

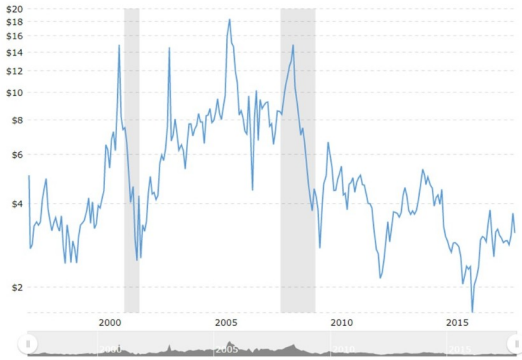


Natural Gas in Underground Storage

The weekly EIA Natural Gas Storage Report advised that there was an **injection of 39Bcf** (billion cubic feet) into Underground Storage for the week ending November 9th, 2018.

This is 9Bcf above the median forecast of a 30Bcf injection, the average prediction of sector analysts and traders in the Dow Jones Newswires weekly survey. The injection compares with -13Bcf last year and +19Bcf for the five-year average. Storage is **528Bcf below last year** for the same week and **601Bcf below the 5-year average**. Working gas in storage stands at 3,247Bcf.

[Read More](#)



Natural Gas Pricing

As of 10:52AM CST, December 2018, (the prompt month) Natural Gas was trading at \$4.07, +\$0.55 from one week ago (**after jumping to \$4.80 in early trading**) and the 1-Year Spread average was \$3.12, +\$0.16 from one week ago.

Crude Oil Pricing

As of 9:33AM CST, December, 2018, (the prompt month) Light, Sweet Crude on the NYMEX was at **\$57.06, -\$4.04** from one week ago.

Crude Oil & Natural Gas

INDEX	UNITS	PRICE	CHANGE	%CHANGE	CONTRACT	TIME (EST)	2 DAY
CL1.COM WTI Crude Oil (Nymex)	USD/bbl	57.06	+0.81	+1.44%	Dec 2018	10:33 AM	
CO1.COM Brent Crude (ICE)	USD/bbl	67.15	+1.03	+1.56%	Jan 2019	10:33 AM	
CP1.COM Crude Oil (Tokyo)	JPY/Kl	46,120.00	+90.00	+0.20%	Apr 2019	10:38 AM	
NG1.COM Natural Gas (Nymex)	USD/MMBtu	4.27	-0.56	-11.68%	Dec 2018	10:33 AM	

U.S. Petroleum Balance Sheet, Week Ending 11/9/2018

Petroleum Stocks (Million Barrels)	Current Week	11/2/18
	11/9/18	
Crude Oil	1,095.4	1,086.5
Commercial (Excluding SPR) ¹	442.1	431.8
Strategic Petroleum Reserve (SPR) ²	653.3	654.7
Total Motor Gasoline ³	226.6	228.0
Reformulated	0.0	0.0
Conventional	24.9	23.7
Blending Components	201.6	204.3
Fuel Ethanol	23.5	23.2
Kerosene-Type Jet Fuel	40.0	42.3
Distillate Fuel Oil ³	119.3	122.9
15 ppm sulfur and Under ³	104.9	107.8
> 15 ppm to 500 ppm sulfur	4.3	4.8
> 500 ppm sulfur	10.0	10.3
Residual Fuel Oil	27.9	29.7
Propane/Propylene	83.8	84.5
Other Oils ⁴	289.0	291.1
Unfinished Oils	91.9	93.2
Total Stocks (Including SPR) ^{2,3}	1,905.4	1,908.1
Total Stocks (Excluding SPR) ³	1,252.0	1,253.4

Crude Oil Inventory

US crude inventories **increased by 10.3 million barrels** to 441.1 million barrels for the week ended November 9th, according to data released this morning by the US Department of Energy. Traders in the Reuters poll projected an increase of 3.2 million barrels.

U.S. Rotary Rigs

U.S. Rotary Rigs drilling for natural gas were +2 at 195 for the week of November 9th. The number of rigs currently drilling for Natural Gas was +26 from last year. US Rigs drilling for oil were +12 at 886. There are 148 more rigs targeting oil than last year. Canadian rigs were -2 at 196 for the week. Rigs targeting oil remain 82% of all US drilling activity.

