



# Competitive Energy Services Weekly Market Summary

January 21 - 25, 2019

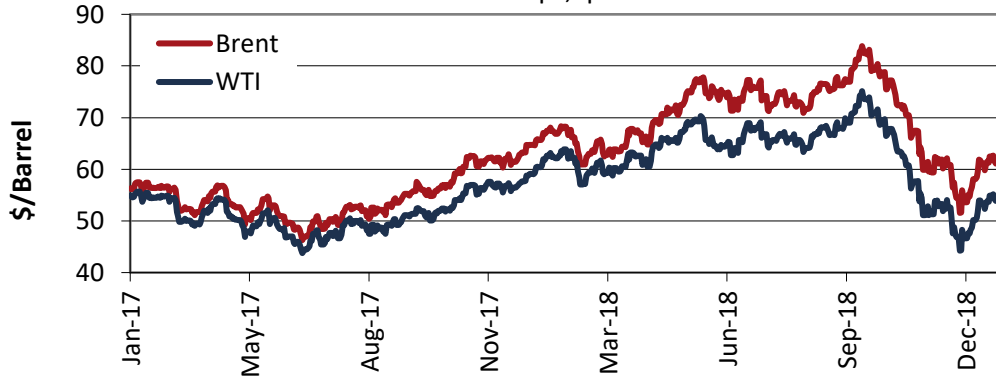
## Synopsis of Last Week's Energy Markets

Crude oil futures were steady last week. Bearish projections for global economic growth continue to weigh on prices, but political instability in Venezuela could lead to US sanctions against its oil exports. Natural gas futures declined 9% last week amid uncertainty over just how severe the coming cold snap could be. Inventories are relatively low, but near-record production continues to weigh on markets.

## Oil Market

### Crude Oil - WTI & Brent

12-Month Forward Strips, past 24 months

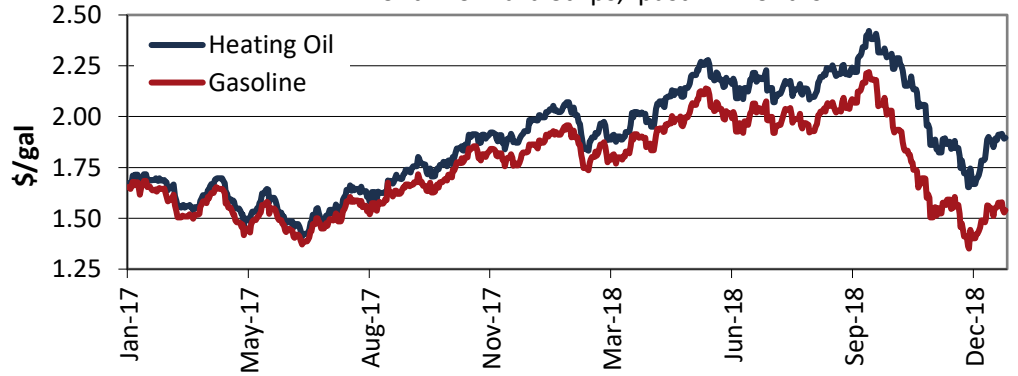


NYMEX WTI	last close	previous week	24-month high	24-month low
12 month strip, \$/bbl	\$54.87	\$54.89	\$75.39	\$43.82
date	1/25/19	1/18/19	10/3/18	6/21/17
change from last close		0.0%	-27.2%	25%

US STORAGE (in million bbls)		crude oil
domestic stocks as of	1/18/19	445
gain / loss from previous week		8.0
comparison to historic range		within

