

Case Study

Owl Lane Nursery
Ossett, West Yorkshire

A 199kW ETA HACK wood chip boiler heats garden centre and nursery

The boiler and buffer tanks are installed within a steel container boiler house adjacent to a vertical hopper chip store. Wood chip is augered from the chip store directly in to the boiler. Around 55m of insulated underground pipe delivers heat to the shop and nursery.

“We were impressed by Asgard’s technical competence, price competitiveness and ability to understand our requirements”



Asgard Biomass has been installing biomass boiler in the east of England for the last 10 years, during this period dozens of boilers have been installed all over the region.

The Installation:

- ETA HACK 199 wood chip and pellet boiler.
- Warm air heating to shop & nursery
- 55m of Calpex insulated underground pipe
- Vertical Hopper chip/pellet store
- Containerised Boiler Room

The Benefits:

- Fuel Costs reduced by more than 30% (heating oil comparison)
- CO₂ Reduced by 98% or around 88 tonnes of carbon saved per year
- RHI eligibility will ensure annual payment of over £21,000 (depending on usage) every year for 20 years

Why Biomass

- Space heating to large areas such as the shop and nursery can be very expensive, especially when using oil. Biomass offers savings in fuel cost and CO₂ emissions
- Major benefit from the RHI income on an annual basis for 20 years
- Make a positive and on-going contribution to the environment
- Full automation, reliability and ease of fuel delivery



Project Summary

Asgard Biomass undertook the following aspects of the installation:

- Installation of the ETA HACK 199kW wood chip and pellet boiler
- Vertical wood chip / pellet store
- Containerised boiler room fit-out including 3 x 1650l thermal store, high efficiency variable speed pumps, pressurisation unit and heat exchanger
- 55m of Calpex Uno pre insulated underground pipe
- 2 x class 2 RHI compliant heat meters
- Full commissioning, training and RHI application assistance



Key Costs and Benefits

A system similar to the one outlined above is likely to cost around £140,000

Fuel Consumption - 67 tonnes of wood chip vs 24,668 litres of oil

Fuel Cost Savings - Around £4,800 equivalent to a 30% reduction

RHI Payments - Around £21,703 per annum depending on use equivalent to around £623,846 over 20 years (index linked)

Payback Period - Approximately 5 years combining RHI income and fuel cost savings

Project Value – Annual gain around £26,570 per annum combining RHI income and fuel savings. Net project cash flow over 20 years £804,408

CO₂ Savings - 88 Tonnes/year

Figures are approximations based on assumptions made on fuel usage and price, fuel inflation and annual RHI rates and index linked increases as at June 2013.

The Boiler: ETA HACK 199kW Boiler,

Premium Austrian build,

Highest industry safety levels,

Fully automatic, internet access

Turbulator cleaned heat exchanger,

5 Year Warranty

Lambda control

Tilt grate cleaning mechanism

Flue gas recirculation,

Robust industry leading auger

High efficiency 93.5%

