

POWER PROFILE

Granjas RYC

POWER NEED

Granjas RYC is a producer, packager and distributor of meat products. The company produces various cuts of meat, seasoned and marinated meat, lunch meats and sausages. These products are then distributed under different brand names to supermarkets throughout México. The company also operates its own stores in central and southern México.

One of Granjas's facilities is a pig farm in Tenex-tepec, Puebla. Farms throughout North America face stringent regulations about the disposal of animal waste. Many farms use biodigesters that, through anaerobic digestion, turn the animal effluent into methane. In addition to providing a source for renewable energy, biodigesters reduce greenhouse gas emissions and improve wastewater treatment.

Two covered lagoon-style digesters are used to help manage the waste produced by the 40,000 pigs at the facility. Rather than allow the methane produced from the biodigesters to go to waste, a cogeneration plant was installed to turn the methane into energy to be used to help power the farm.

SOLUTION

Local Cat® dealer Madisa supplied a Cat G3306 biogas generator to the farm. The purchase was financed through Grupo Financiero Caterpillar México, a financial institution that works with Caterpillar customers in México.

Capable of producing up to 72 kW during continuous use, the generator uses gas from only one of the farm's biodigesters. The impurities and inconsistencies in biogas can make it a less reliable fuel source; however, Cat low-energy fuel generator sets are engineered to handle fuel with variations in methane content, which is typical of biogas. These specially designed generators help turn a potentially inconsistent fuel source into a consistent electrical output.

The self-generated electricity powers many facilities on the farm, with most of it consumed by the incandescent heat lamps that keep the piglets warm in the maternity area. The hot water produced from the cogeneration process is used in the farm's locker rooms and swimming pool. By running this generator, the farm realizes a cost savings of approximately \$60,000 USD annually.

RESULTS

The generator, which has completed 6,400 hours of service, performs at about 70 percent efficiency. Personnel from the Madisa branch in Puebla have performed all the routine maintenance so far. The facility managers at Granjas are quite pleased with the setup and are looking to install a Cat G3406 generator later this year to harness the methane produced from a second digester. The plan is to use the additional energy to power the farm's food processing area.

[For more information, please visit www.catgaspower.com/pp.](http://www.catgaspower.com/pp)



Animal effluent from a pig farm in Tenex-tepec, Puebla, México – a facility of Granjas RYC – is disposed of in biodigesters, which turn the waste into methane. A cogeneration plant using a Cat® G3306 biogas generator was installed to harness the methane. The self-generated electricity powers some of the farm's facilities and the hot water is used in the farm's locker rooms and swimming pool.

CLIENT

[Granjas RYC](#)

LOCATION

Tenex-tepec, Puebla, México

CUSTOMER BUSINESS ISSUE

Cogeneration from biogas

SOLUTION

[One Cat® G3306 biogas generator set.](#)

CAT DEALER

[Madisa](#)