



Competitive Energy Services Weekly Market Summary

January 14 - 18, 2019

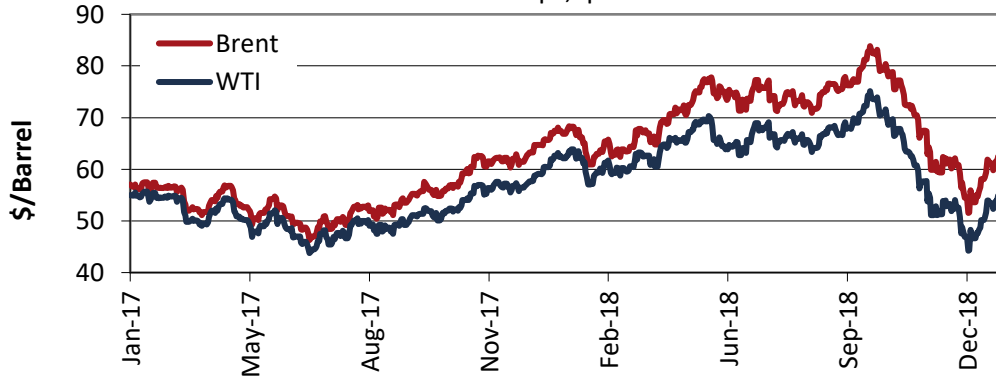
Synopsis of Last Week's Energy Markets

Crude oil rose for the third straight week, resting in the low \$50's range for the past 10 days. China put forth two strategies to counteract an economic slowdown due to the trade war with the US; if successful, economic growth would boost crude oil demand. Natural gas prices jumped last week amid forecasts for a cold end of January but trading on Tuesday reversed much of those gains. Storage remains 11% below 5-year average levels.

Oil Market

Crude Oil - WTI & Brent

12-Month Forward Strips, past 24 months

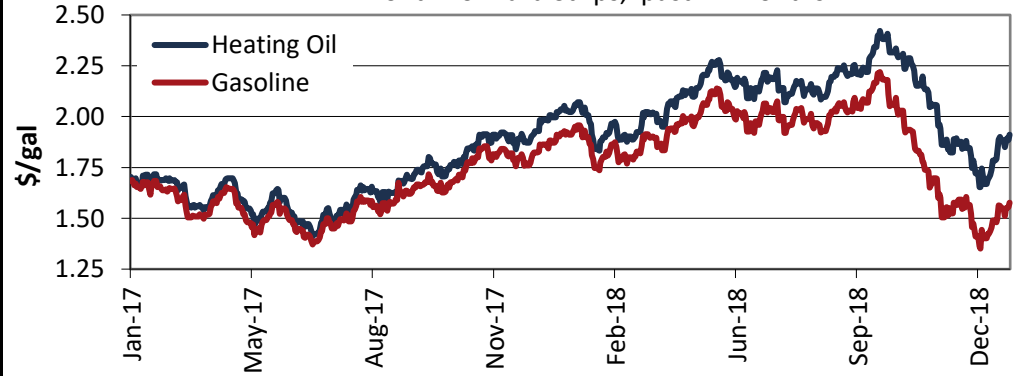


NYMEX WTI	last close	previous week	24-month high	24-month low
12 month strip, \$/bbl	\$54.99	\$53.36	\$75.39	\$43.82
date	1/18/19	1/11/19	10/3/18	6/21/17
change from last close		3.1%	-27.1%	25%

US STORAGE (in million bbls)		crude oil
domestic stocks as of	1/11/19	437
gain / loss from previous week		-2.7
comparison to historic range		within

