

THE ALTERNATIVE FUEL PRICE REPORT



Alternative Fuel Prices Across the Nation

December 27, 2002

This is the eighth issue of the Clean Cities Alternative Fuel Price Report, a quarterly newsletter keeping you up to date on the prices of alternative fuels in the U.S. and their relation to gasoline and diesel prices. This issue discusses prices that were gathered from Clean Cities coordinators and stakeholders during the weeks of October 21, October 28, and November 4, 2002, with comparisons to the prices in the previous Price Report, which were collected in July, 2002. (In cases where respondents reported both October and November prices for a fuel, the November prices were used.)

The prices contained within this report are meant to represent retail, at-the-pump sales prices for each fuel. In some cases, prices are collected from utilities or government facilities, where taxes are not included. In these instances, though government users may not be required to pay a tax on the fuel, standard federal and state taxes are added on and included in the prices presented herein. Some states, in lieu of taxes, charge an annual flat fee for certain alternative fuels (esp. gaseous fuels such as CNG and propane). Such flat fees are not considered in the prices estimated in this report.

Gasoline and Diesel Prices

Regular grade gasoline averaged \$1.444 per gallon nationwide during the week of October 28, 2002, increasing by 3.4¢ per gallon since the previous Price Report (July 2002), as illustrated in the table to the right. Prices for the various regions of the country are also illustrated in this table. (A map of the regions is shown on the next page.) During the week of October 28, prices ranged from a low of \$1.385 in the Lower Atlantic region to a high of \$1.470 on the West Coast. The price increased in all regions except the West Coast since July, 2002. On the West Coast, the price decreased by 7.1¢ per gallon.

Gasoline Price Trends

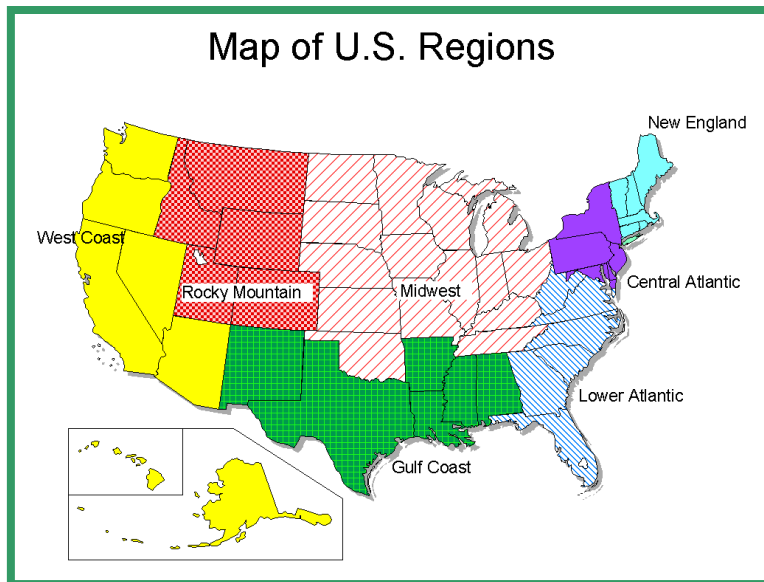
	Week of 7-22-02	Week of 10-28-02	Change in Price
New England	\$1.418	\$1.466	\$0.048
Central Atlantic	\$1.420	\$1.457	\$0.037
Lower Atlantic	\$1.319	\$1.385	\$0.066
Midwest	\$1.419	\$1.466	\$0.047
Gulf Coast	\$1.315	\$1.400	\$0.085
Rocky Mountain	\$1.455	\$1.465	\$0.010
West Coast	\$1.541	\$1.470	(\$0.071)
Nationwide Average	\$1.410	\$1.444	\$0.034

Diesel fuel averaged \$1.496 per gallon nationwide during the week of October 28, 2002. This represents an increase of 18.5¢ per gallon from the previous Price Report (July 2002). Prices for the various regions of the country are illustrated in the table to the right. During the week of October 28, diesel prices ranged from a low of \$1.407 in the Lower Atlantic region to a high of \$1.524 in the West Coast region. Between July and October, 2002, prices for diesel increased in every region of the country.

