



Competitive Energy Services Weekly Market Summary

November 6 - 10, 2017

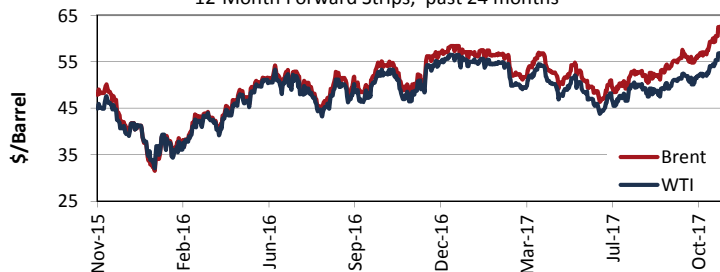
Synopsis of Last Week's Energy Markets

Crude oil prices soared last Monday and held on to those gains throughout the week. Political upheaval in Saudi Arabia boosted prices, as well as an indication that Nigeria may opt into the OPEC production cuts at their next meeting November 30. Natural gas futures gained 7% last week amid expectations for a small storage gain and cold temperatures across the northern U.S. Current inventories remain slightly below normal at a 1.8% deficit to the 5-year average.

Oil Market

Crude Oil - WTI & Brent

12-Month Forward Strips, past 24 months

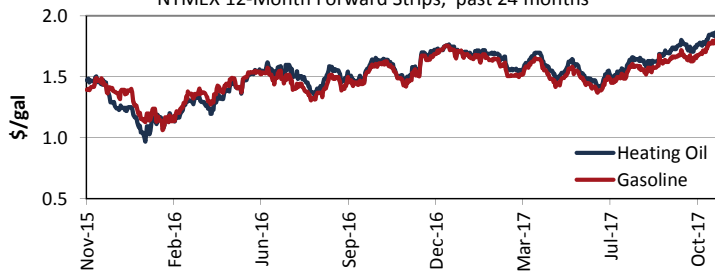


NYMEX WTI	last close	previous week	24-month high	24-month low
12 month strip, \$/bbl	\$56.80	\$55.35	\$57.06	\$32.40
date	11/10/17	11/3/17	11/9/17	1/20/16
change from last close		2.6%	-0.4%	75%

US STORAGE (in million bbls)		crude oil
domestic stocks as of	11/3/17	457
gain / loss from previous week		2.2
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	\$1.86	\$1.92	\$0.97
date	11/10/17	11/3/17	11/6/17	1/20/16
change from last close		2.5%	0%	97%

US STORAGE (in million bbls)		distillate	propane	gasoline
domestic stocks as of	11/3/17	126	77	210
gain / loss from previous week		-3.4	-1.1	-3.3
comparison to historic range		within	within	within

Natural Gas Market

NYMEX Henry Hub Futures: 12 Month Forward Strip

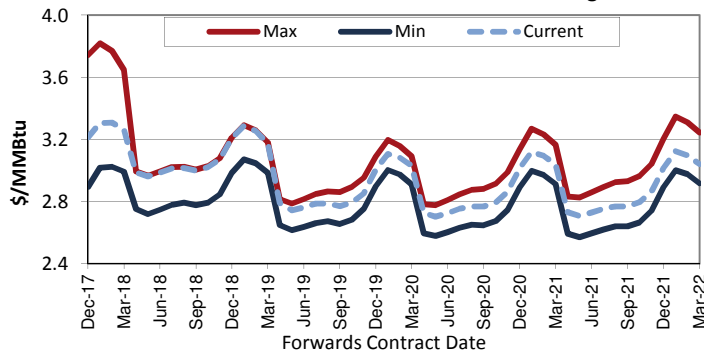


NYMEX PRICING	last close	previous week	24-month high	24-month low
12 mo. strip, \$/MMBtu	\$3.10	\$2.98	\$3.70	\$2.11
date	11/10/17	11/3/17	12/28/16	2/25/16
change from last close		3.8%	-16%	47%

CES SCORE	
12 month	22
18 month	18
24 month	23
36 month	30

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)	\$3.10	\$3.09	\$3.01	\$2.96