Heating Oil & Gasoline

NYMEX 12-Month Forward Strips, past 24 months

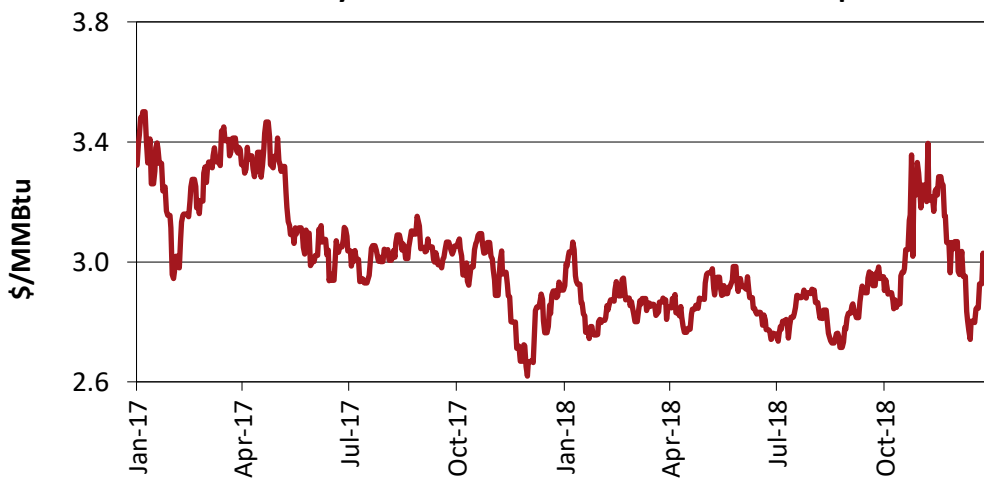


NYMEX Heating Oil	last close	previous week	24-month high	24-month low
12 month strip, \$/gal	\$1.91	\$1.88	\$2.43	\$1.41
date	1/18/19	1/11/19	10/3/18	6/21/17
change from last close		1.6%	-21%	36%

US STORAGE (in million bbls)		distillate	propane	gasoline
domestic stocks as of	1/11/19	143	67	256
gain / loss from previous week		3.0	-1.2	7.5
comparison to historic range		within	within	above

Natural Gas Market

NYMEX Henry Hub Futures: 12 Month Forward Strip



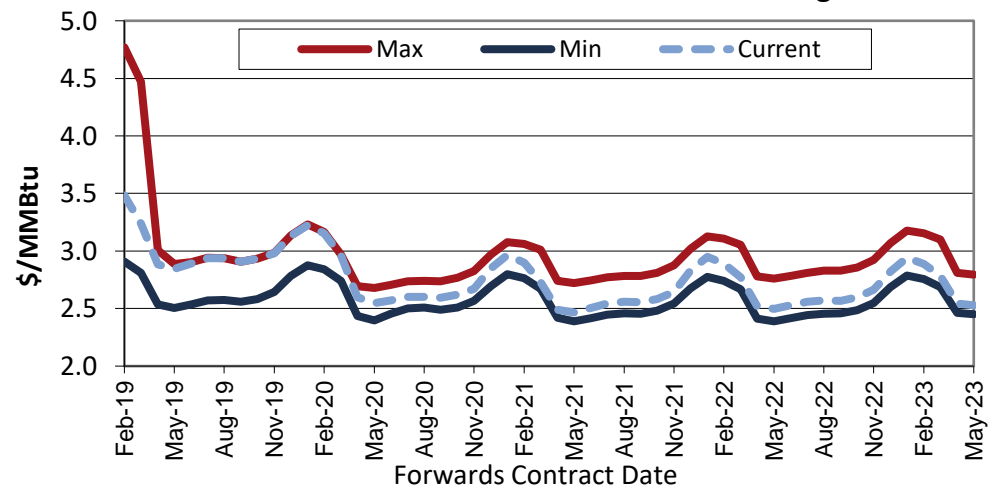
NYMEX PRICING	last close	previous week	24-month high	24-month low
12 mo. strip, \$/MMBtu	\$3.03	\$2.93	\$3.49	\$2.61
date	1/18/19	1/11/19	1/26/17	12/21/17
change from last close		3.6%	-13%	16%

