



Project Number & Title Bioenergy Support Program (BSP) Projects 4C-104/4C-110

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Project Participants

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Aims and Objectives

Aim: The Bioenergy Support Program (BSP) aims to facilitate biogas uptake to reduce emissions from pork to less than 1 kg CO₂-e/kg pig meat.

Objectives:

1. A central source of reputable information on biogas;
2. Understand and promote the true economic and technical feasibility of biogas;
3. Establish Pork CRC biogas demonstration sites
4. Identify and investigate/address barriers to biogas uptake; and
5. Build longer-term industry capacity via a postgraduate research project.

Key Outcomes

- Pork industry uptake of biogas is now at 13.5% of the national Australian herd, with 11.8% adoption since the inception of the BSP, and only 1.7% uptake in the 20 years prior to the BSP.
- Three key demonstration sites fully operational with extensive information collected and published in technical dossier. These have become active research piggeries to trial and develop cost-feasible technology options. Case study visits and data on biogas systems have been collected from an additional six other piggeries.
- One-on-one contact/assistance to >15% of the pork sector, with over 300 individual enquiries addressed. Technical support during feasibility enquiries, approvals and odour, start-up of covered lagoons, sludge management.
- Highly collaborative effort with Australian Pork Limited (APL, Janine Price), also complementing APL research in the area of effluent management.
- Key influence on Emissions Reduction Fund legislation (formerly the Carbon Farming Initiative or CFI). Led to documented reduction in emissions of 207,617 tonnes CO₂-e and an estimated \$2.96M in carbon credit income. Piggery biogas projects committed to a further 698,750 tonnes CO₂-e of future emissions savings under government auction, to earn an additional \$8.76M of carbon credit income to the pork industry.
- Using biogas energy at Australian piggeries has to date saved an estimated \$2.2-2.8M in energy costs.
- As much as 75%-82% of odour emissions from piggeries originate from uncovered manure treatment lagoons (Smith et al., 1999; Camp Scott Furphy Pty Ltd., 1993), so the capture of biogas has reduced piggery odour considerably.
- The BSP together with APL has developed a Code of Practice for on-farm biogas safety, which has proposed by Victorian and Queensland gas safety regulators for future expansion into an Australian Standard to call up in fuel gas legislation.
- Industry-based masters research project by Mr. Alan Skerman, Principal Environmental Engineer at DAF QLD, and building longer-term biogas support to the industry.