

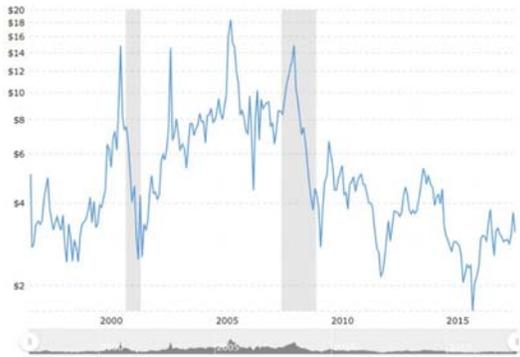


Natural Gas in Underground Storage

The weekly EIA Natural Gas Storage Report advised that there was an injection of 46Bcf (billion cubic feet) into Underground Storage for the week ending September 21st, 2018.

This is 16Bcf below the median forecast of a 62Bcf injection, the average prediction of sector analysts and traders in the Dow Jones Newswires weekly survey. The injection one year ago was 58Bcf and the 5-year average injection is 81Bcf. Storage is **690Bcf below last year** for the same week and **621Bcf below the 5-year average**. Working gas in storage stands at 2,768Bcf. As of today, we estimate that dry gas production has been expanding (annual terms) for 68 consecutive weeks. The October Natural Gas contract closed at \$3.02

[Read More](#)



Natural Gas Pricing

As of 9:36AM CST, November 2018, (the *new* prompt month) Natural Gas was trading at \$3.06, +\$0.14 from one week ago and the 1-Year Spread average was \$2.85, +\$0.06 from one week ago.

Crude Oil Pricing

As of 9:50AM CST, November, 2018, (the *new* prompt month) Light, Sweet Crude on the NYMEX was at **\$71.88, +\$1.07** from one week ago.

Crude Oil & Natural Gas

INDEX	UNITS	PRICE	CHANGE	%CHANGE	CONTRACT	TIME (EDT)	2 DAY
CL1COM WTI Crude Oil (Nymex)	USD/bbl	71.88	+0.31	+0.43%	Nov 2018	9:50 AM	
CO1COM Brent Crude (ICE)	USD/bbl	81.50	+0.95	+0.20%	Nov 2018	9:50 AM	
CP1COM Crude Oil (Tokyo)	JPY/M	53,950.00	-80.00	-0.33%	Feb 2019	9:55 AM	
NG1COM Natural Gas (Nymex)	USD/MMBtu	3.01	+0.03	+0.97%	Nov 2018	9:50 AM	

U.S. Petroleum Balance Sheet, Week Ending 9/21/2018

Petroleum Stocks (Million Barrels)	Current Week	9/14/18
	9/21/18	
Crude Oil	1,056.0	1,054.1
Commercial (Excluding SPR) ¹	396.0	394.1
Strategic Petroleum Reserve (SPR) ²	660.0	660.0
Total Motor Gasoline ³	235.7	234.2
Reformulated	0.1	0.0
Conventional	24.5	24.8
Blending Components	211.2	209.3
Fuel Ethanol	22.6	22.7
Kerosene-Type Jet Fuel	46.6	45.2
Distillate Fuel Oil ³	137.9	140.1
< 15 ppm sulfur and Under ³	124.5	126.4
> 15 ppm to 500 ppm sulfur	4.3	4.7
> 500 ppm sulfur	9.1	9.0
Residual Fuel Oil	29.0	27.8
Propane/Propylene	76.4	74.8
Other Oils ⁴	296.6	297.4
Unfinished Oils	89.0	88.1
Total Stocks (Including SPR) ^{2,3}	1,900.8	1,896.3
Total Stocks (Excluding SPR) ³	1,240.8	1,236.3

Crude Oil Inventory

US crude inventories **increased by 1.9 million barrels** to 396.0 million barrels for the week ended September 21st, according to data released yesterday morning by the US Department of Energy. Traders in the Reuters poll projected a drop of 1.5 million barrels.

U.S. Rotary Rigs

U.S. Rotary Rigs drilling for natural gas were unchanged at 186 for the week of September 21st. The number of rigs currently drilling for Natural Gas was -4 from last year. US Rigs drilling for oil were -1 at 866. There are 122 more rigs targeting oil than last year. Canadian rigs were +29 at 197 for the week. Rigs targeting oil remain 82% of all US drilling activity.

