

The Woodfuel boiler at Ardnamurchan Charters was installed for its environmental and economic advantages over the previous oil-fired system. It provides heat and hot water to a large first floor holiday letting apartment, a boat repair shop, the offices of the boat hire enterprise, and drying rooms on the ground floor, all with underfloor heating. The conversion to woodfuel was supported by grant aid from HIE Lochaber, the EU ERDF and Forestry Commission Scotland.



Facts and figures

Boiler: 75 kW Moderator Smok³ – supplied by Dunster Wood Fuels Ltd

Boiler output: 75 kW

Size of fuel hopper: 10m³

Fuel usage: Approx 20 tonnes p/a

CO₂ savings: 15 tCO₂

SUPPLY

Woodchipper: Junkkari HJ500C chipper

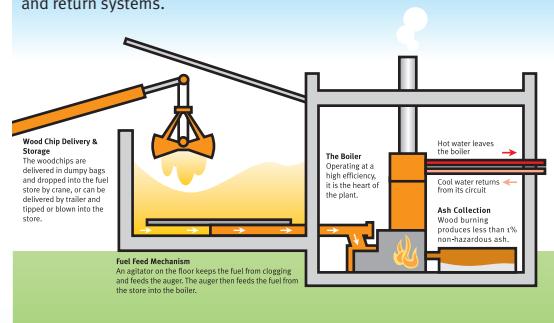
Fuel delivery: In bulk in a 10m³ trailer, then loaded into the hopper using a lorry-mounted grab

Ardnamurchan Charters

Sustainable woodfuel supply and heating

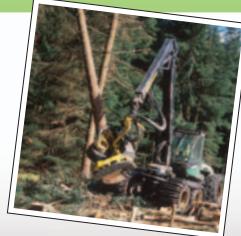
How does a woodfuel boiler work?

Modern installations are fully automated and require minimal attention. The key components are the boiler, fuel handling system, and the flow and return systems.



The fuel supply

The woodchip that fuels the boiler at Ardnamurchan Charters is produced from sustainable sources including Forest Enterprise Scotland and local estates by Richard Livett, whose woodfuel supply company also received grant aid for expansion from HIE Lochaber, the EU ERDF and Forestry Commission Scotland.



Harvesting



Chipping



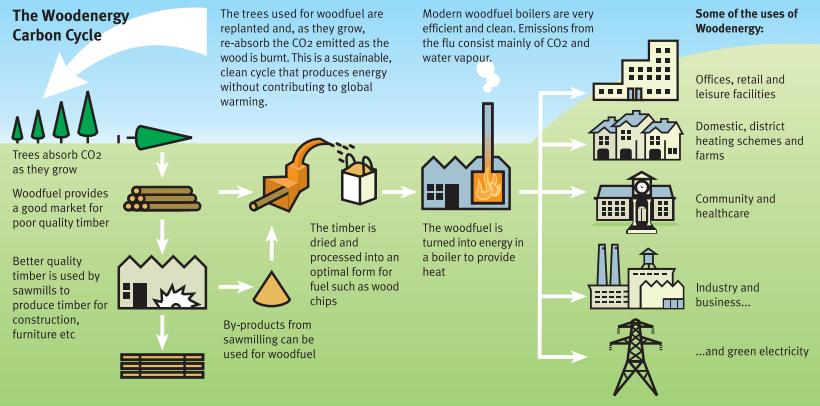
Woodchips



Sustainable Heating with **WOOD ENERGY** SCOTLAND



The Woodenergy Carbon Cycle



What is woodfuel?

Woodfuel is a modern, clean and environmentally friendly alternative to fossil fuels, and is an economic solution for the heating needs of public buildings, industry and business premises, agricultural buildings and households. It comes in many forms including logs, pellets (made from sawdust), and woodchips.

Woodfuel is widely used throughout mainland Europe for heating and power generation and is Europe's most important source of renewable energy providing 53% of all renewable energy.

Trees are planted...



...then harvested as part of...



sustainable wood fuel production



Why biomass?

Supporting the local economy

- local income stream
- more local jobs than any other renewable energy alternative
- new market for forestry and farming industries
- cheaper fuel prices

Environmental Facts

- renewable energy
- clean and safe to store
- promotes sustainable forest management and so can benefit wildlife

Social Benefits

- local employment
- communities can contribute to their own future energy needs
- helps reduce fuel poverty