

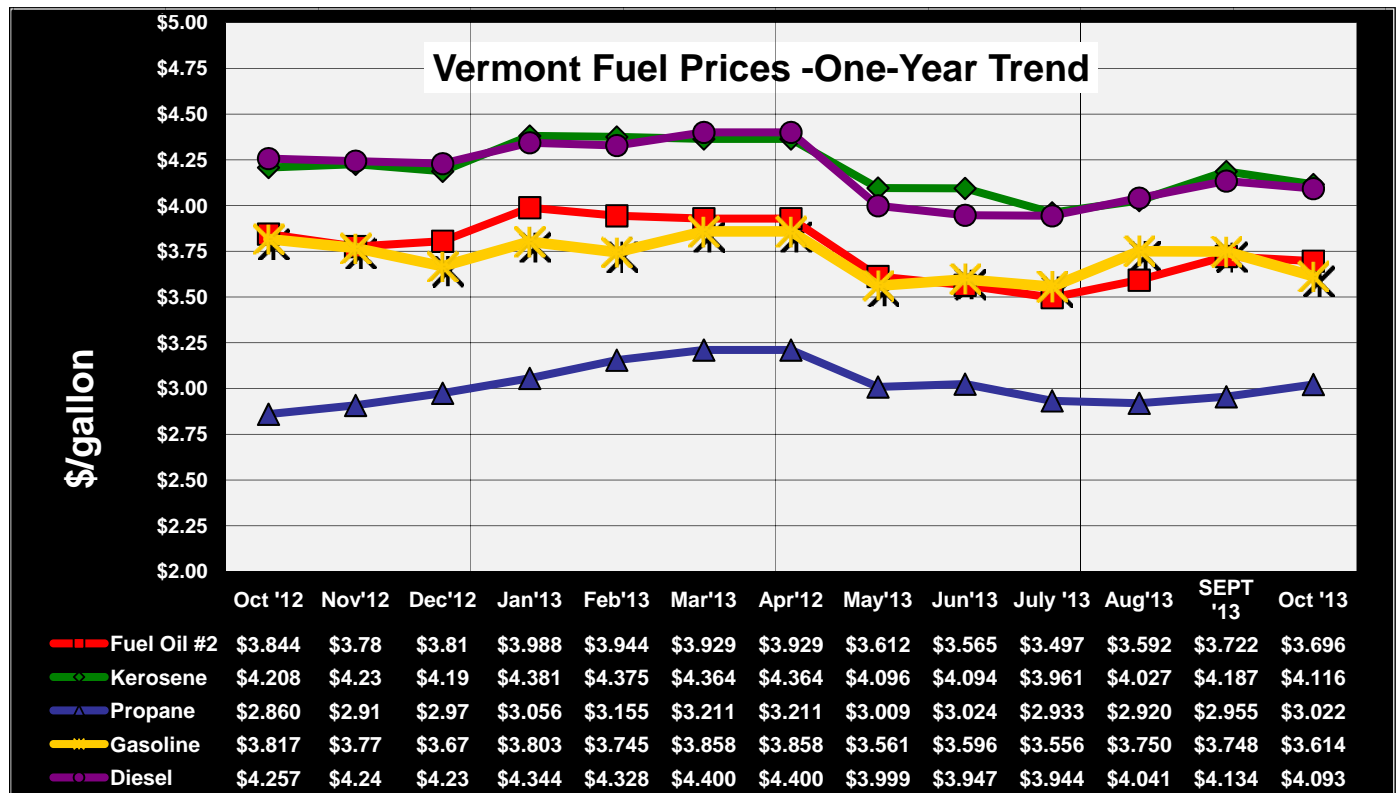
EIA-Short-Term Energy Outlook – Highlights

