



# Competitive Energy Services Weekly Market Summary

January 7 - 11, 2019

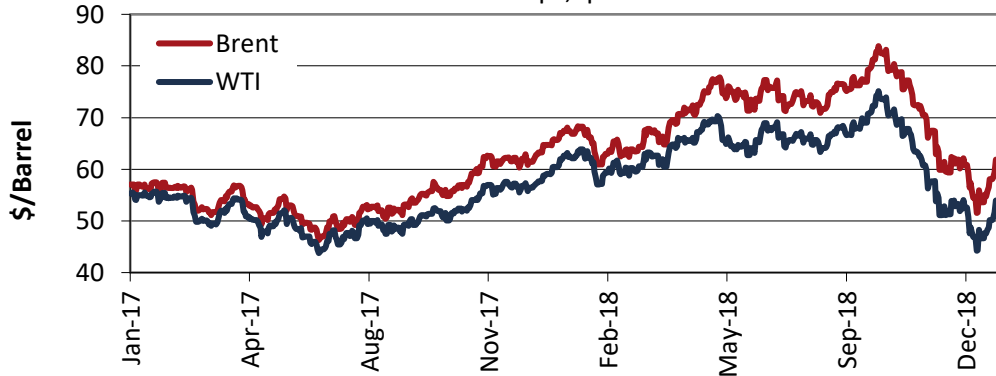
## Synopsis of Last Week's Energy Markets

Crude oil prices rose for the second straight week. Saudi Arabia is signaling its willingness to take the lead on cutting production, while Iran's exports are finally being impacted by the sanctions. Natural gas prices rose 1% last week as forecasts turned colder. This raised concern that heating demand could widen the inventory deficit, which now rests at 15% compared to the 5-year average.

## Oil Market

### Crude Oil - WTI & Brent

12-Month Forward Strips, past 24 months

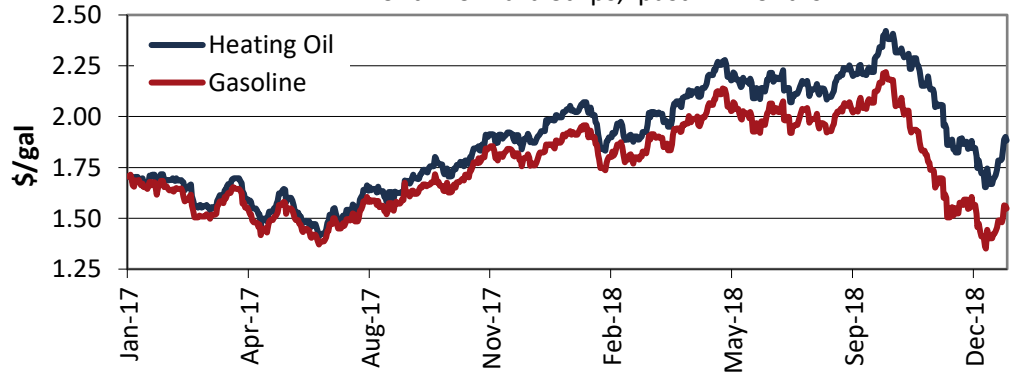


NYMEX WTI	last close	previous week	24-month high	24-month low
12 month strip, \$/bbl	\$53.28	\$50.19	\$75.39	\$43.82
date	1/11/19	1/4/19	10/3/18	6/21/17
change from last close		6.2%	-29.3%	22%

US STORAGE (in million bbls)		crude oil
domestic stocks as of	1/4/19	440
gain / loss from previous week		-1.7
comparison to historic range		within

