



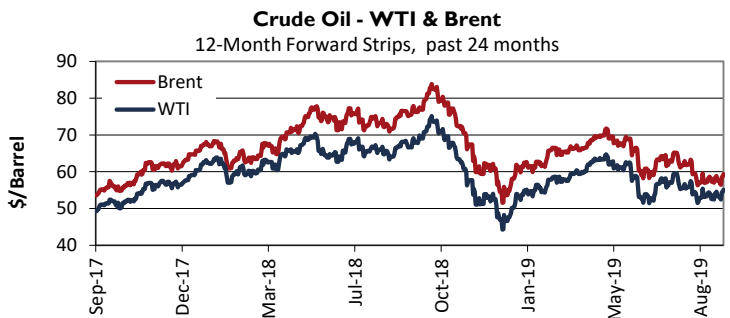
Competitive Energy Services Weekly Market Summary

September 2 - 6, 2019

Synopsis of Last Week's Energy Markets

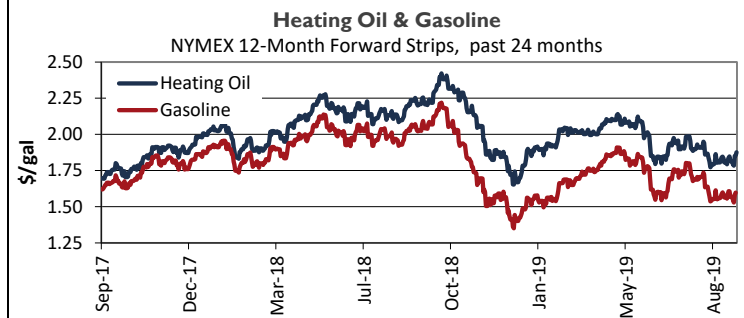
Crude prices rose 2-3% last week, as developments in the US-China trade conflict and further sanctions on Iran overshadowed continued concerns for future demand. US inventories fell to the lowest levels in eight months. Natural gas prices surged 9% last week as forecasts for September show hot weather across most of the country. The gains came despite a continually narrowing storage deficit, now below 3% vs the 5-year average.

Oil Market



NYMEX WTI	last close	previous week	24-month high	24-month low
12 month strip, \$/bbl	\$54.97	\$53.32	\$75.39	\$44.20
date	9/6/19	8/30/19	10/3/18	12/24/18
change from last close		3.1%	-27.1%	24%

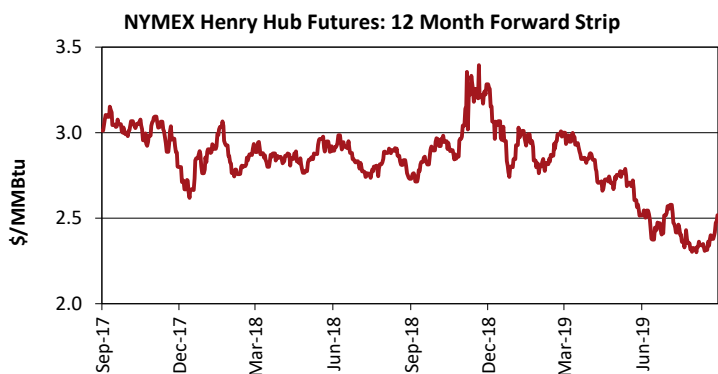
US STORAGE (in million bbls)		crude oil
domestic stocks as of	8/30/19	423
gain / loss from previous week		-4.8
comparison to historic range		within



NYMEX Heating Oil	last close	previous week	24-month high	24-month low
12 month strip, \$/gal	\$1.87	\$1.81	\$2.43	\$1.66
date	9/6/19	8/30/19	10/3/18	12/24/18
change from last close		3.2%	-23%	13%

US STORAGE (in million bbls)		distillate	propane	gasoline
domestic stocks as of	8/30/19	134	97	230
gain / loss from previous week		-2.5	2.9	-2.4
comparison to historic range		within	within	within

