



# Competitive Energy Services Weekly Market Summary

October 22 - 26, 2018

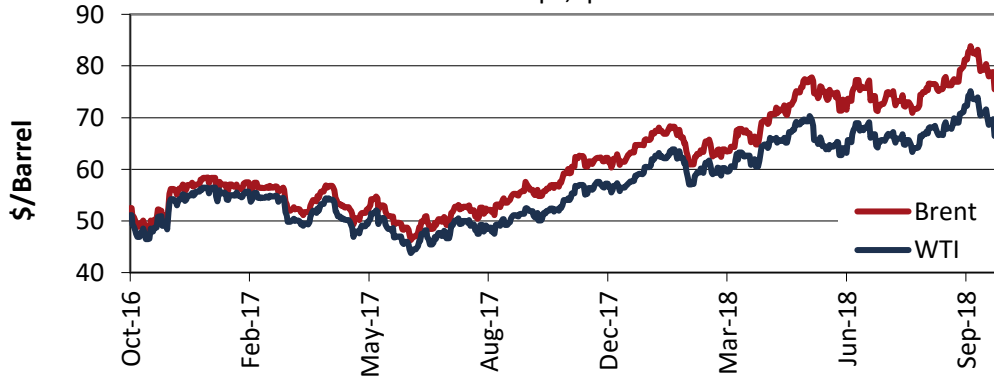
## Synopsis of Last Week's Energy Markets

Crude oil contracts lost about 2% last week. Saudi Arabia and Russia have ramped up production in advance of the lost production from Iran, and the October drop in the equities market is pulling down crude prices also. Natural gas prices fell by 2% last week after five straight weekly gains. Weather forecasts turned mild, signaling easing demand going into November.

## Oil Market

### Crude Oil - WTI & Brent

12-Month Forward Strips, past 24 months

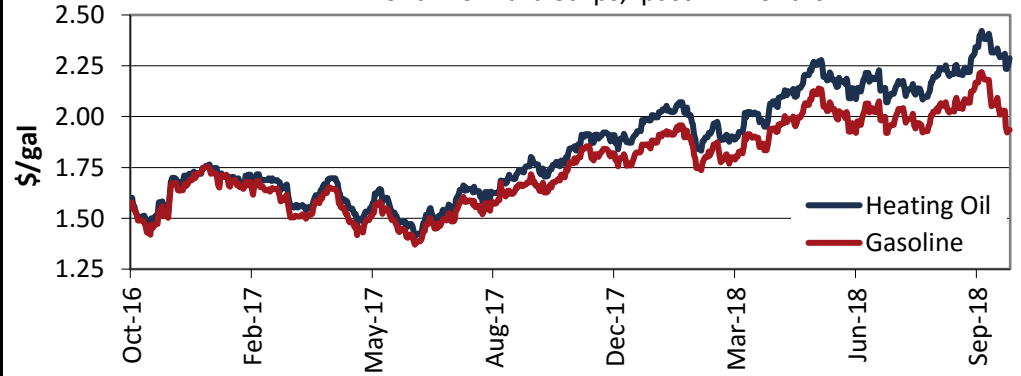


NYMEX WTI	last close	previous week	24-month high	24-month low
12 month strip, \$/bbl	\$67.81	\$69.49	\$75.39	\$43.82
date	10/26/18	10/19/18	10/3/18	6/21/17
change from last close		-2.4%	-10.1%	55%

US STORAGE (in million bbls)		crude oil
domestic stocks as of	10/19/18	423
gain / loss from previous week		6.3
comparison to historic range		within

