

## Biogas retrofit a first for Australian red meat processing

**JBS Australia, the country's largest meat processor and exporter, is capturing and using biogas at its Dinmore, Queensland, facility to reduce dependence on grid-connected natural gas by about 50 per cent.**



Credit: [Wiley](#)

The \$8.8 million project was co-financed by the Clean Energy Finance Corporation ([CEFC](#)), a Commonwealth Statutory Authority, and an Australian government Clean Technology Food and Foundries Program grant.

CEFC strategic alliance partner engineering and construction services firm Wiley constructed and designed the biogas and water treatment plant. The project earned Wiley a Queensland Master Builders Association award for Innovation in Environmental Management Construction.

JBS Australia employs about 2000 staff at its Dinmore processing facility where it installed new pre-treatment equipment and covered anaerobic lagoons to capture the biogas generated at the site.

The facility has reduced its carbon emissions by 89 per cent and is saving more than \$1 million a year on natural gas costs.

The biogas generated is used in the company's existing natural-gas fired boiler plant that produces steam and hot water to meet the site's demand for sanitary cleaning and sterilisation. Capturing the available biogas generated from its operations also helps the company meet its waste management requirements.

The installation includes:

1. a 20 megalitre anaerobic pond
2. a biomethane gas recovery system from new and existing ponds
3. integration of biomethane gas as fuel for the existing gas fired boiler

4. a system for recovery of tallow (beef fat), a valuable by-product of meat processing.

The project, which retrofits an existing wastewater treatment plant, is the first of its kind in the Australian red meat processing industry. The design is both replicable and scalable within the red meat processing industry and other food processing industries that have a biological waste stream and a need to offset on-site energy requirements for heat and/or power generation.

Source: CEFC & JBS Australia

From ECOS online <http://www.ecosmagazine.com/?paper=EC14176>