CASE STUDY

TYNESIDE CYRENIANS - 10kW MICRO-CHP

- Full design, install and commission
- District heating network serving main building and greenhouses
- First Yanmar production unit to be installed in Europe
- Electricity used onsite and for export

BESPOKE DESIGN

Each installation is designed to meet specific client requirements with full computer simulation used to prove all designs.

ENERGY EFFICIENCY

As approved Carbon Trust Consultants, we will ensure that the system energy performance is optimised to produce lower operational costs.

PROJECT CDM AND MANAGEMENT

Our engineers and consultants will ensure that all aspects of the design and installation are fully compliant and all relevant permissions and safety requirements are fully adhered to.

MCS ACCREDITED

ESP is an accredited installer, approved under the Government's Micro-generation Certification Scheme.

CARBON TRUST

ESP are approved Carbon Trust Energy and Biomass Consultants.

The installation of the ENER.G 10Y, 10kWe Micro CHP unit at the North East based charity, Tyneside Cyrenians, is delivering significant energy and carbon savings to an organisation looking to both reduce energy expenditure and help the environment.

Sited externally, the unit meets all planning requirements including noise assessments, and has been installed in a conservation area immediately adjacent to a listed building. The unit uses natural gas to generate power locally, hence displacing the need for carbon intensive grid based electricity.

The unit is integrated with the existing boiler plant and connects into the site electrical distribution. The CHP meets the base load power demand, whilst also generating up to 15,000kWh of electricity for export per year. The heat output from the CHP unit is used to generate domestic hot water and meet base heating loads of approximately 17kW, whilst reducing the load on the existing plant.

With 10,000 running hours between services the financial savings associated with the installation of a MicroCHP are predicted to be in the order of £5,000 per year, without considering the offset of potential carbon taxes, such as CRC. These savings are due to the combined high efficiency of the engine (which is some 55% higher that using grid electricity alone), the income derived from the export of spare power, and the ability to reduce grid imports.

From April 2010, qualifying Micro-CHP installations will also be eligible for the Governments Feed in Tariff (FIT), whereby generators will receive payment for all electricity produced by the Micro-CHP unit, even if used on site.

As part of our full turnkey solution, ESP provided a complete design, project management and installation service, including all elements of the project.

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