



Competitive Energy Services Weekly Market Summary

August 21 - 25, 2017

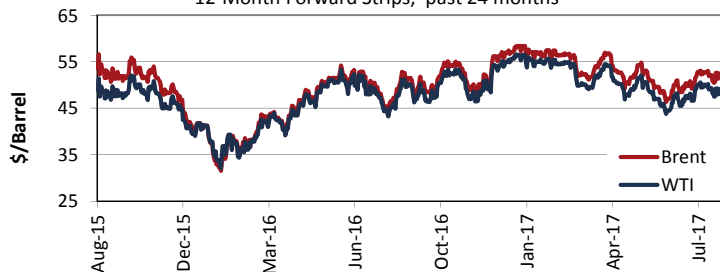
Synopsis of Last Week's Energy Markets

Crude oil prices ended the week very close to where they started, with futures very tightly clustered around \$48-49 per barrel. Heavy rains and flooding brought by Hurricane Harvey are causing refinery shutdowns in the Gulf Coast area, boosting prices for distillates and gasoline. Natural gas prices rose and fell last week but saw little change week-over-week. The storage surplus is nearing the 5-year average ahead of the shoulder season and Hurricane Harvey has had a mixed impact on the market as it halts both production and electricity delivery along the Gulf.

Oil Market

Crude Oil - WTI & Brent

12-Month Forward Strips, past 24 months

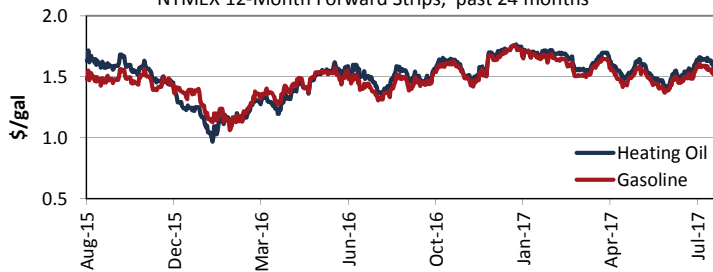


NYMEX WTI	last close	previous week	24-month high	24-month low
12 month strip, \$/bbl	\$48.74	\$49.22	\$56.70	\$32.40
date	8/25/17	8/18/17	1/6/17	1/20/16
change from last close		-1.0%	-14.0%	50%

US STORAGE (in million bbls)	crude oil
domestic stocks as of	8/18/17
	463
gain / loss from previous week	-3.3
comparison to historic range	within

Heating Oil & Gasoline

NYMEX 12-Month Forward Strips, past 24 months

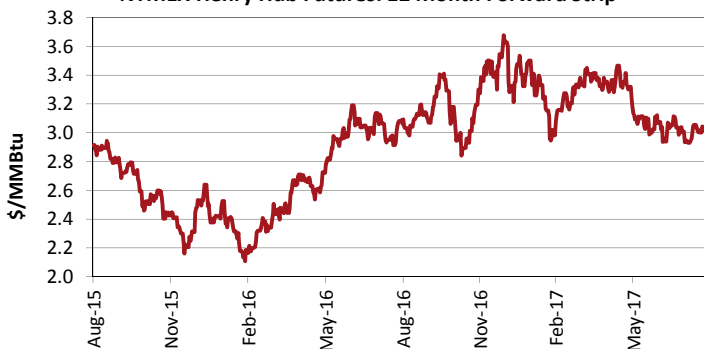


NYMEX Heating Oil	last close	previous week	24-month high	24-month low
12 month strip, \$/gal	\$1.62	\$1.63	\$1.76	\$0.97
date	8/25/17	8/18/17	1/2/17	1/20/16
change from last close		-0.3%	-8%	68%

US STORAGE (in million bbls)	distillate	propane	gasoline
domestic stocks as of	8/18/17	148	72
		72	230
gain / loss from previous week	0.0	2.9	-1.2
comparison to historic range	within	within	within

