

# CASE STUDY

## Waste water treatment plant and energy generation



<b>Client</b>	Teys Australia
<b>Project completion</b>	2019
<b>Location</b>	Naracoorte, South Australia

### ABOUT

Teys Australia is a 50/50 partnership between the Teys family and the Cargill Company. The company is the second largest meat processor and exporter in Australia. Teys have a reputation for environmental excellence in Australian red meat processing.

The Naracoorte site is the most southern site of the Teys Group and is a significant employer in the small country town. The plant has been in operation for over 50 years and the current waste water treatment plant as an aerobic fermenter, was in need of upgrading to an aerobic lagoon with gas capture.

### THE SOLUTION

Engineer and implement a biogas delivery-to-generator and flaring system.

### WHAT HAPPENS?

The by-product from the processing plant and waste water, are directed to a single Covered Anaerobic Pond (CAL) and from a valve on the CAL, the biogas is captured, dried, cleaned and pumped under low pressure, 700m to the plant where it fires a generator and the electricity is used as a renewable energy source, displacing costly grid-sourced electricity.

Energy360 (as ABM Combustion) was selected to work on the project because of its expertise in gas compression, the manufacture of gas delivery systems and its specialist OEF Flares.

### WHAT DID ENERGY360 DO?

- Worked in close collaboration with Wiley the project engineers, to design a system of pipework which would effectively deliver the biogas to the boiler.
- Installed a biogas delivery system
- Installed an Energy360 specialist OEF 075 flare with high reliability, high turn down, fast response and good destructive efficiency
- Developed a new CAL pressure release valve to stabilize the pressure levels and thus the biogas flow rates

### THE RESULT

- The generator is using the biogas to constantly generate electricity
- Energy costs have fallen significantly
- The plant's carbon emissions reduced substantially