- EIA projects average U.S. household expenditures for natural gas and propane will increase by 13% and 9%, respectively, this winter heating season (October 1 through March 31) compared with last winter. Projected U.S. household expenditures are 2% higher for electricity and 2% lower for heating oil this winter. Although EIA expects average expenditures for households that heat with natural gas will be significantly higher than last winter, they are still lower than the previous 5-year average (see EIA [Short-Term Energy and Winter Fuels Outlook slideshow](#)).
- Brent crude oil spot prices fell from a recent peak of \$117 per barrel in early September to \$108 per barrel at the end of the month as some crude oil production restarted in Libya and concerns over the conflict in Syria moderated. EIA expects the Brent crude oil price to continue to weaken, averaging \$107 per barrel during the fourth quarter of 2013 and \$102 per barrel in 2014. Projected West Texas Intermediate (WTI) crude oil prices average \$101 per barrel during the fourth quarter of 2013 and \$96 per barrel during 2014.
- The weekly U.S. average regular gasoline retail price fell by 18 cents per gallon during September, ending the month at \$3.43 per gallon. EIA's forecast for the regular gasoline retail price averages \$3.34 per gallon in the fourth quarter of 2013. The annual average regular gasoline retail price, which was \$3.63 per gallon in 2012, is expected to be \$3.52 per gallon in 2013 and \$3.40 per gallon in 2014.
- Natural gas working inventories ended September at an estimated 3.52 trillion cubic feet (Tcf), 0.17 Tcf below the level at the same time a year ago and 0.04 Tcf above the previous five-year average (2008–12). EIA expects that the Henry Hub natural gas spot price, which averaged \$2.75 per million British thermal units (MMBtu) in 2012, will average \$3.71 per MMBtu in 2013 and \$4.00 per MMBtu in 2014.
- Despite a rise in natural gas prices from their 2012 level, stable coal prices and an increase in electricity generation from coal contribute to only modest increases in retail electricity prices. EIA expects residential electricity prices to increase by 2% in 2013 and 1% in 2014.

For additional energy related information and data visit the EIA website at <http://www.eia.gov/>

Vermont Fuel Price Report

October 2013



Vermont Average Retail Petroleum Prices (per gallon)					
	Oct '13	SEPT '13	%change	Oct '12	%change
No. 2 Fuel Oil	\$3.696	\$3.722	-0.70%	\$3.844	-3.85%
Kerosene	\$4.116	\$4.187	-1.70%	\$4.208	-2.20%
Propane	\$3.022	\$2.955	2.26%	\$2.860	5.67%
Reg. Unleaded Gasoline	\$3.614	\$3.748	-3.58%	\$3.817	-5.32%
Diesel	\$4.093	\$4.134	-1.00%	\$4.257	-3.86%

