



## Iowa Alternative Energy Tax Incentives

### ISSUE

Iowa has a variety of tax incentive programs designed specifically to assist producers and users of alternative energy sources including ethanol, biodiesel, solar, wind, and geothermal. This *Issue Review* summarizes the available State tax incentives, the annual incentive totals for each item from FY 2007 through FY 2014, and the projected incentive totals for FY 2015 through FY 2019.

### AFFECTED GOVERNMENT FINANCE

State General Fund  
Road Use Tax Fund  
Local Property Tax Revenue

### BACKGROUND AND CODE AUTHORITY

The various alternative energy-related tax incentive programs<sup>1</sup> analyzed in this *Issue Review* include:

- **Biodiesel Blended Fuel Tax Credit:** This per gallon credit is available to retailers that sell biodiesel blended fuel. The credit is currently equal to \$0.045 per gallon of qualified biodiesel fuel sold. To qualify, the fuel must be at least 5.0% (B-5) biodiesel. The credit became available beginning January 1, 2006, and sunsets January 1, 2018. See Iowa Code section [422.11P](#).
- **Biodiesel Production Incentive Payment:** This incentive currently pays Iowa manufacturers \$0.02 per gallon for producing biodiesel. The incentive is limited to no more than 25.0 million gallons for a single producer. The incentive payment is paid in the form of a sales tax refund. The incentive became available on January 1, 2012, and sunsets January 1, 2018. See Iowa Code section [423.4\(9\)](#).
- **E-15 Plus Gasoline Promotion Tax Credit:** This per gallon credit is available to gasoline retailers that sell E-15 or higher gasoline (excludes fuel classified as E-85). The tax credit is currently equal to \$0.10 per gallon of E-15 sold during June, July, and August, and \$0.03 per gallon during the remaining months. The credit became available on July 1, 2011, and sunsets January 1, 2018. See Iowa Code section [422.11Y](#).
- **E-85 Gasoline Promotion Tax Credit:** This per-gallon credit is available to gasoline retailers that sell E-85 gasoline. The credit is currently equal to \$0.16 per gallon. The E-85

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<sup>1</sup> This *Issue Review* covers only tax incentives designed specifically for alternative energy concepts and it does not cover other tax incentive benefits alternative energy projects may also receive such as the Research Activities Credit, Enterprise Zones, High Quality Jobs Program, Industrial New Jobs Training Program, New Jobs and Income Program, tax increment financing, and property tax abatement.

credit became available on January 1, 2006, and sunsets January 1, 2018. See Iowa Code section [422.11O](#).

