



# Competitive Energy Services Weekly Market Summary

April 2 - 6, 2018

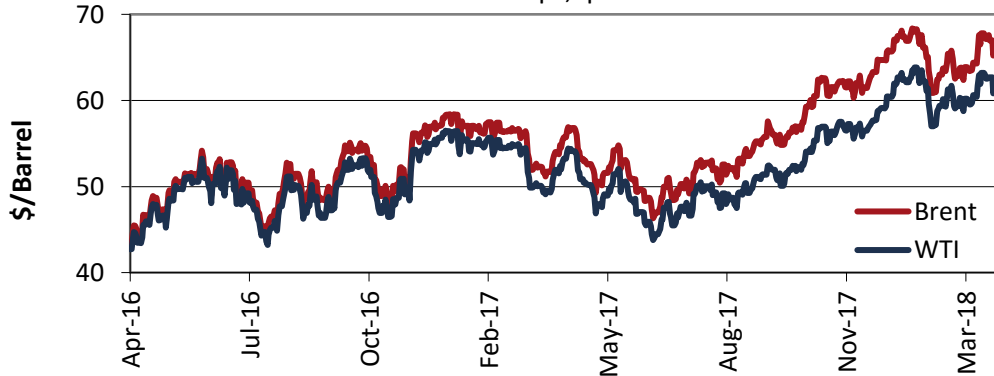
## Synopsis of Last Week's Energy Markets

Crude oil prices fell last week on escalating trade war tensions with China. However, over the weekend Syria carried out a chemical attack on its civilians, and the resulting tensions in the region is boosting prices. Natural gas prices fell 1% last week as strong domestic output continues to weigh on markets. This comes despite low temperatures and late-season heating demand that has contributed to a widening inventory deficit.

## Oil Market

### Crude Oil - WTI & Brent

12-Month Forward Strips, past 24 months

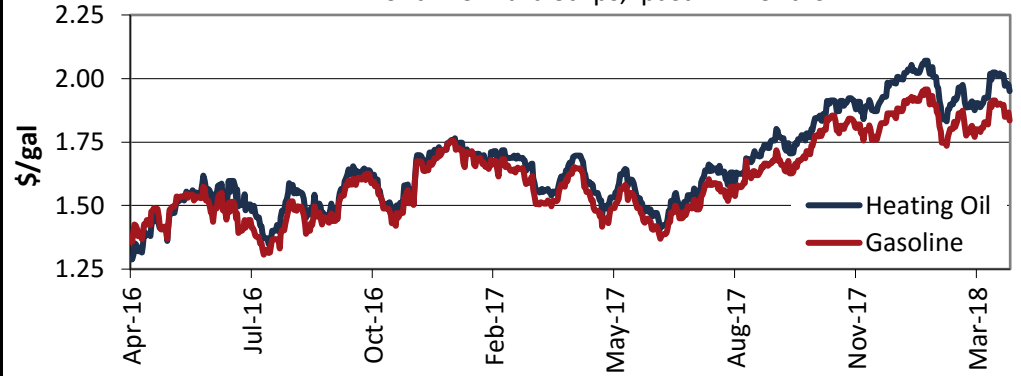


NYMEX WTI	last close	previous week	24-month high	24-month low
12 month strip, \$/bbl	\$60.61	\$63.49	\$63.86	\$42.80
date	4/6/18	1/24/18	1/26/18	4/8/16
change from last close		-4.5%	-5.1%	42%

US STORAGE (in million bbls)		crude oil
domestic stocks as of	3/30/18	425
gain / loss from previous week		-4.6
comparison to historic range		within

