

Methane Recovery and Transportation Using CNG Direct



Applications for CNG Delivery



- Emergency Response
- Temporary Natural Gas Supply
- Demand increase
- Pipeline not Accessible
- Portable Equipment
- Pipeline Servicing/Evacuation
- Mobile CNG Vehicle Fueling

CNG-RESCUE

CNG Direct Customers

Power Generation – Aggregate - Agriculture Pumps - Municipalities - Pipeline servicing - Metal Production - Food Processing - Drilling Rigs - Fracking Units - Bio-Gas recovery - Flare Gas Recovery - Waste Management – all potential natural gas users with no pipeline gas adequate pressures/volumes or methane content



CNG Pods

Available Pod Capacity

- 50,000 SCF
- 86,000 SCF
- 100,000 SCF
- 200,000 SCF
- 350,000 SCF
- 430,000 SCF

Capture/ Delivery Capacity
10 MMSCFD per site



Methane Gas Recovery

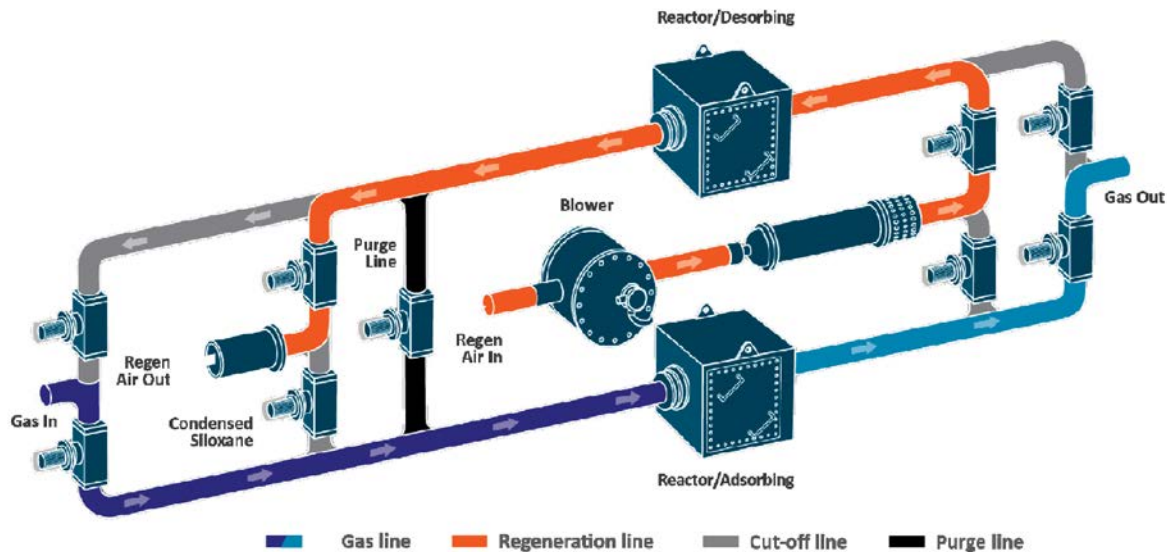


- **Oil Field**
- **Refinery**
- **Wastewater treatment**
- **Food Waste**
- **Landfill**
- **Dairy**



Gas Cleanup-Siloxane

- Siloxane Removal
 - L2 to D6



Gas Cleanup- H₂S

- **H₂S Removal**

SITE SPECIFICATIONS

- ~ 300scfm gas flow
- GEJ 320 series biogas engine
- CH₄ in biogas approx. 52%
- H₂S levels in raw gas average <150 ppm with spikes
- H₂S levels in treated gas <0.10 ppm over 1 year
- No media change-out for 1 year