### Heating Oil & Gasoline

NYMEX 12-Month Forward Strips, past 24 months

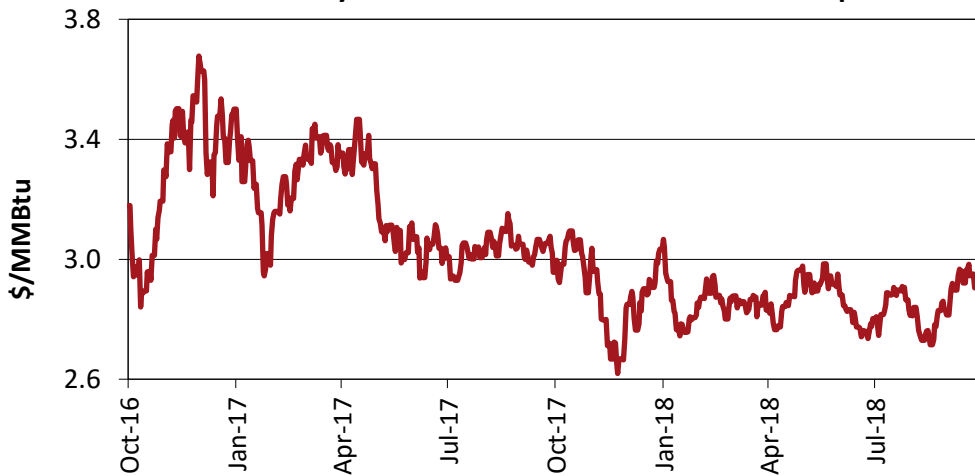


NYMEX Heating Oil	last close	previous week	24-month high	24-month low
12 month strip, \$/gal	\$2.28	\$2.30	\$2.43	\$1.41
date	10/26/18	10/19/18	10/3/18	6/21/17
change from last close		-0.6%	-6%	62%

US STORAGE (in million bbls)		distillate	propane	gasoline
domestic stocks as of	10/19/18	130	82	229
gain / loss from previous week		-2.3	-0.3	-4.8
comparison to historic range		within	within	above

## Natural Gas Market

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



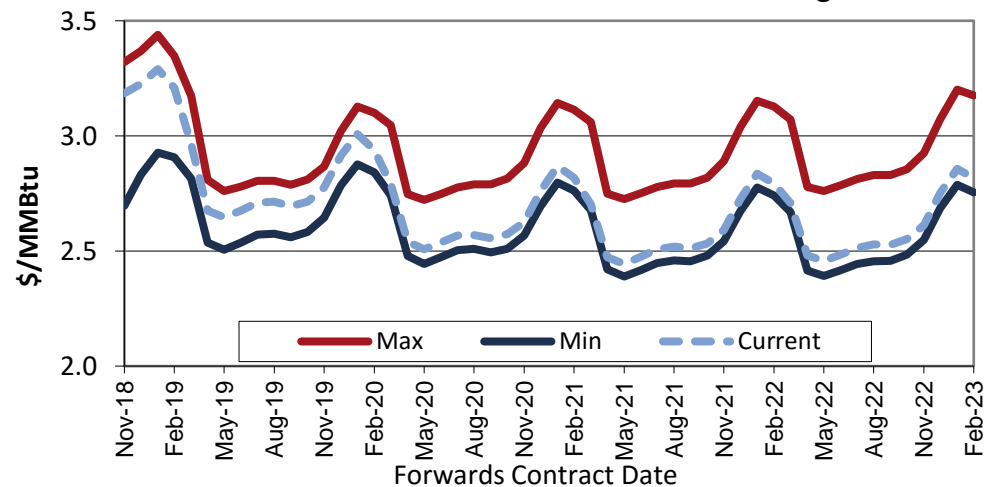
NYMEX PRICING	last close	previous week	24-month high	24-month low
12 mo. strip, \$/MMBtu	\$2.89	\$2.95	\$3.70	\$2.61
date	10/26/18	10/19/18	12/28/16	12/21/17
change from last close		-2.0%	-22%	11%

