



CASE STUDY

LARGE FUEL DRYING PLANT

BIOMASS INSTALLATION

CASE STUDY DELIVERED BY



OVERVIEW



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 familyrun 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 INSTALLATION



Biomass Heating & Wood Chip Drying Project

Project Overview

This large-scale biomass installation includes two 1MW Kalvis boilers, four heat exchanger and fan systems, and drying floors designed to store and dry wood chip efficiently.

The system optimises the drying process, ensuring a consistent supply of high-quality biomass fuel. The biomass boilers power the fans and heat the floors, significantly reducing drying times while maintaining sustainability.

Key Benefits

The system enhances operational efficiency while delivering significant financial benefits through fuel cost savings and government-backed incentives. It is accredited under the Renewable Heat Incentive (RHI) scheme, generating substantial annual payments. These incentives, along with reduced fuel expenses, make the project both financially viable and environmentally sustainable.

Project Specifications, System Components:

- 2 x 1MW Kalvis biomass boilers
- 4 x heat exchanger and fan systems
- Drying floors for wood chip storage and processing
- Fuel Consumption:
- 419kg of wood pellets per hour

Background

The installation supports a family-run business specialising in sustainable timber harvesting and biomass fuel production. After successfully installing a wood chip boiler at their home, the owners saw an opportunity to expand into biomass fuel supply, leveraging their 35 years of experience in timber harvesting.

Now a key supplier in the region, the company sources timber from sustainable forestry projects and private estates. In addition to producing biomass fuel, they offer guidance on switching to biomass heating, maintaining boiler systems, and accessing renewable energy incentives.

The Incentive

The main goal of this project was to increase wood chip supply by reducing drying times, allowing for a more efficient and reliable fuel production process. The system ensures a continuous supply of high-quality biomass fuel while benefiting from long-term financial incentives.

This investment strengthens the company's position in the biomass fuel market, ensuring both sustainability and long-term efficiency.