

Hales view farm

Biomass boiler fuel usage

The proposed biomass installation at Hales view farm, is to facilitate the drying of firewood through a RHI compliant biomass boiler.

The kiln that is to be used, is insulated to a very high standard, with a view to making the operation as efficient as possible and to minimise the necessary energy inputs.

The fuel that is to be used, in the boiler, will be virgin in nature and will be of an average moisture content of 20% on a wet basis.

This fuel will have a calorific value of 4.1 kWh/kg.

It is anticipated that the average energy demand from the drying operation within the kiln, will be in the region of 135kW/h throughout the operation of a batch.

The biomass boiler will be connected to a thermal store, which in combination with the biomass boilers capacity to modulate through the output range, should see the boiler operate at a fairly constant medium level of output.

Whilst calculating the original figures we stated an hourly consumption rate of 33kgph, we wish to amend this to 41.15kgph, as we regrettably forgot to deduct efficiency losses.

The consumption of 41.15kgph over an average hour of operation, with a seasonal efficiency of 80%, will deliver the net energy input to the system of the calculated 135kWh needed, to facilitate the drying of the timber inside the kiln.

We believe that these figures are accurate and trust that they give you the confidence to proceed with our planning application.