

# IOWA Department of REVENUE

## 2011 Retailers Motor Fuel Gallons Annual Report

April 2012

Prepared By  
Kathy McAninch  
Tax Policy and Communication Section

## 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 31<sup>st</sup> 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 2011

The Department identified 2,650 potential retail locations at which motor fuel may be sold. Reporting forms were mailed to 1,409 locations identified using Department of Agriculture and Land Stewardship motor fuel license information and to 273 locations identified through the Department of Revenue motor fuel tax database. In addition, 968 locations were identified for twelve large motor fuel retailers that submitted their annual sales data electronically.

The Department received either forms or electronic files representing 2,287 (86.3%) of the locations. Replies for 113 of the locations indicated that no retail sales of any type of motor fuel were made during 2011. 2,174 locations reported retail motor fuel sales.

This report's primary focus is on biofuel sales. Of the reporting retail locations, 2,016 (92.7%) reported selling E10 blend motor fuel, 10 (0.46%) reported selling E15/E20, 171 (7.8%) reported selling E85 blend motor fuel, and 242 (11.1%) reported selling various blends of biodiesel. Biofuels sales by these locations are summarized below.

### Gasoline Fuel Sales

During 2011, the amount of E10 motor fuel sold equaled 1,242.5 million gallons, the amount of E85 motor fuel sold equaled 10.7 million gallons, and the amount of E15/20 equaled 105,766 gallons. Combined the three ethanol blends represented 82.7 percent of total gasoline motor fuel sales during the year. 2,023 (95.8%) of the 2,111 locations that sold gasoline motor fuels sold one or more ethanol blends.

Since some locations did not return their annual report to the Department, statistics from the Department's Monthly Motor Fuel Tax Reports were used to judge the amount of underreporting for 2011. 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 2011 Retailers Motor Fuel Gallons Annual Report includes the months from February 2011 through January 2012. During this period tax was paid on a total of 1,695.2 million gallons of gasoline fuels. In comparison, the annual reports reflect 1,515.0 million gallons of gasoline fuels, or 89.4 percent of the amounts obtained from the monthly reports.

According to the Monthly Motor Fuel Tax Reports, 465.5 million gallons of gasoline, 1,226.9 million gallons of E10 blend motor fuel, and 2.8 million gallons of E85 blend motor fuel were shipped from Iowa terminals to Iowa locations during 2011. In comparison, retailers reported having sold only 261.8 million gallons of gasoline, but 1,242.5 million gallons of E10 blend motor fuel, 10.7 million gallons of E85 blend motor fuel and 105,766 gallons of E15/20 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 2011, based on annual reports submitted to the Department, the amount of clear biodiesel sold equaled 227.2 million gallons, or 42.2 percent of total clear diesel fuel sales. The total gallons of clear diesel fuel sold at retail accounted for by these reports equaled 543.8 million. In comparison, the number of taxable (clear) gallons of diesel fuel shipped from terminals during 2011 equaled 659.2

million. So, the annual reports for 2011 accounts for about 82.5 percent of diesel fuel on which taxes were paid.

Also, during 2011, 185.7 million gallons of dyed (non-taxed) diesel fuel was sold by the reporting locations, and 18.8 million gallons (10.1%) of the dyed diesel consisted of a biodiesel blend.

Based on the annual reports, 1,163 locations sold clear diesel fuel and 392 of these locations sold clear biodiesel fuel during 2011. In addition, 324 locations sold dyed diesel fuel and 102 of these locations sold dyed biodiesel fuel during 2011.

### 2010 and 2011 Retail Motor Fuel Sales Comparison

Table 2 presents a comparison of retail motor fuel sales for 2010 and 2011. The number of reporting locations decreased from 2,209 in 2010 to 2,174 in 2011. The number of locations that sold of non-ethanol blend gasoline declined from 1,890 in 2010 to 1,845 in 2011. The amount of non-ethanol blend gasoline sold declined from 273.2 million gallons to 261.8 million gallons. The number of locations selling ethanol blend gasoline decreased from 2,079 to 2,023, and the amount of ethanol blend gasoline sold declined from 1,289.7 million gallons to 1,253.3 million gallons.

Between 2010 and 2011 the number of locations selling clear biodiesel fuel decreased from 205 to 204, but the amount of clear biodiesel sales increased from 218.1 million gallons to 227.2 million gallons. For dyed biodiesel the number of locations remained constant at 102 in 2010 and 2011, and the amount of dyed biodiesel sold decreased from 21.7 million gallons during 2010 to 18.8 million gallons during 2011. Total biodiesel sales increased from 239.8 million gallons to 246.0 million gallons.

### **Pure Biofuel Sales**

The primary purpose of the Retailers Motor Fuels Gallons Annual 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 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: 0.0588 and for dyed other biodiesel: 0.0326)

These calculations indicate that during 2011 pure ethanol comprised 8.8 percent of the volume of gasoline fuel sales. The pure biofuel share of diesel fuel sales equaled 1.9 percent. The share of all motor fuel sales reported by retail locations equaled 6.5 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 Gallons

Using this formula, during 2011 biofuels accounted for 9.7 percent of Iowa retail motor fuel sales.