Diesel Price Trends

	Week of 7-22-02	Week of 10-28-02	Change in Price
New England	\$1.398	\$1.496	\$0.098
Central Atlantic	\$1.391	\$1.513	\$0.122
Lower Atlantic	\$1.273	\$1.407	\$0.134
Midwest	\$1.302	\$1.457	\$0.155
Gulf Coast	\$1.277	\$1.417	\$0.140
Rocky Mountain	\$1.334	\$1.509	\$0.175
West Coast	\$1.380	\$1.524	\$0.144
Nationwide Average	\$1.311	\$1.496	\$0.185

Gasoline and diesel prices shown are retail prices; they include federal, state, and local taxes. These prices were obtained from the Energy Information Administration.



Natural Gas (CNG) Prices

Average natural gas (CNG) retail pump prices for the various regions of the country are illustrated in the accompanying table. Regional average CNG prices ranged from a low of \$0.76 per GGE in the Rocky Mountain region to a high of \$1.40 per GGE on the West Coast during the week of October 28, 2002. Prices for CNG were collected from across the country by Clean Cities Coordinators, DOE Regional Office contacts, and fuel providers on a voluntary basis. No prices were reported for the New England or Gulf Coast regions.

CNG Price Trends

	Week of 7-22-02	Week of 10-28-02	Change in Price	Number of Respondents for 10-28-02	Approx. No. of Stations Represented
New England	\$1.40	No Info	-	0	0
Central Atlantic	\$1.04	\$1.17	\$0.13	3	21
Lower Atlantic	\$1.00	\$1.12	\$0.12	3	6
Midwest	\$0.93	\$0.97	\$0.04	4	9
Gulf Coast	\$1.20	No Info	-	0	0
Rocky Mountain	\$1.24	\$0.76	(\$0.48)	1	1
West Coast	\$1.22	\$1.40	\$0.18	5	56

Propane Prices

Propane retail pump prices in the various regions of the country during the week of October 28, 2002 are illustrated in the accompanying table. Regional average propane prices ranged from a low of \$1.19 per gallon (\$1.59 per GGE) in the Lower Atlantic region to a high of \$1.58 per gallon (\$2.12 per GGE) in the West Coast region. Prices for propane were collected from across the country by Clean Cities Coordinators, DOE Regional Office contacts, and fuel providers on a voluntary basis. (No prices were reported from the New England region.)

Propane Price Trends

	Week of 7-22-02	Week of 10-28-02	Change in Price	Number of Respondents for 10-28-02	Approx. No. of Stations Represented
New England	\$1.03	No Info	-	0	0
Central Atlantic	\$1.19	\$1.34	\$0.15	1	4
Lower Atlantic	\$0.83	\$1.19	\$0.36	2	14
Midwest	\$1.11	\$1.28	\$0.17	4	12
Gulf Coast	\$1.39	No Info	-	0	0
Rocky Mountain	\$1.16	\$1.24	\$0.08	3	8
West Coast	\$1.93*	\$1.58**	(\$0.35)	3	14

* Price represents 8 propane stations, of which 5 are in Hawaii. The average propane price on the West Coast is strongly influenced by the price in Hawaii, which is higher than in most cities.

** Price represents 14 propane stations, of which 5 are in Hawaii.

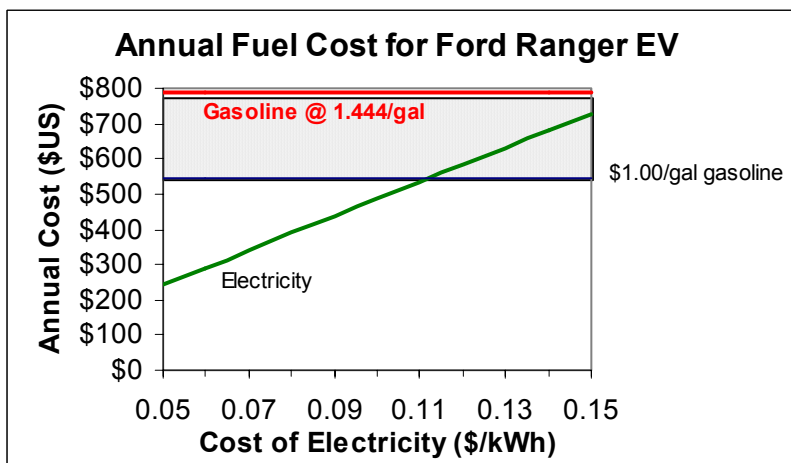
Electricity Prices

Residential electricity prices in the United States ranged from 5¢ to 16¢ per kilowatt-hour in July 2002, according to the Energy Information Administration's Electric Power Monthly newsletter of October 2002. Commercial electricity rates ranged from 5¢ to 15¢ per kilowatt-hour. The Rocky Mountain region boasted the lowest electricity prices in both the residential and commercial sectors; the highest prices were in New England and the Central Atlantic region.