- **Ethanol Blended Gasoline Tax Credit:** A tax credit was available to service stations where more than 60.0% of the total gasoline sold was ethanol blended gasoline. The credit was equal to \$0.025 cents for each gallon sold in excess of 60.0%. This credit was replaced in 2009 by the Ethanol Promotion Tax Credit. The credit was available beginning January 1, 2002, and was repealed January 1, 2009. See former Iowa Code section [422.11C\(2\)](#).
- **Ethanol Gasoline Tax Differential:** Iowa taxes gasoline blended with 10.0% ethanol (E-10) at a lower gas tax rate than pure gasoline. Prior to the passage of HF 716 (Ethanol Tax Incentive Act of 2001), the tax differential was \$0.01 per gallon, as ethanol-blended fuel was taxed at \$0.19 per gallon and unblended fuel at \$0.20. Beginning July 1, 2002, Iowa began taxing ethanol blends and unblended fuels at rates that depended on the percentage of all motor fuel gallons distributed in the State during the previous calendar year that were ethanol blended gallons. For FY 2015, E-10 ethanol is taxed at \$0.19 per gallon and unblended fuel is taxed at \$0.21. The gas tax rate differential is scheduled to sunset June 30, 2015. Under current law, beginning July 1, 2015, E-10 and unblended gasoline will both be taxed at \$0.20 per gallon. See Iowa Code section [452A.3](#).
- **Ethanol Promotion Tax Credit:** This credit replaced the Ethanol Blended Gasoline Tax Credit beginning in 2009. To be eligible, retailers must meet a rising biofuel threshold based on the annual sales of the dealer. The credit is based on the amount of pure biofuel (ethanol and biodiesel) gallons sold compared to the retailer's total gasoline gallons sold. The per-gallon tax credit amount varies depending on the percent of pure biofuel gallons sold by the retailer. The highest tax credit available is \$0.08 per pure ethanol gallon. The credit became available on January 1, 2009, and sunsets January 1, 2021. See Iowa Code section [422.11N](#).
- **Geothermal Heat Pump Tax Credit:** This credit is equal to 20.0% of the federal residential energy efficient property tax credit allowed for geothermal thermal heat pumps. The credit became available on January 1, 2009, and does not sunset. See Iowa Code section [422.11I](#).
- **Geothermal Heating/Cooling Property Tax Exemption:** Exempts the property value added by the installation of a new or retro-fit residential geothermal heating and/or cooling system. The exemption lasts 10 years. The exemption is available for installations completed on or after July 1, 2012. The exemption does not sunset. See Iowa Code section [427.1\(38\)](#).
- **Renewable Energy Tax Credit:** This credit is available to a producer or purchaser of energy from a renewable energy facility approved as eligible by the Iowa Utilities Board. An approved facility may receive tax credits for a period of 10 years. The tax credit is equal to \$0.015 per kilowatt hour of eligible electricity generated. Although the credit is generally available to wind generation facilities, there are also provisions for heat generation, refuse derived fuel, methane gas, and other biogas. The credit is available for tax years beginning on or after July 1, 2006, and does not sunset. See Iowa Code section [476C.2](#).
- **Solar Energy System Tax Credit:** This credit is available to individual and corporate taxpayers that install solar energy systems located in Iowa. The Iowa credit is equal to 60.0% of the federal credit, subject to per-installation maximum credit limits. The credit is available beginning January 1, 2012. While the Iowa tax credit does not sunset, it is tied to a similar federal credit and the federal credit currently sunsets December 31, 2016. See Iowa Code sections [422.11L](#) and [422.33\(29\)](#).
- **Wind Energy Conversion Property Tax Exemption:** Upon approval by a relevant city council or board of supervisors, a wind energy conversion property shall receive the benefit

of a partial property tax exemption. The wind conversion property is valued for property tax purposes at a percentage of net acquisition cost<sup>2</sup> according to the following schedule:

- 0.0% first assessment year
- 5.0% second assessment year
- 10.0% third assessment year
- 15.0% fourth assessment year
- 20.0% fifth assessment year
- 25.0% sixth assessment year
- 30.0% seventh assessment year and after

The special property tax assessment schedule is available for qualified property first assessed January 1, 1994, or after and does not sunset. See Iowa Code section [427B.26](#).

- **Wind Energy Production Tax Credit:** This credit is for electrical production facilities that produce electricity from wind and are approved by the local board of supervisors and the Iowa Utilities Board. The tax credit is equal to \$0.01 per kilowatt hour of eligible electricity produced. Once approved, a facility may receive tax credits for a period of 10 years. The credit is available for qualified facilities placed in service on or after July 1, 2005, but before July 1, 2012. See Iowa Code section [476B.3](#).

### **BASIS FOR ANALYSIS**

With the exceptions of the wind energy conversion and geothermal property tax exemptions, the ethanol gas tax differential, and the Biodiesel Production Incentive Payment, all historical and projection numbers are provided by the Iowa Department of Revenue (IDR) through their [Contingent Liabilities Report](#).

The IDR produces a Contingent Liabilities Report prior to each meeting of the Revenue Estimating Conference. Among other purposes, the report provides three historical years of tax incentive amounts for each program, as well as estimates of the expected incentive amounts for five future fiscal years. The numbers utilized in this *Issue Review* are provided by Table 9 of the Report issued for the March or April REC meetings. Table 9 first appears in the March 11, 2010, version of the Contingent Liabilities Report.

