

EIA-Short-Term Energy Outlook – Highlights

Benchmark North Sea Brent crude oil spot prices averaged \$46/barrel (b) in August, a \$1/b increase from July. This was the fourth consecutive month in which Brent spot crude oil prices averaged between \$44/b and \$49/b.

Brent crude oil prices are forecast to average \$43/b in 2016 and \$52/b in 2017. West Texas Intermediate (WTI) crude oil prices are forecast to average \$1/b less than Brent in 2016 and 2017. The current values of futures and options contracts suggest high uncertainty in the price outlook. For example, EIA's forecast for the average WTI price in December 2016 of \$44/b should be considered in the context of Nymex contract values for December 2016 delivery. Contracts traded during the five-day period ending September 1 (Market Prices and Uncertainty Report) suggest the market expects WTI prices could range from \$34/b to \$65/b (at the 95% confidence interval) in December 2016.

U.S. regular gasoline retail prices are expected to decline from an average of \$2.18/gallon (gal) in August to \$1.92/gal in December. For the year, U.S. regular gasoline retail prices are forecast to average \$2.08/gal in 2016 and \$2.26/gal in 2017.

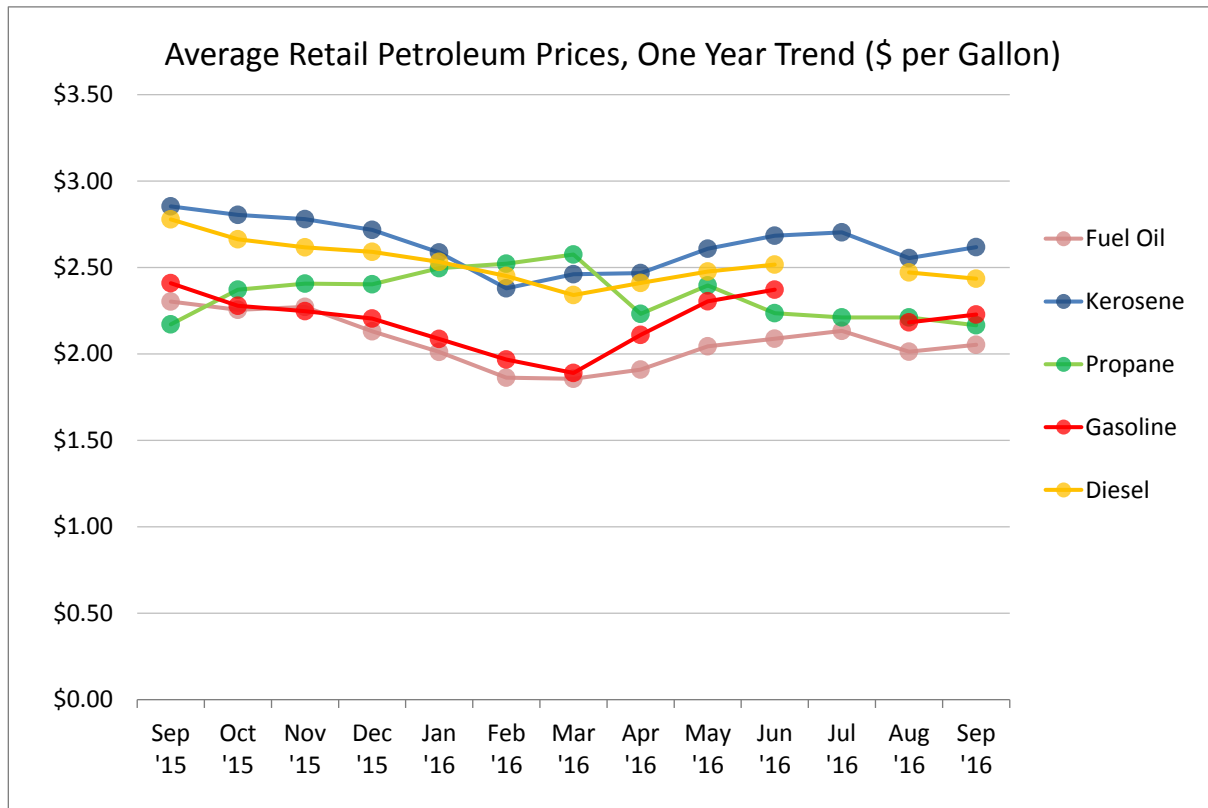
U.S. crude oil production averaged 9.4 million barrels per day (b/d) in 2015. Production is forecast to average 8.8 million b/d in 2016 and 8.5 million b/d in 2017. Production levels in 2017 for this forecast are 0.2 million b/d higher than in the August STEO. The upward revisions to production largely reflect an assumption of higher drilling activity, rig efficiency, and well-level productivity than assumed in previous forecasts.

Natural gas working inventories were 3,401 billion cubic feet (Bcf) on August 26. This level is 8% higher than last year during the same week, and 11% higher than the previous five-year (2011-15) average for that week. EIA projects that natural gas inventories will be 4,042 Bcf at the end of October 2016, which would be the highest end-of-October level on record.

Editor's Note: Data presented in the Vermont Fuel Price Report, as in the past, is collected on the first Monday of the month.

