

Case study: bio-bean

In recent years there has been a great deal of activity in turning waste and agricultural residues into densified biomass fuels. Among the most innovative of these are biomass pellets and briquettes produced from waste coffee grounds (WCG) in the UK by bio-bean an award-winning clean technology company.



The UK produces 500,000 tonnes of WCG each year, costing the coffee industry over £70 million in disposal costs. bio-bean is the first company in the world to industrialise the process of recycling WCG into advanced biofuels. Working within the existing waste disposal infrastructure bio-bean is able to collect WCG from coffee shops, offices, restaurants and factories and transport them to their pioneering facility in Alconbury, Cambridgeshire. The plant can process up to 50,000 tonnes of WCG a year, the waste from 1 in 10 cups of coffee drunk in the UK.

The gross calorific value of WCG pellets and briquettes is 22.6 MJ/kg and as a result they burn hotter and longer than typical wood pellets and briquettes. In addition, this new end use means that an enormous amount of waste is diverted away from landfill.

WCG pellets are an eligible fuel for use in biomass projects supported by the Renewable Heat Incentive (RHI). Users need to be able to demonstrate that their boiler can meet emission thresholds for oxides of nitrogen (NOx) and particulates when using WCG pellets and also meet sustainability criteria.

How SFR helps

The Sustainable Fuel Register (SFR) enables a route to market for bio bean's WCG pellets. Prior to the launch of SFR there was no mechanism for bio bean and other traders of non-wood fuels to demonstrate compliance with the RHI sustainability criteria. As a result SFR removes a huge barrier and opens up the market for this product. Anyone buying pellets from bio bean needs to register on the SFR system and get their own unique SFR authorisation number. Once purchased, the fuel will be allocated to their SFR number and they can use this to prove the sustainability of the fuel in their quarterly periodic reporting to Ofgem.

For more information see:

www.bio-bean.com