9.1.7.   GTUIT, LLC – Wellsite Fuel Gas Processing, Flare Reduction, and Natural Gas Liquids (NGL) Recovery Units

Description

GTUIT designs and builds modular and mobile well site gas processing units used for both flare gas recovery and natural gas fuel conditioning.

Instead of flaring wellhead gas at locations without midstream pipelines, the GTUIT flare gas recovery units can recover value and reduce air emissions. GTUIT’s equipment works in the thermodynamic sweet spot for field gas treatment with proprietary flow-control, compression, and mechanical refrigeration sized for each project.

The GTUIT FCS field gas conditioning equipment takes raw gas from the wellhead and conditions it. The conditioned gas is dry, and a consistent BTU at a constant pressure with a majority of the NGLs removed. The conditioned gas can be used for field power generation, compressed natural gas, liquefied natural gas, and gas-to-liquid feed stock.

GTUIT flare gas recovery and FCS conditioning units are modular and mobile, and either skid- or trailer-mounted. The units are available in 250 MCFD, 500 MCFD, or 1000 MCFD capacity and can be combined to process up to 5000 MCFD and recover over 70% of the C3+ constituents. Units have large turn-down capacity to fit variable wellsite conditions and are purpose-built for remote, extreme oilfield conditions with over 400,000 hours of dependable operation. Integrated safety systems and satellite-based remote monitoring provide safe operation worldwide.

Technology Group

Lighting and Utilities – Facilities Design and Equipment

Site Applicability

Oil well sites with rich, high BTU, natural gas

Emissions Reduction and Energy Efficiency

The GTUIT flare capture and FCS field gas conditioning equipment enables the recovery of natural gas and liquids that would otherwise be flared and wasted and turns unusable natural gas streams into a valuable fuel. The equipment recovers and captures more than 80% of volatile organic compounds (VOCs). The dry gas can be shipped to market or used on site for power generation or other uses. Each 1000 MCFD flare capture system prevents more than 12,000 tons per year of CO₂ emissions from gas flares.

Economic Analysis

Capital Cost: Capital costs for typical equipment ranges from US$0.80 to $1.40 per SCFD of
processing capacity. However, exact costs depend on the gas quality, flow rate, and site location. The value stream of the processed NGL stream alone may offset capital equipment cost.

**Installation Cost:** Installation takes approximately three to five days. No installation cost figures were provided.

**Operating Cost:** Operating costs vary depending on the site and specific application. No operating cost figures were provided.

**Maintenance Cost:** Maintenance costs vary depending on the site, specific application, and operating conditions.

**Carbon Offset Credits:** Eligibility for greenhouse gas (GHG) offset credits or other carbon cost reduction instruments can only be determined based on the specifics of the application.

**Payback, Return on Investment and Marginal Abatement Cost:** The payback period, return on investment, and marginal abatement cost depends upon the site, commodity prices, and distance to market.

**Reliability**

**Expected Lifetime:** The GTUIT system is expected to last 15-20 years.

**Maintenance:** Regular maintenance is required, but maintenance training is provided.

**Safety**

All site and equipment safety protocols must be followed. Applicable safety regulations govern field wellsite conditions with high-pressure gas and low-temperature gas, high-voltage, and rotating equipment.

**Regulatory**

- Equipment can be CSA Certified where required.
- No AER Directive applicable

**Vendor Information**

Company Name: GTUIT  
Company Website: www.GTUIT.com  
Product Website: Not provided  
Contact Person: Dean Cervenka, VP Sales  
Contact Phone#: (406) 867-6700  
Contact Email: DCervenka@GTUIT.com