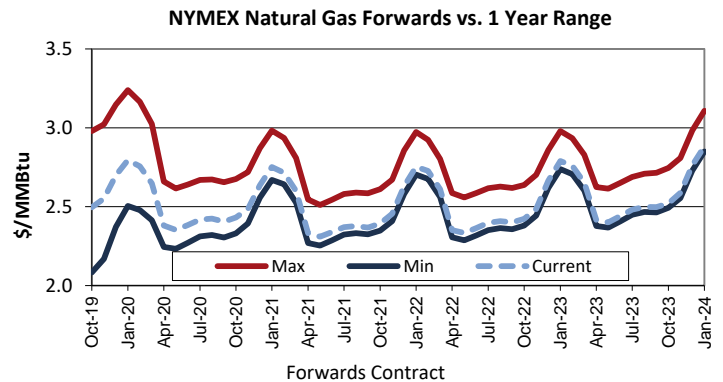
Natural Gas Market



NYMEX PRICING	last close	previous week	24-month high	24-month low
12 mo. strip, \$/MMBtu	\$2.53	\$2.38	\$3.43	\$2.30
date	9/6/19	8/30/19	11/14/18	8/12/19
change from last close		6.2%	-26%	10%

CES SCORE	
12 month	64
18 month	67
24 month	70
36 month	74

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.



FORWARDS	12 month	18 month	24 month	36 month
strip (\$/MMBtu)	\$2.53	\$2.55	\$2.50	\$2.50

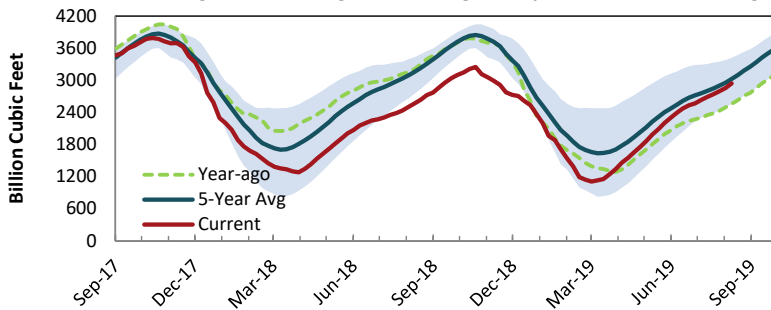
Natural gas futures are useful for both natural gas and electricity consumers because they drive electricity pricing in many U.S. markets. This chart compares the current natural gas price for each forward month on the NYMEX exchange to the highest and lowest prices for the same month over the past 12 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	8/23/19	2,857	
Most Recent Stock Level	8/30/19	2,941	
Year-ago Stock Level		2,558	15.0%
5-Year Average Stock Level		3,023	-2.7%
Most Recent Net Change	8/30/19	84	
Year-Ago Net Change		64	
5-Year Average Net Change		66	

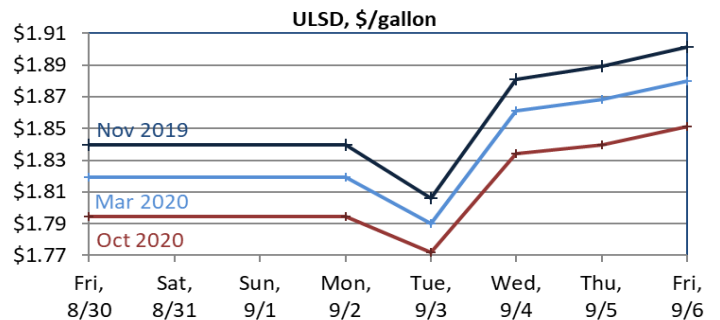
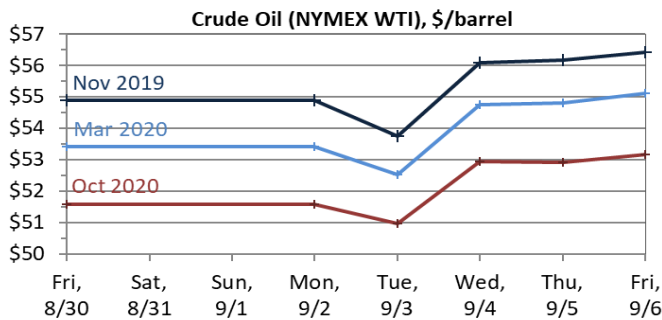
Data Source: EIA <http://tonto.eia.doe.gov/oog/info/ngs/ngs.html>

