



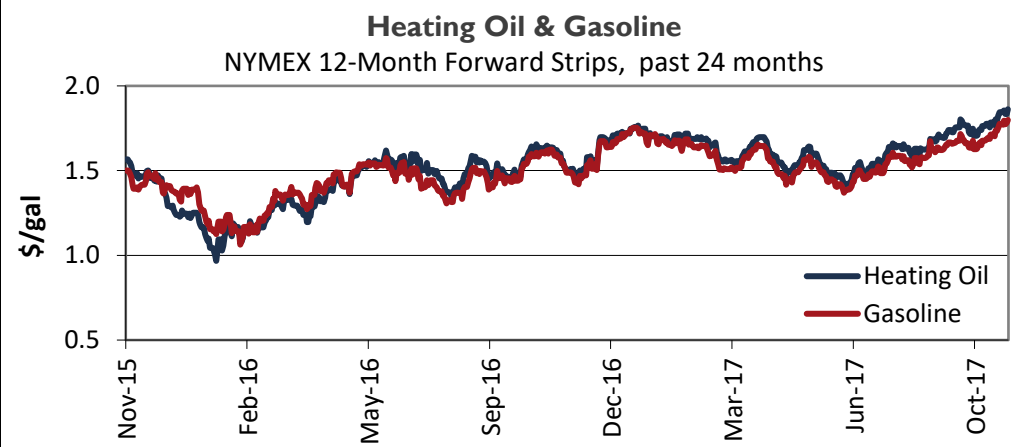
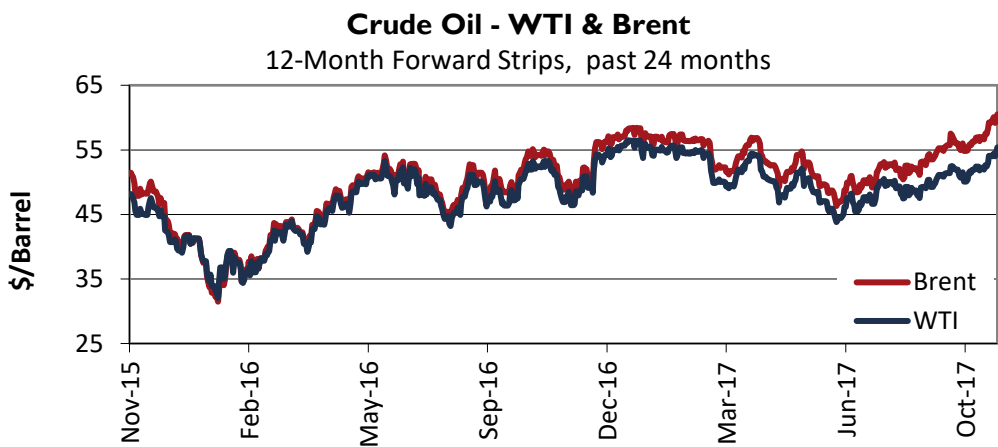
Competitive Energy Services Weekly Market Summary

October 30 - November 3, 2017

Synopsis of Last Week's Energy Markets

Crude oil prices continued to climb last week and through today. OPEC meets at the end of November and is increasingly expected to extend the production cut agreement through 2018. A political shakeup for Saudi Arabia over the weekend caused prices to surge today. Natural gas prices slipped early last week but recovered on Thursday and Friday to end the week relatively unchanged; prices have risen steeply today, however, with news of a cold weather expected to boost heating demand across the northern U.S.

