

Starting 2015, this plant will produce 20 million litres of sustainable oil using the pyrolysis process developed by BTG Biomass Technology Group BV.



Sustainable pyrolysis oil from biomass

Pyrolysis oil is a renewable, second-generation biofuel, which is produced from biomass through a process known as fast pyrolysis. Pyrolysis oil contributes to the reduction of greenhouse gas emissions and does not compete with food supply. It offers several advantages, as it is easy to store, to transport, and to use. Pyrolysis oil can be used in existing boilers which run on natural gas or fossil fuel oil.

Oil applications

Apart from heat production, it is also possible to utilise the oil for cogeneration in a gas turbine. Research is on-going on new applications, such as in diesel engines, as second-generation transportation fuels and as feedstock for chemicals. This would make pyrolysis one of the key technologies in the Biobased economy.



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Rijksdienst voor Ondernemend Nederland

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The Empyro plant

The Empyro pyrolysis plant - currently under construction in the Netherlands (Twente region) - will produce pyrolysis oil starting 2015. The plant will produce, apart from the oil, also electricity - to cover its own use - and steam. The steam will be supplied to the neighbouring salt factory. The pyrolysis oil will be supplied almost exclusively to the dairy company FrieslandCampina. They will use the oil to produce steam in their boilers. This replaces an amount of natural gas that is equivalent to the annual use of 8,000 households. The plant is very innovative, and one of the first of its kind in Europe on this scale.

Empyro in figures

Plant capacity:	120 tonnes of wood/day
Plant feedstock:	local wood residues
Plant output per year:	
> Oil	20 million litres
> Electricity	4,500 MWh
> Steam	80,000 tonnes
> CO ₂ -eq. reduction	24,000 tonnes

Contact information

For more information:

www.empyroproject.eu

www.empyro.nl

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