



Competitive Energy Services Weekly Market Summary

November 19 - 23, 2018

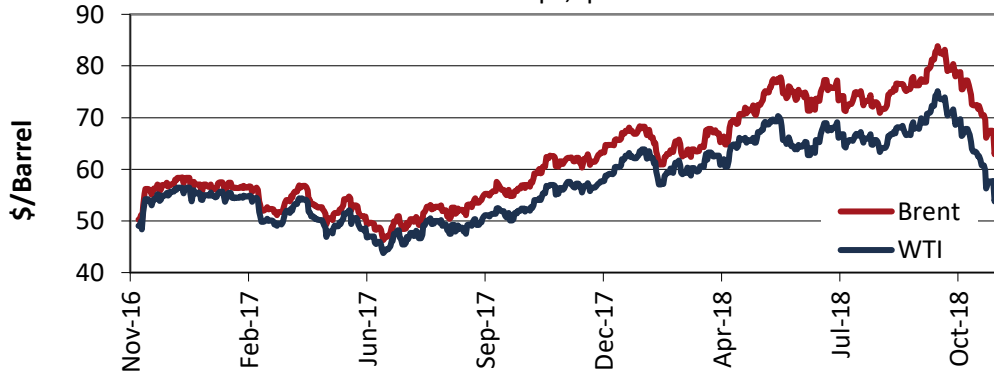
Synopsis of Last Week's Energy Markets

Last week saw crude oil prices fall to lows of more than a year. Global supplies are increasing due to high rates from the world's top 3 producers, while projections for crude demand in 2019 have recently been revised downward. Natural gas prices saw modest gains last week. Inventories are 19% below average after an uncharacteristically strong withdrawal, and cold over the holiday weekend could impact next week's storage report.

Oil Market

Crude Oil - WTI & Brent

12-Month Forward Strips, past 24 months

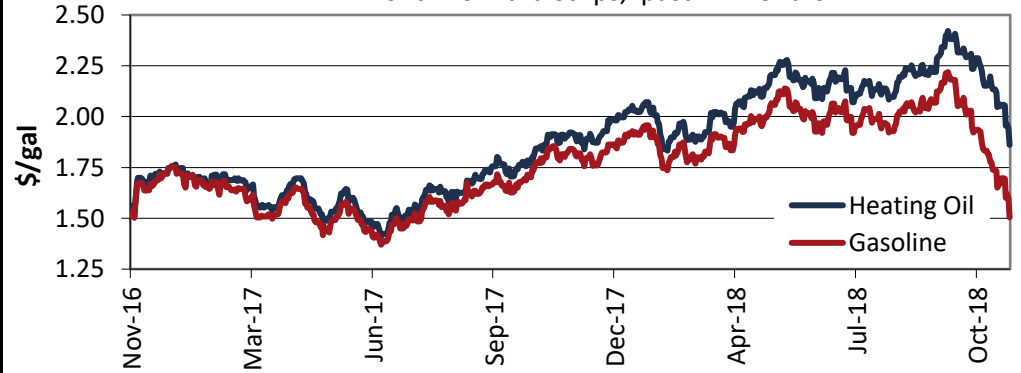


NYMEX WTI	last close	previous week	24-month high	24-month low
12 month strip, \$/bbl	\$51.14	\$57.70	\$75.39	\$43.82
date	11/23/18	11/16/18	10/3/18	6/21/17
change from last close		-11.4%	-32.2%	17%

US STORAGE (in million bbls)		crude oil
domestic stocks as of	11/16/18	447
gain / loss from previous week		4.9
comparison to historic range		within

