

IOWA Department of REVENUE

2012 Retailers Motor Fuel Gallons Annual Report

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Introduction

In 2006 the Iowa General Assembly enacted H.F. 2754, an act pertaining to the regulation of renewable fuels and energy and providing incentives for the installation of biofuels infrastructure and the promotion of biofuels sales. This legislation established a goal that 25 percent of all petroleum used in the formulation of gasoline be replaced by biofuels by the year 2020.

To measure the State's progress toward achieving this goal, section 56 of the Act established new reporting requirements for motor fuel retailers (Iowa Code section 452A.33). The legislation made the Department of Revenue responsible for collecting the motor fuel sales information. In consultation with the Renewable Fuels Infrastructure Board, motor fuel retailers, and other interested parties, the Department established an annual reporting requirement by administrative rule (701—67.27).

Motor fuel retailers were required to file their first annual report for sales made during calendar year 2007. Annual reports are due to the Department by January 31st for each subsequent year. However, because there are no penalties imposed for not filing a report, the information provided in this report does not reflect all retail motor fuel sales in the State.

Reporting Requirements

Motor fuel retailers are required to file either a paper copy or an electronic file of annual motor fuel sales by location. The reporting form (82-053a) requires retailers to provide information on retail gallons sold for the following fuel types:

- Gasoline (non-ethanol blend)
- Ethanol E10 blend (10 to 14 percent ethanol)
- Ethanol E15/E20 blend (15 to 69 percent ethanol)
- Ethanol E85 blend (70 to 85 percent ethanol)
- Clear diesel (all blends)
- Dyed diesel (all blends)

The distinction between clear diesel and dyed diesel reflects whether the fuel is subject to State and federal road taxes. Dyed diesel fuel is not subject to road taxes and is sold for use in farm, construction, and other types of equipment that do not travel under their own power on public roads, except for short distances such as between farm fields.

For biodiesel additional detailed information is required for the sales of the following fuel blends:

- Clear B2 (2 percent biodiesel)
- Clear B5 (5 percent biodiesel)
- Clear B10 (10 percent biodiesel)
- Clear B20 (20 percent biodiesel)
- Clear Biodiesel Other
- Dyed B2 (2 percent biodiesel)
- Dyed B5 (5 percent biodiesel)
- Dyed B10 (10 percent biodiesel)
- Dyed B20 (20 percent biodiesel)
- Dyed Biodiesel Other

Statistical Summary for 2012

The Department identified 2,502 potential retail locations at which motor fuel may have been sold during 2012. Paper report forms were mailed to 1,903 locations identified using Department of Agriculture and Land Stewardship motor fuel license information and to 129 locations identified using the Department of Revenue motor fuel tax database. Electronic report files were e-mailed to twelve large motor fuel retailers with 470 locations that submitted their annual sales data electronically in prior years.

The Department received either paper forms or electronic files representing 2,223 (88.4%) of the locations. Replies from 60 locations indicated that no retail sales of any type of motor fuel were made during 2012. 2,163 locations reported retail motor fuel sales.

This report's primary focus is on biofuel sales. Of the reporting retail locations, 2,015 (93.2%) reported selling E10 blend motor fuel, 17 (0.8%) reported selling E15/E20, 194 (9.0%) reported selling E85, and 304 (14.1%) reported selling one or more of the various blends of biodiesel. Biofuels sales by these locations are summarized below and in Table 1.

Gasoline Fuel Sales

During 2012, the reported amount of E10 motor fuel sold equaled 1,189.2 million gallons, the amount of E85 motor fuel sold equaled 9.1 million gallons, and the amount of E15/20 equaled 317,614 gallons. Combined, the three ethanol blends represented 81.7 percent of total gasoline motor fuel sales during the year. 2,022 (94.8%) of the 2,133 locations that sold gasoline motor fuels sold one or more ethanol blend.

Because over ten percent of locations did not return their annual report to the Department, statistics from the Department's Monthly Motor Fuel Tax Reports were used to estimate the amount of underreporting for 2012. The statistics presented in the Monthly Motor Fuel Tax Reports reflect the gallons of taxable motor fuel shipped from terminals rather than gallons sold at retail locations. The Monthly Motor Fuel Tax Reports reflect fuel shipments made during the prior month. Therefore, taxable gallons reported in the monthly reports covering February 2012 through January 2013 were compared with gallons reported as sold by retailers completing the 2012 Retailers Motor Fuel Gallons Annual Report. During this period tax was paid on a total of 1,618.3 million gallons of gasoline fuels. In comparison, the 88.4 percent of retail locations that filed annual reports indicated 1,467.2 million gallons of gasoline fuels were sold which equaled 90.7 percent of taxable gallon reported for 2012.