Compression Station

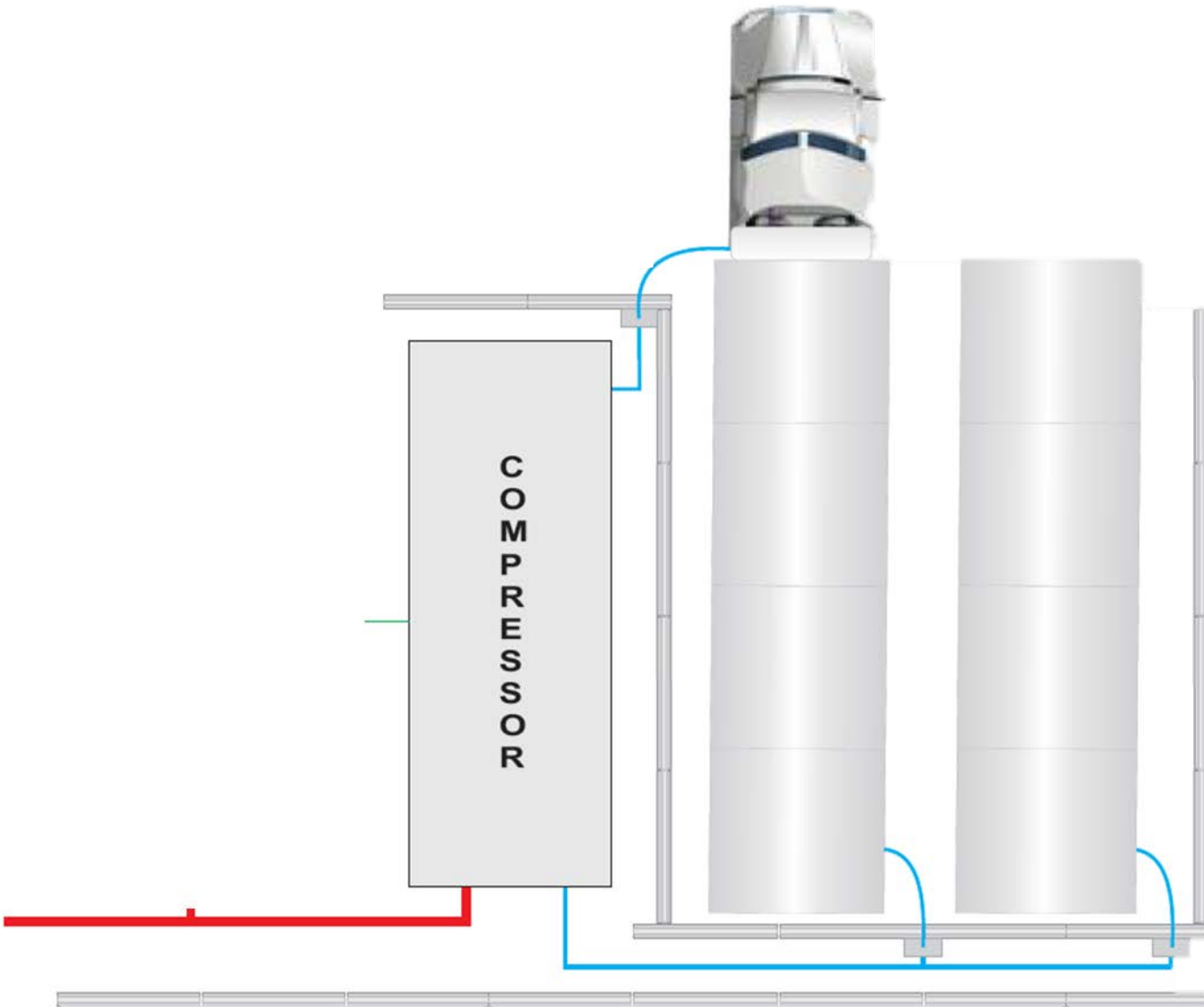


- CNG Compressors 4200psi
- Electric or engine driven
- Typical additional equipment:

- Refrigerant Skid
- Dryer
- Fill posts
- Chillers



Loading Site Example



- Small Footprint
- Quick Site setup
 - Permanent 30 days construction
 - Temporary 1 day setup
- Low pressure Gas supply
 - Minimum .5psi

Transportation



- Drivers require Class A Hazmat endorsement
- DOT certified pods with hazmat placards
- Can be towed using pintle hitch or 5th wheel trailers
- Utilize CNG Vehicles

