

## How CHP from ENER-G Combined Power is helping the Hotel sector reduce energy costs and lower greenhouse gas emissions

This case study looks at two organisations in the Hotel sector that have reaped the benefits of cogeneration (or CHP).

### The Imperial London Hotels

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 110kWe 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 122kWe and one 225kWe unit. The Imperial and President Hotels share two 122kWe 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."



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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 £10,000 per annum**. At the time of writing they had accumulated a **CO2 reduction of 443 tonnes**.

### **Radisson Manchester Hotel, Free Trade Hall**

Owned and operated by the Radisson Edwardian Group, the 263 bedroom five-star hotel was built on the famous Free Trade Hall site and carefully preserved the listed Italianate frontage.



ENER-G assisted the project's Consulting Engineers at the design stage, to ensure that the CHP system specified would be of optimal size to meet the demands of the site. This was critical as the system was also required to provide power for emergency ventilation, lighting and other services.

Following this design work, ENER-G successfully tendered for the contract, which included the supply (capital purchase) and commissioning of one 206kWe CHP unit. The unit was situated

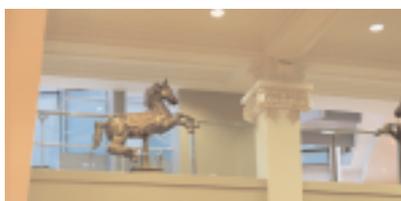


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inside the roof-top plant room, surrounded by an acoustic enclosure with anti-vibration mountings to prevent noise.

It is estimated that the system will annually **save the client more than £33,000 and 346 tonnes of Carbon Dioxide (CO<sub>2</sub>)**. Now in full operation, ENER-G are providing Radisson with their all-encompassing “Premier Plus” maintenance contract, which provides the site owner with round the clock support.



The benefits of CHP from ENER-G in the Hotel Sector

Offers financial savings over conventional energy supply:

- Avoids Climate Change Levy
- High efficiency reduces energy wastage, resulting in lower energy bills

Higher efficiency offers significant reduction in greenhouse gas emissions

Greater security of supply, and plentiful hot water meets the needs of space heating and hot water system

Flexible procurement options  
– No CAPEX required

ENER-G Group is a leading distributed power generation and energy management company, providing clean energy initiatives with visible benefits to the environment.

As well as ENER-G Combined Power, the group's business activities include renewable power generation from landfill gas, energy from waste, and energy management.

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