### Heating Oil & Gasoline

NYMEX 12-Month Forward Strips, past 24 months

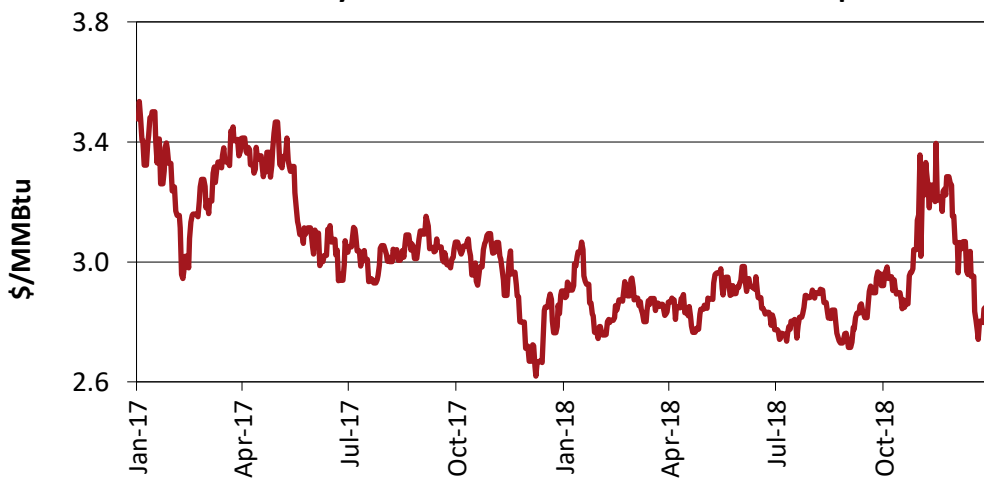


NYMEX Heating Oil	last close	previous week	24-month high	24-month low
12 month strip, \$/gal	\$1.88	\$1.78	\$2.43	\$1.41
date	1/11/19	1/4/19	10/3/18	6/21/17
change from last close		5.3%	-23%	33%

US STORAGE (in million bbls)		distillate	propane	gasoline
domestic stocks as of	1/4/19	140	69	248
gain / loss from previous week		10.6	-1.9	8.1
comparison to historic range		within	within	above

## Natural Gas Market

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

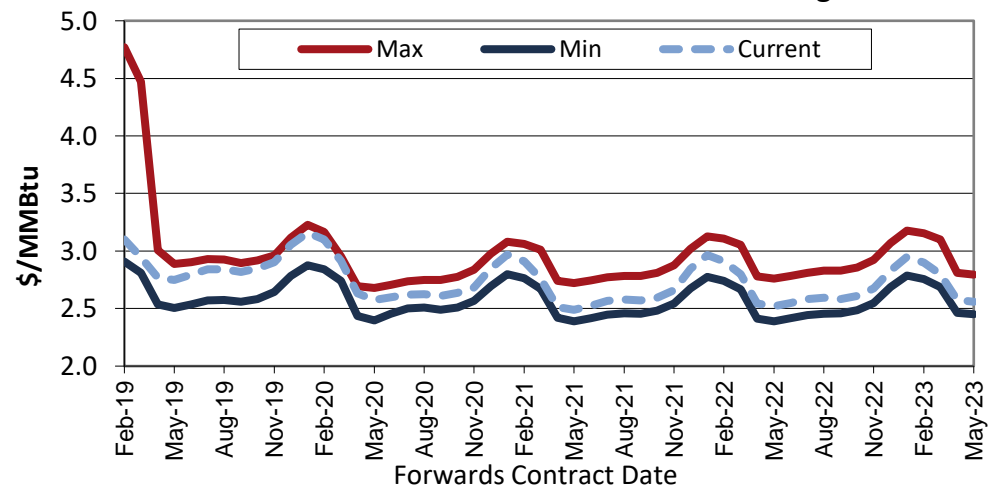


NYMEX PRICING	last close	previous week	24-month high	24-month low
12 mo. strip, \$/MMBtu	\$2.90	\$2.80	\$3.50	\$2.61
date	1/11/19	1/4/19	1/17/17	12/21/17
change from last close		3.6%	-17%	11%

