

Ystâd Penpont, ger Aberhonddu, Powys

# “Ystâd yn cyflenwi ei gwres ei hun ac yn datblygu busnes cyflenwi tanwydd pren”



## Tanwydd pren yn ddewis naturiol i ystâd wledig

Mae Penpont mewn llecyn godidog ar lannau'r Afon Wysg gyda brynau de Powys o'i chwmpas. Mae yng nghanol ystâd wledig weithredol 2000 erw sy'n cynnwys 150 erw o goetir aeddfed. Y tŷ yw'r prif atyniad ymhlith grŵp rhyfeddol o adeiladau sy'n perthyn i gyfnodau gwahanol - eglwys, tŷ agweddi, stablau, gweithdai, colomendy ar goesau a thŷ gwydr o'r 19eg ganrif.

“Does fawr ddim wedi newid ym Mhenpont ers canrif a mwy. Mae hyn wedi cyfrannu llawer at y swyn a'r llongyddwch sy'n nodweddu'r tŷ a'r gerddi. Fodd bynnag, dros y blynyddoedd diwethaf aed ati i adfer yr ystâd gan ystyried ei hanes, gyda'r nod o ddatblygu busnes gwledig bywiog a fydd yn sicrhau dyfodol yr ystâd.



## “Y system fio-mâs ddiweddaraf yn gwresogi tŷ rhestredig a llety i ymwelwyr”



Bwyler Binder cwbl awtomatig a thanc cronni cyfaint uchel.

Mae'r tŷ rhestredig Gradd II\* wedi bod yn gartref i'r un teulu ers iddo gael ei adeiladu tua 1666. Ym 1992 symudodd Gavin a Davina Hogg a'u dau fab yno ac agor y tŷ a'r gerddi i'r cyhoedd am y tro cyntaf. Maent wedi datblygu'r lle i fod yn lleoliad unigryw

ar gyfer digwyddiadau a chynadledau bach, ac i grwpiau sy'n chwilio am leoliad gwledig i gael gwyliau cerdded, pysgota a gweithgareddau. Gan fod coed i'w cael ar y safle, roedd hi'n naturiol i'r perchnogion eu defnyddio i wresogi'r adeiladau. A heddiw, mae'r adeiladau unwaith eto'n cael eu gwresogi gan bren ar ôl gosod un o fwyleri sglodion pren diweddaraf Binder.

Meddai Gavin, “Mae Adain y Cwrt yn darparu llety hunangynhaliol i hyd at 17 o bobl mewn chwe ystafell wely. Rydym wedi gosod y bwyler newydd yma i gyflenwi gwres canolog a dŵr poeth i'n hymwelwyr. Mantais arall yw ei fod yn ffordd effeithiol iawn o sychu esgidiau a chotiau ar ôl diwrnod yn yr awyr agored!”

“Mae yna lawntiau eang yn amgylchynu'r tŷ, yn ogystal â hen erddi muriog a rhosod Fictorianaidd a choetir helaeth. Maent yn cael eu rheoli bellach i roi cyflenwad cyson o sglodion pren sy'n darparu gwres a dŵr poeth i'r teulu a'r ymwelwyr. Mae costau gwresogi yn orbenion sylweddol i fusnesau llety ac rydym yn lwcus o allu cyflenwi ein tanwydd ein hunain, sydd hefyd yn ein helpu i allu rheoli ein coetiroedd unwaith eto.”

Roedd y Cynllun Busnes Ynni Pren yn gallu helpu gyda chost yr offer torri yn ogystal â chost cyfalaf y bwyler a'r system. Mae'r teulu Hogg nawr yn bwriadu datblygu'r elfen hon fel busnes arall, i gyflenwi sglodion pren bio-mâs o ansawdd i fusnesau eraill sy'n gosod bwyleri, a chynnig gwasanaeth torri i berchnogion coetiroedd cyfagos.

Mae cynaliadwyedd yn fater pwysig i Ystâd Penpont. Cynlluniwyd y system wresogi fel y bydd yn gwresogi holl brif adeiladau'r ystâd yn y pen draw, yn cynnwys y tŷ mawr, yr adain wyliau, y stablau, gweithdy'r ysgubor, y golchdy, y lleithdy a'r tri bwthyn gwyliau newydd.

|                         |  |
|-------------------------|--|
| <b>System a osodwyd</b> | <b>Binder RRK 130-250, 149 kW</b>  |
| Defnydd                 | Gwresogi gofod a dŵr poeth i holl brif adeiladau'r ystâd yn cynnwys y tŷ mawr, yr adain wyliau, y stablau, gweithdy'r ysgubor, y golchdy, y lleithdy a'r tri bwthyn gwyliau. |
| Dyddiad comisiynu       | Hydref 2005  |
| Gosodwyr / cyflenwyr    | Cyflenwyd a gosodwyd gan Wood Energy Cyf   |