### Heating Oil & Gasoline

NYMEX 12-Month Forward Strips, past 24 months

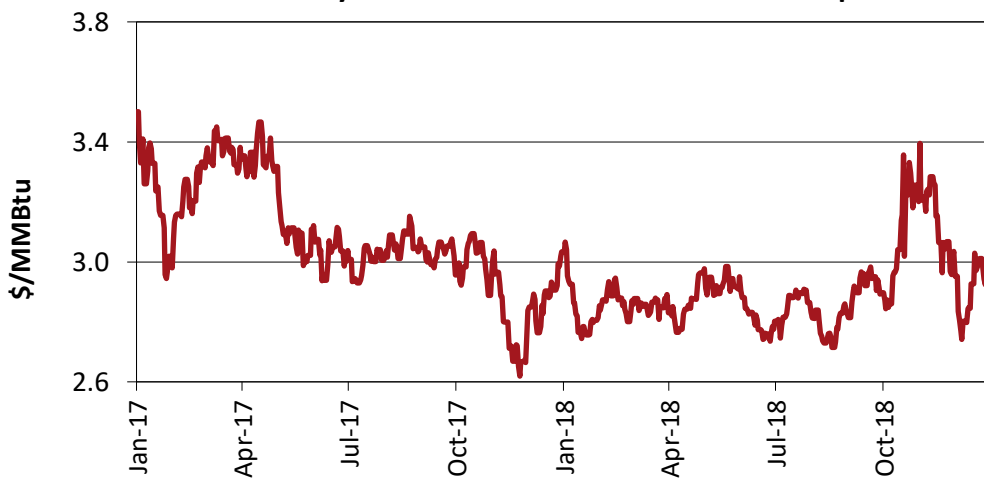


NYMEX Heating Oil	last close	previous week	24-month high	24-month low
12 month strip, \$/gal	\$1.90	\$1.91	\$2.43	\$1.41
date	1/25/19	1/18/19	10/3/18	6/21/17
change from last close		-0.5%	-22%	35%

US STORAGE (in million bbls)		distillate	propane	gasoline
domestic stocks as of	1/18/19	142	64	260
gain / loss from previous week		-0.6	-3.7	4.1
comparison to historic range		within	within	above

## Natural Gas Market

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



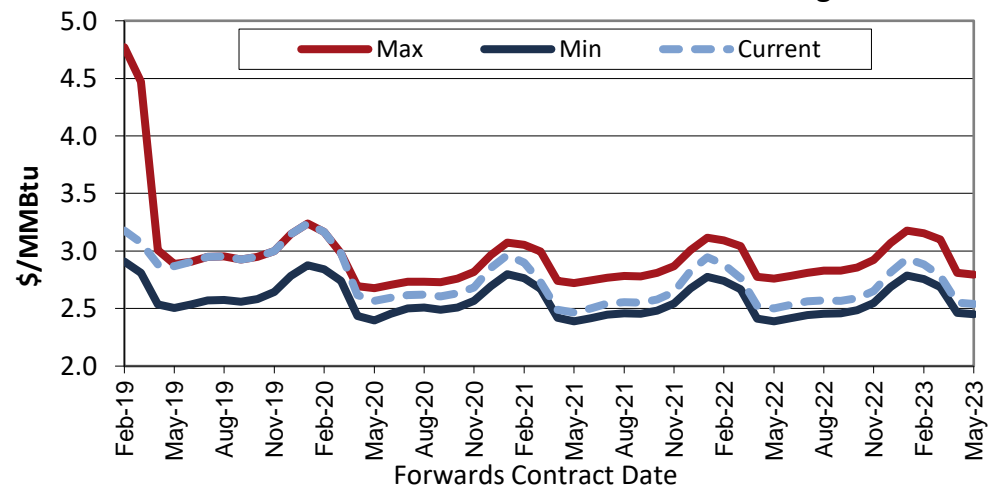
NYMEX PRICING	last close	previous week	24-month high	24-month low
12 mo. strip, \$/MMBtu	\$3.01	\$3.01	\$3.48	\$2.61
date	1/25/19	1/18/19	4/6/17	12/21/17
change from last close		-0.2%	-14%	15%

