



# Competitive Energy Services Weekly Market Summary

April 16 - 20, 2018

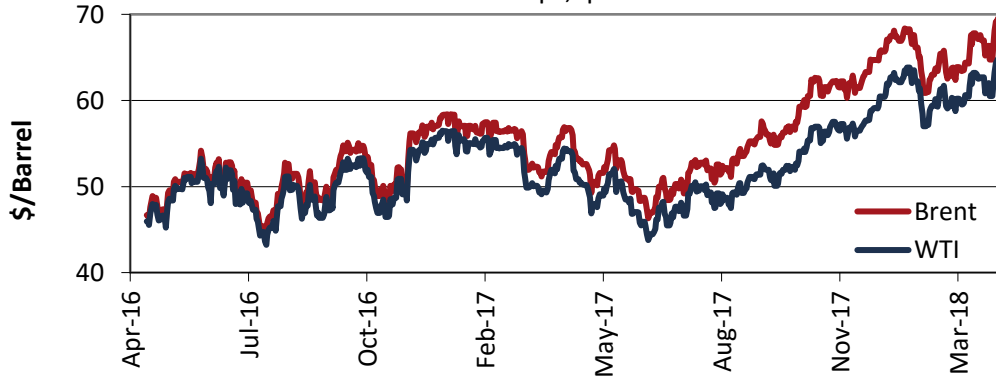
## Synopsis of Last Week's Energy Markets

Crude oil saw a second straight week of gains, climbing as OPEC's production cuts have brought global stocks back to average levels. Uncertainty as to whether President Trump will recertify the Iran nuclear deal in three weeks also boosted prices. Natural gas prices saw little change week-over-week. Storage levels have fallen to a 26% deficit to the 5-year average, but strong production is expected to refill inventories quickly as heating demand dissipates.

## Oil Market

### Crude Oil - WTI & Brent

12-Month Forward Strips, past 24 months

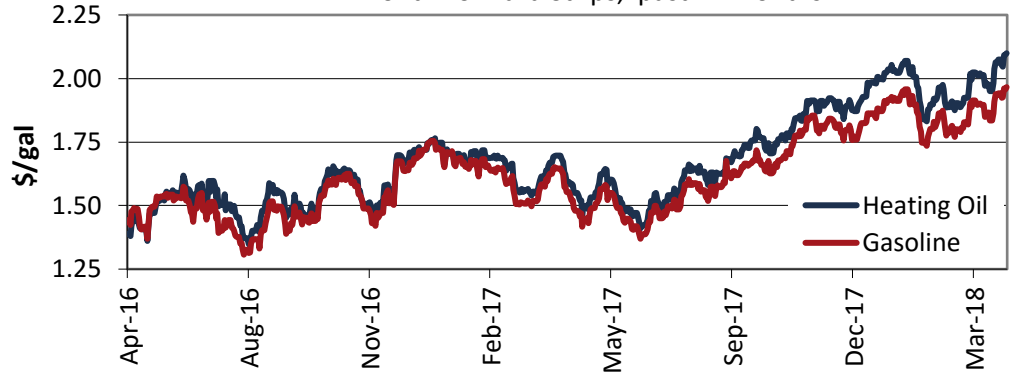


NYMEX WTI	last close	previous week	24-month high	24-month low
12 month strip, \$/bbl	\$65.77	\$63.49	\$65.90	\$43.04
date	4/20/18	1/24/18	4/19/18	8/2/16
change from last close		3.6%	-0.2%	53%

US STORAGE (in million bbls)		crude oil
domestic stocks as of	4/13/18	428
gain / loss from previous week		-1.1
comparison to historic range		within