Diesel Fuel Sales

During 2012, based on annual reports submitted to the Department, the amount of clear biodiesel sold equaled 256.8 million gallons, or 49.1 percent of total clear diesel fuel sales. Retailers reported selling 523.0 million of gallons of clear diesel fuel. In comparison, the number of taxable (clear) gallons of diesel fuel during 2012 as reported on the Monthly Motor Fuel Tax Reports equaled 660.7 million. Therefore, the annual reports for 2012 account for 79.2 percent of diesel fuel on which taxes were paid.

Also, during 2012, 148.3 million gallons of dyed (non-taxed) diesel fuel was sold by the reporting locations on the annual reports, including 29.5 million biodiesel gallons (19.9%).

Based on the annual reports, 1,206 locations sold clear diesel fuel and 283 of these locations sold clear biodiesel fuel during 2012. In addition, 304 locations sold dyed diesel fuel and 93 of these locations sold dyed biodiesel fuel during 2012.

Total diesel gallons reported were 671.3 million gallons and total biodiesel gallons were 286.3 million gallons, therefore biodiesel blended gallons accounted for 42.6 percent of diesel gallons sold by reporting retailers.

Pure Biofuel Sales

The primary purpose of this report is to provide the information needed to determine the State's progress toward replacing 25 percent of petroleum-based motor fuels with biofuels by the year 2020. Table 1 provides estimates of the breakdown between petroleum or diesel and biofuel for each fuel type.

For the purpose of measuring progress toward that goal, the following computations were made to estimate the amount of each type of fuel sold that was pure biofuel:

- For E10 blend gasoline-type fuel the number of gallons was multiplied by 0.10
- For E15/20 blend gasoline-type fuel the number of gallons was multiplied by 0.15
- For E85 blend gasoline-type fuel the number of gallons was multiplied by 0.79
- For B2 blend diesel fuel the number of gallons was multiplied by 0.02
- For B5 blend diesel fuel the number of gallons was multiplied by 0.05
- For B10 blend diesel fuel the number of gallons was multiplied by 0.10
- For B20 blend diesel fuel the number of gallons was multiplied by 0.20
- For other biodiesel blends the number of gallons was multiplied by the average pure biodiesel share for the other four blends (for clear other biodiesel: 0.0852 and for dyed other biodiesel 0.0475)

These calculations indicate that during 2012 pure ethanol comprised 8.6 percent of the volume of total gasoline and ethanol fuel sales. Pure biodiesel comprised 3.5 percent of diesel and biodiesel sales. Together, pure ethanol and pure biodiesel comprised 7.0 percent of all motor fuel sales reported by retail locations. However, the formula specified in H.F. 2754 for the biofuel distribution percentage used to determine progress toward meeting the 25 percent biofuels goal does not include diesel fuel in its denominator. The formula is:

$$\text{Biofuel Distribution Percentage} = (\text{Pure Ethanol Gallons} + \text{Pure Biodiesel Gallons}) / \text{Gasoline Gallons}$$

Using this formula, during 2012 biofuels accounted for 10.2 percent of Iowa retail motor fuel sales.

Figure 1 represents the biofuel distribution percentage reported in the prior Retailers Motor Fuel Gallons Annual Reports. The higher percentage of biofuels reported in 2007 is explained by the fact that the Department only received reports providing data for 86 percent of the total gallons reported on the Monthly Motor Fuel reports. For the retailers that did complete that first report, it appears they were more likely to have biofuel sales. This inflated the percentage of biofuels. For every other year the Department received annual reports representing approximately 90 percent of the total gallons of gasoline, ethanol, and diesel fuel reported on the Monthly Motor Fuel reports.

