



# OLR RESEARCH REPORT

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## **OLR BACKGROUNDER: DIESEL VS. GASOLINE PRICES**

By: Lee R. Hansen, Legislative Analyst II

This report examines the difference between the prices of diesel and gasoline, nationally and at the state level.

### **SUMMARY**

Nationwide, diesel fuel has typically cost more than gasoline since 2004 (on-highway diesel cost 59 cents more per gallon than regular gasoline on January 14, 2013). According to the U.S. Energy Information Administration (EIA), most of this price difference stems from (1) rising worldwide demand for diesel, (2) federal environmental regulations requiring additional processing to reduce diesel's sulfur content, and (3) a federal excise tax on diesel that is six cents per gallon higher than the tax on gasoline. In addition, seasonal demand for home heating oil (which is essentially the same product as diesel fuel) further increases diesel prices in the Northeast during the home heating season.

While there can be a significant price difference between diesel and gasoline, that price differential does not seem to vary too greatly between states. Among the northeastern states, the difference ranges from 54 cents in New Jersey and Rhode Island to 62 cents in Connecticut, Vermont, and Maine.

## **COST DIFFERENCES**

According to EIA, diesel fuel prices have been higher than regular gasoline prices almost continuously since September 2004. Prior to that time, diesel prices were typically lower than gasoline for most of the year, but would rise above gasoline prices when the demand for heating oil increased during cold winters.

EIA maintains that strong global demand for diesel has been a major reason behind the relatively high cost of domestic diesel. In many other parts of the world, unlike in the United States, diesel and heating oil demand represents a larger portion of total petroleum product demand than gasoline. In China, diesel demand increased 12% in 2010, while gasoline demand grew by 4.4%. Demand for diesel has similarly increased in Latin American countries and in European countries that have adopted policies to encourage a shift from gasoline to diesel in their cars and other light duty vehicles.

In addition to increasing global demand, the United States has adopted policies requiring the use of ultra-low sulfur (ULS) diesel fuels. In 2006, the Environmental Protection Agency (EPA) began phasing in requirements for ULS diesel fuel usage that applied to all on-highway diesel fuel use by the end of 2010. Meeting these standards requires additional processing, refining, and distribution costs that are not incurred producing regular gasoline. Diesel's retail price ultimately reflects these costs. Table 1 compares the component costs for a gallon of ULS diesel to a gallon of regular gasoline in November 2012.

**Table 1. Cost Components of ULS Diesel and Regular Gasoline**

<b>Component Cost</b>	<b>ULS Diesel (\$4.00/ gallon)</b>	<b>Regular Gasoline (\$3.45/ gallon)</b>
Crude Oil	\$2.32 (58%)	\$2.31 (67%)
Refining	\$0.52 (13%)	\$0.32 (9%)
Distribution & Marketing	\$0.68 (17%)	\$0.41 (12%)
Taxes	\$0.48 (12%)	\$0.41 (12%)

Source: EIA, November 2012 national average  
<http://www.eia.gov/petroleum/gasdiesel/>

As the table shows, federal taxes also contribute to the price difference between diesel and gasoline. The federal excise tax on diesel is \$0.244 per gallon and \$0.184 per gallon on gasoline.

## PRICE DIFFERENCES BETWEEN STATES

While the price differences discussed above are based on national averages, the price difference between diesel and gas can vary between states. Table 2 shows the differences between gasoline and diesel prices and taxes among northeastern states, organized by the difference in the states' retail prices of gasoline and diesel.

**Table 2. Prices and Taxes in Northeastern States**

<b>State</b>	<b>Reg. Gasoline (\$ per gallon)*</b>	<b>USL Diesel (\$ per gallon)*</b>	<b>Total State Gasoline Taxes &amp; Fees (\$) **</b>	<b>Total State Diesel Taxes &amp; Fees (\$) **</b>	<b>Tax &amp; Fee Difference (\$)</b>	<b>Retail Price Difference (\$)</b>
CT	3.68	4.30	0.45	0.56	0.11	0.62
VT	3.56	4.18	0.27	0.29	0.02	0.62
ME	3.54	4.16	0.32	0.33	0.01	0.62
NY	3.72	4.32	0.51	0.51	0.00	0.60
PA	3.50	4.08	0.32	0.39	0.07	0.58
NH	3.41	3.99	0.20	0.20	0.00	0.58
MA	3.47	4.03	0.24	0.24	0.00	0.56
NJ	3.32	3.86	0.15	0.18	0.03	0.54
RI	3.53	4.07	0.33	0.33	0.00	0.54
U.S. Average***	3.30	3.89				0.59

\*Source: AAA Daily Fuel Gauge Report (1/18/13) (<http://fuelgaugereport.aaa.com/>)

\*\*Source: "American Petroleum Institute, January 2013 Notes to State Motor Fuel Excise Tax Report," ([http://www.api.org/oil-and-natural-gas-overview/industry-economics/~media/Files/Statistics/State\\_Motor\\_Fuel\\_Excise\\_Tax\\_Update.ashx](http://www.api.org/oil-and-natural-gas-overview/industry-economics/~media/Files/Statistics/State_Motor_Fuel_Excise_Tax_Update.ashx))

\*\*\*Source: EIA Gasoline and Diesel Fuel Update, January 14, 2003 (<http://www.eia.gov/petroleum/gasdiesel/>)

As the table shows, the difference between statewide gasoline and diesel prices in the northeast range from 54 cents to 62 cents. The price difference between diesel and gasoline can be roughly the same regardless of the difference in state tax treatment. Connecticut taxes diesel 11 cents per gallon more than it taxes gasoline, yet the retail price difference between diesel and gasoline in Connecticut is the same as in Maine, which only taxes diesel one cent per gallon more than gasoline. Similarly, the price difference in Connecticut is only two cents greater than in New York, where diesel and gasoline are taxed at the same rate. Overall, the average price difference among the region's states is 58 cents per gallon, four cents lower than in Connecticut and one cent lower than the national average. Prices can also vary significantly within a state, depending on local conditions and markets.

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