### Heating Oil & Gasoline

NYMEX 12-Month Forward Strips, past 24 months

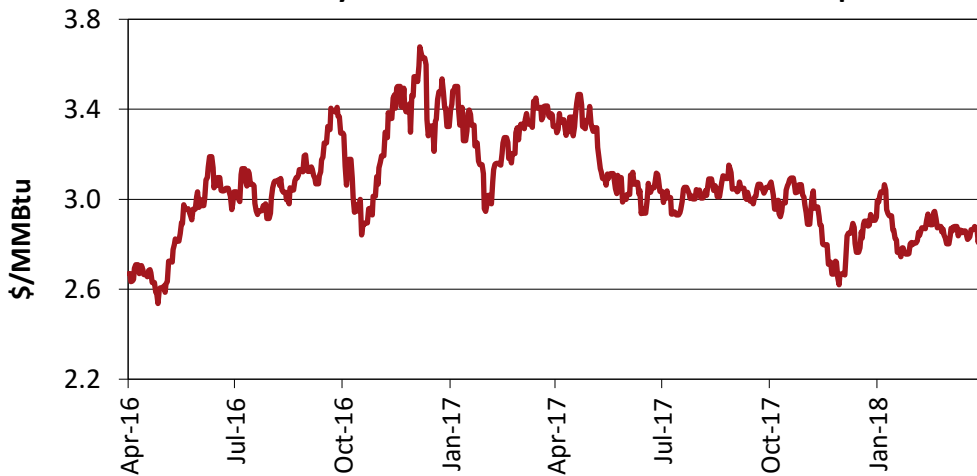


NYMEX Heating Oil	last close	previous week	24-month high	24-month low
12 month strip, \$/gal	\$2.11	\$2.06	\$2.11	\$1.34
date	4/20/18	1/24/18	4/20/18	8/2/16
change from last close		2.3%	0%	57%

US STORAGE (in million bbls)		distillate	propane	gasoline
domestic stocks as of	4/13/18	125	36	236
gain / loss from previous week		-3.1	0.0	-3.0
comparison to historic range		within	within	within

## Natural Gas Market

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



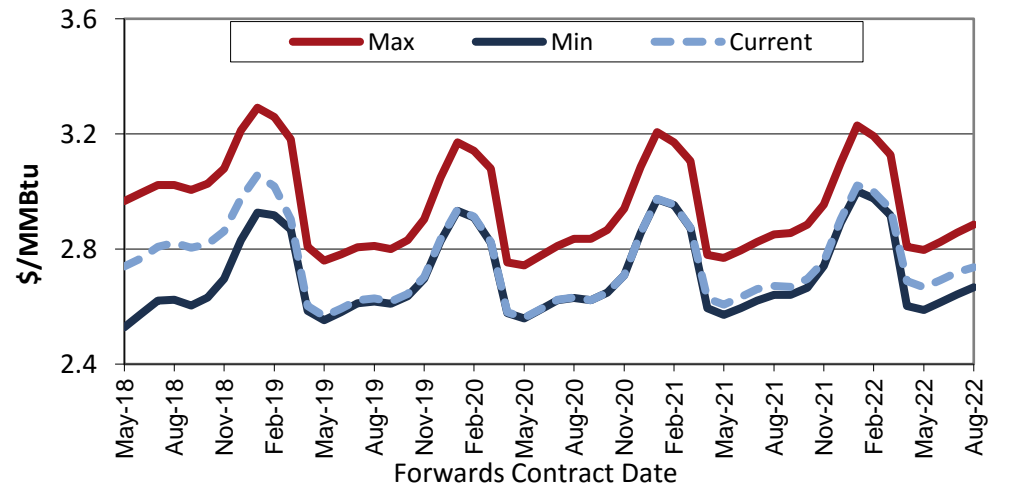
NYMEX PRICING	last close	previous week	24-month high	24-month low
12 mo. strip, \$/MMBTu	\$2.85	\$2.99	\$3.70	\$2.54
date	4/20/18	1/24/18	12/28/16	5/18/16
change from last close		-4.6%	-23%	12%

