



## Ecodan cascade heat pumps work in hybrid situation with oil boiler

Heating a Georgian country house in rural Shropshire was costing a small fortune in oil for the owner but there were also limits on how much improvement could be made to the thermal properties of the Grade II listed property.

Originally built in 1794, Henlle Hall, in Gobowen near Oswestry is the home of Cosmo Lloyd and his family who have developed the grounds of the estate into a unique, award-winning, and relaxing country retreat with a combination of courtyard cottages and woodland lodges.



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## Case Study

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### Henlle Hall



**ABOVE: The Grade II Listed building is a fantastic home but is also leaky and needs a reliable heating system**



**ABOVE: The three Ecodan units are installed discretely at the back of the property**

## Installation Summary

**3 x Ecodan 11kW air source heat pumps working in conjunction with an existing oil boiler.**

**The Ecodan units are set up in a cascade system which rotates demand to maximise efficiency and prolong equipment life.**

**The system's intelligent controls decide when to switch between the renewable heat pumps and the oil boiler.**

“The solution was to add three Ecodan 11kW renewable heat pumps to provide the majority of heating throughout the year, with the oil boiler kicking in as a last resort when the weather turns extremely cold,” explains Mr Lloyd.

In addition to the 13 bedrooms, Henlle Hall has six grand rooms on the ground floor including the kitchen, drawing, games, dining room, parlour and the feather room (which has borders painted in game bird feathers).

“It is a fantastic, historic building but it is also leaky and there is not much we can do because of the Grade II Listing,” says Mr Lloyd.

Three PUAZ-HW112VHA(-BS) Ecodan units have been installed discretely outside the rear of the property and these work in a cascade system, which means that the heat pumps work individually or together to respond accurately to the heating requirements of the property.

The demand is also rotated between the units so that the work is shared between all three, maximising efficiency and helping prolong the system's lifespan.

Ecodan's advanced intelligent controls mean that the heat pumps work in a hybrid situation with the oil boiler, deciding which heating system to use at any time to ensure that the house is heated in the most economical way possible.

“We had thought that we would simply have to put up with the high costs of running on oil and the problems with winter deliveries, but now this is so much better all round,” added Mr Lloyd.

“We also qualify for the Renewable Heat Incentive on every kW of renewable heating that the Ecodan system generates.”



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Product Type: Heat Pumps  
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