

# Comprehensive Renewable Natural Gas Plants

## Single-Source Supplier of Complete RNG Plant

The process of converting raw biogas or landfill gas into clean, green, renewable natural gas is complex. Each component needs to be handled and treated differently, with operating processes that remove impurities. Stark Tech's integrated Renewable Natural Gas solutions do just that.

We deliver scalable, turnkey RNG plants that handle and treat the most common and most difficult components, creating renewable natural gas that meets the highest pipeline quality standards.

Our Solutions Include:

- » High Methane Recovery
- » High Nitrogen Removal
- » Low Turndown



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## Design. Build. Maintain.

Stark Tech offers design, implementation and commissioning services. In addition our service plans are designed to help:

- » Improve Performance & Uptime
- » Optimize Energy Usage with Minimum Consumables
- » Provide Maintenance & Scheduling Insights to Reduce Costs

*No matter the application size, Stark Tech's solutions handle each component with treatment processes that remove impurities, including removal of hydrogen sulfide, NMOCs, water, VOCs, Siloxane, Carbon Dioxide, Nitrogen, and Oxygen.*



**Total Plant Optimization.**

# RNG Equipment Solutions

Biogas Compression	Raises the pressure of the gas on the positive pressure side of the CO <sub>2</sub> /methane membrane separation system.
Biogas Dehydration	Essential pre-treatment process for feedstock RNG due to significant levels of moisture content.
Biogas - Desulfurization	Use of activated carbon as desulfurization media.
Carbon Dioxide Separation	Methane is separated from the carbon dioxide resulting in very pure methane gas flow.
DeOxygenation	Removes all oxygen and moisture to ppm levels.
Feed Gas Compressor	Increases pressure to 220 psig to remove VOC / si and carbon dioxide.
Low Pressure Dehydration	Prepares feedgas to remove moisture for compression.
Membrane System	Removes all carbon dioxide.
Nitrogen Rejection	Nitrogen Rejection Units require a different technical approach than liquefied petroleum gas (LPG) or natural gas liquids recovery (NGL).
NMOC & Siloxanes Removal	TSA systems are used to treat high loads of siloxanes and VOCs in biogas and landfill gas applications.
RTO	Takes care of the waste gas streams from the RNG plant.
Sales Gas Compressor	Prepares gas for pipeline.
Vent Gas Incineration	Two chamber RTO design for biogas vent application. Stark's vent application is state-of-the-art and fully adopted by the biogas upgrading industry.
Vent Methane & CO <sub>2</sub> Recovery	Patented vent methane and CO <sub>2</sub> recovery unit with two sets of vacuum swing absorption (VSA) process.

Stark Tech is a turnkey solutions provider for buildings and energy applications. Stark's Clean Tech solutions deliver total optimization across organizations through customized comprehensive technology packages and application engineering support with lifecycle services.



**Total Plant Optimization.**