

# Iowa Policies & Programs That Reduce GHG Emissions

## Climate Change:

### **Midwestern Greenhouse Gas Accord**

In November 2007, Governor Culver signed on to the Midwestern Greenhouse Gas Accord, along with five other Midwestern governors and the Premier of Manitoba, Canada. The goal of the Accord is to establish GHG reduction targets and timeframes consistent with member states' own targets, develop a market-based and multi-sector cap-and-trade mechanism, and develop other mechanisms and policies to achieve the GHG reduction targets. [Midwestern Greenhouse Gas Accord](#)

### **Midwestern Governors Association Energy Security and Climate Stewardship Platform**

In November 2007, Governor Culver signed on to the Midwestern Governors Association Energy Security and Climate Stewardship Platform. Goals of this platform include: 1) Meet at least 2% of the region's annual retail sales of natural gas and electricity through energy efficiency by 2015, 2) promotion of bio-based transportation fuels, 3) produce from renewable resources 30% of electricity consumed in the region by 2030, and 4) support research, development and deployment of carbon capture and storage technologies. [Energy Security and Climate Stewardship Platform](#)

### **Greenhouse Gas Inventory**

Iowa Legislature passed legislation in 2007 to require the Iowa Department of Natural Resources to establish a method for mandatory collection of data from producers of greenhouse gases. The data collection mechanism must be established by January 1, 2008. Iowa DNR is required to submit a report to the Governor and Iowa Legislature regarding GHG emissions in Iowa by September 1 of each year for the previous calendar year. [Senate File 485](#)

### **Greenhouse Gas Registry**

Iowa Legislature passed legislation in 2007 to require the Iowa Department of Natural Resources to establish a voluntary greenhouse gas registry for the purpose of cooperating with other states in tracking, managing and crediting entities in the state that reduce their generation of greenhouse gases. Iowa is achieving this legislative charge by having joined The Climate Registry, which is being developed through the collaborative efforts of 39 states (as of November 2007). [Senate File 485](#)

### **Climate Change Advisory Council**

Iowa Legislature passed legislation in 2007 to establish Iowa Climate Change Advisory Council. The Council consists of 23 members appointed by the Governor and four non-voting members from the Iowa Legislature. The Council is required to develop multiple scenarios to reduce GHG emissions in Iowa and establish a baseline year for calculating GHG reductions. The Council will submit a report to the Governor and Iowa Legislature by January 1, 2008. [Senate File 485](#)

## Renewable Transportation Fuels:

### **Renewable Fuel Standard (RFS)**

The goal of the Iowa RFS is to replace 25% of gasoline in the state with biofuels (ethanol or biodiesel) by January 1, 2020. One provision of the standard is to require retailers to sell a certain

percentage of renewable fuels as part of their total gasoline sales. Both biodiesel and ethanol count towards meeting the RFS schedule as follows: 2009 - 10%; 2010 – 11%; 2011 – 12%; 2012 – 13%; 2013 – 14%; 2014 – 15%; 2015 – 17%; 2016 – 19%; 2017 – 21%; 2018 – 23%. [Iowa Acts 2006, Chapter 2241](#); [Iowa Code 422.11N](#)

### **Ethanol Tax Credit**

A tax credit is available to retail service stations at which more than 60% of the total gallons of gasoline sold through metered pumps are blended with ethanol. Once station owners surpass the 60% threshold, they are eligible for a tax credit of \$0.025 for every additional gallon of gasoline blended with ethanol and sold during the tax year, through December 31, 2008. Beginning in 2009 an Ethanol Promotion Tax Credit will replace the current incentive for each gallon of ethanol sold. The Ethanol Promotion Tax Credit will provide a \$0.065 tax credit to any retailer meeting the renewable fuel standard (RFS) schedule for a given year. For retailers within 2% and 4% of meeting the RFS schedule, the tax credit will be \$0.045 and \$0.025, respectively, for every gallon of ethanol sold. [Iowa Code 422.33](#)