Offloading Station



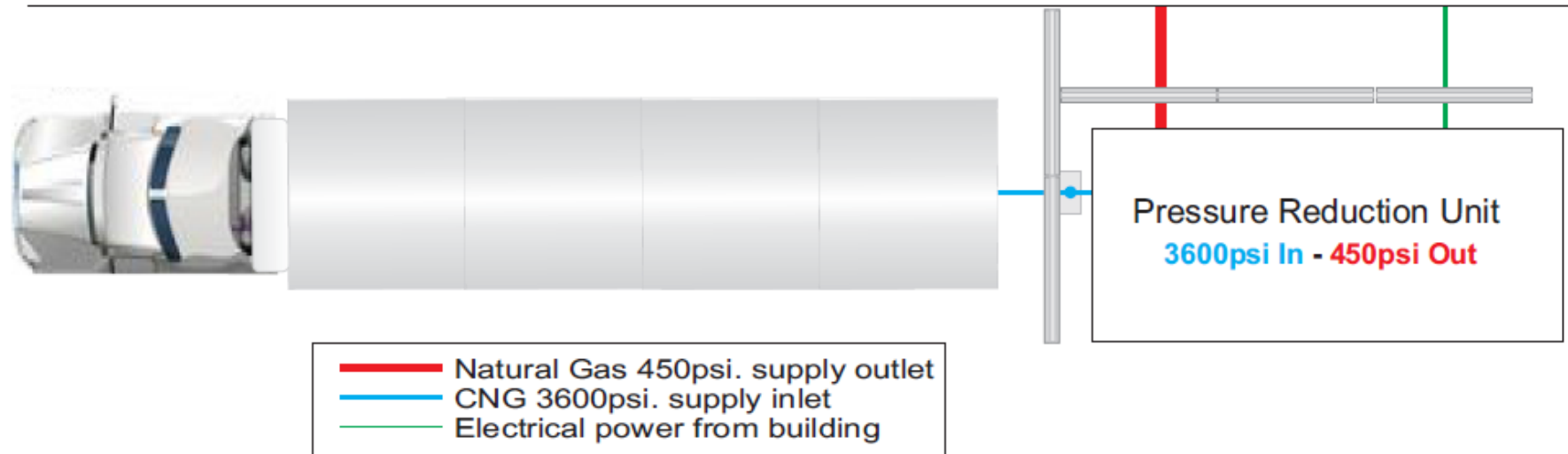
Pressure Reduction System

- 3600 psi to 5 psi
- Flow capability up to 10 MMSCFD
- Typical Equipment
 - Decanting posts
 - Pressure Reducing Modules
 - Heating Control Modules

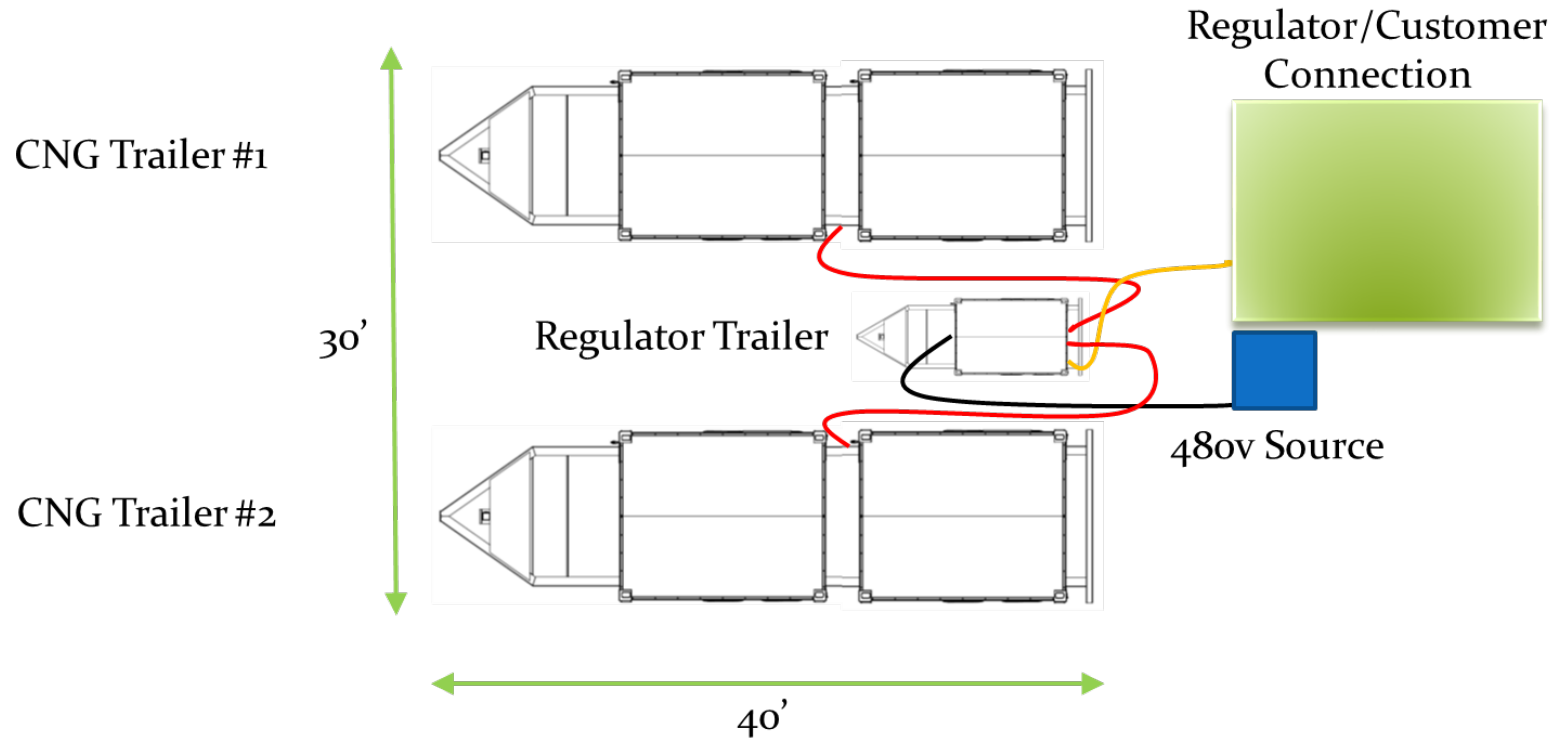





Unloading Site Layout

Gas Processing Plant



Offloading Site Example #2



- High Pressure Lines 
- Low Pressure Hose 
- 480v Connection 

Expected Methane Recovery



CNG Direct's Flare Gas Recovery :

- 2017 Flare Gas Recovery 803 MMSCF
- 2018 Expected Flare Gas Recovery 2200MMSCF

