



# Homestead Small Biogas Methane Solution

## Homestead Methane Biogas.

**Smaller diy systems and accessories**  
**Bio Gas from farms can also produce such commodities**  
**Secure Supplies Fueling Healthy Communities.**

### STORE RENEWABLE ENERGY

- Solar PV
- Solar Thermal
- Wind
- Hydro
- Geothermal
- Biogas
- Natural Gas

### Homestead Small Biogas

### Methane Solution



### Global Distribution

### Quality Management System:



ISO9001-2015  
GJB9001B-2009 (MIL)

**Secure Supplies** Product/s Meet Customers Demands.

Authorized Representative



Website

<https://www.secure.supplies/homestead-small-biogas-methane>



# Homestead Small Biogas Methane Solution

***How to liquify or how to turn bio gas into liquid ?  
Please explain the process and components section in  
numbered steps***

**The process of converting biogas into liquid form is called liquefaction.**

## **First Step**

in the process is to purify the biogas.

This is typically done using a series of filters and scrubbers to remove impurities

such as moisture, carbon dioxide, and sulfur compounds.

## **Second Step**

Once the biogas has been purified, it is compressed and cooled to a temperature

of -162°C. This causes the methane in the biogas to liquefy, forming a liquid called liquefied natural gas (LNG).

## **The Thrid Step**

The LNG is then stored in a cryogenic storage tank, which is designed to maintain the low temperature required to keep the LNG in liquid form.

## **The Forth Step**

The LNG is then transported to the point of use, typically by truck or ship. At the point of use, the LNG is regasified by warming it to ambient temperature and pressure, allowing it to turn back into a gas.

The components used in the process include purification filters and scrubbers, compressors, coolers, and cryogenic storage tanks.

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## Methane Solution

**What happens if a liquid bio gas tank goes to room temperature  
are there any risks or things that should be done to maintain it stable at room temp ?**

**Pressure build-up:** As the LNG vaporizes, it will increase the pressure inside the tank. If the tank is not designed to handle the increased pressure, it could rupture or explode.

**Asphyxiation:** If the LNG tank is not vented properly, the expanding gas could displace the oxygen in the surrounding area, creating an oxygen-deficient environment that could lead to asphyxiation.

**Fire and explosion:** LNG is a flammable gas and if it leaks, it can form a flammable mixture with air. If there is a source of ignition nearby, it could lead to a fire or explosion.

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### To maintain stability at room temperature, the following should be done:

Regular inspection and maintenance of the tank and its associated equipment to ensure that it is in good working order and that all safety features are functioning properly.

Proper ventilation of the area around the tank to ensure that there is enough oxygen for safe operation and to prevent the build-up of flammable gas.

Regular monitoring of the temperature and pressure inside the tank to ensure that it remains within safe limits.

It is also important to have an emergency plan in place in case of an incident or accident involving the LNG tank.

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