CES SCORE

12 month	16
18 month	22
24 month	29
36 month	42

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



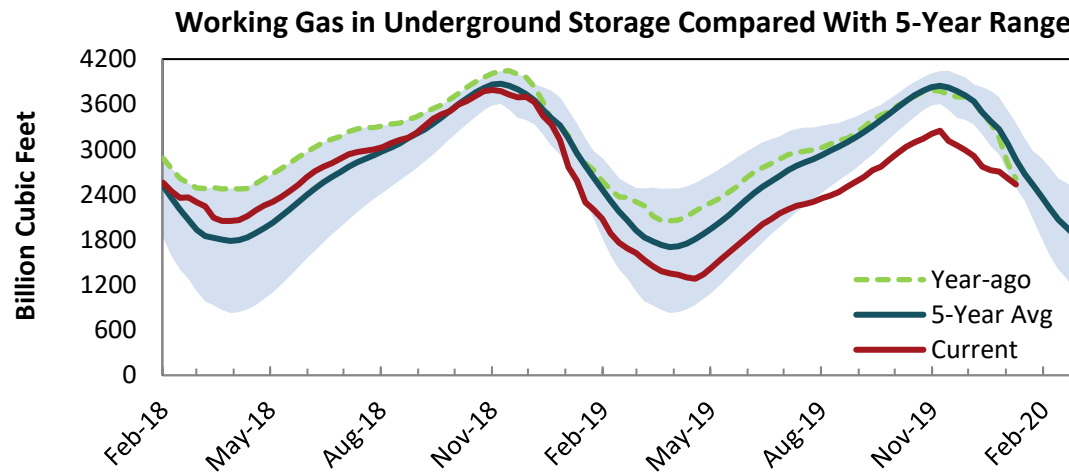
FORWARDS	12 month	18 month	24 month	36 month
strip (\$/MMBtu)	\$3.03	\$2.93	\$2.88	\$2.80

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		1/4/19	2,614	
Most Recent Stock Level		1/11/19	2,533	
Year-ago Stock Level			2,610	-3.0%
5-Year Average Stock Level			2,860	-11.4%
Most Recent Net Change		1/11/19	-81	
Year-Ago Net Change			-208	
5-Year Average Net Change			-218	

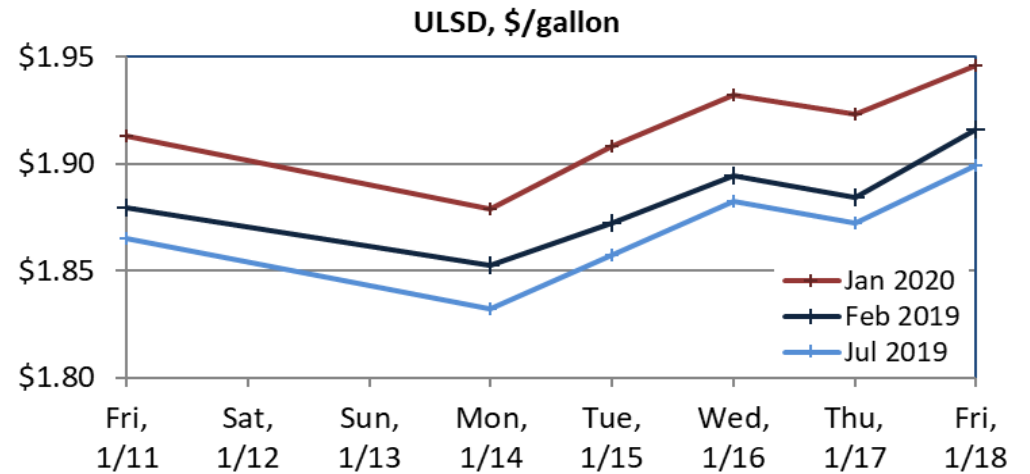
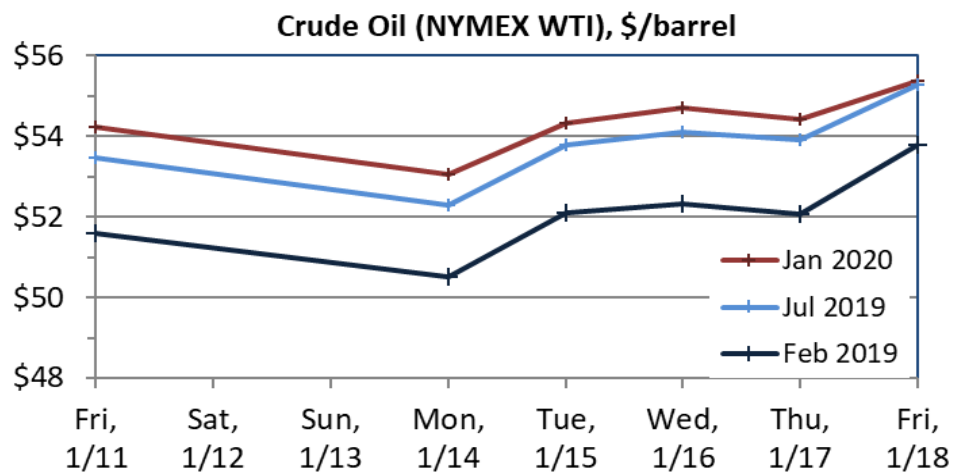
Data Source: EIA <http://tonto.eia.doe.gov/oog/info/ngs/ngs.html>

