

OE ENERGY MARKET SNAPSHOT

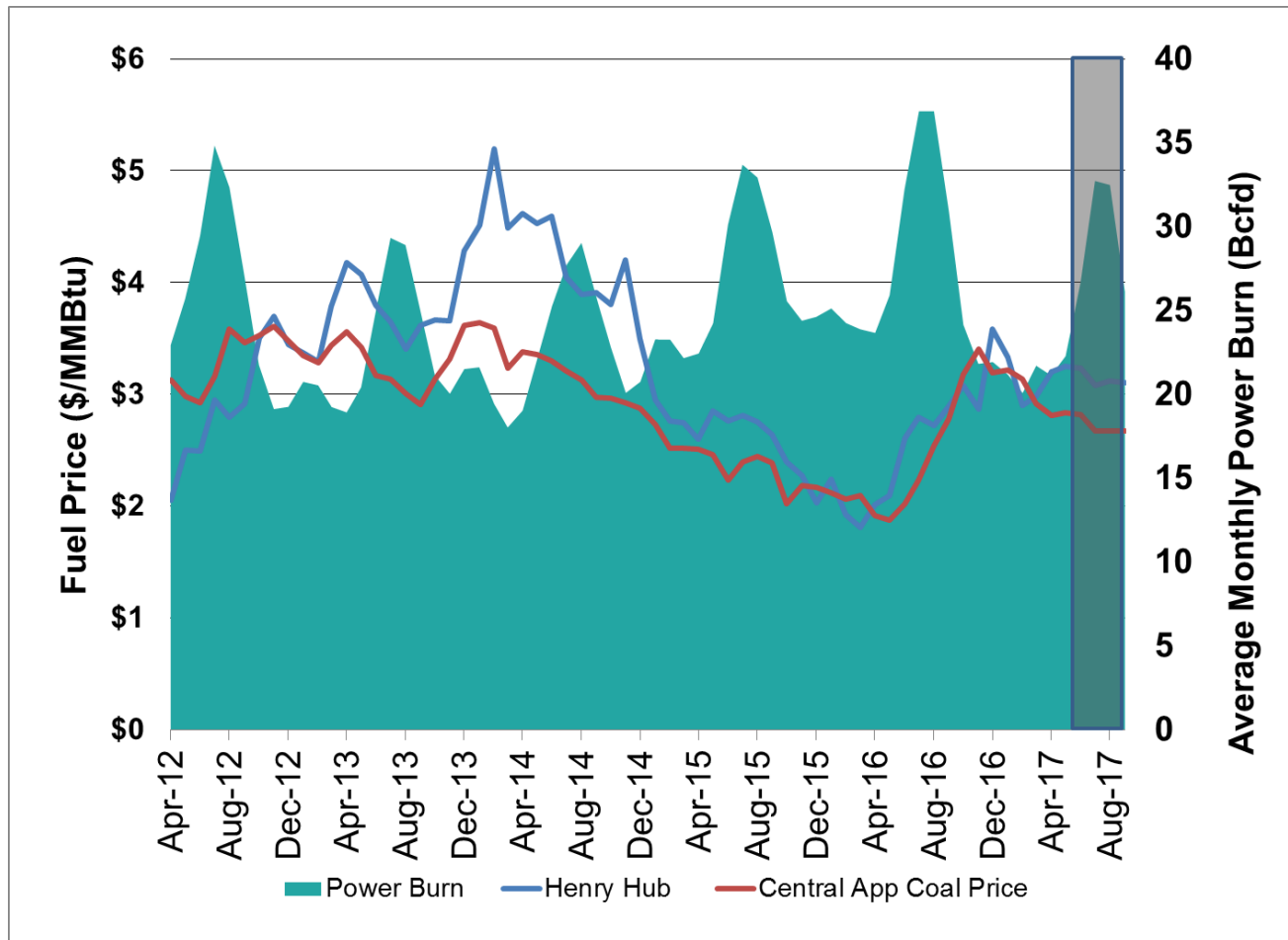
National – Data Through May 2017

Office of Enforcement
Federal Energy Regulatory Commission
June 2017

2017 Summer Assessment

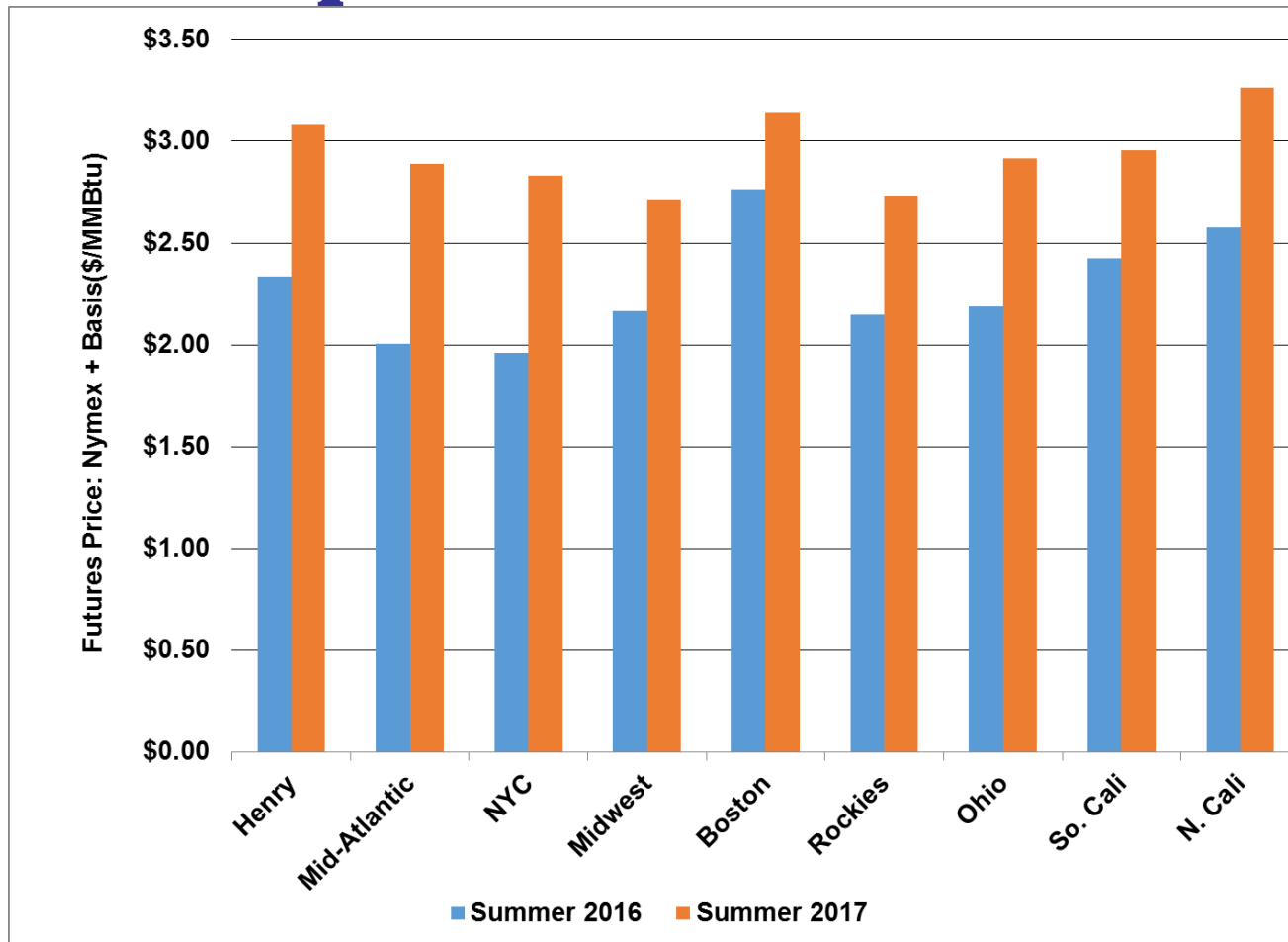
A decorative graphic consisting of several thick, parallel red lines. A vertical line runs down the left side of the page, and a horizontal line runs across the middle. They intersect to form a cross-like shape.

Natural Gas Futures Rise Relative to Coal



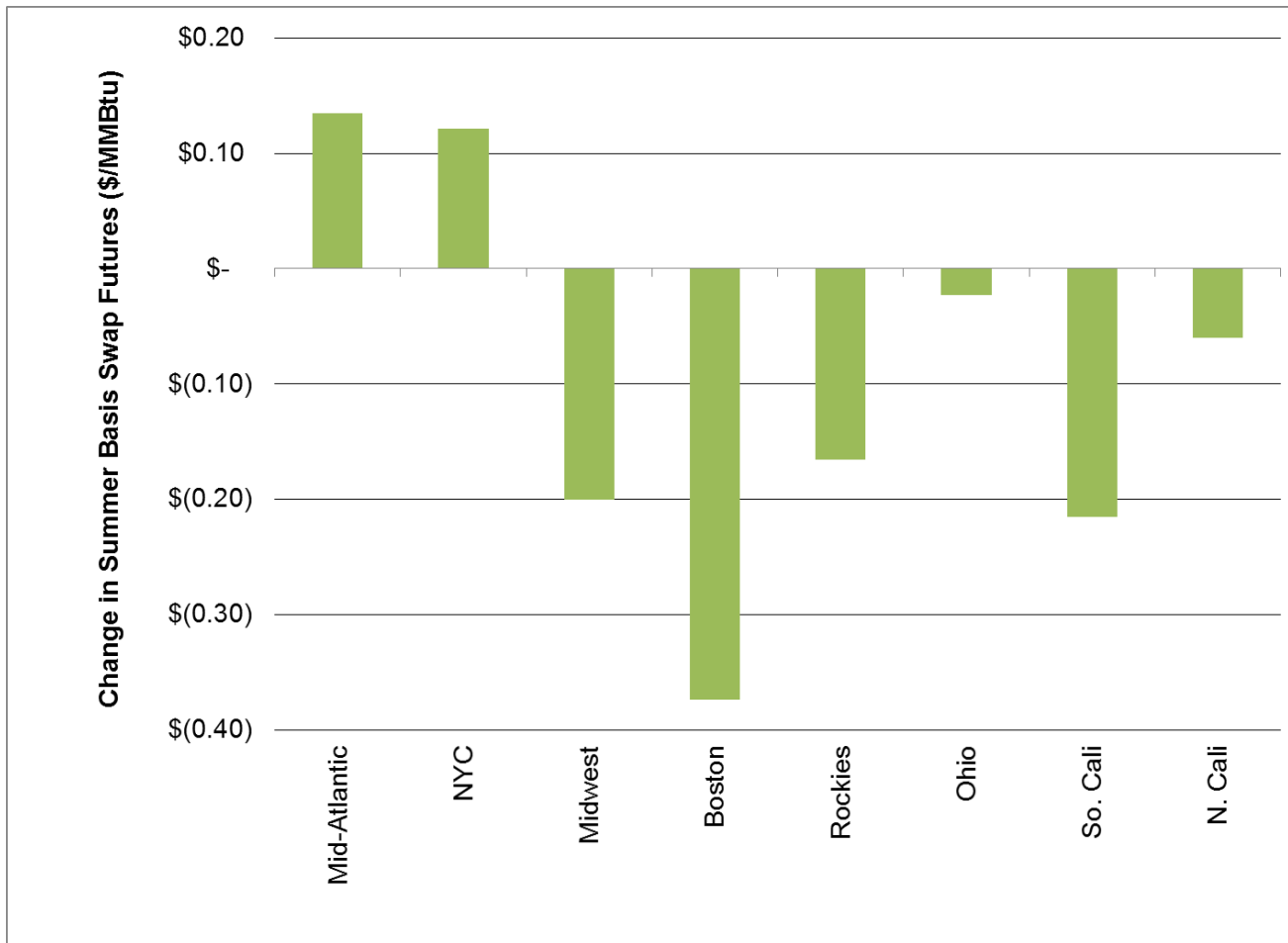
Source: Price data from NYMEX & ICE; Power burn from Bentek Energy