### Heating Oil & Gasoline

NYMEX 12-Month Forward Strips, past 24 months

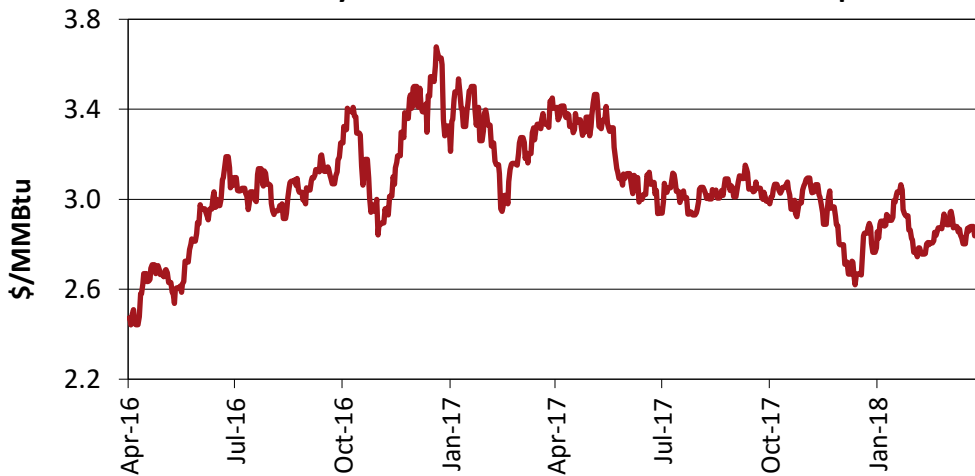


NYMEX Heating Oil	last close	previous week	24-month high	24-month low
12 month strip, \$/gal	\$1.95	\$2.06	\$2.07	\$1.29
date	4/6/18	1/24/18	1/26/18	4/8/16
change from last close		-5.2%	-6%	51%

US STORAGE (in million bbls)		distillate	propane	gasoline
domestic stocks as of	3/30/18	129	36	238
gain / loss from previous week		0.5	0.6	-1.1
comparison to historic range		within	within	within

## Natural Gas Market

### NYMEX Henry Hub Futures: 12 Month Forward Strip

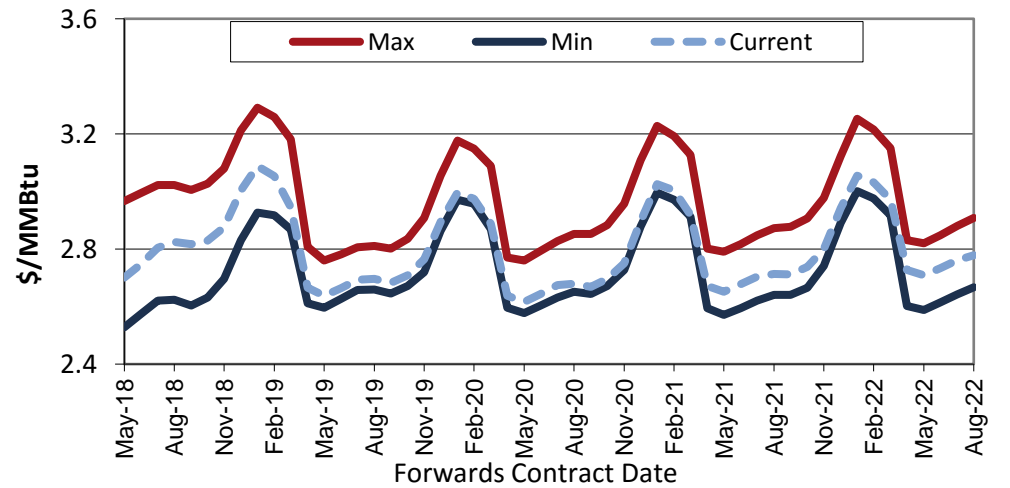


NYMEX PRICING	last close	previous week	24-month high	24-month low
12 mo. strip, \$/MMBTu	\$2.86	\$2.99	\$3.70	\$2.43
date	4/6/18	1/24/18	12/28/16	4/11/16
change from last close		-4.1%	-23%	18%

CES SCORE	
12 month	58
18 month	64
24 month	69
36 month	74

The Score provides a measure of how current prices compare to their 52-week range. A score close to 0 indicates that current prices are close to their 52-week highs; a score close to 100 indicates that current prices are close to their 52-week lows.