### **Alternative Fuels Tax**

Ethanol-blended gasoline including E85 is taxed at \$0.19 per gallon, while conventional gasoline is taxed at \$0.207 per gallon. The non-ethanol blended gasoline tax rate may be adjusted annually, depending on the amount of ethanol-blended fuel sold in the preceding calendar year. Those who blend conventional motor fuel with ethanol may file for a refund for the difference between excise taxes paid on the motor fuel purchased to produce ethanol-blended gasoline and the excise tax due on the ethanol-blended gasoline. Compressed natural gas used as a motor fuel is taxed at \$0.16 per 100 cubic feet. [Iowa Code 452A.3, 452A.21 and 11-103.16\(8A\)](#)

### **Biodiesel Tax Credit**

Through December 31, 2011, retailers whose diesel sales are at least 50% biodiesel (B2 and higher blends) are eligible for a \$0.03 per gallon tax credit on each gallon of B2 or higher blend sold. [Iowa Code 422.11P](#)

### **E85 Fuel Exclusivity Contract Regulations**

Any motor fuel franchise contract entered into or renewed on or after May 30, 2006, must allow for the delivery of E85 at any time demanded by the motor fuel dealer or allow the dealer to purchase E85 from another source. If a contract is already in effect on May 30, 2006, and does not have an expiration date, the franchisor must provide for the delivery of E85 at times demanded by the franchisee or allow the franchisee to purchase those volumes of E85 at those times from another source. [Iowa Code 323A](#)

### **Alternative Fuel Vehicle Conversion**

When a motor vehicle is modified to use a different fuel type or to use more than one fuel type, the person in whose name the vehicle is registered must notify the county treasurer of the new fuel type or alternative fuel types within 30 days. If the vehicle uses, or may use a special fuel, the county treasurer shall issue a special fuel identification sticker. [Iowa Code 321.41](#)

### **Alternative Fuel Labeling Requirement**

If motor vehicle fuel containing a renewable fuel is sold from a motor vehicle fuel pump, the pump must have a decal affixed identifying the name of the renewable fuel. [Iowa Code 214A.16](#)

## **Renewable Electricity:**

### **Alternative Energy Law (Iowa's Renewable Portfolio Standard)**

Iowa requires its two investor-owned utilities -- MidAmerican Energy and Alliant Energy Interstate Power and Light -- to contract for a combined total of 105 megawatts (MW) of their generation from renewable-energy resources. The Iowa Utilities Board has allocated the 105 MW between the two utilities based on each utility's percentage of their combined Iowa retail peak demand. MidAmerican and Interstate Power and Light are fulfilling this requirement mostly with wind power and biomass resources. [Iowa Code § 476.41 et seq.](#)

### **State Renewable Energy Production Tax Credits**

Under Iowa Code § 476B, a state production tax credit of 1.0¢ per kilowatt-hour (kWh) is available for energy sold by eligible wind energy facilities. The maximum total amount of wind generating capacity eligible for the tax credits is 450 megawatts (MW). Under Iowa Code § 476C, a state production tax credit of 1.5¢ per kWh is available for energy sold by eligible wind energy facilities and certain other renewable energy facilities. For wind energy facilities, the maximum total eligibility is 180 MW. For other renewable facilities, the maximum total eligibility is 20 MW. The main difference between credits under 476B and 476C is that the credits under 476C are limited to applications where the facility nameplate capacity is limited to 2.5 MW per eligible owner. Both credits are available for 10 years after facility begins producing and selling energy. All credits are subscribed for at this time.