Oil Market



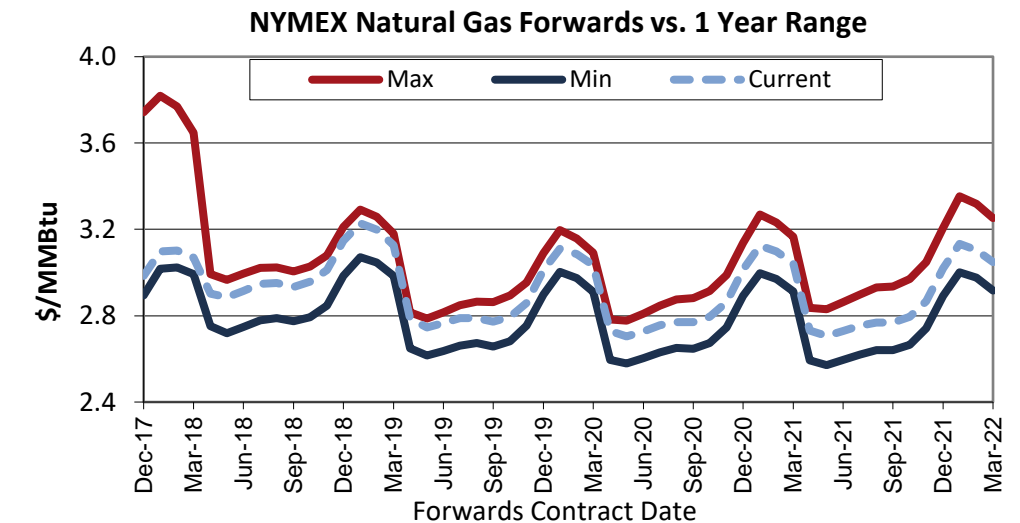
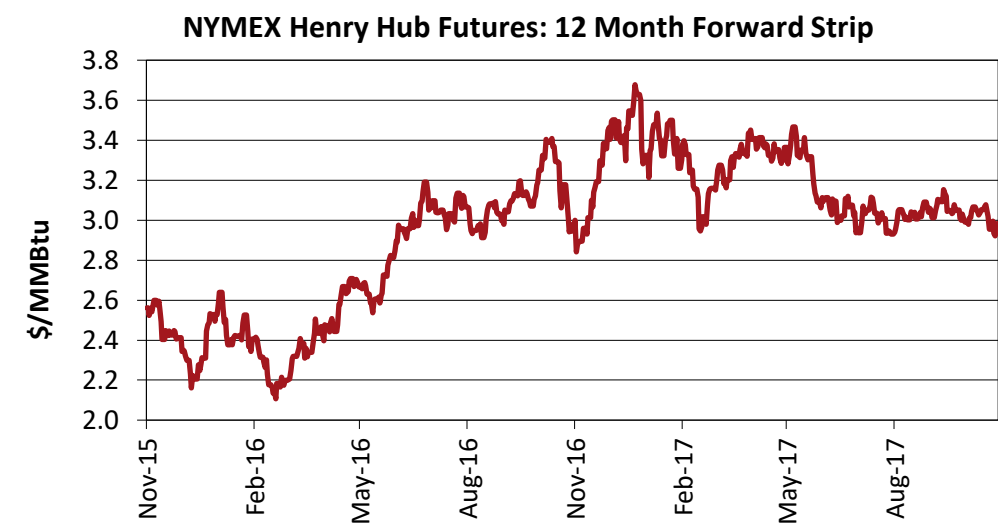
NYMEX WTI	last close	previous week	24-month high	24-month low
12 month strip, \$/bbl	\$55.35	\$54.06	\$56.70	\$32.40
date	11/3/17	10/27/17	1/6/17	1/20/16
change from last close		2.4%	-2.4%	71%

NYMEX Heating Oil	last close	previous week	24-month high	24-month low
12 month strip, \$/gal	\$1.86	\$1.84	\$1.86	\$0.97
date	11/3/17	10/27/17	11/3/17	1/20/16
change from last close		1.2%	0%	93%

US STORAGE (in million bbls)		crude oil
domestic stocks as of	10/27/17	455
gain / loss from previous week		-2.4
comparison to historic range		within

US STORAGE (in million bbls)		distillate	propane	gasoline
domestic stocks as of	10/27/17	129	78	213
gain / loss from previous week		-0.3	0.7	-4.0
comparison to historic range		within	within	within

Natural Gas Market



NYMEX PRICING	last close	previous week	24-month high	24-month low
12 mo. strip, \$/MMBTu	\$2.98	\$2.96	\$3.70	\$2.11
date	11/3/17	10/27/17	12/28/16	2/25/16
change from last close		0.8%	-19%	41%

FORWARDS	12 month	18 month	24 month	36 month
strip (\$/MMBTu)	\$2.98	\$3.00	\$2.95	\$2.92

