



Teys Australia

Wastewater treatment and biogas harvesting solution

The Teys family has been involved in the Australian beef industry since 1946 when four Teys Brothers formed a partnership which was involved in wholesaling and retailing meat in Queensland.

The family has grown its business to become a leading innovative provider of red meat and supply chain solutions.

-  Naracoorte, South Australia
-  Advisory services, design, engineering, construction and commissioning

Project scope

Wiley replaced aging wastewater treatment processes, with new pre-treatment and anaerobic treatment, specifically designed for biogas harvesting.

The project included:

- Installation of primary screening equipment to separate and dewater solids; reducing disposal costs and contamination of downstream processes
- Construction of a new 25ML Covered Anaerobic Lagoon (CAL) to treat wastewater and generate biogas, together with a CAL cover system to store biogas safely and manage rainwater capture
- Biogas treatment processes to remove condensation and H2S
- Built-in leak detection and sludge removal
- Biogas safety features to automatically flare excess biogas and redundant systems to vent biogas
- Installation of a biogas delivery system—to pipe biogas from the CAL to a new combined heat and power plant for site electricity generation

Business value to client

With the objective of generating, capturing and using biogas as a renewable energy source, offsetting grid electricity consumption; Teys embarked on a project that would set a new industry standard in effluent management systems.

This successful biogas harvesting project delivered a significant reduction in the company's electricity consumption from coal-derived sources. By converting waste to energy, Teys not only increased site energy efficiency and decreased carbon emissions, but also improved their wastewater treatment to allow for greater recycled water use on site. Manufacturing costs were reduced by 10%.

Wiley assessed the client's strategic plans and processing data. From this assessment, Wiley developed a project solution that would convert their largest carbon-emitting process, wastewater treatment, into a high-value fuel source. The fuel generated is then used to generate electricity in a combined heat and power plant.

This project resulted in an ongoing reduction of fossil fuel consumption, a decrease in site carbon emissions and an upgraded wastewater treatment process to provide water for reuse.

Partners and consultants

Energy 360 | Waterlogic | Sinclair Electrical Solutions | Wild Plumbing