#### CES SCORE

12 month	17
18 month	20
24 month	27
36 month	41

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



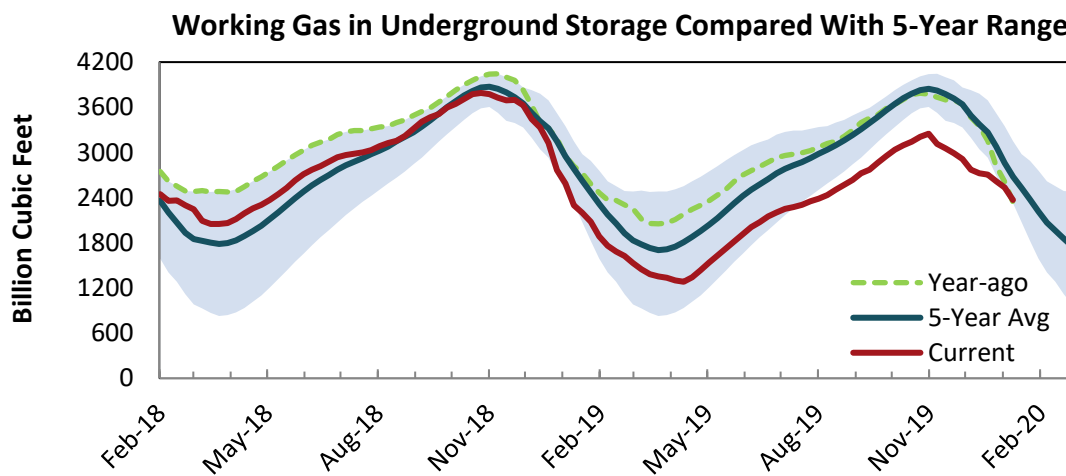
FORWARDS	12 month	18 month	24 month	36 month
strip (\$/MMBtu)	\$3.01	\$2.92	\$2.87	\$2.80

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.



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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		1/11/19	2,533	
Most Recent Stock Level		1/18/19	2,370	
Year-ago Stock Level			2,337	1.4%
5-Year Average Stock Level			2,675	-11.4%
Most Recent Net Change		1/18/19	-163	
Year-Ago Net Change			-273	
5-Year Average Net Change			-185	

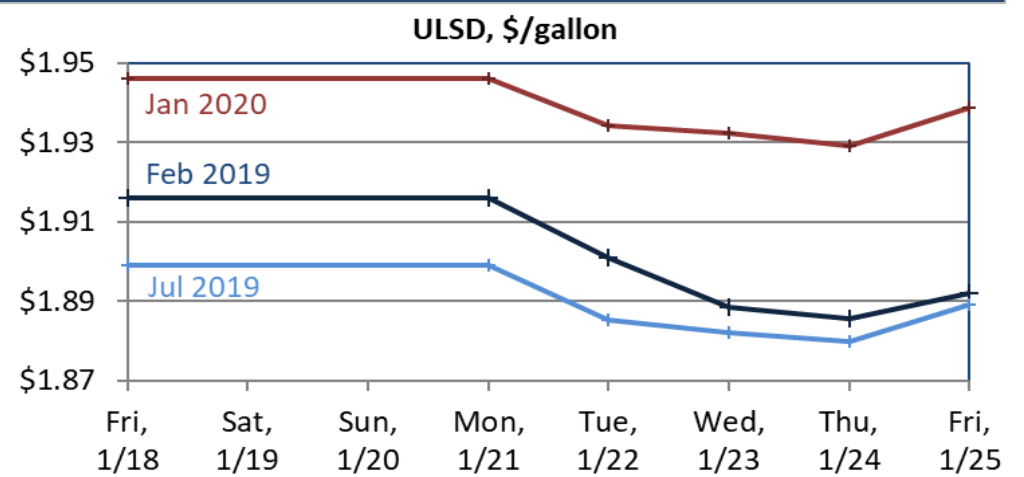
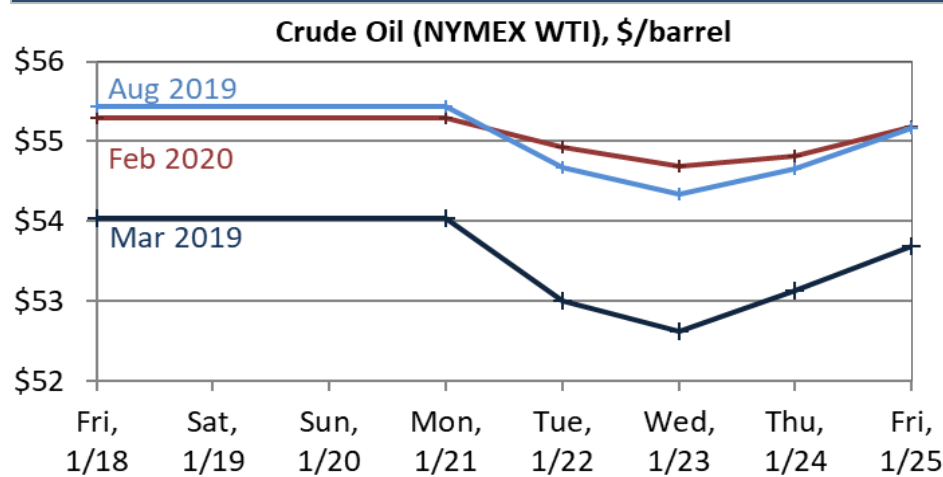
Data Source: EIA <http://tonto.eia.doe.gov/oog/info/ngs/ngs.html>