Natural Gas Prices Rise Compared to Previous Summer



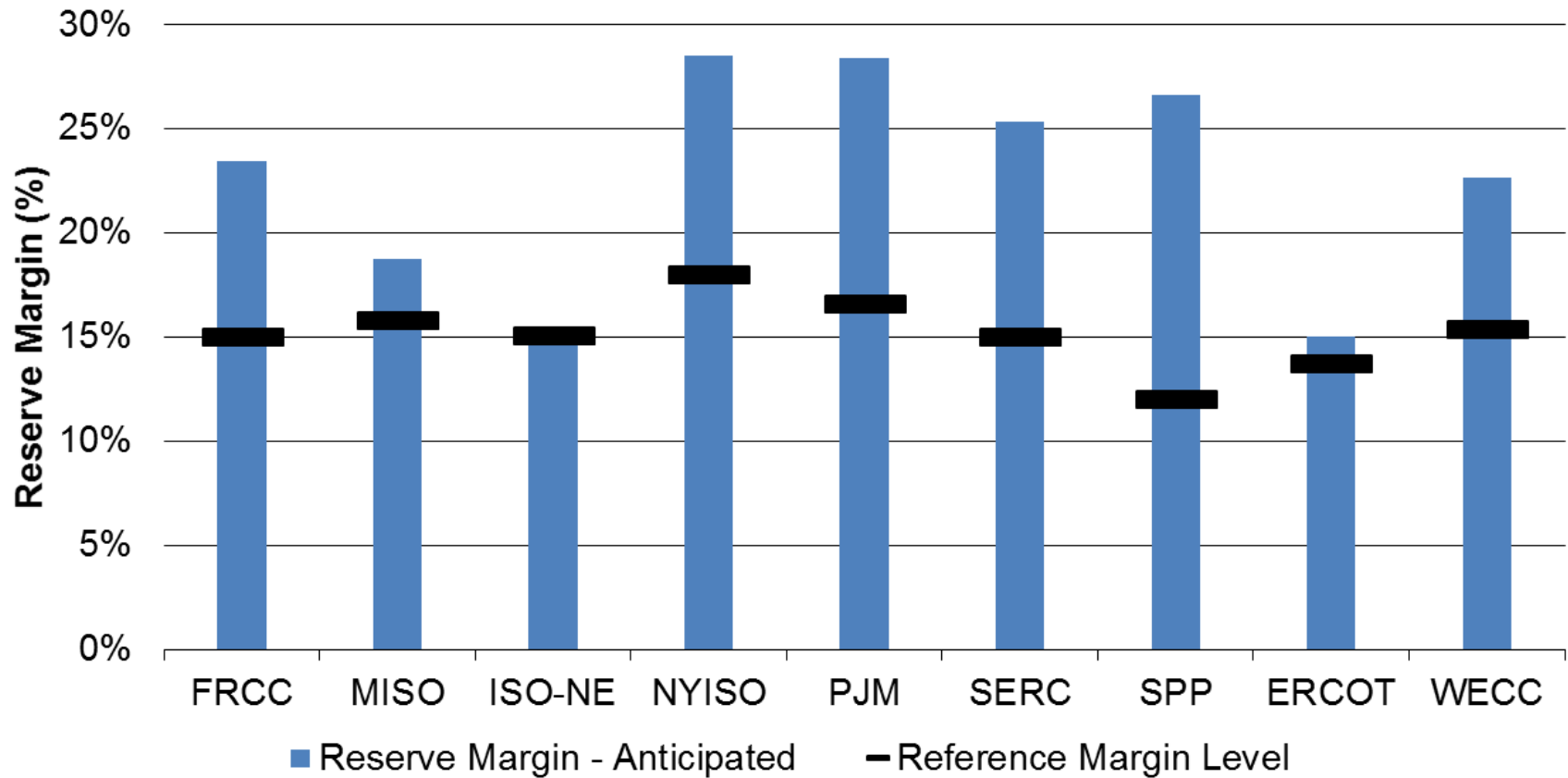
Source: NYMEX & ICE

Summer Basis Swaps Narrow between Marcellus and Markets



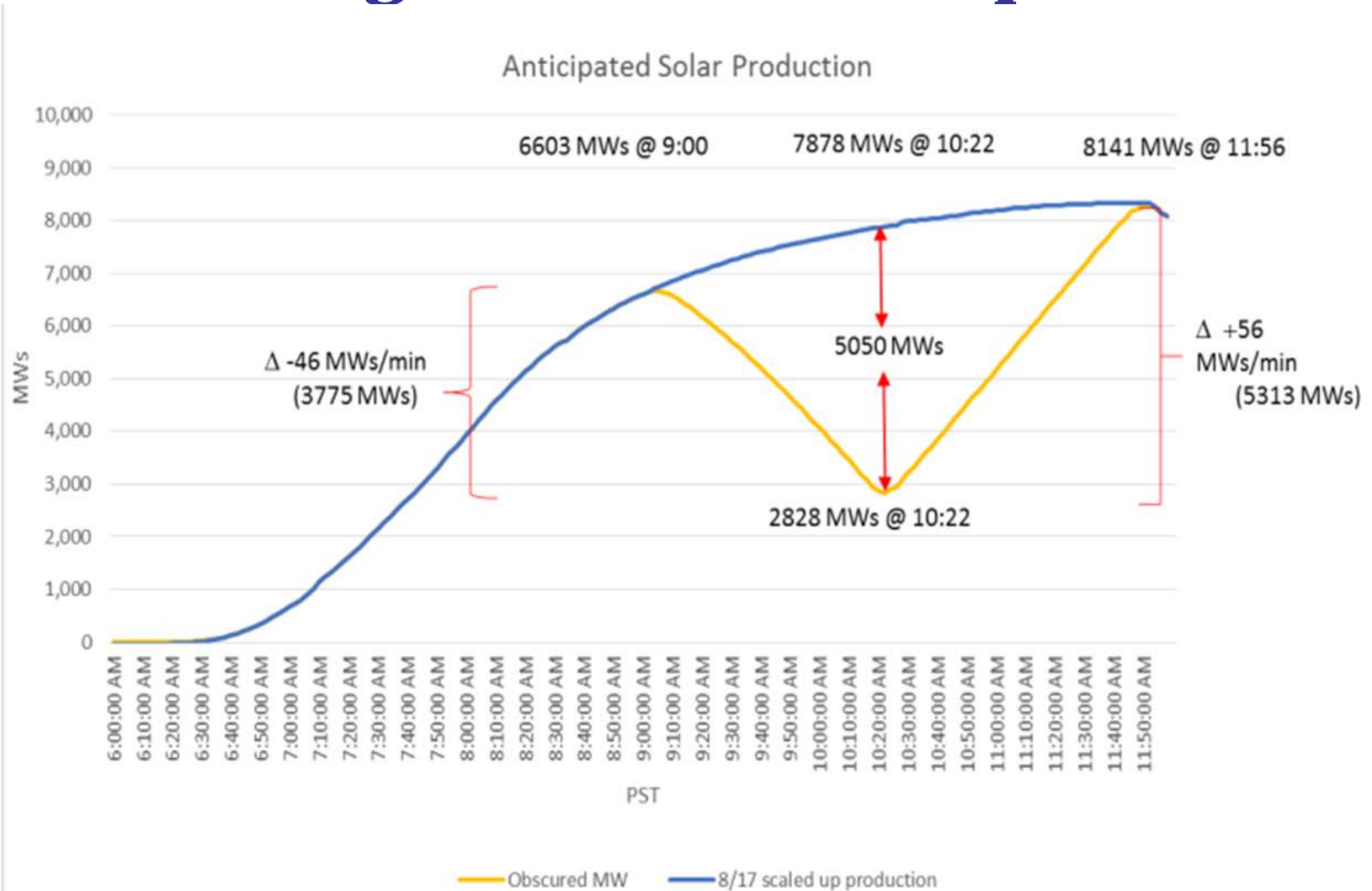
Source: NYMEX

Reserve Margins Adequate in Most Regions



Source: NERC

August 21 Solar Eclipse

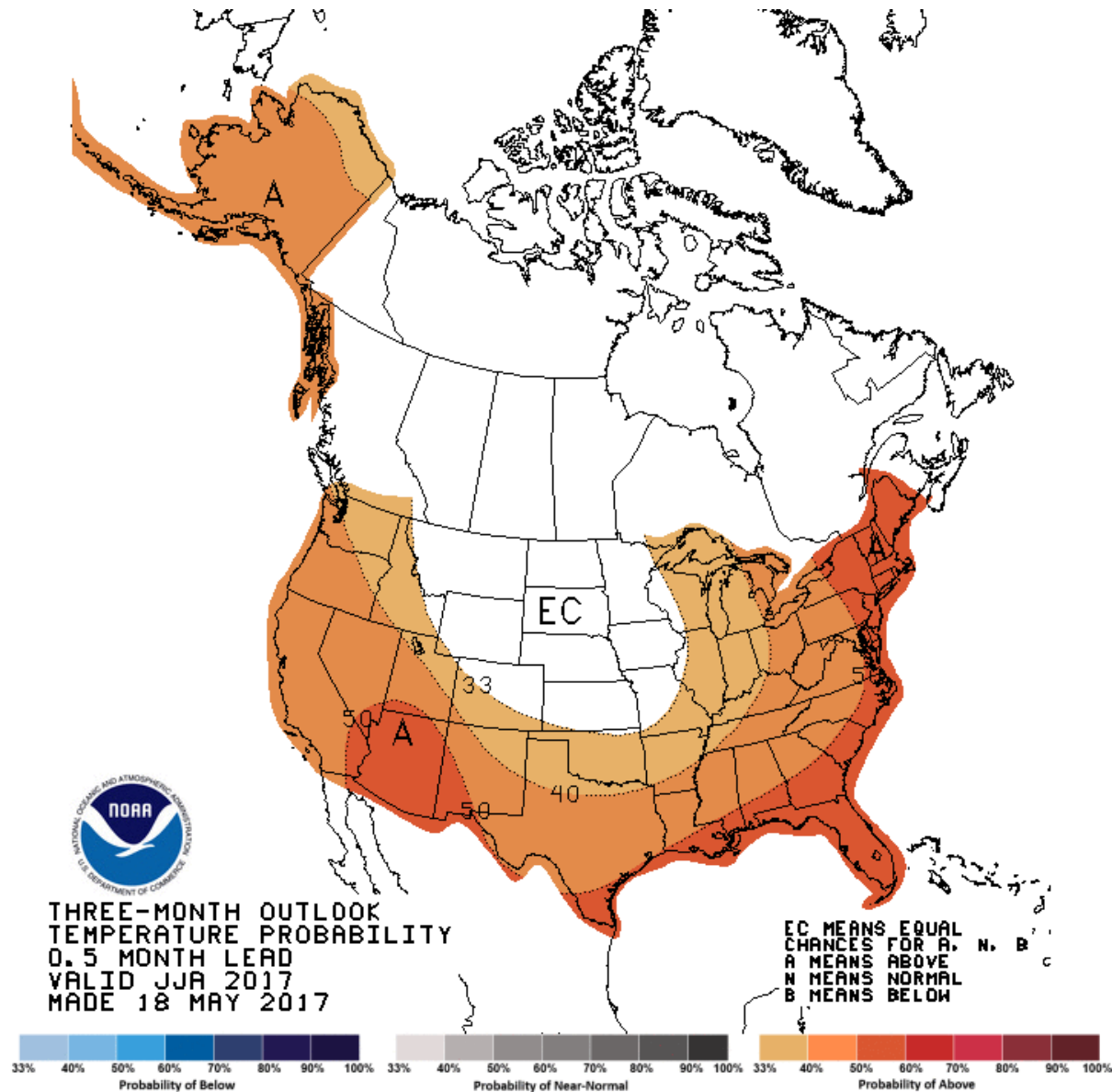


Source: California ISO



