

FEDERAL AND STATE REGULATORY DEVELOPMENTS AFFECTING BIOENERGY

Presentation to

LSU AgCenter/International Programs
*USTDA & AEAI Pakistan Sugar Industry
Biomass Cogeneration Orientation*

Louisiana State University
Baton Rouge, Louisiana

By

Mike D. McDaniel, Ph.D.
LSU Center for Energy Studies

May 13, 2010



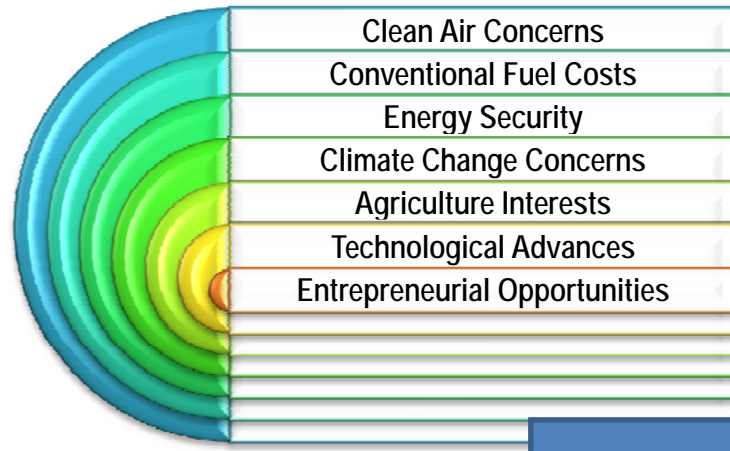
LSU CENTER FOR
ENERGY STUDIES

FEDERAL AND STATE REGULATORY DEVELOPMENTS AFFECTING BIOENERGY

Presentation Outline

- Introduction/Background
- Administration Initiatives
- Federal Legislation
- Federal Programs
- State of Louisiana
- Questions/Discussion

Introduction – Convergence of Factors



Energy Future

- ✓ Domestic
- ✓ Clean
- ✓ Affordable
- ✓ Renewable
- ✓ Sustainable



Administration Initiatives

➤ **Obama administration places high priority on green energy and addressing global warming**

➤ **President Obama's 30-Day Biofuels Directive**

On May 5, 2009, President Obama asked the USDA to expedite the biofuels provisions of the energy title of the 2008 Farm Bill within 30 days, including the following:

- Providing loan guarantees and grants for biorefineries;
- Expediting funding to encourage biorefineries to replace the use of fossil fuels in plant operations;
- Expediting funding to encourage production of next-generation biofuels;
- Expanding the Rural Energy for America Program; and
- Providing guidance and support for collection, harvest, storage, and transportation in biomass conversion

➤ **Administration Commits to GHG cuts under Copenhagen Climate Accord** – 4% below 1990 levels by 2020 (~17% below 2005 levels).

➤ **Obama Executive Order** to reduce federal government emissions by 28% by 2020



Administration Initiatives

In February, 2010 the Obama Administration issued a sweeping ***new set of rules and directives concerning U.S. biofuels policy***, including the release of the revised Renewable Fuels Standard from EPA and a new set of “Lead Agency” assignments to support first-generation biofuels while driving the development and commercialization of advanced biofuels.

Lead Agencies:

- Discovery science: DOE (Office of Science)
- Pilot scale conversion and biorefinery facilities: DOE EERE
- Financing for innovative first time commercial technologies: DOE
- Feedstock production systems: USDA
- Feedstock development: USDA (Research, Economics, & Education and Forest Service)
- Feedstock supply chain workforce development: USDA
- Dissemination of best practices and technical assistance: USDA/State/Local Extension offices
- Continuing financing for 1st generation and scaling of advanced biofuels: USDA
- Sustainability and regulatory compliance: EPA and USDA
- Full-scale and widespread deployment of commercial facilities: USDA (Rural Development and Forest Service) and DOE
- The Departments of Labor, Commerce, Defense, Transportation to support initiative



Administration Initiatives

New Fuel Economy/GHG Initiative

EPA and the **Department of Transportation's National Highway Traffic Safety Administration (NHTSA)** recently announced a new national program that would reduce greenhouse gas emissions and improve fuel economy for all new cars and trucks sold in the United States. EPA proposed the first ever national greenhouse gas (GHG) emissions standards under the Clean Air Act, and NHTSA proposed Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act. This national program would allow automobile manufacturers to build a single light-duty national fleet that satisfies all requirements under both Federal programs and the standards of California and other states.