Heating Oil & Gasoline

NYMEX 12-Month Forward Strips, past 24 months

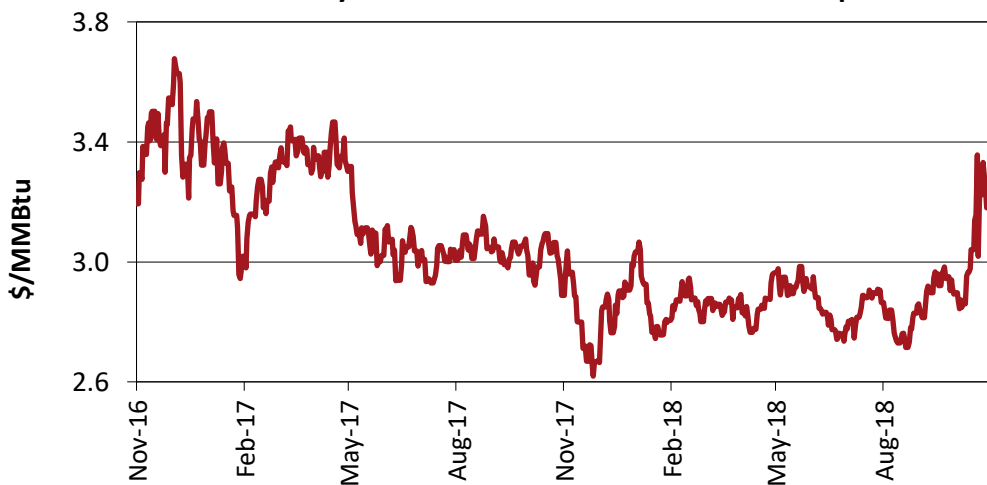


NYMEX Heating Oil	last close	previous week	24-month high	24-month low
12 month strip, \$/gal	\$1.86	\$2.06	\$2.43	\$1.41
date	11/23/18	11/16/18	10/3/18	6/21/17
change from last close		-9.5%	-23%	32%

US STORAGE (in million bbls)		distillate	propane	gasoline
domestic stocks as of	11/16/18	119	82	225
gain / loss from previous week		-0.1	-2.0	-1.3
comparison to historic range		within	within	above

Natural Gas Market

NYMEX Henry Hub Futures: 12 Month Forward Strip



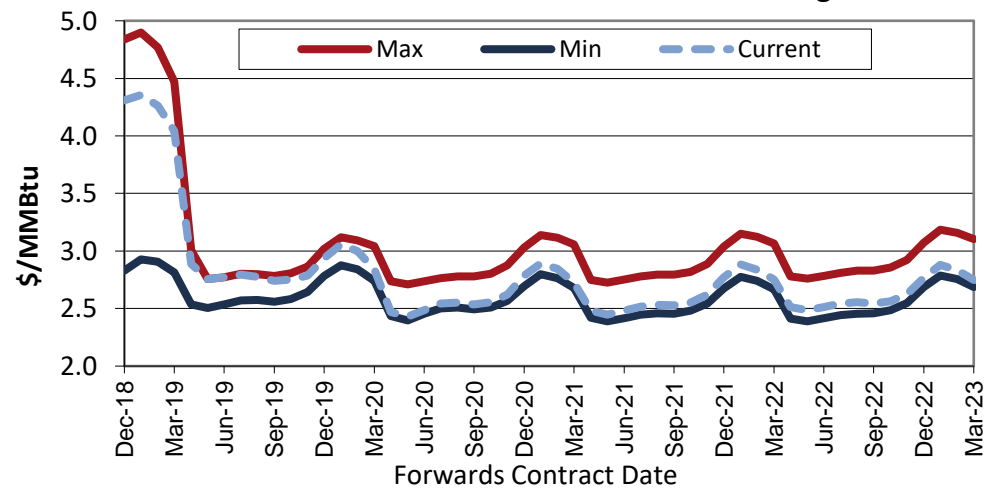
NYMEX PRICING	last close	previous week	24-month high	24-month low
12 mo. strip, \$/MMBTu	\$3.27	\$3.22	\$3.70	\$2.61
date	11/23/18	11/16/18	12/28/16	12/21/17
change from last close		1.4%	-12%	25%