### Market Assessment

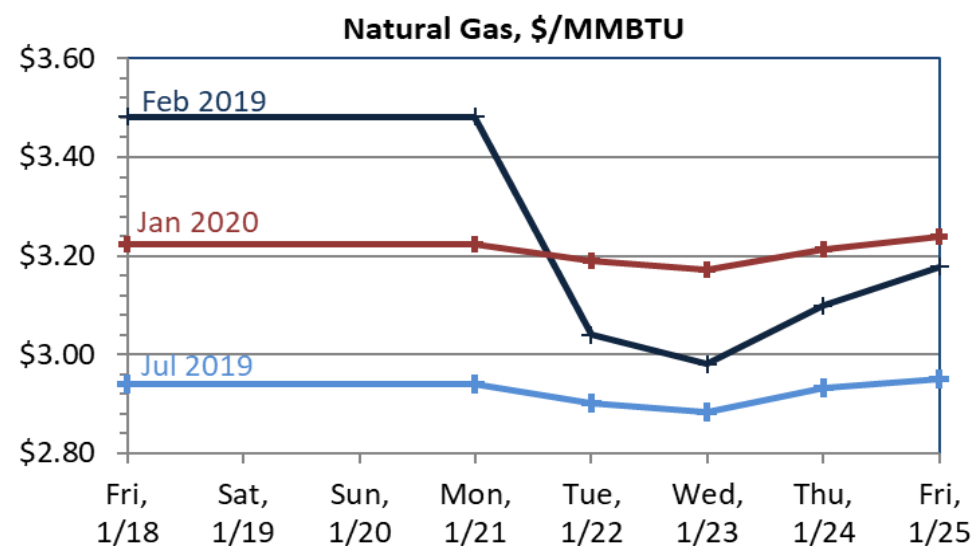
#### NYMEX Futures Summary Statistics

	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	Feb-19	1/22/19	\$52.57	Mar-19	\$53.80	Oct-19	\$55.53	Mar-19	\$53.80	\$55.37
Heating oil	Jan-19	12/31/18	\$1.68	Feb-19	\$1.89	Jan-20	\$1.94	May-19	\$1.88	\$1.93
Natural gas	Jan-19	12/27/18	\$3.64	Feb-19	\$3.18	Jan-20	\$3.24	May-19	\$2.87	\$3.11

#### NYMEX End-of-Day Settlements



Prompt-month crude oil continued to hold steady between \$52 and \$55 per barrel, where it has hovered since January 9th. Prices fell early in the week as the US-China trade negotiations stalled and the International Monetary Fund cut its growth forecast for 2019 and 2020. However, prices rebounded in the second half of the week after the EIA reported that domestic crude oil in storage fell more than expected. Further boosting oil prices, the US threatened economic sanctions against Venezuela as sitting president Nicolas Maduro refused to cede the Presidency to opposition leader Juan Guaido. Venezuela, an OPEC member, owns the largest proven oil reserves and produces heavy crude oil. Because Gulf Coast refineries were updated in the 1990s and 2000s before the US shale boom, they are still reliant on heavy crude from Latin America.