[http://www.state.ia.us/government/com/util/energy/renewable\\_tax\\_credits.html](http://www.state.ia.us/government/com/util/energy/renewable_tax_credits.html)

### **Energy Replacement Generation Tax Exemption**

Iowa imposes a replacement generation tax of 0.06 cents (\$0.0006) per kWh on various forms of electricity generated within the state. This tax is imposed in lieu of a property tax on generation facilities. Under the Energy Replacement Generation Tax Exemption, all energy generated by methane gas conversion property and wind energy conversion property is exempt from the replacement generation tax. In addition, large hydroelectric generators (100 MW or more) pay a reduced generation tax equivalent to \$0.000001847 per kWh. [Iowa Code § 437A.6](#)

### **Property Tax Exemption for Renewable Energy Systems**

The market value added to a property by a solar or wind energy system is exempt from the state's property tax for five years. [Iowa Code § 441.21](#)

### **Local option special assessment of wind energy devices**

This statute allows any city or county to pass an ordinance assessing wind energy conversion equipment at a special valuation for property tax purposes, beginning at 0% of the net acquisition cost in the first assessment year and increasing annually by five percentage points to a maximum of 30% of the net acquisition cost in the 7th and succeeding years. If the ordinance has not been adopted, or if the taxpayer fails to file for the special valuation, the system shall be assessed under Iowa Code 428.24 to 428.29 and 441.21(8), which provide that the assessable and taxable value of property shall not increase with the new construction of wind or solar energy systems for five years. [Iowa Code § 427B.26](#)

### **Methane Gas Conversion Property Tax Exemption**

Under Iowa's Methane Gas Conversion Property Tax Exemption, property used for methane gas collection and conversion into energy and connected with, or in conjunction with, a publicly-owned sanitary landfill, is exempt from property tax. If other fuels are burned as well, the exemption is equal to the ratio of methane in the overall fuel mix. [Iowa Code § 427.1\(29\)](#)

### **Wind and Solar Energy Equipment Sales Tax Exemption**

This statute exempts from the state sales tax the total cost of wind energy equipment and all materials used to manufacture, install or construct wind energy systems. The exemption does not apply to equipment used to construct a plant to manufacture wind energy systems. As of July 1, 2006, solar energy equipment is also exempt from the state sales tax. Solar equipment means any equipment that is used to convert incident solar radiation to energy, or equipment used to transform the converted energy to storage or to some point of use. [IA Code § 423.3 \(Sec. 54, 90\)](#)

### **Utility Green Power Programs**

All electric utilities operating in Iowa, including those not rate-regulated by the Iowa Utilities Board (IUB), are required to offer green power options to their customers. These programs allow customers to make voluntary contributions to support the development of renewable energy sources in Iowa. Utilities must file their program plans and tariff schedules with the IUB. This policy took effect January 1, 2004. [Iowa Code § 476.47](#)

### **Net Metering**

Iowa's statutes do not explicitly authorize the Iowa Utilities Board (IUB) to mandate net metering, but this authority is implicit through the board's enforcement of PURPA and Iowa Code § 476.41 et seq. Iowa's net-metering subrule, adopted by the IUB in July 1984, applies to customers that generate electricity using alternate energy production facilities. Net metering is available to all customer classes of Iowa's two investor-owned utilities -- MidAmerican Energy and Interstate Power and Light (IPL). There is no explicit limit on either the size of a net-metered system or on total enrollment in the IUB's subrule. However, separate rule waivers have allowed MidAmerican Energy and IPL to limit individual systems to 500 kilowatts. Although Iowa's net-metering subrule requires utilities to purchase customers' net excess generation (NEG) at the utility's avoided-cost rate, subsequent rule waivers allow MidAmerican Energy and IPL customers to carry NEG (as a kilowatt-hour credit) forward for use in future months. [A detailed description of the Iowa net metering policy background. Iowa Code § 476.41 et seq.; IAC § 199-15.11\(5\)](#)

### **Fuel Mix Disclosure**

Iowa's rate-regulated electric utilities must report annually to customers the percentage mix of fuel and energy used to produce electricity. The disclosure report must, "to the extent practical," specify percentages of electricity produced by coal, nuclear energy, natural gas, renewables that fulfill the utility's mandatory green-power program, and renewables not used to fulfill the utility's mandatory green-power program. The percentages for renewables must further be broken down into percentages of electricity generated by wind, solar, hydropower, biomass and other resources. Each utility's annual report must also include an estimate of sulfur dioxide, nitrogen oxides and carbon dioxide emissions for each fuel and resource. [IUB Order, Docket RMU-03-8; IAC 15.17\(5\)](#)