Natural Gas Market

NYMEX Henry Hub Futures: 12 Month Forward Strip

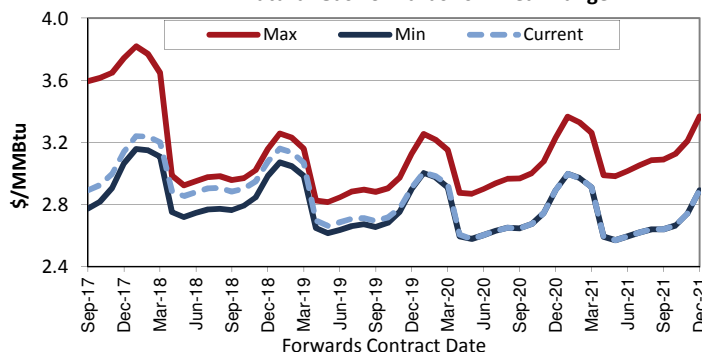


NYMEX PRICING	last close	previous week	24-month high	24-month low
12 mo. strip, \$/MMBtu	\$3.01	\$3.00	\$3.70	\$2.11
date	8/25/17	8/18/17	12/28/16	2/25/16
change from last close		0.1%	-19%	43%

CES SCORE	
12 month	65
18 month	58
24 month	62
36 month	73

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)	\$3.01	\$3.01	\$2.95	\$2.88

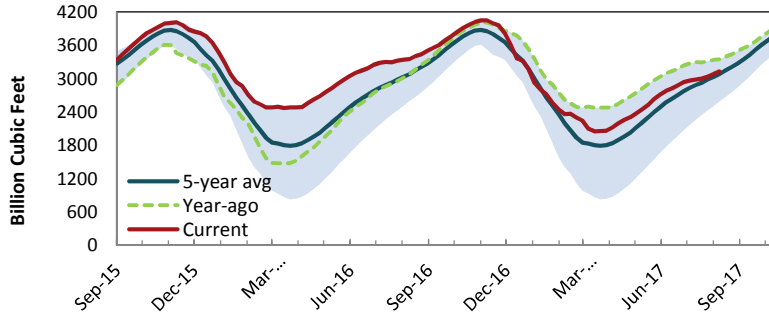
Natural gas futures are useful for both natural gas and electricity consumers because they drive electricity pricing in many U.S. markets. This chart compares the current natural gas price for each forward month on the NYMEX exchange to the highest and lowest prices for the same month over the past 12 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	8/11/17	3,082	
Most Recent Stock Level	8/18/17	3,125	
Year-ago Stock Level		3,348	-6.7%
5-Year Average Stock Level		3,080	1.5%
Most Recent Net Change	8/18/17	43	
Year-Ago Net Change		12	
5-Year Average Net Change		53	

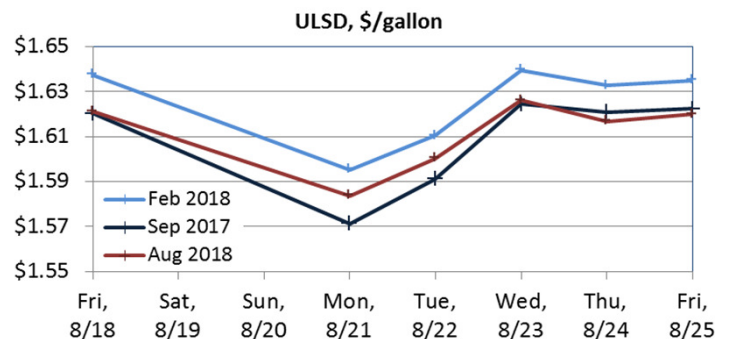
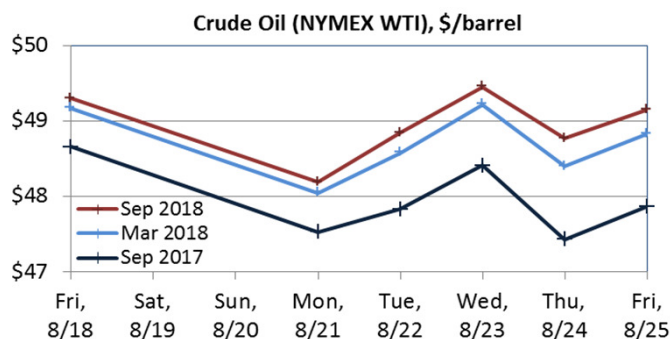
Data Source: EIA <http://tonto.eia.doe.gov/oog/info/ngs/ngs.html>