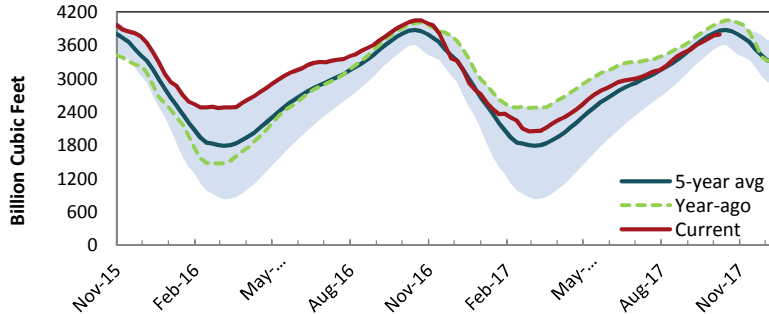
Natural gas futures are useful for both natural gas and electricity consumers because they drive electricity pricing in many U.S. markets. This chart compares the current natural gas price for each forward month on the NYMEX exchange to the highest and lowest prices for the same month over the past 12 months.



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Natural Gas Storage

Working Gas in Underground Storage Compared With 5-Year Range



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	10/27/17	3,775	
Most Recent Stock Level	11/3/17	3,790	
Year-ago Stock Level		4,009	-5.5%
5-Year Average Stock Level		3,861	-1.8%
Most Recent Net Change	11/3/17	15	
Year-Ago Net Change		54	
5-Year Average Net Change		45	

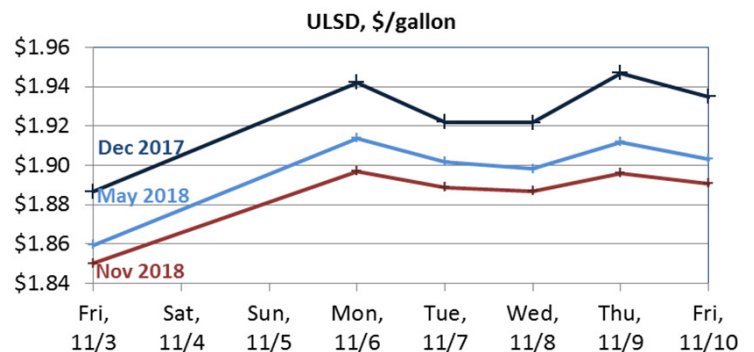
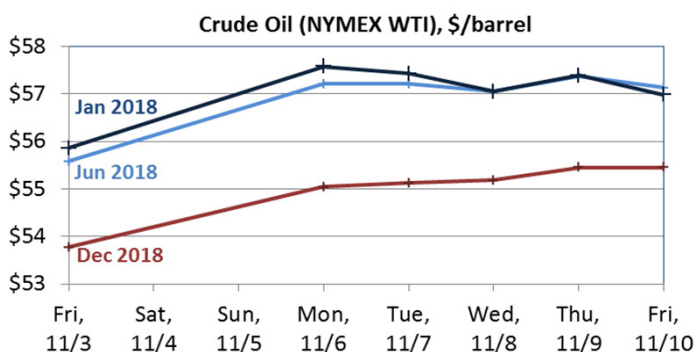
Data Source: EIA <http://tonto.eia.doe.gov/oog/info/ngs/ngs.html>