CES SCORE

12 month	19
18 month	32
24 month	45
36 month	56

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



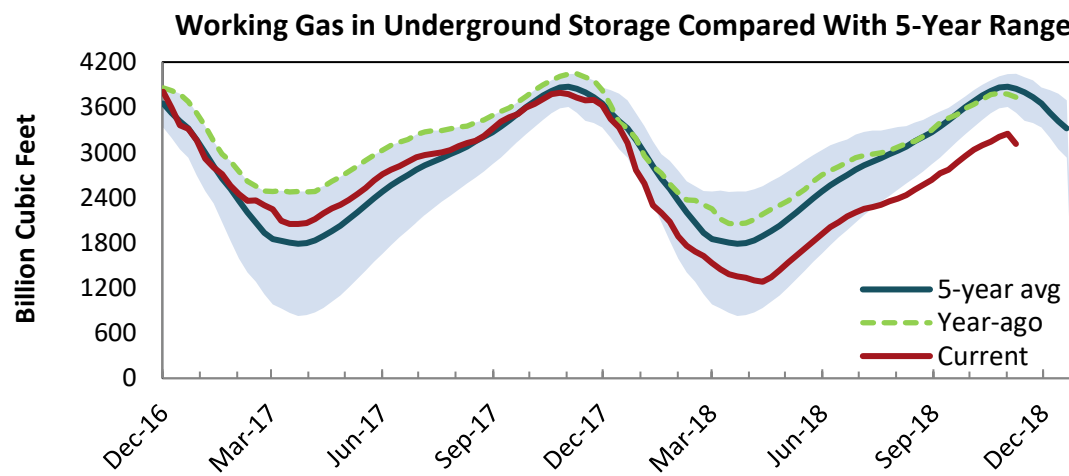
FORWARDS	12 month	18 month	24 month	36 month
strip (\$/MMBTu)	\$3.27	\$3.11	\$2.97	\$2.85

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	11/9/18	3,247		
Most Recent Stock Level	11/16/18	3,113		
Year-ago Stock Level		3,733	-16.6%	
5-Year Average Stock Level		3,847	-19.1%	
Most Recent Net Change	11/16/18	-134		
Year-Ago Net Change		-42	219%	
5-Year Average Net Change		-25	436%	

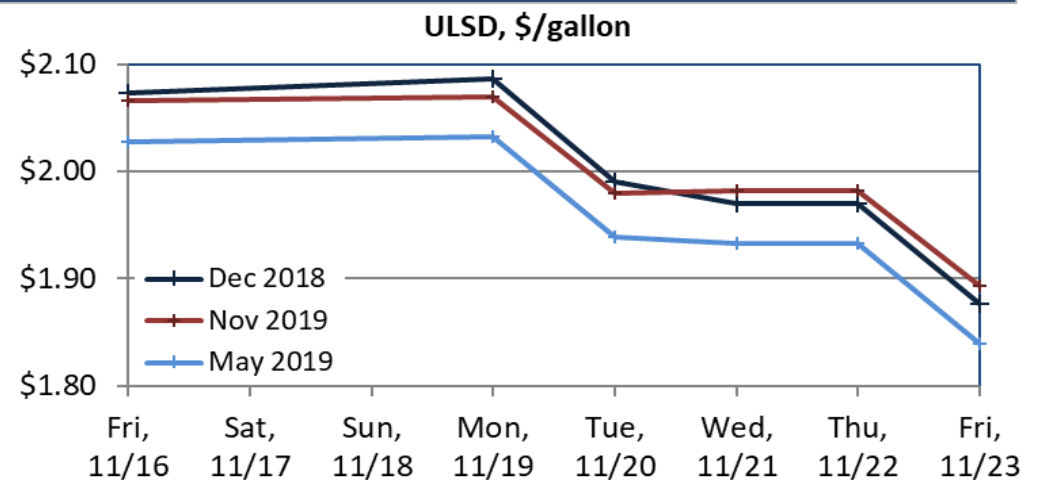
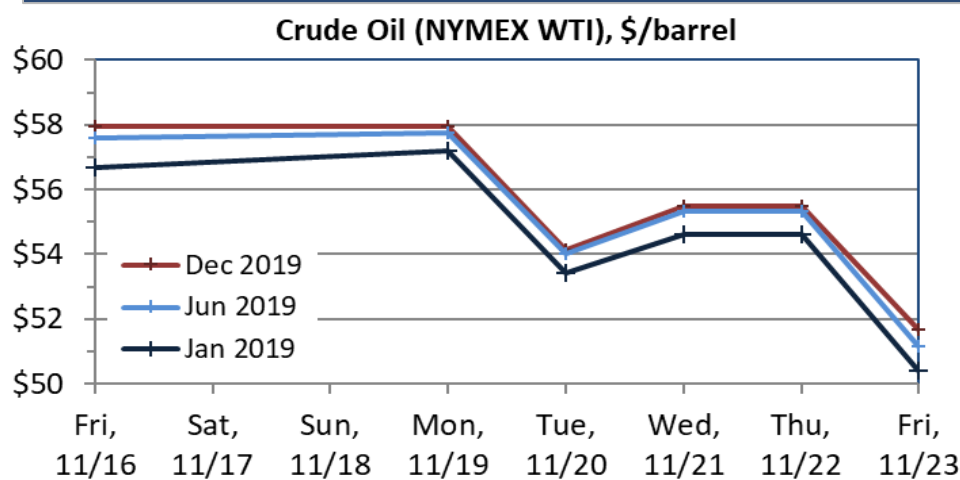
Data Source: EIA <http://tonto.eia.doe.gov/oog/info/ngs/ngs.html>