This initiative stems from an agreement that President Obama brokered with General Motors, Chrysler and other automakers last May, ending years of litigation over state-led efforts to curb motor vehicle GHG emissions.

The new rules raise Corporate Average Fuel Economy standards to 35.5 mpg by 2016, about 40% better than the current 25 mpg average and adopts a California regulatory scheme to reduce GHG emissions from new cars and trucks by about 30%, or to 250 grams of CO₂ per mile.

Federal Legislation Affecting BioEnergy

- Energy Policy Act of 1992 (EPAct)
- The Biomass Research and Development Act of 2000 (revised by EPAct 2005)
- Farm Bill 2002 Title IX
- The Healthy Forests Restoration Act of 2003
- Energy Policy Act of 2005 (EPAct 2005)
- Energy Independence and Security Act of 2007 (EISA)
- Farm Bill 2008 Title IX
- American Recovery and Reinvestment Act of 2009 (ARRA)
- Climate/Energy Legislation 2010?
(Kerry-Lieberman: farmers exempt; biomass GHG neutral; USDA oversees offsets; supports USDA Rural Energy for America program)

Federal Programs Affecting BioEnergy

USDA United States Department of Agriculture
Economic Research Service
 The Economics of Food, Farming, Natural Resources, and Rural America

Home About ERS Briefing Rooms Publications Data Sets

You are here: Home / Farm Bill Resources / 2008 Farm Bill Side-By-Side / Title IX: Energy

2008 Farm Bill Side-By-Side

Print | E-mail | Bookmark/share

Title IX: Energy

Continues and expands funding for Federal agency procurement of biobased products, construction and development of advanced biofuel refineries, biomass research and development, and biodiesel education. New programs encourage renewable energy use by biorefineries, renewable energy systems and energy efficiency improvements, rural energy self sufficiency, development of next generation feedstocks, and use of forest and woody biomass for energy production.

List of Key Provisions:

- Biobased Markets Program
- Biorefinery Assistance
- Repowering Assistance
- Bioenergy Program for Advanced Biofuels
- Biodiesel Fuel Education Program
- Rural Energy for America Program
- Biomass Research and Development
- Rural Energy Self Sufficiency Initiative
- Feedstock Flexibility Program for Bioenergy Producers
- Biomass Crop Assistance Program
- Research, Extension, and Educational Programs on Biobased Energy Technologies and Products
- Forest Biomass for Energy
- Community Wood Energy Program
- Biofuels Infrastructure Study
- Renewable Fertilizer Study
- Energy Provisions in Other Titles

Technology Transfer for Energy Crops and Conversion Facilities | Renewable Energy and Energy Efficiency | Study on Animal Manure Use | Studies of Crop Insurance Policies for Energy Crops and Other Commodities

List of Key Provisions:

- Biobased Markets Program
- Biorefinery Assistance
- Repowering Assistance
- Bioenergy Program for Advanced Biofuels
- Biodiesel Fuel Education Program
- Rural Energy for America Program
- Biomass Research and Development
- Rural Energy Self Sufficiency Initiative
- Feedstock Flexibility Program for Bioenergy Producers
- Biomass Crop Assistance Program
- Research, Extension, and Educational Programs on Biobased Energy Technologies and Products
- Forest Biomass for Energy
- Community Wood Energy Program
- Biofuels Infrastructure Study
- Renewable Fertilizer Study
- Energy Provisions in Other Titles