#### CES SCORE

12 month	39
18 month	46
24 month	54
36 month	64

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



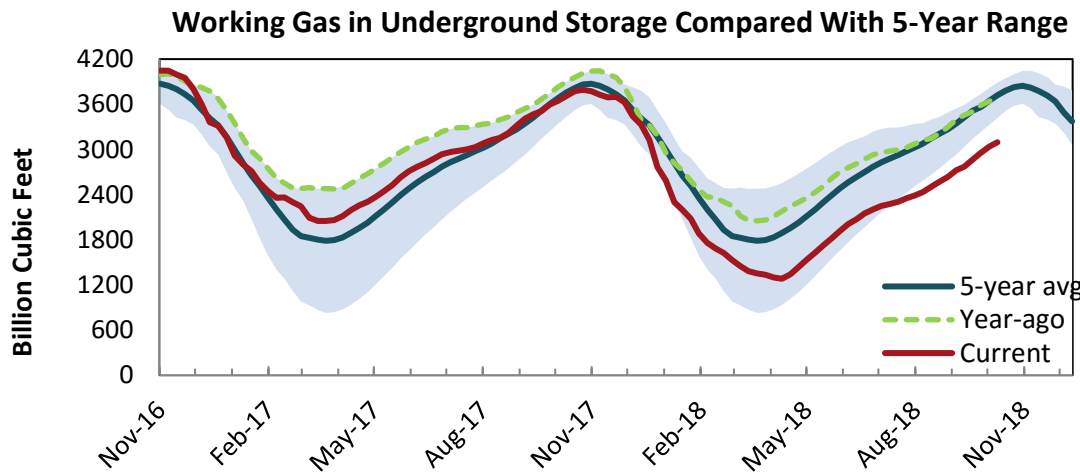
FORWARDS	12 month	18 month	24 month	36 month
strip (\$/MMBtu)	\$2.89	\$2.87	\$2.79	\$2.73

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	10/12/18	3,037	
Most Recent Stock Level	10/19/18	3,095	
Year-ago Stock Level		3,701	-16.4%
5-Year Average Stock Level		3,719	-16.8%
Most Recent Net Change	10/19/18	58	
Year-Ago Net Change		63	-8%
5-Year Average Net Change		77	-25%

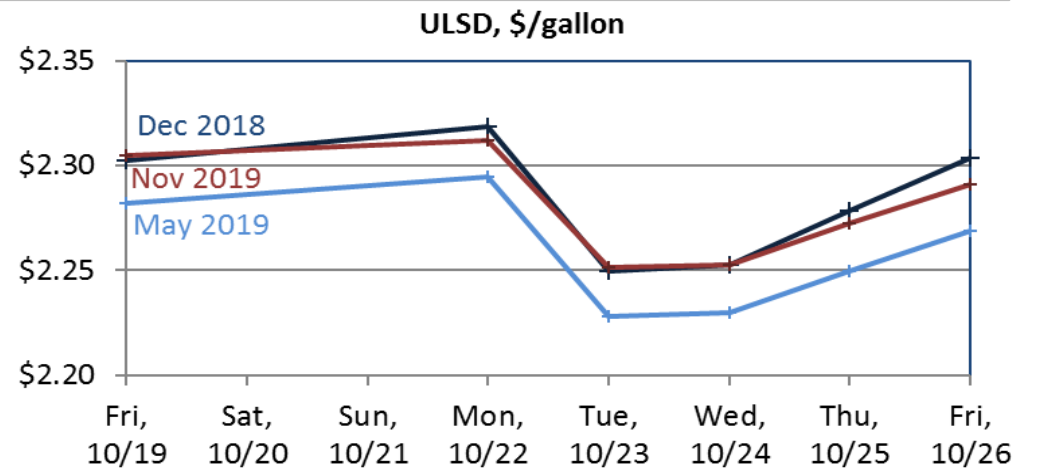
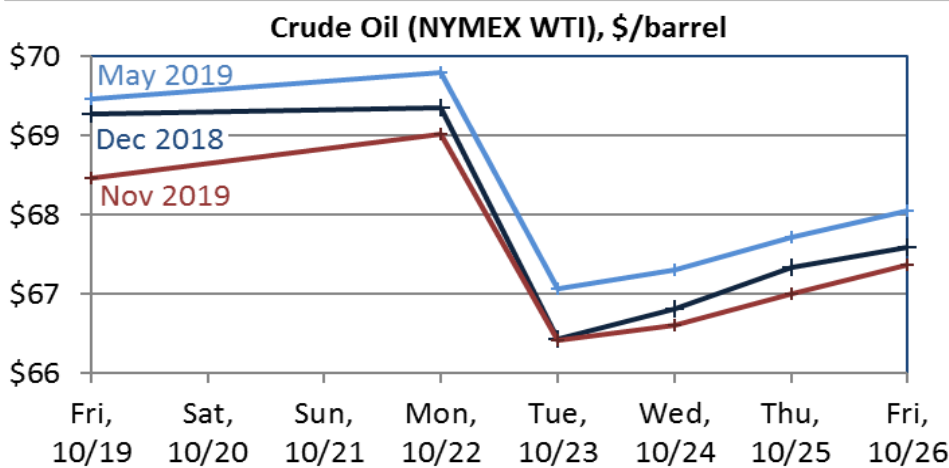
Data Source: EIA <http://tonto.eia.doe.gov/oog/info/ngs/ngs.html>

