



PowerCrop - Russi

Akuo Energy - CBN

JG Pears - Newark

Tilbury Green Power - London

Østkraft - Rønne

ENGIE Cofely - Biolacq Energies

ENGIE Cofely - BES VSG

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Rothes CoRDe - Speyside

Zignago Power

ENGIE Cofely - BCN

Verdo Production - Randers

Western Wood Energy Plant

FunderMax - Neudörf

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Best Wood Schneider

Swiss Krono - Heiligengrabe

Pfleiderer - Gütersloh

EPR Glanford - Scunthorpe

Pfleiderer - Neumarkt

Egger - Pannovosges

Aalborg Energie Teknik a/s - Biomass Cogeneration Plant

Østkraft - Rønne, Denmark

The Task

Østkraft cogeneration plant supplies power and district heating to the habitants of Bornholm. The boiler (Block 6) was built in 1996 and originally designed with the possibility of using 20% biomass in the combustion process.

Anticipating the future stricter emission requirements in Europe, and in line with the goal of Bornholm to become a self-sufficient green island, investigations into how to use more biomass in the energy production were initiated in 2013. It was estimated that 60% of the biomass fuel can be supplied from the island of Bornholm itself.

It was, however, a requirement not to lose the fuel flexibility of firing with coal and oil. This flexibility was essential, as Østkraft is situated on an island and must be able to provide power in case of damage to the sub-sea cable between Denmark and Sweden.

The Solution

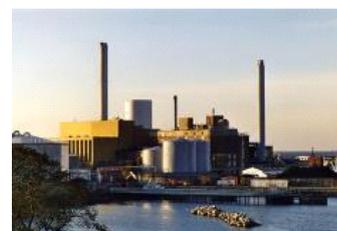
In 2016, AET retrofitted and optimised the Østkraft cogeneration plant for utilising biomass, coal and oil. This rebuild included supplying, installing and commissioning AET Dosing Bins, AET Biomass Chutes, biomass fuel handling system and AET Combi Spreaders for both biomass and coal. The furnace was refurbished, the mechanical, instrumentation and electrical systems were modified and the secondary air system was upgraded to be able to use both biomass, coal and oil.

During Christmas 2017, the sub-sea cable between Denmark and Sweden was damaged and the power connection interrupted. Fortunately, this was not a problem as Østkraft was able to utilise the flexibility of the plant and increase production, so none of the inhabitants of Bornholm were left without power.

Additional Information

- To obtain more information about this biomass-fired plant and about AET: [Contact AET sales.](#)

Boiler:	>54 MW _{th} 88 bara 527 °C
Electrical power:	≤37 MW _e
Process energy:	≤35 MW _{th}



The CHP plant Østkraft was converted to be able to use 100% biomass in 2016.

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The Biolacq 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 Biolacq](#)



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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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, miscanthus and maize. [>Read more](#)

