Alternative Fuel Prices Across the Nation

This is the ninth 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 February 3, February 10, and February 17, 2003, with comparisons to the prices in the previous Price Report, which were collected in October, 2002.

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 \$1.607 per gallon nationwide during the week of February 10, 2003, increasing by 16.3¢ per gallon since the previous Price Report (October 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 February 10, prices ranged from a low of \$1.556 in the Gulf Coast region to a high of \$1.679 on the West Coast. The price increased in all regions since October, 2002. The highest

	Week of 10-28-02	Week of 2-10-03	Change in Price
New England	\$1.466	\$1.634	\$0.168
Central Atlantic	\$1.457	\$1.627	\$0.170
Lower Atlantic	\$1.385	\$1.563	\$0.178
Midwest	\$1.466	\$1.606	\$0.140
Gulf Coast	\$1.400	\$1.556	\$0.156
Rocky Mountain	\$1.465	\$1.559	\$0.094
West Coast	\$1.470	\$1.679	\$0.209
Nationwide Average	\$1.444	\$1.607	\$0.163

Gasoline Price Trends

increase in prices was on the West Coast, where the price increased by 20.9¢ per gallon.

Diesel fuel averaged \$1.662 per gallon nationwide during the week of February 10, 2003. This represents an increase of 16.6¢ per gallon from the previous Price Report (October 2002). Prices for the various regions of the country are illustrated in the table to the right. During the week of February 10, diesel prices ranged from a low of \$1.574 in the Rocky Mountain region to a high of \$1.834 in New England. Between October, 2002, and February, 2003, prices for diesel increased in every region of the country.

Diesel Price Trends						
	Week of 10-28-02	Week of 2-10-03	Change in Price			
New England	\$1.496	\$1.834	\$0.338			
Central Atlantic	\$1.513	\$1.801	\$0.288			
Lower Atlantic	\$1.407	\$1.669	\$0.262			
Midwest	\$1.457	\$1.652	\$0.195			
Gulf Coast	\$1.417	\$1.632	\$0.215			
Rocky Mountain	\$1.509	\$1.574	\$0.065			

\$1.524

\$1.496

\$1.653

\$1.662

\$0.129

\$0.166

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

West Coast

Nationwide Average





Natural Gas (CNG) Prices

A verage 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 \$0.89 per GGE in the Rocky Mountain region to a high of \$1.44 per GGE on the West Coast during the week of February 10, 2003. Prices for CNG were collected from across the country by Clean Cities

	Week of 10-28-02	Week of 2-10-03	Change in Price	Number of Respondents for 2-10-03	Approx. No. of Stations Represented	
New England	No Info	\$1.20	-	2	2	
Central Atlantic	\$1.17	\$1.10	(\$0.07)	1	7	
Lower Atlantic	\$1.12	\$1.29	\$0.17	1	4	
Midwest	\$0.97	\$1.01	\$0.04	5	11	
Gulf Coast	No Info	\$1.27	-	1	1	
Rocky Mountain	\$0.76	\$0.89	\$0.13	2	3	
West Coast	\$1.40	\$1.44	\$0.04	7	54	

CNG Price Trends

Coordinators, DOE Regional Office contacts, and fuel providers on a voluntary basis.

Propane Prices

Propane retail pump prices in the various regions of the country during the week of February 10, 2003, are illustrated in the accompanying table. Regional average propane prices ranged from a low of \$1.24 per gallon (\$1.66 per GGE) in the Lower Atlantic and Rocky Mountain regions to a high of \$1.93 per gallon (\$2.59 per GGE) in the West Coast region. Prices for propane were

Propane Price Trends						
	Week of 10-28-02	Week of 2-10-03	Change in Price	Number of Respondents for 2-10-03	Approx. No. of Stations Represented	
New England	No Info	\$1.63	-	1	1	
Central Atlantic	\$1.34	\$1.81	\$0.47	1	17	
Lower Atlantic	\$1.19	\$1.24	\$0.05	2	13	
Midwest	\$1.28	\$1.56	\$0.28	3	13	
Gulf Coast	No Info	\$1.35	-	2	2	
Rocky Mountain	\$1.24	\$1.24	\$0.00	3	9	
West Coast	\$1.58	\$1.93	\$0.35	2	3	

