

130kW Orlan Super Log Biomass install sees Somerset Vineyard profit from a **Renewable Heat Solution**

Eco Angus Biomass Solution supplies heating to Farmhouse and Function Rooms for Wedding venue and Vineyard.

Key Facts

The Client;

Aldwick Court Farm and Vineyard, Aldwick, Redhill, Bristol.

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 and extremely popular venue for weddings, wine tasting tours and other special occasions.

The Project Included;

- Eco Angus 130kW Orlan Super Log Gasification Boiler Solution.
- 10,000 litre Akvarterm accumulator tank.
- Supplying heat and hot water to multiple areas of the farm, including the Farmhouse, Visitor Center, Function and Event Rooms, Offices and a Small Flat.
- Full Project Management, including design, installation, maintenance and RHI Application.

Pay Back Period;

1-2 years.

RHI Payments;

A project of this size would gain approximately £403,900 in Government funded payments over the 20 year period.

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.

The 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.

Fuel Saving

The Eco Angus Orlan Super 130kW Log Gasification Boiler solution will also deliver substantial net fuel cost savings of £258,636 across the 20 year scheme. In comparison with fossil fuels, the Eco Angus solution will save between £4,000 in the first year, rising to £26,000 in the final year of the RHI scheme on fuel alone.

The Renewable Heat Incentive (RHI)

Aldwick Court's system is compliant within the Non-Domestic Renewable Heat Incentive (RHI) scheme and will receive payments over a 20 year period.

Our installation will see Aldwick Court receive RHI payments of 8.8p per kWh of heat generated by the system, a total of approximately £403,900 in Government Payments.

Add this to the savings made on fuel and the project will gain approximately £662,500 in additional income over 20 years. The RHI payments and the fuel cost savings will see the initial outlay paid off in just over 1 year, before turning a profit for the remaining 19 years of the scheme.

Not only an eco-friendly and sustainable source of heat but also an incredibly financially rewarding investment.

To find out more about the Eco Angus Orlan 130kW Log Gasification Solution and all our Renewable Heating Solutions

Contact Blake Ecotec on +44 (0)333 600 56 57, email info@blakeecotec.co.uk or visit www.blakeecotec.co.uk