CES SCORE	
12 month	37
18 month	36
24 month	39
36 month	47

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



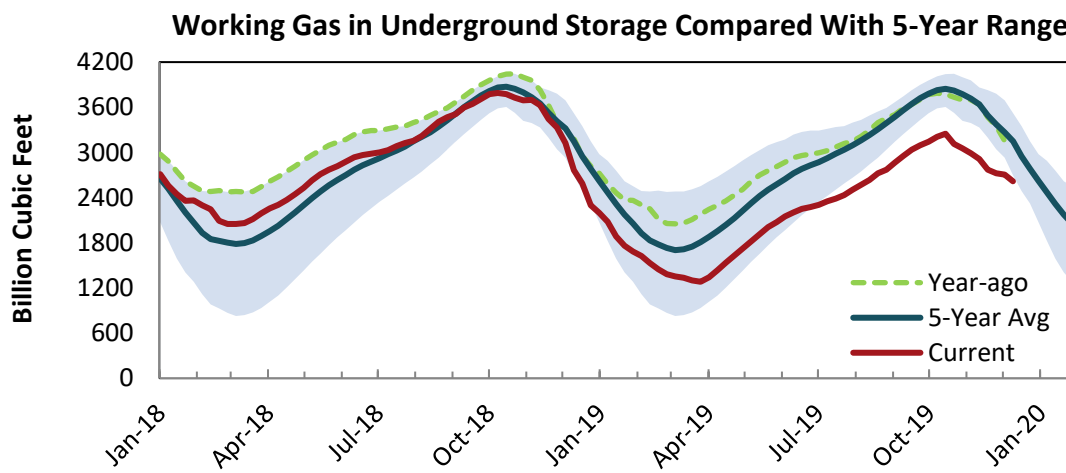
FORWARDS	12 month	18 month	24 month	36 month
strip (\$/MMBtu)	\$2.90	\$2.85	\$2.82	\$2.77

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	12/28/18	2,705		
Most Recent Stock Level	1/4/19	2,614		
Year-ago Stock Level		3,108	-15.9%	
5-Year Average Stock Level		3,149	-17.0%	
Most Recent Net Change	1/4/19	-91		
Year-Ago Net Change		-136		
5-Year Average Net Change		-169		

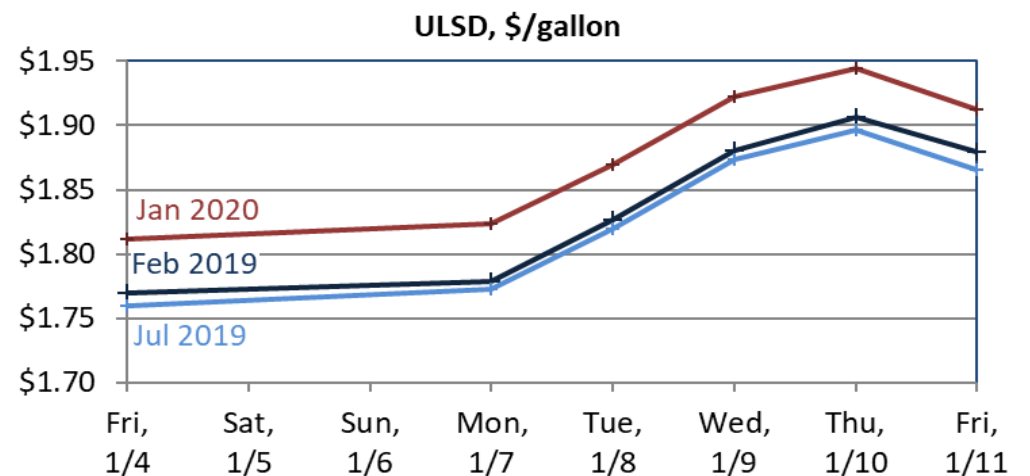
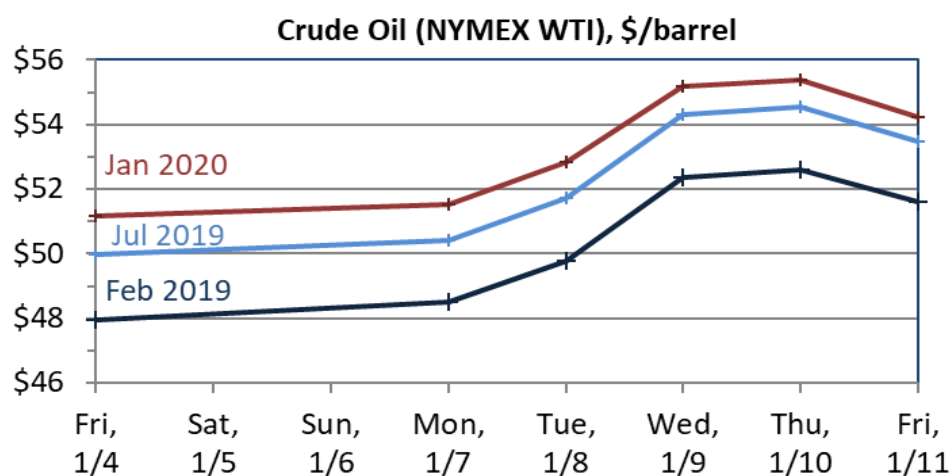
Data Source: EIA <http://tonto.eia.doe.gov/oog/info/ngs/ngs.html>

