

IOWA Department of REVENUE

2010 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 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 2010

The Department identified 2,706 potential retail locations at which motor fuel may be sold. Reporting forms were mailed to 1,675 locations identified using Department of Agriculture and Land Stewardship motor fuel license information and to 305 locations identified through the Department of Revenue motor fuel tax database. In addition, 726 locations were identified for four large motor fuel retailers that submitted their annual sales data electronically.

The Department received either forms or electronic files representing 2,324 (85.9%) of the locations. Replies for 115 of the locations indicated that no retail sales of any type of motor fuel were made during 2010. 2,209 locations reported retail motor fuel sales.

This report's primary focus is on biofuel sales. Of the reporting retail locations, 2,075 (93.9%) reported selling E10 blend motor fuel, 165 (7.5%) reported selling the E85 blend motor fuel, and 239 (10.8%) reported selling various blends of biodiesel. Biofuels sales by these locations are summarized below (and in Table 1).

Gasoline-Type Fuel Sales

During 2010, the amount of E10 motor fuel sold equaled 1,279.6 million gallons and the amount of E85 motor fuel sold equaled 10.0 million gallons. Combined both ethanol blends represented 82.5 percent of total gasoline-type motor fuel sales during the year. 2,079 (95.7%) of the 2,173 locations that sold gasoline-type motor fuels sold one or both of the types of ethanol blends.

Since some locations did not return the annual reporting form to the Department, statistics from the Department's Monthly Motor Fuel Tax Reports were used to judge the amount of underreporting for 2010. The statistics presented in the Monthly Motor Fuel Tax Reports reflect the amounts of taxable motor fuel shipped from terminals rather than sold at retail locations. Also, the Monthly Motor Fuel Tax Reports reflect tax payments for fuel shipments made during the prior month. Therefore, the period used for comparison with the 2010 Retailers Motor Fuel Gallons Annual Report includes the months from February 2010 through January 2011. During this period tax was paid on a total of 1,685.8 million gallons of gasoline-type fuels. In comparison, the annual reports reflect 1,562.9 million gallons of gasoline-type fuels, or 92.7 percent of the amounts obtained from the monthly reports.

According to the Monthly Motor Fuel Tax Reports, 481.3 million gallons of gasoline, 1,202.3 million gallons of E10 blend motor fuel, and 2.2 million gallons of E85 blend motor fuel were shipped from Iowa terminals to Iowa locations during 2010. In comparison, retailers reported having sold only 273.2 million gallons of gasoline, but 1,279.6 million gallons of E10 blend motor fuel, and 10.0 million gallons of E85 blend motor fuel. The differences between the two sets of statistics may be largely attributed to the fact that some blending of ethanol blend fuels occurs between the terminals and retail locations.

Diesel Fuel Sales

During 2010, based on annual reports submitted to the Department, the amount of clear Biodiesel sold equaled 218.1 million gallons, or 37.9 percent of total clear diesel fuel sales. The total gallons of clear diesel fuel sold at retail accounted for by these reports equaled 575.1 million. In comparison, the number of taxable (clear) gallons of diesel fuel shipped from terminals during 2010 equaled 654.8 million. So, the Retailers Motor Fuel Gallons Annual Report for 2010 accounts for about 87.3 percent of diesel fuel on which taxes were paid.

Also, during 2010, 165.1 million gallons of dyed (non-taxed) diesel fuel was sold by the reporting locations, and 21.7 million gallons (13.1%) of the dyed diesel consisted of a Biodiesel blend.

Based on the annual reports, 1,182 locations sold clear diesel fuel and 205 of these locations sold clear Biodiesel fuel during 2010. In addition, 333 locations sold dyed diesel fuel and 102 of these locations sold dyed Biodiesel fuel during 2010.

2009 and 2010 Retail Motor Fuel Sales Comparison

Table 2 presents a comparison of retail motor fuel sales for 2009 and 2010. The number of reporting locations decreased from 2,270 in 2009 to 2,209 in 2010. The number of locations that sold of non-ethanol blend gasoline stayed constant at 1,890 and the amount of non-ethanol blend gasoline sold increased from 264.9 million gallons to 273.2 million gallons. The number of locations selling ethanol blend gasoline decreased from 2,140 to 2,079, but the amount of ethanol blend gasoline sold increased from 1,202.9 million gallons to 1,289.7 million gallons.

