



Poultry litter combustion a step closer



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The European Union is in the final stages of allowing poultry litter to be combusted on-farm, as a fuel, in new biomass technology.

With the approval of the Environment Agency, the technology has been trialled on a farm in Norfolk since November 2012. Poultry farmers Nigel

and Patrick Joice, who produce 5.8 million broilers per annum, installed two 500KW biomass burners in 2011 to reduce their reliance on fossil fuels and to increase bird welfare. The system was manufactured and installed by BHSL. The combustion process supplies hot water at 85°C via 3kms of district heating system to every poultry house, this hot water flows through two Draper Ventilation units with attached hot water coils mounted in the apex of each house.

NFU member Nigel Joice said: "The BHSL system produces 93 per cent of the farm's heat requirements and has allowed us to cut our fuel costs. With no combustion within the shed there is no need to vent excessive CO₂ concentrations wasting valuable heat. Subsequently, the chickens are healthier and we are seeing reductions in hock burn and pododermatitis. We have also seen a five-point improvement in our feed conversion ratio (FCR), which has been an added bonus to installing the combustion system.

"Currently we are only using 25 per cent of our poultry manure so there is still further potential to utilise the manure. In the next couple of years we have plans to generate electricity by adding a power plant."

BHSL's biomass burner uses Fluidised Bed Combustion technology, which qualifies for support under the Renewable Heat Incentive (RHI) scheme. The chicken litter is stored in

a purpose built building with an automated system supplying the two burners, improving bio-security and reducing handling. The resultant ash is nutrient rich and can be used as a fertiliser.

The initial trial on Nigel and Patrick's farm was to gather enough information to demonstrate that poultry litter is a by-product and not a waste, therefore falling under the Animal By-Products Regulations (ABP) rather than the Waste Framework Directive (WFD). Under proposed European changes, poultry litter could be combusted in accordance with the EU Animal By-Product Implementing Regulations. These implementing regulations apply across the whole of the EU and are not rewritten by each member state. The good news is that the proposed changes to these regulations have recently been approved. The next stage is for the amended regulations to be published and then, the regulation states that it will come into force 20 days after publication. Once the full legislative process is completed and the amended Animal-By Product Regulations come into force we will be back with more detail.

In the meantime UK authorities are making good progress in putting the processes in place to enable them to approve combustion plants as soon as possible after the new regulations come in to force.

Picture top: AVLA, Defra and Irish officials at the plant