#### CES SCORE

12 month	62
18 month	73
24 month	79
36 month	86

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



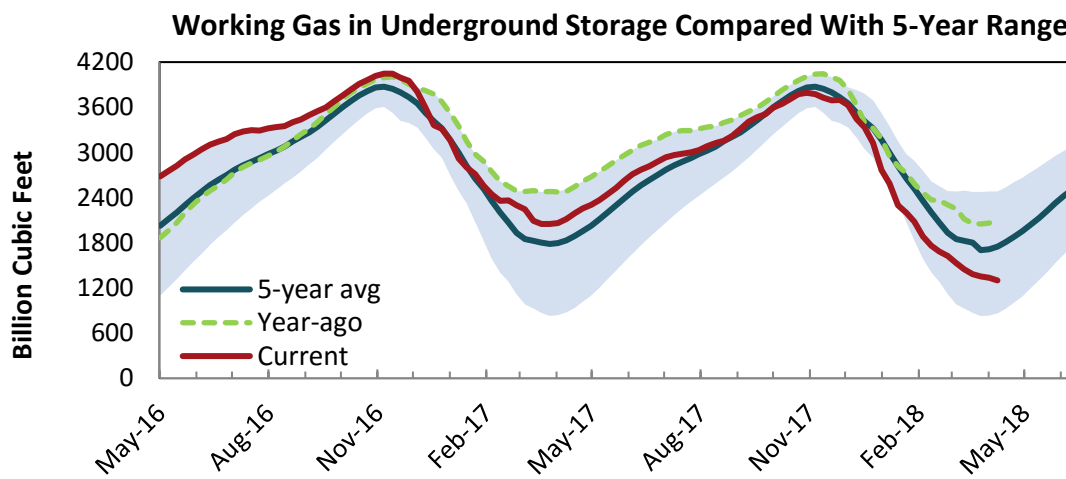
FORWARDS	12 month	18 month	24 month	36 month
strip (\$/MMBTu)	\$2.85	\$2.77	\$2.78	\$2.76

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.



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### 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		4/6/18	1,335	
Most Recent Stock Level		4/13/18	1,299	
Year-ago Stock Level			2,107	-38.3%
5-Year Average Stock Level			1,748	-25.7%
Most Recent Net Change		4/13/18	-36	
Year-Ago Net Change			47	-177%
5-Year Average Net Change			38	-195%

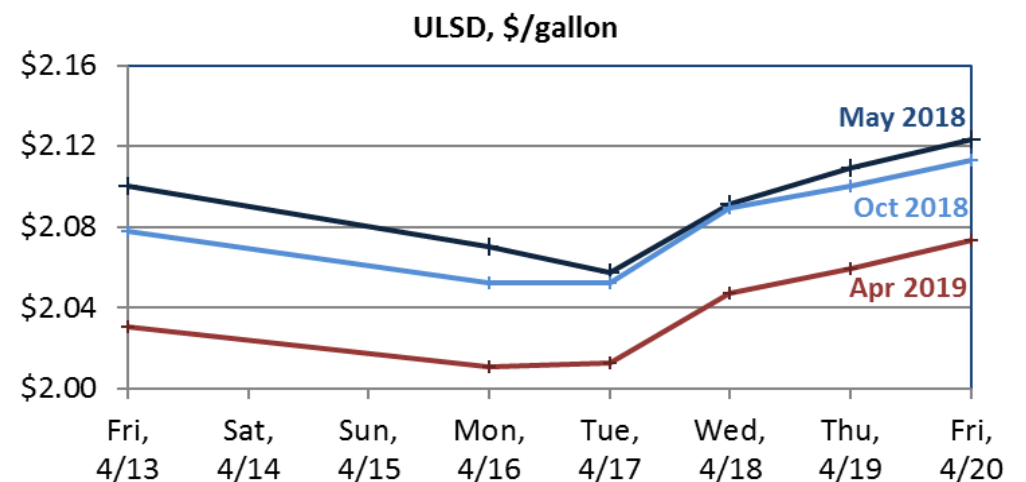
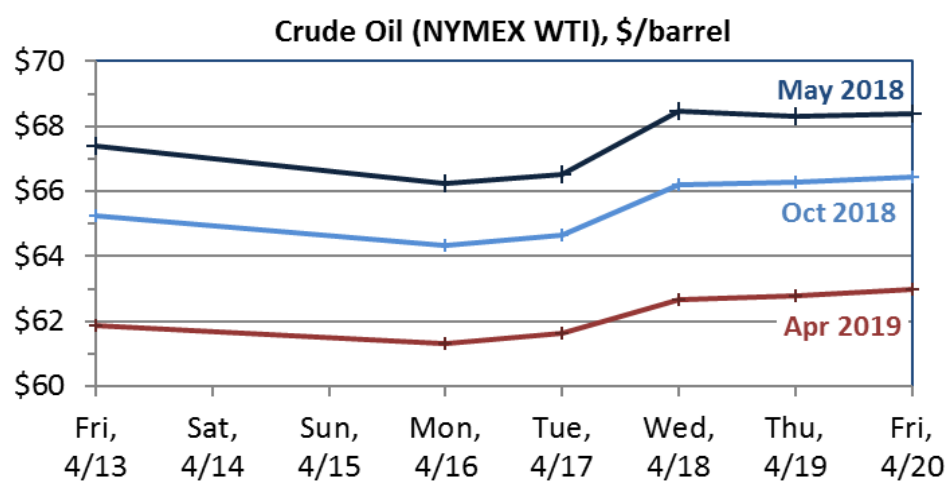
Data Source: EIA <http://tonto.eia.doe.gov/oog/info/ngs/ngs.html>