Federal Programs Affecting BioEnergy



SECTION 9005

BIOENERGY PROGRAM FOR ADVANCED BIOFUELS

PAYMENTS TO ADVANCED BIOFUEL PRODUCERS

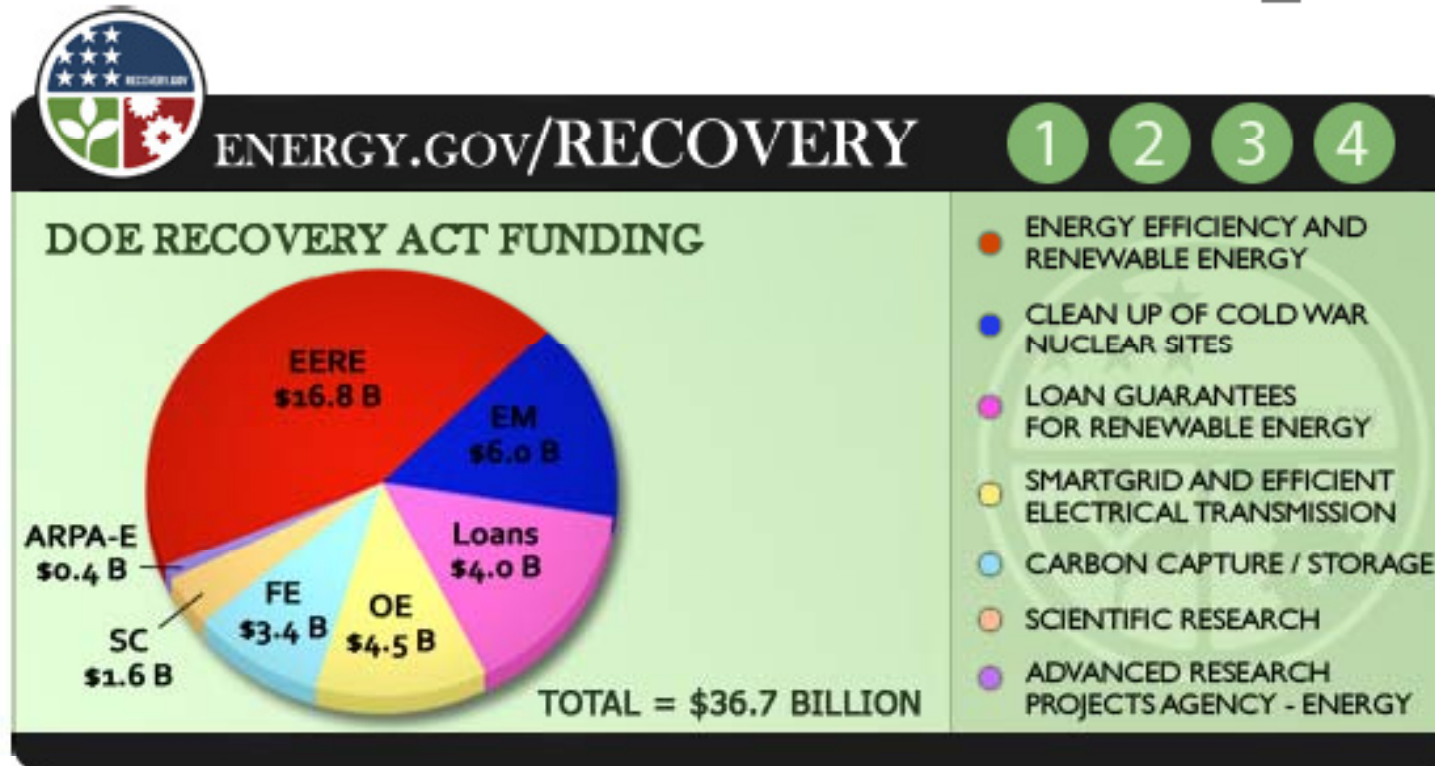
***Up to \$40 million funding for FY2010**

The purpose of this section is to support and ensure an expanding production of Advanced Biofuels by providing payments to Eligible Advanced Biofuel Producers in rural areas.

Payments will be made to eligible Advanced Biofuel Producers for the production of fuel derived from renewable biomass, other than corn kernel starch, to include:

1. Biofuel derived from cellulose, hemicellulose, or lignin;
2. Biofuel derived from sugar and starch (other than Ethanol derived from corn kernel starch);
3. Biofuel derived from waste material, including crop residue, other vegetative waste material, animal waste, food waste, and yard waste;
4. Diesel-equivalent fuel derived from Renewable Biomass, including vegetable oil and animal fat;
5. Biogas (including landfill gas and sewage waste treatment gas) produced through the conversion of organic matter from Renewable Biomass;
6. Butanol or other alcohols produced through the conversion of organic matter from Renewable Biomass; and
7. Other fuel derived from cellulosic biomass.