### Market Assessment

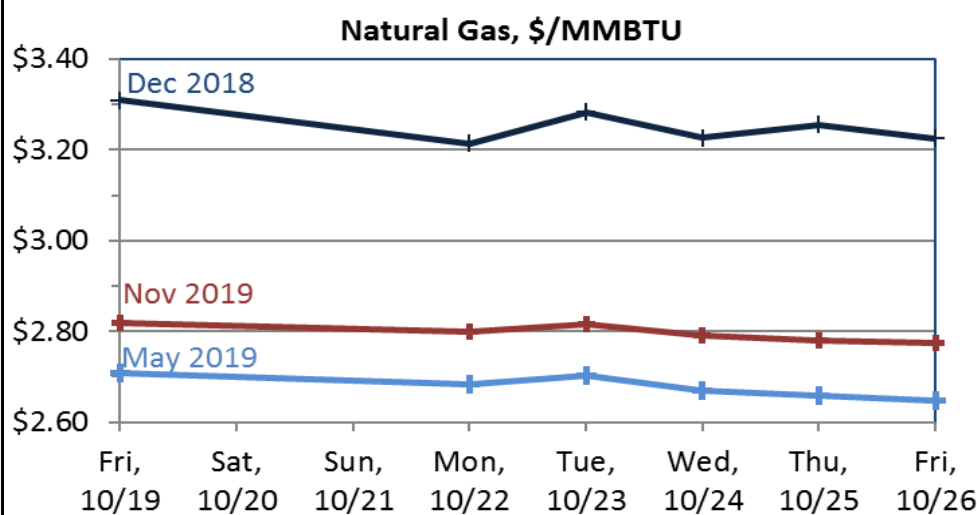
#### NYMEX Futures Summary Statistics

	Last Expired Contract	Exp. Date	Price	Prompt Month	Price	Most Expensive Next 12 Months	Price	Least Expensive Next 12 Months	Price	Next Winter Avg (Nov19-Mar20)
Crude oil	Nov-18	10/22/18	\$69.17	Dec-18	\$67.59	May-19	\$68.05	Oct-19	\$67.54	\$66.89
Heating oil	Oct-18	9/28/18	\$2.35	Nov-18	\$2.30	Jan-19	\$2.30	Jun-19	\$2.26	\$2.29
Natural gas	Oct-18	9/26/18	\$3.02	Nov-18	\$3.19	Jan-19	\$3.29	May-19	\$2.65	\$2.88

#### NYMEX End-of-Day Settlements



Crude prices had risen from mid-August through September ahead of the November 4 deadline of the Iran sanctions; however, prices have plummeted 10% since October 1. Crude oil tumbled on Tuesday after Saudi Arabia reported that it is producing 10.7M barrels per day (bpd) in October and plans to increase to 11M bpd for November. Furthermore, Russia reported that September production was at 11.36M bpd, a post-Soviet era record high. US production climbed to 11M bpd in mid-July and has held steady at that level since. All-in-all, the world's top 3 oil producers have ramped up production while a trade war between the US and China has dampened forecasts for crude oil demand. More recently, a rout in global equities since early October has dragged down commodity prices with it.