### Market Assessment

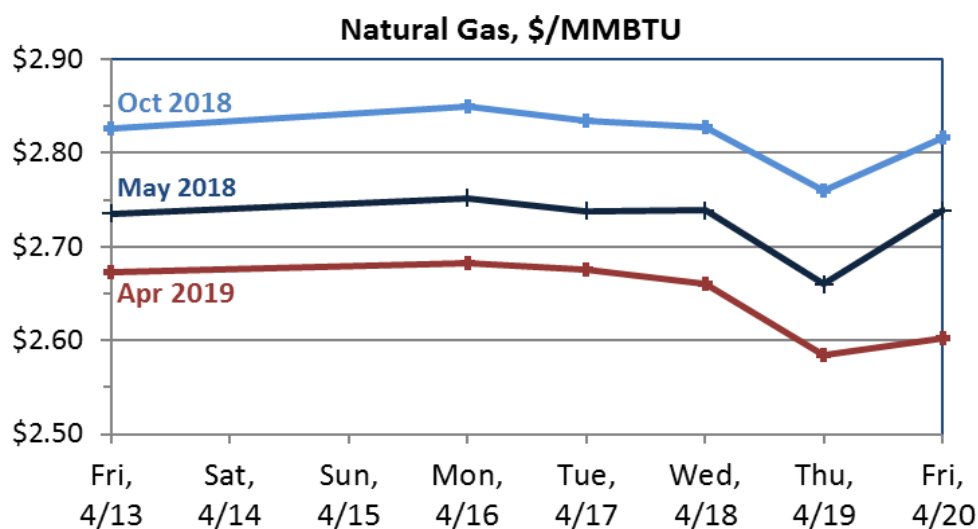
#### NYMEX Futures Summary Statistics

	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	May-18	4/20/18	\$68.38	Jun-18	\$68.40	Jun-18	\$68.40	Apr-19	\$62.98	\$64.71
Heating oil	Apr-18	3/29/18	\$2.03	May-18	\$2.12	May-18	\$2.12	Apr-19	\$2.07	\$2.11
Natural gas	Apr-18	3/27/18	\$2.69	May-18	\$2.74	Jan-19	\$3.06	Apr-19	\$2.60	\$2.96

