

CASE STUDY:

Gumma Farm
Presteigne



**Wye
Valley
Energy**

In partnership with Treco Ltd



BIOMASS BOILER SYSTEM REPLACES 2 LPG BOILERS, SAVES CLIENT 20% FUEL COSTS AND REDUCES CO₂ By 98%

SUMMARY OF PROJECT:

- 199kW Lindner & Sommerauer biomass boiler.
- Distribution pipework including all internal connections to existing heating systems.
- Runs on wood chips.

KEY OUTCOMES:

- **Biomass Fuel Cost Reduction;** 25% versus poultry LPG.
- **CO₂ Reduction;** 96% or 88 tonnes versus LPG.
- **RHI Accreditation;** Client is now RHI accredited and is receiving payments, which generate additional revenue streams for the farm.

FINANCIAL BENEFIT:

- RHI payments and fuel cost savings make the project both sustainable and financially viable.

ABOUT US

Wye Valley Energy is a regionally based business covering Wales and the Midlands and is a Treco partner.

We design, supply, install and maintain a wide range of complete biomass boiler heating systems that will burn logs, wood chips, wood pellets, grain or miscanthus.

BIOMASS BOILERS HELP

- Reduce fuel costs by up to 80%.
- Reduce CO₂ emissions by 96%.
- Gain Renewable Heat Incentive (RHI) compliance.



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**HEAT &
POWER**

**Lindner
Sommerauer**

Biomasse - Heizanlaagen

CONTACT US ON

01568 616 888

or [Hello@WyeValleyEnergy.co.uk](mailto>Hello@WyeValleyEnergy.co.uk)
To Discuss Your Biomass Project

KEY FACTS*

PROJECT INCLUDED

Lindner & Sommerauer 199kW biomass boiler system. Flue system, thermal store and distribution pipework including internal connections to heat exchangers also included.

FUEL CONSUMPTION

87 tonnes of wood chips, per annum, (based on system of similar capacity, in a similar application).

FUEL COST SAVING

Wood chips; 25% versus poultry LPG costs. (Source; Biomass Energy Centre)

CO₂ SAVING

Up to 96% vs LPG (Source; Biomass Energy Centre)

RHI PAYMENTS

A project of this size would gain approximately £22,409 in RHI payments every year for 20 years, index linked to inflation.

TOTAL PROJECT PRICE

£130,000

PAYBACK PERIOD

5-6 years (combining RHI income & fuel cost saving).

*Financial information not specific to this project – figures are based on an average of several typical projects of this size. Current information on RHI payments for guidance only.

BACKGROUND

Gumma Farm is a free range poultry farm with 2 broiler sheds, growing 132,000 birds per year.

THE REQUIREMENT

The driver for the customer was the reduction of the farm's LPG fuel bill and to generate Renewable Heat Incentive payments. A further driver was to supply a better growing environment for the birds by producing drier heat than the existing LPG heaters.

They also hoped to alleviate the need to spend money on electricity to run the large ventilation units that are required to remove the products of combustion that are typically pumped in poultry sheds heated by open LPG heaters.

The fuel cost savings and RHI payments will be reinvested back into Gumma Farm.

COMPLETE BIOMASS DISTRICT HEATING PACKAGE

Wye Valley Energy installed the boiler, fuel delivery system and buffer tank in the plantroom as well as the heat main to connect the poultry sheds and farm house. We also managed the trenching, primary and secondary connections, erecting buildings and civils

The system replaced internal LPG heater units but also the farmhouse's LPG boiler. We also installed a new hot water and radiator system inside the 2 poultry sheds and carried out the connections into the farm house.

THE RENEWABLE HEAT INCENTIVE

The installation is now accredited into the Renewable Heat Incentive and start receiving payments.

BIOMASS HEATING SUMMARY



- 1 x 199kW Lindner & Sommerauer biomass boiler.
- Runs on wood chips.
- 4m agitator and 4.7m auger to enable a large fuel store to minimise fills.
- 5,000 litre buffer tank.
- 6 new fan radiators in the poultry sheds (3 per shed) and hot water system.
- 3 class 2 RHI eligible ultrasonic heat meters complete with certification.
- Heat exchanger fitted into farm house.
- Biomass boiler linked to existing heating and hot water system in the farm house.
- High efficiency, low energy main system pump.
- Full assistance with RHI application including schematic drawings.
- Commissioning, programming and end user training.



**CONTACT US TO DISCUSS
YOUR BIOMASS PROJECT
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