Market Assessment

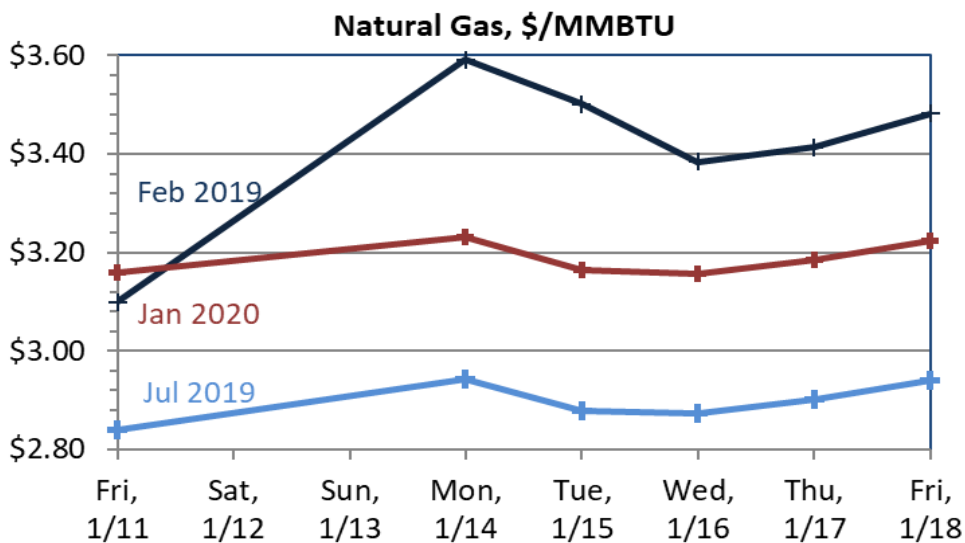
NYMEX Futures Summary Statistics

	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	\$53.80	Oct-19	\$55.53	Feb-19	\$53.80	\$55.37
Heating oil	Jan-19	12/31/18	\$1.68	Feb-19	\$1.92	Jan-20	\$1.95	May-19	\$1.89	\$1.94
Natural gas	Jan-19	12/27/18	\$3.64	Feb-19	\$3.48	Jan-20	\$3.16	May-19	\$2.85	\$3.09