It is difficult to estimate regional fuel costs of electric vehicles with any precision because of the complexity of electricity pricing structures. However, one method for comparing electricity to conventional fuels is to calculate the fuel cost per year for sample vehicles. The table below illustrates three sample electric vehicles; the Ford Ranger, the Toyota Rav4, and the Nissan Altra¹. Fuel costs per year were calculated based upon the EPA-published fuel economy ratings for gasoline vehicles (in MPG) and for electric vehicles (in kilowatt-hours per mile). Each vehicle was assumed to travel 12,000 miles per year. Fuel costs for electric vehicles were calculated from a range of prices, as shown below. The national average price of gasoline (\$1.444 per gallon) was used to calculate the annual fuel cost for gasoline vehicles. The gasoline counterpart to the Nissan Altra was the Nissan Altima, a midsize car that could serve the same fleet purpose as the midsize electric Altra.

Annual Fuel Cost Comparison

	Electric Vehicle (5¢/kWh)	Electric Vehicle (7.5¢/kWh)	Electric Vehicle (10¢/kWh)	Electric Vehicle (12.5¢/kWh)	Electric Vehicle (15¢/kWh)	Gasoline Vehicle
Ford Ranger	\$240	\$360	\$490	\$610	\$730	\$790
Toyota Rav4	\$180	\$270	\$360	\$450	\$540	\$670
Nissan Altra	\$170	\$250	\$330	\$410	\$500	\$690



The graph to the left shows the annual fuel cost of an electric Ford Ranger over a range of electricity prices from 5¢ to 15¢ per kilowatt-hour. At the national average gasoline price of \$1.444 per gallon, the fuel cost of an electric Ranger is less than that of its conventional counterpart for electricity price up to 15¢ per kilowatt-hour. If gasoline costs \$1.00 per gallon, the electric vehicle will not have a lower fuel cost than its conventional counterpart unless the electricity price is under 11¢ per kilowatt-hour.

Ethanol (E85) Prices

For the week of October 28, 2002, E85 prices were obtained from the Lower Atlantic, Midwest, and Rocky Mountain regions. Regional average prices range from a low of \$1.33 per gallon (\$1.66 per GGE) in the Lower Atlantic region, to a high of \$1.50 per gallon (\$1.88 per GGE) in the Rocky Mountain region.² Prices

Ethanol Price Trends

	Week of 7-22-02	Week of 10-28-02	Change in Price	Number of Respondents for 10-28-02	Approx. No. of Stations Represented
New England	No Info	No Info	-	0	0
Central Atlantic	No Info	No Info	-	0	0
Lower Atlantic	\$1.45	\$1.33	(\$0.12)	2	2
Midwest	\$1.29	\$1.37	\$0.08	3	8
Gulf Coast	No Info	No Info	-	0	0
Rocky Mountain	\$1.47	\$1.50	\$0.03	2	2
West Coast	No Info	No Info	-	0	0

¹ The 2002 Ford Ranger EV is compared to a 2002 Ford Ranger 2WD with 4 cylinders, 4-valve dual overhead cam, 2.3 liters, and automatic transmission. The 2002 Toyota Rav4 EV is compared to a 2002 Toyota Rav4 2WD with 4 cylinders, 2 liters, and automatic transmission. The 2000 Nissan Altra is compared to the 2002 Nissan Altima with 4 cylinders, 2.5 liters, and automatic transmission. Fuel economy data was not available for a 2002 Nissan Altra.

² Includes a 10% decrease in energy use per mile for E85 relative to gasoline.

for E85 were collected from across the country by Clean Cities Coordinators, DOE Regional Office contacts, and fuel providers on a voluntary basis.

Biodiesel (B20) Prices

Biodiesel prices for the week of October 28, 2002, are shown in the table to the right. The prices shown represent B20, a fuel composed of conventional diesel (80%) and biodiesel (20%). Regional average prices ranged from \$1.46 per gallon in the Lower Atlantic region to \$1.73 per gallon on the West Coast. Prices for biodiesel were collected from across the country by Clean Cities Coordinators, DOE Regional Office contacts, and fuel providers on a voluntary basis. (No prices were reported from areas in the New England or Gulf Coast regions.) Note that some biodiesel prices were given in terms of B100, a pure biodiesel fuel not blended with conventional diesel. In these cases, a representative diesel price from the corresponding region was assumed, and a B20 price was calculated.