### NYMEX Natural Gas Forwards vs. 1 Year Range



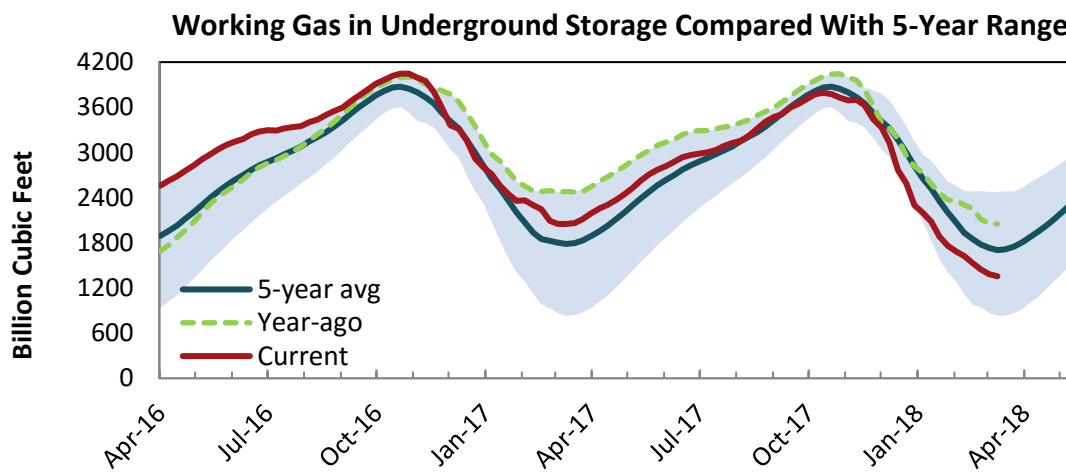
FORWARDS	12 month	18 month	24 month	36 month
strip (\$/MMBTu)	\$2.86	\$2.80	\$2.82	\$2.80

Natural gas futures are useful for both natural gas and electricity consumers because they drive electricity pricing in many U.S. markets. This chart compares the current natural gas price for each forward month on the NYMEX exchange to the highest and lowest prices for the same month over the past 12 months.



The information set forth herein is a compilation of public and internal information and is presented solely for the convenience of CES customers. CES does not make any representation or warranties, express or implied, with respect to the accuracy or completeness of the information contained herein. CES shall not have any liability to any person or entity resulting from the use of this information in any way.

### Natural Gas Storage



This chart shows the amount of natural gas in storage at each point in time (red line) compared to the highest, lowest, and average amounts in the past 5 calendar years.

EIA Storage Data		date	Bcf	+/-
Previous Stock Level		3/23/18	1,383	
Most Recent Stock Level		3/30/18	1,354	
Year-ago Stock Level			2,051	-34.0%
5-Year Average Stock Level			1,701	-20.4%
Most Recent Net Change		3/30/18	-29	
Year-Ago Net Change			-4	625%
5-Year Average Net Change			-28	4%

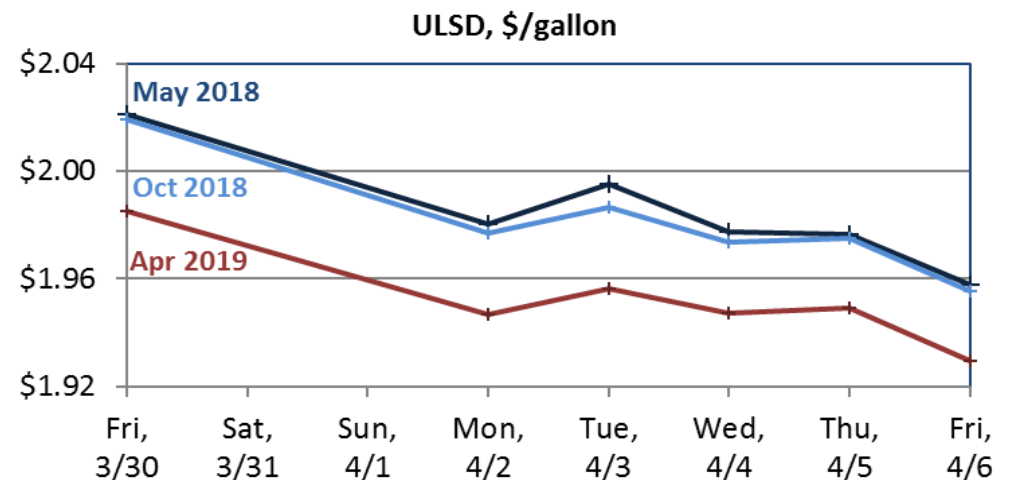
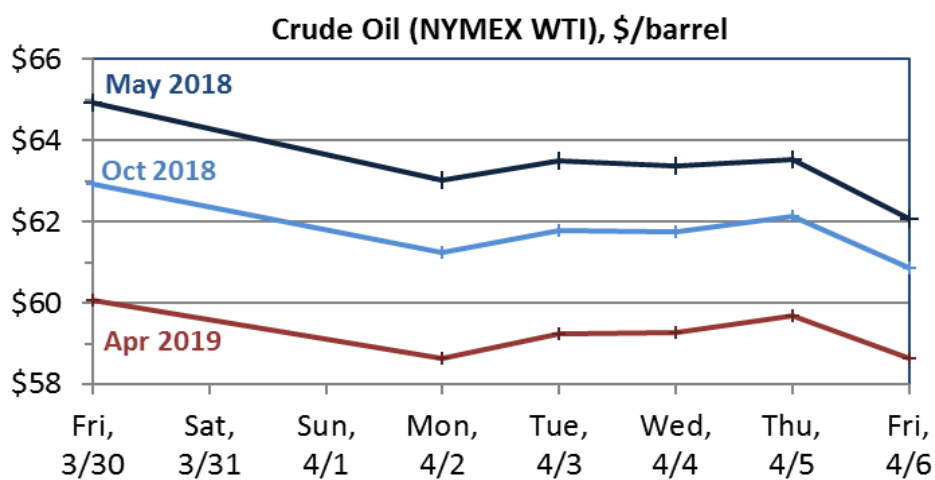
Data Source: EIA <http://tonto.eia.doe.gov/oog/info/ngs/ngs.html>

