

Trigeneration solution for four star hotel

Garryvoe Hotel has installed an advanced trigeneration energy system to minimise operating costs and increase energy efficiency.



Demanding energy transformation

Based in Cork, the four star Garryvoe Hotel, with 84 bedrooms, conference centre and health club, needed an energy management system to meet its growing demands. The environment, energy efficiency and economic conditions were all driving factors for the transformation, and natural gas was chosen to replace the hotel's more expensive LPG fuel consumption.

New CHP system for hotel redevelopment

Working with its partner, Temp Technology, Centrica Business Solutions provided a natural gas connection using a Combined Heat and Power (CHP) system which would minimise operating costs and reduce the impact on the environment, while maximising energy efficiency.

Redevelopment of the Garryvoe Hotel included relocating the rooftop boiler house. The CHP unit and extra boilers were installed close to the new health club in a custom built thermally insulated and sound proof boiler enclosure on the ground and first floors. Insulated pipework links were installed to the old boiler house location to make use of the existing pipework. The CHP system installed was the ENER-G 150, generating 150 kW of electricity and 235 kW of heat.

The results

Installation of the new CHP/trigeneration system has provided the hotel with energy savings of up to €130,000 per year, reduced CO₂ emissions, lowered carbon tax, increased security and continuity of power supply, and provided conservation of valuable fuel resources. The payback on investment was around 2.5 years.

The hotel achieved a Platinum Award from the Green Hospitality Association of Ireland as a result of the energy conservation solutions.



Energy savings per year



Annual carbon reduction



CO₂ emission reduction per year

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Garryvoe Hotel, over the last four years, has invested circa €325,000 on its CHP/trigeneration energy system throughout the hotel and health club. The efficiency of the machinery and processes involved in Combined Heat and Power was one of the main reasons why we invested in this project.”

Stephen Belton, Managing Director, Garryvoe Hotel

Why Centrica Business Solutions?

- Experienced in successfully working in collaboration with partner, Temp Technology, which supplied and commissioned the CHP system
- Market leader in providing businesses with the most cost-effective energy solution
- Extensive knowledge of delivering CHP/trigeneration technology for the hotel and leisure sector