Biogas State Profile: Alabama

Biogas Potential

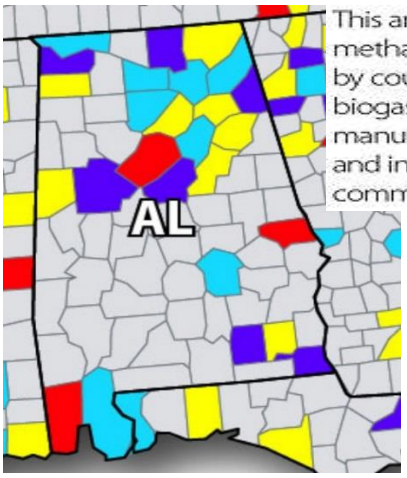
Alabama ranks #14 among U.S. states for methane production potential from biogas sources.[1]

Currently Alabama has 30 operational biogas systems. We see the potential for more than 108 new projects to be developed based on the estimated amount of available organic material.

Constructing this many projects would generate $3.24 million in capital investment, and create 2,700 short-term construction jobs, 216 long-term jobs, and numerous industry-supporting jobs.

If fully realized, these biogas systems could produce enough electricity to power 100,554 homes (1.22 billion kWh) or enough renewable natural gas to fuel 1,237,873 vehicles.

They would also collectively reduce greenhouse gas emissions by the equivalent of 7.3 trillion tons of carbon dioxide, the same as growing 22 million tree seedlings for ten years or the amount 734,908 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).

Biogas Systems

Food Waste	
Operational food waste biogas systems[3]	0
Potential food waste biogas systems[4]	5

Agriculture	
Operational biogas systems on farms[5]	0
Potential dairy farm biogas systems[6]	3
Potential swine farm biogas systems[7]	8

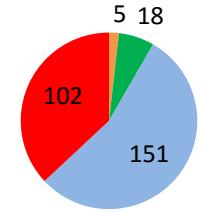
Waste Water	
Operational biogas systems at water resource recovery facilities[8]	24
Potential biogas systems at WRRFS[9]	70

Landfills	
Operational landfill gas systems[10]	6
Potential landfill gas systems[11]	22

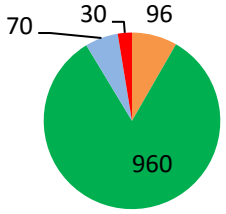
U.S. Energy Rankings

Energy	
Total CO2 Emissions[12]	Ranks 15th in U.S., 2.8% share
Per Capita Energy Consumption[13]	Ranks 13th in U.S.
Renewable Electricity Generation[14]	Ranks 6th in U.S.
Energy Prices Rank[15]	Ranks 24th in U.S.

Operational Systems



Potential Systems



Food Waste Agriculture Waste Water Landfill

Feedstocks

Manure	
Total Manure Volume[16]	166.9 million gallons per day
Total Dairy Manure[17]	143.7 thousand gallons per day
Total Swine Manure[18]	163.9 thousand gallons per day
Total Beef Manure[19]	7.7 million gallons per day
Total Broiler Manure[20]	158.2 million gallons per day
Total Turkey manure[21]	-

Food Waste	
Total Food Waste Generated[22]	267,244 tons per year

Waste Water	
Average flow from WRRF's[23]	1.5 million gallons per day

* All citations are available on AmericanBiogasCouncil.org.

Last Updated: 6/21/16

[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/California/st06_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/California/st06_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] (See Above)
[22] http://www.calrecycle.ca.gov/Publications/Documents/General/2009023.pdf
[23] http://resourcerecoverydata.org/

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