Natural gas prices fell last week despite news of a coming cold front that is expected to boost heating demand in the East and Midwest. Shifting reports of just how severe the cold might be and the reality of near-record high production weighed on the market early in the week, and February contracts lost 30 cents, closing at \$3.18/MMBtu on Friday afternoon. The slide continued into Monday morning with front-month contracts trading below the \$3 benchmark. Meanwhile, storage remains lower than usual at 11% below the 5-year average, a number that is expected to expand following the early-February chill.

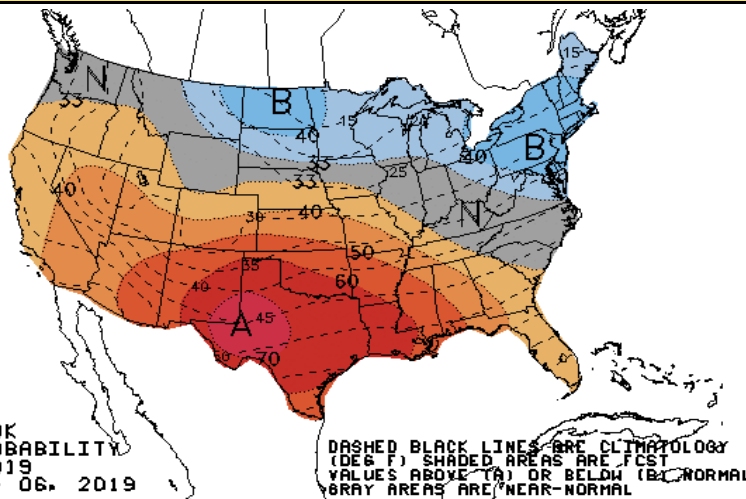
The National Weather Service near-term forecast shows some moderation from the cold blast projected for this week; however, temperatures remain chilly for the Northeast and North Central. The CES Market Score on page 1 remains steady from the previous week. Clients with electricity or natural gas contracts expiring in 2019 should consult with a CES representative for customized guidance.

**National Weather Service Forecast**

**6 - 10 Day Forecast for Feb 2 - 6**



6-10 DAY OUTLOOK  
TEMPERATURE PROBABILITY  
MADE 27 JAN 2019  
VALID FEB 02 - 06, 2019



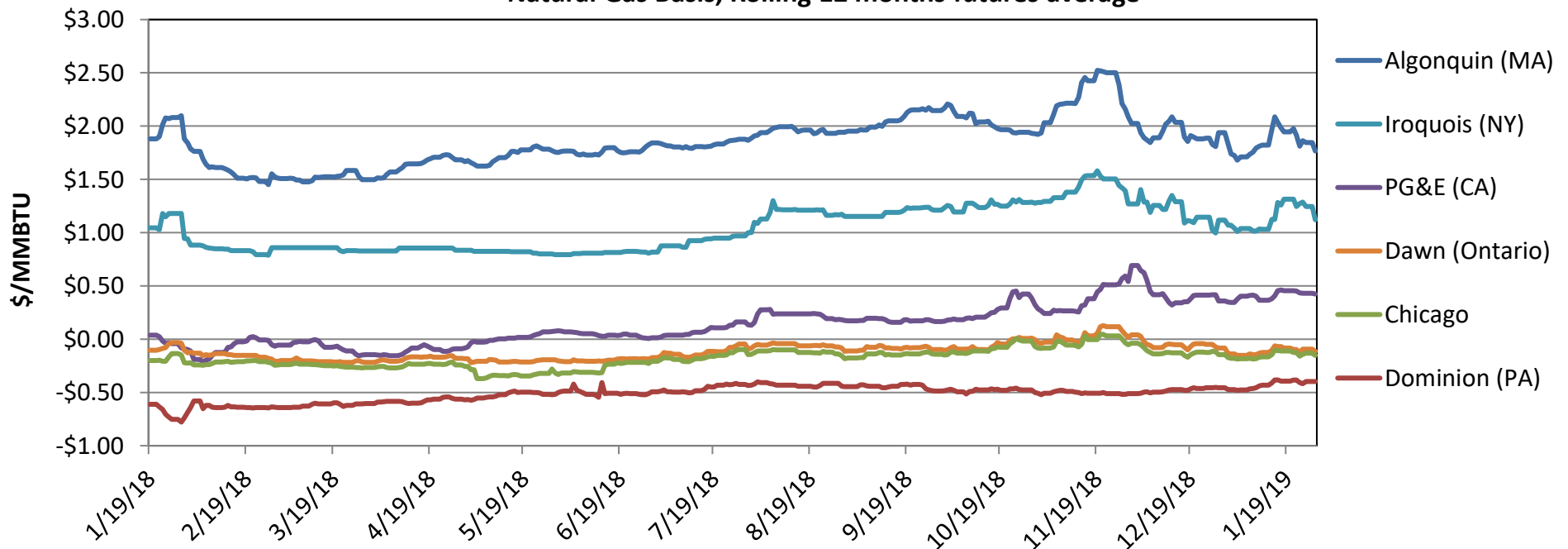
This map depicts forecasted temperatures for next week compared to the long term average. The blue/purple areas are forecast to be colder than normal, white areas are normal, and yellow/orange/red areas are warmer than normal. Abnormally hot weather in the summer and cold weather in the winter can increase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

