1. REAL CASE STUDY

VIABILITY OF BIOGAS FOR A 500 SOW PIGGERY

CLARIFYING BIOMETHANE AND SMALL SCALE BIOGAS OPTIONS FOR AUSTRALIAN PIGGERIES

AUSTRALIAN Pork

Recently, APL finished a case study to explore the viability of biogas for a small-scale (535 sows) farrow to finish piggery in VIC.

What is it

Biogas is a renewable source of energy that can be produced from organic matter. In our industry, this is mainly piggery effluent. Biogas has been around for years but, previously, uptake by piggeries in Australia has been affected by the perceived lack of viability for systems with less than 1000 sows.

How it works

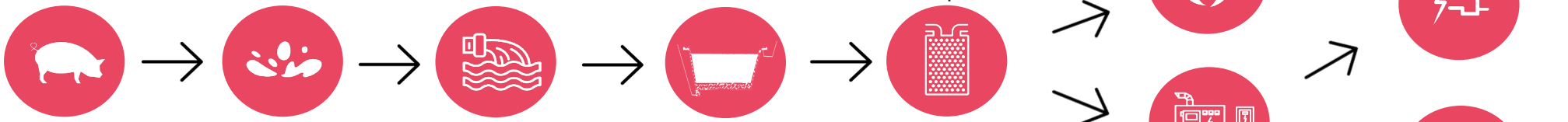
Piggery effluent is collected in covered anaerobic ponds (or in some cases large tanks) where it is broken down by microorganisms that produce:

- a liquid (which can be used for irrigation)
- solid (sludge) products that can be used as a fertiliser
- gas (biogas)

Benefits

Biogas can be used on farms to generate electricity and therefore reduce running costs. The capture and use of biogas also provides two additional benefits to piggeries; 1) that there is less odour from covered effluent ponds like the ones used in biogas set ups, and 2) that methane (one of the main components of biogas) is captured and used rather than released into the atmosphere where it has a damaging effect on the environment.

Capital costs: $614, 720
Operating Costs: $17,004 (excluding desludging)
Estimated Payback: 6.3 – 7.7 years depending on finance
Estimated Electricity Savings: $4,598 per month or $55,170 per annum
Estimated LPG Savings: $50,000 per annum



For more information, please contact Gemma Wyburn at gemma.wyburn@australianpork.com.au