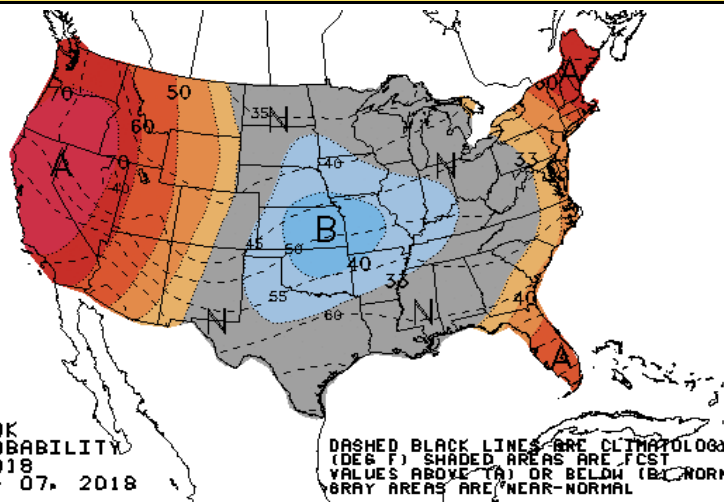


Natural gas futures traded down 7 cents last week as weather forecasts showed temperatures easing after the eastern cold snap. Mild weather could cause demand to falter, and record-high output continues to weigh on markets. This would do little to change the storage balance: inventories remain well below the 5-year range and 17% behind typical levels, according to the EIA. A midmonth pipeline explosion in British Columbia interrupted flows to Pacific demand centers; near-full operations are expected to resume by mid-November, but constraints could leave the West Coast dependent on inland markets for supply. November futures closed on Friday at \$3.18/MMBtu and continued to retreat on Monday morning ahead of expiry.

The National Weather Service near-term forecast calls for above-average temperatures along the Eastern Seaboard and also west of the Plains. The natural gas market scores on page 1 improved from the previous week. Clients with electricity or natural gas contracts expiring in 2018 and 2019 should consult with a CES representative for customized guidance.

**National Weather Service Forecast**

**6 - 10 Day Forecast for Nov 3 - 7**



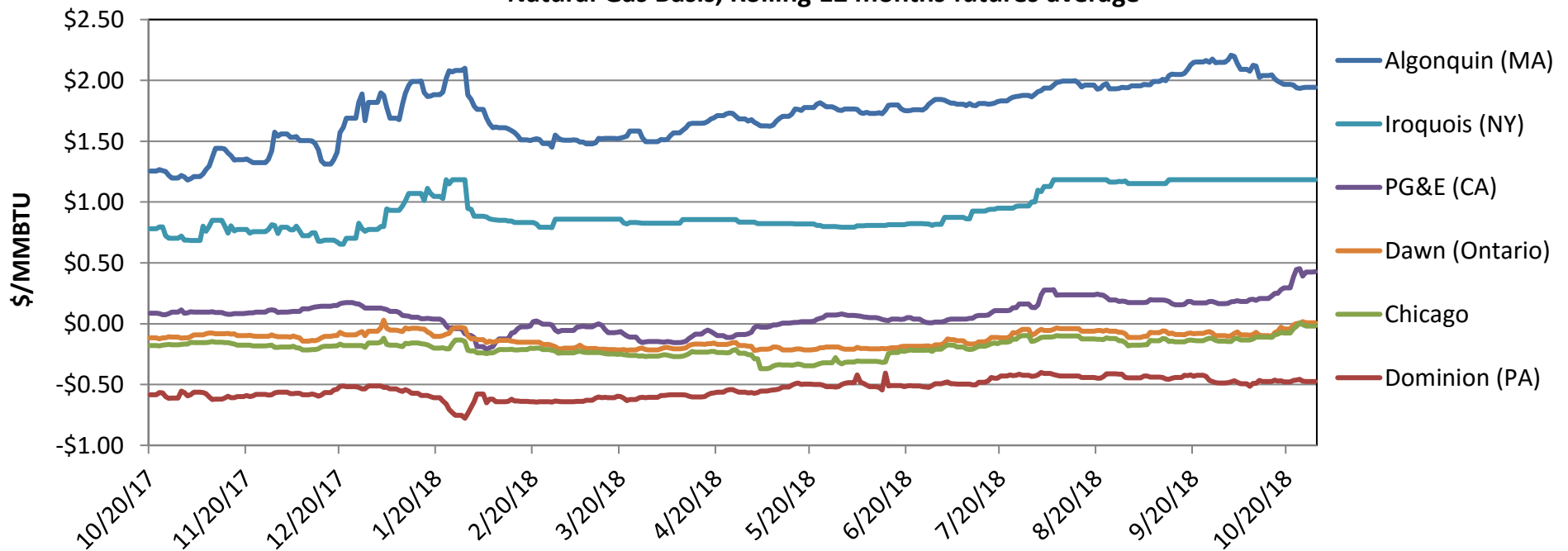
This map depicts forecasted temperatures for next week compared to the long term average. The blue/purple areas are forecast to be colder than normal, white areas are normal, and yellow/orange/red areas are warmer than normal. Abnormally hot weather in the summer and cold weather in the winter can increase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

