



A better choice

National Trust installs first UK LPG-Powered Mini CHP unit



Chris Curtis concludes: "When we embarked on the project, the most important aspect was to be as environmentally friendly as possible. We considered various options, including biomass but this was deemed inappropriate as we don't have any woodland that would provide the fuel for such a system.

"The facilities on site have changed dramatically since the installation so the direct running costs cannot be compared, however, the system is so energy efficient we are looking forward to economical as well as environmental benefits."

Calor has been supplying LPG for over 70 years. We have more experience and technical expertise than any other LPG supplier in the UK. Delivery is taken care of by the largest supply network and one of the largest fleets of delivery tankers in the UK.

The scale of our operation is matched only by the range of applications for Calor which we have developed and supported. As well as familiar uses like heating, hot water and catering, LPG can power cars, buses, vans, forklift trucks, generators and many other commercial and industrial applications. In fact, if you have a power or fuel requirement the versatility of Calor is sure to provide the solution.

For further information:

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Visit www.lpg-heating.co.uk

Or email enquiries@calor.co.uk



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“*The National Trust's design brief was to achieve the site's heating and electrical demands with a minimum carbon footprint and the LPG fuelled CHP unit assisted us in meeting with that requirement*”

- Green building technologies were required by the National Trust and Calor were on hand to advise
- The National Trust has installed the first ever LPG-powered combined heat and power (CHP) unit in the UK
- By generating heat and electricity from a single source, CHP can deliver overall fuel efficiencies well in excess of 75 per cent



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- BUSINESS Trelissick Garden
- NAME Chris Curtis
- POSITION Estate Manager

A National Trust property in Cornwall has become the first in the UK to install an LPG-powered combined heat and power (CHP) unit. The new Baxi Dachs unit is fuelled by Calor LPG.



The site already used Calor LPG to power its catering facilities

Trelissick Garden in Feock near Truro is a tranquil tiered garden, commanding panoramic views down to Falmouth and the open sea. Boasting extensive park, woodland and riverside walks taking in Roundwood Iron Age Fort, Trelissick is also home to the national collection of photinias and azaras.

When work was commissioned to extend and refit Trelissick Garden's catering facilities, the National Trust was keen to use green building technologies where possible. Working in partnership with their heating consultants, SJH Design Services Ltd, the Trust has installed the first ever LPG-powered CHP unit.

Economic and Environmentally Friendly
CHP is an extremely efficient way of producing usable heat and generating electricity

simultaneously at the point of use from a single fuel. CHP offers an economic and environmentally friendly alternative to meeting thermal and electrical demands in many applications.

For Trelissick Garden, the choice of an LPG fuelled CHP unit was obvious. LPG is recognised by the National Trust as a cleaner burning fuel and the site already uses Calor LPG to power its catering facilities. Robert Beeman Senior Engineer of SJH Design Services Ltd said: "In the design process we established that there would be a base electrical load 24/7 and, for most of the year, a base heat load. This made the choice of a CHP unit a natural one and the Baxi DACHS unit was also right in terms of capacity.



The CHP unit offers an economical environmentally friendly alternative to meeting thermal and electrical demands in many applications

Efficient and Economical and the Ideal Solution
Estate Manager, Chris Curtis, adds: "At The National Trust's we are always looking to minimize our environmental impact and consider greener options. This was particularly important when considering a solution for the site's heating and electrical demands and the LPG fuelled CHP unit assisted us in meeting with that requirement.

"The Baxi DACHS unit acts as the lead boiler with the additional benefit of providing on-site electrical generation. The CHP heat output is augmented as required by duty/standby LPG fired condensing boilers controlled from the BMS system"

Single Source Heating and Electricity

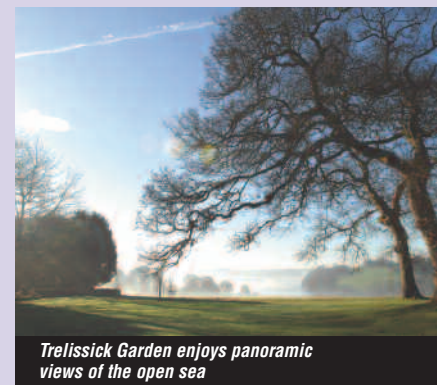
By generating heat and electricity from a single source, CHP can deliver overall fuel efficiencies well in excess of 75 per cent. When compared with electricity generated from a centralised power station, and the use of heat only boilers, CHP can reduce primary energy needs by up to 30 per cent. This can considerably reduce energy costs and deliver significant reductions in harmful greenhouse gas emissions such as carbon dioxide (CO₂).



An LPG powered CHP unit can deliver in excess of 75 per cent fuel efficiencies

Key features of the Baxi DACHS unit are as follows:

- 5.5 kWe gross electrical output, depending on fuel type
- 10.4 to 12.5 kWth heat output
- Overall fuel efficiency between 79% and 92%
- Compact, integrated package design
- Noise levels as low as 52 dB(a) at 1 metre
- Easy to install and operate
- 80,000 running hour design life
- Up to 10 DACHS can be installed in a multi module arrangement
- Complies with G83/1 recommendations for SSEG
- Integrated modem for off-site monitoring and control



Trelissick Garden enjoys panoramic views of the open sea

Paul Riding, Calor's New Market Development Manager, believes that more companies will now follow the National Trust's lead: "The National Trust has demonstrated that through its installation in Cornwall heat and electrical demands can be achieved with a minimum carbon footprint. We believe that other organisations across the UK can benefit from this technology and will be actively marketing it in the coming months."



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