Federal Programs Affecting BioEnergy



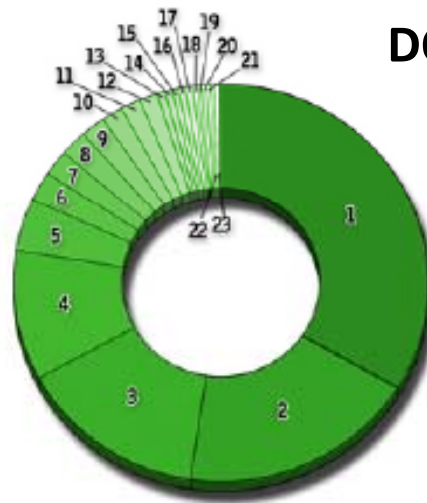
Federal Programs Affecting BioEnergy

Breakdown of Funding

Below is a breakdown of the \$32.7 billion in grants through the Recovery Act.

\$16.7 billion for saving money through Energy Efficiency, building the domestic Renewable Energy industry, and restructuring the Transportation industry to increase global competitiveness.

DOE Grant Funding Under the Recovery Act



* LDNR State Energy Program will receive \$71 million from DOE; \$9.8 million will be available for renewable energy projects through competitive grants.

- 1) \$5 billion for the [Weatherization Assistance Program](#)
- 2) \$3.1 billion for the [State Energy Program](#)
- 3) \$2.73 billion for [Energy Efficiency and Conservation Block Grants](#)
- 4) \$2.0 billion for [Advanced Battery Manufacturing Grants](#)
- 5) \$800 million for the [Biomass Program](#)
- 6) \$454 million for [Ketonic ramp-ups in energy efficiency](#)
- 7) \$400 million for the [Geothermal Technologies Program](#)
- 8) \$400 million for [Transportation Electrification](#)
- 9) \$346 million for [Energy efficient building technologies](#)
- 10) \$300 million for [Energy Efficient Appliance Rebates / ENERGY STAR®](#)
- 11) \$300 million for the [Alternative-Fueled-Vehicles Pilot Grant Program](#)
- 12) \$256 million for the [Industrial Technologies Program](#)
- 13) \$115 million for the [Solar Technologies Program](#)
- 14) \$110 million for the [Vehicle Technologies Program](#)
- 15) \$104 million for [National Laboratory Facilities](#)
- 16) \$100 million for [Facility improvements at National Renewable Energy Lab](#)

Federal Programs Affecting BioEnergy

Regulatory Announcement

EPA Finalizes Regulations for the National Renewable Fuel Standard Program for 2010 and Beyond

The U.S. Environmental Protection Agency is finalizing revisions to the National Renewable Fuel Standard program (commonly known as the RFS program). This rule makes changes to the Renewable Fuel Standard program as required by the Energy Independence and Security Act of 2007 (EISA). The revised statutory requirements establish new specific annual volume standards for cellulosic biofuel, biomass-based diesel, advanced biofuel, and total renewable fuel that must be used in transportation fuel. The revised statutory requirements also include new definitions and criteria for both renewable fuels and the feedstocks used to produce them, including new greenhouse gas (GHG) emission thresholds as determined by lifecycle analysis. The regulatory requirements for RFS will apply to domestic and foreign producers and importers of renewable fuel used in the U.S.

Key Actions

This final action lays the foundation for achieving significant reductions of greenhouse gas emissions from the use of renewable fuels, reductions of imported petroleum and further development and expansion of our nation's renewable fuels sector.

This action is also setting the 2010 RFS volume standard at 12.95 billion gallons (bg). Further, for the first time, EPA is setting volume standards for specific categories of renewable fuels including cellulosic, biomass-based diesel, and total advanced renewable fuels. For 2010, the cellulosic standard is being set at 6.5 million gallons (mg); the biomass-based diesel standard is being set at 1.15 bg, (combining the 2009 and 2010 standards as proposed).



United States
Environmental Protection
Agency

Office of Transportation and Air Quality
EPA-420-F-10-007
February 2010



LSU CENTER FOR
ENERGY STUDIES

Note: EPA is currently considering an increase in ethanol blend wall for transportation fuels from 10% to 15% for 2001 and newer cars.

