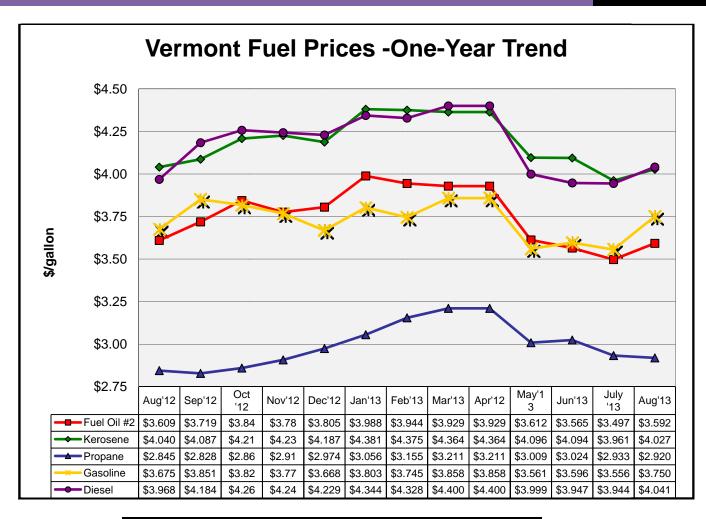
### **EIA-Short-Term Energy Outlook – Highlights**

- Crude oil prices increased during the first three weeks of July 2013 as world oil markets tightened in the face of seasonal increases in world consumption, unexpected supply disruptions, and heightened uncertainty over the security of supply with the renewed unrest in Egypt. The U.S. Energy Information Administration (EIA) expects that the Brent crude oil spot price, which averaged \$108 per barrel over the first half of 2013, will average \$104 per barrel over the second half of 2013, and \$100 per barrel in 2014.
- The <u>discount of West Texas Intermediate (WTI) crude oil to Brent crude oil</u>, which averaged \$18 per barrel in 2012 and increased to a monthly average of \$21 per barrel in February 2013, closed below \$1.50 per barrel on July 19, 2013, and averaged \$3 per barrel for the month. The strong demand for light, sweet crude oil in the Midwest and new pipeline capacity to deliver production from the West Texas Permian Basin directly to the Gulf Coast contributed to the price of WTI rising relative to Brent crude oil. EIA expects the WTI discount to widen to \$6 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.
- Rising crude oil prices and seasonal demand increases contributed to U.S. regular gasoline retail prices increasing from an average of \$3.50 per gallon on July 1, 2013, to \$3.63 per gallon on August 5. EIA expects the regular gasoline retail price to average \$3.59 per gallon in the third quarter of 2013, and the annual average price to decline from an average of \$3.63 per gallon in 2012 to \$3.52 per gallon in 2013 and to \$3.37 per gallon in 2014.
- U.S. crude oil production increased to an average of 7.5 million barrels per day (bbl/d) in July 2013, the highest monthly level of production since 1991. EIA forecasts U.S. total crude oil production will average 7.4 million bbl/d in 2013 and 8.2 million bbl/d in 2014, both about 0.1 million bbl/d higher than forecast in last month's STEO.
- Natural gas working inventories ended July 2013 at an estimated 2.88 trillion cubic feet (Tcf), about 0.37 Tcf below the level at the same time a year ago and 0.04 Tcf below the five-year average (2008-12). EIA expects 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 \$3.95 per MMBtu in 2014.

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

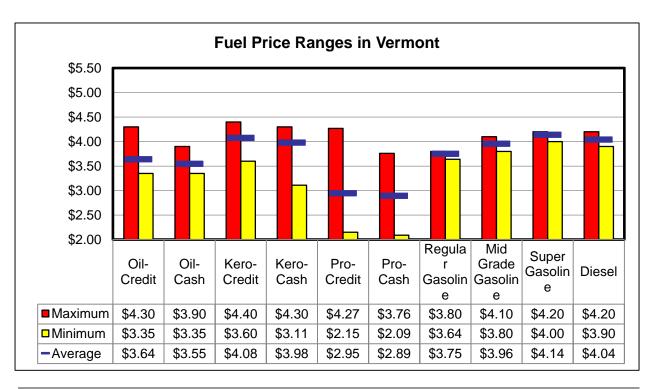


Vermont Average Retail Petroleum Prices (per gallon)										
	Aug'13	July '13	%change	Aug'12	%change					
No. 2 Fuel Oil	\$3.592	\$3.497	2.73%	\$3.609	-0.47%					
Kerosene	\$4.027	\$3.961	1.67%	\$4.040	-0.32%					
Propane	\$2.920	\$2.933	-0.46%	\$2.845	2.62%					
Reg. Unleaded Gasoline	\$3.750	\$3.556	5.47%	\$3.675	2.06%					
Diesel	\$4.041	\$3.944	2.45%	\$3.968	1.83%					

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 Kundrath at (802) 828-4081or by email at michael.kundrath@state.vt.us.