The largest change in motor fuel sales between 2009 and 2010 was for clear diesel sales. The 1,182 locations filing reports for 2010 reported sales of 575.1 million gallons, whereas 1,228 locations reported sales of 484.6 million gallons for 2009.

Between 2009 and 2010 the number of locations selling clear biodiesel fuel decreased from 278 to 205, but the amount of clear biodiesel sales increased from 177.9 million gallons to 218.1 million gallons. For dyed biodiesel the number of locations decreased from 139 to 102, and the amount of dyed biodiesel sold decreased from 27.3 million gallons during 2009 to 21.7 million gallons during 2010.

Total biodiesel sales increased from 205.2 million gallons to 239.8 million gallons.

Pure Biofuel Sales

The primary purpose of the Retailers Motor Fuels Gallons 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 share of each fuel type accounted for by pure biofuels.

For the purposes of measuring progress toward that goal, the following computations were made to estimate the shares of each type of fuel sold comprised of pure biofuels:

- For E10 blend gasoline-type fuel the number of gallons was multiplied by 0.10
- 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: 0.0316 and for dyed other Biodiesel: 0.0244)

These calculations indicate that during 2010 pure ethanol comprised 8.7 percent of the volume of gasoline-type fuel sales. The pure biofuel share of diesel fuel sales equaled 1.0 percent. The share

of all motor fuel sales reported by retail locations equaled 6.2 percent. However, the formula specified in H.F. 2754 used to determine progress toward meeting the 25 percent biofuels goal does not include diesel fuel sales in the denominator of the official progress measure. Rather this formula is:

Official Biofuels Share = (Pure Ethanol Gallons + Pure Biodiesel Gallons)/ Gasoline-Type Gallons

Using this formula, during 2010 biofuels accounted for 9.2 percent of Iowa retail motor fuel sales.

Table 1: Iowa Biofuel Sales 2010

Statewide Summary (as Filed)

| Data Description | Locations | Gallons | Pure Biofuel Shares | |
|----------------------------|-----------|---------------|---------------------|--------------|
| | | | Petroleum | Pure Biofuel |
| Gasoline (Non-Ethanol) | 1,890 | 273,222,302 | 273,222,302 | 0 |
| Ethanol | | | | |
| E10 Ethanol | 2,075 | 1,279,635,654 | 1,151,672,089 | 127,963,565 |
| E85 Ethanol | 165 | 10,019,369 | 2,104,067 | 7,915,302 |
| Total Ethanol Gallons | 2,079 | 1,289,655,023 | 1,153,776,156 | 135,878,867 |
| Total Gasoline and Ethanol | 2,173 | 1,562,877,325 | 1,426,998,458 | 135,878,867 |
| Ethanol Share | 95.7% | 82.5% | | 8.7% |
| Diesel | | | | |
| Clear Diesel | 1,182 | 575,052,787 | 568,152,825 | 6,899,962 |
| Dyed Diesel | 333 | 165,079,923 | 164,551,212 | 528,711 |
| Total Diesel Gallons | 1,218 | 740,132,710 | 732,704,037 | 7,428,673 |
| Clear Diesel Share | 97.0% | 77.7% | | |
| Pure Biofuel Share | | | | 1.0% |
| Total Fuel All Types | 2,209 | 2,303,010,035 | 2,159,702,495 | 143,307,540 |
| Pure Biofuels Share | | | | 6.2% |
| Adjusted Share | | | | 9.2% |
| Biodiesel | | | | |
| Clear Biodiesel | | | | |
| B2 Clear | 171 | 117,541,797 | 115,190,961 | 2,350,836 |
| B5 Clear | 30 | 26,462,650 | 25,139,518 | 1,323,133 |
| B10 Clear | 9 | 12,304,070 | 11,073,663 | 1,230,407 |
| B20 Clear | 12 | 235,733 | 188,586 | 47,147 |
| Other Clear | 40 | 61,600,672 | 59,652,232 | 1,948,440 |
| Subtotal Clear Biodiesel | 205 | 218,144,922 | 211,244,960 | 6,899,962 |
| Pure Biofuels Share | | | | 3.2% |
| Dyed Biodiesel | | | | |
| B2 Dyed | 69 | 16,425,961 | 16,097,442 | 328,519 |
| B5 Dyed | 27 | 1,251,917 | 1,189,321 | 62,596 |
| B10 Dyed | 12 | 123,937 | 111,543 | 12,394 |
| B20 Dyed | 12 | 177,691 | 142,153 | 35,538 |
| Other Dyed | 32 | 3,671,836 | 3,582,172 | 89,664 |
| Subtotal Dyed Biodiesel | 102 | 21,651,342 | 21,122,631 | 528,711 |
| Pure Biofuels Share | | | | 2.4% |
| Total Biodiesel Gallons | 239 | 239,796,264 | 232,367,591 | 7,428,673 |
| Biodiesel Share | 19.6% | 32.4% | | |
| Pure Biofuels Share | | | | 3.1% |