### Market Assessment

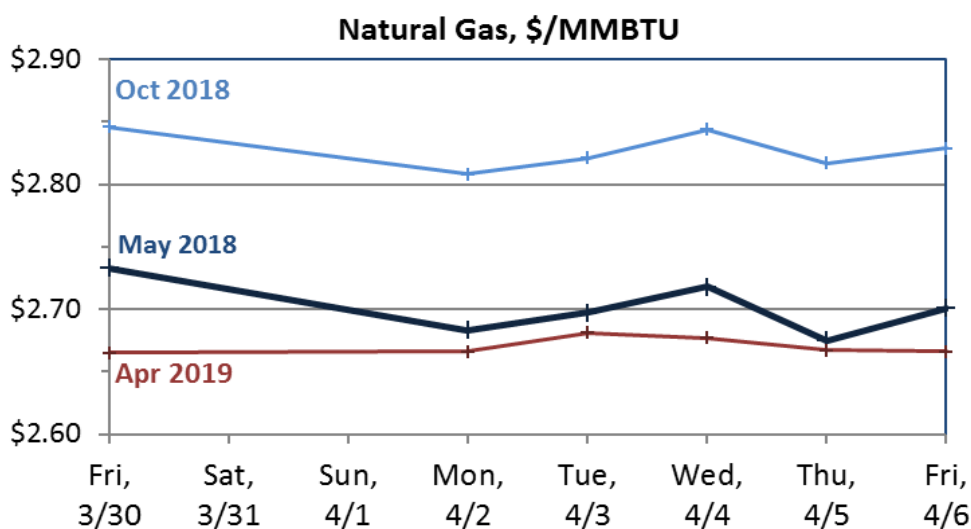
#### NYMEX Futures Summary Statistics

	Last Expired Contract	Exp. Date	Price	Prompt Month	Price	Most Expensive Next 12 Months	Price	Least Expensive Next 12 Months	Price	Next Winter Avg (Nov18-Mar19)
Crude oil	Apr-18	3/20/18	\$63.40	May-18	\$62.06	May-18	\$62.06	Apr-19	\$60.06	\$59.76
Heating oil	Apr-18	3/29/18	\$2.03	May-18	\$1.96	May-18	\$1.96	Apr-19	\$1.99	\$1.95
Natural gas	Apr-18	3/27/18	\$2.69	May-18	\$2.70	Jan-19	\$3.09	Apr-19	\$2.67	\$2.99

