#### **Alternative Fuel Prices Across the Nation**

This is the fourteenth 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 between March 8 and March 22, 2005, with comparisons to the prices in the previous Price Report, which were collected in November, 2004. The changes in prices from one reporting period to the next can be attributed not only to price volatility, but also to an inconsistent set of respondents. Thus, differences from one report to the next should not be assumed to reflect trends.

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 \$2.109 per gallon nationwide during the week of March 21, 2005, increasing by 14¢ per gallon since the previous Price Report (November 2004), 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 March 21, prices ranged from a low of \$2.022 in the Gulf Coast region to a high of \$2.258 on the West Coast. The price increased in all regions since November, 2004. The greatest increase in

Gasoline Price									
Week of Week of Change in the second									
New England	\$2.015	\$2.050	\$0.035						
Central Atlantic	\$2.011	\$2.065	\$0.054						
Lower Atlantic	\$1.933	\$2.080	\$0.147						
Midwest	\$1.876	\$2.117	\$0.241						
Gulf Coast	\$1.870	\$2.022	\$0.152						
Rocky Mountain	\$1.968	\$2.073	\$0.105						
West Coast	\$2.222	\$2.258	\$0.036						
Nationwide Average	\$1.969	\$2.109	\$0.140						

prices was in the Midwest, where the price increased by over 24¢ per gallon.

Diesel fuel averaged \$2.244 per gallon nationwide during the week of March 21, 2005. This represents an increase of 11.2¢ per gallon from the previous Price Report (November 2004). Prices for the various regions of the country are illustrated in the table to the right. During the week of March 21, diesel prices ranged from a low of \$2.180 in the Gulf Coast region to a high of \$2.471 on the West Coast. Between November, 2004 and March, 2005, prices for diesel increased in every region of the country.

Gasoline and diesel prices shown are retail prices; they include federal, state, and local taxes. Administration.

Diesel Price					
	Week of 11-15-04	Week of 3-21-05	Change in Price		
New England	\$2.268	\$2.355	\$0.087		
Central Atlantic	\$2.262	\$2.358	\$0.096		
Lower Atlantic	\$2.105	\$2.186	\$0.081		
Midwest	\$2.096	\$2.196	\$0.100		
Gulf Coast	\$2.056	\$2.180	\$0.124		
Rocky Mountain	\$2.215	\$2.313	\$0.098		
West Coast	\$2.274	\$2.471	\$0.197		
Nationwide Average	\$2.132	\$2.244	\$0.112		

prices; they include federal, state, and local taxes. These prices were obtained from the Energy Information





## **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 \$1.11 per GGE in the Midwest region to a high of \$1.86 per GGE in the Gulf Coast region during the week of March 21, 2005. Prices for CNG were collected from across the country by Clean Cities

CNG Price							
	Week of 11-15-04	Week of 3-21-05	Change in Price	Number of Respondents for 3-21-05	Approx. No. of Stations Represented		
New England	No Info	No Info	-	0	0		
Central Atlantic	\$1.78	No Info	-	0	0		
Lower Atlantic	\$1.56	\$1.67	\$0.11	2	6		
Midwest	\$1.03	\$1.11	\$0.08	3	3		
Gulf Coast	\$1.35	\$1.86	\$0.51	1	1		
Rocky Mountain	\$1.35	\$1.17	(\$0.18)	3	3		
West Coast	\$1.82	\$1.56	(\$0.26)	5	5		

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 March 21, 2005, are illustrated in the accompanying table. Regional average propane prices ranged from a low of \$1.63 per gallon (\$2.18 per GGE) in the West Coast region to a high of \$2.03 per gallon (\$2.72 per GGE) in the Midwest region. No prices were reported from the New England and Central

Propane Price						
	Week of 11-15-04	Week of 3-21-05	Change in Price	Number of Respondents for 3-21-05	Approx. No. of Stations Represented	
New England	No Info	No Info	-	0	0	
Central Atlantic	No Info	No Info	-	0	0	
Lower Atlantic	\$2.16	\$1.98	(\$0.18)	3	4	
Midwest	\$2.19	\$2.03	(\$0.16)	3	5	
Gulf Coast	\$1.99	\$2.02	\$0.03	2	7	
Rocky Mountain	\$2.17	\$1.80	(\$0.37)	3	3	
West Coast	\$2.33	\$1.63	(\$0.70)	3	3	

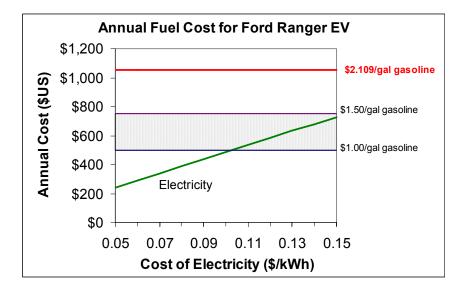
Atlantic regions. Prices for propane were collected from across the country by Clean Cities Coordinators, DOE Regional Office contacts, and fuel providers on a voluntary basis.