Table 2: 2009 and 2010 Iowa Biofuel Sales

Statewide Summary

| Data Description | CY 2009 | | CY 2010 | | Change 2009 - 2010 | |
|-----------------------------------|--------------|----------------------|--------------|----------------------|--------------------|--------------------|
| | Locations | Gallons | Locations | Gallons | Locations | Gallons |
| Gasoline (Non-Ethanol) | 1,890 | 264,861,588 | 1,890 | 273,222,302 | 0 | 8,360,714 |
| Ethanol | | | | | | |
| E10 Ethanol | 2,139 | 1,197,003,400 | 2,075 | 1,279,635,654 | -64 | 82,632,254 |
| E85 Ethanol | 144 | 5,853,716 | 165 | 10,019,369 | 21 | 4,165,653 |
| Total Ethanol Gallons | 2,140 | 1,202,857,116 | 2,079 | 1,289,655,023 | -61 | 86,797,907 |
| Total Gasoline and Ethanol | 2,235 | 1,467,718,704 | 2,173 | 1,562,877,325 | -62 | 95,158,621 |
| Ethanol Share | 95.7% | 82.0% | 95.7% | 82.5% | -0.1% | 0.6% |
| Diesel | | | | | | |
| Clear Diesel | 1,228 | 484,599,427 | 1,182 | 575,052,787 | -46 | 90,453,360 |
| Dyed Diesel | 345 | 158,828,465 | 333 | 165,079,923 | -12 | 6,251,458 |
| Total Diesel Gallons | 1,262 | 643,427,892 | 1,218 | 740,132,710 | -44 | 96,704,818 |
| Clear Diesel Share | 97.3% | 75.3% | 97.0% | 77.7% | -0.3% | 2.4% |
| Total Fuel All Types | 2,270 | 2,111,146,596 | 2,209 | 2,303,010,035 | -61 | 191,863,439 |
| Biodiesel | | | | | | |
| Clear Biodiesel | | | | | | |
| B2 Clear | 183 | 65,253,129 | 171 | 117,541,797 | -12 | 52,288,668 |
| B5 Clear | 54 | 55,713,775 | 30 | 26,462,650 | -24 | -29,251,125 |
| B10 Clear | 12 | 6,785,784 | 9 | 12,304,070 | -3 | 5,518,286 |
| B20 Clear | 6 | 111,871 | 12 | 235,733 | 6 | 123,862 |
| Other Clear | 81 | 50,000,629 | 40 | 61,600,672 | -41 | 11,600,043 |
| Subtotal Clear Biodiesel | 278 | 177,865,188 | 205 | 218,144,922 | -73 | 40,279,734 |
| Biodiesel Dyed Biodiesel | | | | | | |
| B2 Dyed | 93 | 18,173,754 | 69 | 16,425,961 | -24 | -1,747,793 |
| B5 Dyed | 49 | 3,314,967 | 27 | 1,251,917 | -22 | -2,063,050 |
| B10 Dyed | 14 | 343,452 | 12 | 123,937 | -2 | -219,515 |
| B20 Dyed | 11 | 86,928 | 12 | 177,691 | 1 | 90,763 |
| Other Dyed | 36 | 5,405,788 | 32 | 3,671,836 | -4 | -1,733,952 |
| Subtotal Dyed Biodiesel | 139 | 27,324,889 | 102 | 21,651,342 | -37 | -5,673,547 |
| Total Biodiesel Gallons | 325 | 205,190,077 | 239 | 239,796,264 | -86 | 34,606,187 |
| Biodiesel Share | 25.8% | 31.9% | 19.6% | 32.4% | -6.1% | 0.5% |