Figure 1: Biofuel Distribution Percentages Based on Annual Retailer Motor Fuel Reports, 2007-2012

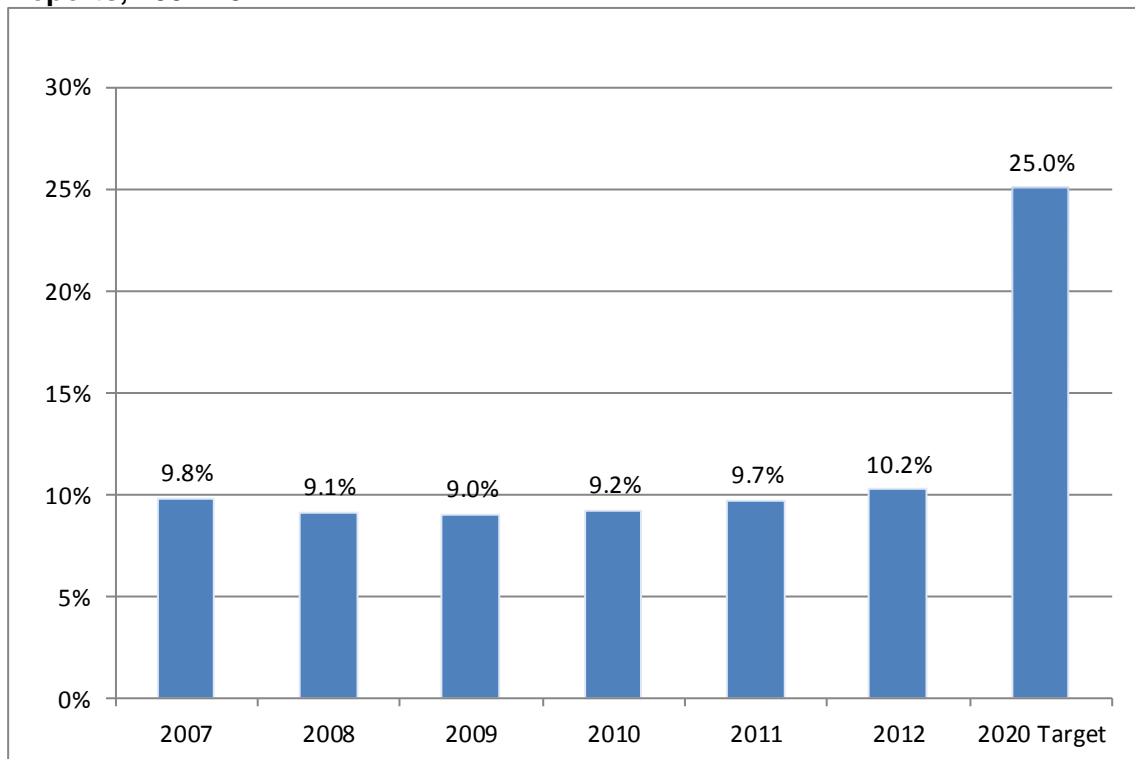


Figure 2 illustrates the biofuel distribution percentages calculated based on the sales reported by retailers on their 2012 Retailers Motor Fuel Gallons Annual Report. The sample includes only the 2,133 retail locations that reported gasoline or ethanol sales. However, the calculation of the biofuel distribution percentage includes any pure biodiesel sales reported at those locations.

In calendar year 2012, 77 percent of motor fuel retail locations reported pure biofuel sales that comprised less than 10 percent of their gasoline sales. Fifteen percent of motor fuel retail locations had a biofuel distribution percentage of 10 to 11.99 percent. Only two percent of retail locations had a biofuel distribution percentage that meets or exceeds the State's 25 percent goal.

Figure 2: Breakdown of Retail Locations by Reported Biofuel Distribution Percentage