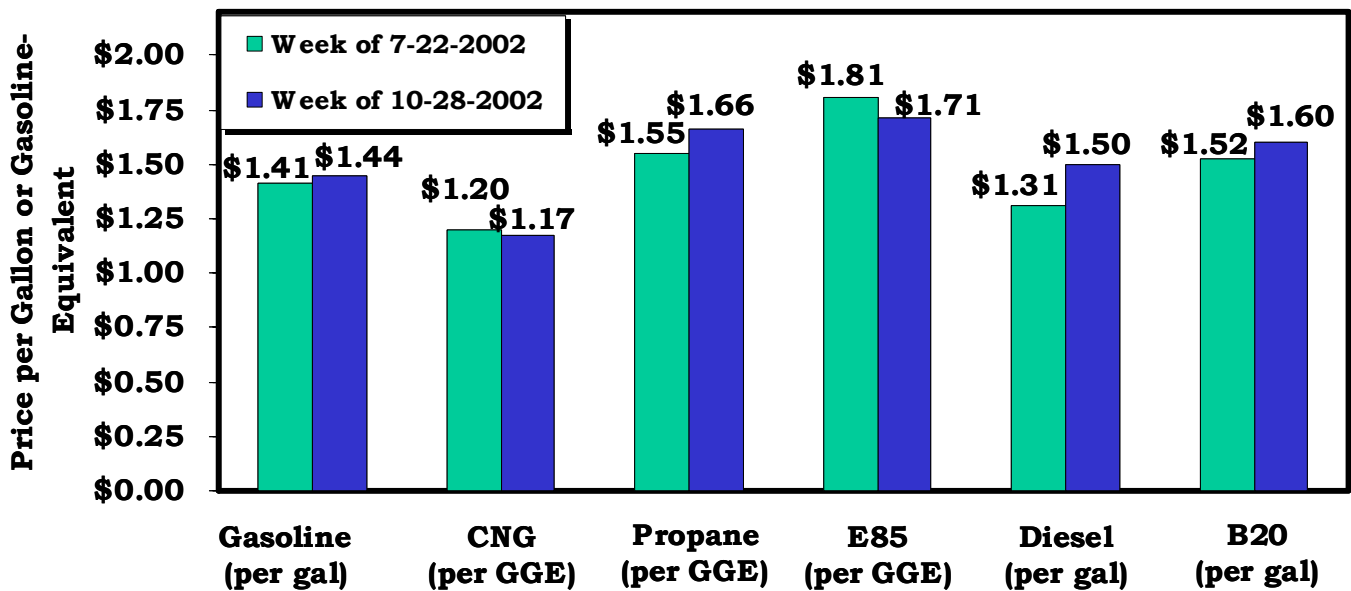
Biodiesel Price Trends

	Week of 7-22-02	Week of 10-28-02	Change in Price	Number of Respondents for 10-28-02
New England	\$1.58	No Info	-	0
Central Atlantic	\$1.39	\$1.60	\$0.21	1
Lower Atlantic	\$1.22	\$1.46	\$0.24	2
Midwest	\$1.23	\$1.60	\$0.37	2
Gulf Coast	No Info	No Info	-	0
Rocky Mountain	\$1.52	\$1.61	\$0.09	1
West Coast	\$1.79	\$1.73	(\$0.06)	3

Summary

During the week of October 28, 2002, gasoline and diesel prices across the country were slightly higher than in July, 2002 (the time period of the previous Price Report). The reported prices of CNG decreased in four regions and increased in three regions. Propane prices also decreased in some regions and increased some regions. The graph below illustrates the relative prices of gasoline, diesel, CNG, propane, E85, and biodiesel.³