Market Assessment

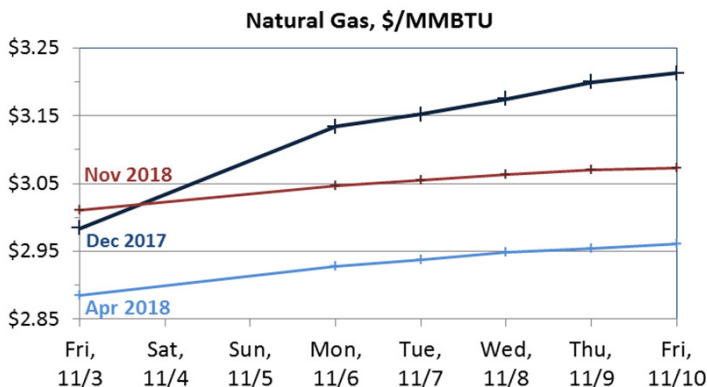
NYMEX Futures Summary Statistics

	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	\$56.74	Mar-18	\$56.02	Oct-18	\$55.74	\$57.04
Heating oil	Nov-17	9/29/17	\$1.88	Dec-17	\$1.93	Jan-18	\$1.94	Sep-18	\$1.89	\$1.93
Natural gas	Nov-17	9/27/17	\$2.75	Dec-17	\$3.21	Feb-18	\$3.31	May-18	\$2.96	\$3.27

NYMEX End-of-Day Settlements



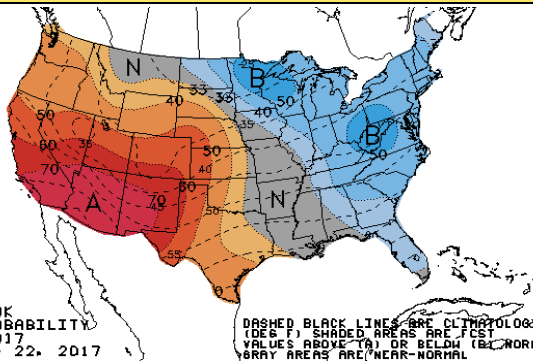
Monday saw crude oil prices jump 3% on a mix of bullish news. Over the previous weekend, Saudi Arabia's Crown Prince Mohammed bin Salman ordered the arrest of dozens of government officials and business tycoons in what was ostensibly an anti-corruption sweep. Political instability in the oil-rich kingdom boosted the crude oil market. Nigeria's oil minister also signaled that it may cap production; Nigeria is an OPEC member but is exempt from the current agreement. Prices were tempered the rest of the week as the EIA reported that stockpiles at the NYMEX hub at Cushing, Oklahoma, rose to a seasonal high and total US stocks unexpectedly gained. In addition, the US production rate is now at the highest level since the EIA began collecting data in the 1980s.



Natural gas futures jumped last week with the arrival of cold weather in the northern U.S. December futures rose 22 cents by the end of the week, closing at \$3.21 on Friday afternoon. These gains more than reversed the sharp declines of late October and brought prices back in line with the otherwise tight trading range established in early summer. Early-week price gains were supported by expectations for a relatively small storage injection as exports remained strong amid rising heating demand. Last week's injection of 15 Bcf fell far short of the typical 45 Bcf, bringing stocks to a 1.8% deficit to the average. The cold spell last week could mean that the next report will show the season's first net storage withdrawal.

The National Weather Service near-term forecast calls for cooler-than-normal temperatures for the eastern U.S. and warmer-than-normal temperatures west of the Great Plains. The natural gas market scores on page 1 declined 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 OUTLOOK
TEMPERATURE PROBABILITY
MADE 12 NOV 2017
VALID NOV 18 - 22, 2017

DASHED BLACK LINES ARE CLIMATOLOGY
(DEG F). SHADED AREAS ARE FCST
VALUES ABOVE (A) OR BELOW (B) NORMAL
GRAY AREAS ARE NEAR-NORMAL

