



Highfield & Brookham

INDEPENDENT SCHOOLS

Summer 2012 saw Rural Energy initiate a two phase biomass installation project at the Highfield & Brookham Independent Schools, just a stone's throw from Guildford.

Highfield & Brookham Schools are made up of prep and pre-prep schools on one large estate near Liphook. The Schools required at least 600kW of heating for numerous buildings. The site has a heat load consumption of 1.3 million kWh per annum.

The biomass boilers were specified to replace 20 oil-fired boilers and associated oil tanks from around the site, in order to route a district heating scheme from one central energy hub.

A pair of 300kW Herz BioMatic boilers were installed over two phases into a purpose-built energy centre plant room that has been designed to suit a third phase should the Schools expand.

The boilers also have separate wood chip feed augers so that they can run independently, enabling no need for oil back up. This is also ideal for earning the RHI separately for each boiler. The boilers typically provide in excess of 21,000 litres of hot water to be stored in the system at any one time.

This unique design has afforded the Schools the opportunity to upscale their biomass installation and add a third biomass boiler and other renewable technologies as required over the coming years.

To date, it is estimated that there is a saving of 140,000 litres of oil per annum (an estimated £70,000 per annum at 50p per litre of oil). Now an estimated 450 tons (1592m³) of wood chip is consumed every year at a much reduced cost.

Overall the Schools have made an impressive estimated annual carbon saving of 288T of CO₂ (expected to save 5760T over 20 years).

CASE STUDY FOCUS

Supplying
600kW
with 2 x Herz® BioMatic units

Annual CO₂ Savings:
288Tons

Delivering
21,000Litres
of hot water at any one time

SYSTEM SUMMARY

Boiler Type: Herz® BioMatics

Fuel Type: Wood Chip

Fuel Store: Purpose Built



DEVELOPING A PROJECT IN PARTNERSHIP

Rural Energy worked closely with Highfield & Brookham Independent Schools to specify an installation that suited the Schools' budgets, timescales and future requirements. This included designing a fuel store and fuel delivery systems that worked independently and could suit a third boiler if it was needed.

WORKING WITH CONTRACTORS

Rural Energy was contracted through Geoffrey Robinson Ltd and consultants EDP Limited. With a short turnaround time, the project was completed and commissioned just four months from the order point.

WORKING WITH

Main Contractor: Geoffrey Robinson Ltd

Consultant: EDP Limited