### **Electricity Prices**

Residential electricity prices in the United States ranged from 5¢ to 20¢ per kilowatt-hour in December 2004, according to the Energy Information Administration's Electric Power Monthly newsletter of March 2005. Commercial electricity rates ranged from 5¢ to 18¢ per kilowatt-hour. The Rocky Mountain region had the lowest electricity prices in both the residential sector and the commercial sector. The highest price for both the residential sector and the commercial sector was found in the New England 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 two sample electric vehicles: the Ford Ranger and the Toyota Rav4<sup>1</sup>. Fuel costs per year were calculated based upon the EPA-published fuel economy ratings for gasoline vehicles (24 MPG for the Ranger and 26 MPG for the Rav4) and for electric vehicles (0.4 kilowatt-hours per mile for the Ranger and 0.3 kilowatt-hours per mile for the Rav4). 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 (\$2.109 per gallon) was used to calculate the annual fuel cost for gasoline vehicles.

Annual Fuel Cost Comparison							
	Electric Vehicle	Gasoline					
	<b>(5</b> ¢/kWh)	(7.5¢/kWh)	(10¢/kWh)	(12.5¢/kWh)	<b>(15</b> ¢/kWh)	Vehicle	
Ford Ranger	\$240	\$360	\$490	\$610	\$730	\$1,050	
Toyota Rav4	\$180	\$270	\$360	\$450	\$540	\$970	



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 \$2.109 per gallon, the fuel cost of an electric Ranger is less than that of its conventional counterpart for electricity price up to 22¢ per kilowatthour. 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 March 21, 2005, E85 prices were obtained from the Lower Atlantic, Midwest, and Rocky Mountain regions. Regional average prices range from a low of \$1.83 per gallon (\$2.29 per GGE) in the Midwest region, to a high of \$2.23 per gallon (\$2.79 per GGE) in the Lower Atlantic and Rocky

Ethanol Price						
	Week of 11-15-04	Week of 3-21-05	Change in Price	Number of Respondents for 3-21-05	Approx. No. of Stations Represented	
New England	No Info	No Info	-	0	0	
Central Atlantic	\$2.00	No Info	-	0	0	
Lower Atlantic	\$1.98	\$2.23	\$0.25	2	2	
Midwest	\$1.84	\$1.83	(\$0.01)	5	55	
Gulf Coast	\$2.43	No Info	-	0	0	
Rocky Mountain	\$1.94	\$2.23	\$0.29	2	2	
West Coast	No Info	No Info	-	0	0	

<sup>1</sup> 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 2003 Toyota Rav4 EV is compared to a 2002 Toyota Rav4 2WD with 4 cylinders, 2 liters, and automatic transmission.

The Alternative Fuel Price Report

Mountain regions.<sup>2</sup> 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 March 21, 2005, 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 \$2.18 per gallon in the Midwest region to \$2.40 per gallon in the Rocky Mountain region. Prices for biodiesel were collected from across the country by Clean Cities

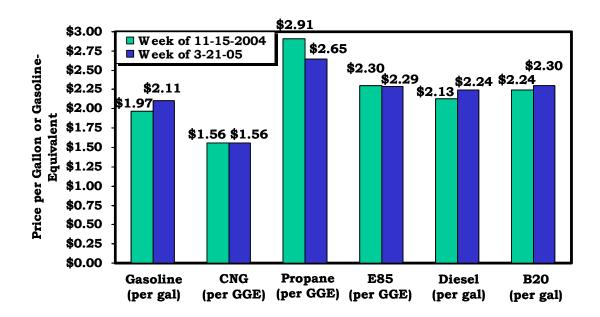
Biodiesel Price							
	Week of 11-15-04	Week of 3-21-05	Change in Price	Number of Respondents for 3-21-05	Approx. No. of Stations Represented		
New England	No Info	No Info	-	0	0		
Central Atlantic	No Info	No Info	-	0	0		
Lower Atlantic	\$2.12	\$2.30	\$0.17	4	6		
Midwest	\$2.09	\$2.18	\$0.09	3	6		
Gulf Coast	No Info	\$2.32	-	1	1		
Rocky Mountain	\$2.27	\$2.40	\$0.13	2	2		
West Coast	\$2.24	No Info	-	0	0		

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

## Summary

During the week of March 21, 2005, gasoline and diesel prices across the country were higher than in November, 2004 (the time period of the previous Price Report). Both gasoline and diesel prices rose in every region. The reported price of CNG increased in three regions but decreased in two regions. Propane prices decreased in all reporting regions except the Gulf Coast region, where the price of propane rose slightly. Ethanol prices rose significantly in the Lower Atlantic and Rocky Mountain regions, but remained steady in the Midwest, where the majority of this fuel is sold. The biodiesel price increased in all of the regions that reported it. The graph below illustrates the relative prices of gasoline, diesel, CNG, propane, E85, and biodiesel. <sup>3</sup>

# Selected Fuel Prices in the U.S.



<sup>&</sup>lt;sup>2</sup> Includes a 10% decrease in energy use per mile for E85 relative to gasoline.

<sup>&</sup>lt;sup>3</sup> Gasoline and diesel prices in the graph are national averages; CNG, propane, and B20 prices are median values. The Midwest region's price for E85 is shown because the majority of the reporting stations are located in the Midwest.



Do you have fuel prices you wish to share for inclusion in the next newsletter? Do you have a photograph that demonstrates the advantages of using alternative fuels? To include prices or pictures, contact:

Melissa Lott QSS Group, Inc. 4500 Forbes Boulevard, Suite 200 Lanham, MD 20706 Phone: (301) 560-2214 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.