### **Solar Access Easements**

Iowa's solar access easement provision allows for access to sunlight to operate a solar energy system. Those who are unable to obtain a voluntary solar easement from a property owner may apply to the solar access regulatory board for an order granting a solar access easement, if the relevant city council or county board of supervisors has created such a board. Iowa code also grants municipalities the right to issue ordinances prohibiting subdivisions from including restrictive covenants that limit the use of solar collectors. [Iowa Code § 564A](#)

## **Energy Efficiency:**

### **Utility Energy Efficiency Programs**

The Iowa Utilities Board (IUB) is charged with responsibility for energy efficiency programs and energy efficiency plans by Iowa utilities. Investor-owned utilities conduct energy efficiency programs under plans which are reviewed and approved by the IUB. Consumer-owned utilities (municipal utilities and electric cooperatives) operate voluntary plans and programs, but must provide reports on their plans to the IUB. Energy efficiency plans in Iowa address both electric and natural gas use through a variety of programs which attempt to give all customers opportunities to participate. In 2007, Iowa Legislature directed IUB to conduct a study of Iowa's utility energy efficiency programs; the study is due by January 1, 2008.

[http://www.state.ia.us/government/com/util/energy/energy\\_efficiency.html](http://www.state.ia.us/government/com/util/energy/energy_efficiency.html)

### **Building Energy Codes**

A 2006 law rescinded Iowa's minimum energy efficiency standard for residential construction, the "home heating index," and instead required the state building commissioner to adopt energy conservation requirements based on a nationally recognized building energy code. Effective January 1, 2007, the new 2006 I-Codes, including the 2006 IECC, became effective. [Iowa Building Code Bureau](http://www.bcap-energy.org/state_status.php?state_ab=IA). [http://www.bcap-energy.org/state\\_status.php?state\\_ab=IA](http://www.bcap-energy.org/state_status.php?state_ab=IA)

### **Electric Vehicle (EV) Registration Fee**

The annual registration fee for an EV is \$25.00. However, if the vehicle is more than five model years old, the annual registration fee is \$15.00. This section does not apply to low-speed EVs.

[Iowa Code 321.116](#)

## **Public Sector:**

### **Executive Order 41 (2005)**

In April 2005, Iowa's governor issued Executive Order Number 41, directing state agencies to reduce energy use in buildings by an average of 15% by 2010, relative to their energy use in 2000. For all equipment for which lifecycle cost calculations can be completed, all agencies must purchase lowest life cycle cost equipment. The order directs state agencies to obtain at least 10% of their electricity from renewable energy sources by 2010. To satisfy this requirement, agencies may generate their own renewable energy or may participate in an Iowa utility's green-power program. All state agency non-law enforcement, light-duty vehicles procured by 2010 must be alternative fuel vehicles or hybrid-electric vehicles when an equivalent AFV or HEV model is available. Agencies must ensure that their flexible fuel vehicles operate on E85 whenever an E85 refueling facility is available. All state agencies must ensure that all bulk diesel fuel procured contains at least 5% renewable content by 2007, 10% renewable content by 2008, and 20% renewable content by 2010. Agencies must ensure that diesel vehicles operate on biodiesel blends whenever the blends are available. [Executive Order Number 41 \(2005\)](#)

### **Executive Order 3 (2007)**

By June 30, 2009, at least 60% of fuel purchases for the state's flexible fuel vehicles must be E85. A "State Government E85 Use Plan" must be created and will detail how this fuel use goal can be met and how the state and retailers can work together to ensure that all E85 purchases are electronically coded and reported accurately. The Department of Administrative Services will provide regularly updated lists of E85 refueling stations to state employees. [Executive Order 3 \(2007\)](#)

