



ENER-G
RUDOX



Case study - Hotel

ENER-G's CHP is helping the Hotel sector reduce energy costs and lower greenhouse gas emissions

The Imperial London Hotels, London

At the Group's Royal National, Tavistock, Imperial and President Hotels they provide nearly 3,000 guest rooms for visitors to the Capital.

The company already had a fleet of five 110kW_e systems, and at the end of their original 10 year contract decided to upgrade them to larger units from ENER-G Combined Power.

Being in close proximity to one another, the four hotels are served by two plant rooms, with two plant rooms on standby to act as backup during scheduled maintenance periods.

The Royal National and Tavistock hotels share one 122kW_e and one 225kW_e unit. The Imperial and President Hotels share two 122kW_e units.

Dave Bridges, Chief Engineer at The Imperial London Hotels, explained:

"One factor that led to us choosing ENER-G for the replacement was that part of our heating system operated at high temperatures – up to 100°C." Dave continued, "This was well within the capability of the Mercedes powered unit they offered us."

Rather than purchase the systems outright, they chose to use ENER-G's Discount Energy Purchase agreement. Under this arrangement, they agreed to buy energy at discounted rates, thereby making immediate savings. It is estimated that the systems will save the group over £40,000 per annum. The average carbon savings are approximately 800 tonnes of CO₂ per annum, the equivalent of planting 80,000 trees.



ENER-G 125 unit

ENER-G's experience in the cogeneration market dates back to 1984 when we began designing, manufacturing, installing and maintaining cogeneration systems.

We have manufactured over 1400 CHP units from 4kW to 2MW and currently operate and maintain over 500 units around Europe.

Combined heat and power (CHP) – the simultaneous generation of electricity and useful heat - is almost twice as efficient as conventional power generation as the majority of heat is recovered and used on site, rather than wasted into the atmosphere. The Typical pay back period on CHP technology varies between two to four years.

ENER-G delivers small-scale 4kW to 10MW CHP solutions to customers

around the world and it offers the broadest product range on the market, incorporating more than 1,400 installed cogeneration systems across the globe – powered by natural gas, biogas, diesel, biogas, propane or biodiesel

The applied CHP technology enables the organisation to generate its own electricity, radically reducing carbon emissions. This method is highly energy efficient (85 per cent) as it recovers heat created in the electricity generation process and avoids transmission losses because the energy is used locally.

In conventional power stations, which are only 30 per cent efficient, this heat is wasted because it disappears into the atmosphere. Instead, hotels and leisure centres can use it to provide heating and hot water.

The benefits of CHP in the Hotel sector:

- Offers financial savings over conventional energy supply
- Avoids Climate Change Levy
- Primary energy savings deliver lower energy bills
- Higher efficiency offers reduced greenhouse gas emissions offsetting the impact of the Carbon Reduction Commitment
- Greater security of supply and plentiful hot water
- Flexible procurement options
- Zero CAPEX required
- VAT savings
- Possible grant funding

About ENER-G

ENER-G develops, delivers and finances sustainable energy solutions and technologies on a business to business basis worldwide. We offer a "one-stop-shop" for all commercial and industrial energy requirements, from combined heat and power (CHP), renewable electricity generation from biogas, heat pump technologies, efficient lighting, controls, metering and data solutions and energy from waste.

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