Source: Chart from the National Weather Service Climate Prediction

**Natural Gas Basis Futures**

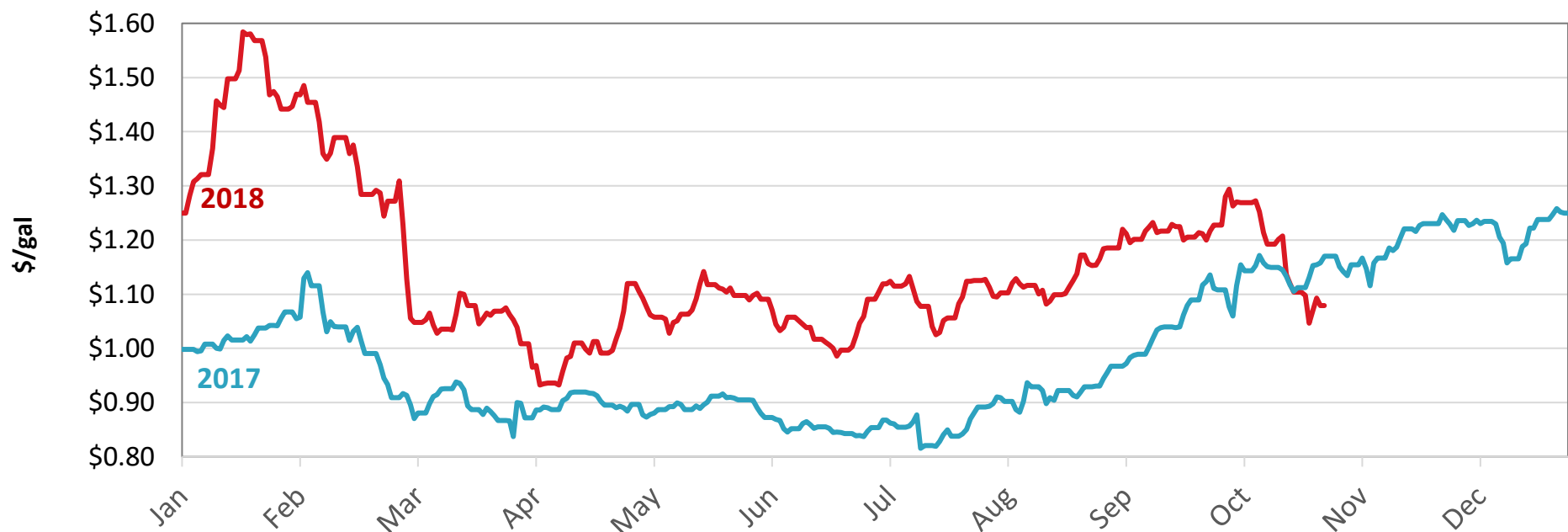
Basis is the price differential between Henry Hub, located in Erath, Louisiana, and the liquidity point closest to the end-user. Because Henry Hub is used as the delivery point for NYMEX natural gas futures contracts, the cost of using natural gas in any geographic region of the country can be approximated 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>	
		10/22/18	10/23/18	10/24/18	10/25/18	10/26/18	10/27/18	10/28/18		
<b>Power (\$/MWh)</b>	Maine RT On Pk	78	48	39	37	32			47	
	Maine RT Off Pk	37	67	36	29	25	41	51	41	
	NH RT On Pk	84	57	40	38	34			50	
	NH RT Off Pk	39	68	39	31	28	41	54	43	
	Vermont RT On Pk	82	56	40	37	33			50	
	Vermont RT Off Pk	38	66	39	30	28	40	53	42	
	Connecticut RT On Pk	82	55	39	37	33			49	
	Connecticut RT Off Pk	38	66	38	30	28	40	53	42	
	Rhode Island RT On Pk	82	55	39	37	33			49	
	Rhode Island RT Off Pk	39	67	39	30	28	41	53	42	
	NE Mass RT On Pk	84	57	40	38	33			51	
	NE Mass RT Off Pk	39	68	39	31	28	42	54	43	
	SE Mass RT On Pk	83	56	40	38	33			50	
	SE Mass RT Off Pk	39	68	39	31	28	41	54	43	
	WC Mass RT On Pk	83	56	40	38	33			50	
	WC Mass RT Off Pk	39	67	39	31	28	41	54	43	
		<b>New York ISO Real Time Power Pricing By Zone (\$/MWh)</b>							<b>Avg</b>	
<b>Power (\$/MWh)</b>	Capital RT On Pk	55	48	34	36	32			41	
	Capital RT Off Pk	140	48	36	28	26	39	37	51	
	Central RT On Pk	54	47	33	35	31			40	
	Central RT Off Pk	135	33	21	27	25	36	36	45	
	Hudson RT On Pk	55	48	35	36	33			41	