Source: Chart from the National Weather Service Climate Prediction

**Natural Gas Basis Futures**

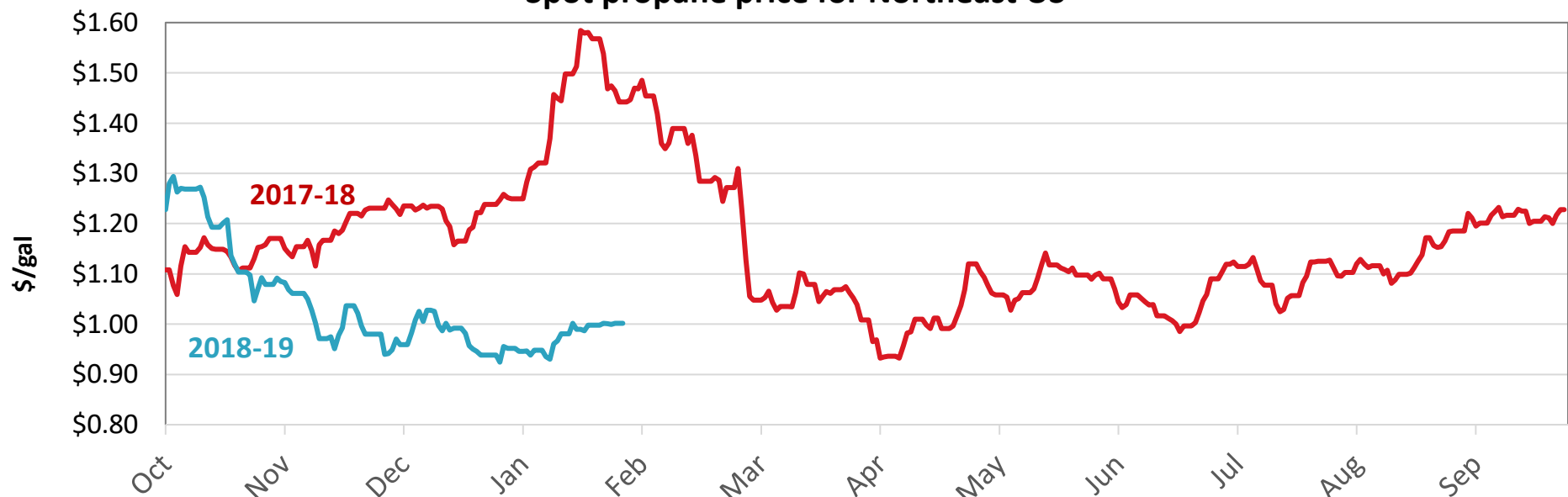
Basis is the price differential between Henry Hub, located in Erath, Louisiana, and the liquidity point closest to the end-user. Because Henry Hub is used as the delivery point for NYMEX natural gas futures contracts, the cost of using natural gas in any geographic region of the country can be approximated 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>	
		1/21/19	1/22/19	1/23/19	1/24/19	1/25/19	1/26/19	1/27/19		
Power (\$/MWh)	Maine RT On Pk	131	106	63	33	38			74	
	Maine RT Off Pk	54	125	80	20	6	42	38	52	
	NH RT On Pk	135	110	63	34	39			76	
	NH RT Off Pk	58	128	80	21	11	42	38	54	
	Vermont RT On Pk	134	110	61	33	38			75	
	Vermont RT Off Pk	59	126	78	22	11	41	37	53	
	Connecticut RT On Pk	140	112	62	34	38			77	
	Connecticut RT Off Pk	60	131	81	22	11	41	38	55	
	Rhode Island RT On Pk	139	113	63	34	39			78	
	Rhode Island RT Off Pk	60	132	81	22	11	42	38	55	
	NE Mass RT On Pk	137	111	64	34	39			77	
	NE Mass RT Off Pk	60	130	81	22	11	42	39	55	
	SE Mass RT On Pk	138	112	63	34	39			77	
	SE Mass RT Off Pk	60	130	81	22	11	42	39	55	
	WC Mass RT On Pk	139	112	63	34	39			77	
	WC Mass RT Off Pk	60	131	81	22	11	42	38	55	
		<b>New York ISO Real Time Power Pricing By Zone (\$/MWh)</b>							<b>Avg</b>	
Power (\$/MWh)	Capital RT On Pk	139	126	44	29	24			72	
	Capital RT Off Pk	71	151	79	30	16	35	48	61	
	Central RT On Pk	72	89	30	26	21			48	
	Central RT Off Pk	35	89	17	24	14	26	24	33	
