



# Biogas State Profile: New Jersey

## Biogas Potential

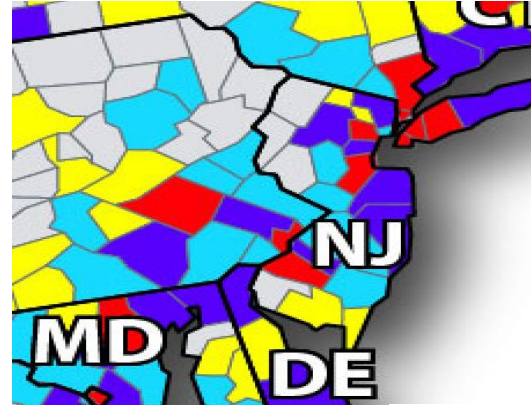
New Jersey ranks #18 among U.S. states for methane production potential from biogas sources.<sup>1</sup>

Currently New Jersey has 62 operational biogas systems. We see the potential for more than 120 new projects to be developed based on the estimated amount of available organic material.

Constructing this many projects would generate \$360 Million in capital investment, and create 3,000 short-term construction jobs, 240 long-term jobs, and numerous industry-supporting jobs.

If fully realized, these biogas systems could produce enough electricity to power 14,511 homes (405 million kWh) or enough renewable natural gas to fuel 58,916 vehicles.

They would also collectively reduce greenhouse gas emissions by the equivalent of 13.4 trillion tons of carbon dioxide, the same as growing 7.3 million tree seedlings for ten years or the amount 243,509 acres of U.S. American forest sequester each year.<sup>2</sup>



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).

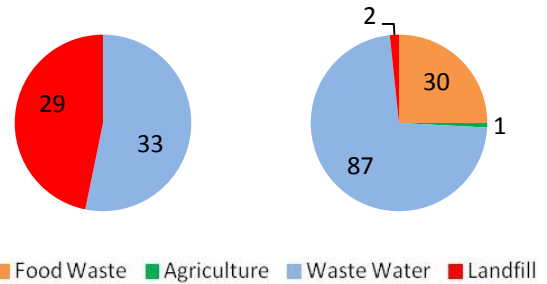
Thousand Tonnes/Year

- > 10
- 5 to 10
- 2.5 to 5
- 1 to 2.5
- < 1

## U.S. Energy Rankings

Energy	
Total CO2 Emissions <sup>12</sup>	Ranks 17 <sup>th</sup> in U.S., 1.92% share
Per Capita Energy Consumption <sup>13</sup>	Ranks 36 <sup>th</sup> in U.S.
Renewable Electricity Generation <sup>14</sup>	Ranks 46 <sup>th</sup> in U.S.
Energy Prices Rank <sup>15</sup>	Ranks 35 <sup>th</sup> in U.S.

## Operational Systems Potential Systems



## Biogas Systems

### Food Waste

Operational food waste biogas systems <sup>3</sup>	-
Potential food waste biogas systems <sup>4</sup>	30

### Agriculture

Operational biogas systems on farms <sup>5</sup>	-
Potential dairy farm biogas systems <sup>6</sup>	1
Potential swine farm biogas systems <sup>7</sup>	-

### Waste Water

Operational biogas systems at water resource recovery facilities <sup>8</sup>	33
Potential biogas systems at WRRFS <sup>9</sup>	87

### Landfills

Operational landfill gas systems <sup>10</sup>	29
Potential landfill gas systems <sup>11</sup>	2

## Feedstocks

### Manure

Total Manure Volume <sup>16</sup>	200 thousand gallons per day
Total Dairy Manure <sup>17</sup>	126 thousand gallons per day
Total Swine Manure <sup>18</sup>	15 thousand gallons per day
Total Beef Manure <sup>19</sup>	82,500 gallons per day

### Food Waste

Total Food Waste Generated <sup>20</sup>	1.5 million tons per year
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### Waste Water

Average flow from WRRF's <sup>21</sup>	9.8 million gallons per day
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\* All citations are available on [AmericanBiogasCouncil.org](http://AmericanBiogasCouncil.org).

