

COILLTE EXTENDS SUPPLY PARTNERSHIP WITH BOYD BEDDING TO SUPPLY NEW 6MW BOILER PLANT

Boyd Bedding have been producing heat sterilised bedding for the equestrian market for over 12 years using FSC certified raw material supplied by Coillte. Coillte logs are debarked and then planed to a specific flake size. The flakes are then dried across a heated belt dryer. The high temperatures sterilize the flakes leaving the bedding both absorbent and clean. The heat used in the drying process comes from a biomass boiler and ensures there are no fungi, spores, or bacteria present in the bedding. Following dust extraction the flakes are mechanically baled and palletised ready for shipment.



In 2011, due to continued expansion, a Boyd bedding opened a new 4000m² facility in Omagh, Co. Tyrone. As part of the overall design of the new facilities, Boyd Bedding set about investigating the optimum energy solution for the plant and concluded renewable energy from locally produced biomass

had obvious synergies with the existing business and would continue to nurture the proven long term supply partnership with Coillte. This solution offered the best commercial, operational and sustainable benefits with security of supply.



With an intensive annual energy demand required to provide reliable heat for the 2 combi-belt dryer production lines, a bespoke turnkey thermal biomass boiler was designed, manufactured and installed by HDS Energy Ltd. The boiler plant was successfully commissioned in December 2012 and comprises of a 6MW biomass fired steam boiler installation of 8,000 kg/hr capacity operating at 24 Barg pressure. The boiler provides the energy required for the drying and sterilizing process at the plant. The Omagh site is close to the main grid should a CHP electrical turbine be added as a second phase in the future.

The wood chip storage area is located to the rear of the plant as part of the main boiler house. This allows the delivery truck to tip its load directly or unload via moving floor trailer. Fuel is fed into the boiler hopper via an overhead crane grab system.

The crane continually feeds the boiler hopper as required. Other fuel handling systems were looked at but the crane system was chosen for ease of access and maintenance. Coillte and a local sawmill supply fuel to the boiler. Biomass feedstock is sourced from Coillte's own forest resources in the North West region. Wood chip fuel to an agreed specification is processed locally and delivered in both moving floor trailers and tipping trailers to the site. The moisture content is sampled and the weight of each load is taken at the clients weighbridge. The gigajoules of energy in each load is then calculated and the €/gigajoule contract rate is applied to the data to raise the clients invoice.



The plant has now operated successfully for several years and Raymond Boyd commented "This project provides our business with a competitive and sustainable energy solution and strengthens our business relationship further with Coillte. We have observed that consistent fuel quality is key to the successful operation and modulation of the boiler and have trialled a number of sources. Wood chip derived from chipped logs provides the optimum quality for our operations".

Des O'Toole, Commercial Business Development Manager for Coillte explains "Large scale industrial clients like Boyd bedding require significant annual volumes of wood chip and security of supply is key for a client making a significant capital investment in a new plant. Unscheduled downtime as a result of the unavailability of local biomass is not acceptable and is a potential risk to production operations. Boyd bedding was already a significant client of Coillte's in the Northwest and for this reason, we were delighted to extend our supply arrangements to include delivered wood chip for the new boiler installation".

Coillte offers; security of fuel supply, long term contracts with attractive terms, full management of the supply chain and independently certified biomass from sustainably managed forests.

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