Sustainable energy business ENER-G helps UK organisations meet CRC obligations

The CRC Energy Efficiency Scheme is driving demand for low and zero carbon technologies designed, engineered and manufactured in the UK by ENER-G (www.energ.co.uk)

ENER-G is a fast growth sustainable energy business that exports across the globe. It designs, develops and manufactures a range of low carbon and renewable technologies, including combined heat and power systems and biogas generation systems.

ENER-G, based in Salford, Greater Manchester, makes it easy for organisations to adopt carbon-saving technologies and reduce carbon emissions to comply with CRC, through its shared savings agreements. As such, organisations can cut energy costs and carbon emissions and meet regulations without any capital outlay.

As an energy services business, ENER-G provides a one-stop approach to decarbonising buildings, taking care of all elements of the project and providing upfront finance, available direct from ENER-G. This works by ENER-G financing the technologies that will reduce energy consumption and then using the savings to recover costs, shouldering all risk should the anticipated savings not accrue.

CRC - ENABLING INNOVATION

The company's newest innovation is a wireless Building Energy Management System (BEMS) called E-MAGINE, that cuts energy consumption by as much as a quarter, while providing the monitoring, measurement and reporting software to make compliance with CRC and other legislation easy.

CRC is helping to support investment of more than £1 million per year in research and development by ENER-G, as well as unlocking multi-million pound investment in the E-MAGINE system.

ENER-G has opened new R&D centres at its global HQ in Salford (hardware) and Sussex (software and firmware) to develop the advanced energy monitoring, measurement and controls solutions required to drive energy efficiency in buildings and make compliance with new regulations, such as CRC, easy.

The first E-MAGINE systems have been installed in hotels, retailing, education and industry and the R&D team are already working on the second phase of development, which includes advanced control systems for ENER-G's other low carbon technologies, such as combined heat and power units (manufactured in Salford HQ) and metering systems.

BACKGROUND ON E-MAGINE

The new E-MAGINE building energy management system uses the latest in IT and internet technology to control and manage all heating, ventilation, air conditioning and lighting applications, reducing energy usage up to 25%. It is pre-engineered to provide easy and rapid installation and commissioning, and tamper-proof to assure lifetime reductions in energy costs and carbon savings.

Through the use of open protocols, E-MAGINE can integrate seamlessly with existing back office systems and third party building control systems and equipment.

ENER-G has been working on the E-MAGINE system for two years, clocking up 32,000 man hours. The system design and development is undertaken by ENER-G with final assembly outsourced to a UK manufacturing partner.

A key component of E-MAGINE is its integrated front-end energy management tool, E-VISION. This online tool serves the needs of designers, installers and end users to design, commission, control, analyse and manage energy usage remotely.

Using its advanced analysis and reporting capabilities, building owners and operators can optimise a building's energy performance to achieve lower carbon dioxide emissions and lifetime costs, and comply with different types of energy legislation and standards.

In addition, ENER-G is providing an opportunity for electrical contractors to diversify into the low carbon installation sector. Because E-MAGINE is a pre-engineered system that is fast and simple to install and commission, it provides an opportunity for electrical contractors to break into the Building Energy Management Systems (BEMS) market.

CRC AND THE NHS

Many NHS organisations will be subject to the CRC, providing opportunities for energy services companies, such as ENER-G, to deliver effective carbon saving solutions.

ENER-G has established a specialist new healthcare division following its appointment to a framework of approved contractors that will deliver major low carbon infrastructure improvements across the NHS estate.

ENER-G has been selected by the NHS Shared Business Services Carbon and Energy Fund to tender for and deliver multi-million pound projects to overhaul low carbon supply of electricity, heating and cooling at hospitals across the UK.

ENER-G, which has delivered 65 low and zero carbon projects in the healthcare sector, has made the first of several key appointments to support its new healthcare division and the management of these complex infrastructure projects.

ENER-G has a successful track record of public private partnerships. It has worked with The Heart of England NHS Foundation Trust to replace historic electricity, heating and cooling infrastructure with ENER-G's tri-generation technology and other energy efficient equipment at two acute hospital sites. This has achieved annual operational and energy savings totalling £1.6 million and significant carbon reductions.

At Malvern Community Hospital ENER-G has combined ground source heat pump technology with a combined heat and power system to provide high efficiency, ultra-low carbon heating and power. Other innovative projects completed include Royal Shrewsbury and Sunderland Royal Hospitals, with major initiatives underway at Chelsea and Westminster, Salisbury and Darlington.

Derek Duffill, Group Managing Director for ENER-G, said: "ENER-G has already demonstrated the success of imaginative partnerships such as this in decarbonising hospitals to yield substantial environmental and cost benefits without the need for capital expenditure. We have our own manufactured combined heat and power and building controls technologies and are confident that we can supply the complete solution. Trusts are seeking help to gain them the best value, comply with legislation and mitigate risk.

At a time of budgetary pressures and ambitious targets on carbon reduction, ENER-G can provide proven expertise in replacing dated plant with state-of-the art low and zero carbon alternatives that place no financial burden on hospitals or UK tax-payers. This is a win-win arrangement and we look forward to helping the NHS to transform its estate."

ABOUT ENER-G

ENER-G (www.energ.co.uk) has grown through acquisitions and organically and current turnover is £130 million. The company employs more than 750 people globally and has operations in 17 countries. The company operates more than 365MW of generation capacity, which enables customers to reduce their collective CO_2 emissions by 5 million tonnes per year, which equates to the environmental benefit of removing 1.7 million cars from the road, or the planting of 500 million trees.

ENER-G designs, develops, manufactures, operates and finances energy efficient and renewable solutions – providing a complete end-to-end service, including every aspect of energy management. This expertise comprises: energy procurement; consultancy; controls; lighting; air conditioning; combined heat and power manufacture and operation; energy generation from biogas, landfill gas and municipal waste, together with renewable technologies such as solar thermal and heat pumps (ground source, air source, gas absorption).

For further information: www.energ.co.uk, email em@energ.co.uk or call 01527 855088.