12 MW Plasma Gasification Facility Completed in France

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Bordeaux, France based CHO-Power - a wholly owned subsidiary of clean technology and renewable energy specialist, the Europlasma Group - has completed construction work on a 12 MW waste to energy facility in Morcenx that utilises plasma gasification technology.

The company said that plant is scheduled for start up by late July or early August this year, with commercial operation at half power is due to commence in autumn.

A scheduled ramp-up period of one year to deliver the maximum power of 12 MW will begin following commissioning.

The company claimed that the plant is the most powerful of its kind in the world and that construction came in on budget.

Technology

The process implemented at the 18,000 square metre facility is divided into three main stages. First the waste is crushed and heavy inert substances and metals are removed. If necessary, the mash is dried using the heat of the process.

The company explained that everything is mixed in a buffer zone in order to obtain a homogeneous fuel, the 'CHO-Fuel', guaranteeing the optimal operation of the rest of the process.

The fuel is then fed into the gasification reactor to be transformed into syngas. CHO said that this gas is then taken to high temperature to be refined, i.e. the tars generated by the gasification process are thermally cracked at 1200 degrees C.

The company said that this operation is carried out in its patented 'Turboplasma' equipment.

CHO Power's parent company Europlasma is a specialist in the field of plasma torches systems

According to CHO tar cracking is an essential stage for using the gas engines to produce electricity. The syngas is then cooled down and its heat recovered.

The clean gas is then used to fuel gas engines that drive a generator to produce electricity.

Growing business

The patented technology is owned by CHO Morcenx, an SPV company in which CHO Power has 25% stakeholding (75% being owned by our major financial partner) - to be increased to 45% once some important milestones are met.

CHO added that all operating contracts for the plant (feedstock, off-take, etc...) are fully secured and the electrical grid connection is operational.

According to the company plant represents and investment of over 40 million Euros and took 17 months to complete.

In addition the company said that in the UK it has joined forces with Sunrise Renewables Companies to develop four biomass and waste to power projects with a total net power production of 37.5 MWe.

The company said that the projects are located in four UK Ports, Hull, Barry, Sunderland and Barrow to take advantage of both the UKs internal and external transport infrastructures.

All projects have received planning permissions, grid connections are secured, feedstock and power off take contracts are being finalised with reputed local energy and biomass suppliers.

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Waste Fuelled Plasma Gasification at Four UK Ports

CHO Power SAS and Sunrise Renewables are to collaborate on a project that will see four plasma gasification facilities built at UK docks to treat biowaste.

37.5 MW Waste Gasification Facility for Connecticut

Science Applications International and alternative asset manager, Carlyle Energy Mezzanine Opportunities have agreed to provide financing for construction of the $225 million Plainfield Renewable Energy biomass project.
10 MW Waste to Energy Facility Approved in Lancashire

Construction of a 10 MW waste to energy facility in Fleetwood, Lancashire is due to commence early next year, following the approval of Reform Energy's proposals by Lancashire County Council.