Vermont Fuel Price Report

September
2016



Percentage Change in Average Retail Petroleum Prices, Month over Month & Year to Date

	<u>Sep '16</u>	<u>Aug '16</u>	<u>% Change</u>	<u>Sep '15</u>	<u>% Change</u>
No. 2 Fuel Oil	\$2.05	\$2.01	2.0%	\$2.30	-10.8%
Kerosene	\$2.62	\$2.55	2.5%	\$2.85	-8.3%
Propane	\$2.17	\$2.21	-2.0%	\$2.17	-0.2%
Reg. Unleaded Gasoline	\$2.23	\$2.18	2.1%	\$2.41	-7.5%
Diesel	\$2.44	\$2.47	-1.5%	\$2.78	-12.3%

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Comparing the Cost of Heating Fuels

Type of Energy	BTU/unit	Typical Efficiency	\$/unit	\$/MMBtu	High Efficiency	\$/MMBtu
Fuel Oil, gallon	138,200	80%	\$2.05	\$18.57	95%	\$15.64
Kerosene, gallon	136,600	80%	\$2.62	\$23.96		
Propane, gallon	91,600	80%	\$2.17	\$29.56	95%	\$24.89
Natural Gas, Ccf	100,000	80%	\$1.41	\$17.67 *	95%	\$14.88
Electricity, kWh (resistive)	3,412	100%	\$0.15	\$43.46		
Electricity, kWh (heat pump)	3,412		\$0.15	#	240%	\$18.32
Wood, cord (green)	22,000,000	60%	\$227	\$17.21 ^		
Pellets, ton	16,400,000	80%	\$275	\$20.96 ^		

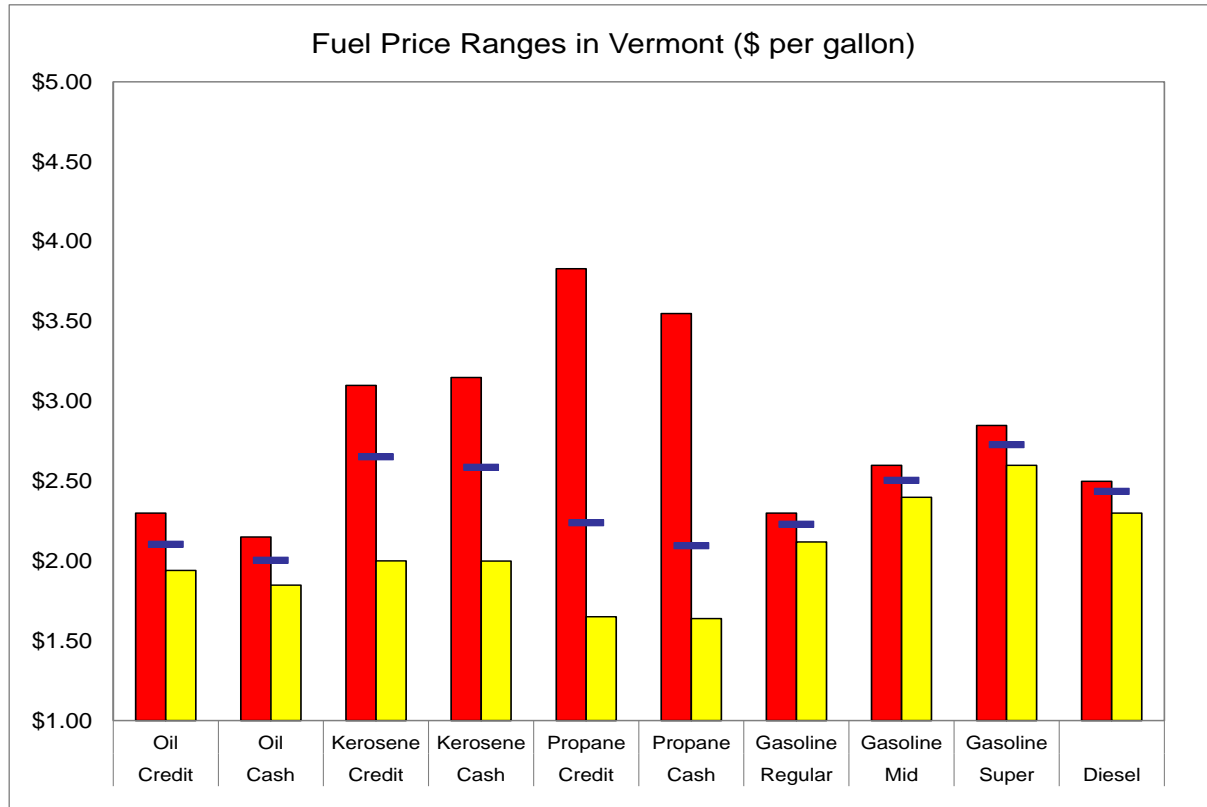
* Natural Gas price is based on VGS residential rate effective Aug 5th, 2016.

see October 2015 Fuel Price Report for discussion of heat pump coefficient of performance

^ Cord Wood price updated 8/2015 from small survey sample. Pellet price updated 5/2016 from small survey sample

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NOTE: The Vermont Fuel Price Report is published monthly by the Vermont Department of Public Service. Prices are collected on or about the first Monday of each month and reflect dealer discounts for cash or self-service, except propane prices, which are an average of the credit and discount price. Propane prices are based on 1,000 + gallons. For more information please contact John Woodward at (802) 828-3061 or by email at john.woodward@vermont.gov.