



UTILITY REVENUE SERVICES

Weekly Energy Report

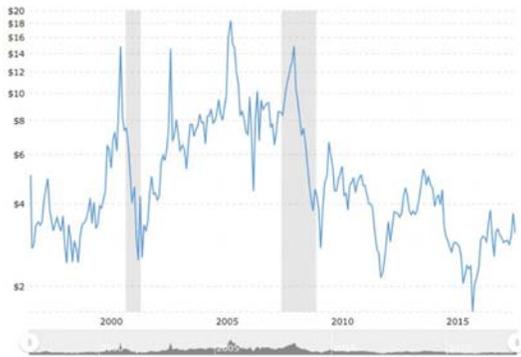


Natural Gas in Underground Storage

The weekly EIA Natural Gas Storage Report advised that there was an injection of 24Bcf (billion cubic feet) into Underground Storage for the week ending July 20th, 2018.

This is 12Bcf below the median forecast of a 36Bcf injection, the average prediction of sector analysts and traders in the Dow Jones Newswires weekly survey. The injection one year ago was 17Bcf and the 5-year average injection is 59Bcf. Storage is **705Bcf below last year** for the same week and **557Bcf below the 5-year average**. Working gas in storage stands at 2,273Bcf.

[Read More](#)



Natural Gas Pricing

As of 10:17AM CST, August 2018, (the prompt month) Natural Gas was trading at \$2.79, +\$0.03 from one week ago and the 1-Year Spread average was also \$2.80, +\$0.01 from one week ago.

Crude Oil Pricing

As of 8:43AM CST, August 2018, (the prompt month) Light, Sweet Crude on the NYMEX was at **\$69.35**, **+\$0.98** from one week ago.

Crude Oil & Natural Gas

INDEX	UNITS	PRICE	CHANGE	%CHANGE	CONTRACT	TIME (EDT)	2 DAY
CL1:COM WTI Crude Oil (Nymex)	USD/bbl	69.35	+0.05	+0.07%	Sep 2018	9:43 AM	
OD1:COM Brent Crude (ICE)	USD/bbl	74.15	+0.22	+0.30%	Sep 2018	9:43 AM	
CF1:COM Crude Oil (Tokyo)	JPY/KI	50,300.00	+130.00	+0.26%	Dec 2018	9:47 AM	
NG1:COM Natural Gas (Nymex)	USD/MMBtu	2.77	0.00	-0.04%	Aug 2018	9:42 AM	

U.S. Petroleum Balance Sheet, Week Ending 7/20/2018

Petroleum Stocks (Million Barrels)	Current Week	
	7/20/18	7/13/18
Crude Oil	1,065.0	1,071.1
Commercial (Excluding SPR) ¹	404.9	411.1
Strategic Petroleum Reserve (SPR) ²	660.0	660.0
Total Motor Gasoline ³	233.5	235.8
Reformulated	0.0	0.1
Conventional	22.6	24.2
Blending Components	210.9	211.6
Fuel Ethanol	21.7	21.8
Kerosene-Type Jet Fuel	39.8	40.8
Distillate Fuel Oil ³	121.2	121.3
15 ppm sulfur and Under ³	109.2	109.2
> 15 ppm to 500 ppm sulfur	4.1	4.0
> 500 ppm sulfur	8.0	8.2
Residual Fuel Oil	28.4	28.1
Propane/Propylene	64.5	65.3
Other Oils ⁴	282.0	281.6
Unfinished Oils	90.3	89.6
Total Stocks (Including SPR) ^{2,3}	1,856.0	1,865.8
Total Stocks (Excluding SPR) ³	1,196.0	1,205.7

Crude Oil Inventory

US crude inventories **declined by 6.1 million barrels** to 404.9 million barrels for the week ended July 20th, according to data released yesterday morning by the US Department of Energy. Traders in the Reuters poll projected a drop of 2.6 million bbl.

U.S. Rotary Rigs

U.S. Rotary Rigs drilling for natural gas were -2 at 187 for the week of July 20th. The number of rigs currently drilling for Natural Gas was 1 higher than last year's level of 186. US Rigs drilling for oil were -5 at 858. There are 94 more rigs targeting oil than last year. Canadian rigs were +14 at 211 for the week. Rigs targeting oil remain 82% of all US drilling activity.

