

# Vermont Fuel Price Report

July 2013

## EIA-Short-Term Energy Outlook – Highlights

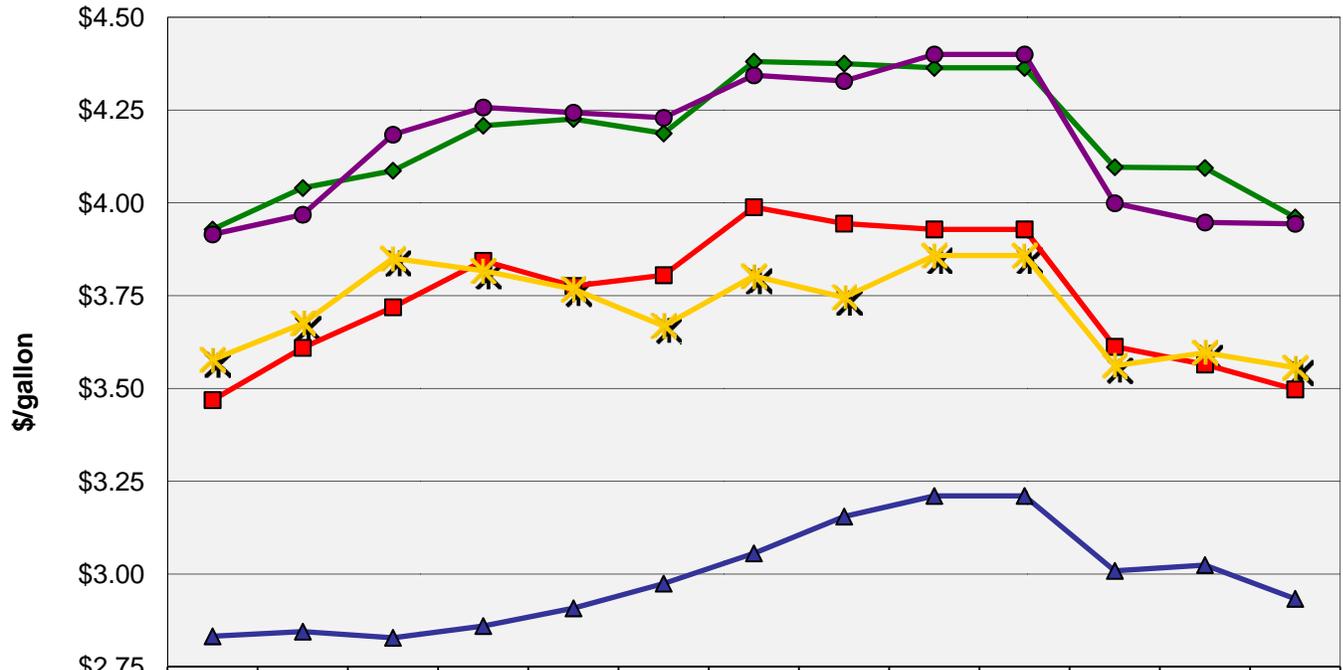
- The U.S. Energy Information Administration (EIA) expects that the Brent crude oil spot price will average \$102 per barrel over the second half of 2013, and \$100 per barrel in 2014. This forecast assumes there are no disruptions to energy markets arising from the recent unrest in Egypt. After increasing to \$119 per barrel in early February 2013, the Brent crude oil spot price fell to a low of \$97 per barrel in mid-April and then recovered to an average of \$103 per barrel in May and June, about the same as its average over the same two-month period last year.
- The [discount of West Texas Intermediate \(WTI\) crude oil to Brent crude oil](#), which averaged \$18 per barrel in 2012 and increased to a monthly average of more than \$20 per barrel in February 2013, fell to less than \$5 per barrel in early July 2013. The [narrowing of the WTI-Brent price spread](#) is supported by several factors that have depressed Brent prices or raised WTI prices. EIA expects the WTI discount to widen to \$8 per barrel by the end of 2013 as crude oil production in Alberta, Canada, recovers following the heavy June flooding and as Midcontinent production continues to grow.
- Regular-grade gasoline prices have fallen from an average of \$3.66 per gallon on June 10, 2013, to \$3.49 per gallon on July 8, 2013. [Midwest gasoline prices have recently returned to normal levels relative to the U.S. average price](#), helped by the resumption of regional refining activity after planned and unplanned outages, and the movement of gasoline from other parts of the nation. EIA expects the annual average regular gasoline retail price to decline from \$3.63 per gallon in 2012 to \$3.48 per gallon in 2013 and to \$3.37 per gallon in 2014.
- Consumption in OECD (Organization for Economic Cooperation and Development) countries averages 45.5 million barrels per day (bbl/d) in 2013 compared with 44.5 million bbl/d for non-OECD countries. EIA forecasts annual average non-OECD total liquids consumption to surpass OECD levels in 2014, averaging 45.9 million bbl/d and 45.4 million bbl/d, respectively. EIA projects non-OPEC liquid fuels production will increase by 1.2 million bbl/d in 2013 and by 1.6 million bbl/d in 2014. North America accounts for most of the projected growth in non-OPEC supply over the next two years because of continued production growth from U.S. tight oil formations and Canadian oil sands.
- U.S. crude oil production increased to an average of 7.3 million bbl/d in April and May 2013, which is the highest level of production since 1992. EIA forecasts U.S. total crude oil production will average 7.3 million bbl/d in 2013 and 8.1 million bbl/d in 2014.

