

Bwlch Nant yr Arian, near Aberystwyth, Ceredigion
Heat purchase contract reduces front-end costs



“Forest visitors **warm to wood fuel**”



The new £750,000 state-of-the-art forest visitor centre at Bwlch Nant yr Arian is located conveniently just off the A44 in a wonderful lakeside setting. The centre's popularity is down to the unique appeal of its red kite feeding station, and it has also become a Mecca for mountain bikers and horse riders. Two scenic waymarked walks with breathtaking views begin at Nant yr Arian, along with an all-ability lakeside trail, giving everyone the opportunity to enjoy the natural beauty of the area.

The centre also has three single-track mountain bike routes offering epic rides for the more adventurous, and two waymarked horse routes. With all this on offer, an anticipated 120,000 visitors are expected within the next five years.



The building was designed with visitor convenience and sustainability in mind, and includes a system for collecting rainwater, which will be used to flush toilets and for a bike wash. Heating and hot water for the visitor facilities, which include showers and a café, is provided entirely by wood chip.

“New Forestry Commission Visitor Centre buys-in to sustainable heating”

Forestry Commission Wales, who own and run the centre, have opted for an innovative 'heat purchase' arrangement, with Machynlleth-based Dulas Wood Energy. This means that the boiler system and fuel store belong to Dulas, who run and maintain the system, taking full responsibility for all fuel supply and maintenance. Heat is accurately metered, and the Centre billed on the basis of usage.

Centre Manager, John Davies, comments, “This gives us the heat we need when we need it, without us having to provide 'up front' funding for the system, or involve centre staff in sourcing fuel, or maintenance tasks. We're naturally pleased that the wood is sourced and chipped locally, but, more importantly, the contract we have means we can just get on with providing a world-beating visitor centre, which also meets with our sustainability agenda. This system offers Co₂ savings of around 80% compared with the oil or LPG alternatives”

Despite sporadic heat demand, as, for example, when cold, wet mountain bikers return for a hot shower, the Froling Boiler has the efficiency and flexibility to cope. It features fully automatic ignition and is self-cleaning, making the estimated time spent on maintaining the system just eight hours a year.”

The installation	Froling TM35, 35kW
Application	Forest visitor centre, with café, shop, and changing/showering facilities
Date commissioned	February 2005
Installers / suppliers	Dulas Wood Energy / Froling Boilers
Operator	Dulas Wood Energy (heat purchase contract)
Features	Auto ignition, auto cleaning, lambda control, fully automated fuel feed system, tilting grate

Fuel	Locally sourced wood chip
Fuel store	Cavity block building, approximately 25m ³ capacity
Maximum frequency of fuel deliveries	Every 8 - 12 weeks
Fuel specification	G30 woodchip
Annual fuel use	Approx 40 tonnes
Annual fuel cost (2006 Q1 prices)	Estimated £1,800 depending on source

Estimated Savings		
Cost savings vs Oil	£2,547 per annum (2006 Q1 prices)	
CO ₂ Emissions	Woodfuel	4.42 tonnes
	Oil	30.97 tonnes
	SAVING	26.55 tonnes



Compact boiler installation integrated with other sustainable technologies.

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