Production details
This is a large company owned conventional piggery, with breeding and growing pigs on one site in twenty three naturally ventilated and evaporative cooled sheds. Most of the pigs are sold as heavy finishers for domestic markets at 105 kg live weight.

Feed consumption
Feed is purchased off-site from a commercial feed mill. Normal piggery cereal-based feedstuffs are fed in a pelleted form. Total feed consumed is 12,352 t/yr.

Sales/Transfers
40,928 pigs/yr are sold with a total dressed weight of 3,261 t/yr.

Waste management systems
Manure is flushed from each shed in underfloor drains to collection sumps. From there, effluent is pumped to an anaerobic lagoon. After primary treatment the effluent moves to a secondary storage pond for reuse as flushing water for the piggery. Surplus effluent is pumped to third storage pond.

Manure reuse systems
Effluent from the storage ponds is blended with fresh irrigation water and is used as fertiliser to irrigate cultivation which is used to grow a range of winter cereal crops. Sediment from the ponds is dried and spread as fertiliser on dryland cropping areas.
On-Farm Baseline Emissions
The current baseline emissions for this piggery total 13,405 tonnes CO$_2$-e/yr with an emissions intensity of 4.11 kg CO$_2$-e/kg HSCW.

On-Farm Emissions Reduction Scenario
Like most conventional piggeries with anaerobic ponds, the majority of emissions on this piggery come from pond methane. This piggery is highly efficient with excellent feed conversions and relatively low feed wastage resulting in comparatively low baseline emissions.

The piggery owners are currently obtaining quotes to build and operate a covered anaerobic pond or an engineered digester. The captured methane will be used to generate electricity and capture waste heat from the engines will be used to heat farrowing and weaner rooms. It is anticipated that this will replace all electricity and LPG used on-site. Any excess electricity will be fed into the state grid, however this excess is unknown at this stage and was not included as an emissions offset in the modelling.

This scenario (see table below) reduced on-farm emissions from 13,405 t/yr to 3,150 t/yr and reduced kg CO$_2$-e/kg HSCW from 4.11 to 0.97 (76% reduction).
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