

No. 1 Pery Square Hotel

Limerick

Micro Combined Heat & Power Installation (CHP)



Case Study



Introduction

Set overlooking the tree lined “People’s Park” in Limerick’s historic Georgian Quarter, No. 1 Pery Square is a luxury townhouse hotel & spa, boasting 20 bedrooms and the award winning Brasserie One restaurant. No. 1 Pery Square has been fully restored with all its original architectural features expertly reinstated in precise details. This five-year labour of love for owners Patricia and George Roberts was recently rewarded with a listing in the ‘Conde Nast Traveller’ magazine’s Hot List 2009, one of the most significant accolades in the hospitality and tourism industry.

Economic/Environmental benefits of CHP at No. 1 Pery Square

Given the energy demands of the spa, it was decided at design stage to incorporate into the heating system a CHP sized to the base thermal loads of the spa, with the hotel and spa benefiting from the electricity that the CHP would generate. A final design incorporating three 5.5 kWh electric/12.5kWh thermal micro CHP units were installed. These CHP units were installed in conjunction with two 70kWh high efficiency condensing gas boilers to ensure the complete installation exceeded the hotels thermal requirement. The CHP also incorporated additional external flue gas heat exchangers, or “condensers”, to extract up to a further 2kWh of heat from the units, and boost their overall efficiency up to 99%. Energy and carbon savings from the combined installation of the three units will be in the region of €10,000 and of 30,000 kg CO2 per annum respectively.

Technical Specifications		Design Team	
CHP Model:	Dachs Micro CHP	CHP Supplier:	Kinviro Limited Ph: 01 4433825
Manufacturer:	SenerTec GmbH	Consultant:	Chris Murphy, Cork Ph: 021 4540012
Fuel Type:	Natural Gas	Register Gas	
Fuel in:	20.5kWh	Installers:	Mechanical Building Services Ph: 021-4507444
Electricity out:	5.5kWh		
Heat Out:	12.5 to 14.8kWh		
Efficiency:	88% to 99%		

Owners Perspective (Advantages of CHP)

Patricia Roberts and her staff are most pleased with their decision to choose the installation of CHP technology to handle the base load for power and hot water at Limerick’s newest hotel and spa, No. 1 Pery Square the ancestral home of Lord Barrington. The Combined Heat and Power technology operates very efficiently while resulting in lower electricity and water heating costs thereby contributing to a greener environment by significantly reducing carbon emissions.

Source: Patricia Roberts Owner No. 1 Pery Square Hotel