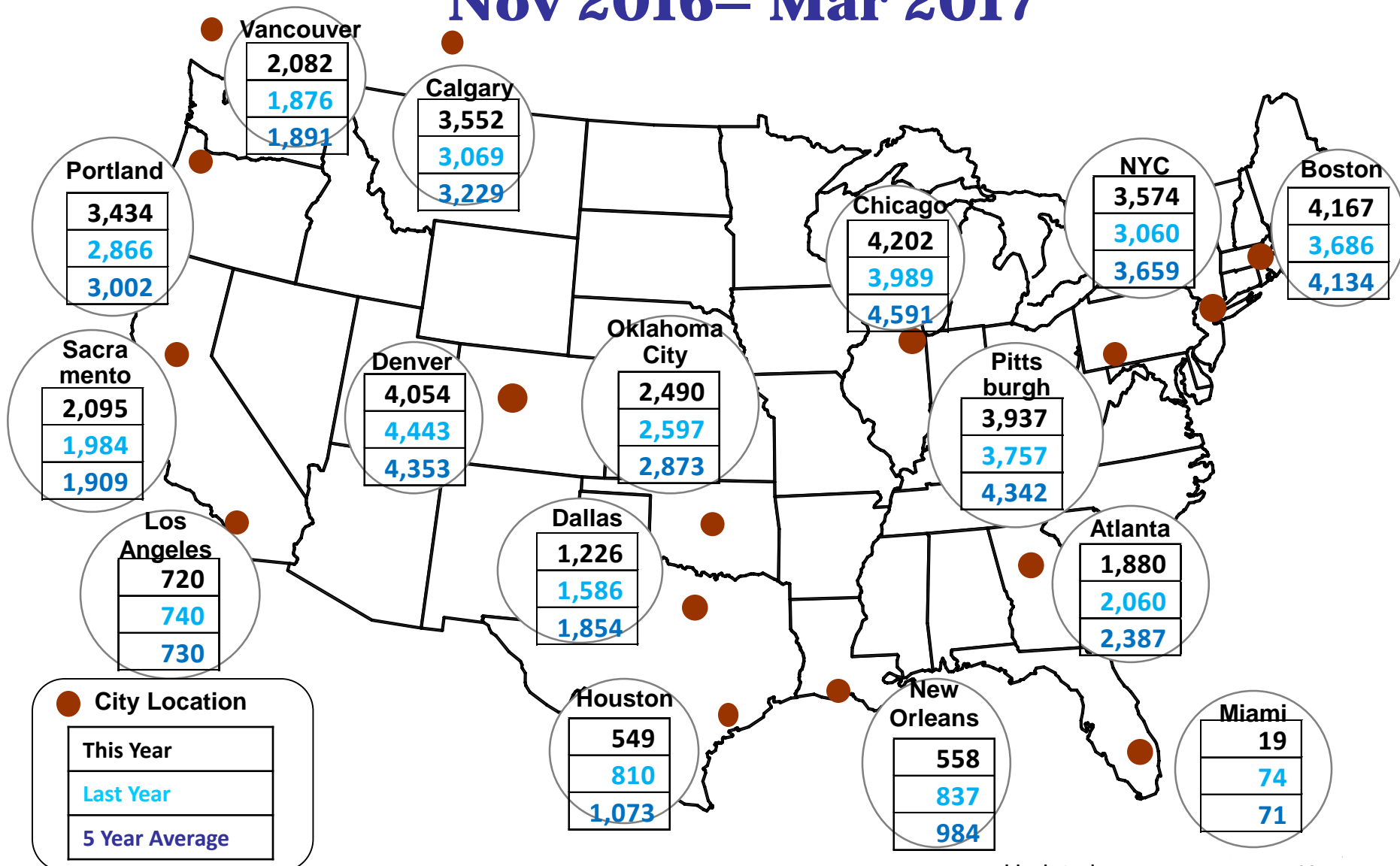
National Slides

NOAA June 2017 Through August 2017 Outlook



Cumulative HDDs by City

Nov 2016– Mar 2017



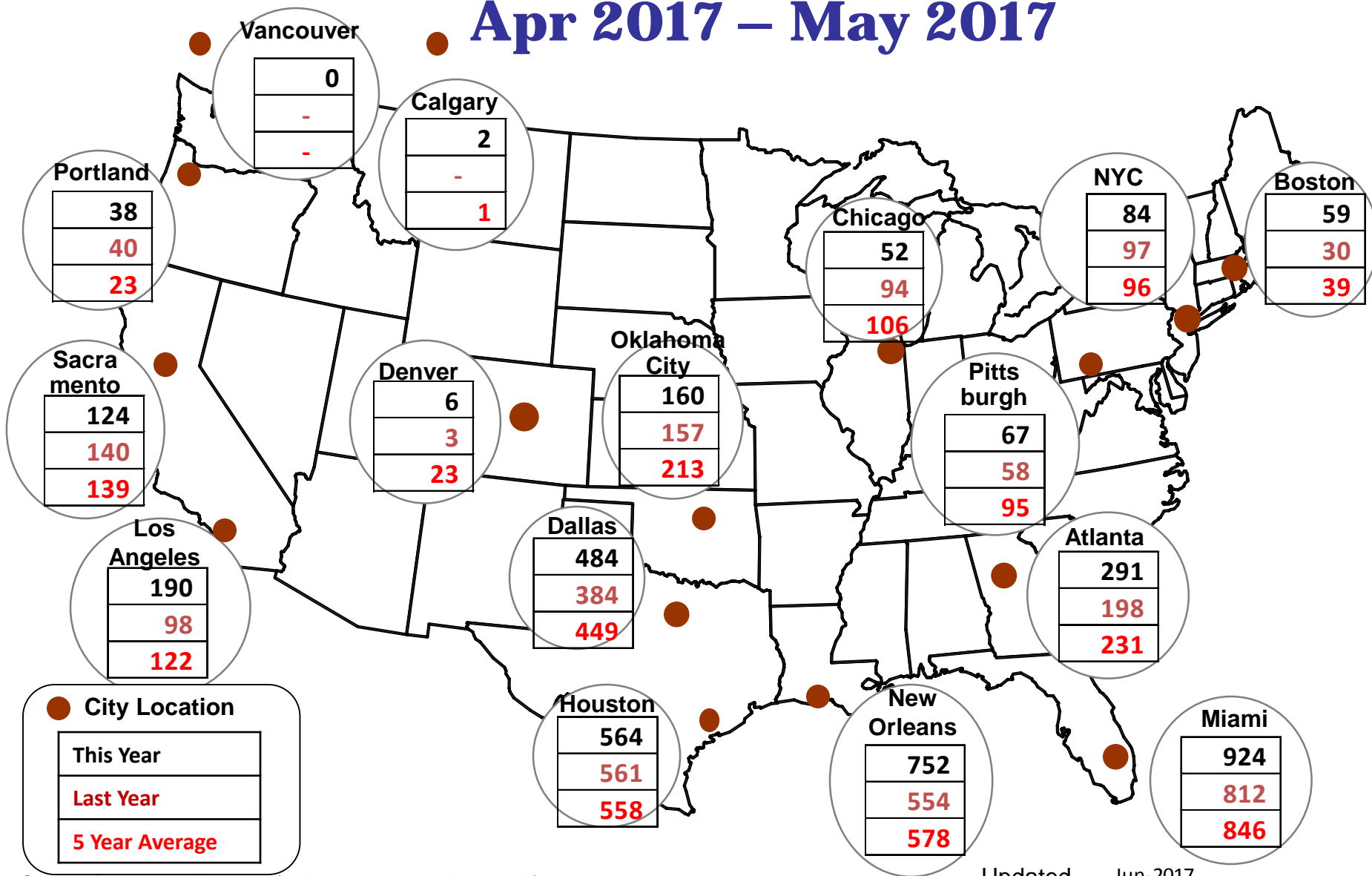
Source: Bloomberg Weather (daily data summed quarterly)

Updated

Jun-2017

Cumulative CDDs by City

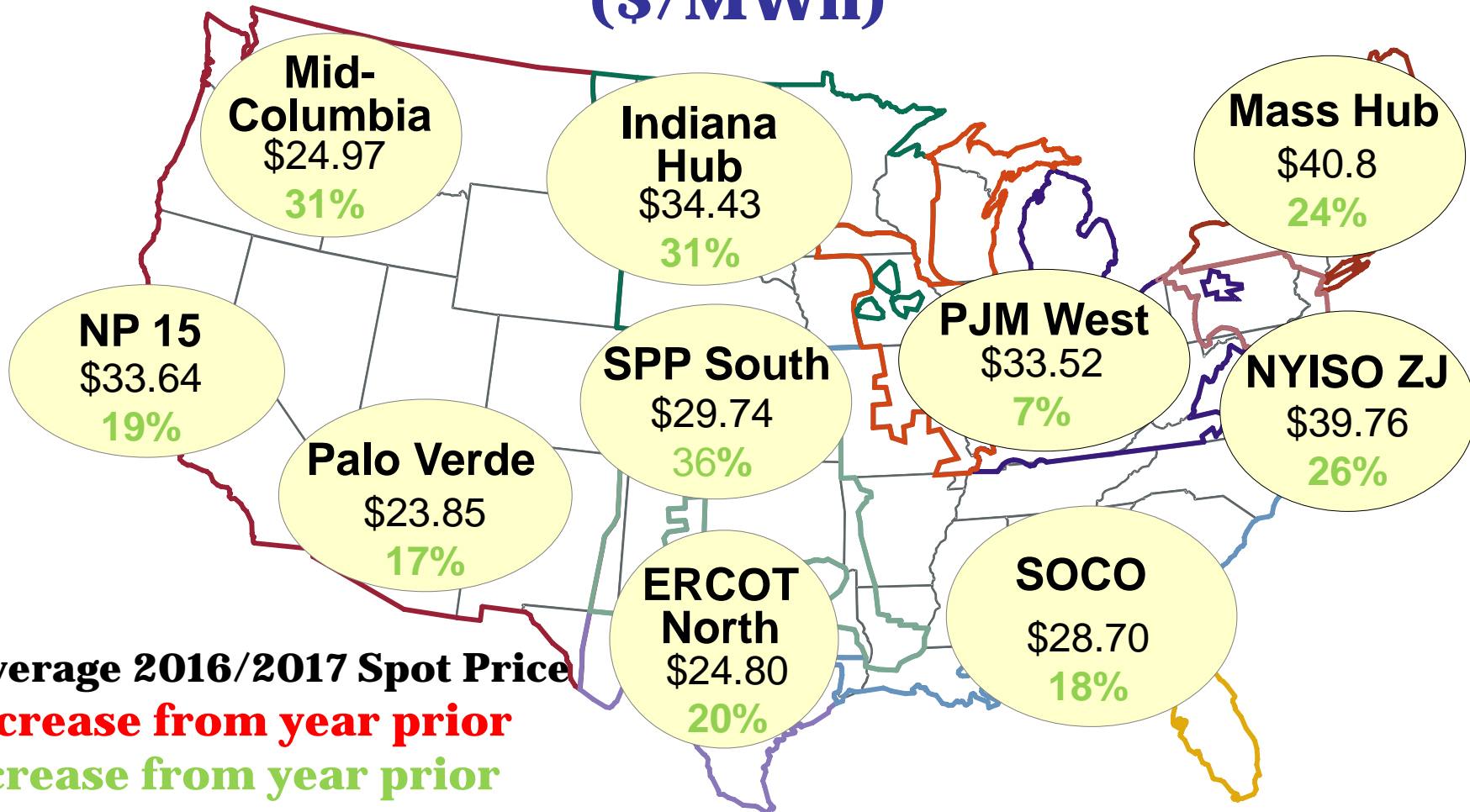
Apr 2017 – May 2017



Source: Bloomberg Weather (daily data summed quarterly)