### **Biodiesel Use**

A biodiesel fuel revolving fund has been created in the state treasury. The fund consists of money received from the sale of Energy Policy Act (EPAct) credits banked by the Iowa Department of Transportation (IDOT) as of April 19, 2001, and other money obtained or accepted by IDOT for deposit in the fund. The fund will be used by IDOT for the purchase of biodiesel fuel for use in IDOT vehicles. An IDOT motor vehicle operating on biodiesel fuel must be affixed with a brightly visible sticker that notifies the traveling public that the motor vehicle uses biodiesel fuel. [Iowa Code 307.20](#)

### **Alternative Fuel Vehicle Acquisition Requirements**

At least 10% of new light-duty vehicles purchased by institutions under the control of the state fleet administrator, Iowa Department of Transportation administrator, board of directors of community colleges, state board of regents, commission for the blind, and department of corrections must be capable of using alternative fuels. Vehicles and trucks purchased and directly used for law enforcement, off-road maintenance work, or to pull loaded trailers are exempt from this requirement. [Iowa Code 216B.3, 260C.19A, 262.25A, 307.21 and 904.312A](#)

### **Financial Assistance:**

#### **Iowa Power Fund**

The \$100 million Fund, administered through the Office of Energy Independence, supports research, development, commercialization, and deployment of biofuels, renewable energy technologies, and energy efficiency technologies, while seeking to cut greenhouse gas emissions. The fund is run by an 18-member board, in cooperation with a seven-member Due Diligence Committee. \$25 million per year will be awarded over four years. First awards are expected in early 2008. [House File 918](#)

#### **Alternate Energy Revolving Loan Program**

The Alternate Energy Revolving Loan Program (AERLP) is administered by the Iowa Energy Center and funded by the state's investor-owned utilities. The AERLP provides loan funds to individuals and organizations that seek to build renewable energy production facilities in Iowa. Eligible renewable energy technologies include solar, biomass, wind and small hydro. Successful applicants will receive a single, low-interest loan that consists of a combination of AERLP funds and lender-provided funds. The AERLP provides 50% of the total loan at 0% interest, with a maximum of \$250,000. The remainder of the loan is provided by a lender at market rate. [Iowa Energy Center](#); [Iowa Code § 476.46](#)

#### **Iowa Energy Bank Program**

Energy Bank Program provides financing for public and some non-profit organizations for energy management programs. Eligible organizations include public and private K-12 schools, community colleges, area education agencies, hospitals, local governments and private colleges. One of the program's primary goals is to make budget-neutral energy improvements for participating agencies and organizations. This is possible by offering loans that can be repaid by the energy savings resulting from energy improvement projects. After signing a memorandum of agreement and completing a preliminary energy assessment, a thorough energy analysis is performed by an auditing firm that has been pre-qualified by Iowa DNR. Only energy improvements that will pay for themselves within their useful lives are eligible. Financing is available via a pre-arranged, low-interest capital loan note or lease purchase-agreement with a local or regional investment bank. Between 1989 and 2007, Energy Bank has facilitated \$142

million worth of energy management improvements and generated cumulative energy savings of approximately \$161 million. [Iowa DNR](#); [Iowa Code 473.19](#)

### **State of Iowa Facilities Improvement Corporation (SIFIC)**

SIFIC is a nonprofit corporation that helps state agencies accomplish cost-effective energy efficiency improvements which pay for themselves through the energy savings they create. Since 1989, SIFIC has implemented \$51 million in energy improvements and saved \$120 million in energy bills. SIFIC board is currently (November 2007) in process of dissolving the nonprofit and transferring its functions to the Iowa Energy Bank Program.