EISA Renewable Fuel Volume Requirements (billion gallons)

Year	Cellulosic biofuel requirement	Biomass-based diesel requirement	Total Advanced biofuel requirement	Total renewable fuel requirement
2008	n/a	n/a	n/a	9.0
2009	n/a	0.5	0.6	11.1
2010	0.1	0.65	0.95	12.95
2011	0.25	0.80	1.35	13.95
2012	0.5	1.0	2.0	15.2
2013	1.0	a	2.75	16.55
2014	1.75	a	3.75	18.15
2015	3.0	a	5.5	20.5
2016	4.25	a	7.25	22.25
2017	5.5	a	9.0	24.0
2018	7.0	a	11.0	26.0
2019	8.5	a	13.0	28.0
2020	10.5	a	15.0	30.0
2021	13.5	a	18.0	33.0
2022	16.0	a	21.0	36.0
2023+	b	b	b	b

^a To be determined by EPA through a future rulemaking, but no less than 1.0 billion gallons.

^b To be determined by EPA through a future rulemaking.

Standards for 2010

Fuel Category	Percentage of Fuel Required to be Renewable	Volume of Renewable Fuel (in billion gal)
Cellulosic biofuel	0.004%	0.0065
Biomass-based diesel	*1.10%	*1.15
Total Advanced biofuel	0.61%	0.95
Renewable fuel	8.25%	12.95

*Combined 2009/2010 Biomass-Based Diesel Volumes Applied in 2010

National Renewable Fuel Standard Program

Technical Highlights

EPA Lifecycle Analysis of Greenhouse Gas Emissions from Renewable Fuels

As part of proposed revisions to the National Renewable Fuel Standard program (commonly known as the RFS program), EPA analyzed lifecycle greenhouse gas (GHG) emissions from increased renewable fuels use. The Energy Independence and Security Act of 2007 (EISA) establishes new renewable fuel categories and eligibility requirements. EISA sets the first U.S. mandatory lifecycle GHG reduction thresholds for renewable fuel categories, as compared to those of average petroleum fuels used in 2005. The regulatory purpose of the lifecycle greenhouse gas emissions analysis is to determine whether renewable fuels meet the GHG thresholds for the different categories of renewable fuel.

Lifecycle GHG emissions are the aggregate quantity of GHGs related to the full fuel cycle, including all stages of fuel and feedstock production and distribution, from feedstock generation and extraction through distribution and delivery and use of the finished fuel. The lifecycle GHG emissions of the renewable fuel are compared to the lifecycle GHG emissions for gasoline or diesel (whichever is being replaced by the renewable fuel) sold or distributed as transportation fuel in 2005.

EISA established specific greenhouse gas emission thresholds for each of four types of renewable fuels, requiring a percentage improvement compared to a baseline of the gasoline and diesel. EISA required a 20% reduction in lifecycle GHG emissions for any renewable fuel produced at new facilities (those constructed after enactment), a 50% reduction in order to be classified as biomass-based diesel or advanced biofuel, and a 60% reduction in order to be classified as cellulosic biofuel. EISA provides some limited flexibility for EPA to adjust these GHG percentage thresholds downward by up to 10 percent under certain circumstances. EPA is proposing to exercise this flexibility for the advanced biofuels category in this proposal.

Lifecycle GHG Thresholds Specified in EISA (Percent reduction from 2005 baseline)

Renewable fuel*	20%
Advanced biofuel	50%
Biomass-based diesel	50%
Cellulosic biofuel	60%

* The 20% criterion generally applies to renewable fuel from new facilities that commenced construction after December 19, 2007.

- Ethanol produced from corn starch at a new (or expanded capacity from an existing) natural gas-fired facility using advanced efficient technologies that we expect will be most typical of new production facilities complies with the 20% GHG emission reduction threshold
- Biobutanol from corn starch complies with the 20% GHG threshold
- Ethanol produced from sugarcane complies with the applicable 50% GHG reduction threshold for the advanced fuel category
- Biodiesel from soy oil and renewable diesel from waste oils, fats, and greases complies with the 50% GHG threshold for the biomass-based diesel category
- Diesel produced from algal oils complies with the 50% GHG threshold for the biomass-based diesel category
- Cellulosic ethanol and cellulosic diesel (based on currently modeled pathways) comply with the 60% GHG reduction threshold applicable to cellulosic biofuels



