



Buckhurst Park



- Two Herz FireMatic boilers, one 199kW and one 151kW
- Co₂ saving of 3341 tonnes over 20 years
- Large historic house with associated smaller buildings
- Payback time of 4.7 years

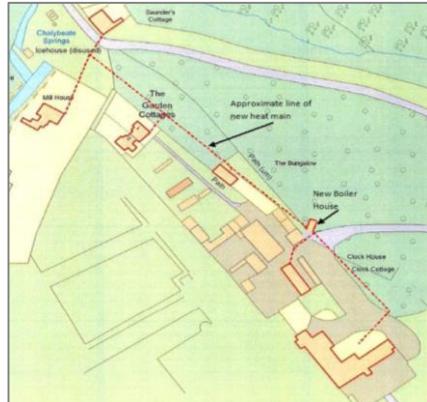


Douch Biomass Ltd

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Two sub-200kW Herz FireMatic boilers in the plant room



Heat main route



The fuel store being constructed

Project background

Located in Withyham, East Sussex, the historic Buckhurst Park Estate is a popular open garden attraction and also holds the origins of the legendary children's tale, *Winnie the Pooh*, in the 100 Acre Wood situated on the Estate. With rising fuel prices, the cost of heating a large historic house and any associated buildings is a huge financial burden. An RHI compliant biomass heating system offered Buckhurst the potential for clean, low cost heating with help from government funding.

Douch Biomass installation

Douch Biomass was commissioned to supply and install a wood chip-fuelled biomass boiler system to meet the heat requirements of Buckhurst Manor, as well as eight additional buildings around the Estate. A full project design was created in consultation with the client, and two Herz FireMatic boilers were recommended, one a 199kW boiler and the other a 151kW boiler. The two boilers are hydraulically separated, allowing for RHI to be claimed separately on each at the below 200kW tariff rate.

The garage was converted to become the new boiler house, with a semi-buried fuel store located immediately adjacent to the garage. This has a 60m³ capacity, similar to the system Douch Biomass installed at Balcombe Estate. This provides a refilling period of around 3 weeks during peak winter demand but less frequently during warmer months.

The pre-existing oil boiler was removed from the main building and moved to the plant room to serve as a back-up boiler, to cover periods of scheduled maintenance, any gaps in fuel supply and to ensure the heat supply is not interrupted in the event of a problem with the biomass boiler while repairs take place.

Heat exchangers were installed in each property to replace the individual boilers, and heat meters were fitted to measure the amount of heat used, for RHI purposes.

Result

The biomass heating system at Buckhurst has enabled the Estate to be freed of reliance on fossil fuels, with the associated price hikes and peak oil uncertainty.

The system requires around 120 tonnes of wood chip per year, and provides a £309,000 saving on heating oil expenses. In addition to this, the biomass system will save 3341 tonnes of CO₂ over the 20 years of the RHI lifetime.

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