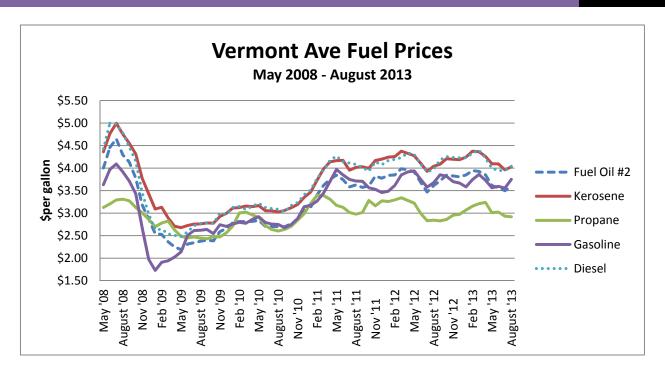
Comparing the Cost of Heating Fuels									
Type of Energy	BTU/unit	Adj Effic	\$/unit	\$/MMBtu					
Fuel Oil, gallon	138,200	80%	\$3.592	\$32.49					
Kerosene, gallon	136,600	80%	\$4.027	\$36.85					
Propane, gallon	91,600	80%	\$2.920	\$39.84					
Natural Gas, therm	100,000	80%	\$1.545	\$19.31					
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					

<sup>\*</sup> The natural gas price is based on the rate effective 8/8/13. \*Wood green updated 11/16/11.



<u>Fuel Price Ranges in Vermont</u>										
	<u>Oil-</u> <u>Credit</u>	<u>Oil-</u> <u>Cash</u>	<u>Kero-</u> <u>Credit</u>	<u>Kero-</u> <u>Cash</u>	<u>Pro-</u> <u>Credit</u>	<u>Pro-</u> <u>Cash</u>	<u>Regular</u> <u>Gasoline</u>	<u>Mid</u> <u>Grade</u>	<u>Super</u> <u>Gasoline</u>	<u>Diesel</u>
								<u>Gasoline</u>		
Stan.Dev \$	0.181	0.130	0.197	0.228	0.514	0.479	0.260	0.940	0.240	0.420
Stan.Dev%	4.98%	3.67%	4.84%	5.74%	17.46%	16.55%	2.05%	5.88%	1.93%	2.22%

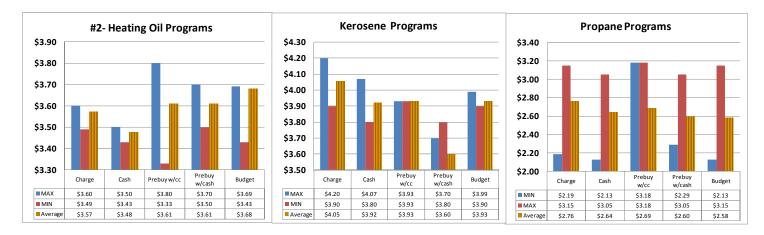
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#### PRICE PROTECTION PROGRAMS

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.

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 August 5th. 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.

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#

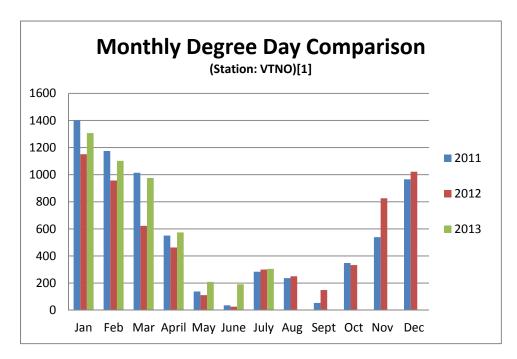
NCDC maintains the world's largest climate data archive and provides climatological services. Records in the archive range from paleoclimatic data to centuries-old journals to data less than an hour old.

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. <a href="http://www.weatherdatadepot.com/?pi\_ad\_id=8426228665&gclid=CIaZvMf8krQCFQqk4AodFRYArQ">http://www.weatherdatadepot.com/?pi\_ad\_id=8426228665&gclid=CIaZvMf8krQCFQqk4AodFRYArQ</a>

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

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			Commovices Veer (2012)			Comparison		
	Dase	rear (2	2011)	011) (2012)			Comparison Year (2013)			Percentages		
Month	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	2	203	305		1%	1%
August	0	237	237	4	246	250						
Annual Total	6221	849	7070	5664	860	6524	420	466	4666	26%	-17%	20%

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