

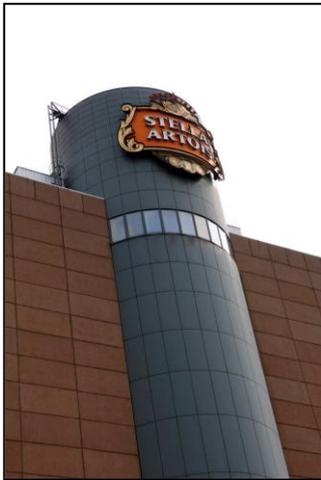
## AB Inbev

### Brewery

#### Main CHP project indicators

Heat capacity (total)	kW <sub>th</sub>	75 t/h steam 3,5 bar(g)
Electrical capacity (total)	kW <sub>el</sub>	4200
Technology	Steam turbine	
No. of units	3	
Manufacturer	VCE	
Type of Fuel	Natural gas	
Heat: yearly generation	MWh	550000 GJ
Electricity: yearly generation	MWh	25000
Year of construction	2011	
Total investment costs	EUR	approx. 12 M€
Financing	Own funds	
State support	Certificates	
Location	Leuven, Belgium	

#### Picture



#### General description of the case

Steam generation for the ABI brewery in Leuven; electricity generation with Gas turbine (CHP). Boiler water treatment. New building compliant with the actual targets of noise reduction. Relocation in order to free the old industrial area for residential development (Master plan "2-Waters" Leuven).

#### Success factors

The steam and electricity capacity are well adapted to the steam supply to the energy needs of the brewery.

Greenhouse gas emissions are reduced with a factor 3, energy consumption is reduced with 5-10 % and water consumption with 15 %. A financial analysis proved that the ROI (return on investment) would be less than 4.5 years. The financial support (certificates) was crucial in the decision process, without these the investment would probably not have been made. However, one of the decision criteria is the requirement that the installation should still be profitable in global market conditions, i.e. without any incentives.

The installed CHP has an overall efficiency of 92 %.

#### Main barriers

As a company whose core business is not electricity generation, obtaining certificates took a lot of time. Furthermore, some technical details had to be modified during the project to comply to regulatory changes. This can lead to unexpected extra costs (e.g. for metering), time delay, uncertainties and therefore extra risks.

More difficult than the installation itself, was the city planning and the alignment of industrial development with development of city of Leuven, e.g. a relocation of the installation was necessary in order to free the old industrial area for residential development (Master plan '2-Waters' Leuven). Due to the proximity of this residency, the new building had to be compliant with the actual targets of noise reduction. The noise emission outside the boiler house is less than 35 dBa.

#### Conclusions

Even when steam and electricity production are well adapted to the energy needs, and payback times are interesting, other barriers may hamper the decision making process.