Market Assessment

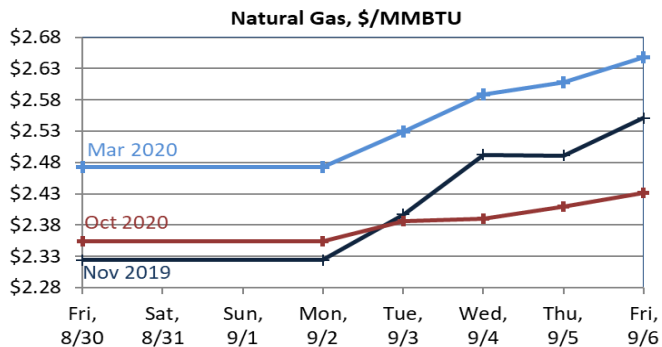
NYMEX Futures Summary Statistics

	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	Sep-19	8/20/19	\$56.34	Oct-19	\$56.52	Oct-19	\$56.52	Sep-20	\$53.37	\$55.80
Heating oil	Sep-19	8/30/19	\$1.83	Oct-19	\$1.90	Dec-19	\$1.90	Jun-20	\$1.84	\$1.90
Natural gas	Sep-19	8/28/19	\$2.25	Oct-19	\$2.50	Jan-20	\$2.80	May-20	\$2.35	\$2.69

NYMEX End-of-Day Settlements



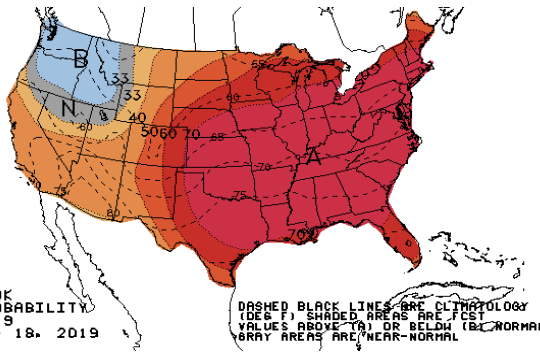
Crude prices climbed 2-3% last week, on developments in two international conflicts involving the United States. On Wednesday, the US announced financial sanctions on a shipping network run by Iran’s Islamic Revolutionary Guard Corps, the latest in a number of sanctions implemented against Iran in the past 18 months. News emerged Thursday from sources inside the Chinese delegation that trade talks between the US and China would resume in October, with the outlook optimistic for progress adding a bullish sentiment for prices after the start of tariffs on both sides the week prior. After a tepid US jobs report released Friday, Federal Reserve Chair Jay Powell spoke on the Fed’s outlook for slow but steady growth in the US economy, cutting into renewed concerns for a slowdown. Inventories across US petroleum products fell for the second straight week, pushing crude stocks to the lowest levels since the end of 2018.



Natural gas prices jumped 9% last week as most of the country is expecting higher-than-average temperatures in the coming weeks. The anticipated bump in power burn demand paired with rising LNG exports from terminals along the Gulf Coast has sent prices to the highest levels since the start of the summer: October futures closed at just under \$2.50/MMBtu on Friday afternoon, a 21-cent gain over the start of the week. This came despite a robust storage report from the EIA that showed the storage deficit falling below 100 Bcf/D to 2.7% compared to the 5-year average.

The National Weather Service near-term forecast calls for above average temperatures for most of the continental U.S. The CES Market Score on page 1 decreased 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 Sep 14 - 18