<http://www.iowadnr.com/energy/ebank/sfp.html>

### **Energy Research Grants**

The Iowa Energy Center provides grants for energy research on topics that have strong relevance to Iowa. Funding is available to Iowa's colleges and universities, Iowa-based private non-profit organizations, and Iowa-based foundations. Private sector research partnerships are encouraged. Research grants are awarded in two broad categories: renewable energy and energy efficiency. Past grants have supported research in biofuels, wind-resource assessment, photovoltaic (PV) research, biomass gasification, energy-efficient livestock-confinement ventilation, process-manufacturing efficiency, and commercial building HVAC control. Amount of grants vary and depend on the availability of funds. [Iowa Energy Center](#); [Iowa Code § 266.39C](#)

### **Biofuels Infrastructure Grants**

The Renewable Fuel Infrastructure Program provides financial assistance to E85 retailers and biodiesel wholesale distributors. Cost-share grants are available for retailers to upgrade or install new E85 equipment, up to 50% of the total cost of the project or \$30,000, whichever is less. Applicants may also qualify for supplemental incentives to upgrade or replace an E85 refueling dispenser, for up to 75% of the cost of making the improvement or \$30,000, whichever is less. Biodiesel blenders may apply for a cost-share grant for terminal distribution facilities, up to 50% of the total project or \$50,000, whichever is less. A Renewable Fuels Infrastructure Board was established under the guidance of the Iowa Department of Economic Development; this 11-member board has authority to determine the eligibility of applicants. [Senate File 551 \(2007\)](#) and [Iowa Code 15G.203](#)

### **Alternative Fuel Production Loans**

The Value-Added Agricultural Products and Processes Financial Assistance Program offers a combination of forgivable and traditional low-interest loans for business projects involving the production of biomass or alternative fuels. The mixture of forgivable and low-interest loans varies according to the size of the award. Research and development projects are not eligible for this program. <http://www.iowalifechanging.com/business/vaapfap.html>

### **Alternative Fuel Production Tax Credits**

The Enterprise Zone Program and the High Quality Job Creation Program offer state tax incentives to business projects for the production of biomass or alternative fuels. Depending on the program, incentives may include: an investment tax credit equal to a percentage of the qualifying investment, amortized over five years; a refund of state sales, service, or use taxes paid to contractors or subcontractors during construction; a doubling of the state's refundable research activities credit; additional funding for training new employees, and; a local property tax exemption of up to 100% of the value added to the property.

[http://www.iowalifechanging.com/business/financial\\_assistance.html](http://www.iowalifechanging.com/business/financial_assistance.html)

## **Waste Management:**

### **Landfill Diversion Goals**

The State of Iowa adopted the goal of diverting 50% of waste from landfills by year 2000 from year 1988 levels. As of fiscal year 2006, Iowa DNR's estimates the state's overall diversion rate to be 25%. However, between 1993 and 2004 the actual amount of solid waste landfilled increased by 30%, yet the state's goal progress status shows a 29% diversion rate. This is due to the fact that the methodology for determining the state's diversion rate accounts for changes in population and economic factors. Solid waste planning areas that do not achieve the 25% waste diversion goal face financial penalties and must implement strategies to improve waste reduction and recycling efforts. There has been discussion about the need to revise and update the state's landfill diversion goals and methodologies. [Iowa DNR, Solid Waste Planning and Permitting.](#)

### **Recycling and Composting**

Iowa has no specific recycling mandates or goals. According to a 2007 study commissioned by Iowa DNR, of the 3.79 million tons of recyclable materials generated in Iowa in 2005, approximately 1.03 million tons – or 27% – were recycled. Additional 80,000 tons of materials were composted. Based on the Waste Reduction Model (WARM) developed by the U.S. EPA, greenhouse gas emissions were reduced by a net total of 765,185 MTCE due to this level of recycling and composting. [Iowa DNR, Energy & Waste Management Bureau](#)

### **Waste Management Programs**

The State of Iowa runs several programs to promote waste reduction, recycling and composting. These programs include Iowa DNR's [Solid Waste Alternatives Program](#), [Pollution Prevention Services Program](#), and [Iowa Waste Exchange](#), as well as [Iowa Waste Reduction Center](#) at the University of Northern Iowa.