### Market Assessment

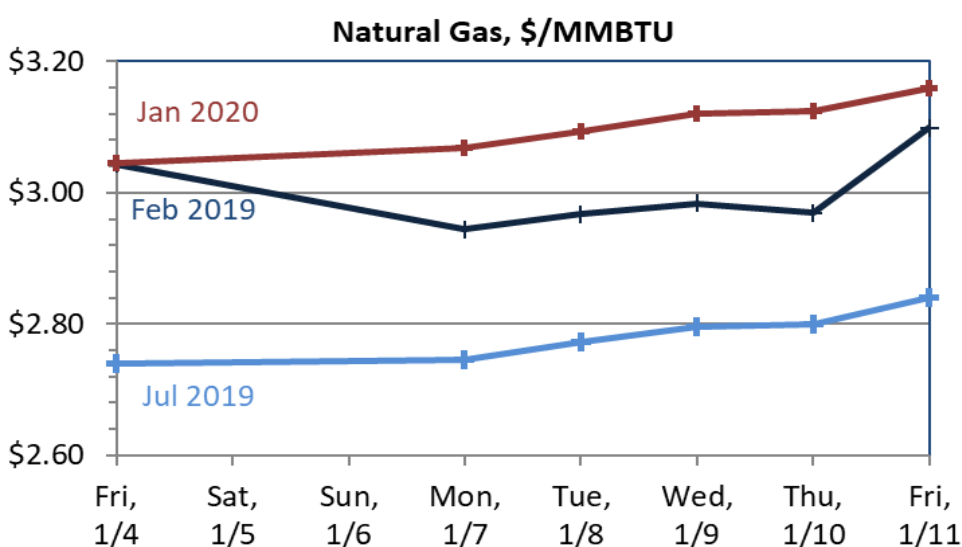
#### NYMEX Futures Summary Statistics

	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	Jan-19	12/19/18	\$47.20	Feb-19	\$51.59	Jan-20	\$54.24	Feb-19	\$51.59	\$54.22
Heating oil	Jan-19	12/31/18	\$1.68	Feb-19	\$1.88	Jan-20	\$1.91	May-19	\$1.85	\$1.91
Natural gas	Jan-19	12/27/18	\$3.64	Feb-19	\$3.10	Jan-20	\$3.16	May-19	\$2.75	\$3.02

