



The Dome, Doncaster

Doncaster Culture & Leisure Trust



Project Details

Client: The Dome, Doncaster (Doncaster Culture and Leisure Trust)

Facilities:

- > Split level ice rink
- > Swimming complex
- > Large children's playzone
- > Leisure and health facilities
- > Large scale conference and exhibition spaces
- > Bar and restaurant



Goals: Reduce leisure centres operating costs

Areas of demand:



Electricity - lighting and power for public areas, bedrooms and leisure centre facilities



Heat - hot water production for swimming pools, leisure facilities and space heating



Air conditioning systems - used to keep rooms and whole complex cool

Challenges

- Due to the size of the site and the variety of facilities that are provided, energy usage, without proper management, can easily spiral out of control
- Removal and disposal of an old, inoperative CHP solution
- Installation of the EuroSite solution and removal of the old system was challenging due to limited access in the plant room

Solutions

Implemented: "EuroSite Power On-Site Utility Solution"

Installed

- TEDOM L330: 331 kilowatt combined heat and power systems (CHPs)
- Roller shutter door to provide access for system removal and installation

"Our relationship with EuroSite Power is helping us to control costs, particularly against the impact of carbon taxes. With zero upfront costs and immediate, guaranteed and risk-free savings, the EuroSite Power solution makes perfect sense to us." **Terry Parker - The Dome's Head of Facilities and Company Secretary**

Savings and Benefits



Forecast electricity generated by EuroSite Power On-Site Utility Solutions



Forecast heat generation by EuroSite Power On-Site Utility Solutions

*Year 1 forecast savings. Contracts will run for 15 years.

About EuroSite Power On-Site Utility Solution



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The on-site utility model offered by EuroSite Power provides energy efficient solutions that produce electricity, heat, hot water and cooling by financing, installing, operating and maintaining complete cogeneration and cooling systems tailored to a customer's specific site requirements.

Benefits include:

- > Guaranteed, instant energy cost savings
- > No capital outlay means no equipment payback period
- > Overall reduction in operating costs
- > No operating expenditure for the equipment
- > An off balance sheet financial solution
- > Increased cash flow from day one
- > Further financial savings by reducing the costs of environmental taxation e.g. Climate Change Levy, CRC Energy Efficiency Scheme and EU ETS

Delivery of Solution

The Doncaster Dome had an out of service ABB 280kW CHP unit on site that had been installed 20 years previous to EuroSite's involvement. Whilst it hadn't been a priority to replace and remove the old unit, this changed when the Doncaster Culture & Leisure Trust underwent some corporate restructuring, which meant it would be caught by the Carbon Reduction Committee (CRC) energy efficiency scheme as its total annual half hourly electricity consumption would be over 6,000MWh. The Trust quickly identified that using CHP to generate electricity on site would avoid the CRC.

The contract included the removal and disposal of the existing CHP unit. In itself this was a challenge as plantroom access was limited. The solution was for us to install a roller shutter door to the plantroom that would allow us to both remove the old unit and install its replacement.

The TEDOM L330 (based on a Liebherr engine) was selected due to its very high electrical efficiency. As such the project was the first Liebherr engines TEDOM solution installed in the UK.

On-going service

EuroSite Power assumes all responsibility for the operation, maintenance and performance of all systems. We pride ourselves on being able to ensure continuity of supply and optimal functionality for all of our on-site solutions. EuroSite Power's maintenance programme includes the following services::

- > **A comprehensive helpdesk service**
- > **Strategic and preventive maintenance to enhance equipment reliability and reduce potential failures**
- > **Predictive assessments of the equipment to forecast maintenance work orders**
- > **Statutory maintenance to comply with specific legal regulations**
- > **Long term planning – a complete asset management program that tracks all major facilities**
- > **Regular reporting and annual review**
- > **Responsive fault call-out and efficient facility refinement**
- > **A committed collaboration that seeks to guarantee client objectives**

Contact us today

Set up a site assessment and start your energy cost savings.

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