CES SCORE	
12 month	51
18 month	43
24 month	42
36 month	42

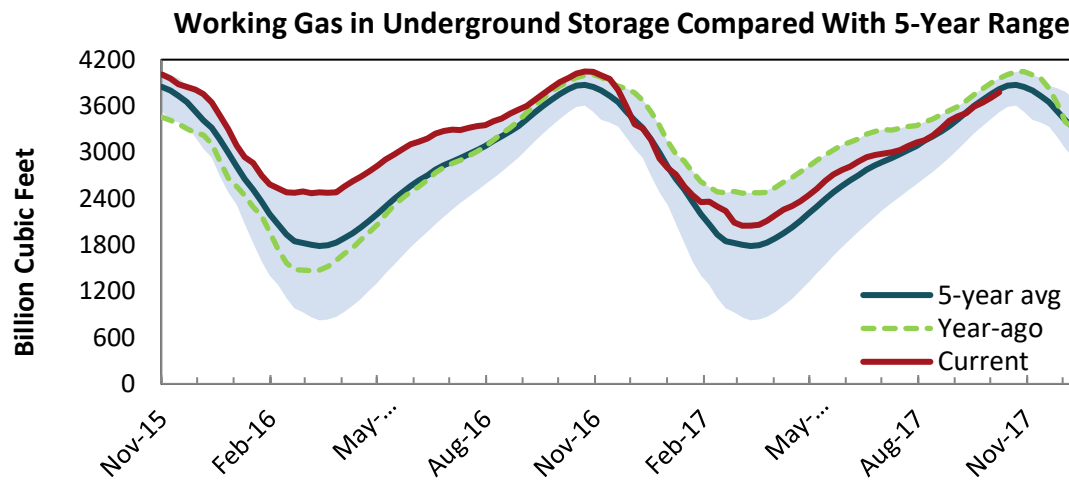
The Score provides a measure of how current prices compare to their 52-week range. A score close to 0 indicates that current prices are close to their 52-week highs; a score close to 100 indicates that current prices are close to their 52-week lows.

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	10/20/17	3,710	
Most Recent Stock Level	10/27/17	3,775	
Year-ago Stock Level		3,955	-4.6%
5-Year Average Stock Level		3,816	-1.1%
Most Recent Net Change	10/27/17	65	
Year-Ago Net Change		56	
5-Year Average Net Change		60	

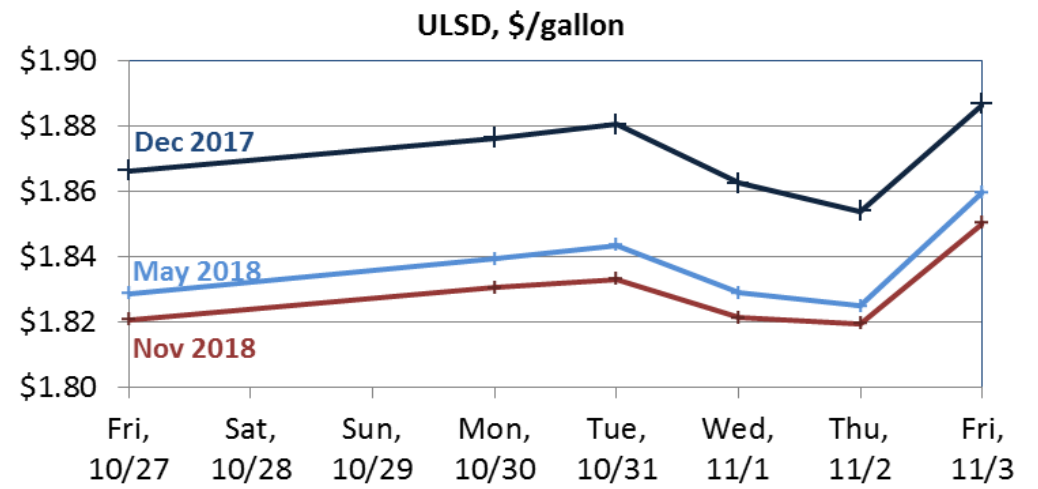
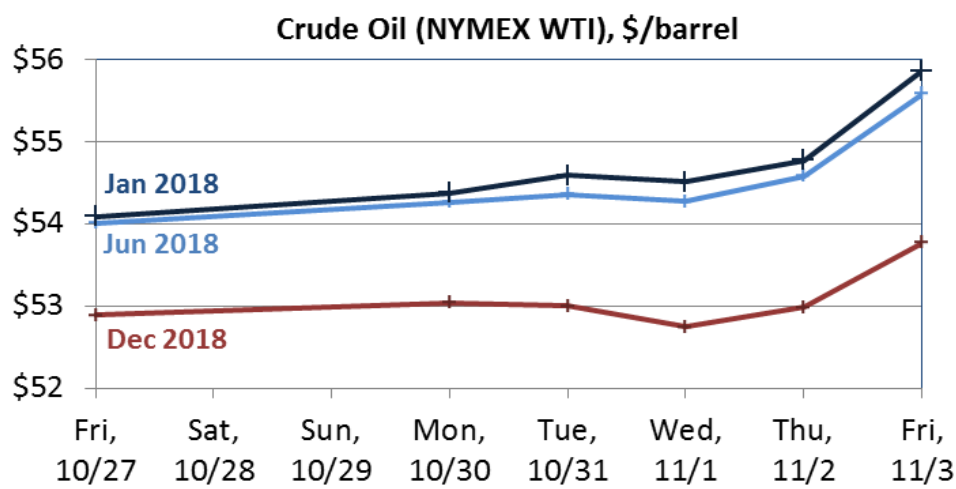
Data Source: EIA <http://tonto.eia.doe.gov/oog/info/ngs/ngs.html>

