



Competitive Energy Services Weekly Market Summary

March 25 - 29, 2019

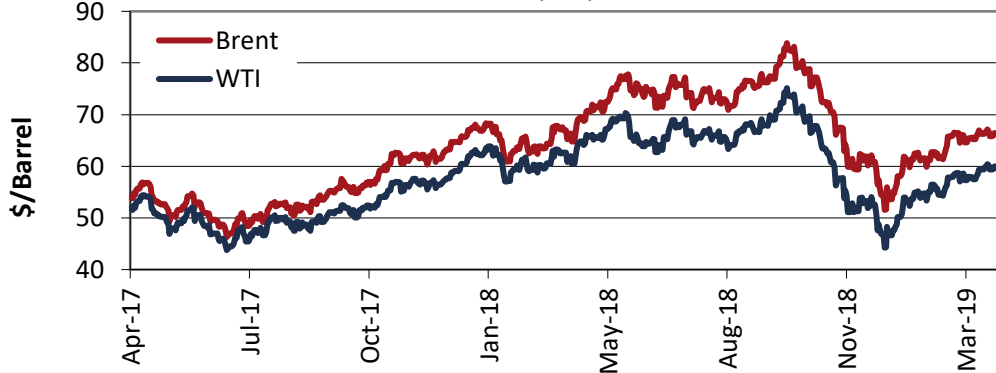
Synopsis of Last Week's Energy Markets

Crude oil rose 2% last week, with WTI settling over \$60 per barrel for first time since November. OPEC cuts and falling domestic rig counts signaled tightening supplies. Natural gas prices declined 3% last week after what is expected to be the last withdrawal of this winter. Rising temperatures and sustained production growth could chip away at the 550-Bcf storage deficit.

Oil Market

Crude Oil - WTI & Brent

12-Month Forward Strips, past 24 months

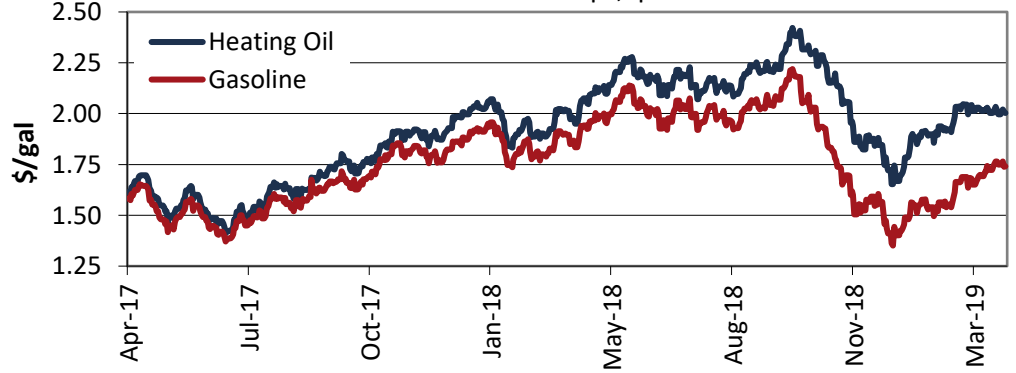


NYMEX WTI	last close	previous week	24-month high	24-month low
12 month strip, \$/bbl	\$60.13	\$59.42	\$75.39	\$43.82
date	3/29/19	3/22/19	10/3/18	6/21/17
change from last close		1.2%	-20.2%	37%

US STORAGE (in million bbls)		crude oil
domestic stocks as of	3/22/19	442
gain / loss from previous week		2.8
comparison to historic range		within