6 - 10 Day Forecast for Nov 18 - 22

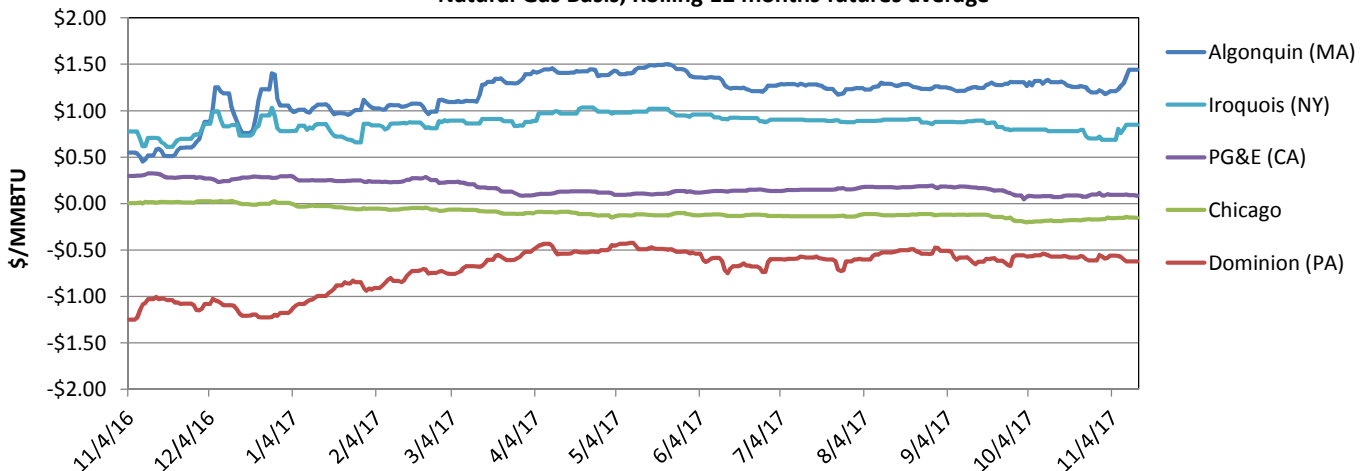
This map depicts forecasted temperatures for next week compared to the long term average. The blue/purple areas are forecast to be colder than normal, white areas are normal, and yellow/orange/red areas are warmer than normal. Abnormally hot weather in the summer and cold weather in the winter can increase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