NYMEX End-of-Day Settlements



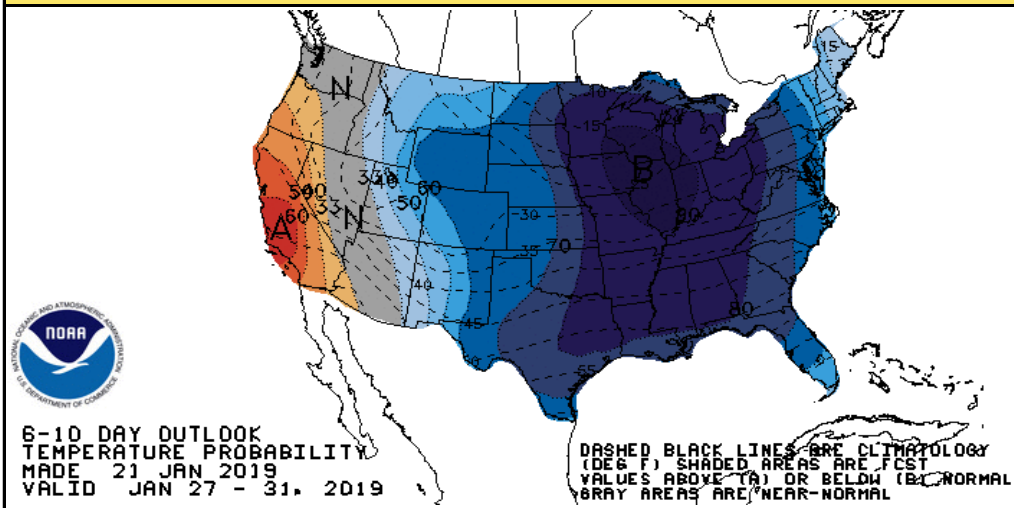
Crude oil prices jumped Tuesday and Friday last week. Early in the week, China announced a plan to slash taxes to encourage spending and counteract economic slowdown. On Friday, China offered to gradually increase purchases of US goods over the next six years in order to work down the trade imbalance. This would be a huge step in ending the trade war, which is having a dampening effect on crude oil demand. On the bearish side Russia's commitment to shedding production seems to be wavering. The International Energy Agency (IEA) reported that Russia's production rate for December was a record 11.5M barrels per day, and Russia's Energy Minister reiterated that it would be slow to ramp down production due to logistical difficulties during harsh winter conditions.



Natural gas prices gained 12% last week as forecasts showed colder than normal weather settling in across the eastern and central U.S. through the end of January. February futures saw a 38-cent weekly gain, propelling the contract to nearly \$3.50/MMBtu by week's end. Most of these gains were erased when trading resumed after the holiday weekend when revised forecast showed less intense cold. With inventories still 11% below the 5-year average, gas futures are sensitive to weather as the major driver of demand fluctuations. Meanwhile, January output has slowed compared to December levels due to production freeze-offs. This combined with cold weather and strong LNG exports could cause the inventory deficit to expand in coming weeks.

The National Weather Service near-term forecast calls a very chilly blast for most of the US. 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 27 - 31

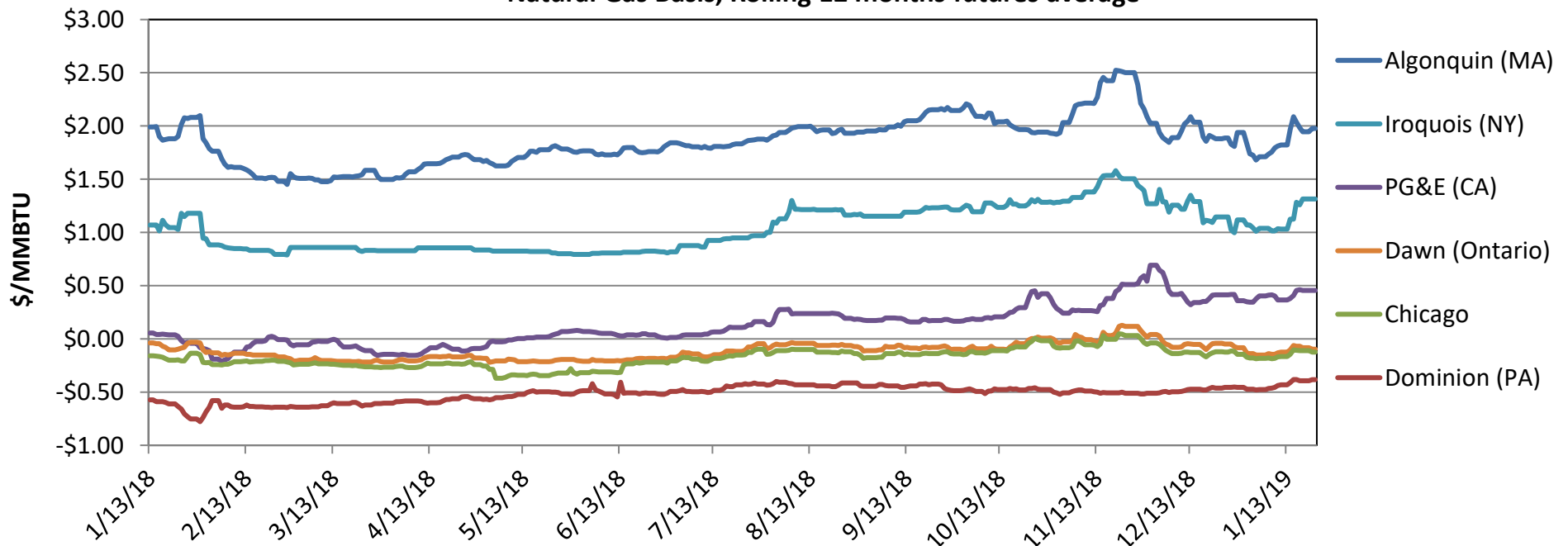
This map depicts forecasted temperatures for next week compared to the long term average. The blue/purple areas are forecast to be colder than normal, white areas are normal, and yellow/orange/red areas are warmer than normal. Abnormally hot weather in the summer and cold weather in the winter can increase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