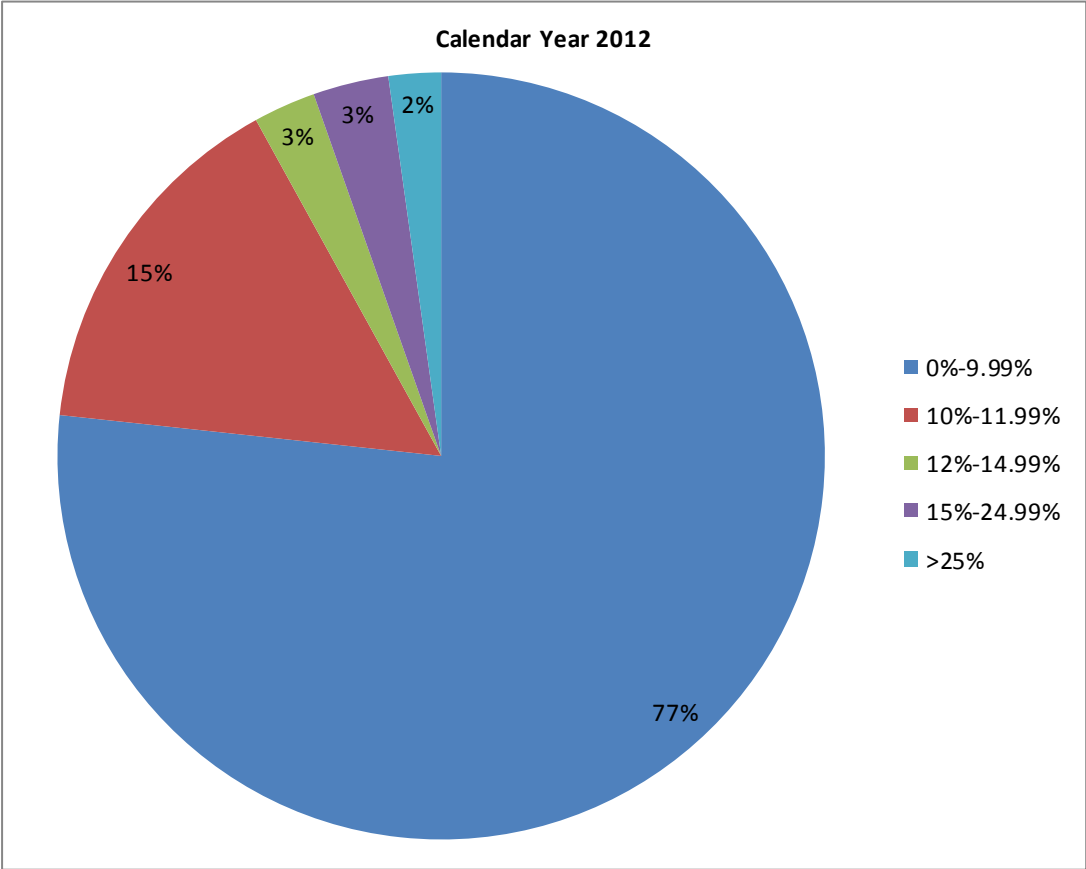


Table 1: Iowa Gasoline, Diesel, and Biofuel Sales for Calendar Year 2012

Data Description	Locations	Gallons	Pure Petroleum/Diesel	Pure Biofuel
Gasoline (Non-Ethanol)	1,820	268,647,201	268,647,201	0
Ethanol				
E10 Ethanol	2,015	1,189,171,943	1,070,254,749	118,917,194
E15/E20 Ethanol	17	317,614	269,972	47,642
E85 Ethanol	194	9,106,769	1,912,421	7,194,348
Total Ethanol	2,022	1,198,596,326	1,072,437,142	126,159,184
Total Gasoline and Ethanol	2,133	1,467,243,527	1,341,084,343	126,159,184
Ethanol Share	94.8%	81.7%		8.6%
Clear Diesel (Non-Biodiesel)	1,206	266,269,354	266,269,354	0
Clear Biodiesel				
B2 Clear	106	32,571,846	31,920,409	651,437
B5 Clear	195	122,508,378	116,382,959	6,125,419
B10 Clear	24	32,806,093	29,525,484	3,280,609
B20 Clear	26	51,775,970	41,420,776	10,355,194
Other Clear	56	17,103,661	15,646,898	1,456,763
Subtotal Clear Biodiesel	283	256,765,948	234,896,526	21,869,422
Clear Biodiesel Share	19.0%	49.1%		8.5%
Dyed Diesel (Non-Biodiesel)	304	118,795,612	118,795,612	0
Dyed Biodiesel				
B2 Dyed	55	5,240,316	5,135,510	104,806
B5 Dyed	57	19,163,602	18,205,422	958,180
B10 Dyed	13	401,736	361,562	40,174
B20 Dyed	16	488,872	391,098	97,774
Other Dyed	19	4,201,326	4,001,855	199,471
Subtotal Dyed Biodiesel	93	29,495,852	28,095,447	1,400,405
Dyed Biodiesel Share	23.4%	19.9%		4.7%
Total Biodiesel	304	286,261,800	262,991,973	23,269,827
Total Diesel and Biodiesel	1,510	671,326,766	648,056,939	23,269,827
Biodiesel Share	20.1%	42.6%		3.5%
Total Fuel All Types	2,163	2,138,570,293	1,989,141,282	149,429,011
Pure Biofuels Share of Gasoline and Diesel				7.0%
Biofuel Distribution Percentage				10.2%

Source: 2012 Retailers Motor Fuel Gallons Annual Reports