Press release

10 May 2024

Blackwood announces the production of Super Black™ pellets for the metallurgical industry.

Blackwood Technology BV ("Blackwood"), a Dutch torrefaction technology company, is pleased to announce the successful production of test volumes of Super Black™ pellets at its *FlashTor*[1] demonstration plant in Lampang Province, Thailand (the "Demo" plant).

Super Black™ pellets are carbonized biomass pellets (aka "biocarbon pellets") with a higher fixed carbon content and higher calorific value than regular torrefied pellets (aka "black pellets"). Biocarbon pellets can replace fossil coal in certain industrial applications where regular black pellets cannot be used.

The Super Black™ pellets have already been tested by selected customers. The trials have demonstrated that the Super Black™ pellets fulfil the high fixed carbon content requirements to replace fossil fuels in the blast furnaces of steel plants and in other metallurgical processes.

Mr. Maarten Herrebrugh, CEO of Blackwood, commented: "the Demo plant was originally designed to produce regular black pellets from wood as well as agricultural residues. Those pellets are aimed at replacing fossil coal in power stations and industrial boilers. However, our *FlashTor* technology is sufficiently versatile to also produce highly carbonized products, with gross calorific values ranging from 25 to 30 MJ/kg and fixed carbon content varying between 50% and 80%. This positions our *FlashTor* technology as a proven solution to serve the needs of the different biocarbon market segments."

The Demo plant is operated by Blackwood's Thai partner TTCL Public Company Ltd ("TTCL"). The plant is operational since 2022, and is used for the production of test volumes of black pellets and biocarbon pellets for local and overseas customers. The Demo plant is designed to process both woody biomass as well as agricultural residues.

Mr. Toshihiro Sasanuma, Vice-President of TTCL, added: "we have been in close contact with prospective customers requesting a biocarbon product with well-defined characteristics for their specific industry. We are excited about being now able to meet their needs."

FlashTor torrefaction of biomass

The *FlashTor* technology is a thermal pre-treatment technology which facilitates the large-scale replacement of fossil coal by renewable biomass. *FlashTor* torrefaction improves the fuel and handling characteristics of biomass and reduces the costs of the biomass-to-energy supply chain. Torrefied biomass is a carbon neutral, high quality solid biofuel, which can replace fossil coal in power stations, industrisal boilers and gasification plants, using the existing coal infrastructure. At a higher carbonization degree, Super Black™ pellets can replace pci coal is blast furnaces and coke as a reducing

[1] FlashTor is a registered trademark of Blackwood Technology B.V.

agent in metallurgical processes and in silica production. *FlashTor* torrefaction is instrumental in unlocking the full potential of biomass for the purposes of energy generation, steel and other metal production, as well as the production of bio-based fuels and chemicals.

About Blackwood Technology BV

Blackwood is a Dutch cleantech company, focusing on the torrefaction and carbonization of biomass. Blackwood's leading and proven *FlashTor* torrefaction technology turns forestry and agricultural residues into a high grade solid biofuel or biocarbon. Blackwood provides engineering services, sells *FlashTor* systems and licenses its *FlashTor* technology to the developers of torrefaction and biocarbon projects. The company is working with strategic partners to roll-out its proprietary technology world-wide.

About TTCL Public Company Ltd

TTCL is an integrated Thai Engineering, Procurement and Construction (EPC) and investment company. TTCL was formed in 1985 and the company is now listed on the Thailand stock exchange.
Traditionally, TTCL's EPC business focused on petrochemical, chemical and fertilizer plants as well as power generation projects. In recent years, TTCL shifted part of its activities onto renewable energy and environmental projects. In 2017, TTCL started investing into biomass renewable energy projects and is currently setting-up a supply-chain of black pellets. In 2020 TTCL became a majority shareholder in Blackwood.