Updated Jun-2017

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



\$ = Average 2016/2017 Spot Price

% Decrease from year prior

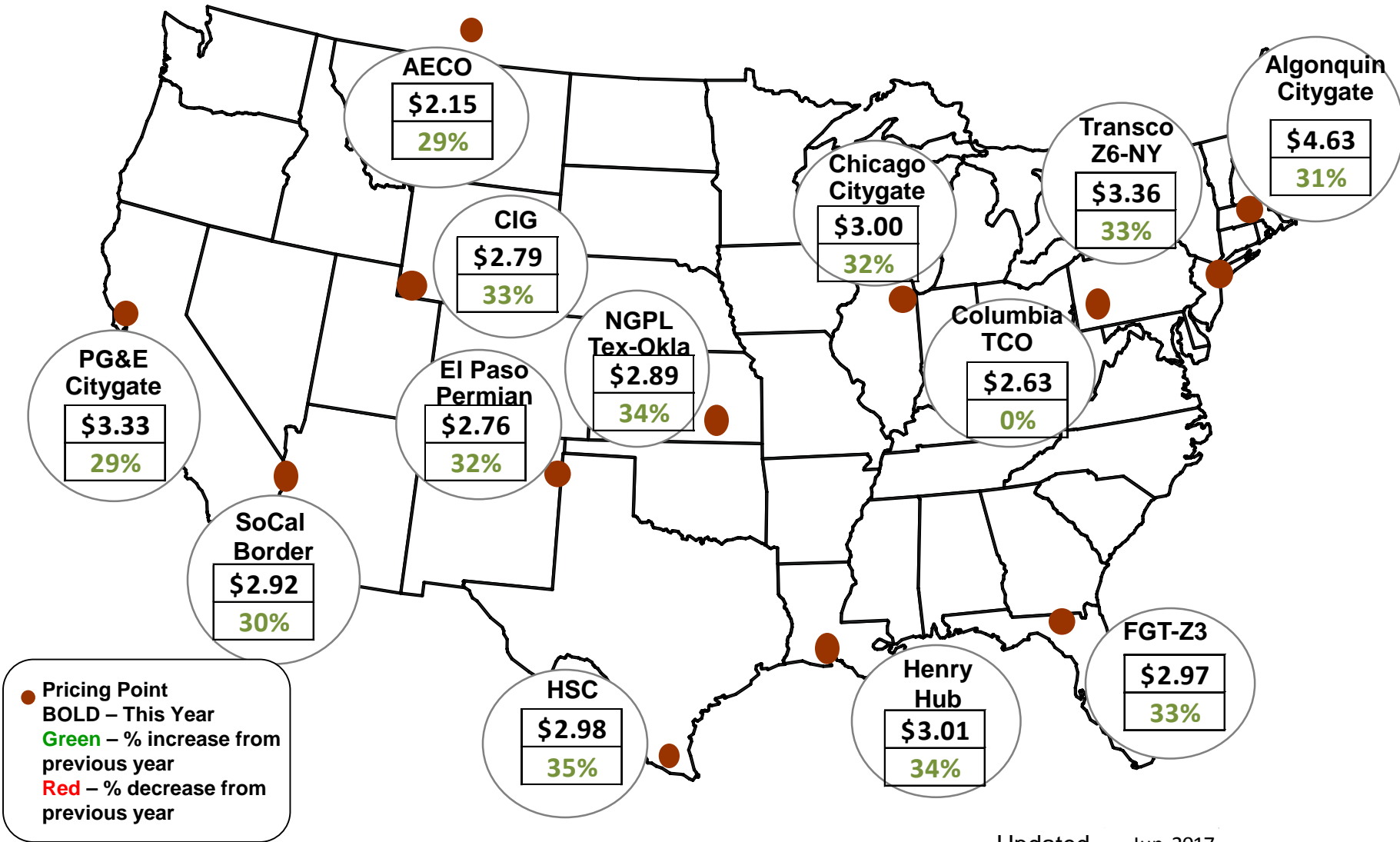
% Increase from year prior

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

SPP Price is an average of the North and South Hubs

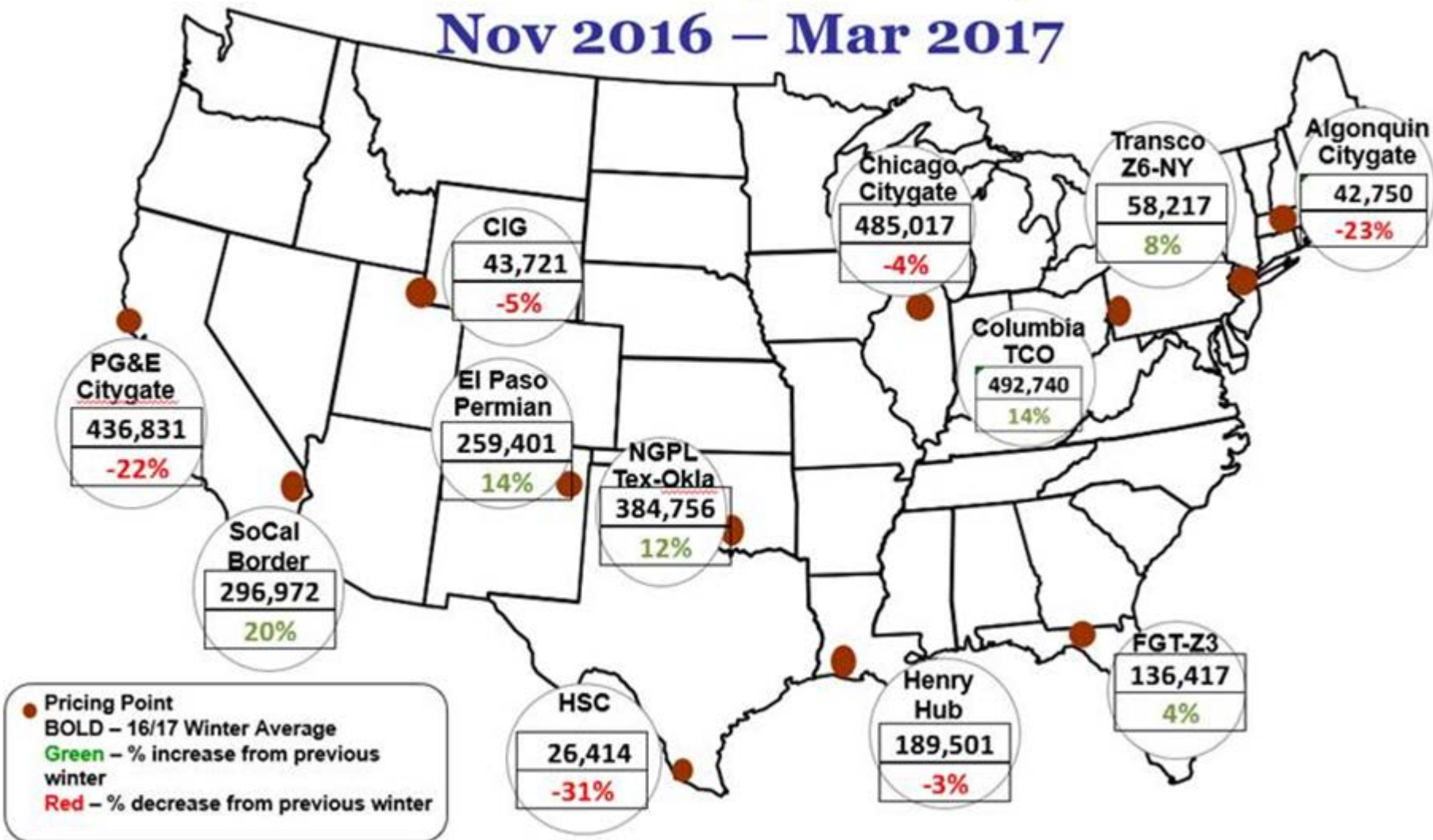
Source: RTO/ISO and ICE Data

Spot Natural Gas Prices Average (\$/MMBtu) Nov 2016 – Mar 2017



Spot Average Natural Gas Trading Volumes (MMBtus)