Market Assessment

NYMEX Futures Summary Statistics

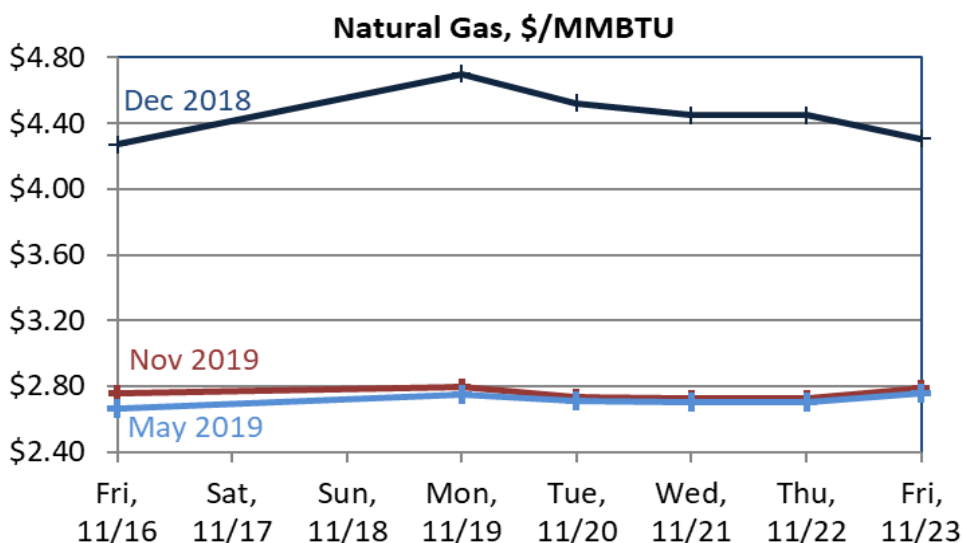
	Last Expired Contract	Exp. Date	Price	Prompt Month	Price	Most Expensive Next 12 Months	Price	Least Expensive Next 12 Months	Price	Next Winter Avg (Nov19-Mar20)
Crude oil	Dec-18	11/19/18	\$56.76	Jan-19	\$50.42	Dec-19	\$51.66	Jan-19	\$50.42	\$51.67
Heating oil	Nov-18	10/31/18	\$2.26	Dec-18	\$1.88	Nov-19	\$1.89	May-19	\$1.84	\$1.90
Natural gas	Nov-18	10/29/18	\$3.19	Dec-18	\$4.31	Jan-19	\$4.36	Sep-19	\$2.74	\$2.92

NYMEX End-of-Day Settlements



Crude oil tumbled to 13-month lows last week; WTI neared \$50 a barrel and Brent closed below \$60 to end the week.

Production from OPEC countries and Russia have climbed each month since July; meanwhile, both the International Energy Agency and OPEC have recently reduced 2019 global crude oil demand projections. Domestically, the EIA reported that US stocks increased for a ninth straight week. Supplies have grown 52M barrels (13%) over this period. As of Monday morning, oil prices were climbing. OPEC's next meeting is scheduled for December 6, and analyst speculate that the group will agree to reinstate some level of production cuts in response to the seven-week slide in prices.

