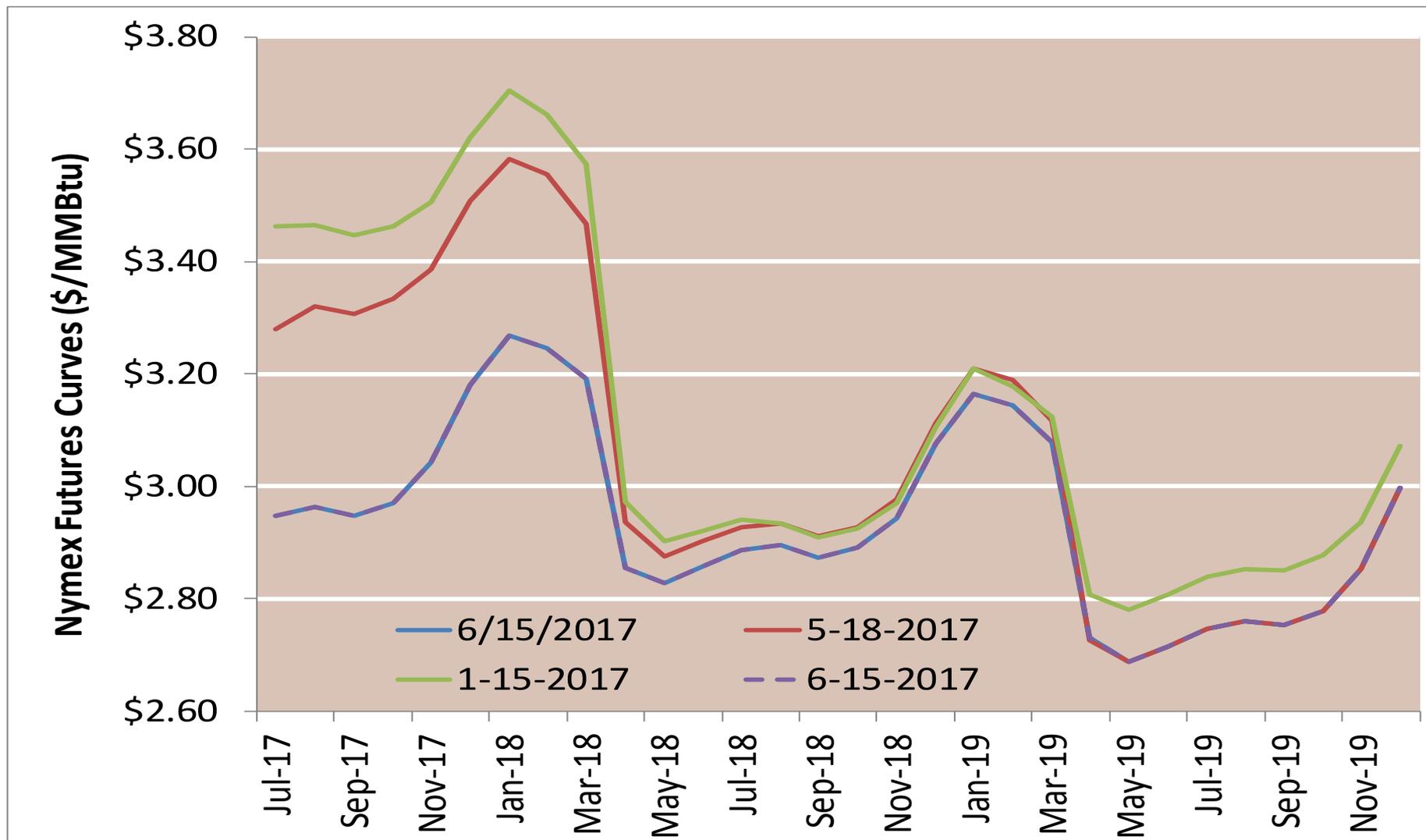
Source: Derived from Bloomberg data

Updated Jun-2017

## WTI vs Brent Crude Oil Price



## Nymex Futures Curves



# Infrastructure Report

Office of Energy Projects Energy  
Infrastructure Update

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

(see “Energy Infrastructure” tab)

# Natural Gas Highlights

Natural Gas Activities in April 2017

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
<b>Pipeline</b>						
Placed in Service	0			0	0	0
Certificated	1			0	0	0
Proposed	7			40	63.6	3,000
<b>Storage</b>						
Placed in Service	0	0.0	0.0			0
Certificated	0	0.0	0.0			0
Proposed	2	0.0	0.0			0
<b>LNG (Import &amp; Export)</b>						

Natural Gas Activities through April 30, 2017

January through April 30, 2016

Status	No. of Projects	Storage Capacity (Bcf)	Deliverability (MMcf/d)	Capacity (MMcf/d)	Miles of Pipeline	Compression (HP)
<b>Pipeline</b>						
Placed in Service through April 30, 2016	8 11			4,569.3 2,291.6	65.3 92.1	199,850 46,800
Certificated through April 30, 2016	15 24			9,627.9 7,797.9	1,253.2 863.8	618,584 687,125
<b>Storage</b>						
Placed in Service through April 30, 2016	0 0	0 0	0 0			0 0
Certificated through April 30, 2016	0 0	0 0	0 0			0 0
<b>LNG (Import &amp; Export)</b>						
Placed in Service through April 30, 2016	0 0	0 0	570 0			0 0
Certificated (Import/Export) through April 30, 2016	0 1	0 6.8	0 1,080			0 0

Source: Staff Database

# Electric Generation Highlights

## New Generation In-Service (New Build and Expansion)

Primary Fuel Type	April 2017		January – April 2017 Cumulative		January – April 2016 Cumulative	
	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	14	1,814	36	4,055	33	3,132
Nuclear	0	0	1	102	0	0
Oil	0	0	0	0	1	2
Water	0	0	1	7	25	268
Wind	4	428	25	3,216	19	1,483
Biomass	0	0	1	3	18	47
Geothermal Steam	0	0	0	0	0	0
Solar	10	225	100	1,399	127	1,606
Waste Heat	0	0	0	0	0	0
Other *	1	0	8	1	4	21
<b>Total</b>	<b>29</b>	<b>2,467</b>	<b>172</b>	<b>8,783</b>	<b>227</b>	<b>6,559</b>

Sources: Data derived from Velocity Suite, ABB Inc. and The C Three Group LLC which include plants with nameplate capacity of 1 MW or greater. The data may be subject to update.



# Installed Generating Capacity

## Total Available Installed Generating Capacity

	Installed Capacity (GW)	% of Total Capacity
Coal	287.64	24.17%
Natural Gas	514.90	43.26%
Nuclear	108.15	9.09%
Oil	44.81	3.76%
Water	100.73	8.46%
Wind	85.22	7.16%
Biomass	16.77	1.40%
Geothermal Steam	3.90	0.33%
Solar	26.38	2.22%
Waste Heat	1.04	0.09%
Other*	0.75	0.06%
<b>Total</b>	<b>1,190.29</b>	<b>100.00%</b>

Sources: Data derived from Velocity Suite, ABB Inc. and The C Three Group LLC which include plants with nameplate capacity of 1 MW or greater. The data may be subject to update.

\* "Other" includes purchased steam, tires, and miscellaneous technology such as batteries, fuel cells, energy storage, and fly wheel.