Market Assessment

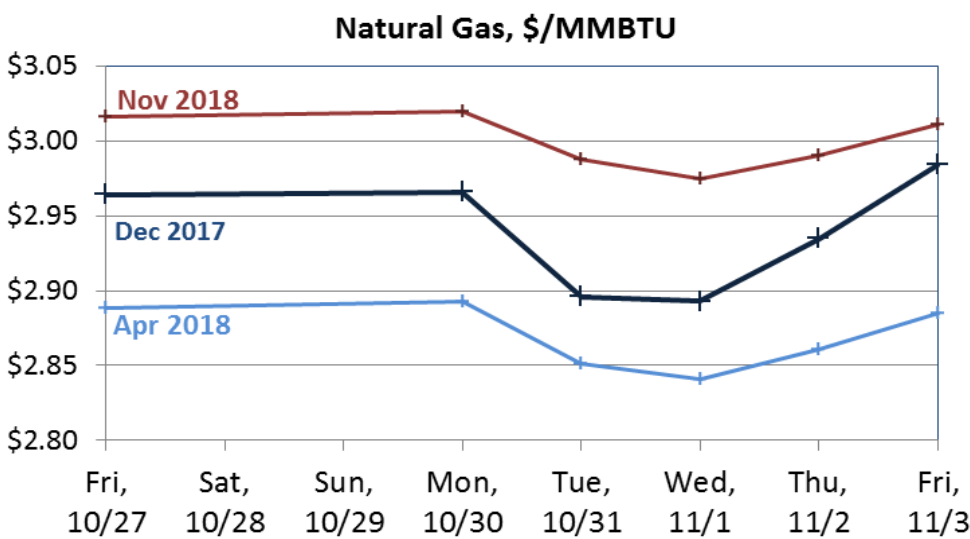
NYMEX Futures Summary Statistics

	Last Expired Contract	Exp. Date	Price	Prompt Month	Price	Most Expensive Next 12 Months	Price	Least Expensive Next 12 Months	Price	Winter Avg (Dec17-Mar18)
Crude oil	Nov-17	9/20/17	\$51.47	Dec-17	\$55.64	Mar-18	\$56.02	Oct-18	\$54.06	\$55.88
Heating oil	Nov-17	9/29/17	\$1.88	Dec-17	\$1.89	Jan-18	\$1.89	Sep-18	\$1.85	\$1.89
Natural gas	Nov-17	9/27/17	\$2.75	Dec-17	\$2.98	Feb-18	\$3.10	May-18	\$2.89	\$3.06