Heating Oil & Gasoline

NYMEX 12-Month Forward Strips, past 24 months

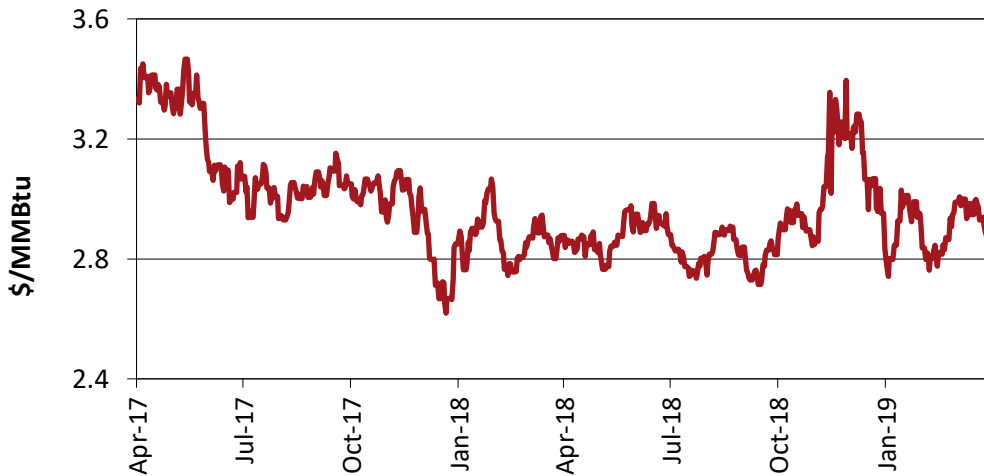


NYMEX Heating Oil	last close	previous week	24-month high	24-month low
12 month strip, \$/gal	\$2.00	\$2.00	\$2.43	\$1.41
date	3/29/19	3/22/19	10/3/18	6/21/17
change from last close		0.3%	-18%	42%

US STORAGE (in million bbls)		distillate	propane	gasoline
domestic stocks as of	3/22/19	130	52	239
gain / loss from previous week		-2.1	0.5	-2.9
comparison to historic range		within	within	above

Natural Gas Market

NYMEX Henry Hub Futures: 12 Month Forward Strip



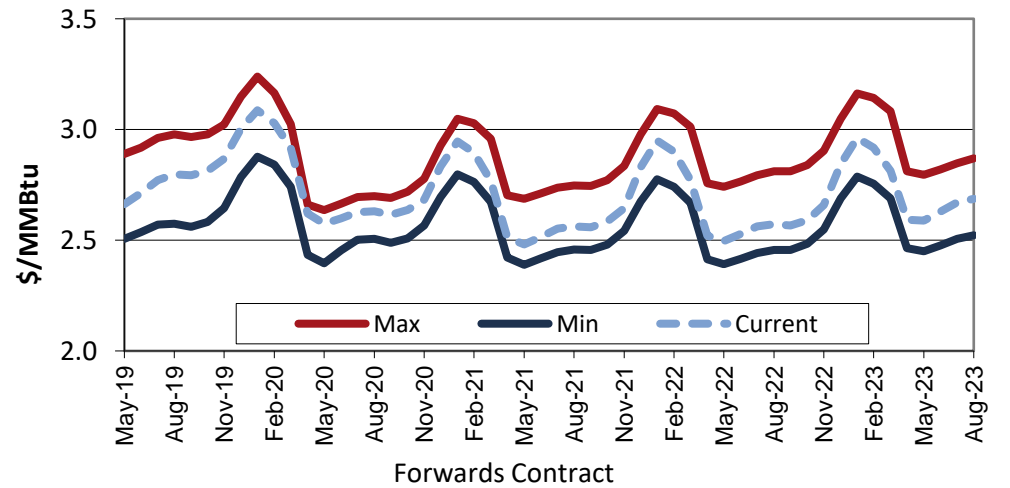
NYMEX PRICING	last close	previous week	24-month high	24-month low
12 mo. strip, \$/MMBtu	\$2.84	\$2.93	\$3.48	\$2.61
date	3/29/19	3/22/19	4/6/17	12/21/17
change from last close		-3.1%	-18%	9%