	North American Rig Count			Change		Percent Change	
	07/20/2018	07/13/2018	07/21/2017	Weekly	Annual	Weekly	Annual
Total U.S.	1,046	1,054	950	(8)	96	-0.8%	10.1%
Offshore	17	19	23	(2)	(6)	-10.5%	-26.1%
Land	1,029	1,035	927	(6)	102	-0.6%	11.0%
Inland Waters	5	5	3	0	2	0.0%	66.7%
Oil	858	863	764	(5)	94	-0.6%	12.3%
Percent	82.0%	81.9%	80.4%	0.1%	1.6%		
Gas	187	189	186	(2)	1	-1.1%	0.5%
Percent	17.9%	17.9%	19.6%	-0.1%	-1.7%		
Directional	67	68	75	-1	-8	-1.5%	-10.7%
Horizontal	922	930	803	-8	119	-0.9%	14.8%
Vertical	57	56	72	1	-15	1.8%	-20.8%
Gulf of Mexico	17	19	23	-2	-6	-10.5%	-26.1%
Gulf Oil	14	16	20	-2	-6	-12.5%	-30.0%
Percent	82.4%	84.2%	87.0%	-1.9%	-4.6%		
Gulf Gas	3	3	3	0	0	0.0%	0.0%
Percent	17.6%	15.8%	13.0%	1.9%	4.6%		
Canada	211	197	206	14	5	7.1%	2.4%
Oil	142	139	118	3	24	2.2%	20.3%
Percent	67.3%	70.6%	57.3%	-3.3%	10.0%		
Gas	69	58	88	11	(19)	19.0%	-21.6%
Percent	32.7%	29.4%	42.7%	3.3%	-10.0%		
North America	1,257	1,251	1,156	6	101	0.5%	8.7%
Prices							
Oil \$/bbl.	\$68.53	\$71.97	\$46.45 (\$3.44)	\$22.08	-4.8%	47.5%	
Oil \$/mmbtu	\$11.82	\$12.41	\$8.01 (\$0.59)	\$3.81	-4.8%	47.5%	
Gas \$/mmbtu	\$2.75	\$2.84	\$3.07 (\$0.09)	(\$0.32)	-3.0%	-10.4%	



Geopolitical

Renewable Standards Help Drive Energy and Economic Development: States that require utilities to increase renewable energy see expansion of renewable energy facilities and generation -- including wind and other renewable sources, but especially solar -- according to new research from Indiana University and two other institutions.

IU's [Sanya Carley](#) led a team of researchers including [Nikolaos Ziogiannis](#), an assistant scientist at



Weather

The **AccuWeather** 1-5 day Outlook forecasts above-normal temperatures for the Northeast, Western US and Texas. The central states are expected to be at below-normal temps with the rest of the nation at normal temps. The 6-10 Day Outlook forecasts New England and most of the Western third of the US at above-normal temps with most of the Southeast at below-normal temps. The 11-15 Day Outlook forecasts above-normal

IU, and law professors [Lincoln Davies](#) of the University of Utah and [David B. Spence](#) of University of Texas at Austin. The group closely examined the history and evolution of state renewable portfolio standards and interviewed more than 40 experts about renewable portfolio standards implementation...



Sustainability and Renewables

Liquid Metal Batteries: As dreamy as it might be to combine renewable energy sources [with storage batteries](#), there's a problem: those batteries are expensive. It might take you years to recoup the costs. You'll be glad to hear, then, that Stanford scientists have a way to make those batteries more cost-effective.

They've [developed](#) a liquid metal-based [flow battery](#) that can store electricity at a lower price, even on a large scale. A metal-producing mix of sodium and potassium serves as the negative side of the battery, providing nearly twice the maximum voltage of typical flow batteries (making them high-value) without having to resort to exotic chemicals or extreme temperatures....

temperatures for New England and most of the Western third of the country, with the balance of the US at normal or below-normal temps.

The 30 and 90-day Outlook projects normal temps for most of the US, with the Northwest at above-normal temps.



This Week's Key Takeaway

Record heat in Texas and California continue to cause spot prices to be high.

As recently as three weeks ago, the general consensus was that Natural Gas (and therefore electric) prices would drop in the fall, as demand falls off. However, due to this summer's heat and the slowness of Underground Storage of Natural Gas filling back up, forecasts point to being as much as 800BCF below last year, going into winter. Where the expectation was that by now we'd be seeing 50-60Bcf injected each week, we have been averaging closer to 30Bcf... and this comes at a time where we are seeing record production of Natural Gas. This means that we're using energy almost as fast as we're producing it.

Next Day On-Peak Power (traded for 7/26/2018)		
ISO-NE Mass Hub \$38.05	MISO Indiana Hub \$35.34	NYISO Zone G \$40.08
PJM West Hub \$40.96	ERCOT North \$128.00	CAISO SP15 \$224.38



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