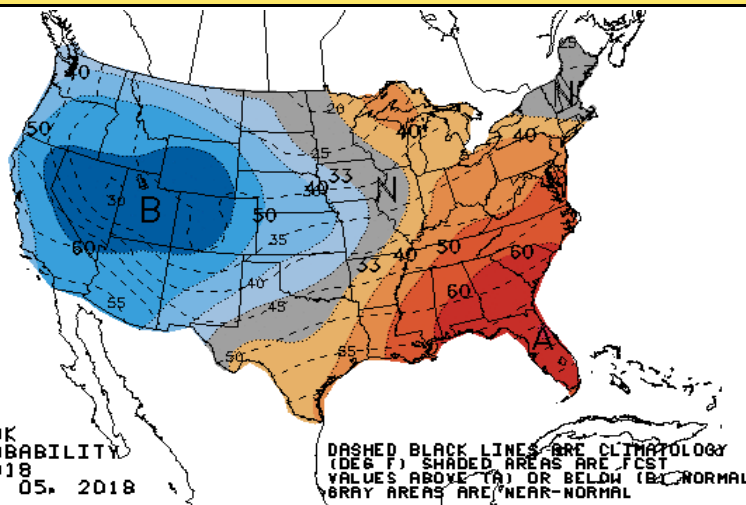


Natural gas prices rose 3.6 cents last week, marking a third consecutive weekly gain. Most of the 2018-19 winter continued to trade well above \$4/MMBtu and saw high volatility, jumping 10% on Monday alone only to reverse most of the gains by the end of the week. Tight storage continues to create uncertainty for this coming winter: domestic inventories stumbled this week with an unprecedented 134-Bcf withdrawal, which far outpaced the typical 25-Bcf draw. Storage now trails the 5-year average by over 700 Bcf (19%), and last weekend's cold could reappear as another strong withdrawal next week. One-month futures settled at \$4.31/Dth on Friday afternoon, a modest increase over the previous week's close.

The National Weather Service near-term forecast calls for below-average temperatures for the West and above-average temperatures for most of the East. The natural gas market scores on page 1 declined again 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 Dec 1 - 5



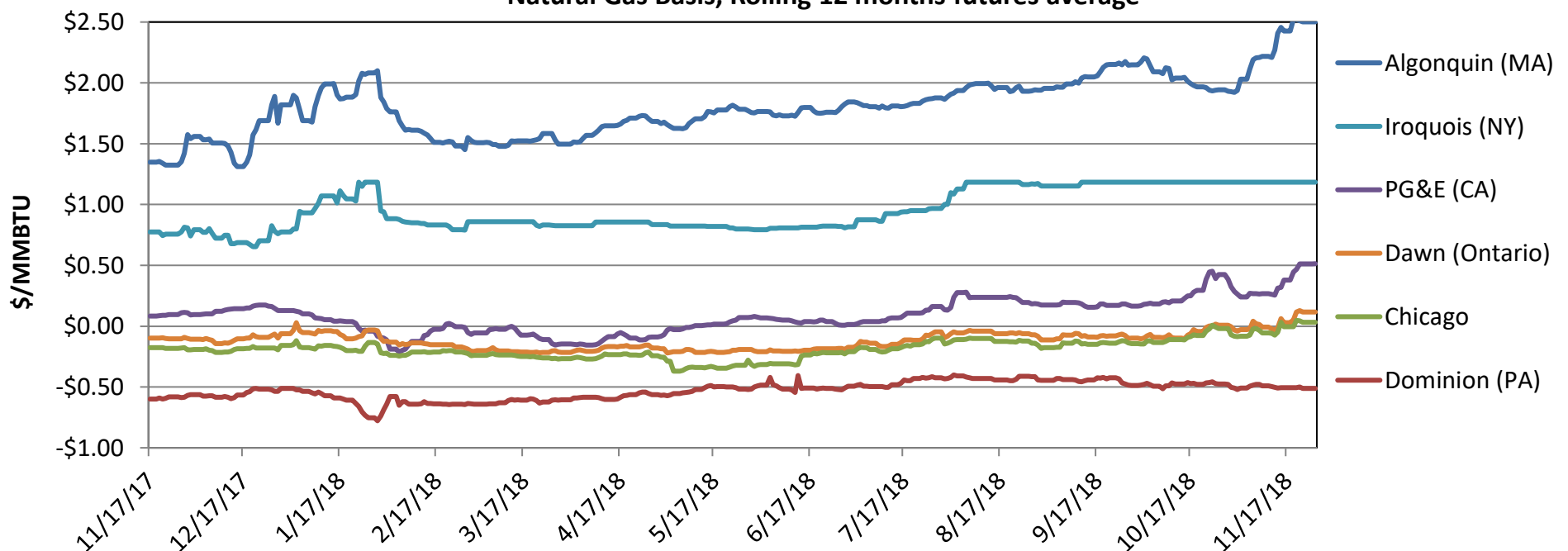
This map depicts forecasted temperatures for next week compared to the long term average. The blue/purple areas are forecast to be colder than normal, white areas are normal, and yellow/orange/red areas are warmer than normal. Abnormally hot weather in the summer and cold weather in the winter can increase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

