

Aegean & Egnatia Hotels

Hospitality sector

Main CHP plant indicators

Electrical capacity (total)	kW _{el}	40
Heat capacity (total)	kW _{th}	86
Technology	Motor engine	
No. of units	2	
Manufacturer	PowerTherm Energie Systeme GmbH	
Type of Fuel	Natural gas	
Electricity: yearly generation	MWh	145
Heat: yearly generation	GJ	360
Year of construction	2006	
Total investment costs	EUR	142.700
Financing	Own funds	
State support	Investment subsidy	
Location	Thessaloniki, Greece www.estiaconsulting.gr akats@estiaconsulting.gr	



Pictures



General description of the case

ESTIA Consulting & Engineering S.A. installed 2 micro CHP units in "EGNATIA" and "AEGEAN" hotels, situated within the city center of Thessaloniki, Greece.

Micro CHP unit is based on natural gas engine, coupled with a synchronous electrical generator and heat exchangers.

By recovering heat hot water for the hotels is produced. Hot water is continuously used as sanitary hot water all over the year, while during the winter is used also for space heating, saving light fuel oil.

The micro CHP units co-operate with a solar collectors system for hot water production and are among the first "hybrid RES & CHP" installations in Greece.

Finally, the annual estimated profit from this micro CHP project is about 14.000 € per hotel making the investment viable.

Success factors

The implementation of the CHP project in “EGNATIA” and “AEGEAN” hotels is deemed successful. For the viability of the project the state support was crucial, despite the barriers.

ESTIA Consulting & Engineering S.A. aims to further implement similar projects in Greece, either with state support or private funds.

Since the legislation for the renewable energy sources in Greece is getting mature, cogeneration is becoming more attractive as an investment.

Main barriers

The barriers that encountered this project are mainly bureaucracy and the natural gas price (2006).

In Greece bureaucracy is the main obstacle for such investments and a considerable amount of time is needed to deal with it.

Natural gas price, which affects the profitability of the investment, depends upon the supplier’s tariff policy.

Recommendations

Having the technical experience in cogeneration ESTIA Consulting & Engineering S.A. is aiming at installing new applications in hotels, buildings and complexes.

ESTIA is active also in the industrial sector and is planning to implement a CHP plant in a heavy clay industry.

