



# Greenholm Farms

- **FUEL TYPE** Biogas
- **APPLICATION** Dairy Farm
- **KW PRODUCTION** 250
- **LOCATION** Embro, Ontario, Canada



## About This Project

Greenholm Farms, north of Embro, is now producing enough electrical energy to supply more than 200 homes in Canada. Thermal energy is utilized for various applications. The father and son team of Gord and Dave Green signed a feed-in tariff based PPA (power purchase agreement) with the Ontario Power Authority to sell electricity to their grid. The operation is converting manure produced from the approximately 175-head dairy herd using a modern above-ground anaerobic digester designed and constructed by PlanET Biogas Solutions Inc. The manure will be mixed with other unwanted organic waste material like grease from restaurants. Bacteria in the mixture break down organic matter, and by doing so, produce methane gas. The methane is then used to run a 2G Agenitor 306 CHP system to produce 250kW/h electricity. "This is about the only green energy out there that produces energy continually. Wind turbines only work when there's wind. Solar is contingent on the sun, but the anaerobic digester continuously produces power around the clock," Mr. Gord Green said. In addition to producing electricity for sale, the CHP heat is reused and circulated by pipeline circuits to maintain the digester's constant 37°C. The fully containerized and modular 2G cogeneration plant is producing enough thermal energy to heat office space, the dairy barn and the home on the Stratford, Canada farm. The manure put through the digester will also be used to fertilize the Green's 303-hectare (750-acre) farm.

## Additional Details

- **TOTAL ELECTRICAL POWER**  
250kW
- **MODULE**  
Agenitor 306
- **EXTRAS**  
Biogas treatment system
- **CONFIGURATION**  
Container Module

