

Laughton Lodge



- 🏠 199kW Herz FireMatic
- 🏠 Two 5000 litre buffer tanks
- 🏠 District heating system
- 🏠 Wood chip fuel
- 🏠 Buried fuel silo



Douch Biomass Ltd

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Inside the plant room



Wood chip in the fuel store



The fuel store and modified plant building

Project background

Laughton Lodge is a co-housing community covering 23 acres, situated in rural East Sussex. The community was formed on a basis of a more neighbourly lifestyle, with an environmentally friendly ethos.

Douch Biomass installation

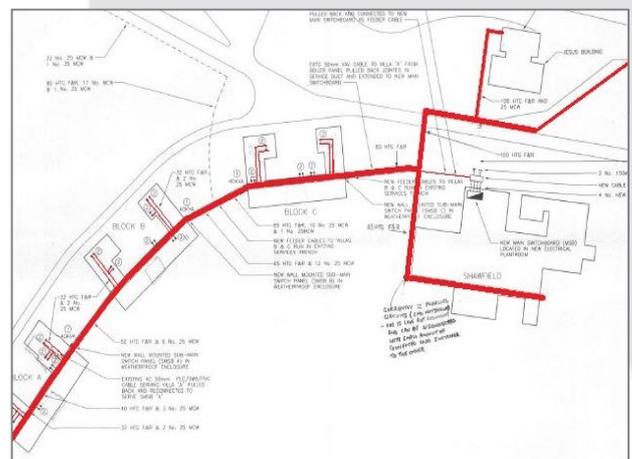
Douch Biomass was commissioned to install a biomass system using a 199kW Herz FireMatic to replace the existing biomass system at Laughton Lodge. Douch Biomass also decommissioned the redundant equipment and disposed of the pre-existing fuel silo. The new fuel silo was designed to have 40m³ of chip storage, with a sliding access hatch to allow for simple opening and tipping of the wood chip into the silo. It was calculated that 30m³ chip deliveries would be appropriate, delivered by an 8 wheeler tipping vehicle. As such, Douch also modified the access drive to the plant room to allow for these deliveries.

Laughton Lodge contains multiple buildings on site, over a relatively large area, and so a district heating system was designed to supply heat to each property most effectively. The heat main was also extended to the four new-builds on site and the Shawfield building containing offices, a dance hall, kitchen and reading room amongst others. Whilst extending the heat main, Douch allowed for the provision of new data and phone cabling to be installed in association with the trenching, a provision requested by the client during consultation.

Heat meters were fitted in the individual properties, as well as on the biomass boiler and the back-up oil boiler, which was retained from the previous system, in order to measure the heat used for RHI purposes. Software and equipment to allow for the remote monitoring of the biomass boiler was also installed, enabling a rapid response by Douch Biomass engineers should an error occur. The system was commissioned in 2013, and professional maintenance by Douch Biomass was scheduled for 6 months.

Result

Laughton Lodge's new biomass system provides clean, low cost fuel for the community. In addition to this, over 20 years the system will have made a Co₂ saving of 1834 tonnes.



Section of the heat main schematic for Laughton Lodge

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