



USING BIOGAS AS FUEL FOR ELECTRICITY GENERATION

REPURPOSE HEAT ON-SITE INSTEAD OF EXPENDING ENERGY TO ELIMINATE IT.

APPLICATION

Biogas

MARKET SECTOR

Agriculture/Food Processing

CLIENT

Chicken Processing Plant

COMMISSIONED

2017

EQUIPMENT

(3) GT333S

LOCATION

Beresfield, Australia



PROJECT

- Three GT333S turbines operate on methane collected from covered anaerobic lagoon that digests organic solids from the processing facility
- Turbines produce 1 MW of electricity and exhaust heat is used to produce process hot water for the plant

SITE EQUIPMENT

- Gas collection from covered anaerobic lagoon
- Liquid and H₂S removal
- Gas blending (to supplement biogas with natural gas if needed)
- Gas compression

RESULTS

Offsets electricity that plant purchases from utility

Reduces natural gas purchased to heat plant process water

Greatly reduces facility environmental footprint by reducing GHG emissions (methane was formerly emitted directly to the atmosphere from the lagoon)

Operates in parallel with utility in import control mode so that power is never exported from the facility