



**AMERICAN
BIOGAS
COUNCIL**

Biogas State Profile: Iowa

Biogas Potential

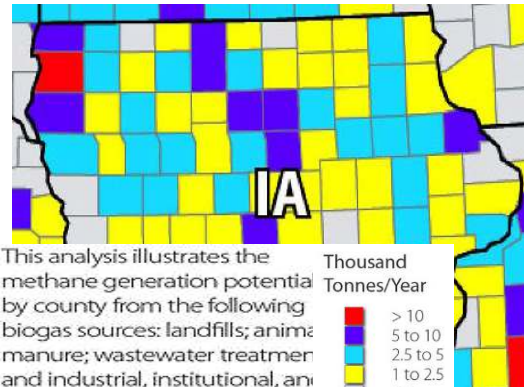
Iowa ranks #8 among U.S. states for methane production potential from biogas sources.¹

Currently Iowa has 63 operational biogas systems. We see the potential for more than 1,140 new projects to be developed based on the estimated amount of available organic material.

Constructing this many projects would generate \$3.4 billion in capital investment, and create 28,500 short-term construction jobs, 2,280 long-term jobs, and numerous industry-supporting jobs.

If fully realized, these biogas systems could produce enough electricity to power 158,772 homes (1.8 billion kWh) or enough renewable natural gas to fuel 261,304 vehicles.

They would also collectively reduce greenhouse gas emissions by the equivalent of 4.7 trillion tons of carbon dioxide, the same as growing 32.5 million tree seedlings for ten years or the amount 1,084,213 acres of U.S. American forest sequester each year.²



This analysis illustrates the methane generation potential by county from the following biogas sources: landfills; animal manure; wastewater treatment and industrial, institutional, and commercial organic waste (IIC).

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U.S. Energy Rankings

Energy	
Total CO2 Emissions ¹²	Ranks 25 th in U.S., 1.5% share
Per Capita Energy Consumption ¹³	Ranks 5 th in U.S.
Renewable Electricity Generation ¹⁴	Ranks 10 th in U.S.
Energy Prices Rank ¹⁵	Ranks 33 rd in U.S.

Biogas Systems

Food Waste

Operational food waste biogas systems ³	-
Potential food waste biogas systems ⁴	7

Agriculture

Operational biogas systems on farms ⁵	5
Potential dairy farm that biogas systems ⁶	26
Potential swine farm biogas systems ⁷	1,040

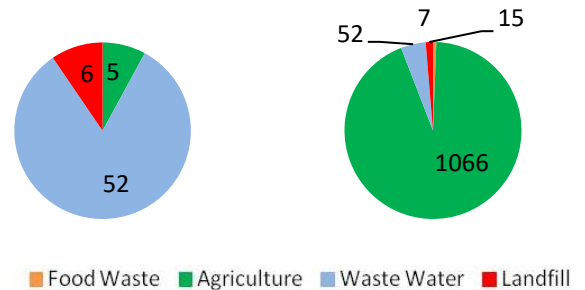
Waste Water

Operational biogas systems at water resource recovery facilities ⁸	52
Potential biogas systems at WRRFS ⁹	52

Landfills

Operational landfill gas systems ¹⁰	6
Potential landfill gas systems ¹¹	15

Operational Systems Potential Systems



Feedstocks

Manure

Total Manure Volume ¹⁶	47.9 million gallons per day
Total Dairy Manure ¹⁷	3.8 million gallons per day
Total Swine Manure ¹⁸	31.3 million gallons per day
Total Turkey manure ¹⁹	2.6 million gallons per day
Total Beef Manure ²⁰	10.1 million gallons per day

Food Waste

Total Food Waste Generated ²¹	372,400 tons per year
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* All citations are available on AmericanBiogasCouncil.org.

Waste Water

Average flow from WRRF's²² | 4.7 million gallons per day

Iowa Green Policies

<p>Waste Conversion: House Bill 544 states that a facility using waste conversion technologies as defined in section 455B.301 (Including Anaerobic Digesters), shall annually obtain a permit from the department. The fee for the permit will be sufficient enough to cover the costs of the permit program.²³</p>	
RPS ²⁴	105 MW of generating capacity for IOU's
Statutes & Regulations	<p>Mandatory Utility Green Power Option Fuel Mix and Emissions Disclosure Energy Efficiency In State Facilities Building Energy Code Energy Efficiency Standard Net Metering Interconnection Standards</p>
Sustainability Commitments	<p>University of Iowa Luther College Drake University Sustainable Cities Institute Iowa City City of Des Moines City of Ames</p>
State Funding Opportunities	<p>Methane Gas Conversion Property Tax Exemption Energy Replacement Generation Tax Exemption Renewable Energy Production Tax Credits (Corporate) Renewable Energy Production Tax Credit (Personal) MidAmerican Energy (Gas and Electric)-Residential Energy Advantage Loan Program Alternate Energy Revolving Loan Program</p>

Biogas Companies Located in IA

Agri Renew LLC
[Bartlett & West Engineers](#)
[City of Des Moines Wastewater](#)
[Eco Engineers](#)
 + Dozens More

[Visit www.AmericanBiogasCouncil.org](http://www.AmericanBiogasCouncil.org) for
[the full Biogas Industry Directory](#)

Iowa Biogas Resources:

IBAM

The Iowa Biogas Assessment Model was created in 2014 to support the growth of Iowa's biogas industry. IBAM was built with inspiration from several sources. The documentation includes a full listing of data references.

Iowa Energy Center

The Iowa Energy Center was created by the Iowa General Assembly and signed into law in 1990, and is administered through Iowa State University. The Energy Center's goal is to serve Iowans through reliable, objective tools, and information.

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- ¹ <http://www.nrel.gov/docs/fy14osti/60178.pdf>
 - ² (See ABC Biogas Potential Calculator)
 - ³ (See ABC Food Waste Digester Excel Spreadsheet)
 - ⁴ (See ABC Biogas Potential Calculator)
 - ⁵ <http://epa.gov/agstar/projects/index.html>
 - ⁶ http://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_1_State_Level/Iowa/st19_1_017_019.pdf (Farms with 500 to 999 milk cows)
 - ⁷ http://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_1_State_Level/Iowa/st19_1_020_023.pdf (Farms with 5,000 or more hogs)
 - ⁸ <http://resourcerecoverydata.org/>
 - ⁹ (See Above)
 - ¹⁰ <http://www.epa.gov/lmop/projects-candidates/operational.html>
 - ¹¹ <http://www.epa.gov/lmop/projects-candidates/candidates.html>
 - ¹² <http://www.eia.gov/state/rankings/?sid=CA#series/226>
 - ¹³ <http://www.eia.gov/state/?sid=CA#tabs-5>
 - ¹⁴ (See Above)
 - ¹⁵ <http://www.eia.gov/state/rankings/#/series/31>
 - ¹⁶ (See EQIP State Matrix Livestock Inventory)
 - ¹⁷ (See Above)
 - ¹⁸ (See Above)
 - ¹⁹ (See Above)
 - ²⁰ (See Above)
 - ²¹ <http://www.iowadnr.gov/InsideDNR/RegulatoryLand/SolidWaste.aspx>
 - ²² <http://resourcerecoverydata.org/>
 - ²³ <https://legiscan.com/IA/bill/HF544/2015>
 - ²⁴ <http://www.ncsl.org/research/energy/renewable-portfolio-standards.aspx#ia>

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