Edina continues with winning ways in the growing Irish gas generator and CHP markets

In a time of austerity and recession Edina is proving to be the exception to the rule and is continuing to have a very successful period in the Irish Gas Generator and Combined Heat and Power (CHP) markets, with the award of three further high profile projects at Queen's University Belfast, Whiteriver Landfill Site operated by Louth County Council and at Altnagelvin Hospital.

Edina manufacturing facility in Lisburn

Edina's manufacturing warehouse

Edina is supplying the highly efficient and reliable MWM product in accordance with its exclusive distributor agreement for Ireland and the UK, with a total of five units ranging from 400kWe to 1200kWe being supplied across the three sites.

Whiteriver Landfill Site:

Louth County Council operates the Whiteriver Landfill Site located at Collon, Co. Louth. In late 2012 the Council was given the go-ahead for plans to generate power by burning gas from the site. As part of its licence from the EPA Louth County Council commissioned an energy audit and its principal recommendation was that the landfill gas generated on the site should be used to fuel an electrical generator facility to export power to the national grid.

Fully containerised Landfill Gas Generator supplied to Louth County Council by Edina for the Whiteriver Landfill Site – Power Generation Project

Previously the gas had simply been burnt at a flare facility on site. The new plant will have the capacity to generate 1.4 megawatts of power for the national grid and will provide a source of revenue for approximately 15 years to fund the aftercare and maintenance costs of the landfill, which is due to close in mid-2013.

In accordance with the RPS, the Council's consultant and the tender and procurement processes, Edina was awarded the EPC contract to supply two new fully containerised Landfill Gas Generators with a total electrical generating capacity of 1.4MW. In addition to the associated equipment required for a complete turnkey installation of a power generation plant this included all switchgear, transformers, electrical and mechanical services.

Both containerised generators will be designed and manufactured in Ireland to match the client's requirements at Edina's manufacturing plant at Lisburn, Co. Antrim. The controls will include the Edina Operating System (EOS), the remote monitoring and reporting system developed by Edina, which is designed to maximise the operation.

Altnagelvin Area Hospital:

Altnagelvin Area Hospital is an acute hospital which offers a range of services, including a 24-hour Accident and Emergency Department and is one of Northern Ireland's five designated cancer units. It has 481 inpatient beds and 48 day-case beds.

The hospital is currently undergoing a major redevelopment programme including the installation of a new CHP unit and diesel generator and the relocation of an existing 1Mwe CHP unit previously supplied by Edina to a new plant room as part of the boiler house upgrade.

A number of suitable candidates were selected by the hospital and its consulting engineer, Varming, which is part of the multinational Varming International Alliance Group, to tender for the supply of a new purpose built containerised 400kWe CHP unit to be located externally behind the boiler plant room. As the location is a particularly noise sensitive area the container has been designed to run at an extremely low noise level as calculated by Edina's in-house design team.

The CHP unit, as well as producing electricity to be used on site, also recovers heat from the engine jacket, intercooler, lube oil circuits and the exhaust gases through a shell and tube type Exhaust Gas Heat Exchanger. This low grade hot water is utilised in the existing hospital infrastructure, via a Plate Heat Exchanger, which offers a completely independent system thus not interfering with the existing site facilities.

With Edina's vast product range the company is also able to provide a client with MPHW, Thermal Oil or saturated steam from the heat recovery system.

Queen's University Belfast

Queen's University Belfast is one of the UK's leading research intensive universities. Its heritage stretches back 160 years and as a member of the Russell Group of the UK's 24 leading research-intensive institutions is home to more than 17,000 students and 3,000 staff. Queen's is currently investing over £200 million in student and staff facilities throughout the campus, with the two new CHP units being installed as part of this major redevelopment.

After successful completion of pre-qualification Edina was chosen as one of the University's preferred bidders and placed on a select list of tenderers for the full turn-key installation of the two CHP units. Once the tender stage had been completed Edina was awarded the contract to supply a MWM TCG2016V16C with an electrical output of 800kW for the Ashby / David Kerr Building installation while a MWM TCG2020V12 unit, giving an output of 1200kW electrical, was selected for the main building.

Edina was selected due to its economically advantageous proposal offering high financial savings with low life cycle costs and as a long established company formed in 1985 the fact that it offered local product support as the official distributor of the manufacturer in Ireland and the UK.

All design and manufacture was bespoke, fully to the client's specific requirements and carried out in-house at Edina's manufacturing facility in Lisburn.

Fully containerised 1200kWe CHP Unit, including full heat recovery, being supplied to Queen's University Belfast