

Shortwood Primary School, Telford: Biomass heating for a primary school



EDUCATION



Telford and Wrekin Council is a unitary authority serving a population of approximately 164,000 people. Along with education, the council provides a range of services designed to help individuals and families.



Client	RHF Heating, for Telford and Wrekin Council
Application	New school development for 480 pupils
Solution	A new build energy centre includes a wood chip boiler, along with standby gas boilers to feed under floor heating and the domestic hot water requirements.
Boiler type	KWB TDS Powerfire 150kW boiler
Fuel reception	Purpose built steel fuel store is fitted with a rotary arm fuel extractor. The wood chip is blown into the ground level steel hopper, which is then transferred to the adjacent boiler in the energy centre.
Fuel supply	The boiler is expected to use c. 75 tonnes of locally sourced seasoned wood chip, provided by Midlands Wood Fuel. The heat meter on the boiler records the heat output produced, for billing purposes.
CO2 saving	35 tonnes per annum
Start-up	September 2007



Purpose built steel wood chip fuel store, accepting blown wood chip deliveries

Project history

The Borough of Telford and Wrekin Council amalgamated two schools to create Shortwood Primary School. The new primary school includes 16 class rooms for 480 pupils and a nursery for 32 pupils. The school also includes facilities to be used by the community outside school hours.

Environmental targets and rising school fuel bills have prompted many local authorities to install biomass boilers.

Design, installation and operation

One of the design team's primary aims was to become one of the Borough of Telford and Wrekin Council's most sustainable buildings, with a building which has the minimal environmental impact possible through the whole life span, whilst improving the ecological value of the area.

The design utilises two of the existing site buildings, along with new buildings linked together via an enclosed glass walkway to control access and give the feeling of a single site.

Wood chip is delivered into the 4m high and 4m diameter steel hopper, which can hold up to 40 cubic metres.

The delivery lorry, which parks a few metres away from the store in the car park, delivers approximately 33 cubic metres at a time. The system requires up to two / three deliveries per week in winter.

Teaching aid

The biomass boiler and innovative energy monitoring are used as a teaching aid to promote sustainable living and inspire the future generation. The boiler house has been constructed with a glass wall and includes a local display to show the school children the biomass technology that is used to heat their school.



KWB TDS Poverfire boiler



Enclosed glass walkway

Similar Case Studies:

National Star College	Special needs residential college Cheltenham
Cotham School	BSF new school Bristol
Nayland Primary School	Existing primary school Suffolk
Jesus College	Grade 1 historic college Cambridge

Contact details



Econergy Limited

Unit 8 & 9, St Georges Tower, Hatley St George, Sandy, Beds, SG19 3SH

Tel: 0870 0545 554

Email: sales@econergy.ltd.uk

Web: www.econergy.ltd.uk