#### NYMEX End-of-Day Settlements



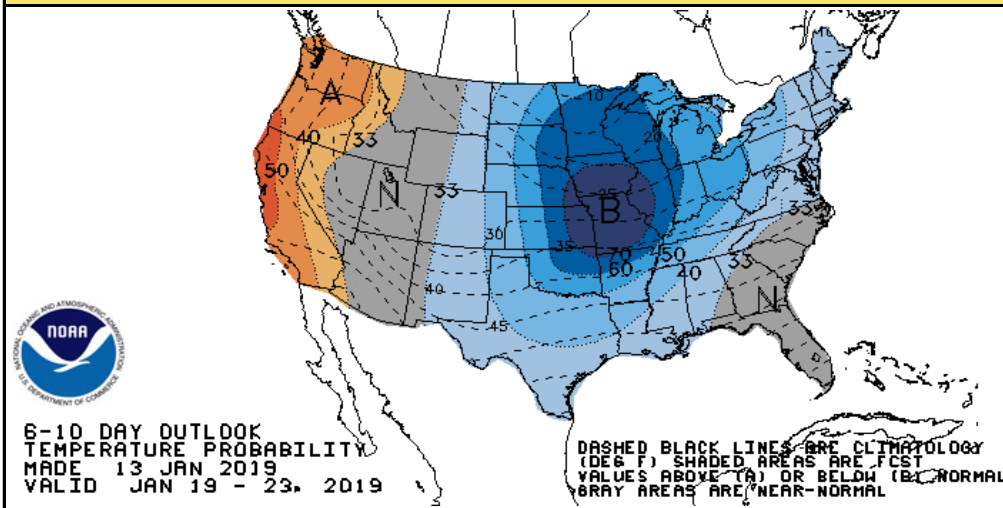
Crude oil jumped last week, shooting back into the low \$50's range. Prices for near-term NYMEX crude contracts had been trading below \$50 since December 18th but then jumped on Wednesday as Saudi Arabia's Energy Minister reiterated their commitment to "rebalancing" the oil market after the steep drop in prices in the 4th quarter last year. Furthermore, the impact of economic sanctions against Iran are finally being seen in export figures. Crude oil prices gained every day between December 31 and last Thursday, the longest streak of gains in nine years. Friday saw the first daily decline of 2019. Prices pulled back slightly, following equities, despite a second consecutive drop in the number of active US oil rigs.



Natural gas saw a modest gain of 1% last week, breaking the 5-week loss streak that reversed the market's early-winter gains. Futures had slipped amid warm weather and slowing inventory withdrawals that allowed the inventory deficit to shrink from over 700 Bcf to just over 500 Bcf, or 15%, compared to the 5-year average. The slide halted last week, and markets rebounded on Monday after a cold weekend for the northeast and forecasts for cooler weather that could boost heating demand. This comes alongside rising LNG exports and the possibility of production freeze-outs. February contracts closed at \$3.01/MMBtu on Friday afternoon but to over \$3.50/MMBtu in trading on Monday.

The National Weather Service near-term forecast calls for below-normal temperatures for most of the US except the West Coast, which is expected to see above-normal temperatures. The natural gas market scores on page 1 declined from the previous week. Clients with electricity or natural gas contracts expiring in 2019 should consult with a CES representative for customized guidance.

**National Weather Service Forecast**



**6 - 10 Day Forecast for Jan 19 - 23**

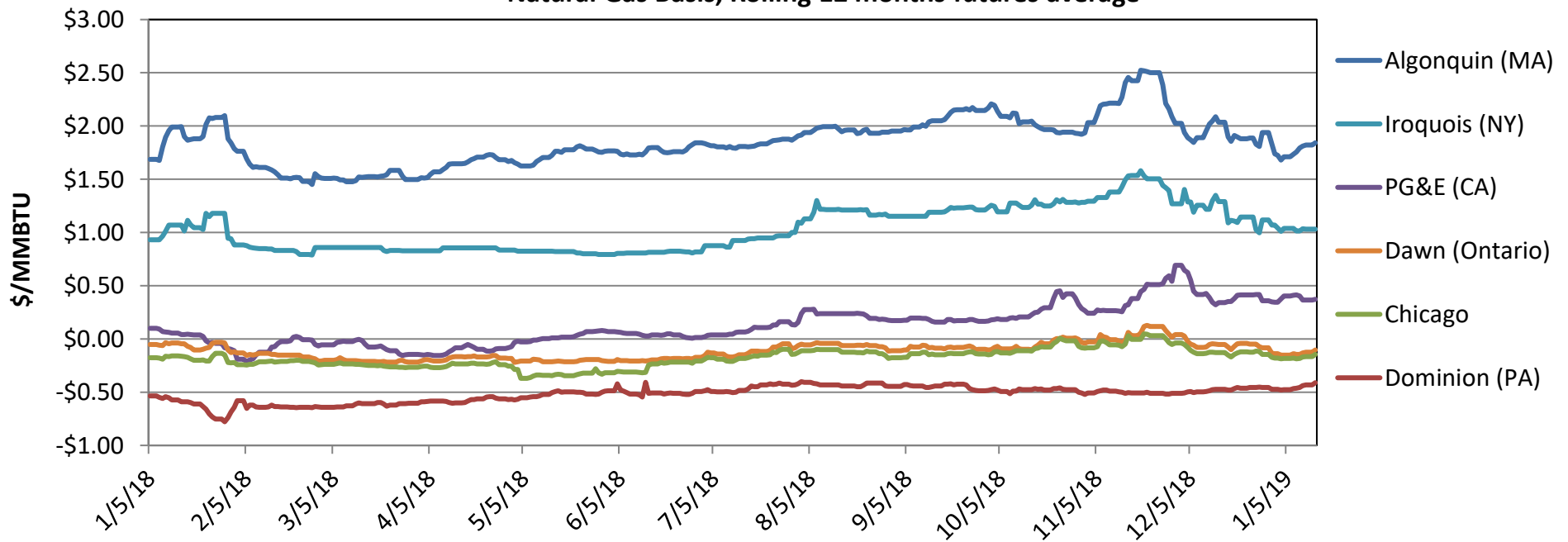
This map depicts forecasted temperatures for next week compared to the long term average. The blue/purple areas are forecast to be colder than normal, white areas are normal, and yellow/orange/red areas are warmer than normal. Abnormally hot weather in the summer and cold weather in the winter can increase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