	North American Rig Count			Change		Percent Change	
	09/21/2018	09/14/2018	09/22/2017	Weekly	Annual	Weekly	Annual
Total U.S.	1,053	1,055	935	(2)	118	-0.2%	12.6%
Offshore	20	20	19	0	1	0.0%	5.3%
Land	1,033	1,035	916	(2)	117	-0.2%	12.8%
Inland Waters	5	5	3	0	2	0.0%	66.7%
Oil	866	867	744	(1)	122	-0.1%	16.4%
Percent	82.2%	82.2%	79.6%	0.1%	2.7%		
Gas	186	186	190	0	(4)	0.0%	-2.1%
Percent	17.7%	17.6%	20.3%	0.0%	-2.7%		
Directional	69	71	77	-2	-8	-2.8%	-10.4%
Horizontal	919	921	790	-2	129	-0.2%	16.3%
Vertical	65	63	68	2	-3	3.2%	-4.4%
Gulf of Mexico	18	18	19	0	-1	0.0%	-5.3%
Gulf Oil	16	16	15	0	1	0.0%	6.7%
Percent	88.9%	88.9%	78.9%	0.0%	9.9%		
Gulf Gas	2	2	4	0	-2	0.0%	-50.0%
Percent	11.1%	11.1%	21.1%	0.0%	-9.9%		
Canada	197	226	220	(29)	(23)	-12.8%	-10.5%
Oil	135	148	122	(13)	13	-8.8%	10.7%
Percent	68.5%	65.5%	55.5%	3.0%	13.1%		
Gas	62	78	98	(16)	(36)	-20.5%	-36.7%
Percent	31.5%	34.5%	44.5%	-3.0%	-13.1%		
North America	1,250	1,281	1,155	(31)	95	-2.4%	8.2%
Prices							
Oil \$/bbl.	\$70.01	\$68.97	\$50.28	\$1.04	\$19.73	1.5%	39.3%
Oil \$/mmbtu	\$12.07	\$11.89	\$8.67	\$0.18	\$3.40	1.5%	39.3%
Gas \$/mmbtu	\$2.98	\$2.89	\$3.09	\$0.09	(\$0.11)	3.2%	-3.4%



Geopolitical

Can we predict technology's impact on the energy market? What are the challenges and opportunities involved in finding better ways to judge the strengths and weaknesses of competing energy technologies, and how can good data improve how the world moves forward with them? Elliot Gardner speaks to MIT professor Jessika Trancik, who specialises in evaluating energy technologies and their potential to address energy and climate needs, to find out.

Weather

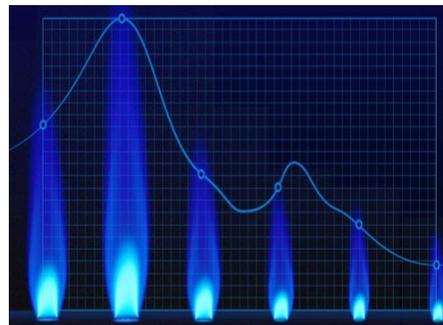
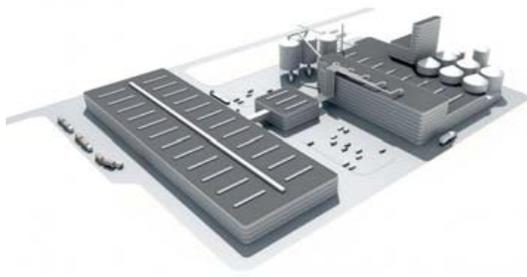
The AccuWeather 1-5 day Outlook forecasts above-normal temps for the Eastern and Western US with the Central US at below-normal temps. The 6-10 Day Outlook shows the country at above normal Temps with the exception of part of the Southwest, California and part of the North-Central states, which will be at below-normal temps.

11-15 Day Outlook forecasts most of the Eastern US at above-normal

US energy policy has been in flux over the last few years, from the infamous withdrawal from the 2015 Paris Agreement on climate change last year, to President Trump's commitment to the American coal industry and California Governor Jerry Brown's mid-September signing of executive order B-55-18 pledging California to carbon neutrality by 2045. The state of US energy, and indeed that of the rest of the world, is increasingly difficult to predict...

temperatures with below-normal temps for the North-Central states. The balance of the country is projected at mostly normal temps. The 30-day Outlook projects normal temps for most of the US with the exception of the Northeast and Northwest, which are expected to be at above-normal temperatures.

The 90-Day Outlook shows normal temps for the entire country, with the exception of the Northeast and Far-North Central States, which are expected to be above-normal.



Sustainability and Renewables

Ground-breaking renewable fuel refinery announced: Refinery to turn 280,000 tons of North Dakota wheat straw to fuel. NewEnergyBlue is about six months away from breaking ground on a ground-breaking renewable fuel refinery. New Energy Spirit Biomass Refinery is forecast to turn 280,000 tons of North Dakota wheat straw into 16-million gallons a year of some of the lowest carbon auto fuel selling in California, the world's fifth largest market.

This Week's Key Take-Away

Natural Gas prices have continued to rise this week and today's injection into underground storage was far below expectation. We now expect prices to rise again in the near-term.

As we enter the "shoulder" months, we expect Natural Gas and Electric usage to drop, as heating and air-conditioning are not used as much as in the summer and winter. That said, we saw a smaller-than-anticipated storage report at a time that the US is producing a record amount of Natural Gas.

Underway soon near Jamestown, North Dakota, New Energy Spirit Biomass Refinery is designed to process 280,000 tons of agricultural wastes a year to produce low-carbon fuel ethanol.

"It's no secret that clean energy producers covet the state's monster fuel market," stated Thomas Corle, Blue's chief executive officer.

"Carbon is the California regulator's primary yardstick..."

Natural Gas has broken through the \$\$\$3.00 mark for the prompt month and while dropping back yesterday, has this morning advanced above \$3 again. We see resistance at \$3.05 and expect it to continue to trade in a narrow bandwidth.

While this is the expectation, technical movement has outweighed fundamentals in recent weeks, so we will continue to closely monitor the market.

Next Day On-Peak Power (traded for 9/26/2018)		
ISO-NE Mass Hub \$39.17	MISO Indiana Hub \$36.00	NYISO Zone G \$37.25
PJM West Hub \$43.19	ERCOT North \$25.81	CAISO SP15 \$41.27



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