Nov 2016 – Mar 2017

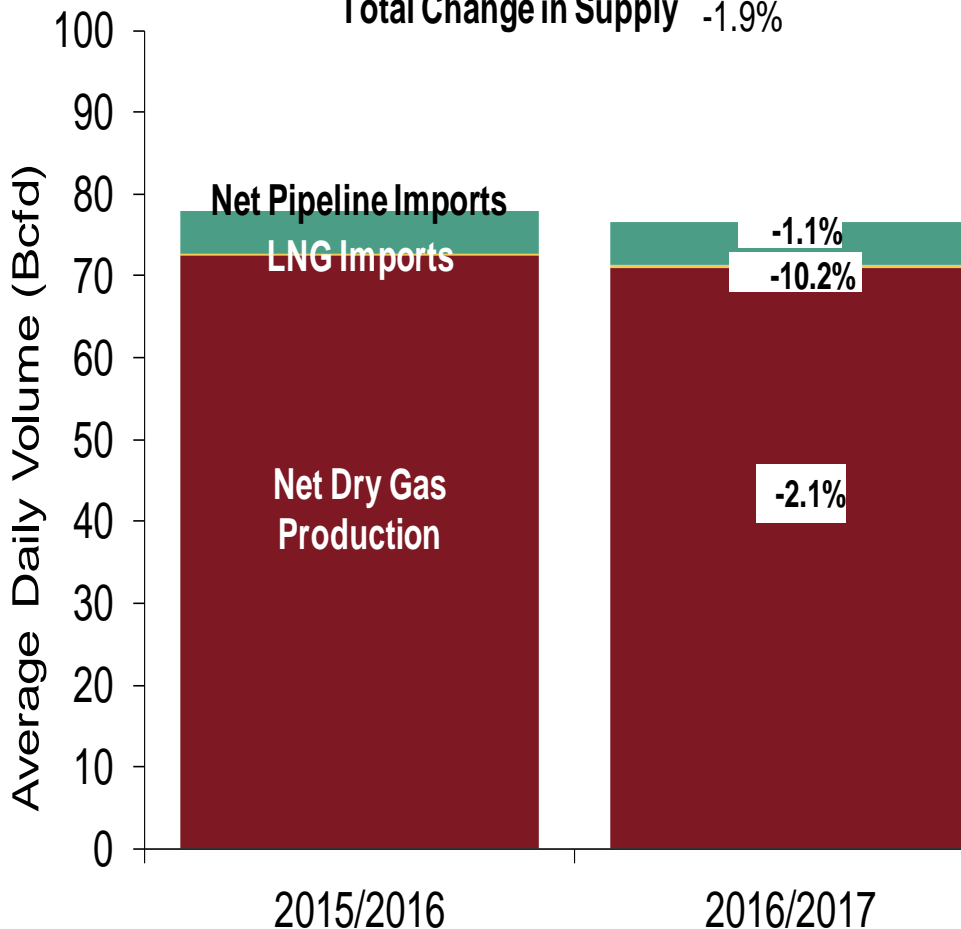


Source: Bloomberg and ICE

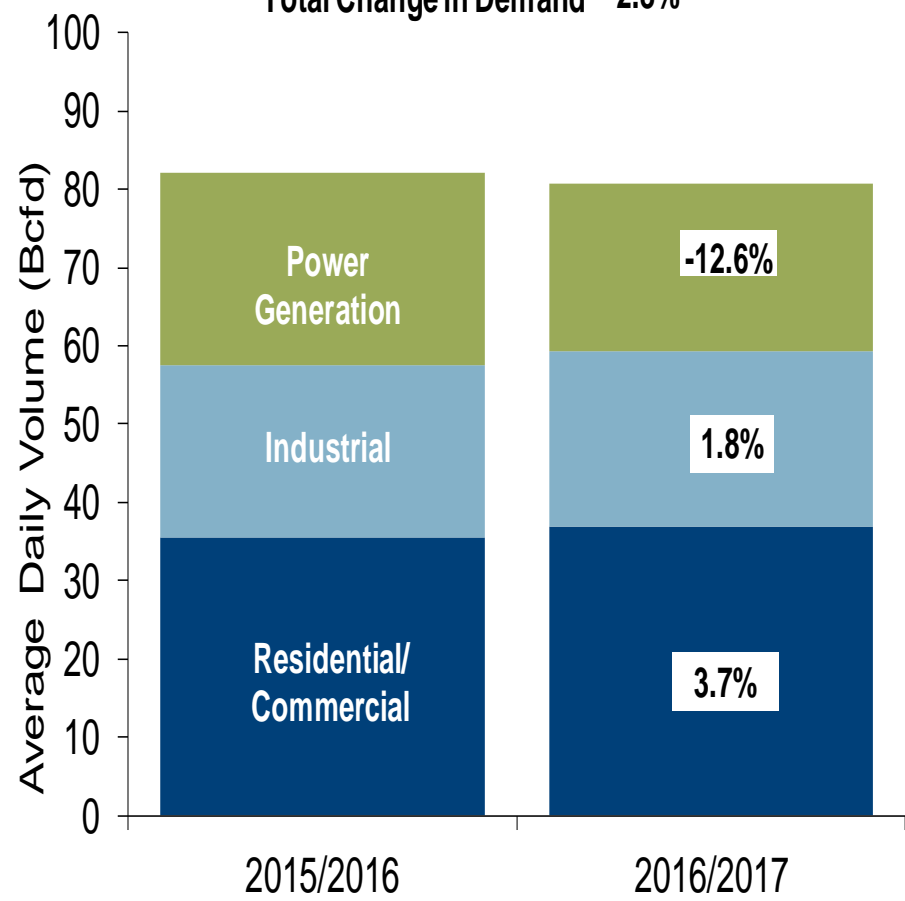
U.S. NG Supply and Demand

Nov 2015 – Mar 2016 vs Nov 2016 – Mar 2017

US Natural Gas Supply
Total Change in Supply -1.9%



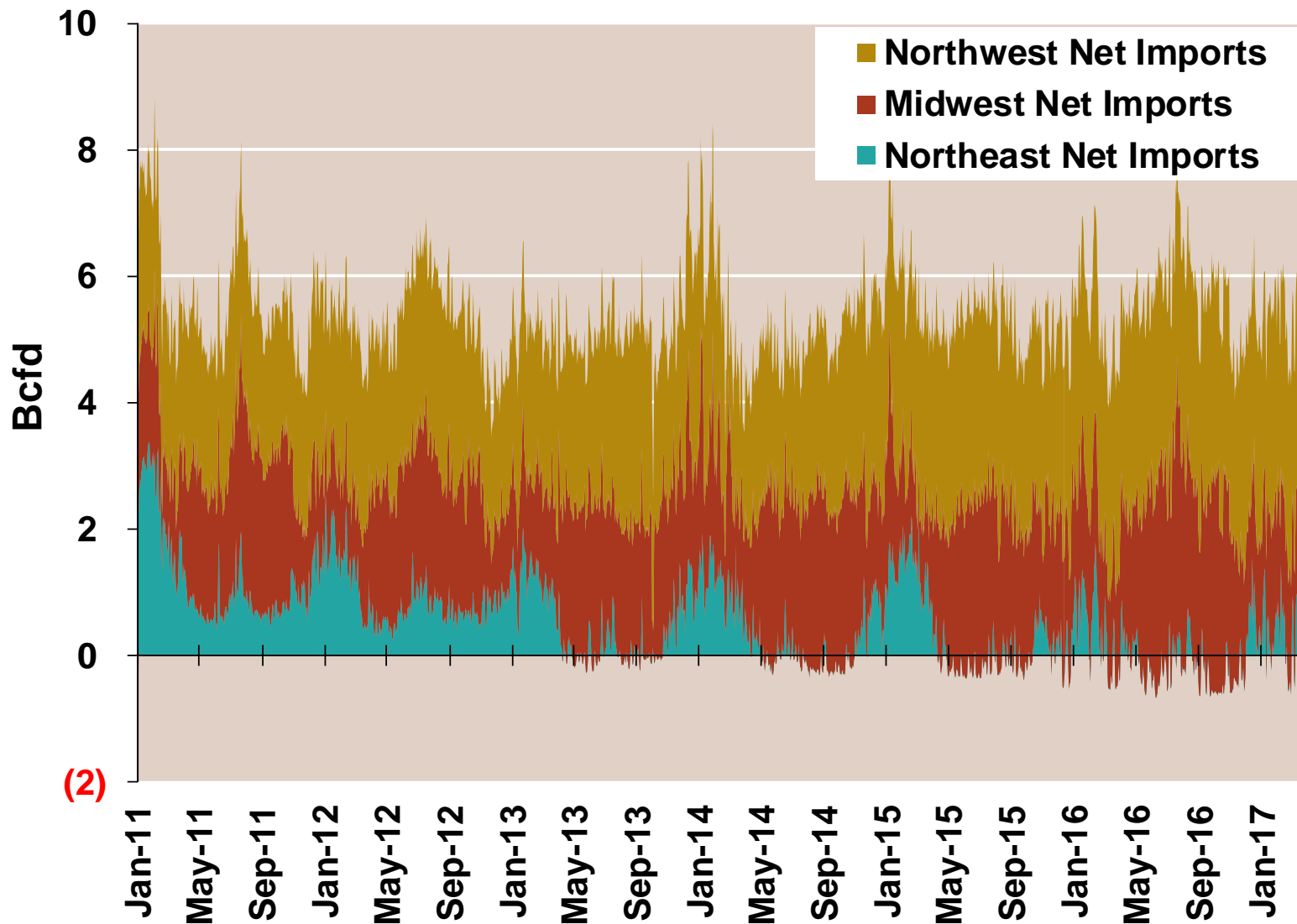
US Natural Gas Demand
Total Change in Demand -2.8%



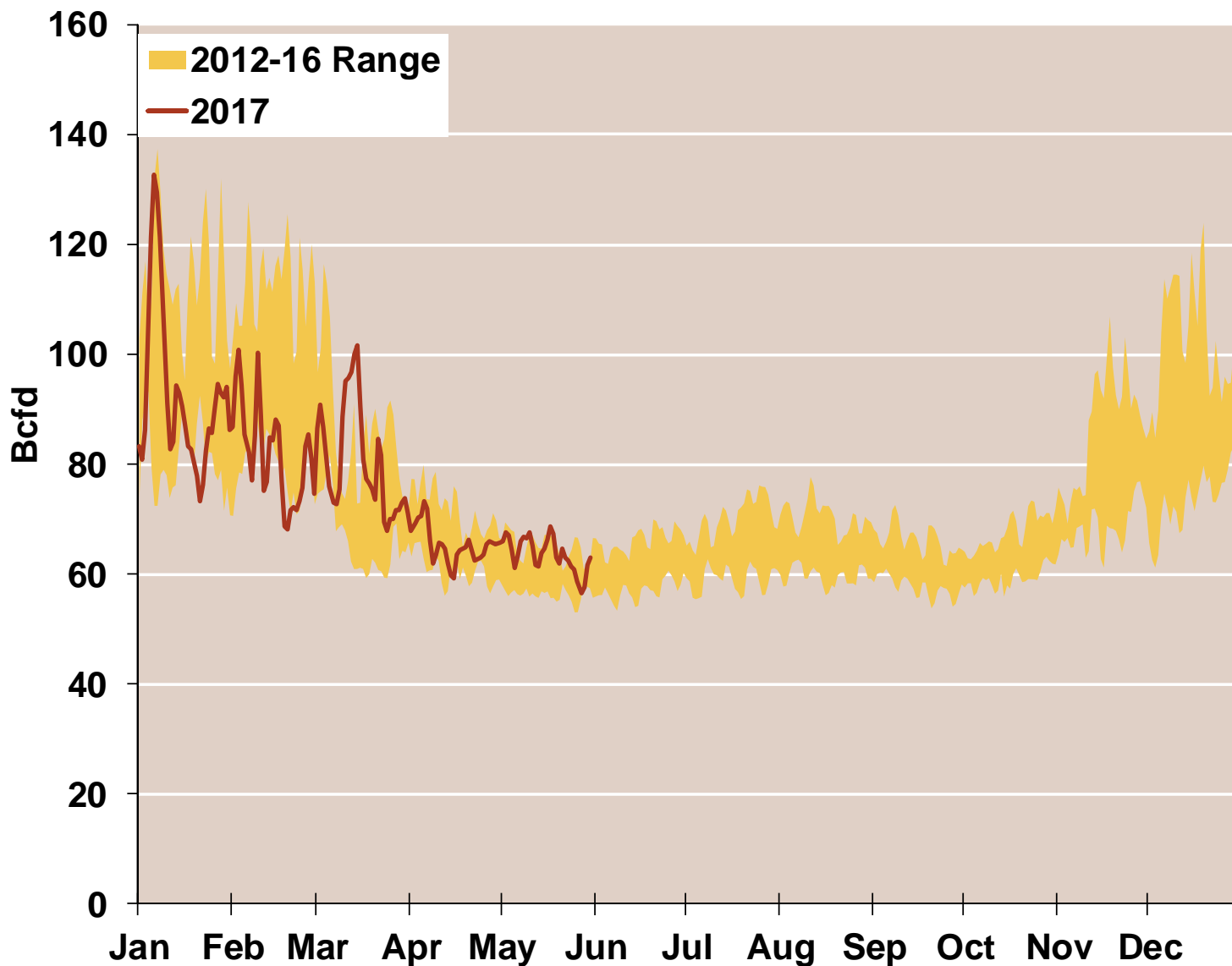
Note: Balance includes all amounts not attributable to other categories.