#### NYMEX End-of-Day Settlements



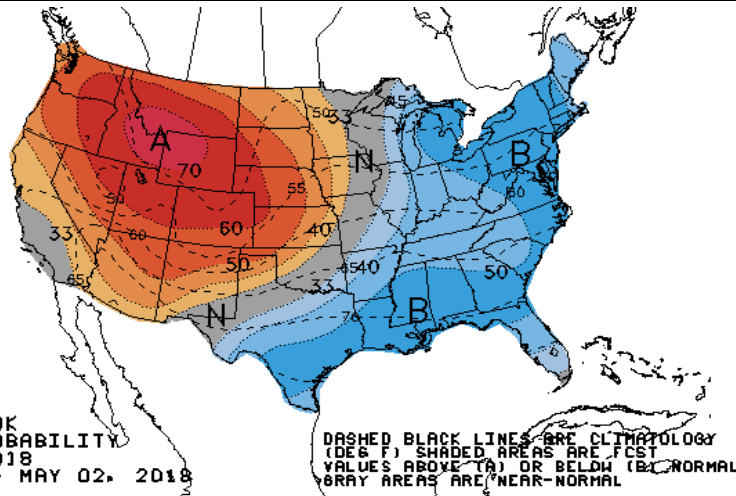
Crude oil contracts for delivery in the next eight months climbed 9-10% in the last two weeks, largely on geopolitical risks arising out to the Middle East. The US, UK, and France launched air strikes last weekend on Syria. President Trump faces a May 12 deadline to recertify Iran's compliance with the 2015 nuclear deal, which would extend the existing waiver of economic sanctions. However, Trump is reportedly seeking to toughen the deal, which could kill the agreement entirely, resulting in an embargo on Iran's crude. On Friday morning Trump tweeted that oil prices were "artificially Very High," blaming OPEC. Oil prices temporarily slumped in intraday trading but recovered as OPEC reported high levels of compliance with production cuts.



Natural gas prices were flat week-over-week, gaining less than half a cent to close at \$2.739. Markets saw little change early in the week but fell dramatically on Thursday when May futures retreated eight cents. The drop came despite the EIA's weekly storage report which showed a 36-Bcf decline, the largest seasonal withdrawal in a decade, and the losses were entirely reversed by Friday afternoon. Late-season heating demand paired with high LNG exports has extended the withdrawal season and brought storage 25.7% below the 5-year average levels, but record-high production continues to weigh on prices. Heating demand is expected to recede with forecasted warm weather, and rising shale output could quickly replenish inventories and erode the storage deficit.

The National Weather Service near-term forecast calls for cooler-than-normal temperatures for the eastern US and warmer-than-normal temperatures for the western half. 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 28 - May 2**

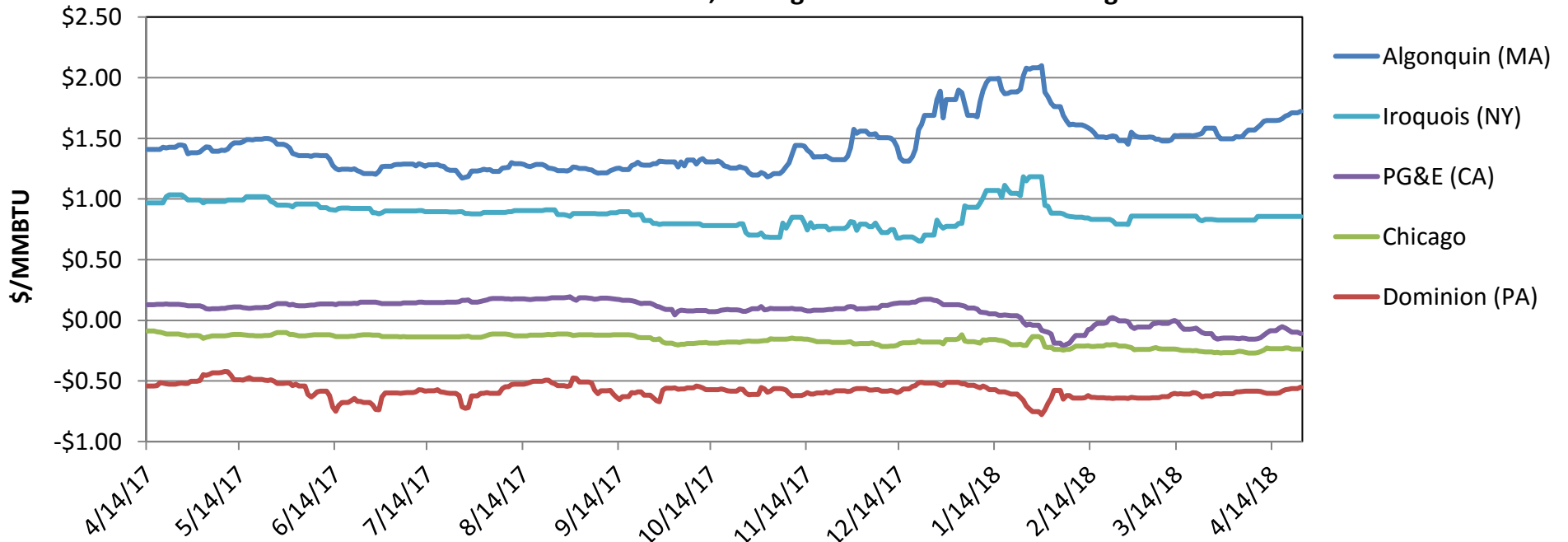
This map depicts forecasted temperatures for next week compared to the long term average. The blue/purple areas are forecast to be colder than normal, white areas are normal, and yellow/orange/red areas are warmer than normal. Abnormally hot weather in the summer and cold weather in the winter can increase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