Source: Chart from the National Weather Service Climate Prediction

Natural Gas Basis Futures

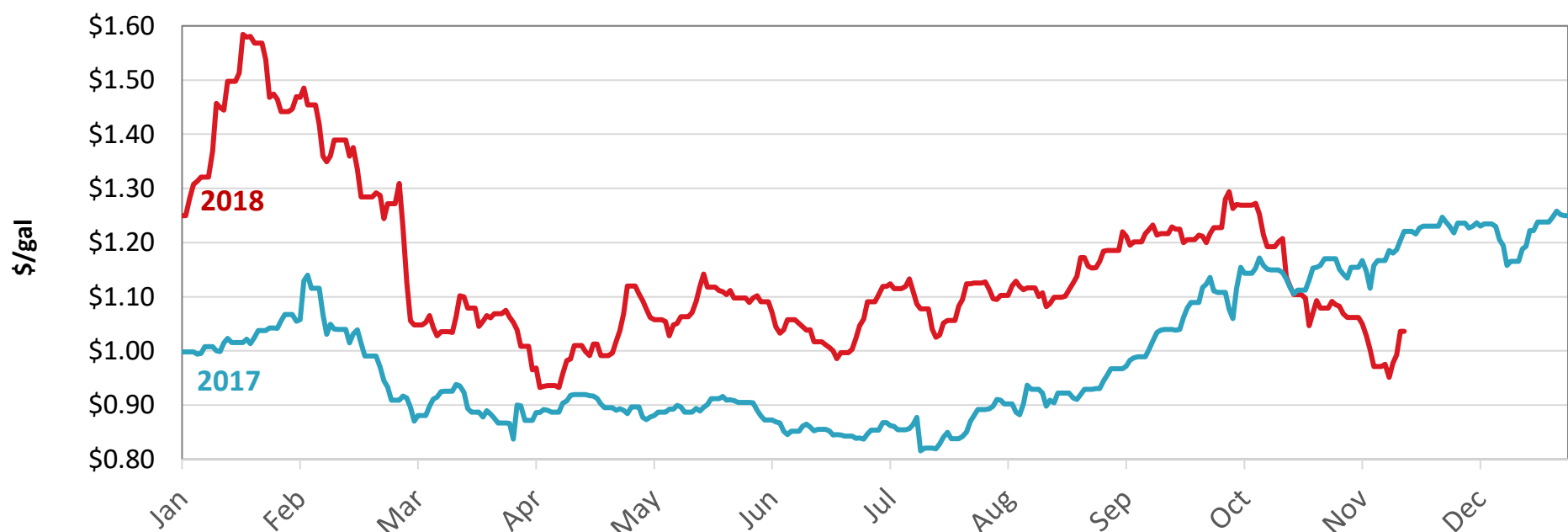
Basis is the price differential between Henry Hub, located in Erath, Louisiana, and the liquidity point closest to the end-user. Because Henry Hub is used as the delivery point for NYMEX natural gas futures contracts, the cost of using natural gas in any geographic region of the country can be approximated 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	
		11/19/18	11/20/18	11/21/18	11/22/18	11/23/18	11/24/18	11/25/18		
Power (\$/MWh)	Maine RT On Pk	80	83	98	110	78			90	
	Maine RT Off Pk	65	92	43	80	118	57	69	75	
	NH RT On Pk	79	83	98	113	80			91	
	NH RT Off Pk	65	93	44	82	121	57	68	76	
	Vermont RT On Pk	78	81	95	108	79			88	
	Vermont RT Off Pk	64	91	43	80	119	56	66	74	
	Connecticut RT On Pk	77	79	96	113	79			89	
	Connecticut RT Off Pk	64	90	43	82	121	56	66	74	
	Rhode Island RT On Pk	78	80	98	115	80			90	
	Rhode Island RT Off Pk	65	93	44	84	124	57	67	76	
	NE Mass RT On Pk	79	83	99	115	81			91	
	NE Mass RT Off Pk	65	93	44	84	123	58	68	76	
	SE Mass RT On Pk	78	82	98	115	80			91	
	SE Mass RT Off Pk	64	93	44	84	123	57	68	76	
	WC Mass RT On Pk	78	81	98	114	80			90	
	WC Mass RT Off Pk	65	92	44	83	122	57	67	76	
			New York ISO Real Time Power Pricing By Zone (\$/MWh)							Avg
	Power (\$/MWh)	Capital RT On Pk	39	36	41	53	52			44
		Capital RT Off Pk	36	20	33	40	53	49	40	39
		Central RT On Pk	37	34	32	48	38			38
Central RT Off Pk		34	7	25	37	21	27	33	26	