Source: Derived from Bentek Energy data

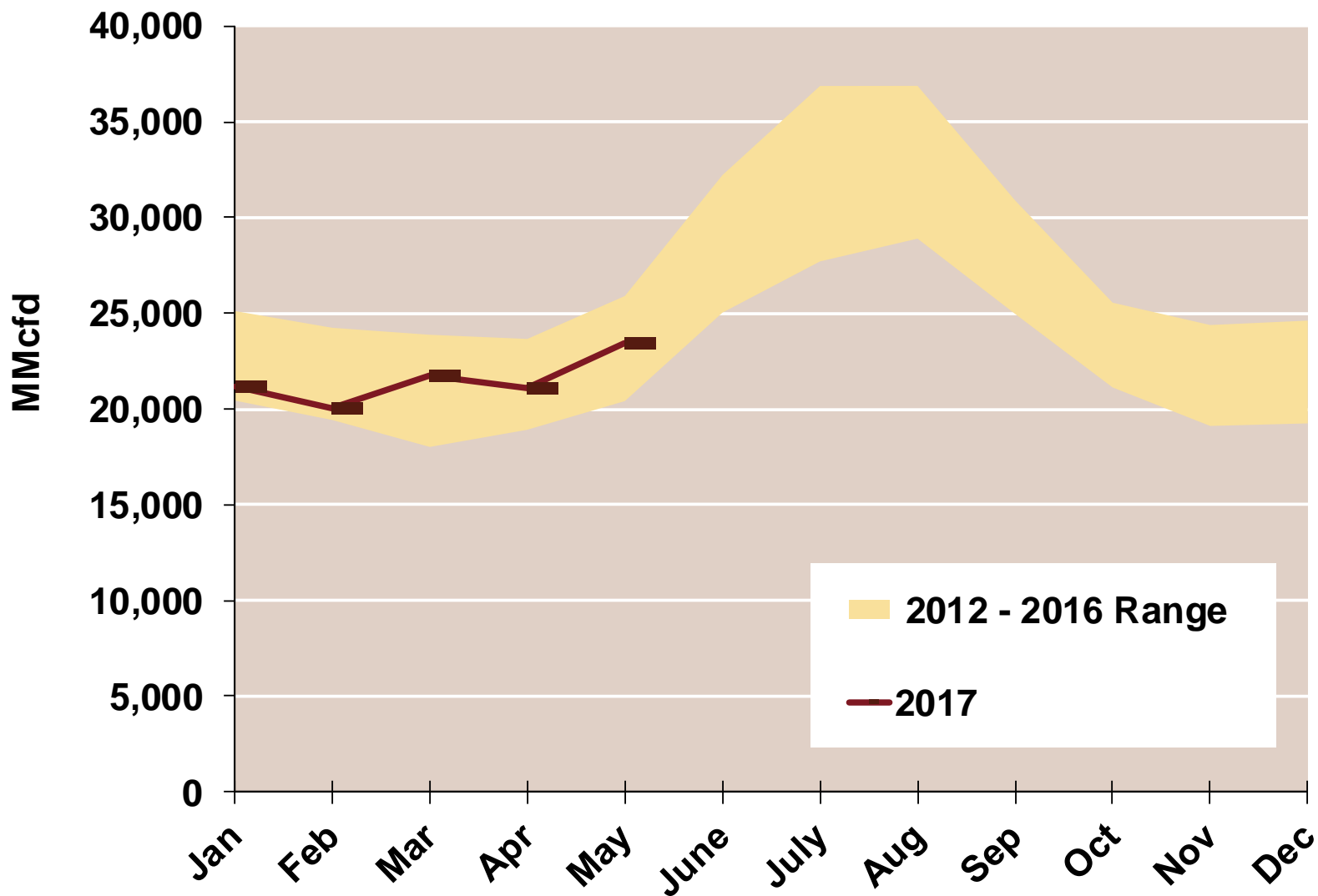
Regional Imports from Canada



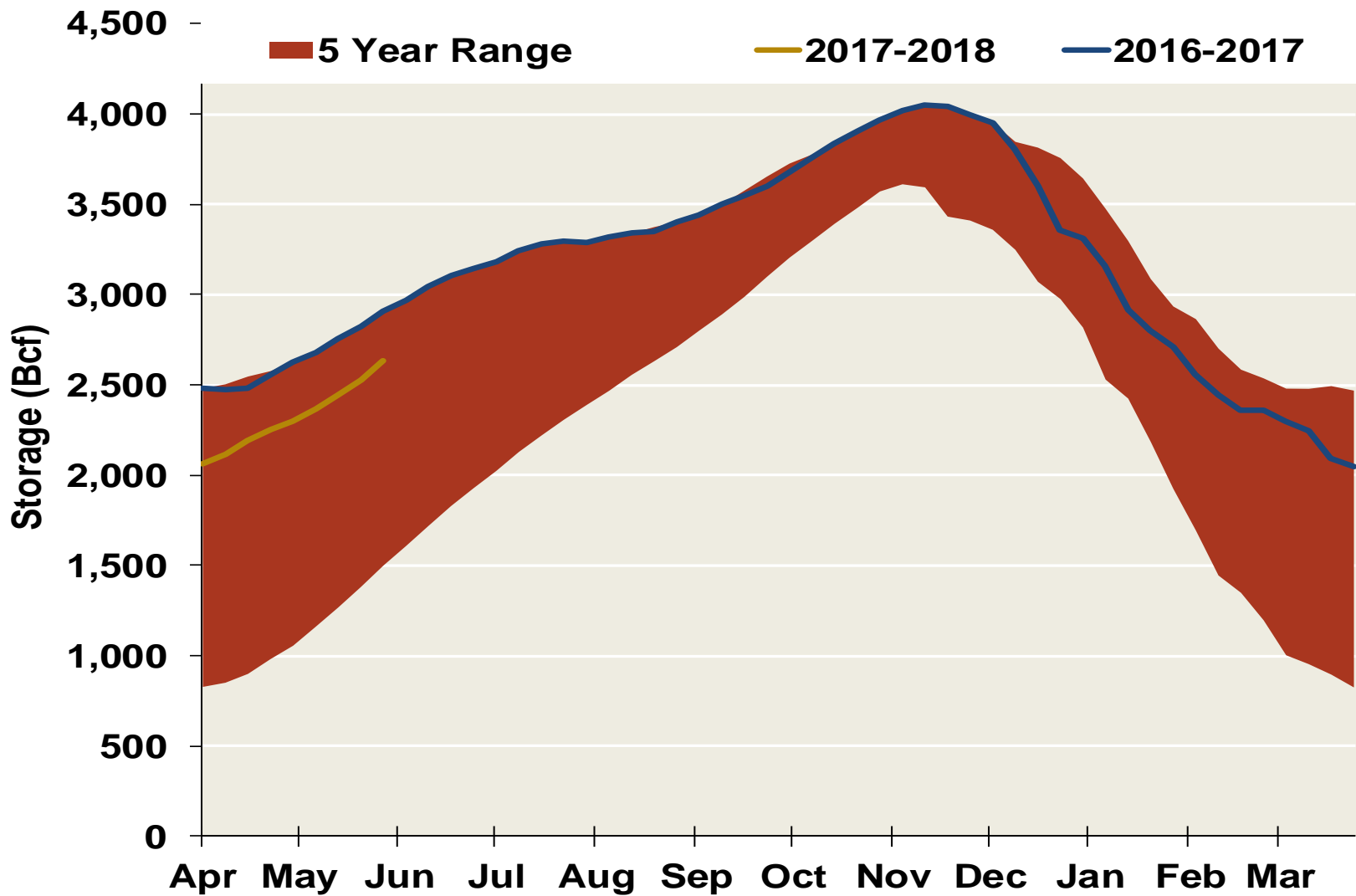
Total U.S. Natural Gas Demand All Sectors



U.S. Natural Gas Consumption for Power Generation



EIA National Storage Inventories

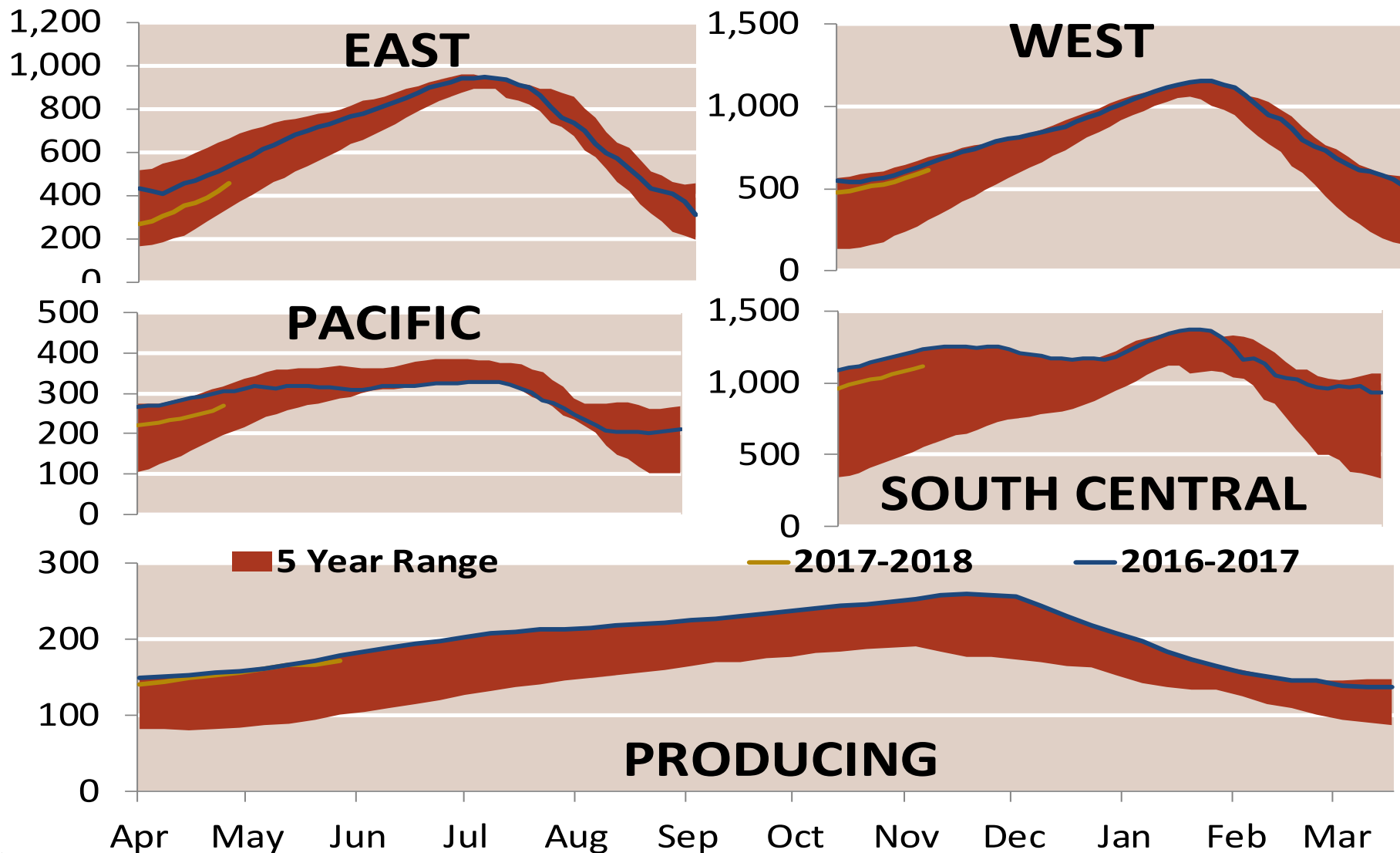


Notes:

Source: Derived from Bloomberg Data

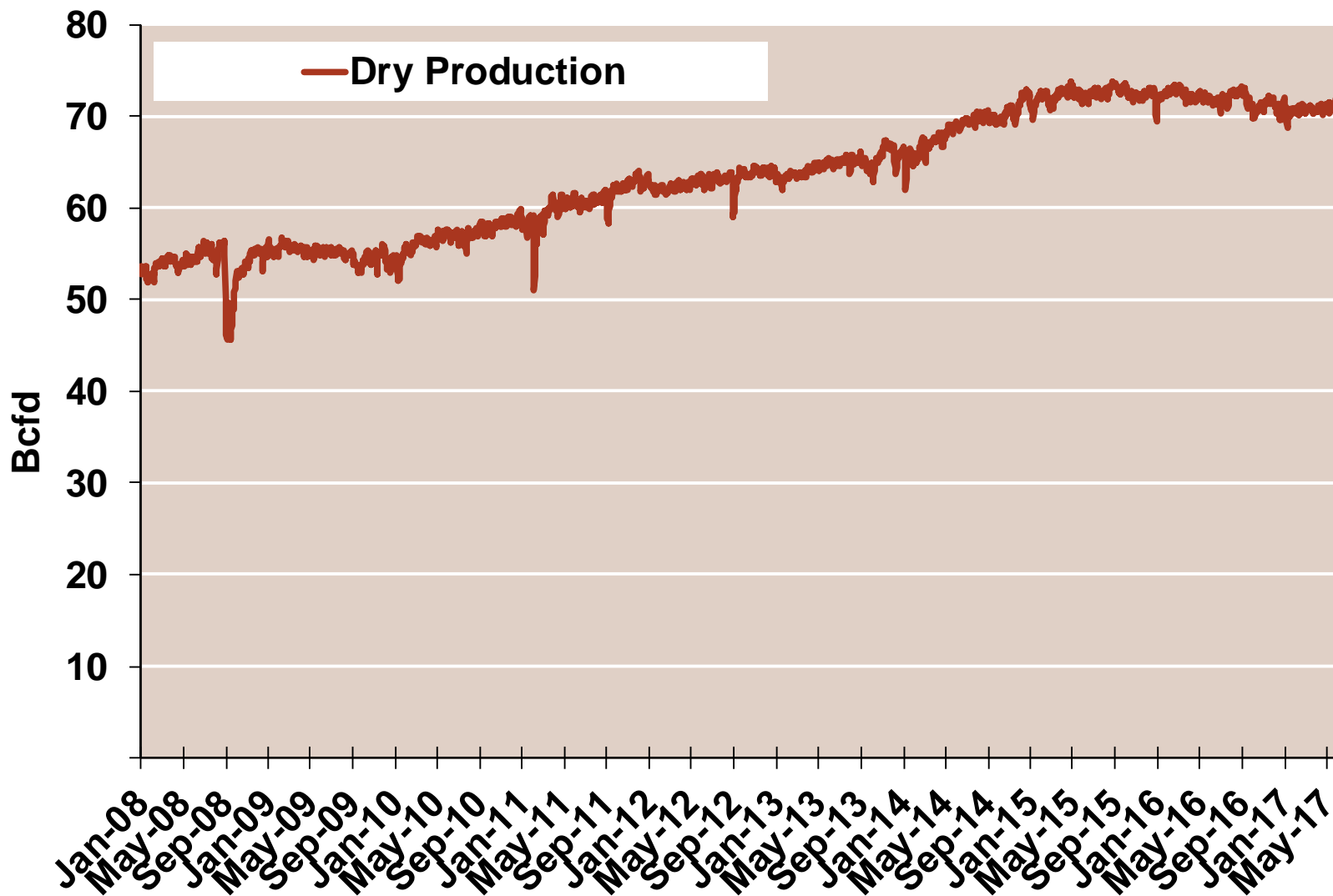
Updated Jun-2017

EIA Regional Storage Inventories



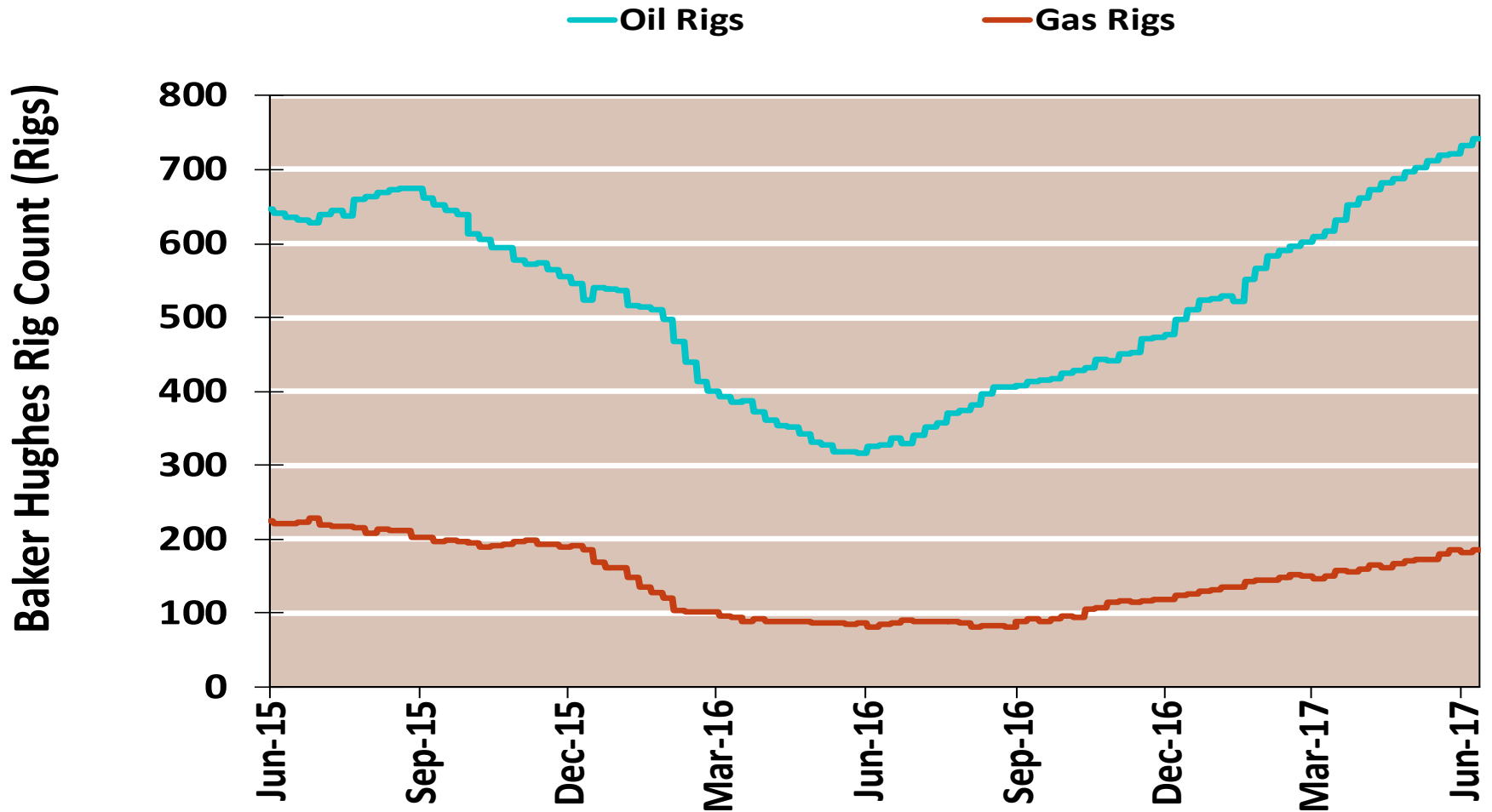
Not

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

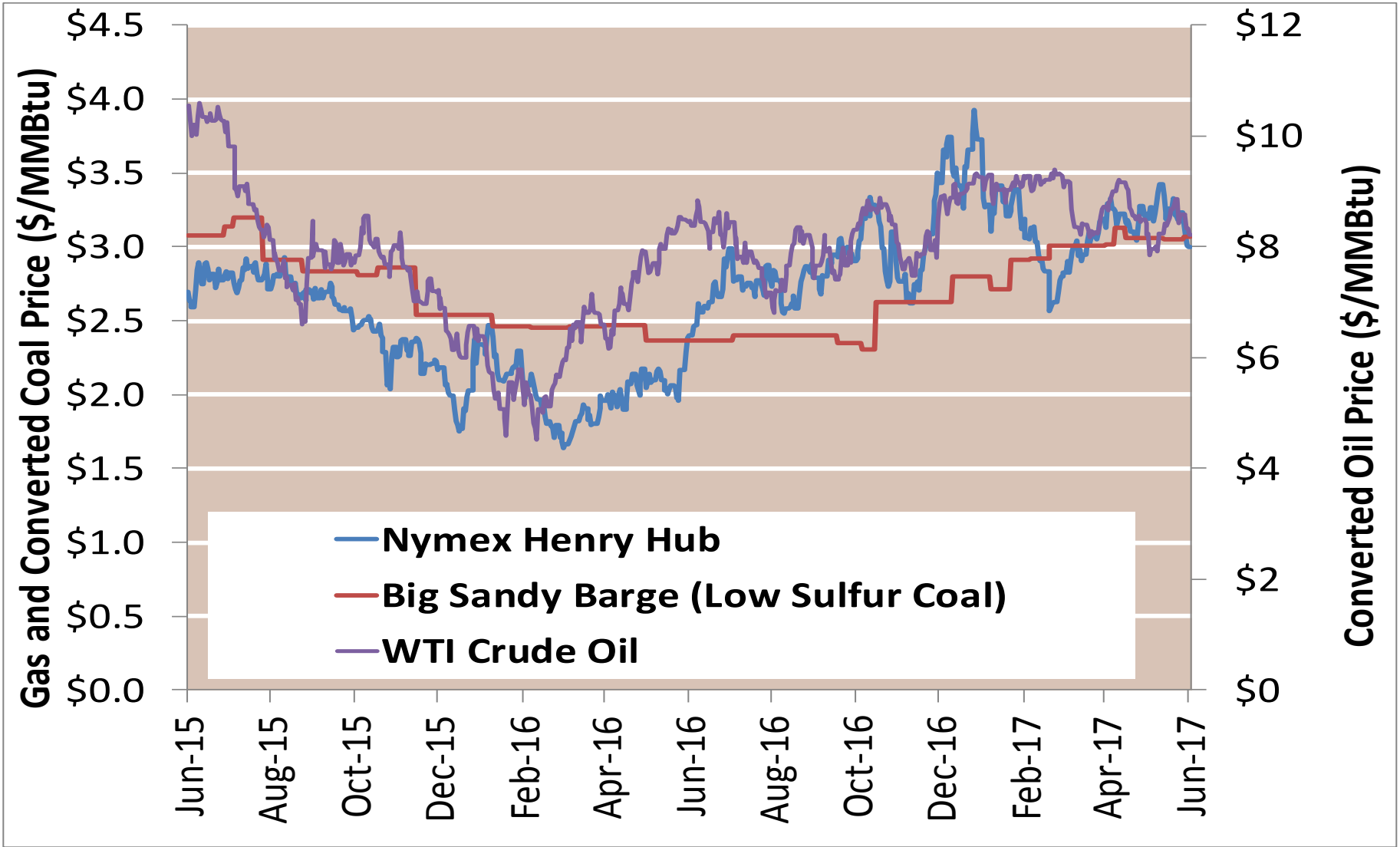


Notes:

Source: Derived from Bloomberg data

Updated Jun-2017

Competing Fuels

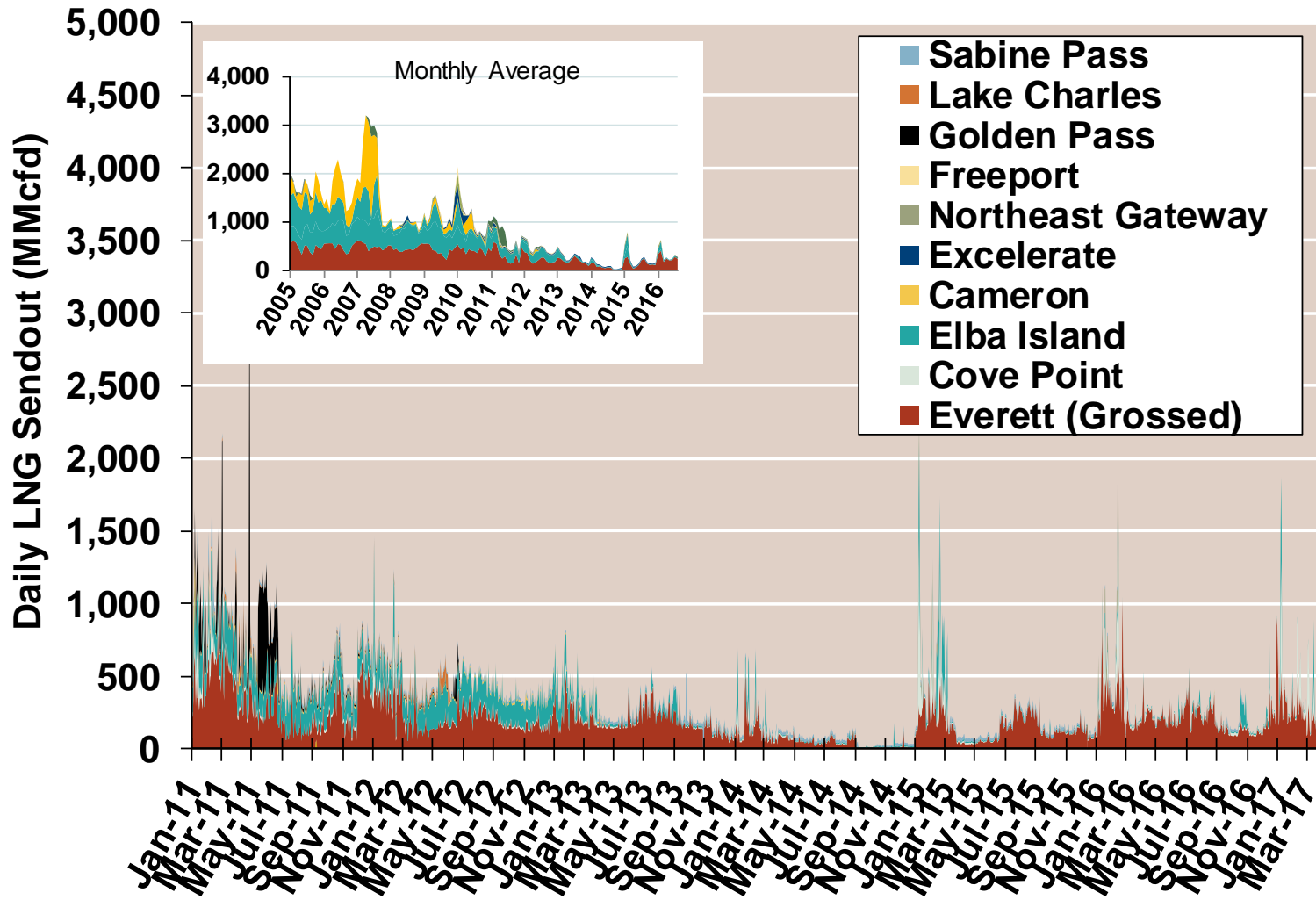


Notes:

Source: Derived from Bloomberg data

Updated Jun-2017

Daily Gas Sendout from Existing U.S. LNG Facilities

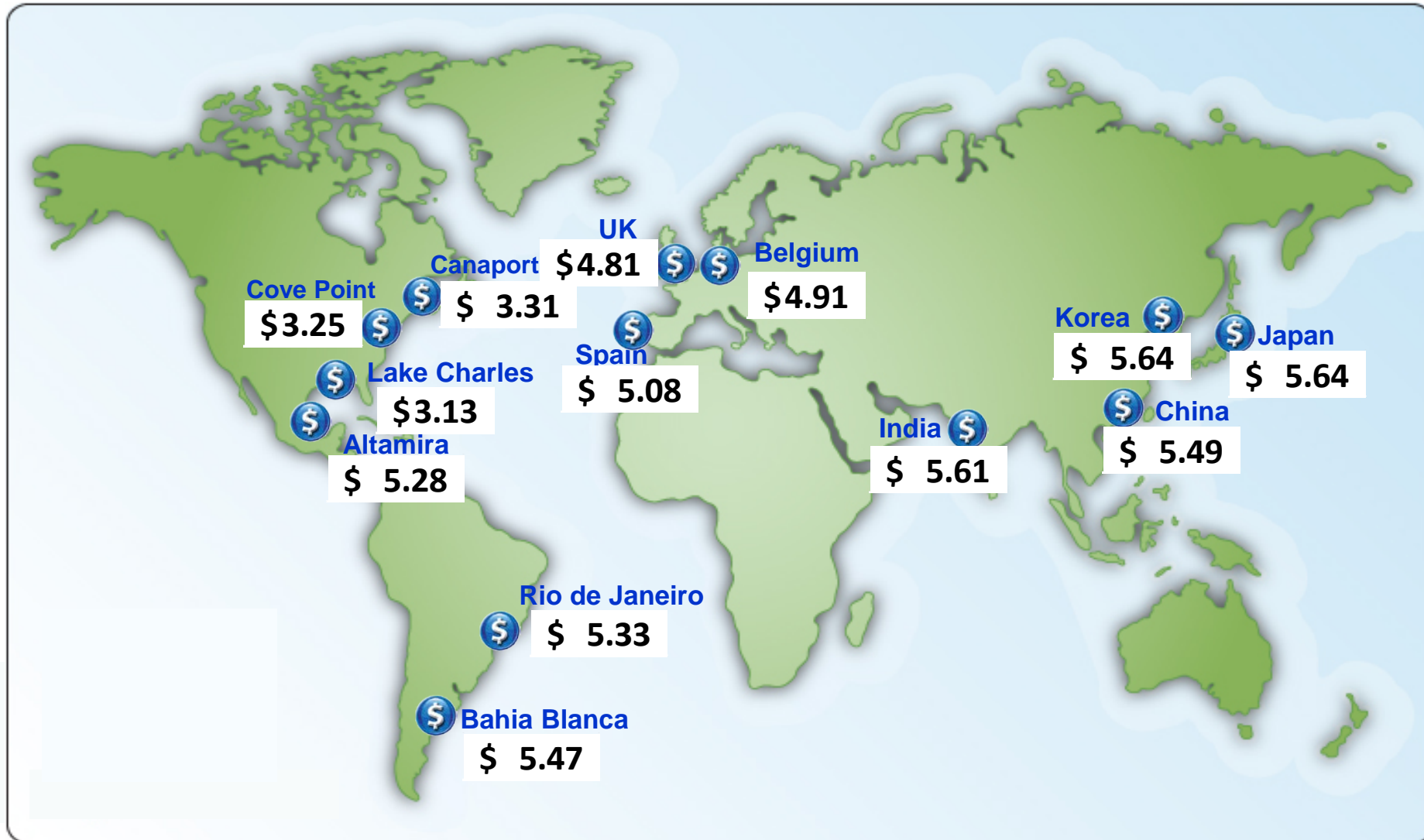


Notes: Everett data includes flows onto the AGT and TGP interstate lines, plus estimates of flows to the Mystic 7 power plant, Keyspan Boston Gas, and LNG trucked out of the terminal. Excludes flows to the Freeport LNG which flows via intrastate pipelines and flows to the Mystic 8 and 9 power plants.