Market Assessment

NYMEX Futures Summary Statistics

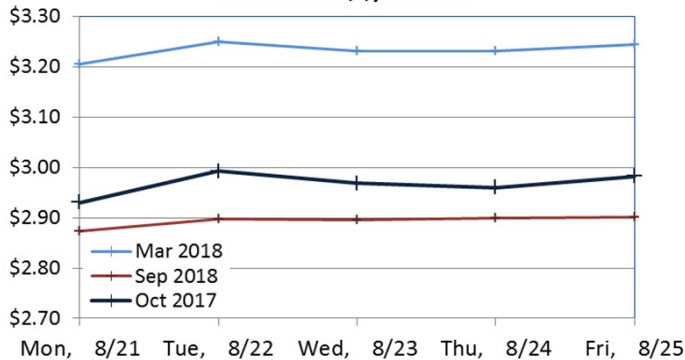
	Last Expired Contract	Exp. Date	Price	Prompt Month	Price	Most Expensive Next 12 Months	Price	Least Expensive Next 12 Months	Price	Next Winter Avg (Nov17-Mar18)
Crude oil	Sep-17	8/22/17	\$47.64	Oct-17	\$47.87	Aug-18	\$49.13	Oct-17	\$47.87	\$48.50
Heating oil	Aug-17	7/31/17	\$1.65	Sep-17	\$1.62	Feb-18	\$1.64	Jun-18	\$1.61	\$1.63
Natural gas	Aug-17	7/27/17	\$2.97	Sep-17	\$2.89	Jan-18	\$3.24	May-18	\$2.89	\$3.16

NYMEX End-of-Day Settlements



Crude oil prices started the week with a drop, erasing gains from the previous Friday. However, prices climbed Tuesday and Wednesday as the EIA reported declines in both domestic crude oil and gasoline stocks. As the week progressed, forecasts for the severity of Hurricane Harvey became more dire. The storm system made landfall on Friday in Texas as a Category 4 hurricane, shutting down 22% of Gulf Coast production as of Friday (3-4% of total US production). However, its effect on crude prices was bearish as severe and extending flooding was expected to halt refining activity, leading to a buildup in crude oil stocks. More than 45% of US refining capacity is in the Gulf Coast. As expected, on Monday morning gasoline futures were surging while crude oil futures were declining.

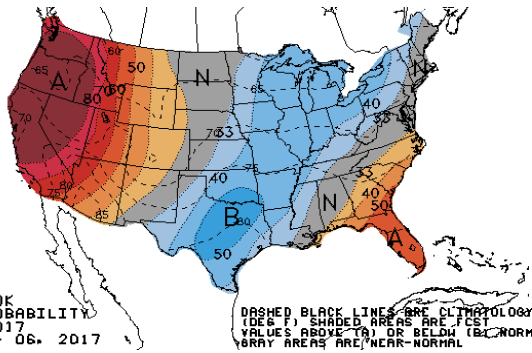
Natural Gas, \$/MMBTU



Natural gas prices were flat week-over-week; prices were strong on Monday but receded throughout the remainder of the week. The hurricane in the Gulf was expected to halt regional production but also to reduce demand for electricity generation following outages in the storm's pathway. The Department of Energy estimates that Hurricane Harvey (now a tropical storm) left over 300,000 households across Texas without power and expects outages to last through the first half of the week. Prices rose briefly on Thursday on news of a lower-than-expected storage injection; this brought the storage surplus to 1.5% to the 5-year average. September futures slipped again on Friday, closing at \$2.89.

The National Weather Service near-term forecast calls for normal or below-normal temperatures for most of the eastern half of the US, while areas west of the Rockies should be warmer than normal. The natural gas market scores on page 1 remained steady 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 September 2 - 6, 2017