CES SCORE

12 month	43
18 month	40
24 month	43
36 month	49

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



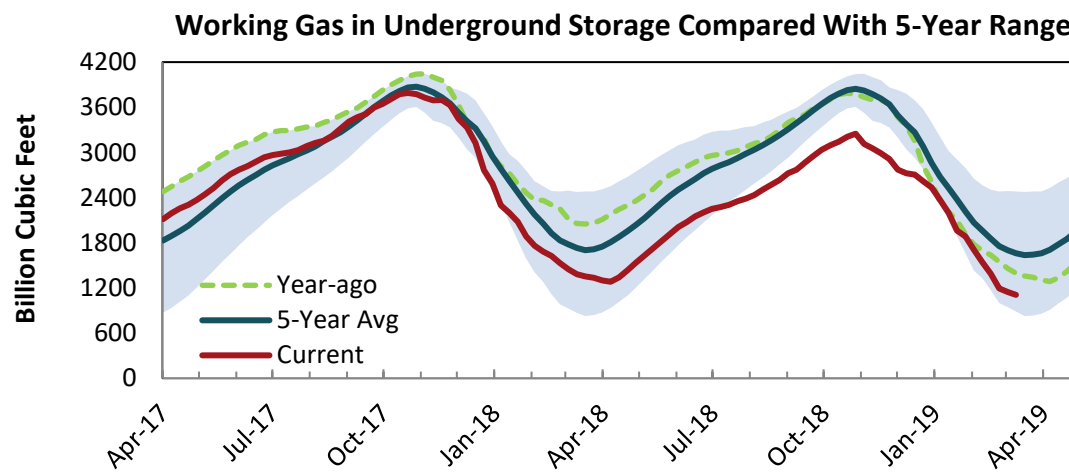
FORWARDS	12 month	18 month	24 month	36 month
strip (\$/MMBtu)	\$2.84	\$2.76	\$2.77	\$2.73

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	3/15/19	1,143	
Most Recent Stock Level	3/22/19	1,107	
Year-ago Stock Level		1,392	-20.5%
5-Year Average Stock Level		1,658	-33.2%
Most Recent Net Change	3/22/19	-36	
Year-Ago Net Change		-66	
5-Year Average Net Change		-41	

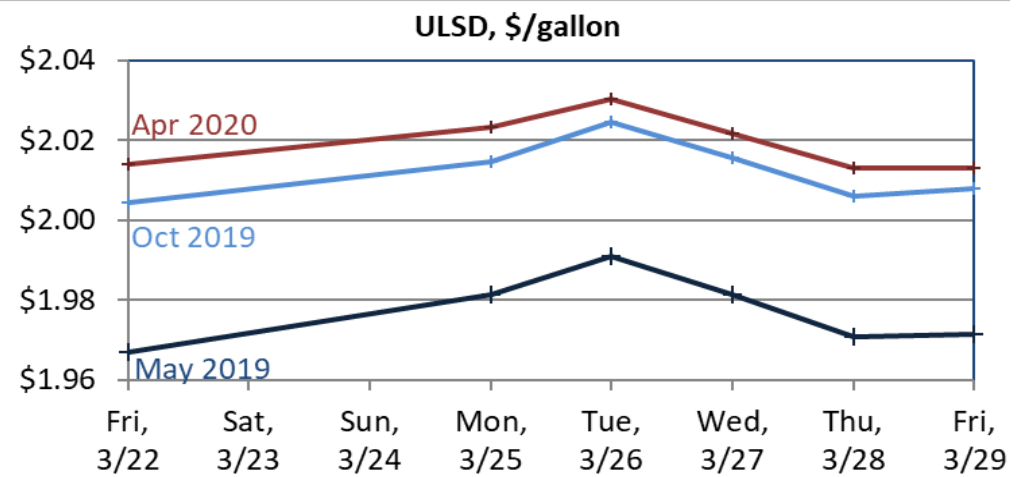
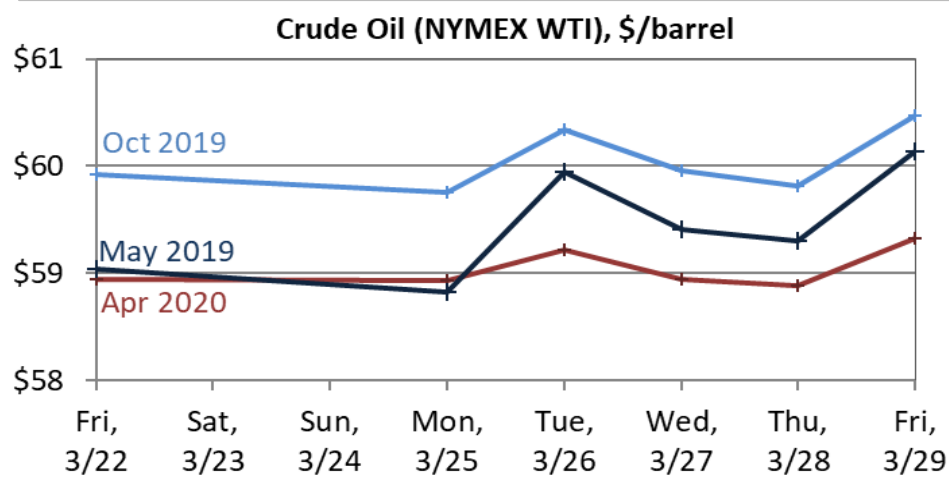
Data Source: EIA <http://tonto.eia.doe.gov/oog/info/ngs/ngs.html>