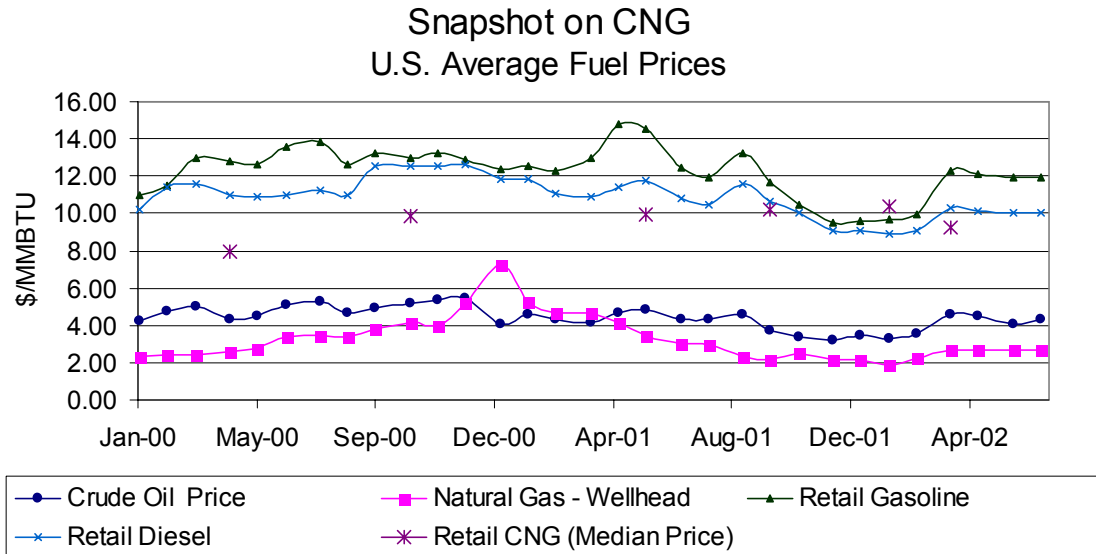
Selected Fuel Prices in the U.S.



³ Gasoline and diesel prices in the graph are national averages; CNG, propane, E85, and B20 prices are median values.

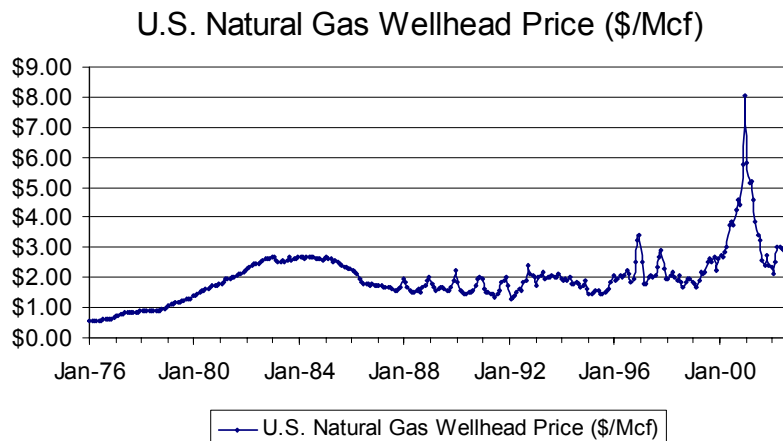
Snapshot of an Alternative Fuel

In response to repeated requests by Alternative Fuel Price Report readers, starting in this issue, each Report will feature a Snapshot of one alternative fuel, containing historical price data and a brief analysis thereof. This issue features compressed natural gas. The figure below shows average retail gasoline and diesel prices in the United States over the past two and a half years, compared to median CNG prices collected for the Alternative Fuel Price Report. In all but one price collection period, retail CNG prices remained below retail gasoline and diesel prices. Gasoline, diesel, crude oil, and natural gas prices were obtained from the Energy Information Administration (<http://www.eia.doe.gov>).



Natural gas prices historically have remained, in general, below crude oil prices, except during the winter and spring of 2000-2001, when expanded natural gas consumption combined with a decline in production capacity, an unusually cold winter, and low natural gas storage levels, caused natural gas prices to spike above crude oil prices in the U.S. for a couple months. This trend, as well as the cost of refining crude and a number of other market factors, is responsible for the price advantage CNG has over gasoline and diesel.

The following figure presents natural gas wellhead prices over a longer period of time, from 1976 to the present. As can be seen, natural gas prices remained relatively steady until the price spike of 2000-2001. The natural gas wellhead price has since fallen to levels near those experienced before the spike, and the Energy Information Administration expects them to remain near the current price over the next few years. For more information on the EIA projections, see “U.S. Natural Gas Markets: Recent Trends and Prospects for the Future” (<http://tonto.eia.doe.gov/FTP/ROOT/service/oiaf0102.pdf>).





Do you have fuel prices you wish to share for inclusion in the next newsletter? To do so, contact:

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