NYMEX End-of-Day Settlements



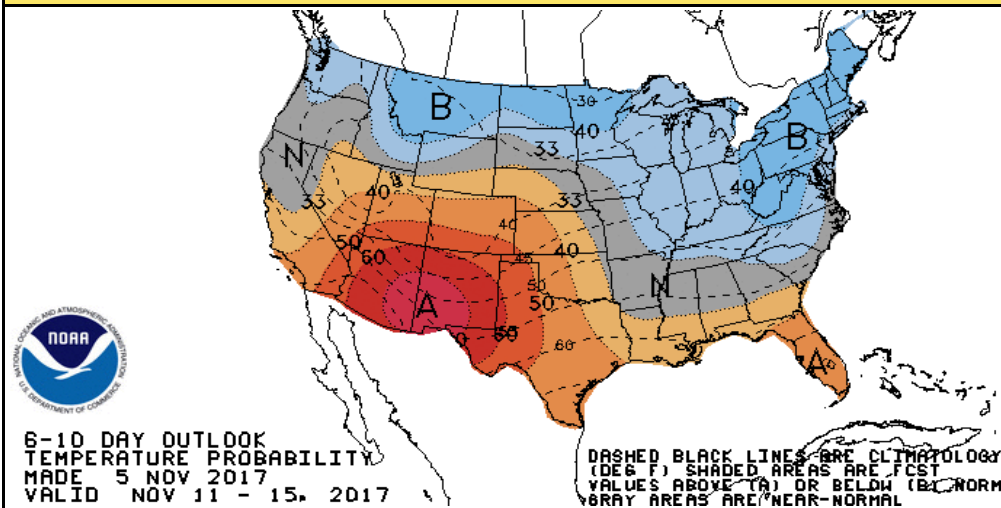
Crude oil prices rose for the fourth straight week. The prompt month contract, December 2017, has risen 12% over this period. By Thursday, prices hit a 2-year high. Support for extending the OPEC-led production cuts through 2018 grew among members, who will meet November 30. Over the weekend, Crown Prince Mohammed bin Salman of Saudi Arabia purged and arrested ministers, members of the royal family, and businessmen in what was ostensibly an anti-corruption sweep. Next year, Bin Salman plans on selling off a slice of Saudi Arabia's state-owned oil company, Saudi Aramco, and would benefit from higher prices. The political shakeup caused near-term WTI and Brent contracts to surge 3% today.



Natural gas prices dropped early in the week as mild forecasts indicated that heating demand could remain low relative to past years. Expectations for a higher-than-average storage injection also weighed on prices: muted demand and high production contributed to a 65 Bcf build, compared to the average gain of 60 Bcf, bringing to total inventory to 3,775 Bcf. Analysts expect to see two further storage injections this year, which could bring storage to just over 3,800 Bcf; by comparison, during the last two seasons storage peaked at over 4000 Bcf. Markets saw late-week gains as forecasts turned cooler, especially in the Midwest. December futures gained about 1% week-over-week, closing at \$2.98 on Friday. Markets jumped drastically today, reversing much of the losses from late October.

The National Weather Service near-term forecast calls for cooler-than-normal temperatures for the Northern US, Midwest, and mid-Atlantic regions. Temperatures in the Southwest are expected to be below-normal. The natural gas market scores on page 1 improved from the previous week. Clients with electricity or natural gas contracts expiring in 2017 or 2018 should consult with a CES representative for customized guidance.

National Weather Service Forecast



6 - 10 Day Forecast for Nov 11 - 15

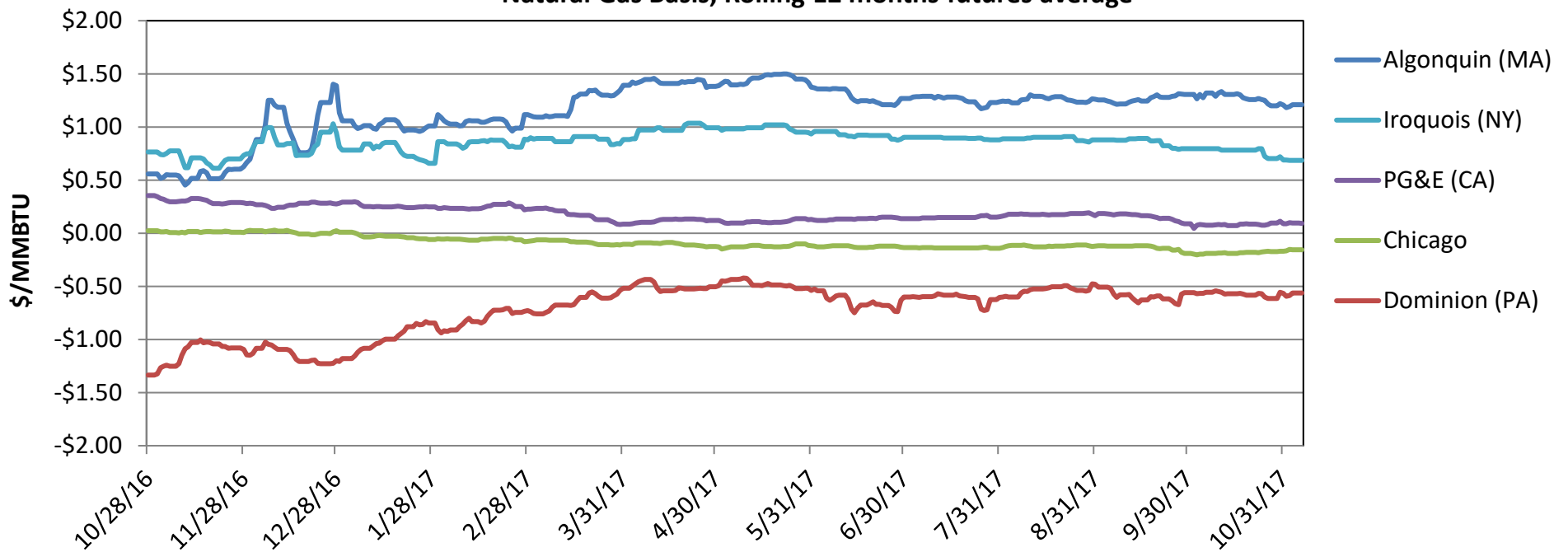
This map depicts forecasted temperatures for next week compared to the long term average. The blue/purple areas are forecast to be colder than normal, white areas are normal, and yellow/orange/red areas are warmer than normal. Abnormally hot weather in the summer and cold weather in the winter can increase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