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

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## Vermont Fuel Prices -One-Year Trend



	July '12	Aug'12	Sep'12	Oct '12	Nov'12	Dec'12	Jan'13	Feb'13	Mar'13	Apr'12	May'13	Jun'13	July '13
Fuel Oil #2	\$3.469	\$3.609	\$3.719	\$3.84	\$3.78	\$3.805	\$3.988	\$3.944	\$3.929	\$3.929	\$3.612	\$3.565	\$3.497
Kerosene	\$3.928	\$4.040	\$4.087	\$4.21	\$4.23	\$4.187	\$4.381	\$4.375	\$4.364	\$4.364	\$4.096	\$4.094	\$3.961
Propane	\$2.832	\$2.845	\$2.828	\$2.86	\$2.91	\$2.974	\$3.056	\$3.155	\$3.211	\$3.211	\$3.009	\$3.024	\$2.933
Gasoline	\$3.578	\$3.675	\$3.851	\$3.82	\$3.77	\$3.668	\$3.803	\$3.745	\$3.858	\$3.858	\$3.561	\$3.596	\$3.556
Diesel	\$3.915	\$3.968	\$4.184	\$4.26	\$4.24	\$4.229	\$4.344	\$4.328	\$4.400	\$4.400	\$3.999	\$3.947	\$3.944

### Vermont Average Retail Petroleum Prices (per gallon)

	July '13	Jun'13	%change	July '12	%change
o. 2 Fuel Oil	\$3.497	\$3.565	-1.89%	\$3.469	0.83%
Kerosene	\$3.961	\$4.094	-3.25%	\$3.928	0.83%
Propane	\$2.933	\$3.024	-3.01%	\$2.832	3.57%
Reg. Unleaded Gasoline	\$3.556	\$3.596	-1.12%	\$3.578	-0.61%
Diesel	\$3.944	\$3.947	-0.09%	\$3.915	0.73%