#### NYMEX End-of-Day Settlements



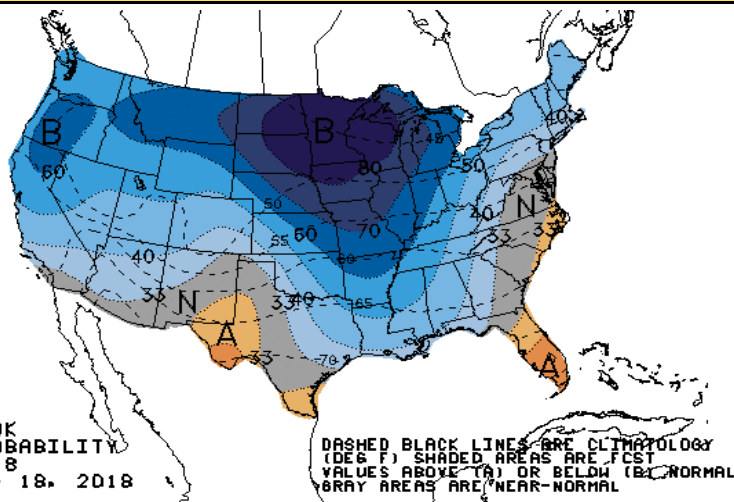
Crude prices slid on Monday along with equities on fears of an escalating trade war with China, which would slow demand growth for crude products. The US and China are the world's largest consumers of crude. Russia also reported that production for March was at an 11-month high, although it pledged that April production would be in compliance with the OPEC-led cuts. Bahrain announced that its oil discovery off its western coast held an estimated 80 billion barrels of crude, roughly equivalent to Russia's total oil reserves. After last week's decline, oil prices are rising today over escalating tensions after Syria carried out a suspected chemical attack on the town of Douma, prompting an Israeli airstrike on a Syrian air base, and President Trump also threatened a military response.



Natural gas prices rose and fell last week as unseasonably cool April weather competed with news of steadily rising production that continues to reach and surpass record highs. May futures fell just over 3 cents week-over-week, closing at \$2.70 on Friday afternoon. Cold weather has swept across the northern U.S., bringing with it a pulse of demand that has extended the withdrawal season beyond the conventional April 1 transition. Continued withdrawals at a time when inventories typically begin to refill would mean that the storage deficit, currently standing at 20.4%, could widen further in the coming weeks. Prices have been kept in check by strong production that could boost injections and narrow or eliminate the deficit this summer.

The National Weather Service near-term forecast calls for cooler-than-normal temperatures for almost the entire US, especially the Upper Midwest. The natural gas market scores on page 1 improved from the previous week. Clients with electricity or natural gas contracts expiring in 2018 should consult with a CES representative for customized guidance.

**National Weather Service Forecast**



**6 - 10 Day Forecast for Apr 14 - 18**

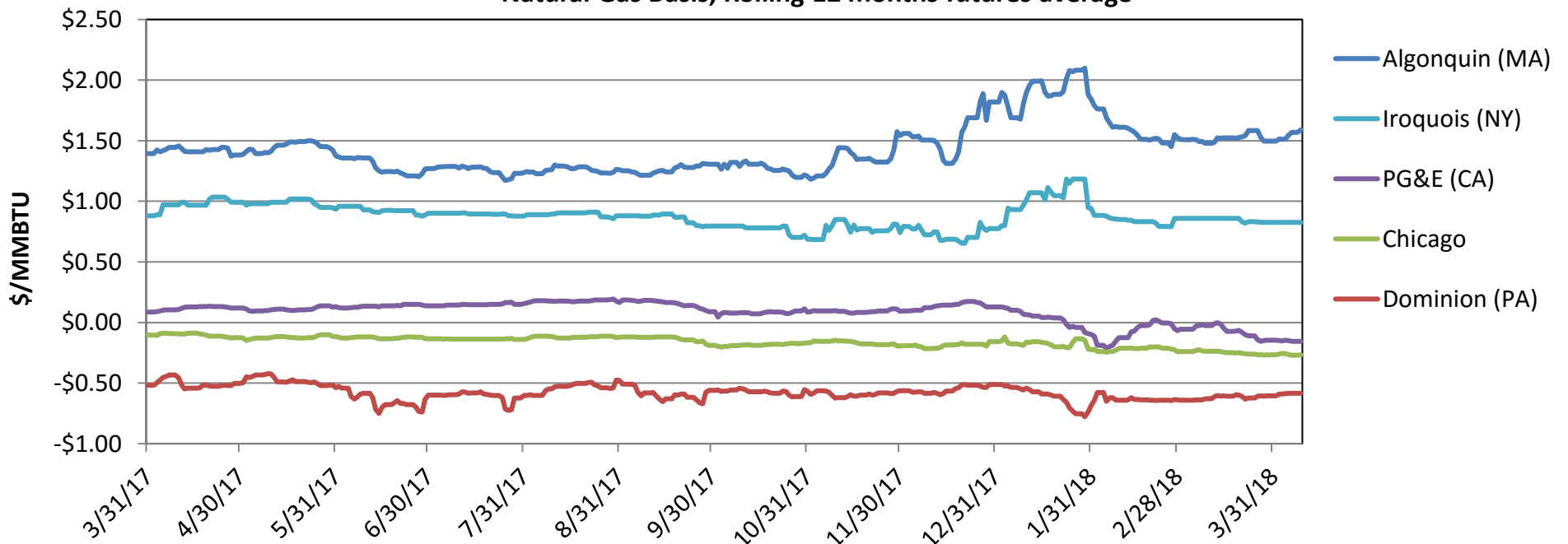
This map depicts forecasted temperatures for next week compared to the long term average. The blue/purple areas are forecast to be colder than normal, white areas are normal, and yellow/orange/red areas are warmer than normal. Abnormally hot weather in the summer and cold weather in the winter can increase the price for natural gas, oil, and electricity.