Source: Chart from the National Weather Service Climate Prediction

Natural Gas Basis Futures

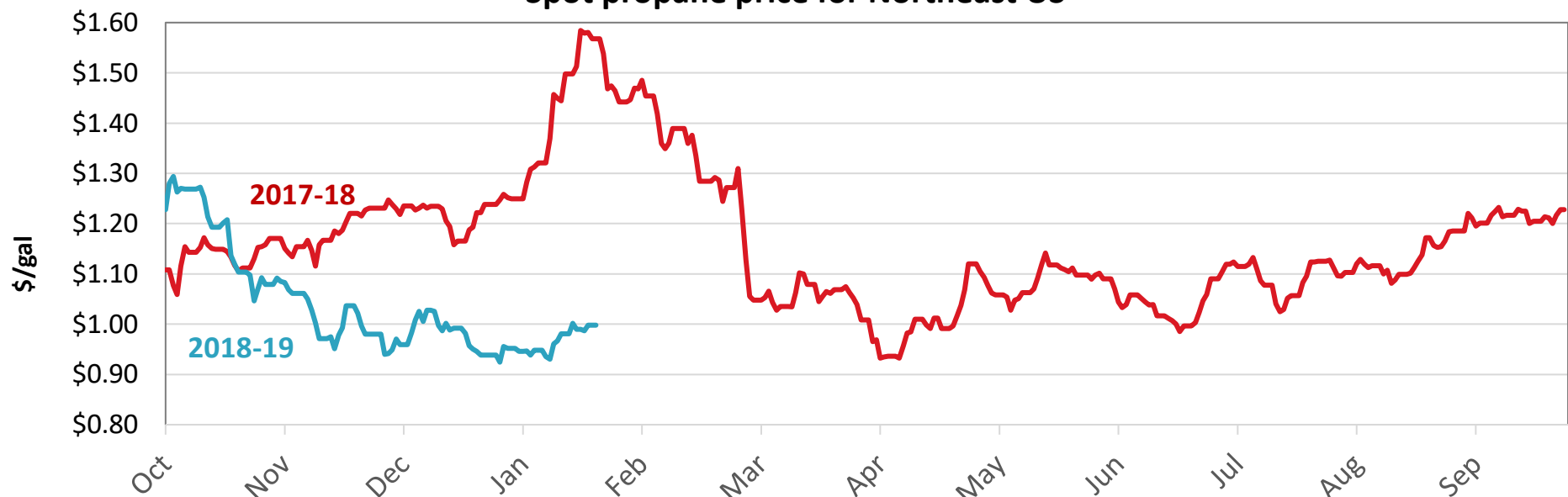
Basis is the price differential between Henry Hub, located in Erath, Louisiana, and the liquidity point closest to the end-user. Because Henry Hub is used as the delivery point for NYMEX natural gas futures contracts, the cost of using natural gas in any geographic region of the country can be approximated 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