United States
Environmental Protection
Agency

Office of Transportation and Air Quality
EPA-420-F-09-024
May 2009



LSU CENTER FOR
ENERGY STUDIES

Federal Programs Affecting BioEnergy

National Labs/Libraries



NREL National Renewable Energy Laboratory
Innovation for Our Energy Future

U.S. DEPARTMENT OF
ENERGY

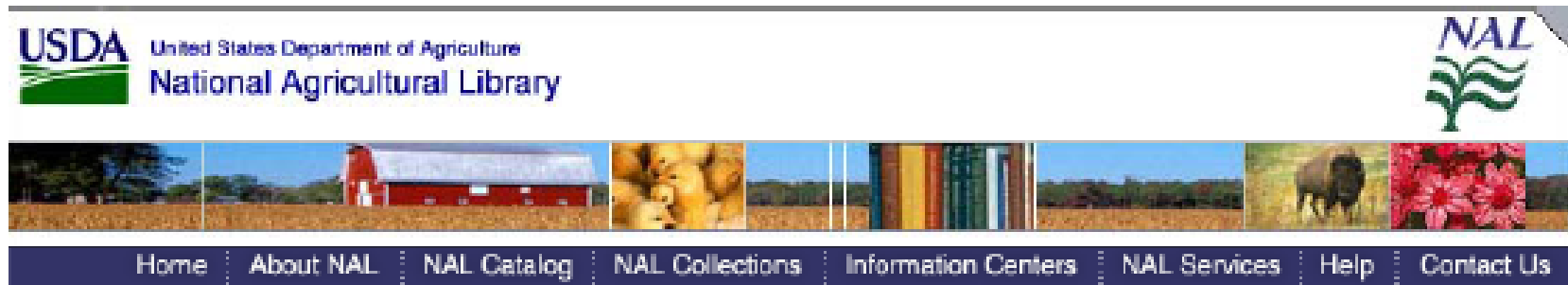


NREL National Renewable Energy Laboratory
Innovation for Our Energy Future



[ABOUT NREL](#) [ENERGY ANALYSIS](#) [SCIENCE & TECHNOLOGY](#) [TECHNOLOGY TRANSFER](#) [APPLYING TECHNOLOGIES](#) [NREL HOME](#)

Biomass Research

[More Search Options](#) [Site Map](#) [SEARCH](#)



USDA United States Department of Agriculture
National Agricultural Library



[Home](#) [About NAL](#) [NAL Catalog](#) [NAL Collections](#) [Information Centers](#) [NAL Services](#) [Help](#) [Contact Us](#)

Natural Resources and Environment

Bioenergy and Biofuels

Federal Programs Affecting BioEnergy

DOE Clean Cities Coalition Program Geographical Coverage of Clean Cities Coalitions



Federal Biofuel Incentives

- VEETC – volumetric ethanol excise tax credit or “blenders tax credit” currently provides a tax break of 45 cents to registered blenders for every gallon of pure ethanol blended into gasoline in a effort to keep ethanol priced competitively with gasoline. Currently effective through 2010.
- A related tax credit is the small ethanol producer credit of 10 cents per gallon for facilities that produce less than 60 million gallons per year.
- The cellulosic biofuel tax credit (effective through 2012) allows producers to claim up to \$1.01 per gallon of qualified ethanol.
- Biodiesel receives similar incentives, including a biodiesel tax credit which is now set at \$1 per gallon through 2009.
- In addition to these tax credits, the U.S. biofuel industry benefits from a 54-cent per gallon tariff on imported ethanol that is currently in place through 2010.

Alternative Fuels & Advanced Vehicles Data Center

[About the AFDC](#) [Fuels](#) [Vehicles](#) [Fleets](#) [Incentives & Laws](#) [Data, Analysis & Trends](#) [Information Resources](#) [Home](#)

Custom Query: Incentives & Laws

Incentives and laws can be found by specifying the appropriate combination of the categories below. The search combines these selections with "and" instead of with "or," so more selections results in fewer search results. If a parameter is not relevant to your search, leave it on the "all" default selection. All these lists are "multiple-pick", so to select more than one state press the "shift key" and left mouse button at the same time. To select two or more items hit the "control key" and left mouse button at the same time.