Hudson RT On Pk		39	36	39	53	49			43	
Hudson RT Off Pk		35	16	31	39	44	43	39	35	
Mohawk RT On Pk		38	35	33	49	39			39	
Mohawk RT Off Pk		34	7	26	38	23	28	33	27	
Milwood RT On Pk		39	36	39	53	49			43	
Milwood RT Off Pk		35	16	31	40	44	43	39	36	
NYC RT On Pk		39	36	39	54	49			43	
NYC RT Off Pk		36	16	32	40	41	44	39	35	
		PJM Real Time Power Pricing By Zone (\$/MWh)							Avg	
Power (\$/MWh)		Eastern Hub On Pk	41	49	49	49	49			47
		Eastern Hub Off Pk	32	32	32	32	32	32	32	32
		Western Hub On Pk	32	35	35	35	35			35
	Western Hub Off Pk	28	30	30	30	30	30	30	30	
	PPL Zone On Pk	34	42	42	42	42			41	
	PPL Zone Off Pk	26	29	29	29	29	29	29	28	
	AEP RT On Pk	32	36	36	36	36			35	
	AEP RT Off Pk	28	30	30	30	30	30	30	30	
	Chicago RT On Pk	32	35	35	35	35			34	
	Chicago RT Off Pk	27	29	29	29	29	29	29	29	
	New Jersey Hub On Pk	36	42	42	42	42			41	
	New Jersey Hub Off Pk	28	29	29	29	29	29	29	29	
			California ISO Real Time Power Pricing (\$/MWh)							Avg
	Power (\$/MWh)	SoCal Edison RT On Pk	93	54	50	39	32			54
SoCal Edison RT Off Pk		50	56	50	40	37	45	56	48	
		11/19/18	11/20/18	11/21/18	11/22/18	11/23/18	11/24/18	11/25/18	Avg	
Natural Gas \$/MMBtu	Henry Hub, LA	4.65	4.80	4.70					4.72	
	TZ6, MA	11.05	14.23						12.64	
	Algonquin, MA	12.43	13.76	7.40					11.20	
	Chicago Hub, IL	4.61	4.64	4.59					4.61	
	New York, NY	4.75	4.96	4.87					4.86	
	Dominion South, PA	4.37	4.35	4.21					4.31	
	Opal Hub, WY	5.88	6.19	5.93					6.00	
	PG&E Citygate, CA	6.10	6.34	6.11					6.18	