Source: Chart from the National Weather Service Climate Prediction

**Natural Gas Basis Futures**

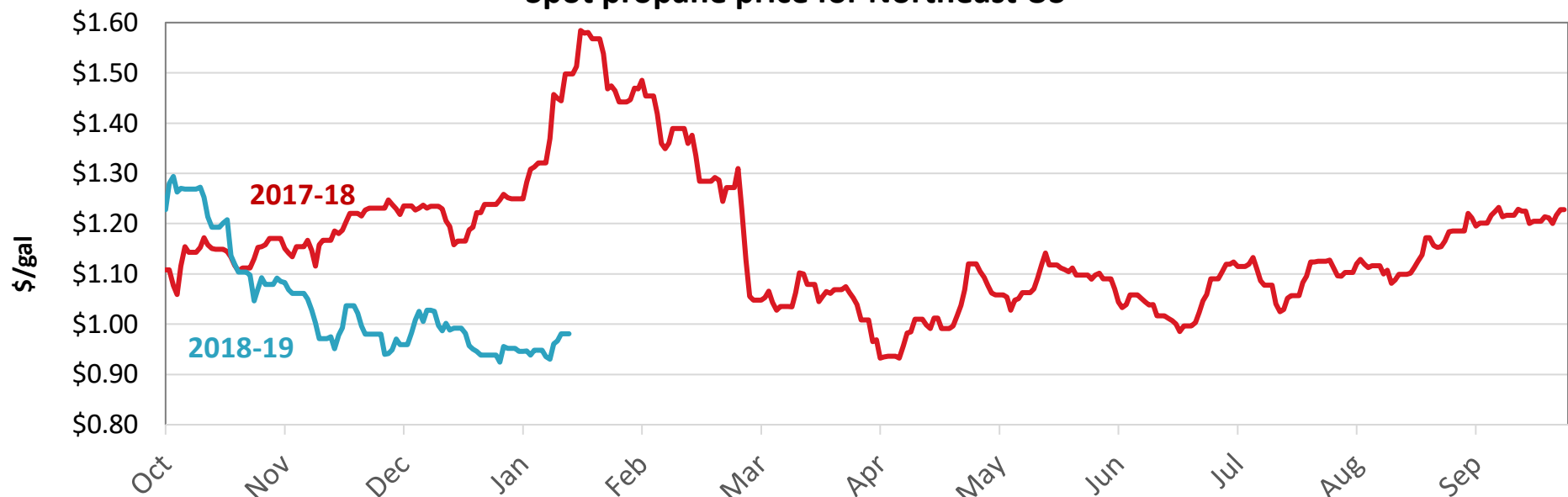
Basis is the price differential between Henry Hub, located in Erath, Louisiana, and the liquidity point closest to the end-user. Because Henry Hub is used as the delivery point for NYMEX natural gas futures contracts, the cost of using natural gas in any geographic region of the country can be approximated 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>	
		1/7/19	1/8/19	1/9/19	1/10/19	1/11/19	1/12/19	1/13/19		
Power (\$/MWh)	Maine RT On Pk	24	35	29	47	48			37	
	Maine RT Off Pk	15	23	19	21	54	55	53	34	
	NH RT On Pk	25	35	29	48	49			37	
	NH RT Off Pk	17	23	20	21	55	56	53	35	
	Vermont RT On Pk	25	34	28	47	48			36	
	Vermont RT Off Pk	16	22	20	21	54	55	52	34	
	Connecticut RT On Pk	25	34	28	46	48			36	
	Connecticut RT Off Pk	17	23	20	21	54	54	51	34	
	Rhode Island RT On Pk	25	35	29	48	49			37	
	Rhode Island RT Off Pk	17	23	20	22	56	56	52	35	
	NE Mass RT On Pk	25	35	29	48	50			37	
	NE Mass RT Off Pk	17	23	20	22	55	56	53	35	
	SE Mass RT On Pk	25	35	29	48	49			37	
	SE Mass RT Off Pk	17	23	20	22	55	56	53	35	
	WC Mass RT On Pk	25	35	29	47	49			37	
	WC Mass RT Off Pk	17	23	20	22	55	55	52	35	
		<b>New York ISO Real Time Power Pricing By Zone (\$/MWh)</b>							<b>Avg</b>	
Power (\$/MWh)	Capital RT On Pk	28	30	33	44	46			36	
	Capital RT Off Pk	21	22	21	31	55	38	32	31	
	Central RT On Pk	26	25	28	26	35			28	
	Central RT Off Pk	20	13	16	11	12	31	29	19	
