

Berrybank Farm, Windermere – Victoria

CUSTOMER	Charles I.F.E Pty Ltd for Berrybank Farm
LOCATION	Windermere, Victoria
DESCRIPTION	Penske Power Systems installs its first MTU Onsite Energy biogas system at Berrybank Farm; providing all system design, electrical and mechanical assistance, commissioning and aftersales support
OPERATIONAL DATE	October 2012



Berrybank Farm, located in Windermere, Victoria, is a sprawling operation of 2,500 acres and home to 20,000 pigs. Thanks to its newly installed biogas unit from MTU Onsite Energy, this slick family operation, run by Charles Integrated Farming Enterprises Pty Ltd (Charles I.F.E Pty Ltd), is finding that the old farming philosophy of 'waste nothing' makes perfect business sense.

Berrybank Farm can now generate electricity and heat from biogas, in essence using waste from one part of the farm to power another, minimising environmental impact and reducing water consumption along the way. The install is a country-first for Penske Power Systems' engineering team and their push into biogas technologies.

CONFIGURATION

Penske Power Systems has supplied a Series 400 GC192B5 biogas unit from MTU Onsite Energy to generate electricity and thermal power as part of Berrybank Farm's total waste management system.

192 kWe of electricity is generated to run the farm in parallel mode with the grid, while 214 kWth of thermal power is harnessed for heating within the pig sheds and digester tanks.

The simple yet effective waste management system, involves generating electricity from biogas, conserving and recycling water, and collecting waste for sale as fertiliser – so that the farm can operate around-the-clock and as efficiently as possible. The biogas module is fuelled by the collection of organic material during the fermentation process.

FEATURES

MTU Onsite Energy's combined heat and power module at Berrybank Farm features electrical and thermal controls, engine and system protection via a MTU module control, and a heat recovery unit.

Working continuously, the biogas module is fuelled by 1,700 cubic metres of methane to provide 3,650 kW of cogeneration power daily; delivering significant savings to the farm's power and gas bills. The farm now saves \$180,000 per annum in electrical costs, as compared with \$120,000 savings achieved with their previously installed gensets.

Boasting ingenious technology, the engine automatically adjusts its load by monitoring gas levels throughout the fermentation process, for greater efficiency.

The Series 400 is renowned for its sophisticated yet compact design, reliability and the highest available efficiency within its power range.

For more information contact our Power Generation team on 1300 688 338.