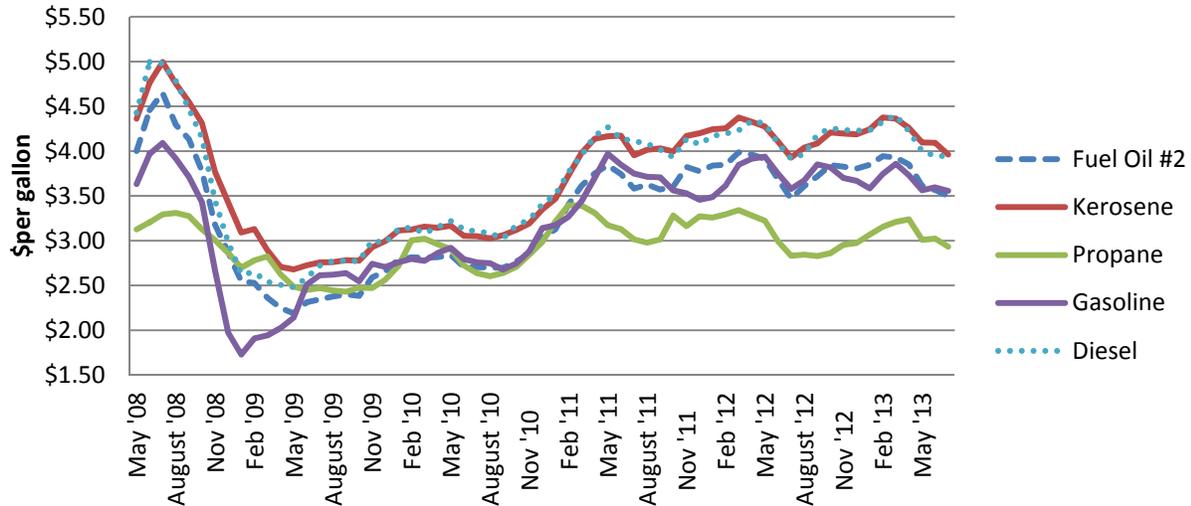
NOTE: The Vermont Fuel Price Report is published monthly by the Vermont Department of Public Service. Prices are collected on or about the first Monday of each month and reflect dealer discounts for cash or self-service, except propane prices, which are an average of the credit and discount price. Propane 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.

