

Crowne Plaza Hotel Brussels

Hotel

Main CHP project indicators

Heat capacity (total)	kW _{th}	207
Electrical capacity (total)	kW _{el}	140
Technology	Motor engine	
No. of units	1	
Manufacturer	ESS-VIESSMANN	
Type of Fuel	Natural gas	
Heat: yearly generation	MWh	1,400
Electricity: yearly generation	MWh	850
Year of construction	2010	
Total investment costs	EUR	230,000
Financing	Own funds	
State support	Investment subsidy Certificates Tax reduction	
Location	Brussels, Belgium	

General description of the case

Crowne Plaza “Le Palace Hotel” in Brussels is part of the PANDOX group and has 350 rooms and an area of 28,000 m². Compared to 2008, the hotel has reduced its 2010 energy consumption by 60 % in natural gas and 20 % in electricity through the implementation of energy savings actions.

A VIESSMANN - ESS cogeneration unit with an electric power of 140 kW and a heat power of 207 kW was then installed in October 2010. This unit operates 24h/24h from mid-summer season and 16h/24h in summer.

Success factors

A preliminary energy audit leading to a heat needs reduction together with a detailed study including energy online monitoring are the key factors for effective sizing. After commissioning, the key factor is online monitoring creating the opportunity to optimize the unit.

Picture



Main barriers

The following have been the main barriers:

- Technical aspects of the installation,
- Complex administration of the certificates,
- Boiler room control in order to optimize the operating hours.

Conclusions

Good controlling strategy for boilers and preliminary heat needs reduction together with a sound detailed study.