Market Assessment

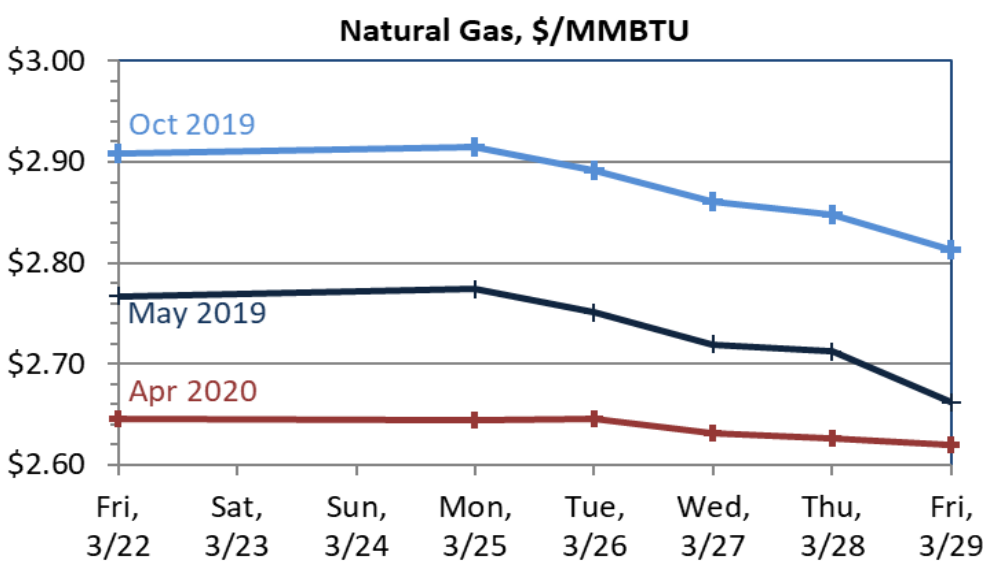
NYMEX Futures Summary Statistics

	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	Apr-19	3/20/19	\$59.83	May-19	\$60.14	Sep-19	\$60.53	Apr-20	\$59.32	\$59.99
Heating oil	Apr-19	3/29/19	\$1.97	May-19	\$1.97	Feb-20	\$2.03	May-19	\$1.97	\$2.02
Natural gas	Mar-19	3/27/19	\$2.71	May-19	\$2.66	Jan-20	\$3.09	Apr-20	\$2.62	\$2.98

NYMEX End-of-Day Settlements



Crude oil gained 2% last week, as comments from Russia signaling their commitment to production cuts pushed WTI to settle over the \$60/barrel mark for the first time since November. Reports that Russia will only vote in June meetings to extend cuts until September tempered these increases. Weighing on the markets as the calendar shifts to April are waiver extensions for some countries that received allowances to continue importing Iranian crude under the sanctions imposed by the US. Waivers expire in early May, and refiners in East Asia face uncertainty over whether they may lose their primary feedstock. The Houston Ship Channel re-opened after closure due to a local chemical fire, slowing activity for major refiners in the area. Baker Hughes announced Friday that domestic oil rig counts dropped for the sixth week in a row, stoking concerns that production may decline.

