

Monkstown Pool & Fitness Centre, Dublin, Ireland



Environmental Benefits

The installation annually reduces CO₂ emissions by 175,000kg based on offsetting natural gas heating and imported electricity.

Host Organisation

Dun Laoghaire Rathdown Council
Monkstown Pool & Fitness Centre
Monkstown Avenue
Monkstown
Co Dublin

Equipment Supplier

Low Carbon Solutions Ltd
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Location

Monkstown Pool & Fitness Centre is located in South Dublin and is one of several leisure facilities owned and operated by Dun Laoghaire Rathdown County Council

Site Description

The leisure complex has an extensive range of sports facilities including a 25 metre swimming pool, a 5 metre learner pool, fully equipped gymnasium, sauna, all weather pitches and outdoor skatepark.

Project Summary

As part of the councils ongoing strategy to make both cost and environmental savings, Low Carbon Solutions were tasked with carrying out a CHP feasibility study which demonstrated that with the all year round demand for heat and electricity, a CHP unit offered the best solution.

Low Carbon Solutions supplied and installed a Tedom 81kWe CHP unit operating on natural gas in an external sound attenuated container at the rear of the leisure complex. The container has also been painted in line with the building to ensure it blends in with the outlook.

The CHP unit provides electricity to the main site low voltage switchboard,

thereby reducing the need for imported electricity from the ESB network.

The thermal output from the unit is in the form of low pressure hot water at 80 deg C which is fed directly into the common low pressure hot water return header. The CHP/boiler control strategy is configured to ensure that the CHP unit is the lead source of thermal energy, thereby minimising the amount of natural gas used by the boiler plant.

The CHP unit operates 15 hours a day, 365 days a year, with its performance monitored by Low Carbon Solutions service department. A microprocessor control system is used to operate all aspects of the CHP. The system provides all year round monitoring, data collection, performance reporting, customer reports and engineer despatch to site should this be necessary.

Benefits

The CHP unit is owned and operated by Low Carbon Solutions on behalf of Dun Laoghaire Rathdown County Council, reducing the financial and operational risk of managing such a scheme. As part of the project, Low Carbon Solutions were successful in obtaining a capital grant from the Sustainable Energy Ireland CHP Deployment Programme.