

ENER-G plays a major role in huge Hungarian wastewater scheme

One of Europe's most ambitious biogas from wastewater projects has been switched on in Budapest by ENER-G (www.energ.co.uk).

The UK clean tech company's Hungarian subsidiary ENER-G Energia Technologia Zrt. has designed and built a €2.6 million renewable energy centre at the Budapest wastewater treatment plant in Csepel – part of the Living Danube programme, which is Europe's largest environmental investment currently under implementation.

ENER-G has installed a 4.5 MWe biogas cogeneration system, together with three 2.5MW Loos boilers for additional hot water generation using natural gas, or biogas. The company also manages the operations and maintenance services.

The renewable energy centre forms part of a biological treatment complex covering 70,000m² on a 29 hectare site at Csepel Island. The plant will increase the amount of biologically treated wastewater in Budapest to 95% by 2010 – treating an average 350,000 m³/day waste water from most of Buda and part of Pest, serving approximately one million people.

Construction of the plant took more than two years and cost nearly half a billion Euros, which was financed by the EU, the Hungarian state and Budapest municipality. It will meet high environmental standards, achieving zero emissions and no odours outside the site borders.

The energy centre will run at up to 80% per cent capacity until September 2010, when it will be fully commissioned. It will supply up to 4.5MWe of renewable electricity to the site which provides more than 50% of the plant's total electricity consumption. This is the equivalent output of eight large wind turbines. The maximum 8.5MW heat generated by the combined heat and power (CHP) unit is utilised in the digester process consuming 563m³/h biogas per unit.

"The Budapest wastewater treatment plant is a vivid example of how effective anaerobic digestion is as a commercial and environmental solution for large-scale projects such as this," said Balazs Marialigeti, Director of ENER-G. "It is enormously fulfilling to be involved in this groundbreaking venture and we are looking forward eagerly to full commissioning in September 2010."

Anaerobic digestion (AD) transforms organic waste material into energy and is a proven technology that delivers substantial commercial advantages, while helping to reduce carbon emissions.

Digestion plants produce a biogas which has high methane content of 50-70 per cent. This otherwise environmentally damaging gas is a rich fuel that can drive a CHP unit to generate both heat and electricity. The heat can be used in the digestion plant, as well as for heating in nearby buildings, while the renewable electricity can be sold at premium rates.

ENER-G has considerable experience of building, operating and financing major biogas projects across Europe and the company is expanding its team of specialist engineers to meet growing demand for methane-rich biogas projects, such as AD.

ENER-G's flexible financing menu includes a capital purchase option; medium and long term rental of generating plant; discount energy purchase plan for electricity; a shared ROC scheme; and fully financed option which involves ENER-G installing and

operating the generation equipment with no capital cost to the organisation at the 'back-end' of the AD process.

To register for a free DVD case study of the Budapest biogas cogeneration projects and other ENER-G cogeneration projects, together with a technical overview of cogeneration, please contact: marketing@energ.co.uk, or register online at www.energ.co.uk/cogeneration_video

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Media information: Janet Kilpatrick, email: jk@janetkilpatrick.co.uk, phone: 0161 487 3830, mobile: 07794 192 677