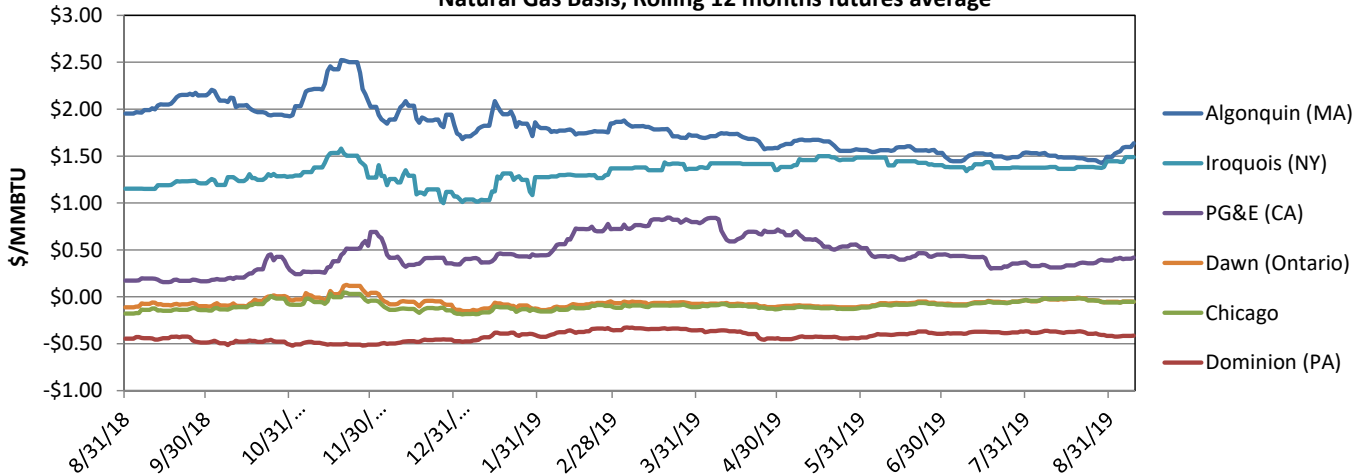
This map depicts forecasted temperatures for next week compared to the long term average. The blue/purple areas are forecast to be colder than normal, white areas are normal, and yellow/orange/red areas are warmer than normal. Abnormally hot weather in the summer and cold weather in the winter can increase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