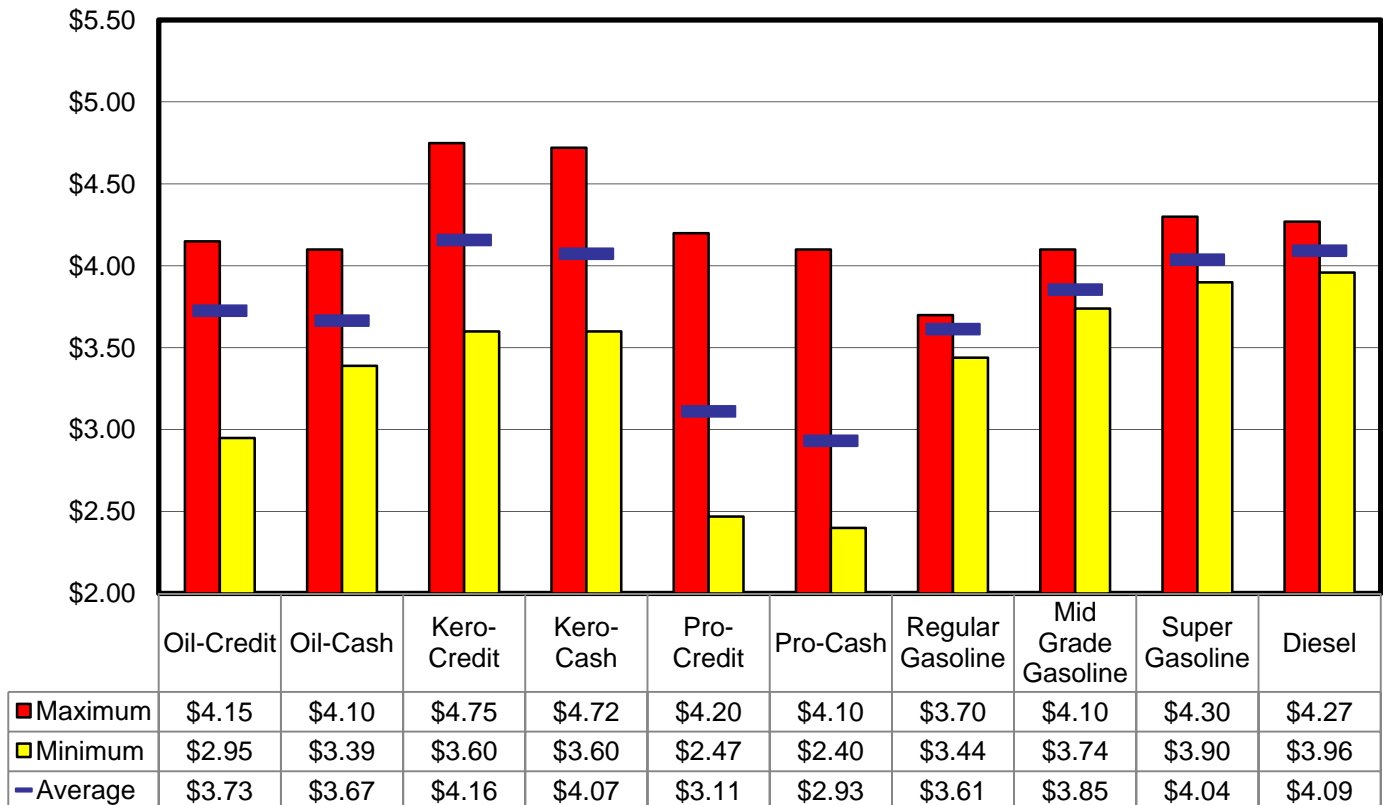
NOTE: The Vermont Fuel Price Report is published monthly by the Vermont Department of Public Service. Prices are collected on or about the first Monday of each month and reflect dealer discounts for cash or self-service, except propane prices, which are an average of the credit and discount price. Propane prices are based on 1,000 + gallons. For more information please contact Mike Kandrath at (802) 828-4081 or by email at michael.kandrath@state.vt.us.

Comparing the Cost of Heating Fuels

Type of Energy	BTU/unit	Adj Effic	\$/unit	\$/MMBtu
Fuel Oil, gallon	138,200	80%	\$3.70	\$33.43
Kerosene, gallon	136,600	80%	\$4.12	\$37.66
Propane, gallon	91,600	80%	\$3.02	\$41.24
Natural Gas, therm	100,000	80%	\$1.55	\$19.31
Electricity, kwh	3,412	100%	\$0.15	\$43.46
Wood, cord (green)	22,000,000	60%	\$193.33	\$14.65
Pellets, ton	16,400,000	80%	\$247.00	\$18.83

* The natural gas price is based on the rate effective 8/8/13. *Wood green updated 9/25/13.

Fuel Price Ranges in Vermont



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Fuel Price Ranges in Vermont

	<u>Oil-Credit</u>	<u>Oil-Cash</u>	<u>Kero-Credit</u>	<u>Kero-Cash</u>	<u>Pro-Credit</u>	<u>Pro-Cash</u>	<u>Regular Gasoline</u>	<u>Mid Grade Gasoline</u>	<u>Super Gasoline</u>	<u>Diesel</u>
<u>Stan.Dev \$</u>	\$0.22	\$0.20	\$0.30	\$0.28	\$0.52	\$0.49	\$0.26	\$0.94	\$0.24	\$0.42
<u>Stan.Dev%</u>	5.85%	5.35%	7.15%	6.81%	16.61%	16.56%	2.05%	5.88%	1.93%	2.22%

Vermont Ave Fuel Prices

May 2008 - October 2013



Vermont Historical Weather and Degree Day Data

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CDD's are used during summer months to compare the current day's average temperature against the 65°F standard to determine the energy demands of cooling your home through air conditioning or fans. For example, if the current day's high is 85°F and the low is 65°F, the day's average temperature will be 75°F. Since 75°F-65°F is 10°F, this day would have 10 cooling degree days. Adding the degree days together for the whole month provides a way to compare previous months or years.

