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UK firm's waste-to-energy plant "will help boost Ukraine energy security"



Picture credit: Compact Syngas Solutions

Ukraine's energy grid is set to receive support from a £1.9 million (€2.2 million) UK-led project to build micro power plants fueled by waste biomass to provide energy to local communities.

Waste-to-energy company Compact Syngas Solution, which is based in North Wales, said it has developed an advanced gasification process that uses waste products to generate a syngas – a mix of hydrogen, methane and carbon dioxide and monoxide.

It added that Ukraine's energy sector has been repeatedly targeted by Russian missile and drone attacks, which has impacted thermal or hydro power plants.

Many areas have been left without electricity and heating, leaving hospitals, businesses and households to rely on expensive diesel generators.

Up to 12 million tons of waste are produced annually in Ukraine, with only 1.7% used to create energy and the rest going to landfill.

Compact Syngas Solution's MicroHub will provide electricity to two factories employing more than 100 people, and play a part in providing power to 45,240 residents who live nearby.

The small size of the plant and its ability to take low-grade waste biomass makes it perfect for providing



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affordable, clean energy to off-grid and rural communities, said the company.

The MicroHub will be designed at CSS's facilities in the UK, before being built and integrated with the carbon capture and gas separation technologies at a site in Ukraine.

The plant will also use CSS's innovative carbon capture technology.

Each 1MWh plant produces 500kW power and 500kW heat, and will create jobs for more than five skilled technical and operational workers with another ten workers in the supply chain.

Paul Willacy, managing director of Compact Syngas Solutions, said: "Attacks on Ukraine's energy infrastructure have left millions of residents without power over the past two winters, and this project could play a small part in helping the country to rebuild.

"These MicroHubs will deliver affordable energy and heat to communities, no matter how rural they are."

Sergii Dovgalyu of Concord Engineering Ukraine said: "Many residents in rural areas have no access to reliable energy, with the national grid destroyed in many parts of the country and suffering frequent power cuts in others.

"Producing power from easily-available waste will drastically improve the lives of residents who are currently struggling without electricity and heat."

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