



**AMERICAN  
BIOGAS  
COUNCIL**

# Biogas State Profile: Colorado

## Biogas Potential

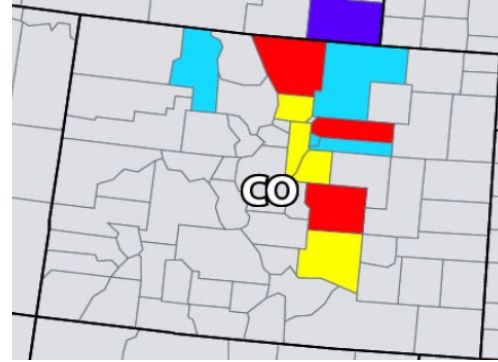
Colorado ranks #34 among U.S. states for methane production potential from biogas sources.<sup>1</sup>

Currently Colorado has 25 operational biogas systems. We see the near term potential for more than 356 new projects to be developed on the estimated amount of available organic material.

Constructing this many projects would generate \$1.1 billion in capital investment, and create 8,900 short-term construction jobs, 712 long-term jobs, and numerous industry-supporting jobs.

If fully realized, these biogas systems could produce enough electricity to power 21,082 homes (377.4 million kWh) or enough renewable natural gas to fuel 54,787 vehicles.

They would also collectively reduce greenhouse gas emissions by the equivalent of 8.0 trillion tons of carbon dioxide, the same as growing 6.8 million tree seedlings for ten years or the amount 226,456 acres of U.S. American forest sequester each year.<sup>2</sup>

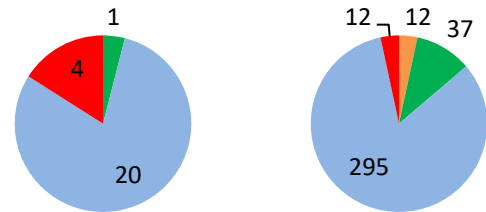


This analysis illustrates the methane generation potential by county from the following biogas sources: landfills; animal manure; wastewater treatment; and industrial, institutional, and commercial organic waste (IIC).  
 Thousand Tonnes/Year  
 > 10  
 5 to 10  
 2.5 to 5  
 1 to 2.5  
 < 1

## U.S. Energy Rankings

Energy	
Total CO2 Emissions <sup>12</sup>	Ranks 22 <sup>nd</sup> in U.S., 2.3% share
Per Capita Energy Consumption <sup>13</sup>	Ranks 33 <sup>rd</sup> in U.S.
Renewable Electricity Generation <sup>14</sup>	Ranks 19 <sup>th</sup> in U.S.
Energy Prices Rank <sup>15</sup>	Ranks 30 <sup>th</sup> in U.S.

## Operational Systems Potential Systems



Food Waste Agriculture Waste Water Landfill

## Biogas Systems

### Food Waste

Operational food waste biogas systems <sup>3</sup>	-
Potential food waste biogas systems <sup>4</sup>	12

### Agriculture

Operational biogas systems on farms <sup>5</sup>	1
Potential dairy farm biogas systems <sup>6</sup>	26
Potential swine farm biogas systems <sup>7</sup>	11

### Waste Water

Operational biogas systems at water resource recovery facilities <sup>8</sup>	20
Potential biogas systems at WRRFS <sup>9</sup>	295

### Landfills

Operational landfill gas systems <sup>10</sup>	4
Potential landfill gas systems <sup>11</sup>	12

## Feedstocks

### Manure

Total Manure Volume <sup>16</sup>	11.8 million gallons per day
Total Dairy Manure <sup>17</sup>	2.6 million gallons per day
Total Swine Manure <sup>18</sup>	1.0 million gallons per day
Total Beef Manure <sup>19</sup>	8.1 million gallons per day

### Food Waste

Total Food Waste Generated <sup>20</sup>	589,160 tons per year
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### Waste Water

Average flow from WRRF's <sup>21</sup>	12.3 million gallons per day
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\* All citations are available on [AmericanBiogasCouncil.org](http://AmericanBiogasCouncil.org).

## Colorado Green Policies

RPS <sup>22</sup>	Investor-owned utilities: 30% by 2020 Electric cooperatives serving 100,000 or more meters: 20% by 2020 Electric cooperatives serving fewer than 100,000 meters: 10% by 2020 Municipal utilities serving more than 40,000 customers: 10% by 2020
Statutes & Regulations	<a href="#">Fuel Mix Disclosure</a> <a href="#">Interconnection Standards</a> <a href="#">Mandatory Green Power Option for Large Municipal Utilities</a> <a href="#">Net Metering</a>
Sustainability Commitments	<a href="#">City of Boulder- Climate Action Plan Fund</a> <a href="#">City of Aspen- Renewable Energy Goal</a> <a href="#">University of Colorado- Boulder</a> <a href="#">University of Denver</a> <a href="#">University of Colorado- Colorado Springs</a> <a href="#">Western State Colorado University</a> <a href="#">City of Denver- 2020 Sustainable Goals</a>

## Biogas Companies Located in CO

[Camco Clean Energy](#)  
[Fuel City](#)  
[MV Technologies](#)  
+ Dozens More

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

### Colorado Biogas Resources:

[Colorado State University- Extension](#)  
CSU- Extension provides a screening tool to assess whether or not an anaerobic digester could be economically feasible at one's operation, and whether or not to proceed with a detailed financial analysis. Information contained within this report is specific to the Intermountain West where the arid climate, scarce water resources, and energy policies affect the economic viability of anaerobic digesters differently than other areas of the nation

#### [AGPROfessionals](#)

AGPROfessionals is a full-service agricultural development company providing services for the agriculture industry across the US, with offices located in Colorado and Nevada.

#### [Energy Industry Today](#)

Online resource that includes informative news feed pertaining specifically to the Colorado Biogas Industry.

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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/Colorado/st08\\_1\\_017\\_019.pdf](http://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_1_State_Level/Colorado/st08_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/Colorado/st08\\_1\\_020\\_023.pdf](http://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_1_State_Level/Colorado/st08_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 ABC Biogas Potential Calculator)
  - 21 <http://resourcerecoverydata.org/>
  - 22 <http://programs.dsireusa.org/system/program/detail/133>

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