



Cogenco and the success of CHP at Afan Lido, home of the Aquadome



Cogenco supplied, installed and commissioned a 210kWe combined heat and power unit at Wales' leading leisure complex Afan Lido.

Afan Lido is regarded as Wales' premier leisure complex and is home of the "Aquadome", an exciting array of water slides and water river rides alongside relaxing spa pools. The leisure complex also has a sports arena with a 700 seat capacity, perfect for sporting events as well as being able to support pop concerts and exhibitions.

The combined heat and power unit has been installed in the plant room of the leisure centre on a concrete base that has been especially prepared to support the unit. The 210kWe unit is in an acoustic enclosure made from zinc enamelled sheet steel and insulated with sound absorbing material and has been designed specifically for an indoor location. The sound level is less than 75dB (A) at 1 metre on full load. The canopy has also been designed with access doors and lighting for easy maintenance.

The Cogenco combined heat and power unit runs for 17 hours a day, and is closely monitored by Cogenco's remote monitoring centre based at Horsham, West Sussex. Cogenco's Integrated Management System, IMS has been designed specifically to monitor combined heat and power units. The unit has achieved 98.2% availability ensuring that the anticipated savings are met; this percentage even includes time for routine servicing when the unit is not in operation. The electrical output and control modulates to the sites electrical load.

It is anticipated that the Cogenco 210kWe unit will save Afan Lido around £50k in energy costs annually, a very significant saving. This saving takes into consideration the Climate Change Levy, for which all of Cogenco's units have been stringently tested.

The combined heat and power unit is maintained under a comprehensive maintenance contract providing servicing, repairs and engineer call out should this be necessary.



The savings in CO2 emissions coming into operation the Cogenco combined heat and power unit has already made a 116 tonnes saving in CO2 emissions, on an annual basis you are looking at a saving of at least 432 tonnes.

Neath Port Talbot Council established Celtic Community Leisure in 2003 to manage leisure facilities in the area. They are a non profit organisation and the first Trust to be set up in Wales to manage leisure facilities on behalf of a Local Authority; they currently have nine leisure centres and swimming pools to run.

Gareth Nutt, Neath Port Talbot County Borough Council commented " the leisure centre is a great benefit to the community, being able to provide these premier facilities whilst being able to have the benefit of CHP by saving energy costs and CO2 emissions, makes it even more worthwhile".

Peter Morgan, Energy Manager, said "increasing energy prices have made CHP a very realistic option. Not only is there a 40% improvement on energy consumption when compared to conventional methods you are in control of your own on site electrical generation, an important aspect for anyone dealing in energy and continually reviewing costs".

Cogenco Limited has over 20 years experience in the combined heat and power market. Our range has been developed during that time in conjunction with the world's leading engine manufacturers. Our unit range is from 82kW_e to 2MW_e and can operate on a variety of fuels including natural gas, biogas, biomass, biodiesel and landfill gas. We offer all our customers a complete package, including in-house design and development, assembly, installation and project management, comprehensive technical advice and support. The assembly, test cell and remote monitoring centres are based at our Head Office in Horsham, West Sussex. Cogenco currently has over 450 units installed in the UK, and over 100 units in Europe and Asia.



Cogenco Limited is a leading producer of combined heat and power systems. We offer our customers a complete package, including in-house design and development, assembly, installation and project management, comprehensive technical advice and support.

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