HDD's are used the same way during winter months to determine the energy demands of heating your home. The 65°F standard still is used, however, the day's average temperature is subtracted instead of added to the standard. For example, if the current day's high is 30°F and the low is 10°F, the day's average temperature will be 20°F. Since 65°F-20°F is 45°F, this day would have 45 heating degree days.

Just like cooling degree days, heating degree days may be added together for the entire month to compare to previous months or years.¹

The primary online source for historical weather and degree day data is the available from the NOAA - National Climatic Data Center (NCDC) web site at:
<http://www7.ncdc.noaa.gov/CDO/CDODivisionalSelect.jsp#>

NCDC maintains the world's largest climate data archive and provides climatological services. Records in the archive range from paleoclimatic data to centuries-old journals to data less than an hour old.

Another source is the Weather Data Depot web site. The data collection is not as extensive as the NOAA collection only covering the years from 1993 forward. But the site is more user friendly.

http://www.weatherdatadepot.com/?pi_ad_id=8426228665&gclid=CIaZvMf8krQCFQqk4AodFRYArQ

A negative percentage means the Comparison Year was milder than the Base Year. A positive percentage means the Comparison Year was more severe than the Base Year. When the monthly degree days in either the base year or the comparison year are less than 30, a percentage comparison is not calculated. However, the Annual Total comparison percentages include all heating and cooling degree days.

Monthly Degree Day Comparison (Station: VTNO)[1]				
	Base Year (2011)	Comparison Year	Comparison Year (2013)	Comparison

¹ <http://www.consumersenergy.com/content.aspx?id=4582>

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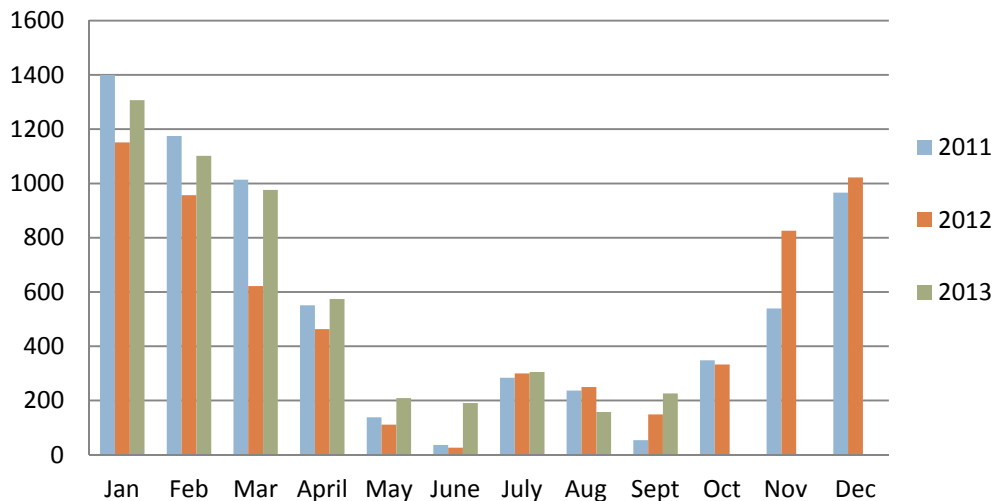
Vermont Fuel Price Report

October 2013

Month				(2012)						Percentages		
	HDD	CDD	TDD	HDD	CDD	TDD	HDD	CDD	TDD	HDD	CDD	TDD
September	54	121	175	149	50	199	167	59	226	12%	18%	13%
October	348	2	350	333	0	333			0			
November	539	0	539	826	0	826			0			
December	966	0	966	1022	0	1022			0			
January	1400	0	1400	1151	0	1151	1307	0	1307	13%		13%
February	1175	0	1175	957	0	957	1102	0	1102	15%		15%
March	1014	0	1014	622	3	625	976	0	976	56%		
April	551	7	558	463	13	476	574	2	576	23%		21%
May	138	78	216	111	86	197	178	31	209	60%	-63%	6%
June	36	120	156	26	162	188	61	130	191		-19%	1%
July	0	284	284	0	300	300	2	303	305		1%	1%
August	0	237	237	4	246	250	13	145	158		-41%	-36%
Annual Total	6221	849	7070	5664	860	6524	4380	670	5050			

Monthly Degree Day Comparison

(Station: VTNO)[1]



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