Source: Chart from the National Weather Service Climate Prediction

**Natural Gas Basis Futures**

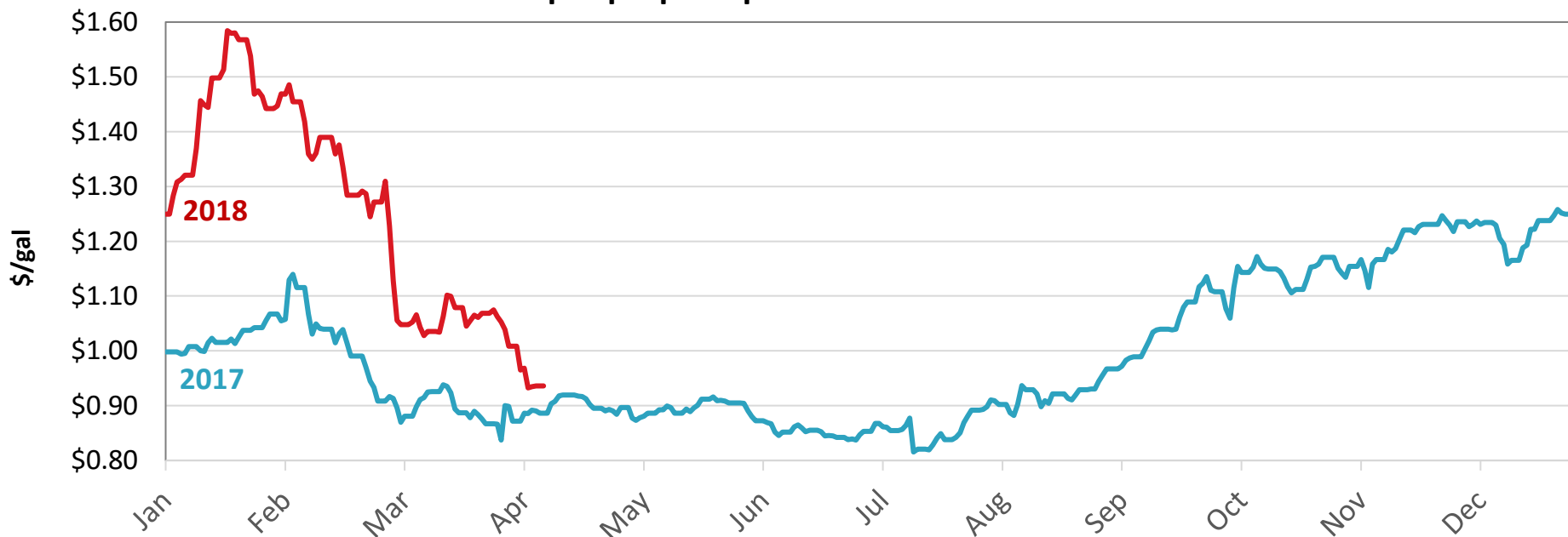
Basis is the price differential between Henry Hub, located in Erath, Louisiana, and the liquidity point closest to the end-user. Because Henry Hub is used as the delivery point for NYMEX natural gas futures contracts, the cost of using natural gas in any geographic region of the country can be approximated by adding the basis price for the appropriate liquidity point to the NYMEX futures contract. Basis prices can be negative (indicating that natural gas at a liquidity point is cheaper than at the Henry Hub) or positive (indicating that natural gas at a different liquidity point is more expensive than at the Henry Hub). Basis prices are a key component of regional electricity and natural gas costs.