## New Jersey Green Policies

RPS <sup>22</sup>	Requires each supplier/provider serving retail customers in the state to procure 22.5% of the electricity it sells in New Jersey from qualifying renewable by 2021. In addition, the standard also contains a separate solar specific provision which requires suppliers and providers to procure at least 4.1% of sales from qualifying solar electric generation facilities by energy year 2028
Statutes & Regulations	<a href="#">Net Metering</a> <a href="#">Societal Benefits Charge</a> <a href="#">Environmental Information Disclosure</a> <a href="#">Interconnection Standards</a> <a href="#">Energy Efficiency Product Standards</a> <a href="#">Building Energy Code</a> <a href="#">High Performance Schools Policy</a>
Sustainability commitments	<a href="#">City of Newark</a> <a href="#">Sustainable Jersey</a> <a href="#">State of New Jersey</a> <a href="#">Rutgers University</a> <a href="#">Rowan University</a> <a href="#">Stockton University</a>
State Funding Opportunities	<a href="#">New Jersey Renewable Energy Incentive Program (Sustainable Biopower)</a> <a href="#">Assessment of Farmland Hosting Renewable Energy Systems</a> <a href="#">Property Tax Exemption for Renewable Energy Systems</a> <a href="#">Edison Innovation Clean energy Manufacturing Fund- Grants and Loans</a> <a href="#">Edison Innovation Green Growth Fund Loans</a> <a href="#">Local Option- Property Assessed Clean Energy Financing</a> <a href="#">Large Energy Users Program</a>

## Biogas Companies Located in NJ

[AB Energy USA, LLC](#)  
[Covanta Energy Corporation](#)  
[Delta Instrument LLC](#)  
[Evonik Industries](#)  
[JDV Equipment Corp](#)  
 Joint Meeting of Essex & Union Counties  
[Natural Systems Utilities](#)  
[Veolia Biomethane Anaerobic Treatment](#)  
 + Dozens More

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

### New Jersey Biogas Resources:

#### [Biomass Work Group- Report](#)

New Jersey outlines five broad goals and a plan of action to "manage energy in a manner which saves money, stimulates the economy, creates jobs, protects the environment, and mitigates long-term cumulative impact.

**American Biogas Council**  
**1211 Connecticut Ave, NW**  
**Suite 650**  
**Washington, DC 20036-2701**  
**(202) 640-6595**  
[info@americanbiogascouncil.org](mailto:info@americanbiogascouncil.org)

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- <sup>1</sup> <http://www.nrel.gov/docs/fy14osti/60178.pdf>
  - <sup>2</sup> (See ABC Biogas Potential Calculator)
  - <sup>3</sup> (See ABC Food Waste Digester Excel Spreadsheet)
  - <sup>4</sup> (See ABC Biogas Potential Calculator)
  - <sup>5</sup> <http://epa.gov/agstar/projects/index.html>
  - <sup>6</sup> [http://www.agcensus.usda.gov/Publications/2012/Full\\_Report/Volume\\_1,\\_Chapter\\_1\\_State\\_Level/New\\_Jersey/st34\\_1\\_017\\_019.pdf](http://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_1_State_Level/New_Jersey/st34_1_017_019.pdf) (Farms with 500 to 999 milk cows)
  - <sup>7</sup> [http://www.agcensus.usda.gov/Publications/2012/Full\\_Report/Volume\\_1,\\_Chapter\\_1\\_State\\_Level/New\\_Jersey/st34\\_1\\_020\\_023.pdf](http://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_1_State_Level/New_Jersey/st34_1_020_023.pdf) (Farms with 5,000 or more hogs)
  - <sup>8</sup> <http://resourcerecoverydata.org/>
  - <sup>9</sup> (See Above)
  - <sup>10</sup> <http://www.epa.gov/lmop/projects-candidates/operational.html>
  - <sup>11</sup> <http://www.epa.gov/lmop/projects-candidates/candidates.html>
  - <sup>12</sup> <http://www.eia.gov/state/rankings/?sid=CA#series/226>
  - <sup>13</sup> <http://www.eia.gov/state/?sid=CA#tabs-5>
  - <sup>14</sup> (See Above)
  - <sup>15</sup> <http://www.eia.gov/state/rankings/#/series/31>
  - <sup>16</sup> (See EQIP State Matrix Livestock Inventory)
  - <sup>17</sup> (See Above)
  - <sup>18</sup> (See Above)
  - <sup>19</sup> (See Above)
  - <sup>20</sup> <http://www.nj.gov/dep/dshw/recycling/bonus%20grant/bonus%20grant%20letter.pdf>
  - <sup>21</sup> <http://resourcerecoverydata.org/>
  - <sup>22</sup> <http://programs.dsireusa.org/system/program/detail/564>

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