



MICRO LNG SYSTEMS

5,000 GAL/DAY:

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In recent years a demand for small scale custom LNG systems has arisen from a variety of different markets ranging from biogas to natural gas exploration.

With more than 100,000 gallons per day standard system designs, equipment configurations and manufacturing processes are not flexible enough to deliver a 5,000 or 10,000 gallons per day product.

It was this demand that sparked V Core's development of a micro LNG systems.

Committed to the Market

V CORE is committed to meeting these new market challenges and assembled a team of experienced partners capable of introducing a sustainable product into this new market.

V CORE has established a partnership with one of the most experience technology providers in the gas processing industry in Asia with over 20 facilities in operation since 2005, generating LNG from pipeline natural gas, well head gas and coke oven gas ranging from 14,000 gal/day to 92,000 gal/day processing capacity.

The high energy demand, limited infrastructure and favorable cost of LNG his driven the development of LNG technology In Asia in recent decades. V Core has been able to leverage these factors to introduce a product into the North American market.

The Technology

The proven processes are packaged in the USA with components sourced in the USA for a responsive spare part support program.

The commercial success of this small scale LNG product is found in striking the perfect balance between efficiency and capital cost leading to the deployment of a mixed refrigerant LNG process and more suitable purification technologies.

Replacing wet chemical gas purification technologies with low maintenance PSA (Pressure Swing Adsorption) technology and adding a high degree of automation and remote monitoring greatly reduces the operational requirements for the compact systems.

The compact gas powered self-generation module generates power for the system making it fit for deployment in remote areas where power is unavailable or in areas of high power cost.

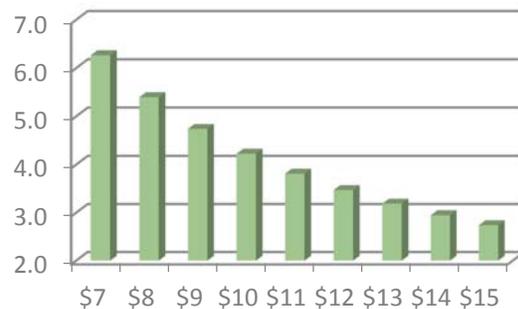
The system is packaged on several process skids by our experienced partner in Texas. The modular and skid mounted design allows for easy relocation and high flexibility.

The World Wide Market

The LNG markets are emerging worldwide, and connecting remote locations to the natral gas infrastructure, fueling vehicles, and creating renewable and emission offset markets.



The great potential of this technology is illustrated in the amortization chart below. The chart is based on the sales price for the LNG in \$ per million BTU of energy.





Product Information

Processing Capacity: Biogas 0.75 MMSCFD (55% CH₄) Natural Gas 0.4 MMSCFD
Product Output: 5,000 Gal/Day

Biogas Pre Module

The biogas pre module consists of a multi vessel PSA system with a recovery efficiency of over 90% and the associated biogas compressor and vacuum pumps.

Purification and Liquefaction Core

The purification core utilizes a PSA for further CO₂ removal and a TSA for dehydration. The CO₂ free and dry gas is liquefied in a mixed refrigerant process.

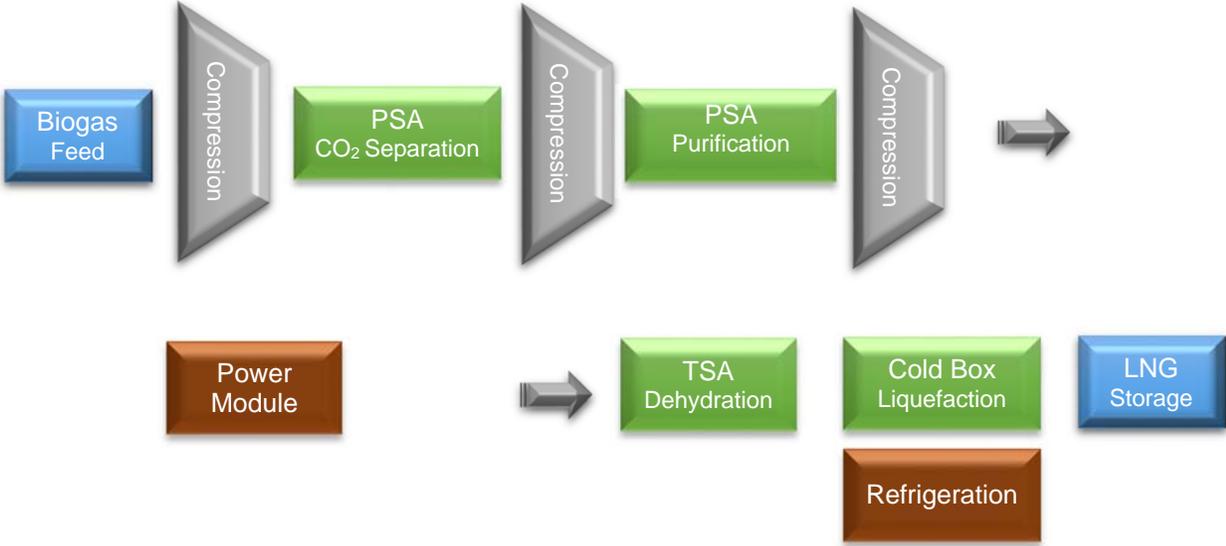
Additional Options

39,000 Gal LNG Storage Tank, 200 kW Self Generation Module

Modular System Configuration

Process Train

The process train is divided in several process steps mounted on individual skids. For natural gas feed applications the first stage of compression and PSA process, combined the biogas pre modules, are simply removed from the process train.



Basic System Cost

Biogas Pre Module	\$714,000
Purification and Liquefaction Core	\$4,780,000
Total System Cost	\$5,494,000
Self-Generation Power Module	\$220,000
LNG Storage	\$230,000



V CORE Liquid Fuels

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