State:	Regulation/Incentive:	Technology/Fuel:	End User:
<ul style="list-style-type: none"> All States Federal US Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware Dist. of Columbia 	<ul style="list-style-type: none"> All Regulations/Incentives Grants Tax Incentives Loans and Leases Rebates HOV Lane Access Exemptions from Requirements/Restrictions Fuel Discounts Technical Assistance Acquisition Requirements Fuel Taxes 	<ul style="list-style-type: none"> All Technologies/Fuels Alternative Fuel - All Biodiesel Ethanol Natural Gas Liquefied Petroleum Gas (LPG) Electric Vehicles (EV and NEV) Hydrogen/Fuel Cells Blends Hybrid Electric Vehicles (HEV) Emissions Based 	<ul style="list-style-type: none"> All End Users Individual Vehicle Purchaser/Driver Fleet Purchaser/Manager Fueling/Recharging Station Builder or Operator Alternative Fuel Producer Alternative Fuel Dealer Alternative Fuel Purchaser Alternative Fuel or AFV Researcher Electrified Truck Stop Builder/Operator AFV Manufacturer/Retrofitter

SELECT

RESET

Alternative Fuels & Advanced Vehicles Data Center

Technology Type Table

This table lists the laws and incentives according to technology or fuel type. 'Alternative Fuels-All' includes the laws and incentives relating to the entire set of fuels listed in the EPA Act. This list includes biodiesel, ethanol, natural gas (compressed or liquefied), Liquefied Petroleum Gas (LPG or Propane), hydrogen, and electric vehicles. Laws or incentives that specify one of these fuels are listed in separate columns.

State	Alternative Fuel - All	Biodiesel	Ethanol	Natural Gas	Liquefied Petroleum Gas (LPG)	Electric Vehicles (EV and NEV)	Hydrogen/Fuel Cells	Blends	Hybrid Electric Vehicles (HEV)	Emissions Based	Fuel Efficiency	Idle Reduction	Totals *
Federal US	<u>15</u>	<u>35</u>	<u>30</u>	<u>28</u>	<u>28</u>	<u>20</u>	<u>27</u>	<u>16</u>	<u>8</u>	<u>25</u>	<u>17</u>	<u>8</u>	257
Alabama	<u>3</u>	<u>7</u>	<u>5</u>	<u>4</u>	<u>4</u>	<u>2</u>	<u>3</u>	<u>5</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	37
Alaska	<u>2</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	0	0	<u>1</u>	<u>1</u>	0	12
Arizona	<u>5</u>	<u>7</u>	<u>6</u>	<u>9</u>	<u>9</u>	<u>9</u>	<u>6</u>	0	0	<u>2</u>	<u>1</u>	<u>3</u>	57
Arkansas	<u>2</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>4</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>1</u>	0	0	<u>2</u>	26
California	<u>9</u>	<u>14</u>	<u>11</u>	<u>27</u>	<u>17</u>	<u>30</u>	<u>24</u>	<u>1</u>	<u>21</u>	<u>28</u>	<u>4</u>	<u>5</u>	191
Colorado	<u>5</u>	<u>9</u>	<u>9</u>	<u>11</u>	<u>9</u>	<u>9</u>	<u>9</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>2</u>	<u>4</u>	79
Connecticut	<u>5</u>	<u>7</u>	<u>6</u>	<u>8</u>	<u>6</u>	<u>7</u>	<u>7</u>	<u>3</u>	<u>4</u>	<u>7</u>	<u>2</u>	<u>3</u>	65
Delaware	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>3</u>	<u>2</u>	<u>1</u>	0	0	0	0	<u>2</u>	12



Alternative Fuels & Advanced Vehicles Data Center

[About the AFDC](#) [Fuels](#) [Vehicles](#) [Fleets](#) [Incentives & Laws](#) [Data, Analysis & Trends](#) [Information Resources](#) [Home](#)

Federal & State Incentives & Laws

Search Help > More Search Options >

Federal

State

Advanced Search

All Incentives & Laws Sorted
by Type

[Printable Version](#)

[Site Map](#)
[EERE Information Center](#)

Louisiana Incentives and Laws

Listed below are incentives, laws, and regulations related to alternative fuels and advanced vehicles for Louisiana. Your Clean Cities coordinator at your [local coalition](#) can provide you with information about grants and other opportunities. You can also access coordinator and other agency contact information in the [points of contact](#) section.