Source: Chart from the National Weather Service Climate Prediction

Natural Gas Basis Futures

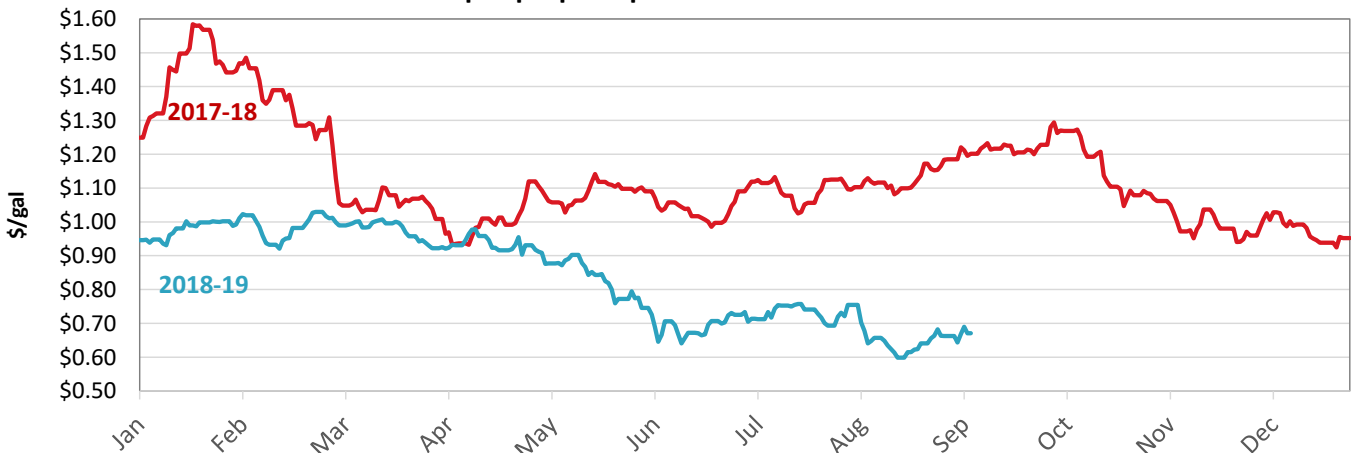
Basis is the price differential between Henry Hub, located in Erath, Louisiana, and the liquidity point closest to the end-user. Because Henry Hub is used as the delivery point for NYMEX natural gas futures contracts, the cost of using natural gas in any geographic region of the country can be approximated 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)								
		9/2/19	9/3/19	9/4/19	9/5/19	9/6/19	9/7/19	9/8/19	Avg	
Power (\$/MWh)	Maine RT On Pk	18	26	22	19	17			20	
	Maine RT Off Pk	13	17	13	14	14	15	19	15	
	NH RT On Pk	18	26	23	19	17			20	
	NH RT Off Pk	13	17	14	16	14	16	20	16	
	Vermont RT On Pk	18	25	22	18	17			20	
	Vermont RT Off Pk	12	17	13	16	14	15	20	15	
	Connecticut RT On Pk	18	25	23	19	17			20	
	Connecticut RT Off Pk	13	17	13	16	14	15	20	15	
	Rhode Island RT On Pk	18	25	23	19	17			20	
	Rhode Island RT Off Pk	13	17	14	16	15	16	20	16	
	NE Mass RT On Pk	18	26	23	19	17			21	
	NE Mass RT Off Pk	13	17	14	16	15	16	20	16	
	SE Mass RT On Pk	18	26	23	19	17			21	
	SE Mass RT Off Pk	13	17	14	16	15	16	20	16	
	WC Mass RT On Pk	18	25	23	19	17			20	
	WC Mass RT Off Pk	13	17	14	16	14	16	20	16	
			New York ISO Real Time Power Pricing By Zone (\$/MWh)							Avg
	Power (\$/MWh)	Capital RT On Pk	16	24	23	19	18			20
		Capital RT Off Pk	16	15	17	16	14	15	17	16
		Central RT On Pk	13	23	11	20	18			17
Central RT Off Pk		4	14	11	15	13	14	16	12	
Hudson RT On Pk		15	25	35	20	18			23	
Hudson RT Off Pk		12	15	15	17	14	15	17	15	
Mohawk RT On Pk		14	12	11	19	17			14	
Mohawk RT Off Pk		4	14	11	16	13	14	16	13	
Milwood RT On Pk		15	25	39	20	18			23	
Milwood RT Off Pk		12	15	15	17	14	15	17	15	
NYC RT On Pk		16	26	45	21	18			25	
NYC RT Off Pk		13	15	16	17	14	15	18	15	
		PJM Real Time Power Pricing By Zone (\$/MWh)							Avg	
Power (\$/MWh)		Eastern Hub On Pk	23	53	96	23	23			44
	Eastern Hub Off Pk	13	16	18	21	21	21	21	19	
	Western Hub On Pk	28	60	34	27	27			35	
	Western Hub Off Pk	14	16	19	21	21	21	21	19	
	PPL Zone On Pk	24	55	35	24	24			32	
	PPL Zone Off Pk	13	16	18	21	21	21	21	18	
	AEP RT On Pk	32	69	41	29	29			40	
	AEP RT Off Pk	15	17	21	22	22	22	22	20	
	Chicago RT On Pk	31	58	23	28	28			34	
	Chicago RT Off Pk	15	(0)	(2)	12	12	12	12	9	
	New Jersey Hub On Pk	23	52	31	23	23			31	
	New Jersey Hub Off Pk	13	16	18	21	21	21	21	19	
			California ISO Real Time Power Pricing (\$/MWh)							Avg
	Power (\$/MWh)	SoCal Edison RT On Pk	42	68	96	83	45			67
SoCal Edison RT Off Pk		42	36	44	61	39	32	34	41	
Natural Gas \$/MMBtu		9/2/19	9/3/19	9/4/19	9/5/19	9/6/19	9/7/19	9/8/19	Avg	
	Henry Hub, LA		2.39	2.48	2.49	2.50			2.47	
	TZ6, MA		2.14	2.09	2.08	2.05			2.09	
	Algonquin, MA		2.00	2.00	2.00	2.00			2.00	
	Chicago Hub, IL		2.10	2.18	2.17	2.15			2.15	
	New York, NY		1.93	1.88	1.86	1.82			1.87	
	Dominion South, PA		1.83	1.84	1.82	1.82			1.83	
	Opal Hub, WY		1.98	2.15	2.23	2.11			2.12	
PG&E Citygate, CA		3.00	3.02	2.99	2.94			2.99		