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## Vermont Ave Fuel Prices

May 2008 - July 2013



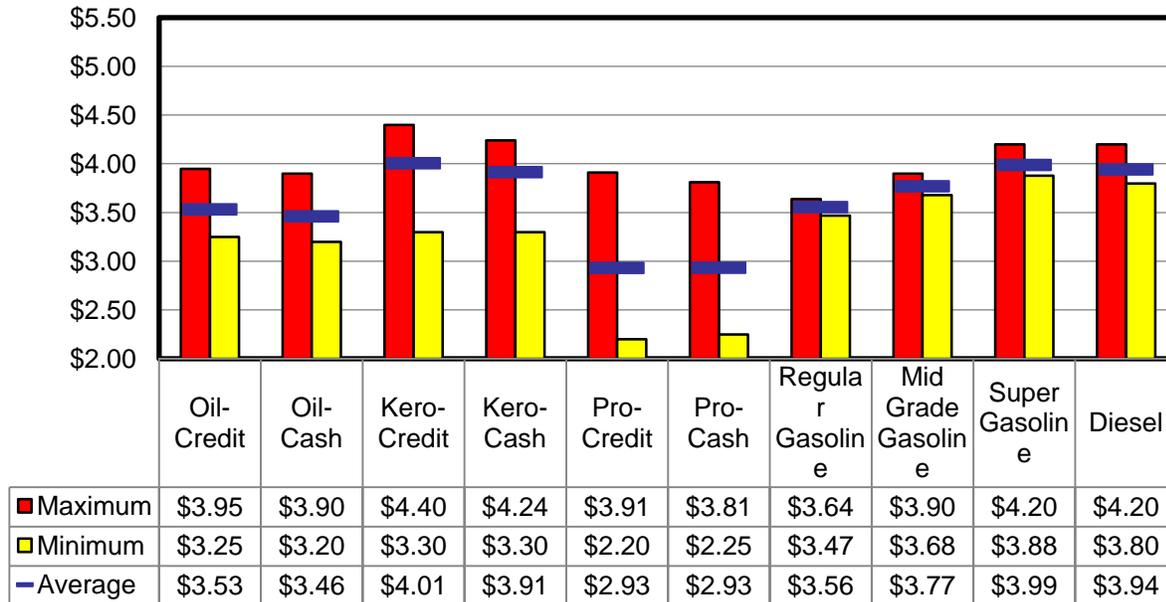
## Comparing the Cost of Heating Fuels

Type of Energy	BTU/unit	Adj Effic	\$/unit	\$/MMBtu
Fuel Oil, gallon	138,200	80%	\$3.497	\$31.63
Kerosene, gallon	136,600	80%	\$3.961	\$36.24
Propane, gallon	91,600	80%	\$2.933	\$40.03
Natural Gas, therm	100,000	80%	\$1.564	\$19.55
Electricity, kwh	3,412	100%	\$0.148	\$43.46
Wood, cord (green)	22,000,000	60%	\$190.00	\$14.39
Pellets, ton	16,400,000	80%	\$247.00	\$18.83

\* The natural gas price is based on the rate effective 5/7/13. \*Wood green updated 11/16/11.

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### Fuel Price Ranges in Vermont



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	<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>	\$ 0.138	\$ 0.130	\$ 0.216	\$ 0.197	\$ 0.474	\$ 0.488	\$ 0.260	\$ 0.940	\$ 0.240	\$ 0.420
<u>Stan.Dev%</u>	3.90%	3.77%	5.38%	5.02%	16.15%	16.64%	2.05%	5.88%	1.93%	2.22%

## PRICE PROTECTION PROGRAMS

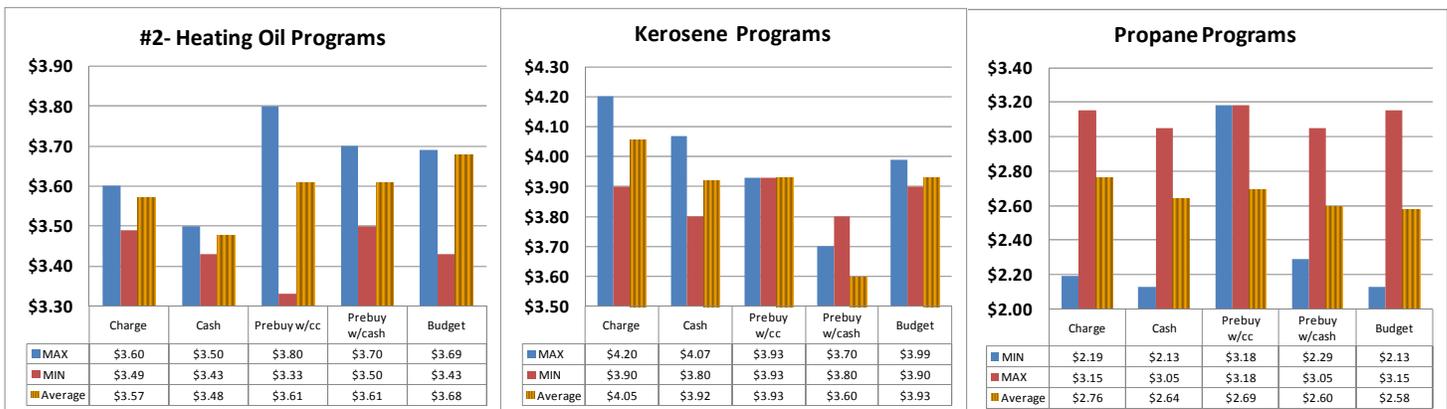
At this time of the year many fuel dealers offer their customers “price protection” programs. Such as “Pre-Buy” programs, participating customers can purchase a specified volume of fuel at a discounted price by paying for the heating season’s fuel in advance. In “Fixed Price” programs, a pre-determined price per unit is set for all of the fuel delivered during the heating season. In “Cap” programs, the fuel price will not exceed a pre-determined value and may go down based on market conditions at time of delivery. Cap and Fixed Price programs may be part of “Budget” programs, in which the customer agrees to make equal monthly payments, often for 10 to 12 months. Price protection programs can be beneficial, as they provide a degree of certainty, and customers are better able to budget their finances and thus are not caught short during the heating season. However, price protection programs don’t guarantee savings, so consumers need to consider their options carefully.

