

Wood Heat at Garnons

In June 2003 Econergy installed a 120 kW fully automatic woodfuelled boiler to provide heat for Garnons in Herefordshire.



Garnons, main house

Some 80 tonnes of seasoned woodfuel per year will be sourced from the Garnons Estate on-site forestry operations to provide heating for the house and swimming pool.



The woodfuel hopper and boiler house

Technical summary

- The installation comprises a Veto 120 kW stoker-boiler, Veto Maxi 10m³ fuel hopper and feed auger and Veto 120 kW burner head.
- Combustion is electronically controlled for maximum efficiency and minimum emissions. The system is fully responsive, switching from idle to full output when heat is required.
- Boiler efficiency is greater than 86% (at MCR) and emissions are well within the requirements of the Clean Air Act.
- The boiler is installed in a dedicated external boiler house with a piped hot water connection to the main heating system in the basement oil boiler room.
- The system will deliver an estimated 200,000 kWh / year of renewable heat, avoiding some 73 tonnes of Carbon Dioxide emissions per year.



Econergy's Surefire harvester

Woodfuel supply

- Some 80 tonnes of seasoned (30% moisture) woodfuel per year will replace substantial use of heating oil.
- Woodfuel is sourced from on-site forestry operations; thinning, small roundwood and general tree management.
- Woodfuel is chipped by Econergy's *Surefire Harvester* operated by local contractors, currently being trained on site at Garnons.

Grants

- The installation was supported by a grant from MWEN / Heartwoods. Grants are now also available direct via Econergy and from Clear Skies.



Veto 120 kW stoker-boiler (burner head on the right)