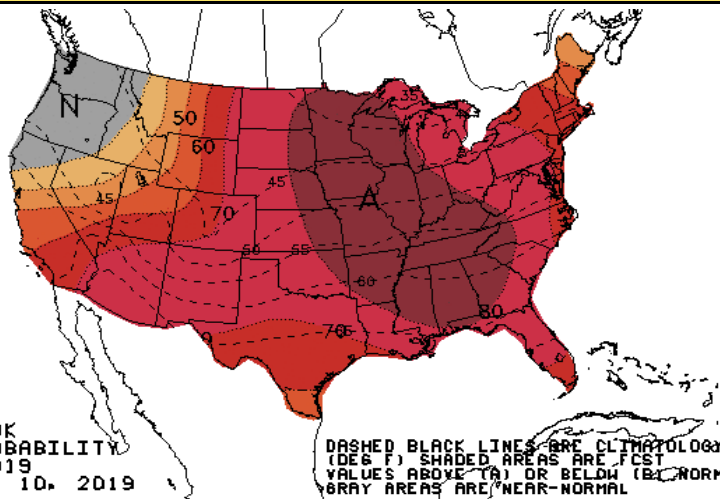


Natural gas prices slipped last week amid forecasts for mild weather and an end to storage withdrawals. Inventories remain 33% below average but that deficit could narrow if strong output contributes to larger injections between now and November. Trends in output highlight the importance of pipeline infrastructure in supporting rising output. While recent pipeline projects in the Northeast have connected Appalachian gas to downstream markets, limited capacity and unexpected maintenance in Texas has stranded gas in the Permian basin and sent local spot prices into negative territory last week. Front-month prices at the Henry Hub fell to \$2.66/MMBtu on Friday afternoon after April contracts expired at \$2.71/MMBtu.

The National Weather Service near-term forecast calls for above-average temperatures for almost all of the United States. The CES Market Score on page 1 improved 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 Apr 6 - 10



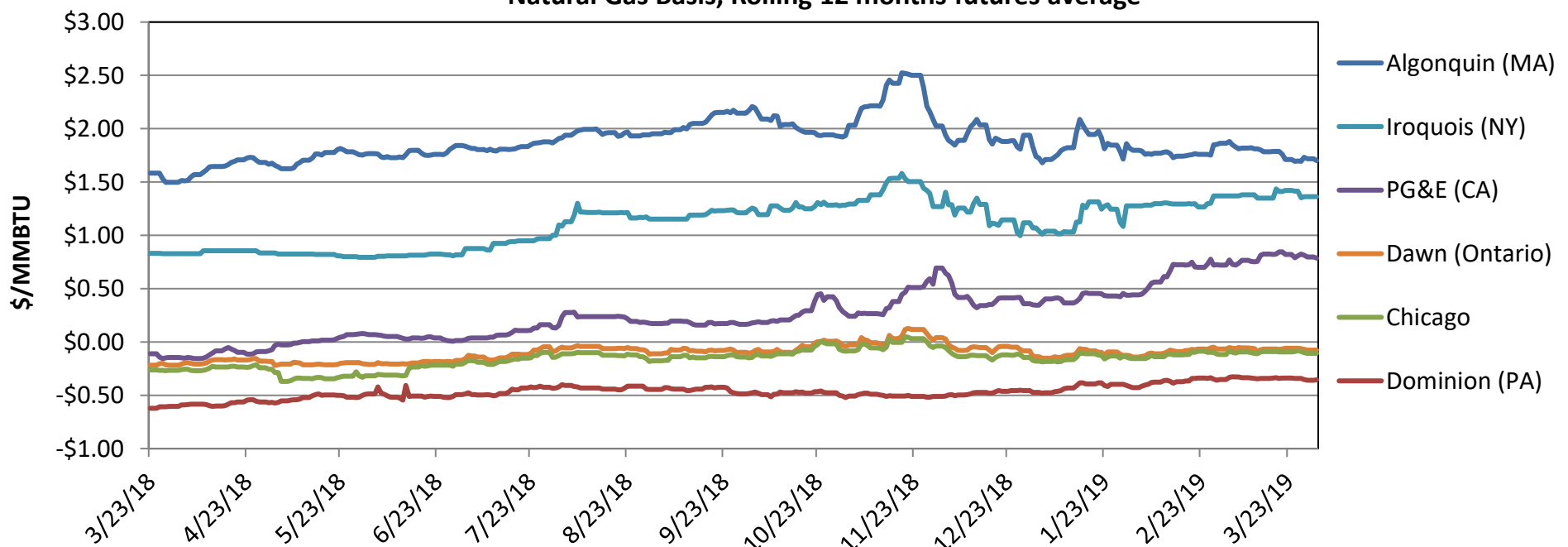
This map depicts forecasted temperatures for next week compared to the long term average. The blue/purple areas are forecast to be colder than normal, white areas are normal, and yellow/orange/red areas are warmer than normal. Abnormally hot weather in the summer and cold weather in the winter can increase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