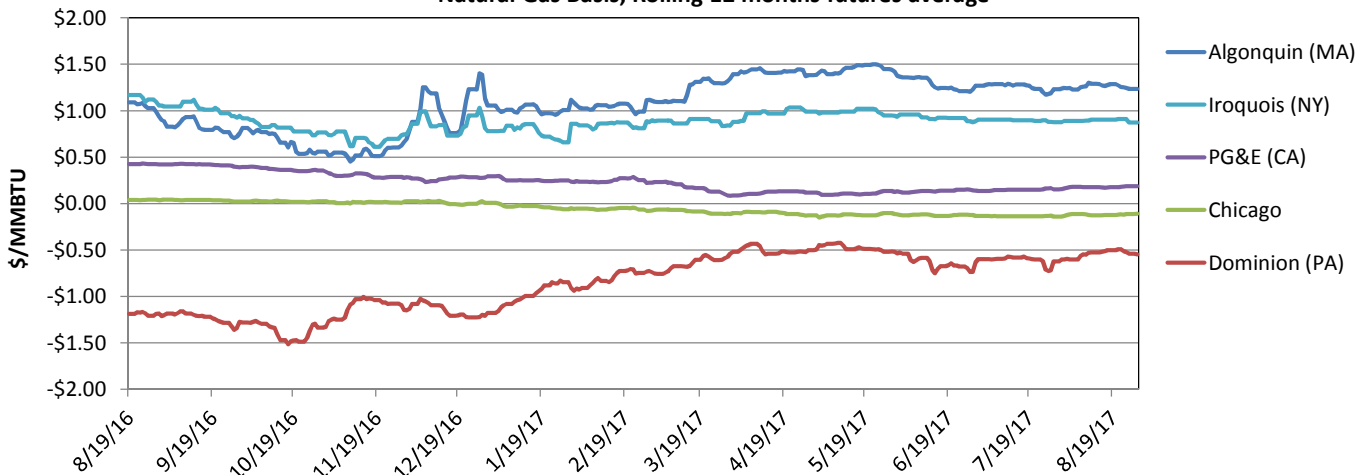
This map depicts forecasted temperatures for next week compared to the long term average. The blue/purple areas are forecast to be colder than normal, white areas are normal, and yellow/orange/red areas are warmer than normal. Abnormally hot weather in the summer and cold weather in the winter can increase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

Source: Chart from the National Weather Service Climate Prediction Center www.cpc.ncep.noaa.gov