	Hudson RT On Pk	122	118	41	29	24			67	
	Hudson RT Off Pk	62	135	61	29	16	33	41	54	
	Mohawk RT On Pk	76	94	31	27	21			50	
	Mohawk RT Off Pk	37	93	18	24	15	27	25	34	
	Milwood RT On Pk	123	119	41	30	24			67	
	Milwood RT Off Pk	62	136	62	29	16	34	42	54	
	NYC RT On Pk	123	119	42	30	70			77	
	NYC RT Off Pk	62	135	61	29	16	39	49	56	
			<b>PJM Real Time Power Pricing By Zone (\$/MWh)</b>							<b>Avg</b>
	Power (\$/MWh)	Eastern Hub On Pk	157	57	28	25	30			59
		Eastern Hub Off Pk	70	132	41	23	23	29	27	49
		Western Hub On Pk	63	34	27	25	(4)			29
Western Hub Off Pk		40	57	38	23	21	27	24	33	
PPL Zone On Pk		81	41	26	24	29			40	
PPL Zone Off Pk		48	77	36	22	23	26	23	36	
AEP RT On Pk		60	34	26	25	29			35	
AEP RT Off Pk		40	44	32	22	25	27	25	31	
Chicago RT On Pk		26	27	24	23	29			26	
Chicago RT Off Pk		24	26	25	22	23	26	24	24	
New Jersey Hub On Pk		176	59	31	25	33			65	
New Jersey Hub Off Pk		70	132	44	23	23	31	28	50	
		<b>California ISO Real Time Power Pricing (\$/MWh)</b>							<b>Avg</b>	
Power (\$/MWh)		SoCal Edison RT On Pk	45	34	27	27	37			34
		SoCal Edison RT Off Pk	30	32	33	35	38	37	31	34
		1/21/19	1/22/19	1/23/19	1/24/19	1/25/19	1/26/19	1/27/19	<b>Avg</b>	
Natural Gas \$/MMBtu	Henry Hub, LA		3.16	3.13	3.16	3.10			3.14	
	TZ6, MA		4.07	3.54	5.85	7.95			5.35	
	Algonquin, MA		4.77	3.49	8.89				5.72	
	Chicago Hub, IL		2.99	3.09	3.16	3.11			3.09	
	New York, NY		2.97	2.77	4.12	3.17			3.26	
	Dominion South, PA		2.84	2.73	2.90	2.82			2.82	
	Opal Hub, WY		3.30	3.40	3.37	3.19			3.32	
	PG&E Citygate, CA			3.61	3.55	3.52			3.56	