	Hudson RT On Pk	28	29	33	40	44			35	
	Hudson RT Off Pk	21	19	20	26	42	37	32	28	
	Mohawk RT On Pk	27	25	28	27	36			28	
	Mohawk RT Off Pk	20	13	17	12	13	33	31	20	
	Milwood RT On Pk	28	29	33	40	44			35	
	Milwood RT Off Pk	21	19	20	26	42	37	32	28	
	NYC RT On Pk	32	30	33	41	45			36	
	NYC RT Off Pk	22	19	20	26	42	37	32	28	
			<b>PJM Real Time Power Pricing By Zone (\$/MWh)</b>							<b>Avg</b>
	Power (\$/MWh)	Eastern Hub On Pk	25	22	30	40	40			32
		Eastern Hub Off Pk	20	22	20	26	26	26	26	24
		Western Hub On Pk	25	24	31	32	32			29
Western Hub Off Pk		22	22	19	24	24	24	24	23	
PPL Zone On Pk		25	21	28	32	32			28	
PPL Zone Off Pk		20	22	19	24	24	24	24	22	
AEP RT On Pk		25	21	30	34	34			29	
AEP RT Off Pk		21	21	19	26	26	26	26	23	
Chicago RT On Pk		22	18	28	33	33			27	
Chicago RT Off Pk		11	17	16	24	24	24	24	20	
New Jersey Hub On Pk		25	24	30	46	46			34	
New Jersey Hub Off Pk		20	22	20	27	27	27	27	24	
		<b>California ISO Real Time Power Pricing (\$/MWh)</b>							<b>Avg</b>	
Natural Gas \$/MMBtu		SoCal Edison RT On Pk	41	32	27	27	33			32
		SoCal Edison RT Off Pk	33	36	32	27	34	36	35	33
				1/7/19	1/8/19	1/9/19	1/10/19	1/11/19	1/12/19	1/13/19
	Henry Hub, LA	2.74	2.89	2.92	2.95	2.89			2.88	
	TZ6, MA	2.88	3.35	5.26	5.75	5.31			4.51	
	Algonquin, MA		3.60	6.25	7.71				5.85	
	Chicago Hub, IL	2.54	2.72	2.70	2.71	2.71			2.68	
	New York, NY	2.56	2.96	4.89	4.95	3.57			3.79	
	Dominion South, PA	2.44	2.68	2.65	2.70				2.62	
	Opal Hub, WY	3.09	3.12	2.95	2.90	2.97			3.01	
PG&E Citygate, CA	3.42	3.59	3.43	3.38	3.37			3.44		