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At the time of the survey several dealers had not yet issued their programs therefore the data for July is based on a small sample and is representative of program availability and average price per gallon for price protection programs as of July 1<sup>st</sup>. Contact your Dealer for up to date terms and conditions of their “price protection” programs.



## Vermont Historical Weather and Degree Day Data

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.

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

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:

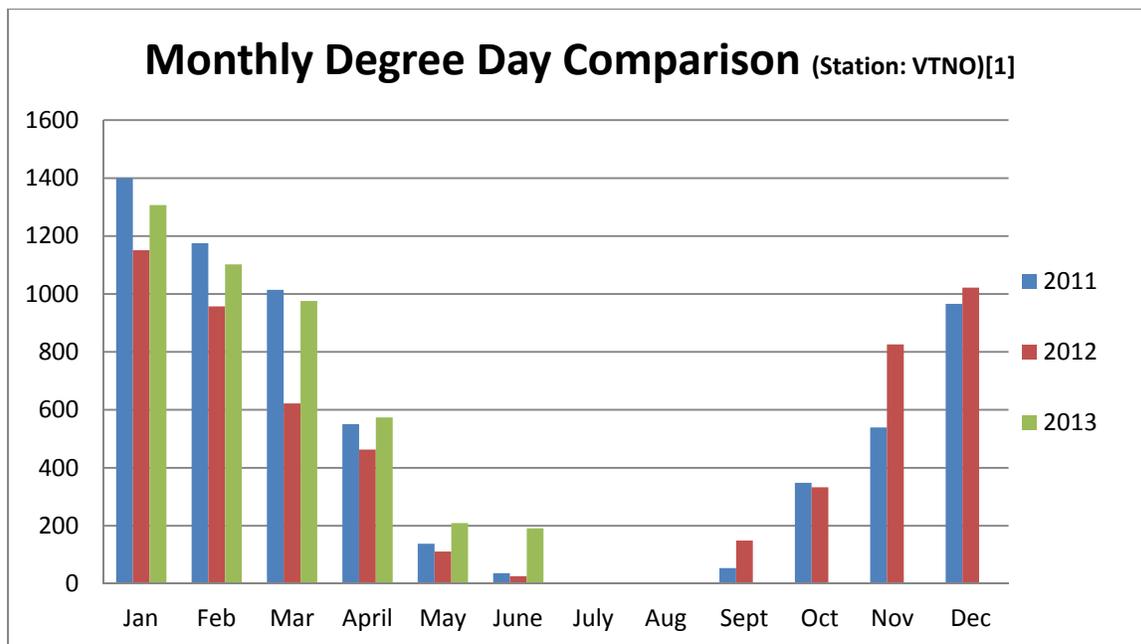
<http://www7.ncdc.noaa.gov/CDO/CDODivisionalSelect.jsp#>

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](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.



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

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<a href="#">Monthly Degree Day Comparison (Station: VTNO)[1]</a>													
Month	Base Year (2011)			Comparison Year (2012)			Comparison Year (2013)			Comparison Percentages			
	HDD	CDD	TDD	HDD	CDD	TDD	HDD	CDD	TDD	HDD	CDD	TDD	
September	54	121	175	149	50	199							
October	348	2	350	333	0	333							
November	539	0	539	826	0	826							
December	966	0	966	1022	0	1022							
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	574	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							
August	0	237	237	4	246	250							
Annual Total	6221	849	7070	5664	860	6524	4198	163	4359	26%	-38%	21%	

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