|  |  |
|--|--|
| <b>Tanwydd</b>                                       | <b>sglodion pren o'r ystâd</b>                   |
| Storfa danwydd                                       | Storfa danddaearol 40 m <sup>3</sup>             |
| Amllder cyflenwi yn ystod y tymor gwresogi           | Bob mis  |
| Manyleb tanwydd                                      | Sglodion pren G50 (hyd at 55% o gynnwys llaiith) |
| Defnydd tanwydd blynyddol                            | 100 tonnell (amcangyfrif)                        |
| Cost tanwydd blynyddol (prisiau'r farchnad Ch1 2006) | £4,500   |

|                                    |                                      |               |  |
|------------------------------------|--------------------------------------|---------------|--|
| <b>Arbedion a amcangyfrif</b>      |                                      |               |  |
| Arbedion costau o gymharu ag Olew: | £6,368 y flwyddyn (prisiau Ch1 2006) |               |  |
| Gollyngiadau Co <sup>2</sup> :     | tanwydd pren                         | 11.06 tonnell |  |
|                                    | Olew                                 | 77.42 tonnell |  |
|                                    | ARBEDIAD                             | 66.36 tonnell |  |



Peiriant torri drwm Heizohack yn cynhyrchu sglodion bio-mâs cyson.



Mae monitro tymheredd dŵr a gollyngiadau simnai yn gyson yn sicrhau bod y system yn gweithio mor effeithlon â phosib.

**Cynllun Busnes Ynni Pren**  
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Penpont Estate, near Brecon, Powys

# “Mid-Wales estate supplies all own heat and develops a woodfuel supply business”



## Woodfuel proves the natural choice for a country estate

Magnificently situated in the rolling hills of Southern Powys on the banks of the River Usk, Penpont lies in the middle of a 2000 acre working rural estate, including 150 acres of mature woodland. The house is the centrepiece of a remarkable group of buildings spanning various periods, including a church, Dower house, stables, workshops, a dovecote on stilts and a 19th century conservatory.

Time has stood still at Penpont for much of the last century. This has contributed greatly to the unspoilt charm and tranquillity that characterise the house and grounds.

However, over recent years a challenging yet sympathetic restoration programme has been undertaken, aiming to develop a vibrant rural business that will ensure a viable future for the estate.



## “State of the art biomass system heating listed house and tourist accommodation complex”



Fully automatic Binder boiler and high-volume accumulator tank.

The privately owned Grade II listed house has been home to the same family since it was first built in about 1666. In 1992 Gavin and Davina Hogg, with their two sons, moved in and opened up the house and grounds to the public for the first time in its

history. They have gone on to provide a unique venue for events and small conferences, and for groups seeking a country location for walking, fishing and activity breaks.

Taking advantage of an onsite resource, the natural choice for heating the restored complex was clear. And today, the buildings are once again heated by wood following the installation of a state of the art Binder wood chip boiler.

Gavin comments, **“The selfcontained Courtyard Wing provides accommodation for up to 17 people within six bedrooms. Here we’ve housed the new boiler to supply full central heating and hot water for our guests. It also provides ‘added value’ as a very effective way of drying off boots and coats after a day out in the great outdoors!”**

**“Around the house lie sweeping lawns, the old Victorian rose and walled gardens and extensive woodland. This is now being managed to provide a year round supply of wood chip, providing heat and hot water for the family and guests. For accommodation businesses heating costs are a significant overhead and we are lucky to be able to supply our own fuel, also helping bring our woodlands back under management.”**

The Wood Energy Business scheme was able to offset the cost of chipping equipment as well as the capital cost of the boiler and system itself. The Hoggs are now also planning to develop this element as a spinoff business in itself, to supply biomass-quality wood chip for other businesses installing boilers, and to offer a chipping service for nearby woodland owners.

Penpont Estate is run with a sustainable ethic very much in mind. The heating system has been designed so that it will eventually heat all the main estate buildings, which include the estate house, holiday wing, stable block, granary workshop, laundry cottage, dairy cottage and three new holiday cottages.

| The installation       | Binder RRK 130-250, 149 kW  |
|------------------------|---|
| Application            | Space heating and hot water for all the main estate buildings, which include, Estate House, Holiday wing, Stable block, Granary Workshop, Laundry Cottage, Dairy Cottage, and 3 Holiday Cottages. |
| Date commissioned      | October 2005  |
| Installers / suppliers | Supplied & installed by Wood Energy Ltd   |

| Fuel                                     | self supply wood chip                                 |
|--|---|
| Fuel store                               | 40 m <sup>3</sup> subterranean bunker                 |
| Delivery frequency during heating season | Monthly   |
| Fuel specification                       | G50 wood chip (up to 55% (up to 55% moisture content) |
| Estimated annual fuel consumption        | 100 tonnes  |
| Annual fuel cost (2006 Q1 market prices) | £4,500  |

| Estimated Savings          |                                   |              |
|----------------------------|-----------------------------------|--------------|
| Cost savings vs Oil:       | £6,368 per annum (2006 Q1 prices) |              |
| Co <sup>2</sup> Emissions: | woodfuel                          | 11.06 tonnes |
|                            | Oil                               | 77.42 tonnes |
|                            | SAVING                            | 66.36 tonnes |



The Heizohack drum chipper producing a consistent biomass quality chip.



Constant monitoring of water temperature and flue emissions ensures maximum operating efficiency.

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