Source: Chart from the National Weather Service Climate Prediction

Natural Gas Basis Futures

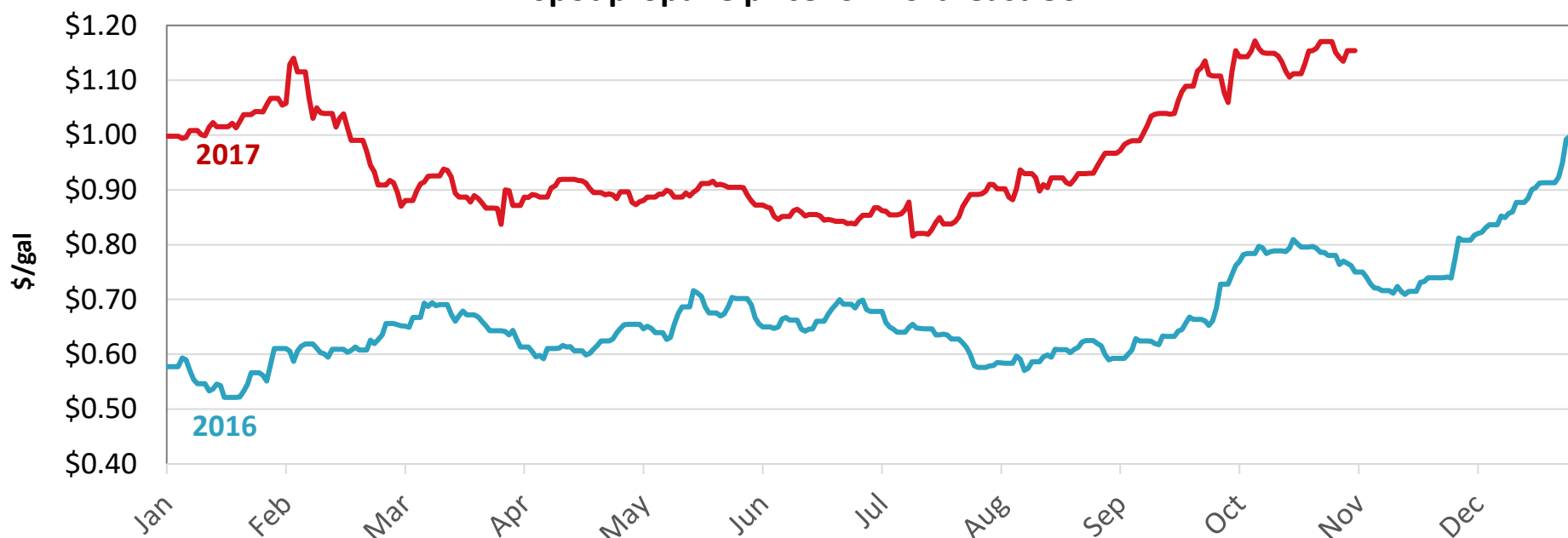
Basis is the price differential between Henry Hub, located in Erath, Louisiana, and the liquidity point closest to the end-user. Because Henry Hub is used as the delivery point for NYMEX natural gas futures contracts, the cost of using natural gas in any geographic region of the country can be approximated 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)		10/30/17	10/31/17	11/1/17	11/2/17	11/3/17	11/4/17	11/5/17	Avg
Maine RT On Pk		(10)	30	36	13	0			14
Maine RT Off Pk		(75)	8	8	9	(8)	5	18	(5)
NH RT On Pk		4	31	37	13	6			18
NH RT Off Pk		(33)	15	18	10	(1)	9	20	5
Vermont RT On Pk		17	31	37	13	11			22
Vermont RT Off Pk		8	21	28	10	6	14	20	15
Connecticut RT On Pk		20	32	37	14	13			23
Connecticut RT Off Pk		17	24	31	11	8	16	21	18
Rhode Island RT On Pk		24	32	36	13	14			24
Rhode Island RT Off Pk		30	26	34	11	9	17	21	21
NE Mass RT On Pk		33	32	37	13	17			26
NE Mass RT Off Pk		53	30	40	11	13	19	21	27
SE Mass RT On Pk		26	32	37	13	14			24
SE Mass RT Off Pk		33	26	35	11	10	17	21	22
WC Mass RT On Pk		23	32	37	13	14			24
WC Mass RT Off Pk		25	25	33	11	9	16	21	20
New York ISO Real Time Power Pricing By Zone (\$/MWh)									Avg
Capital RT On Pk		24	31	51	21	22			30
Capital RT Off Pk		11	12	21	10	11	22	24	16
Central RT On Pk		22	35	49	20	21			29
Central RT Off Pk		6	8	19	5	9	21	18	12
Hudson RT On Pk		24	31	53	22	23			31