	North American Rig Count		Change		Percent Change		
	11/09/2018	11/02/2018	11/10/2017	Weekly	Annual	Weekly	Annual
Total U.S.	1,081	1,067	907	14	174	1.3%	19.2%
Offshore	21	18	18	3	3	16.7%	16.7%
Land	1,060	1,049	889	11	171	1.0%	19.2%
Inland Waters	3	3	1	0	2	0.0%	200.0%
Oil	886	874	738	12	148	1.4%	20.1%
Percent	82.0%	81.9%	81.4%	0.0%	0.6%		
Gas	195	193	169	2	26	1.0%	15.4%
Percent	18.0%	18.1%	18.6%	-0.0%	-0.6%		
Directional	74	73	74	1	0	1.4%	0.0%
Horizontal	935	929	776	6	159	0.6%	20.5%
Vertical	72	65	57	7	15	10.8%	26.3%
Gulf of Mexico	21	18	18	3	3	16.7%	16.7%
Gulf Oil	16	13	16	3	0	23.1%	0.0%
Percent	76.2%	72.2%	88.9%	4.0%	-12.7%		
Gulf Gas	5	5	2	0	3	0.0%	150.0%
Percent	23.8%	27.8%	11.1%	-4.0%	12.7%		
Canada	196	198	203	(2)	(7)	-1.0%	-3.4%
Oil	117	121	108	(4)	9	-3.3%	8.3%
Percent	59.7%	61.1%	53.2%	-1.4%	6.5%		
Gas	79	77	95	2	(16)	2.6%	-16.8%
Percent	40.3%	38.9%	46.8%	1.4%	-6.5%		
North America	1,277	1,265	1,110	12	167	0.9%	15.0%
Prices							
Oil \$/bbl.	\$61.91	\$65.08	\$57.06 (\$3.17)	\$4.85	-4.9%	8.5%	
Oil \$/mmbtu	\$10.67	\$11.22	\$9.84 (\$0.55)	\$0.84	-4.9%	8.5%	
Gas \$/mmbtu	\$3.55	\$3.20	\$3.12 \$0.35	\$0.43	11.0%	13.9%	



Geopolitical

What next for U.S. climate and energy policies? The “Blue Wave” never really reached shore, the U.S. Senate is still in Republican hands, the House of Representatives flipped to Democratic control, Trump era deregulation and fossil fuel production efforts continue, several governorships and state houses went from red to blue—and almost all state renewable energy and carbon tax ballot initiatives went down in flames.

On the global stage, despite Herculean efforts by the

Weather

The AccuWeather 1-5 day Outlook forecasts below-normal temps for the Eastern 2/3 of the US and normal or above-normal temps for the West. **Much of the Northeast is under a Winter Storm Warning.** The 6-10 Day Outlook forecasts the most of the East Coast and a strip continuing through Texas, New Mexico and Arizona at below-normal temps with the Southeast and the balance of the country at either normal or above-normal temps.

11-15 Day Outlook forecasts much

Intergovernmental Panel on Climate Change (IPCC) and activist groups to redefine “climate change” and conjure up scary hobgoblins, the obsession over global warming, “green” energy and the Paris climate treaty has hit the rocky shoals of reality.

Climate and renewable energy concerns lag way behind economic, employment, healthcare, ...



Sustainability and Renewables

5 Hard-to-Believe Renewable Energy Facts: Renewable energy from wind and solar went from impossibly expensive to nearly 10% of American electricity in less than 20 years. What's ahead may be even more astounding.

In 2000, wind and solar combined to be the source of just 0.1% of all electricity generated in the United States. No wonder renewable energy had so many critics. To be fair, wind and solar were expensive, inefficient, and hadn't done much of anything since being hyped up during the energy crisis in the 1970s. But all of that has changed now.

Today, wind power is, on average, the cheapest source of electricity on

of the center of the country, the Pacific Northwest and the Southeast at above-normal temps with the West at below-normal or normal temps. Both the 30-day and 90-day Outlook project normal temps for almost all of the US except the Great Lakes area, which is expected to be above-normal.

There is no tropical storm activity in the Atlantic Ocean at this time.



This Week's Key Take-Away

This is getting interesting. For years, there's been a problem in the oil and gas industry; how to compare oil reserves to gas reserves.

Comparisons are difficult in the petroleum sector because the industry is in fact, two largely separate businesses. Oil production and gas production. True, both of these commodities are produced by drilling and transported by pipelines. But in terms of physical properties, markets and value, oil and gas are very different.

This hasn't stopped analysts from trying to lump the two together. The prevailing method for comparing oil to gas has been "the rule of 6". The rule is based on energy equivalents.

a levelized cost basis in the United States. Solar power is third, just behind natural gas, and together with wind, the renewable pair is responsible for nearly 10% of total electricity production in the country. Shares of companies that have led installments, such as NextEra Energy and Xcel Energy, have thumped the S&P 500 in the last two decades or so as a result.

Investors probably haven't missed out yet. Considering that wind and solar could provide 25% or more of America's electricity by 2030 and...

If you burn a "standard" barrel of crude oil, it will release about 6 million BTUs of energy. If you burn one thousand cubic feet of gas (one Mcf), it releases about 1 million BTUs. Therefore analysts decided that one barrel of oil (6 million BTU) is equivalent to 6 Mcf of gas (at 1 million BTUs per Mcf). Historically, Gas and Oil prices moved in lock-step, at a ratio of 6:1. The spread recently has been as wide as 32:1 and is now at 13:1. With NG and Crude going in different directions, it will be fascinating to see if they move within reach of their natural physical energy equivalents.

Next Day On-Peak Power (traded for 11/15/2018)		
ISO-NE Mass Hub \$80.69	MISO Indiana Hub \$46.67	NYISO Zone G \$58.01
PJM West Hub \$59.00	ERCOT North \$41.00	CAISO SP15 \$70.57



Copyright © 2018 Utility Revenue Services, LLC. All rights reserved. Reproduction of this information is prohibited without express written permission.