**Natural Gas Basis, Rolling 12 months futures average**



**Propane**

**Spot propane price for Northeast US**



**Spot Prices**

		<b>New England ISO Real Time Power Pricing By Zone (\$/MWh)</b>							<b>Avg</b>
		4/2/18	4/3/18	4/4/18	4/5/18	4/6/18	4/7/18	4/8/18	
<b>Power (\$/MWh)</b>	Maine RT On Pk	43	47	72	27	64			51
	Maine RT Off Pk	21	59	48	10	57	65	52	45
	NH RT On Pk	51	59	87	42	75			63
	NH RT Off Pk	25	62	79	45	67	65	52	56
	Vermont RT On Pk	50	58	84	41	73			61
	Vermont RT Off Pk	25	61	77	44	68	63	52	56
	Connecticut RT On Pk	50	59	86	43	75			63
	Connecticut RT Off Pk	25	62	78	46	69	65	52	57
	Rhode Island RT On Pk	50	59	87	44	76			63
	Rhode Island RT Off Pk	25	62	79	47	70	67	53	58
	NE Mass RT On Pk	51	60	88	44	76			64
	NE Mass RT Off Pk	25	63	80	47	70	67	53	58
	SE Mass RT On Pk	51	60	88	44	77			64
	SE Mass RT Off Pk	25	63	80	47	71	67	54	58
	WC Mass RT On Pk	51	59	87	44	76			63
	WC Mass RT Off Pk	25	62	79	47	70	66	53	57
			<b>New York ISO Real Time Power Pricing By Zone (\$/MWh)</b>						
	Capital RT On Pk	44	41	52	24	21			36
	Capital RT Off Pk	29	32	28	24	26	25	32	28
	Central RT On Pk	42	38	46	23	20			34
	Central RT Off Pk	28	31	24	24	26	23	31	27
	Hudson RT On Pk	46	42	52	25	21			37
	Hudson RT Off Pk	30	33	28	25	27	26	34	29
	Mohawk RT On Pk	43	39	42	23	20			33
	Mohawk RT Off Pk	28	31	24	24	26	23	31	27
	Milwood RT On Pk	47	43	52	25	21			38
	Milwood RT Off Pk	30	33	28	26	28	26	34	29
	NYC RT On Pk	52	44	55	35	24			42
	NYC RT Off Pk	31	34	28	26	28	27	35	30
		<b>PJM Real Time Power Pricing By Zone (\$/MWh)</b>							<b>Avg</b>
	Eastern Hub On Pk	21	50	45	36	36			37
	Eastern Hub Off Pk	27	26	30	39	39	39	39	34
	Western Hub On Pk	22	51	49	33	33			37
	Western Hub Off Pk	21	27	32	38	38	38	38	33
	PPL Zone On Pk	19	47	43	30	30			34
	PPL Zone Off Pk	28	25	27	32	32	32	32	30
	AEP RT On Pk	24	41	68	35	35			40
	AEP RT Off Pk	24	27	38	45	45	45	45	38
	Chicago RT On Pk	23	34	49	31	31			34
	Chicago RT Off Pk	16	23	32	38	38	38	38	32
	New Jersey Hub On Pk	21	47	44	31	31			35
	New Jersey Hub Off Pk	27	26	29	34	34	34	34	31
		<b>California ISO Real Time Power Pricing (\$/MWh)</b>							<b>Avg</b>
	SoCal Edison RT On Pk	52	40	28	43	57			44
	SoCal Edison RT Off Pk	19	22	20	19	71	78	10	34
		4/2/18	4/3/18	4/4/18	4/5/18	4/6/18	4/7/18	4/8/18	<b>Avg</b>
<b>Natural Gas \$/MMBtu</b>	Henry Hub, LA		2.74	2.81	2.81	2.82			2.80
	TZ6, MA	4.75	7.12	6.95	9.87	6.50			7.04
	Algonquin, MA	4.79	6.91	6.38	9.49	7.33			6.98
	Chicago Hub, IL	2.68	2.70	2.90	2.95	2.91			2.83
	New York, NY	2.42	2.52	2.77	2.68	2.90			2.66
	Dominion South, PA	2.46	2.40	2.57	2.57	2.60			2.52
	Opal Hub, WY	1.96	2.02	2.14	2.13	2.02			2.05
	PG&E Citygate, CA	2.54	2.60	2.65	2.58	2.59			2.59