

VAS Energy Systems International GmbH

Industrial development, production and maintenance of industrial cogeneration plants from 2 to 25 MW.

www.vas.co.at



inspiration for clean energy®

Biomass Plant Heathrow Airport Reference



Heathrow Biomass Energy Center powered by virgin wood

As part of Heathrow Airport expansion concept and realization of the new Terminal 2, Heathrow Airport Ltd. also included a self-sufficient and CO₂ reduced power generation.

Therefore Heathrow Airport Ltd. choose technology of a solid biomass powered thermal oil plant with 11,5MW_{th}.

Produced energy is used to power an ORC unit (**O**rganic **R**ankine **C**ycle) to generate 1,8MW_{el} power. Remaining heat of 7,8MW_{th} after process of electrical power generation is used for Terminal 5 (opened in year 2008) and new Terminal 2 (opens in June 2014). Terminal 5 and 2 are connected by two new installed thermal conductions (both running below the two runways of the airport) to the within the south of airport area located Biomass Energy Center.

Heathrow Biomass Energy Center covers it`s fuel demand (2,8tons @ W30 per hour at full load) of the near forests around greater London area and signed a fuel delivery contract with a local supplier for next 15 years.

Technical Data

Thermal input	11,5 MW
Thermal output	7,8 MW
Electrical output	1,8 MW
Fuel	virgin wood chips
Permission	TÜV Pressure Equipment Directive 97/23/EC



Scope of Supply by VAS

- Fuel handling
- Biomass plant
- Thermal oil plant
- Deashing
- Dedusting by electrostatic precipitator (↓ 10mg/Nm³)
- Condensation (to avoid plume down to -5°C outdoor temperature)

First deliver of heat

December 2012

Heathrow
Making every journey better