Source: Chart from the National Weather Service Climate Prediction

**Natural Gas Basis Futures**

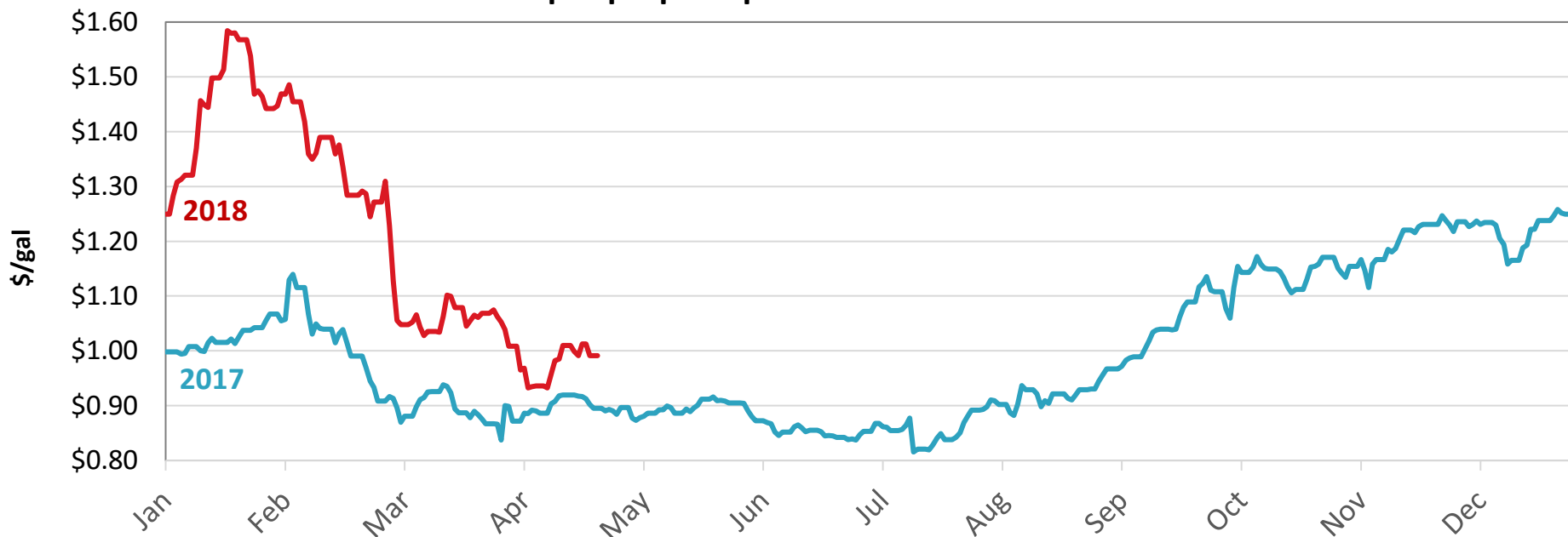
Basis is the price differential between Henry Hub, located in Erath, Louisiana, and the liquidity point closest to the end-user. Because Henry Hub is used as the delivery point for NYMEX natural gas futures contracts, the cost of using natural gas in any geographic region of the country can be approximated 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>								
		4/16/18	4/17/18	4/18/18	4/19/18	4/20/18	4/21/18	4/22/18	<b>Avg</b>	
Power (\$/MWh)	Maine RT On Pk	107	46	57	53	42			61	
	Maine RT Off Pk	69	55	29	29	55	21	10	38	
	NH RT On Pk	108	50	62	55	42			64	
	NH RT Off Pk	70	60	36	40	56	24	11	43	
	Vermont RT On Pk	105	50	61	54	42			62	
	Vermont RT Off Pk	69	59	36	39	55	24	11	42	
	Connecticut RT On Pk	105	50	61	55	42			62	
	Connecticut RT Off Pk	69	59	36	39	55	24	11	42	
	Rhode Island RT On Pk	106	50	62	56	43			63	
	Rhode Island RT Off Pk	70	60	37	40	57	24	11	43	
	NE Mass RT On Pk	108	51	63	57	43			65	
	NE Mass RT Off Pk	71	61	37	41	57	25	12	43	
	SE Mass RT On Pk	107	51	63	56	43			64	
	SE Mass RT Off Pk	71	61	37	41	57	25	12	43	
	WC Mass RT On Pk	107	50	63	56	43			64	
	WC Mass RT Off Pk	70	60	37	40	57	25	12	43	
			<b>New York ISO Real Time Power Pricing By Zone (\$/MWh)</b>							<b>Avg</b>
		Capital RT On Pk	65	72	58	54	36			57
		Capital RT Off Pk	85	30	36	33	54	22	16	39
		Central RT On Pk	63	70	56	51	35			55
		Central RT Off Pk	82	29	32	32	48	21	16	37