Natural Gas Basis Futures

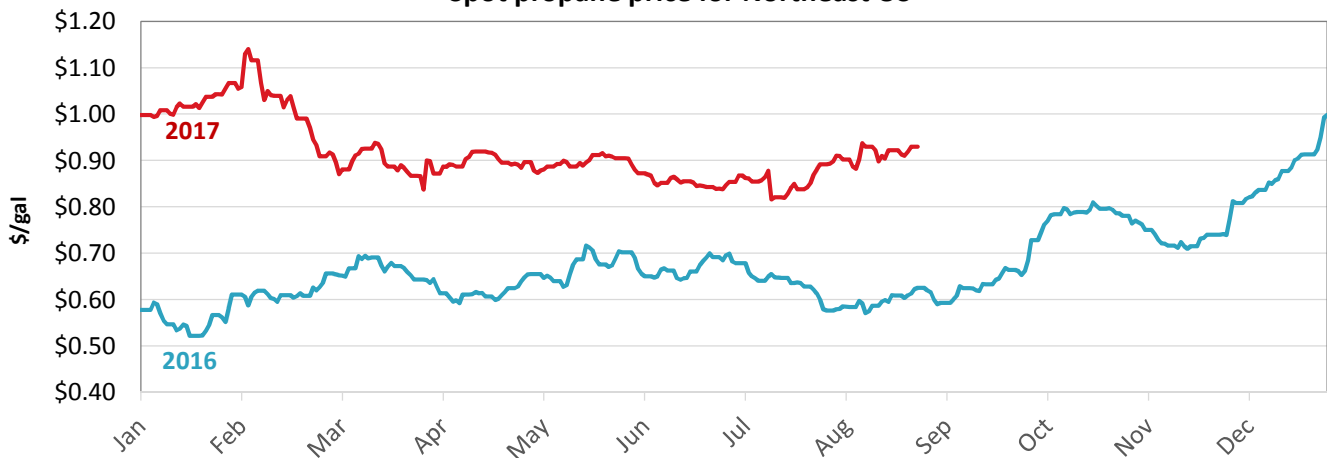
Basis is the price differential between Henry Hub, located in Erath, Louisiana, and the liquidity point closest to the end-user. Because Henry Hub is used as the delivery point for NYMEX natural gas futures contracts, the cost of using natural gas in any geographic region of the country can be approximated 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	
		8/21/17	8/22/17	8/23/17	8/24/17	8/25/17	8/26/17	8/27/17		
Power (\$/MWh)	Maine RT On Pk	22	46	35	26	20			30	
	Maine RT Off Pk	1	23	25	20	16	15	14	16	
	NH RT On Pk	23	47	35	25	20			30	
	NH RT Off Pk	1	24	26	20	16	15	14	17	
	Vermont RT On Pk	23	47	34	25	20			30	
	Vermont RT Off Pk	1	24	26	20	16	15	14	17	
	Connecticut RT On Pk	23	47	35	25	20			30	
	Connecticut RT Off Pk	1	24	26	20	17	15	14	17	
	Rhode Island RT On Pk	23	47	34	25	20			30	
	Rhode Island RT Off Pk	1	24	26	20	16	15	14	17	
	NE Mass RT On Pk	23	47	35	25	20			30	
	NE Mass RT Off Pk	1	24	26	20	16	15	14	17	
	SE Mass RT On Pk	23	47	34	25	20			30	
	SE Mass RT Off Pk	1	24	26	20	16	15	14	17	
	WC Mass RT On Pk	23	47	35	25	20			30	
	WC Mass RT Off Pk	1	24	26	20	16	15	14	17	
			New York ISO Real Time Power Pricing By Zone (\$/MWh)							Avg
		Capital RT On Pk	27	46	39	23	23			31
		Capital RT Off Pk	12	18	26	18	17	14	14	17
		Central RT On Pk	26	14	28	23	22			23
	Central RT Off Pk	11	18	20	15	16	13	13	15	
	Hudson RT On Pk	28	48	37	28	23			33	
	Hudson RT Off Pk	12	23	25	18	18	14	14	18	
	Mohawk RT On Pk	26	17	28	23	22			23	
	Mohawk RT Off Pk	11	17	21	15	17	14	13	15	
	Milwood RT On Pk	28	51	37	28	24			34	
	Milwood RT Off Pk	12	24	25	17	18	14	14	18	
	NYC RT On Pk	31	52	37	29	25			35	
	NYC RT Off Pk	13	21	26	18	18	15	14	18	
		PJM Real Time Power Pricing By Zone (\$/MWh)							Avg	
	Eastern Hub On Pk	35	43	30	24	24			31	
	Eastern Hub Off Pk	19	22	23	18	18	18	18	19	
	Western Hub On Pk	34	23	28	24	24			27	
	Western Hub Off Pk	20	21	22	19	19	19	19	20	
	PPL Zone On Pk	33	46	29	23	23			31	
	PPL Zone Off Pk	18	21	22	17	17	17	17	18	
	AEP RT On Pk	35	32	28	25	25			29	
	AEP RT Off Pk	21	21	22	20	20	20	20	21	
	Chicago RT On Pk	31	29	27	25	25			27	
	Chicago RT Off Pk	20	20	14	19	19	19	19	18	
	New Jersey Hub On Pk	34	42	29	24	24			30	
	New Jersey Hub Off Pk	18	21	22	18	18	18	18	19	
		California ISO Real Time Power Pricing (\$/MWh)							Avg	
	SoCal Edison RT On Pk	37	35	36	43	87			48	
	SoCal Edison RT Off Pk	29	31	28	26	37	45	41	34	
		8/21/17	8/22/17	8/23/17	8/24/17	8/25/17	8/26/17	8/27/17	Avg	
Natural Gas \$/MMBtu	Henry Hub, LA	2.98	3.01	2.92	2.97	2.93			2.96	
	TZ6, MA	3.16	2.68	2.27	2.13	1.80			2.41	
	Algonquin, MA	3.23	2.71		2.16	1.70			2.45	
	Chicago Hub, IL	2.88	2.94	2.84	2.87	2.81			2.87	
	New York, NY	2.03	1.87	1.81	1.71	1.39			1.76	
	Dominion South, PA	1.84	1.81	1.74	1.68	1.41			1.69	
	Opal Hub, WY	2.57	2.74	2.68	2.73	2.68			2.68	
	PG&E Citygate, CA	3.28	3.36	3.31	3.37	3.32			3.33	
	Kern River Deliveries	2.77	2.93	2.89	2.90	2.94			2.89	