Incentives and Laws

Information in this list is updated annually after Louisiana's [legislative session](#) ends.
Last Updated September 2009

State Incentives

- [Alternative Fuel Vehicle \(AFV\) and Fueling Infrastructure Tax Credit](#)
- [Green Jobs Tax Credit](#)
- [Advanced Ethanol Fuel Blend Research Grants](#)
- [Advanced Ethanol Fuel Blend Rate Reduction](#)
- [Biodiesel Equipment and Fuel Tax Exemption](#)

Utility/Private Incentives

- [Natural Gas Infrastructure Technical Assistance](#)

Laws and Regulations

- [Advanced Ethanol Industry Initiative](#)
- [Advanced Ethanol Blend Pilot Program](#)
- [Alternative Fuel Vehicle \(AFV\) Tax](#)
- [Alternative Fuel and Advanced Vehicle Acquisition Requirements](#)
- [Renewable Fuel Standard](#)
- [Biofuels Feedstock Requirements](#)
- [Fuel Efficient Vehicle Acquisition Requirement](#)
- [Low-Speed Vehicle Access to Roadways](#)
- [Compressed Natural Gas \(CNG\) and Liquefied Petroleum Gas \(LPG\) Regulatory Authority](#)
- [Deregulation of Compressed Natural Gas \(CNG\) as a Motor Fuel](#)



Louisiana Incentives and Laws

Alternative Fuel Vehicle (AFV) and Fueling Infrastructure Tax Credit

The state offers an income tax credit worth 50% of the cost of converting a vehicle to operate on an alternative fuel, 50% of the incremental cost of purchasing an original equipment manufactured AFV, and 50% of the cost of constructing an alternative fueling station. Only vehicles registered in Louisiana may receive the tax credit. A taxpayer may instead take a tax credit worth 10% of the cost of the motor vehicle or up to \$3,000, whichever is less. For the purpose of this incentive, alternative fuels include compressed natural gas, liquefied natural gas, liquefied petroleum gas, biofuel, biodiesel, methanol, ethanol, electricity, and any other fuels that meet or exceed federal clean air standards. (Reference [House Bill](#) 110, 2009, and [Louisiana Revised Statutes](#) 47:6035)

Advanced Ethanol Industry Initiative

In order to develop an advanced biofuels industry in Louisiana, the following "field-to-pump" requirements must be met:

Development of an ethanol feedstock other than corn that is;

- Derived solely from Louisiana harvested crops.

- Capable of an annual yield of at least 600 gallons of ethanol per acre.

- Requiring no more than 50% of the water required to grow corn.

- Tolerant to high temperatures and waterlogging.

- Resistant to drought and saline-alkaline soils.

- Capable of being grown in marginal soils, ranging from heavy clay to light sand.

- Requiring no more than one-third of the nitrogen required to grow corn.

- Requiring no more than one-half of the energy necessary to convert corn into ethanol.

Development of a small advanced biofuel manufacturing facility network, which reduces the feedstock supply risk, does not burden local water supplies, and provides for a more broad-based economic development.

Expansion of advanced biofuel supply and demand beyond the 10% blend market by blending fuel grade anhydrous ethanol with gasoline at the gas station pump. Variable blending pumps, directly installed and operated at the local gas stations by a qualified small advanced biofuel manufacturing facility, must offer the consumer a less expensive substitute for unleaded gasoline in the form of E10, E20, E30, and E85.

Some Other Sources of Information



<http://www.afvi.org/>



North America's leader in clean transportation

<http://www.cleanenergyfuels.com/>



<http://www.npga.org/>



<http://www.biodiesel.org/>



<http://www.afisd.com/>



<http://www.ethanolrfa.org/>



<http://www.ethanol.org/>



<http://www.hydrogenassociation.org/>



NATURAL GAS VEHICLE INSTITUTE

<http://www.ngvi.com/>



<http://www.eaaev.org/>

FEDERAL AND STATE REGULATORY DEVELOPMENTS AFFECTING BIOENERGY

QUESTIONS/DISCUSSION