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

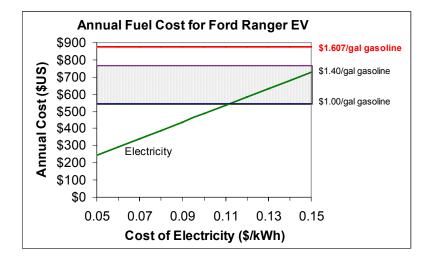
Electricity Prices

esidential electricity prices in the United States ranged from 5¢ to 17¢ per kilowatt-hour in February K2003, according to the Energy Information Administration's Electric Power Monthly newsletter of May 2003. Commercial electricity rates ranged from 5¢ to 16¢ per kilowatt-hour. The Midwest region boasted the lowest electricity prices in the residential sector, while the Rocky Mountain region had the lowest average electricity prices in the commercial sector. The highest residential prices were in the New England region, and the highest commercial prices were in the West Coast 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 (\$1.607 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	\$880
Toyota Rav4	\$180	\$270	\$360	\$450	\$540	\$740
Nissan Altra	\$170	\$250	\$330	\$410	\$500	\$770



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 kilowatthour. At the national average gasoline price of \$1.607 per gallon, the fuel cost of an electric Ranger is less than that of its conventional counterpart for electricity price up to 18¢ 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

or the week of February 10, 2003, E85 prices were obtained from the Lower Atlantic, Midwest, and Rocky Mountain regions. Regional average prices range from a low of \$1.41 per gallon (\$1.76 per GGE) in the Lower Atlantic region, to a high of \$1.56 per gallon (\$1.95 per GGE) in the

Ethanol Price Trends						
	Week of 10-28-02	Week of 2-10-03	Change in Price	Number of Respondents for 2-10-03	Approx. No. of Stations Represented	
New England	No Info	No Info	-	0	0	
Central Atlantic	No Info	No Info	-	0	0	
Lower Atlantic	\$1.33	\$1.41	\$0.08	2	5	
Midwest	\$1.37	\$1.49	\$0.12	4	26	
Gulf Coast	No Info	No Info	-	0	0	
Rocky Mountain	\$1.50	\$1.56	\$0.06	2	2	
West Coast	No Info	No Info	-	0	0	

Ethanol Drice Trends

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. The Alternative Fuel Price Report

Rocky Mountain region.² Prices 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 February 10, 2003, 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 \$1.48 per gallon in the Midwest region to \$1.95 per gallon in New England. Prices for biodiesel were collected from across the country by Clean Cities Coordinators, DOE Regional Office contacts, and fuel providers on a voluntary basis. Note that some biodiesel prices were given

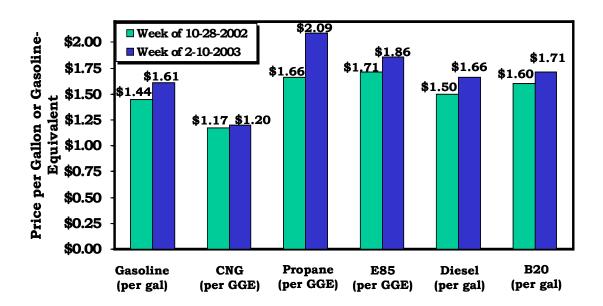
Biodiesel Price Trends						
	Week of 10-28-02	Week of 2-10-03	Change in Price	Number of Respondents for 2-10-03		
New England	No Info	\$1.95	-	1		
Central Atlantic	\$1.60	\$1.90	\$0.30	1		
Lower Atlantic	\$1.46	\$1.71	\$0.25	2		
Midwest	\$1.60	\$1.48	(\$0.12)	3		
Gulf Coast	No Info	\$1.72	-	1		
Rocky Mountain	\$1.61	\$1.67	\$0.06	1		
West Coast	\$1.73	\$1.63	(\$0.10)	2		

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.

Summary

During the week of February 10, 2003, gasoline and diesel prices across the country were somewhat higher than in October, 2002 (the time period of the previous Price Report). The reported prices of CNG increased in at least four regions and decreased in at least one region. Propane prices increased in four regions. The graph below illustrates the relative prices of gasoline, diesel, CNG, propane, E85, and biodiesel.³

Selected Fuel Prices in the U.S.



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

³ Gasoline and diesel prices in the graph are national averages; CNG, propane, E85, and B20 prices are median values. *The Alternative Fuel Price Report*



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

Melissa Lott QSS Group, Inc. 4500 Forbes Boulevard, Suite 200 Lanham, MD 20706 Phone: (301) 429-4583 FAX: (301) 731-1384 E-mail: <u>mlott@qssgroupinc.com</u>

This document highlights work sponsored by agencies of the U.S. Government. Neither the U.S. Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the U.S. Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the U.S. Government or any agency thereof.