



Biomass-fired Plants

PowerCrop - Russi

Akuo Energy - CBN

JG Pears - Newark

Tilbury Green Power - London

Østkraft - Rønne

ENGIE Cofely - Biolacq Energies

ENGIE Cofely - BES VSG

ENGIE Cofely - SODC Orléans

Rothes CoRDe - Speyside

Zignago Power

ENGIE Cofely - BCN

Verdo Production - Randers

Western Wood Energy Plant

FunderMax - Neudörf

Linz-Mitte

Boehringer Ingelheim

Best Wood Schneider

Swiss Krono - Heiligengrabe

Pfleiderer - Gütersloh

EPR Glanford - Scunthorpe

Pfleiderer - Neumarkt

Egger - Pannovosges

Service and O&M

Aarhus Karlshamn

Swiss Krono

Western Wood Energy P. O&M

Aalborg Energie Teknik a/s (AET) Biomass Cogeneration Plant

JG Pears - Newark, Nottinghamshire, UK

The JG Pears MBM-fired cogeneration plant was constructed at their animal rendering facility at Low Marnham, Newark, Nottinghamshire.

The Combined Heat and Power (CHP) plant generates renewable energy by providing steam and electricity to JG Pears animal rendering facility as well as exporting its excess electrical power to the National Grid.

The MBM-fired CHP plant replaces over 90% of the fossil fuels used in the rendering process. MBM is a sustainable alternative with a calorific value of the same magnitude as coal, meaning a significant amount of carbon dioxide emissions will be saved each year. MBM can also be sourced more locally than the fuels previously used, which reduces carbon emissions from transport. Pellets can be used as back-up fuel.

Technology, EPC and O&M-support by AET

Based on successful reference plants with high fuel flexibility, low emissions and having the AET Combustion System and AET Biomass Boiler installed, the selection of AET as technology provider for the project was a safe choice for JG Pears.

The plant is highly fuel flexible as it is currently equipped to burn MBM and pellets. Furthermore, it is prepared for other types of biomass fuels.

As AET also has solid references on EPC and O&M-support, the advantage of placing these contracts with the technology supplier was utilised. In this way, the risk for the investors (JG Pears, Rabobank and EKF) was considerably reduced.

The plant started operations in 2018; 2 weeks ahead of schedule.

As Turnkey supplier, AET designed, supplied, constructed and commissioned the following scope:

- | Fuel reception, handling and storage
- | Fuel feeding and AET Fuel Dosing System
- | [AET Combustion System](#) with AET Spreader Stoker and AET Biograte
- | Start-up and auxiliary burner
- | [AET Biomass Boiler](#) with superheaters and economisers
- | AET Combustion Air System
- | AET Steam Air Preheaters
- | Bag filter with abatement injection system
- | Selective catalytic reduction (SCR)
- | Flue gas system
- | Ash handling system
- | Compressed air system
- | Waste water treatment
- | Steam turbine generator
- | Air cooled condenser
- | PLC control system and SCADA system
- | Boiler, turbine and service building
- | Technical Service Agreement (TSA).

Additional Information

- | More detailed project information: [See press release](#)
- | About JG Pears: [Read more](#)
- | More about the JG Pears viewpoint of the CHP plant: [Read more](#)
- | To obtain more information about this biomass-fired plant and about AET: [Contact](#)

Boiler:	42 MW _{th} 102 bara 482 °C
Electrical:	≤12 MW _e
Process energy:	≤34 MW _{th}



3D illustration of the JG Pears plant.



Entrance at JG Pears, Newark.



JG Pears CEO, Alistair Collins discussing plant plans with AET staff.

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The Biolaq Energies project, in Lacq, is a biomass-fired CHP plant of 54 MW, that utilises forestry wood, and clean, uncontaminated residues from wood processing.

[Read more about Biolaq](#)



Tilbury Green Power is a 125 MW waste wood-fired plant, which commenced operations in 2017.

[Read more about Tilbury Green Power](#)



JG Pears - Newark is a 42 MW MBM-fired cogeneration plant, which commenced operations in 2018.

[Read more about JG Pears - Newark](#)



Akuo Energy - CBN is a 63 MW wood-fired cogeneration plant, which commenced operations in early 2019.

[Read more about Akuo Energy - CBN](#)

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Zignago Power s.r.l.—successfully producing Green Energy in Italy

The 49 MW Zignago Biomass power plant in Italy, owned and managed by Zignago Power s.r.l., belonging to the Marzotto family empire, has since its installation in 2013 been running with a very high availability (98,8%). The plant utilises wood residues and agricultural waste such as straw, mischantus and maize. [>Read more](#)