		New England ISO Real Time Power Pricing By Zone (\$/MWh)							Avg	
		1/14/19	1/15/19	1/16/19	1/17/19	1/18/19	1/19/19	1/20/19		
Power (\$/MWh)	Maine RT On Pk	76	95	73	68	71			77	
	Maine RT Off Pk	58	88	73	36	61	65	78	66	
	NH RT On Pk	77	95	73	68	71			77	
	NH RT Off Pk	57	88	73	37	60	65	79	66	
	Vermont RT On Pk	75	93	72	67	69			75	
	Vermont RT Off Pk	56	86	71	36	58	64	79	64	
	Connecticut RT On Pk	75	91	72	66	69			75	
	Connecticut RT Off Pk	55	86	70	36	58	64	80	64	
	Rhode Island RT On Pk	77	94	74	68	72			77	
	Rhode Island RT Off Pk	57	89	72	37	61	65	81	66	
	NE Mass RT On Pk	77	96	75	69	72			78	
	NE Mass RT Off Pk	57	89	73	37	61	66	81	66	
	SE Mass RT On Pk	77	95	74	69	72			77	
	SE Mass RT Off Pk	57	89	73	37	61	66	81	66	
	WC Mass RT On Pk	76	94	74	68	71			76	
	WC Mass RT Off Pk	57	88	72	37	60	65	81	66	
		New York ISO Real Time Power Pricing By Zone (\$/MWh)							Avg	
Power (\$/MWh)	Capital RT On Pk	51	48	55	50	50			51	
	Capital RT Off Pk	33	57	48	37	64	59	67	52	
	Central RT On Pk	47	37	31	45	37			39	
	Central RT Off Pk	31	40	29	34	31	50	33	35	
	Hudson RT On Pk	52	46	49	50	48			49	
	Hudson RT Off Pk	33	53	42	37	55	57	58	48	
	Mohawk RT On Pk	49	39	31	47	39			41	
	Mohawk RT Off Pk	32	42	30	35	32	55	35	37	
	Milwood RT On Pk	52	46	49	50	48			49	
	Milwood RT Off Pk	33	53	43	37	55	57	59	48	
	NYC RT On Pk	52	46	49	50	48			49	
	NYC RT Off Pk	34	53	42	37	55	58	58	48	
			PJM Real Time Power Pricing By Zone (\$/MWh)							Avg
	Power (\$/MWh)	Eastern Hub On Pk	34	32	38	34	34			34
		Eastern Hub Off Pk	30	33	34	25	25	25	25	28
		Western Hub On Pk	34	31	38	43	43			38
Western Hub Off Pk		29	30	37	28	28	28	28	30	
PPL Zone On Pk		32	30	35	32	32			32	
PPL Zone Off Pk		28	30	32	23	23	23	23	26	
AEP RT On Pk		32	30	37	36	36			34	
AEP RT Off Pk		28	30	37	26	26	26	26	28	
Chicago RT On Pk		31	29	36	35	35			33	
Chicago RT Off Pk		25	28	32	24	24	24	24	26	
New Jersey Hub On Pk		33	32	41	39	39			37	
New Jersey Hub Off Pk		29	33	36	29	29	29	29	31	
		California ISO Real Time Power Pricing (\$/MWh)							Avg	
Power (\$/MWh)		SoCal Edison RT On Pk	79	96	51	44	35			61
		SoCal Edison RT Off Pk	36	38	39	37	35	40	31	37
		1/14/19	1/15/19	1/16/19	1/17/19	1/18/19	1/19/19	1/20/19	Avg	
Natural Gas \$/MMBtu	Henry Hub, LA	3.36	3.54	3.61	3.58	3.43			3.50	
	TZ6, MA	7.38	7.37	10.81	9.45	11.00			9.20	
	Algonquin, MA	6.40	7.20	12.00		16.50			10.53	
	Chicago Hub, IL	3.28	3.42	3.50	3.39	3.24			3.37	
	New York, NY	3.88	3.74	3.87	3.52	8.40			4.68	
	Dominion South, PA	3.23	3.36	3.41	3.32	3.26			3.32	
	Opal Hub, WY	3.78	4.19	4.45	4.18	3.48			4.02	
	PG&E Citygate, CA	4.04	4.37	4.61	4.43	3.74			4.24	