	Hudson RT Off Pk	139	44	31	28	26	39	37	49	
	Mohawk RT On Pk	54	47	34	35	32			40	
	Mohawk RT Off Pk	135	34	21	27	25	35	37	45	
	Milwood RT On Pk	55	48	35	36	33			41	
	Milwood RT Off Pk	139	44	31	28	26	39	37	49	
	NYC RT On Pk	55	49	35	37	37			43	
	NYC RT Off Pk	139	44	31	28	26	40	38	50	
			<b>PJM Real Time Power Pricing By Zone (\$/MWh)</b>							<b>Avg</b>
	<b>Power (\$/MWh)</b>	Eastern Hub On Pk	63	47	44	57	57			54
		Eastern Hub Off Pk	37	39	30	37	37	37	37	36
		Western Hub On Pk	58	48	34	45	45			46
Western Hub Off Pk		33	40	39	29	29	29	29	32	
PPL Zone On Pk		54	38	33	44	44			43	
PPL Zone Off Pk		32	37	26	28	28	28	28	29	
AEP RT On Pk		49	32	33	44	44			40	
AEP RT Off Pk		30	34	27	28	28	28	28	29	
Chicago RT On Pk		43	28	32	42	42			37	
Chicago RT Off Pk		13	25	26	27	27	27	27	24	
New Jersey Hub On Pk		55	39	34	45	45			43	
New Jersey Hub Off Pk		33	37	27	28	28	28	28	30	
		<b>California ISO Real Time Power Pricing (\$/MWh)</b>							<b>Avg</b>	
<b>Power (\$/MWh)</b>	SoCal Edison RT On Pk	27	36	30	31	25			30	
	SoCal Edison RT Off Pk	33	31	35	39	38	33	23	33	
		10/22/18	10/23/18	10/24/18	10/25/18	10/26/18	10/27/18	10/28/18	<b>Avg</b>	
<b>Natural Gas \$/MMBtu</b>	Henry Hub, LA	3.24	3.32	3.43	3.38	3.27			3.33	
	TZ6, MA	3.85	6.41	4.18	3.75	3.42			4.32	
	Algonquin, MA	3.33	3.76	4.23	3.44	3.17			3.59	
	Chicago Hub, IL	3.40	3.49	3.52	3.39	3.25			3.41	
	New York, NY	3.20	3.29	3.41	3.22	3.05			3.23	
	Dominion South, PA	3.06	3.10	3.17	2.99	2.87			3.04	
	Opal Hub, WY	3.24	3.44	3.45	3.15	3.06			3.27	
	PG&E Citygate, CA	4.07	4.32	4.33	4.01	4.13			4.17	