**Table 1: Iowa Biofuel Sales 2011**  
**Statewide Summary (as Filed)**

Data Description	Locations	Gallons	Pure Biofuel Shares	
			Petroleum	Pure Biofuel
Gasoline (Non-Ethanol)	1,845	261,786,063	261,786,063	0
Ethanol				
E10 Ethanol	2,016	1,242,513,000	1,118,261,700	124,251,300
E15/E20 Ethanol	10	105,766	89,901	15,865
E85 Ethanol	171	10,674,576	2,241,661	8,432,915
<b>Total Ethanol Gallons</b>	<b>2,023</b>	<b>1,253,293,342</b>	<b>1,120,593,262</b>	<b>132,700,080</b>
Total Gasoline and Ethanol	2,111	1,515,079,405	1,382,379,325	132,700,080
Ethanol Share	95.8%	82.7%		8.8%
Diesel				
Clear Diesel	1,163	543,794,807	530,434,246	13,360,561
Dyed Diesel	324	185,725,855	185,112,930	612,925
<b>Total Diesel Gallons</b>	<b>1,190</b>	<b>729,520,662</b>	<b>715,547,176</b>	<b>13,973,486</b>
Clear Diesel Share	97.7%	74.5%		
Pure Biofuel Share				1.9%
Total Fuel All Types	2,174	2,244,600,067	2,097,926,501	146,673,566
Pure Biofuels Share				6.5%
Adjusted Share				9.7%
Biodiesel				
Clear Biodiesel				
B2 Clear	200	86,858,162	85,120,999	1,737,163
B5 Clear	61	58,318,373	55,402,454	2,915,919
B10 Clear	22	51,768,814	46,591,933	5,176,881
B20 Clear	17	12,391,639	9,913,311	2,478,328
Other Clear	92	17,896,796	16,844,526	1,052,270
<b>Subtotal Clear Biodiesel</b>	<b>204</b>	<b>227,233,784</b>	<b>213,873,223</b>	<b>13,360,561</b>
Pure Biofuels Share				5.9%
Biodiesel				
Dyed Biodiesel				
B2 Dyed	72	13,729,804	13,455,208	274,596
B5 Dyed	46	2,796,420	2,656,599	139,821
B10 Dyed	16	1,329,299	1,196,369	132,930
B20 Dyed	18	211,611	169,289	42,322
Other Dyed	17	712,542	689,286	23,256
<b>Subtotal Dyed Biodiesel</b>	<b>102</b>	<b>18,779,676</b>	<b>18,166,751</b>	<b>612,925</b>
Pure Biofuels Share				3.3%
Total Biodiesel Gallons	242	246,013,460	232,039,974	13,973,486
Biodiesel Share	20.3%	33.7%		
Pure Biofuels Share				5.7%
Purchases B99 or B100				
Clear	1	55,008	275	54,733
Dyed	0	0	0	0
<b>Total B99 or B100 Gallons</b>	<b>1</b>	<b>55,008</b>	<b>275</b>	<b>54,733</b>

**Source: 2011 Retailers Motor Fuel Gallons Annual Reports**

**Table 2: 2010 and 2011 Iowa Biofuel Sales**

**Statewide Summary**

Data Description	CY 2010		CY 2011		Change 2010 - 2011	
	Locations	Gallons	Locations	Gallons	Locations	Gallons
Gasoline (Non-Ethanol)	1,890	273,222,302	1,845	261,786,063	-45	-11,436,239
Ethanol						
E10 Ethanol	2,075	1,279,635,654	2,016	1,242,513,000	-59	-37,122,654
E15/20 Ethanol	0	0	10	105,766	10	105,766
E85 Ethanol	165	10,019,369	171	10,674,576	6	655,207
Total Ethanol Gallons	2,079	1,289,655,023	2,023	1,253,293,342	-56	-36,361,681
Total Gasoline and Ethanol	2,173	1,562,877,325	2,111	1,515,079,405	-62	-47,797,920
Ethanol Share	95.7%	82.5%	95.8%	82.7%	0.2%	0.2%
Diesel						
Clear Diesel	1,182	575,052,787	1,163	543,794,807	-19	-31,257,980
Dyed Diesel	333	165,079,923	324	185,725,855	-9	20,645,932
Total Diesel Gallons	1,218	740,132,710	1,190	729,520,662	-28	-10,612,048
Clear Diesel Share	97.0%	77.7%	97.7%	74.5%	0.7%	-3.2%
Total Fuel All Types	2,209	2,303,010,035	2,174	2,244,600,067	-35	-58,409,968
Biodiesel						
Clear Biodiesel						
B2 Clear	171	117,541,797	200	86,858,162	29	-30,683,635
B5 Clear	30	26,462,650	61	58,318,373	31	31,855,723
B10 Clear	9	12,304,070	22	51,766,814	13	39,462,744
B20 Clear	12	235,733	17	12,391,639	5	12,155,906
Other Clear	40	61,600,672	92	17,896,796	52	-43,703,876
Subtotal Clear Biodiesel	205	218,144,922	204	227,231,784	-1	9,086,862
Dyed Biodiesel						
B2 Dyed	69	16,425,961	72	13,729,804	3	-2,696,157
B5 Dyed	27	1,251,917	46	2,796,420	19	1,544,503
B10 Dyed	12	123,937	16	1,329,299	4	1,205,362
B20 Dyed	12	177,691	18	211,611	6	33,920
Other Dyed	32	3,671,836	17	712,542	-15	-2,959,294
Subtotal Dyed Biodiesel	102	21,651,342	102	18,779,676	0	-2,871,666
Total Biodiesel Gallons	239	239,796,264	242	246,011,460	3	6,215,196
Biodiesel Share	19.6%	32.4%	20.3%	33.7%	0.7%	1.3%

**Source: 2011 Retailers Motor Fuel Gallons Annual Reports**