Source: Chart from the National Weather Service Climate Prediction

Natural Gas Basis Futures

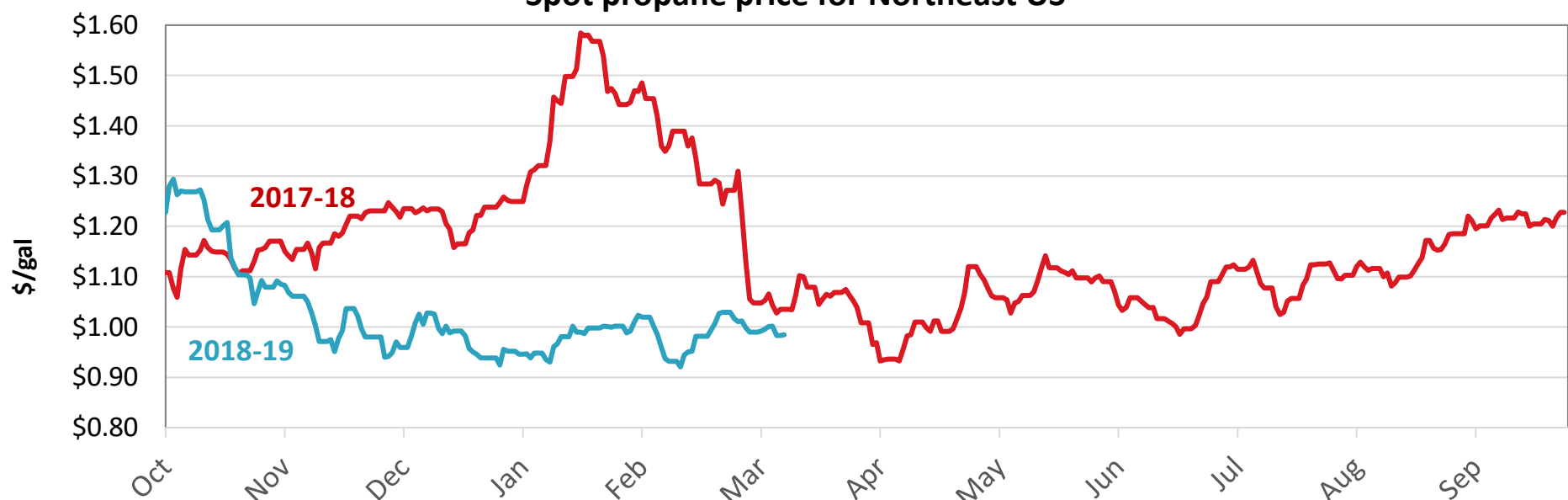
Basis is the price differential between Henry Hub, located in Erath, Louisiana, and the liquidity point closest to the end-user. Because Henry Hub is used as the delivery point for NYMEX natural gas futures contracts, the cost of using natural gas in any geographic region of the country can be approximated 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	
		3/25/19	3/26/19	3/27/19	3/28/19	3/29/19	3/30/19	3/31/19		
Power (\$/MWh)	Maine RT On Pk	29	28	29	22	31			28	
	Maine RT Off Pk	20	24	33	22	20	21	22	23	
	NH RT On Pk	30	28	30	23	32			28	
	NH RT Off Pk	20	25	33	23	20	22	23	24	
	Vermont RT On Pk	29	28	29	23	31			28	
	Vermont RT Off Pk	20	25	33	22	20	21	22	23	
	Connecticut RT On Pk	29	28	29	23	31			28	
	Connecticut RT Off Pk	20	25	33	23	20	21	23	24	
	Rhode Island RT On Pk	29	28	29	23	31			28	
	Rhode Island RT Off Pk	20	25	33	23	21	22	23	24	
	NE Mass RT On Pk	30	29	30	23	32			29	
	NE Mass RT Off Pk	21	25	33	23	21	22	23	24	
	SE Mass RT On Pk	30	28	29	23	31			28	
	SE Mass RT Off Pk	20	25	33	23	21	22	23	24	
	WC Mass RT On Pk	30	28	29	23	32			28	
	WC Mass RT Off Pk	20	25	33	23	21	22	23	24	
		New York ISO Real Time Power Pricing By Zone (\$/MWh)							Avg	
Power (\$/MWh)	Capital RT On Pk	48	37	33	25	28			34	
	Capital RT Off Pk	23	28	30	25	21	22	27	25	
	Central RT On Pk	48	36	32	22	27			33	
	Central RT Off Pk	23	27	29	15	20	21	26	23	
