



BLAKE ECOTEC

The Renewable Heat Experts

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Case Study:

Aldwick Court Farm, Somerset.



130kW Eco Angus Super Log Biomass install sees Somerset vineyard profit from a **Renewable Heat Solution**

Background

Aldwick Court Farm and Vineyard is located at the foot of the beautiful Mendip Hills.

With its stunning views of the surrounding countryside, the farm is an extremely popular venue for weddings, wine tasting tours and other special occasions.

Heating across the entire site was provided by expensive and inefficient oil/LPG fired boilers.

Key Objectives

- Provide heating and hot water to multiple areas of the farm including; Farmhouse, Visitor Centre, Function and Event Rooms, Offices and a Flat.
- Replace existing expensive and inefficient oil/LPG fired heating system.

The Solution

- Eco Angus 130kW Orlan Super Log Gasification Boiler Solution.
- 10,000 litre Akvarterm accumulator tank.
- Full Project Management including; design, installation, maintenance and RHI application.

Non-Domestic RHI Payments

- £403,900 in government payments over 20 years.

Pay back period

- 1-2 years.



eco angus

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Find out how you could benefit from a Renewable Heat Solution
Contact Blake Ecotec on **0333 600 56 57** or email info@blakeecotec.co.uk

Project Summary

Working with our partners at Eco Angus Limited, the team fully designed, installed and commissioned an environmentally friendly, high powered solution capable of providing heating and hot water across the entire site, replacing the existing oil system.

A purpose built barn was constructed to house the Eco Angus Orlan Super 130kW Log Gasification Boiler, 10,000 litre Akvarterm accumulator tank and the 6 metre high, 300mm NOVA stainless steel flue.

On site, underground piping was laid to connect the new Biomass Boiler in the barn, with the Farmhouse, Visitor Centre, Offices and Event Rooms.

The boiler's 130kW heat output and large loading capacity means it is capable of burning logs up to 100cm in length, with a moisture content of 15-20%.

The solution works at 91% efficiency and can burn for up to 12 hours continuously. This high efficiency means that, during the summer months, a single weekly load will ensure enough hot water is provided to all the building on site.



The small amount of ash residue produced ensure that maintenance costs are kept to a minimum and the solutions user-friendly construction means that performance can be monitored and altered, when required, via the control panel or remotely.

The site's existing oil heating system, was configured and integrated by our team of highly trained installers to work as an efficient and interchangeably back up system at the touch of a button.

A solution which is not only an eco-friendly and sustainable source of heat but also an incredibly financially rewarding investment.



The Renewable Heat Incentive & Fuel Savings

- The completed project will receive payments over a 20 year period through the Non-Domestic RHI scheme.

Payments of 8.8p per kWh, a total of £403,900 in RHI payments (RPI adjusted 3%).

- The Eco Angus boiler will burn approximately 50 tonnes of logs per year, creating 170,820 kWh of heat for the site.
- The system delivers substantial fuel cost savings of approximately £258,600 across the 20 year scheme when comparing the fuel price of the existing oil/LPG system.
- The RHI payments and saving on fuel will see the initial outlay paid off in just over 1 year before turning a profit for the remaining 19 years of the scheme.

CO2 Emissions

- Previous CO2 Emissions (Oil Heating System): 40 tonnes per year.
- Current CO2 Emissions (Log Gasification System): 4 tonnes per year.
- The Renewable Heat Solution installed at Aldwick Court Farm will reduce the site's Carbon Footprint by an incredible 36 tonnes of CO2 per year, a 90% reduction.



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