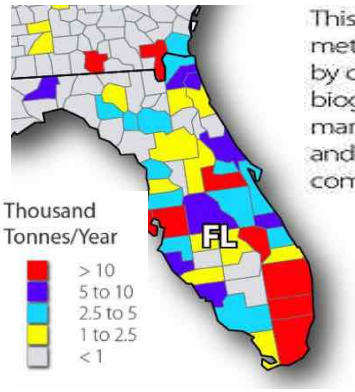
Biogas State Profile: Florida



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 Potential

Florida ranks #6 in the U.S for methane production potential from biogas sources.[1]

Currently Florida has 63 operational biogas projects. We see the potential for 230 new projects to be developed based on the estimated amount of available organic material.

Constructing this many projects would generate $690 Million in capital investment, and create 5,750 short term jobs and 460 long term jobs.

If fully realized, these biogas systems could produce enough electricity to power 47,566 homes (1.3 billion KWh) or enough renewable natural gas to fuel 190,710 vehicles.

They would also collectively reduce greenhouse gases by the equivalent of 28.6 Trillion tons of carbon dioxide, the same as growing 23.6 Million tree seedlings for ten years or 788,229 acres of U.S American forest sequester each year.[2]

U.S. Energy Rankings

Energy	
Total CO2 Emissions[12]	Ranks 4th in U.S., 4.23% share
Per Capita Energy Consumption[13]	Ranks 7th in U.S.
Renewable Electricity Generation[14]	Ranks 21st in U.S.
Energy Prices Rank[15]	Ranks 21st in U.S.

Biogas Systems

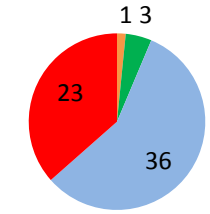
Food Waste	
Operational food waste biogas systems[3]	1
Potential food waste biogas systems[4]	34

Agriculture	
Operational biogas systems on farms[5]	3
Potential dairy farm biogas systems[6]	27
Potential swine farm biogas systems[7]	-

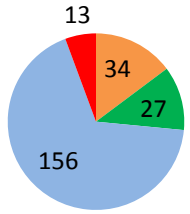
Waste Water	
Operational biogas systems at water resource recovery facilities[8]	36
Potential biogas systems at WRRFS[9]	156

Landfills	
Operational landfill gas systems[10]	23
Potential landfill gas systems[11]	13

Operational Systems



Potential Systems



Food Waste Agriculture Waste Water Landfill

Feedstocks

Manure	
Total Manure Volume[16]	22.3 million gallons per day
Total Dairy Manure[17]	2.2 million gallons per day
Total Swine Manure[18]	25,500 gallons per day
Total Broiler Manure[19]	10 million gallons per day
Total Beef Manure[20]	10 million gallons per day

Food Waste	
Total Food Waste Generated[21]	1.7 million tons per year

Waste Water	
Average flow from WRRF's[22]	16 million gallons per Day

* All citations are available on AmericanBiogasCouncil.org.

Last Updated: 8/7/15

Florida Green Policies	
State RPS[23]	Has yet to pass a renewable portfolio standard
Statutes & Regulations	Energy Conservation in Public Buildings Building Energy Code Net Metering Fuel Mix Disclosure Interconnection Standards
Sustainable Commitments	JEA- Clean Power Program University of Florida University of Central Florida City of Jacksonville Jacksonville University Sustainable Cities Institute- Pinecrest 75% Recycling Goal
State Funding Opportunities	Renewable Energy Production Tax Credit Property Tax Exclusion for Residential Renewable Energy Property Gulf Power- Commercial Energy Efficiency Earth Cents Program

Biogas Companies Located in FL

2G-Cenergy Power System
City of St Petersburg
Organics Management
+Dozens More

Visit www.AmericanBiogasCouncil.org for the full Biogas Industry Directory

Florida Biogas Resources:

Florida Department of Agriculture and Consumer Services
Through a cooperative federal-state program, the Florida Agricultural Statistics Service (FASS) gathers agricultural data and compiles current statistics.

NRDC- Renewable Energy for America
NRDC is the nation's most effective environmental action group, combining the grassroots power of more than 2 million members and online activists with the courtroom clout and expertise of nearly 500 lawyers, scientists and other professionals. Include a detailed state profile of Florida's renewable energy industry

University of Florida
The University of Florida has a comprehensive web page dedicated to anaerobic digestion and the biogas industry. It provides links and resources to additional biogas information as well

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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/Florida/st12_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/Florida/st12_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.dep.state.fl.us/waste/quick_topics/publications/shw/recycling/75percent/Recycling_Goal_Preliminary_Recommendations_2009-07-21-web_post.pdf
[22] http://resourcerecoverydata.org/
[23] http://www.ncsl.org/research/energy/renewable-portfolio-standards.aspx

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