Source: Derived from *Bentek Energy* data

Updated Jun-2017

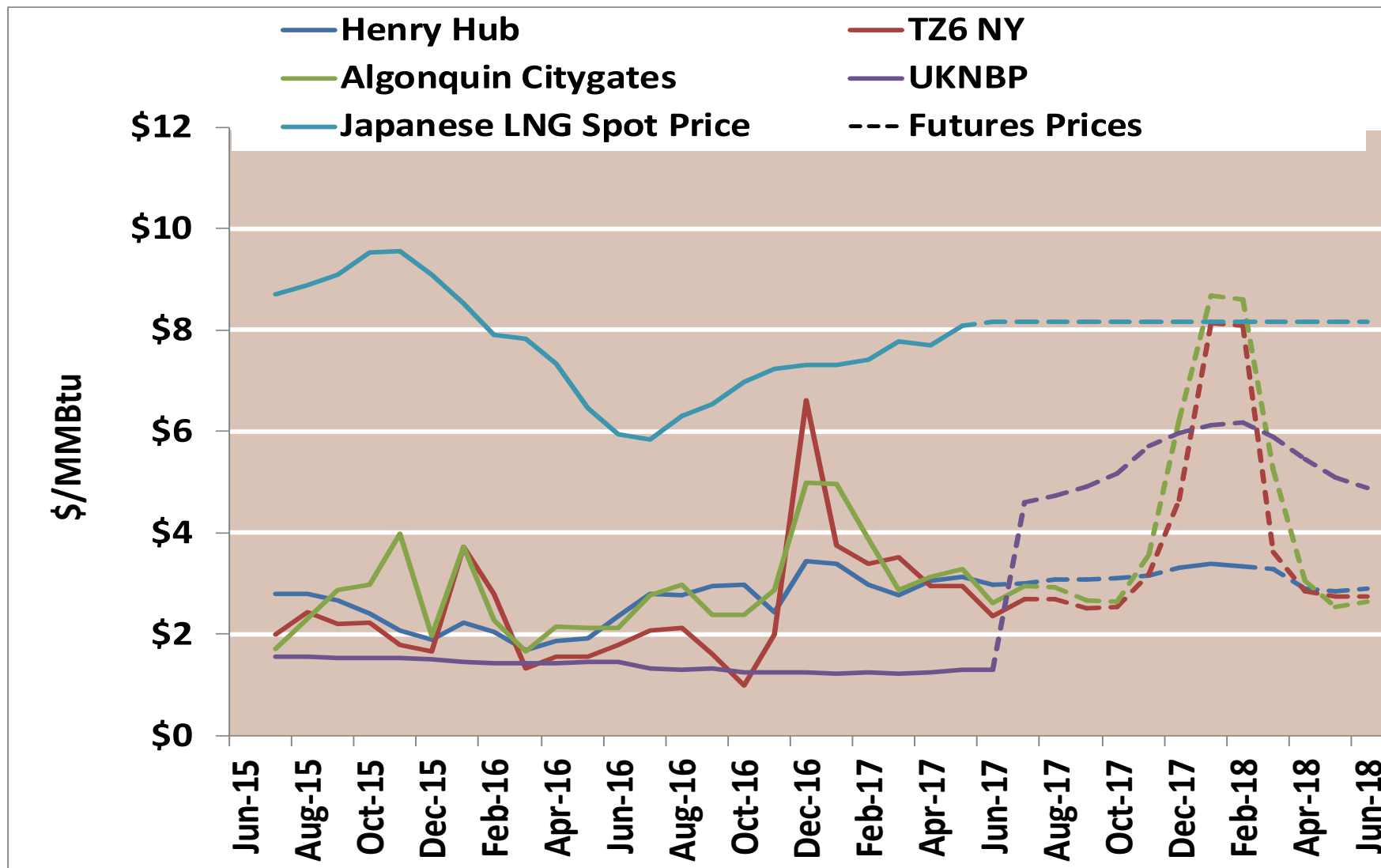
World LNG Estimated Landed Prices: May 2016



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

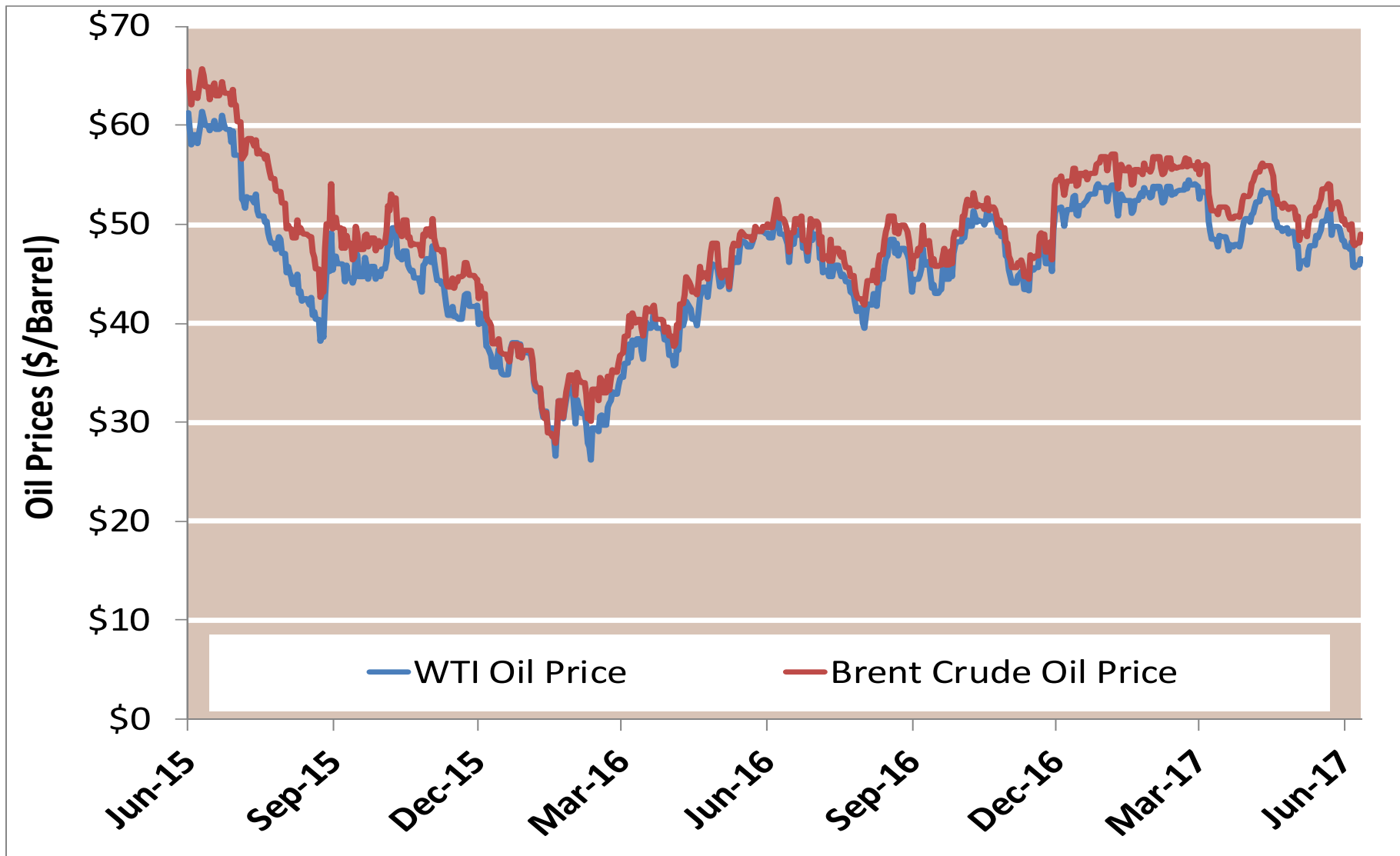


Notes:

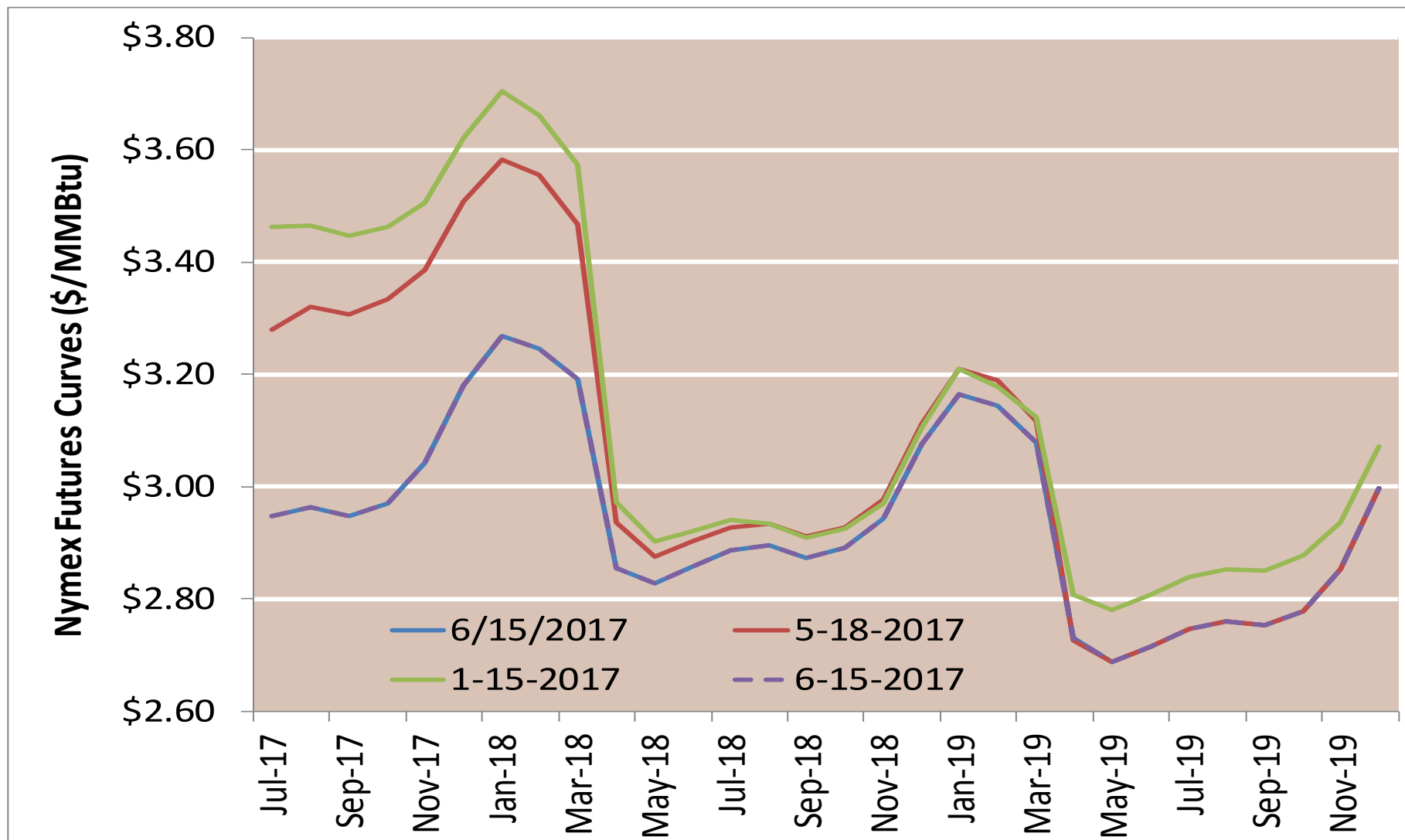
Source: Derived from Bloomberg data

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)
Pipeline						
Placed in Service	0			0	0	0
Certificated	1			0	0	0
Proposed	7			40	63.6	3,000
Storage						
Placed in Service	0	0.0	0.0			0
Certificated	0	0.0	0.0			0
Proposed	2	0.0	0.0			0
LNG (Import & Export)						

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)
Pipeline						
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
Storage						
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
LNG (Import & Export)						
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
Total	29	2,467	172	8,783	227	6,559

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%
Total	1,190.29	100.00%

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.