Source: Chart from the National Weather Service Climate Prediction

Natural Gas Basis Futures

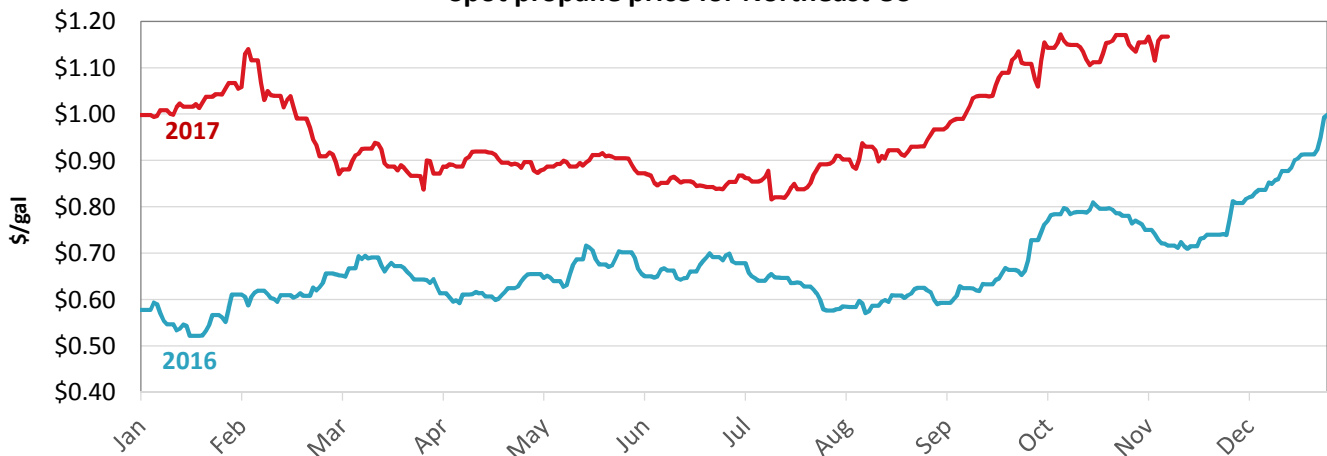
Basis is the price differential between Henry Hub, located in Erath, Louisiana, and the liquidity point closest to the end-user. Because Henry Hub is used as the delivery point for NYMEX natural gas futures contracts, the cost of using natural gas in any geographic region of the country can be approximated 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	
		11/6/17	11/7/17	11/8/17	11/9/17	11/10/17	11/11/17	11/12/17		
Power (\$/MWh)	Maine RT On Pk	40	32	40	34	35			36	
	Maine RT Off Pk	21	21	28	32	5	51	54	30	
	NH RT On Pk	41	33	41	34	37			37	
	NH RT Off Pk	22	22	28	32	5	53	54	31	
	Vermont RT On Pk	41	33	40	34	36			37	
	Vermont RT Off Pk	22	22	28	33	5	52	52	31	
	Connecticut RT On Pk	42	33	41	35	38			38	
	Connecticut RT Off Pk	23	22	28	33	5	53	53	31	
	Rhode Island RT On Pk	41	32	40	34	38			37	
	Rhode Island RT Off Pk	23	22	28	32	5	54	54	31	
	NE Mass RT On Pk	42	33	41	35	38			38	
	NE Mass RT Off Pk	23	22	28	32	5	54	54	31	
	SE Mass RT On Pk	41	33	41	35	39			38	
	SE Mass RT Off Pk	22	22	28	32	5	54	55	31	
	WC Mass RT On Pk	42	33	41	35	38			38	
	WC Mass RT Off Pk	23	22	28	33	5	54	54	31	
			New York ISO Real Time Power Pricing By Zone (\$/MWh)							Avg
		Capital RT On Pk	40	38	42	36	23			36
		Capital RT Off Pk	27	23	31	33	15	28	29	27
		Central RT On Pk	38	37	43	34	22			35
Central RT Off Pk		14	22	30	31	9	26	25	23	
Hudson RT On Pk		41	38	43	37	24			36	
Hudson RT Off Pk		24	24	31	34	13	29	29	26	
Mohawk RT On Pk		37	37	42	34	22			35	
Mohawk RT Off Pk		15	22	30	32	9	27	26	23	
Milwood RT On Pk		41	38	43	37	24			36	
Milwood RT Off Pk		23	24	32	34	13	29	29	26	
NYC RT On Pk		41	44	43	37	25			38	
NYC RT Off Pk		24	24	32	33	13	29	29	26	
		PJM Real Time Power Pricing By Zone (\$/MWh)							Avg	
		Eastern Hub On Pk	35	34	38	81	81			54
		Eastern Hub Off Pk	20	24	41	22	22	22	22	25
		Western Hub On Pk	44	75	72	59	59			62
	Western Hub Off Pk	28	39	45	32	32	32	32	34	
	PPL Zone On Pk	33	32	33	21	21			28	
	PPL Zone Off Pk	13	23	39	21	21	21	21	23	
	AEP RT On Pk	34	36	35	29	29			33	
	AEP RT Off Pk	33	26	29	26	26	26	26	28	
	Chicago RT On Pk	35	34	34	27	27			32	
	Chicago RT Off Pk	32	24	26	22	22	22	22	25	
	New Jersey Hub On Pk	35	35	37	25	25			31	
	New Jersey Hub Off Pk	19	24	40	22	22	22	22	24	
			California ISO Real Time Power Pricing (\$/MWh)							Avg
Natural Gas \$/MMBtu	SoCal Edison RT On Pk	67	96	35	41	36			55	
	SoCal Edison RT Off Pk	31	37	30	31	27	26	36	31	
			11/6/17	11/7/17	11/8/17	11/9/17	11/10/17	11/11/17	11/12/17	Avg
	Henry Hub, LA	3.03	3.08	3.15	3.18	3.14			3.12	
	TZ6, MA	2.39	3.47	3.77	9.10	7.87			5.32	
	Algonquin, MA	2.50			8.75	6.67			5.97	
	Chicago Hub, IL	3.05	3.08	3.31	3.34	3.16			3.19	
	New York, NY	1.99	2.51	2.88	3.05	2.58			2.60	
	Dominion South, PA	1.65	2.26	2.57	2.48	2.39			2.27	
	Opal Hub, WY	2.98	2.91	2.97	2.99	2.83			2.93	
PG&E Citygate, CA	3.21	3.24	3.29	3.30	3.26			3.26		
Kern River Deliveries	3.11	3.06	3.23	3.15	2.91			3.09		