

# Bioflame

CO2Sense awarded Bioflame with a £200k loan and 50% of the grid connection cost for their pilot biomass energy project.



CO2Sense supported a demonstration project of Bioflame's Waste Incineration Directive (WID) compliant plant, with a view to rolling out the technology through joint ventures with waste producers and operators.

Bioflame is a renewable energy technology and project developer based in North Yorkshire. The Waste Incineration Directive involves burning biomass fuel, which emits significantly less carbon dioxide than burning conventional fossil fuels, and can produce a reliable, continuous energy supply from waste products, thereby not only reducing the use of fossil fuels, but also diverting waste from landfill.

The pilot project, based in Pickering, North Yorkshire, produces 500kW electrical output from waste wood, using an advanced burner and WID technology. The plant is fully compliant with the WID, and includes continuous monitoring of emissions.

CO2Sense gave technical support to Bioflame during the development of the plant. This included reviewing the plant designs and giving advice on power sales and negotiations with the distribution network operator.

CO2Sense also provided support for Bioflame in getting their ROC accreditation; we developed an analytical technique for Bioflame that allowed them to determine

## Renewable Energy

- Pickering, North Yorkshire, produces 500kW electrical output from waste wood using advanced burner and WID technology.
- Carbon savings of approximately 1,700Te per annum, excluding land fill diversion benefits.

“ Bioflame's technology and, importantly, their business model, provides a replicable approach for economic small scale production of heat and power from waste fuels. ”

Jemma Benson, PROJECT MANAGER – CO2SENSE

the content of their biomass and so become qualified for Renewable Obligation Certificates (ROCs). ROCs provide financial uplift for companies who are producing electricity through renewable methods. However, it can be costly and complicated to apply for ROCs, and so CO2Sense developed this pioneering technique, and Bioflame was the first in the UK to achieve the accreditation using this method.

CO2Sense gave Bioflame a £200,000 loan to help fund the start-up costs and development of the technology they needed. These funds will be given back by repayment based on future sales of Bioflame's technology. CO2Sense also provided a grant of £168,000 towards the grid connection cost.

The site began full operation in December 2007, and is now claiming ROCs for the electricity it produces. The project delivers carbon savings of approximately 1,700Te per annum. On top of this are benefits made by diverting the waste wood that is burnt from land fill.

**CO2Sense was established by Yorkshire Forward to help businesses in the region to prosper in the low carbon economy. We provide expertise and funding to help environmental companies to grow. We work with partners to help all organisations to fund and develop initiatives that reduce their carbon emissions.**