


JBS Australia

Biogas effluent treatment

JBS invested in Covered Anaerobic Ponds at their Dinmore facility to lower the carbon footprint of their meat processing operations. Working closely with Wiley meat industry specialists, JBS created a future-forward solution—one that aligned with their vision to create a better way for future generations. JBS wanted to demonstrate how they could improve their business, while setting a new standard in effluent management systems.

 Dinmore, Queensland
 Advisory services, design, construction, project management, Principal Contractor, commissioning

Project scope

Australia's largest producer of meat products and long-term clients of Wiley—JBS Australia (JBS) engaged Wiley to project manage the upgrade of their wastewater treatment system.

Wiley delivered the design, installation and commissioning of a highly efficient effluent treatment system to generate, capture and use biogas as a renewable energy source.

The project involved:

- Covering two existing Anaerobic Lagoons with high density polyethylene to generate and capture biogas
- Construction of a new 20ML Covered Anaerobic Lagoon (CAL)
- A biomethane gas recovery system from new and existing ponds
- System for tallow recovery
- Upgrade of WWTP with a new Dissolved Air Flotation (DAF) unit
- Installation of a biogas train—to pipe biogas from the CALs to a central flare and then to the existing 10MW boiler
- A newly installed burner and control system in the boiler automatically prioritises the use of biogas over natural gas

Business value to client

This first of its kind project for the Australian red meat processing industry, significantly offset JBS' annual natural gas expenditure and their direct carbon price liability within the first year.

Carbon intensity on-site is higher than predicted, as the new system is generating more biogas and using more of it in the boilers; resulting in decreased loss of biogas to flaring 20% estimated, 4% currently.

The technology and processes employed are replicable and scalable in food processing facilities that have biological waste streams and a need to offset on-site energy requirements for heat and/or power generation.


Complex services


Future focus


Sustainable


Advisory Services

