

Powering Efficiency for a Leading International Hotel Brand



Project Overview

Located in Birmingham, Bromsgrove, Colchester, Chester and Carnforth, this leading international hotel brand welcomes guests from across the globe, offering exceptional hospitality for both leisure and business travellers. With extensive facilities including restaurants, meeting spaces, and leisure amenities, the hotels operate around

the clock, placing considerable demand on their energy systems.

To address rising energy costs and enhance sustainability, each site has invested in high-efficiency Combined Heat and Power (CHP) units from 2G Energy, installing two g-box 50plus modules per location.

Energy Integration & System Efficiency

The CHP systems have been seamlessly integrated into each hotel's existing plant room, supplying both heat and electricity more efficiently while reducing reliance on grid power. Designed for continuous operation, the systems meet a significant portion of the hotels' daily energy needs, allowing existing boilers to be placed in standby mode.

Key Operational Advantages Include:

Maximised CHP Operation: The g-box systems operate continuously, automatically adjusting to each hotel's energy demand profile. All generated electricity is consumed on-site and optimising return on investment.

Thermal Priority: With 2 x 93kW of combined thermal output per site, the CHPs offset the need for boiler operation during peak hotel occupancy, maintaining consistent heating and hot water for guests.

Cost Reduction: Significant decreases in grid electricity purchases and reduced boiler run hours directly lower operating costs, a crucial benefit in an industry facing rising energy prices.

Supporting a New Standard for Multi-Site Hospitality

The introduction of CHP technology represents a strong step towards more sustainable hotel operations. With improved efficiency and reduced fuel consumption, these hotels are enhancing their environmental performance while maintaining high standards of guest comfort.

Lower Carbon Impact: By operating high-efficiency CHPs and using green bio-methane natural gas more effectively, the hotels reduce their overall emissions

compared to conventional boiler and grid electricity usage.

Energy Resilience: On-site generation reduces exposure to volatile energy prices and improves supply stability across all sites.

Guest Experience: From comfortable room temperatures to reliable hot water supply, guest satisfaction is maintained at peak demand periods without compromise.

Setting a New Standard for Multi-Site Hospitality

By rolling out identical CHP installations across multiple sites, this leading UK hotel chain demonstrates the scalability of sustainable energy solutions in hospitality. With efficient, 24/7 on-site power and heat generation, reduced dependence on boilers, and optimized operational costs, these hotels are setting a benchmark for how multi-site operators can futureproof their energy strategy while delivering exceptional guest experiences.



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2 x g-box 50plus per location
Natural gas and bio-methane
50 kW electric
105 kW thermal