	Hudson RT On Pk	55	39	35	28	29			37	
	Hudson RT Off Pk	25	29	32	23	22	23	28	26	
	Mohawk RT On Pk	49	37	32	23	27			34	
	Mohawk RT Off Pk	23	28	30	16	20	21	26	23	
	Milwood RT On Pk	56	40	35	28	30			38	
	Milwood RT Off Pk	25	30	32	23	22	23	28	26	
	NYC RT On Pk	57	42	38	30	32			40	
	NYC RT Off Pk	25	30	32	24	23	23	28	27	
			PJM Real Time Power Pricing By Zone (\$/MWh)							Avg
	Natural Gas \$/MMBtu	Eastern Hub On Pk	26	27	25	25	25			26
		Eastern Hub Off Pk	19	23	28	29	29	29	29	27
		Western Hub On Pk	33	28	25	25	25			27
Western Hub Off Pk		19	23	28	28	28	28	28	26	
PPL Zone On Pk		26	26	24	24	24			25	
PPL Zone Off Pk		19	23	27	28	28	28	28	26	
AEP RT On Pk		28	30	24	24	24			26	
AEP RT Off Pk		19	23	36	27	27	27	27	27	
Chicago RT On Pk		26	27	23	23	23			25	
Chicago RT Off Pk		18	22	28	26	26	26	26	25	
New Jersey Hub On Pk		27	28	29	26	26			27	
New Jersey Hub Off Pk		19	23	28	30	30	30	30	27	
		California ISO Real Time Power Pricing (\$/MWh)							Avg	
Natural Gas \$/MMBtu		SoCal Edison RT On Pk	27	62	33	20	11			31
		SoCal Edison RT Off Pk	51	26	25	27	37	83	43	42
				3/25/19	3/26/19	3/27/19	3/28/19	3/29/19	3/30/19	3/31/19
	Henry Hub, LA	2.72	2.75	2.69	2.68	2.73				2.71
	TZ6, MA	3.35	2.99	2.80	2.56	3.15				2.97
	Algonquin, MA	3.53		2.82		3.13				3.16
	Chicago Hub, IL	2.64	2.60	2.52	2.56	2.60				2.58
	New York, NY	2.70	2.65	2.50	2.37	2.59				2.56
	Dominion South, PA	2.56	2.53	2.42	2.34	2.45				2.46
	Opal Hub, WY	2.52		2.43	2.30	2.33				2.40
	PG&E Citygate, CA	3.64	3.62	3.64	3.60	3.64				3.63