Hudson RT Off Pk		10	11	21	8	10	23	22	15
Mohawk RT On Pk		22	25	50	21	21			28
Mohawk RT Off Pk		6	7	19	5	9	21	18	12
Milwood RT On Pk		24	31	53	22	23			30
Milwood RT Off Pk		10	11	21	8	10	23	22	15
NYC RT On Pk		24	31	53	23	25			31
NYC RT Off Pk		10	11	22	8	10	23	26	16
PJM Real Time Power Pricing By Zone (\$/MWh)									Avg
Eastern Hub On Pk		34	34	51	35	35			38
Eastern Hub Off Pk		33	33	37	34	34	34	34	34
Western Hub On Pk		27	27	41	34	34			33
Western Hub Off Pk		23	23	23	22	22	22	22	22
PPL Zone On Pk		24	24	45	22	22			27
PPL Zone Off Pk		17	17	22	16	16	16	16	17
AEP RT On Pk		30	30	37	35	35			33
AEP RT Off Pk		27	27	22	23	23	23	23	24
Chicago RT On Pk		28	28	32	34	34			31
Chicago RT Off Pk		20	20	20	22	22	22	22	21
New Jersey Hub On Pk		25	25	42	27	27			29
New Jersey Hub Off Pk		19	19	22	19	19	19	19	19
California ISO Real Time Power Pricing (\$/MWh)									Avg
SoCal Edison RT On Pk		40	66	51	35	38			46
SoCal Edison RT Off Pk		24	26	27	29	28	28	33	28
		10/30/17	10/31/17	11/1/17	11/2/17	11/3/17	11/4/17	11/5/17	Avg
Natural Gas \$/MMBtu	Henry Hub, LA	2.87	2.77	2.64	2.69	2.74			2.74
	TZ6, MA	2.97	2.07	1.04	1.39	1.35			1.76
	Algonquin, MA	3.12		1.24	1.28	1.11			1.69
	Chicago Hub, IL	3.04	2.76	2.67	2.77	2.82			2.81
	New York, NY	2.65	1.25	0.87	1.17	0.83			1.35
	Dominion South, PA	1.52	1.23	0.67	0.90	0.83			1.03
	Opal Hub, WY	2.72	2.59	2.52	2.63	2.64			2.62
	PG&E Citygate, CA	3.13	3.05	2.95	3.00	3.08			3.04
	Kern River Deliveries	2.85	2.70	2.63	2.73	2.73			2.73