

CASE STUDY:

3 Counties Wood Fuels



BIOMASS FUEL SUPPLIER USES BIOMASS TO DRY ITS WOODCHIP SUPPLY

SUMMARY OF PROJECT:

- 2 x 1MW Kalvis boilers
- 4 x heat exchanger and fan systems
- System used to dry wood chip

Financial Benefits:

- RHI Payments and fuel cost savings will make the project both sustainable and financially viable.
- **RHI Accreditation;** RHI Accredited, so the product is generating additional revenue for the business

ABOUT US

MJS Mechanical and Electrical Solutions are a Midlands-based mechanical, plumbing and electrical, design and installation company.

MJS regularly carry out installations for other renewable energy companies throughout the UK, offering them access to an experienced team of installers, builders and groundworkers to assist with their project delivery if additional capacity is required.

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KEY FACTS*

Project Included:

2 x 1MW Kalvis 950kW boilers, 4 x heat exchanger and fan systems and drying floors to store and obviously help dry the woodchip. The biomass boilers power the fans and heat the floor

Fuel Consumption:

419kg of wood pellets per hour.

RHI Payments: (RHI) scheme

that will see the system generating approximately £190,0000 in payments every year for the next 20 years. This is approximately £4 million.

Total Project Price:

£500,000

Payback Period:

Approximately 3.5 years
(combining RHI income & fuel cost saving)

*Financial information not specific to this project – figures are based on an average of several typical products of this size. Current information on RHI payments for guidance only, not to be considered a guarantee.

Background

After renovating their family home and installing a Heizoack wood chip boiler, the owners saw a market for producing biomass fuel and used their knowledge and experience of sustainable timber harvesting to establish their new company.

David and Louis Saer diversified their timber harvesting business, Chalford Timber, which had been established for 35 years.

Today, 3 Counties Wood Fuels is a family-run business that sources round timber from sustainable sources, heavily supported by the Forestry commission as well as from private estates who manage their own woodlands. As well as running the harvesting business and producing biofuel from their hub in Leominster in North Herefordshire, 3 Counties Wood Fuels is also able to offer impartial advice on switching to biomass, running and maintaining the biomass boiler systems, attaining renewable heat incentive (RHI) payments as well establishing and maintaining sustainable woodlands.

The Incentive

3 Counties Wood Fuels' main driver was to increase its supply of wood chip by significantly reducing the drying time required between each batch. This will also ensure the company is able to supply biomass wood fuel on demand to its growing customer base.

In addition to being able to increase its supply of wood chip, the company will also benefit from the Renewable Heat Incentive (RHI) scheme that will see the system generating approximately £190,0000 in payments every year for the next 20 years (index linked), which will work out to approximately £4 million over the course of the scheme.

Biomass heating Summary



- Good economic and environmental indicators.
- Protection against overheating and deposition - to balance the flow of water in a heat exchanger.
- Automatic combustion process control.
- The movable array, which is installed in the pack, evenly spreads and moves the fuel in the husk.
- Primary air is supplied to the individual areas under the carcasses.
- Automatic ash removal from the pit.
- Automatic ash removal from grains (optional).
- Pneumatic heat exchanger cleaning (optional).
- The choice of honeycomb equipment is subject to the risk of fuel moisture and ash shrinkage.
- The boiler is working together with the fuel storage and delivery equipment.
- The boiler can be transported in parts.



Contact Us to Discuss
Your Biomass Project

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