		Hudson RT On Pk	67	74	60	56	37			59
		Hudson RT Off Pk	87	31	36	34	54	23	17	40
		Mohawk RT On Pk	64	71	57	52	35			56
		Mohawk RT Off Pk	83	29	33	32	49	21	16	38
		Milwood RT On Pk	68	75	60	56	37			59
	Milwood RT Off Pk	87	31	36	34	54	23	17	40	
	NYC RT On Pk	70	82	60	54	38			61	
	NYC RT Off Pk	87	31	37	34	54	23	17	40	
		<b>PJM Real Time Power Pricing By Zone (\$/MWh)</b>							<b>Avg</b>	
	Eastern Hub On Pk	62	55	53	47	47			53	
	Eastern Hub Off Pk	37	35	42	30	30	30	30	33	
	Western Hub On Pk	49	52	53	49	49			50	
	Western Hub Off Pk	37	37	40	35	35	35	35	36	
	PPL Zone On Pk	48	51	50	44	44			47	
	PPL Zone Off Pk	36	33	40	29	29	29	29	32	
	AEP RT On Pk	45	49	50	45	45			47	
	AEP RT Off Pk	36	35	40	32	32	32	32	34	
	Chicago RT On Pk	36	45	44	44	44			43	
	Chicago RT Off Pk	30	20	22	32	32	32	32	28	
	New Jersey Hub On Pk	48	50	50	51	51			50	
	New Jersey Hub Off Pk	36	34	40	36	36	36	36	37	
		<b>California ISO Real Time Power Pricing (\$/MWh)</b>							<b>Avg</b>	
	SoCal Edison RT On Pk	20	13	18	15	6			14	
	SoCal Edison RT Off Pk	27	23	24	19	15	20	19	21	
		4/16/18	4/17/18	4/18/18	4/19/18	4/20/18	4/21/18	4/22/18	<b>Avg</b>	
Natural Gas \$/MMBtu	Henry Hub, LA	2.88	2.85	2.87	2.79	2.78			2.83	
	TZ6, MA	7.16	6.28	6.03	3.90	3.07			5.29	
	Algonquin, MA	6.66	6.75	8.13	5.05	3.04			5.93	
	Chicago Hub, IL	3.61	3.74	3.23	2.70	2.57			3.17	
	New York, NY	2.89	2.67	3.10	2.66	2.51			2.77	
	Dominion South, PA	2.50	2.56	2.65	2.55	2.45			2.54	
	Opal Hub, WY	2.29	2.21	2.01	1.89	1.81			2.04	
	PG&E Citygate, CA		2.85	2.90	2.68	2.63			2.77	