



Biogas Upgrading (BUG™) System

Upgrade WWTP Biogas to Valuable Biomethane

KEY BENEFITS

- **HIGH PERFORMANCE:** >99.5% methane recovery and >98% methane purity
- **FLEXIBLE:** Meet local regulations, pipeline standards, and site-specific needs with tailored design
- **PROFITABLE:** Divert flared gas to the pipeline to create new revenue streams
- **EFFICIENT:** Conserve energy with highly selective membranes and multiple compressor configurations
- **COMPATIBLE:** Quick and easy installation interfaces with variety of systems
- **OPERATOR-FRIENDLY:** Streamlined maintenance and inspection



Anaergia's Biogas Upgrading (BUG™) System at a California WWTP



ANAERGIA SOLUTION

Anaergia's Biogas Upgrading System (BUG™) meets the most stringent pipeline gas quality standards for RNG using the best available membrane technology while focusing on operability and minimized energy consumption.

- **Conditioning:** Biogas is first conditioned to remove unacceptable contaminants such as H_2S , NH_3 , siloxanes, moisture and VOCs to meet pipeline specifications. Removal of these compounds avoids negatively impacting downstream equipment and allows for minimal tailgas treatment.
- **Upgrading:** CO_2 is removed from conditioned biogas to produce RNG that meets pipeline specifications along with a methane-lean tail gas. The system contains a compressor skid, a high-pressure conditioning skid, and a membrane skid which can be sized to fit specific needs.



APPLICATIONS

- Biogas conditioning and upgrading allows for efficient and effective removal of contaminants and carbon dioxide to produce renewable natural gas that meets even the most stringent pipeline requirements.
- Customizable conditioning process based on digester feeds and present compounds to produce a gas that meets unique pipeline specifications.
- Anaergia's in-house modelling determines the optimal membrane configuration for site-specific biogas flow rates, with additional custom solutions available for projects with unique ramp-up schedules.

Anaergia's Simplified Scope for Biogas Utilization Projects

