



Vermont Technical College

- **FUEL TYPE** Biogas
- **APPLICATION** Organic Waste
- **KW PRODUCTION** 370
- **LOCATION** Randolph Center, VT, USA



About This Project

The Vermont Technical College in Randolph Center, VT decided to construct an agricultural waste anaerobic digester (AD) facility with a 370 kW CHP combined heat and power generator. The AD facility at VTC generates electricity and heat from biomass feedstock composed of agricultural crop waste, cow manure and pre-consumer food residuals. The facility provides renewable energy via a PPA - Power Purchase Agreement under the State of Vermont's SPEED (Sustainably Process Energy Enterprise Development) program. The system also provides thermal energy to VTC's campus hot water system. Animal bedding and fertilizer are supplied to VTC's and local farms. The anaerobic digester is designed and built by Bio-Methatech, a joint venture between BM Canada and LIPP Systems in Germany. 2G Energy Inc. was selected to supply the CHP cogeneration plant consisting of the 2G patruus 370 with fully integrated MAN engine, having an Electrical Power capacity of 370 ekW/h or 3,071 MW p.a. and a Thermal Power output of 474 kWh/th. The package is configured with 2G's sound attenuated enclosure reducing the noise level down to <50 dbA. 2G also supplied the complete gas treatment, including cooler, dryer /dehumidification, and the H2S removal system. The controls and switchgear, including utility interconnection are also part of 2G's scope of supply. Furthermore, 2G Energy Inc. installed a fully enclosed flare specifically designed for biogas applications. 2G's flare systems, vapor combustion, and solutions meet EPA regulation 40 CFR 60.18 and are BACT approved.

Additional Details

- **TOTAL ELECTRICAL POWER**
370kW
- **MODULE**
patruus 370
- **EXTRAS**
Biogas Treatment System, Sound Attenuation, Flare System
- **CONFIGURATION**
Inside Building Installation

