



Business

Financing your project

Compare options

Biogas

Case study: Biogas

Find out how a piggery used an energy services agreement to finance a biogas system and reduced energy costs by \$99,663 in the first year.

Situation

A piggery with 15,000 standard pig units (SPU) is considering an anaerobic digester to generate biogas to offset the rising cost of natural gas. It wishes to combust this biogas in a co-generation system to generate electricity and heat; this would displace both electricity purchased from the grid and purchases of natural gas currently used for heating.

As the NPV is positive, the company determined that it would be financially better off if it invested the biogas system. The expected reduction in the cost of gas purchases and electricity purchased from the grid over the life of the system exceeds the cost to purchase and install it.

How does the energy efficient system compare to the standard system?

Equipment type	Value
Cost to install (\$)	\$850,000
Electricity generation (kWh p.a.)	289,719

Reduction in gas purchases (GJ p.a.)	3,477
Equipment life (years)	20
Energy cost reduction in first year (\$)	\$99,663
Simple payback period for the system (years)	8.5

Item	NPV
Renewable energy system	\$53,211 >

Finance option selected: Energy services agreement

The company decides to implement its biogas project using an energy services agreement, so that it brings in external expertise and outsources the implementation and on-going management of the biogas equipment. It is likely that the finance under this Energy Services Agreement will be an energy efficiency loan, as this results in the highest expected NPV, based on the company's preliminary calculations.

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Downloads

Download the case study and a cash flow model.

**Case study
(PDF
215KB)**

**Cash flow
model
(XLSX
637KB)**

Checklist

Check if an energy services agreement is the right option for your business.

**Download
the
checklist
(PDF 2MB)**

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