



# BIOGAS OPERATIONS

## INDUSTRIAL & MANUFACTURING

### Key Figures

Biogas Sites in US:

2,200+

Potential US Biogas Systems:

14,958

Est. Electricity Produced from 20 Dairy/  
Livestock Biogas Ops in 2020:

173M kWh

### Mobilized Expertise

## Manufacturing Modular Boiler Plants

Streamlined modular delivery of boiler systems, including a turnkey solution.

### Introduction

## Biogas an Attractive Solution for Renewable Energy

In the U.S. agricultural market, biogas operations have become an attractive solution for generating renewable methane gas. In a process called anaerobic digestion, organic matter such as food or animal waste is broken down and produces biogas.

Currently, Systecon, an EQUANS company is providing boiler plants for Western US dairy farmers. This uptick in biogas solutions seems to be catching on quickly, with project development evolving through utility companies from the start.

### Customer Challenges

## Decreasing Carbon Intensity

The LCFS (Low Carbon Fuel Standard) in California, for instance, is designed to decrease the carbon intensity of California's transportation fuel pool and provide an increasing range of low-carbon and renewable alternatives, which reduce petroleum dependency and achieve air quality benefits.

The renewable gas generated from biogas operations currently holds a high value. (Gas produced from dairy farms as one example.)

Systecon's Response

## Streamlined Modular Delivery and Turnkey Solution

Systecon's value comes into play with the streamlined modular delivery of boiler systems, including a turnkey solution for engineering, manufacturing, installation, and startup. The boiler plants will be fueled by local natural gas distribution (or propane gas if natural gas is not locally available at the project site).

Each boiler plant provides a hot water loop that will help maintain biogas anaerobic digesters at high temperature. The digesters then feed into a pressure swing operation that separates a gas mix (45% CO<sub>2</sub>, 55% Methane) to produce the methane rich renewable gas (typically discharged to a truck trailer or local gas pipeline connection).

## Results

Systecon provided streamlined modular delivery of boiler systems, including a turnkey solution for engineering, manufacturing, installation, and startup.

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