The **Biodiesel Production Incentive Payment** actual and estimated numbers are produced separately by the IDR for the Revenue Estimating Conference.

The **gas tax differential estimate** was produced by the Legislative Services Agency using taxable gallons sales reports issued monthly by the Department, along with the State tax rates in use each month for the various motor fuels. For historical estimates of the gas tax incentive, the number of gallons of E-10 sold each month as reported by the Department of Revenue is multiplied by the tax rate differential in effect that month, subtracting the State gas tax rate for E-10 (\$0.19 per gallon for all historical months during the relevant period) from the tax rate for regular gasoline (varies during the period from \$0.20 per gallon to \$0.21 per gallon). The product of this calculation is added across the 12 months of a fiscal year to determine the fiscal year amount of the gas tax incentive for E-10 fuel.

Current Iowa Code language specifies that there will be no gas tax differential beginning July 1, 2015, so for this projection the gas tax incentive falls to zero for FY 2016 and after. However, the tax differential was subject to a future sunset date on many occasions over the

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<sup>2</sup> The net acquisition cost of wind energy conversion property is defined as the acquired cost of the property including all foundations and installation cost less any excess cost adjustment ([Iowa Code section 427B.26\(4a\)](#)).

past 20 years and on each occasion the law was amended to maintain an ethanol tax incentive. If the law is amended again, the gas tax incentive for ethanol fuels may continue.

For the **wind energy conversion and geothermal property tax exemptions**, this **Issue Review** does not provide an estimate of the tax incentive. In the case of wind energy conversion property, the incentive is likely significant. In the case of geothermal, the incentive is likely small compared to the other items estimated, but could grow to significance if residential geothermal heating and air conditioning become much more popular.

### **TAX INCENTIVE TOTALS**

During FY 2014, all the alternative energy tax incentives studied in this **Issue Review** totaled \$50.5 million. Over the past eight fiscal years, the tax incentives totaled \$312.7 million. The projected impact over the next five fiscal years (FY 2015 through FY 2019) totals \$207.6 million. These numbers do not include the benefit of property tax incentives available for wind conversion or geothermal properties and they do not include benefits alternative energy projects may receive through other State and local tax incentive programs that are not specific to alternative energy. Also, the impact of the current ethanol motor fuel tax incentive beyond FY 2015 is assumed to be zero, due to the impending sunset of the tax differential.

With the exception of the ethanol gas tax differential, the incentives discussed in this document are all State General Fund incentives. The gas tax differential is financed through a combination of a reduction in Road Use Tax Fund revenue, and an increase in the tax rate for purchasers of unblended gasoline.

Over the 13 fiscal years studied, biofuel incentives account for 79.2% of the total tax incentives and wind, solar, and geothermal account for a combined 20.8%.

The following table provides a summary of the tax incentives, by major alternative energy type. A table showing the tax incentive amounts, by provision and by fiscal year, is included as **Appendix A**.

<b>Iowa Alternative Energy Tax Incentives</b>				
<b>Actual FY 2007 Through Projected FY 2019</b>				
In Millions of Dollars				
	Actual FY 2014	Actual FY 2007 through FY 2014	Projected FY 2015 through FY 2019	FY 2007 through FY 2019
Biodiesel Tax Incentives	\$ 14.5	\$ 52.6	\$ 82.4	\$ 135.0
Ethanol Income Tax Credits	3.7	47.5	17.1	64.6
Ethanol Gas Tax Differential	24.3	186.9	25.6	212.5
Biofuel Totals	<u>\$ 42.5</u>	<u>\$ 287.0</u>	<u>\$ 125.1</u>	<u>\$ 412.1</u>
Wind Energy Tax Incentives	6.1	22.3	65.1	87.4
Solar/Geothermal Tax Incentives	1.9	3.4	17.4	20.8
Other Alternative Energy Totals	<u>\$ 8.0</u>	<u>\$ 25.7</u>	<u>\$ 82.5</u>	<u>\$ 108.2</u>
Total	<u>\$ 50.5</u>	<u>\$ 312.7</u>	<u>\$ 207.6</u>	<u>\$ 520.3</u>

