

## PRESS RELEASE

### **Q Power, Cortus and Biokraft International join forces to pilot biobased methane production from gasified wood waste**

The Finnish Power-to-X technology supplier Q Power, the gasification technology supplier Cortus, and one of the leading biogas producers in the Nordic countries, Biokraft join forces in the SynFerm project organized by the Baltic Energy Innovation Center (BEIC). BEIC is a non-profit research organization. The project also involves a waste management company and potential raw material supplier NSR AB, and Linköping University.

During the project, the partners will carry out a pilot in which biomethane is refined from syngas from gasified wood material in Q Power's bioreactor. Through piloting, the partners aim to achieve the lowest possible electricity consumption and high efficiency in the methanation of syngas. The project's long-term goal is to create a concept among the operators that will make it possible to significantly increase Sweden's biobased methane production volume in a 15-year time span.

The two-year project has received funding from the Swedish Energy Agency, which promotes energy efficiency measures and renewable energy technologies. The project supports Sweden's ambitious goals to reduce greenhouse gas emissions by 2030.

#### **On-site piloting – from wood waste to biofuel**

The pilot focuses on utilizing the energy potential of logging waste generated in the forest and expanding the raw material base for biomethane production. Forest residues/waste and other wood raw materials are not suitable for composting, as the materials contain ingredients that are difficult to decompose. The energy potential of these materials is estimated at 59 TWh/year. The piloting will be carried out in two phases, from the lab-scale gas tests, which Q Power performed in the summer of 2023, and the on-site methanation pilot that is performed in Sweden during May and June 2024 for which Q Power has delivered the Q Pilot unit to Sweden for on-site piloting. On-site piloting began in May.

In the project, synthesis gas is produced from wood raw material using Cortus' patented gasification technology, WoodRoll®. Syngas fermentation is carried out by utilizing Q Power's patented methods, reactor technology, microbiological hydrogen production technology, and methanation method. Unlike catalytic technologies, which require extensive and expensive gas purification to protect the catalysts from contaminants, Q Power's biological process has proven to be resistant to contaminants. This plays a significant role in the fermentation of synthesis gas into biomethane.

"We are piloting gasification and the methanation of the syngas produced. Microbiological methanation is Q Powers' core expertise. Together with our partners, we hope to achieve a commercial model that we can expand," comments Q Power's product development director **Anni Alitalo** emphasizing the potential of their collaboration and continues "It is great that we can be participating in such an important project. When the project's goals are realized, the

common goals of our operators for low-emission renewable energy become concrete. This is a good thing for Sweden and Europe as a whole."

Cortus and Biokraft share the same enthusiasm as Q Power in this venture. "We are delighted to explore new routes for syngas to SNG (synthetic natural gas) different from conventional catalytic processing. Within this project we hope to achieve results with our partners that further will show the benefits from a technical and an economical point of view challenging the conventional technologies on the market and creating new opportunities for us" says **Rolf Ljunggren**, acting CEO of Cortus Energy AB.

"At Biokraft, we are passionately committed to a sustainable transition from fossil to renewable energy. Our main focus is the biogas production from anaerobic digestion mainly from agriculture-based waste products, but we joined this project because we want to support the development of pathways that broaden the potential substrate base for biobased methane. We also see how biological methanation integrates well with our anaerobic digestion-based biogas production facilities" says **Jörgen Ejlertsson**, VP Process Technology and R&D of Biokraft.

Together, these visionary organizations are on a journey to make a significant impact, revolutionizing the renewable energy landscape, and contributing to a brighter, more sustainable future for Sweden, Europe, and beyond.

### **About syngas fermentation**

Synthesis gas or syngas is a mix of carbon monoxide (CO) and hydrogen (H<sub>2</sub>). It is often produced from sources like biomass (organic materials from plants and waste). These sources go through a special process called gasification, which breaks them down into syngas.

Syngas can be turned into biofuels by using a biological fermentation process. In this process, microorganisms convert carbon monoxide and hydrogen gases into organic molecules through metabolic pathways. Syngas fermentation offers an environmentally friendly path for utilizing waste gases as raw material.

### **More Information**

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### **About Cortus AB**

Cortus offers cost-effective and innovative bioenergy solutions for power and process industries based on the patented WoodRoll® gasification technology. WoodRoll® has great fuel flexibility, which means the process can utilize low-grade renewable fuels without compromising process performance. Cortus's shares are admitted to trading on Nasdaq First North. Mangold Fondkommission AB, tel. 08-503 015 50, is the Company's Certified Adviser.

[www.cortus.se](http://www.cortus.se)

### **About Biokraft International AB**

Biokraft is a Nordic greentech company that produces bioenergy and plant nutrition in a circular cycle by recycling organic waste and residual products in large-scale biorefineries. Biogas is CO<sub>2</sub>-neutral and lowers GHG emissions by over 100% when replacing fossil fuels. Biokraft will build, own and operate large-scale biogas plants with a focus on the Northern European market. Today there are facilities in Sweden, Norway and Korea Biokraft has just over 120 employees and had total revenues of SEK 534 million in 2023.. [www.biokraft.com](http://www.biokraft.com)

### **About Q Power**

Q Power enables its customers to move towards a fossil-free and self-sufficient energy system by developing and delivering cost-effective, high-efficiency production technologies to their customers. By the end of the decade, our goal is to produce 500 MW of renewable synthetic fuel production capacity annually. Q Power – Concrete solutions for fighting against climate change [www.qpower.fi](http://www.qpower.fi)

### **About BEIC**

BEIC is a non-profit research organization participating in national and international R&DD activities focused on innovative energy technology in general and renewable methane-related development in particular.