**STAFF CONTACT:** Jeff Robinson (515-281-4614) [jeff.robinson@legis.iowa.gov](mailto:jeff.robinson@legis.iowa.gov)

# Appendix A

## Iowa Alternative Energy Tax Incentives - Actual FY 2007 Through Projected FY 2019

Tax Incentive	Actual FY 2007	Actual FY 2008	Actual FY 2009	Actual FY 2010	Actual FY 2011	Actual FY 2012	Actual FY 2013	Actual FY 2014	Projected FY 2015	Projected FY 2016	Projected FY 2017	Projected FY 2018	Projected FY 2019	FY07-FY19 Total
Renewable Energy Tax Credit	\$ 1,500	\$ 569,517	\$ 2,045,735	\$ 1,604,923	\$ 2,652,502	\$ 3,401,107	\$ 3,101,040	\$ 5,153,110	\$ 5,306,001	\$ 8,895,845	\$ 13,611,834	\$ 14,861,802	\$ 14,292,312	\$ 75,497,228
Solar Energy Systems Tax Credit	0	0	0	0	0	0	321,967	725,531	2,377,624	2,975,240	3,363,936	1,298,859	970,902	12,034,059
Wind Energy Production Tax Credit	0	300	0	516,821	726,025	763,797	792,329	960,345	1,793,135	1,583,036	1,579,832	1,579,832	1,579,832	11,875,284
Biodiesel Blended Fuel Tax Credit	648,260	2,854,653	4,629,290	4,016,652	6,181,326	5,923,014	7,695,067	10,004,547	13,730,291	14,033,286	14,259,868	14,435,604	11,802,937	110,214,795
Biodiesel Production Subsidy	0	0	0	0	0	1,260,000	4,820,000	4,530,000	3,590,000	3,780,000	3,860,000	2,880,000	0	24,720,000
Ethanol Gas Tax Differential	23,167,769	20,557,182	23,787,464	23,826,677	24,578,756	23,792,700	22,907,067	24,287,219	25,621,083	0	0	0	0	212,525,916
E15 Gasoline Promotion Tax Credit	0	0	0	0	0	5,158	9,583	38,376	65,799	96,425	113,971	127,038	100,588	556,938
E85 Gasoline Promotion Tax Credit	278,003	498,369	1,001,082	1,398,459	1,337,906	1,475,594	1,068,021	1,340,722	1,791,718	2,169,626	2,206,261	2,453,967	2,120,081	19,139,809
Ethanol Blended Gasoline Tax Credit	6,215,642	5,896,900	7,263,570	4,214,871	99,811	2,954	0	0	0	0	0	0	0	23,693,748
Ethanol Promotion Tax Credit	0	0	12,077	2,025,109	4,366,678	3,580,973	3,036,710	2,351,695	1,552,766	1,407,067	1,212,894	976,099	690,805	21,212,873
Geothermal Heat Pump Tax Credit	0	0	0	0	0	0	1,183,368	1,183,398	1,977,743	2,014,286	2,079,291	236,422	134,863	8,809,371
<b>Total</b>	<b>\$ 30,311,174</b>	<b>\$ 30,376,921</b>	<b>\$ 38,739,218</b>	<b>\$ 37,603,512</b>	<b>\$ 39,943,004</b>	<b>\$ 40,205,297</b>	<b>\$ 44,935,152</b>	<b>\$ 50,574,943</b>	<b>\$ 57,806,160</b>	<b>\$ 36,954,811</b>	<b>\$ 42,287,887</b>	<b>\$ 38,849,623</b>	<b>\$ 31,692,320</b>	<b>\$ 520,280,021</b>

Note: This table does not include property tax incentives available to wind energy production facilities and to residential geothermal installations. The table also does not include any tax incentive that is not specifically designed for alternative energy projects.