



Decarbonizing Industrial Heat

For everything that is touched by a flame.








Driven by a vision of a fossil-free industrial future, Meva Energy provides advanced gasification technology for renewable energy production.

Currently, industrial heat generation largely depends on fossil fuels, hindering progress toward decarbonization goals and EU climate commitments. Moreover, rising fuel prices, carbon taxes, and increasingly stringent regulations amplify the urgency for industries to adopt renewable energy sources.

Among various renewable technologies, biomass gasification stands out as a highly promising solution. This technology efficiently converts solid organic waste materials into clean, reliable, and cost-effective energy, significantly reducing dependence on fossil fuels.

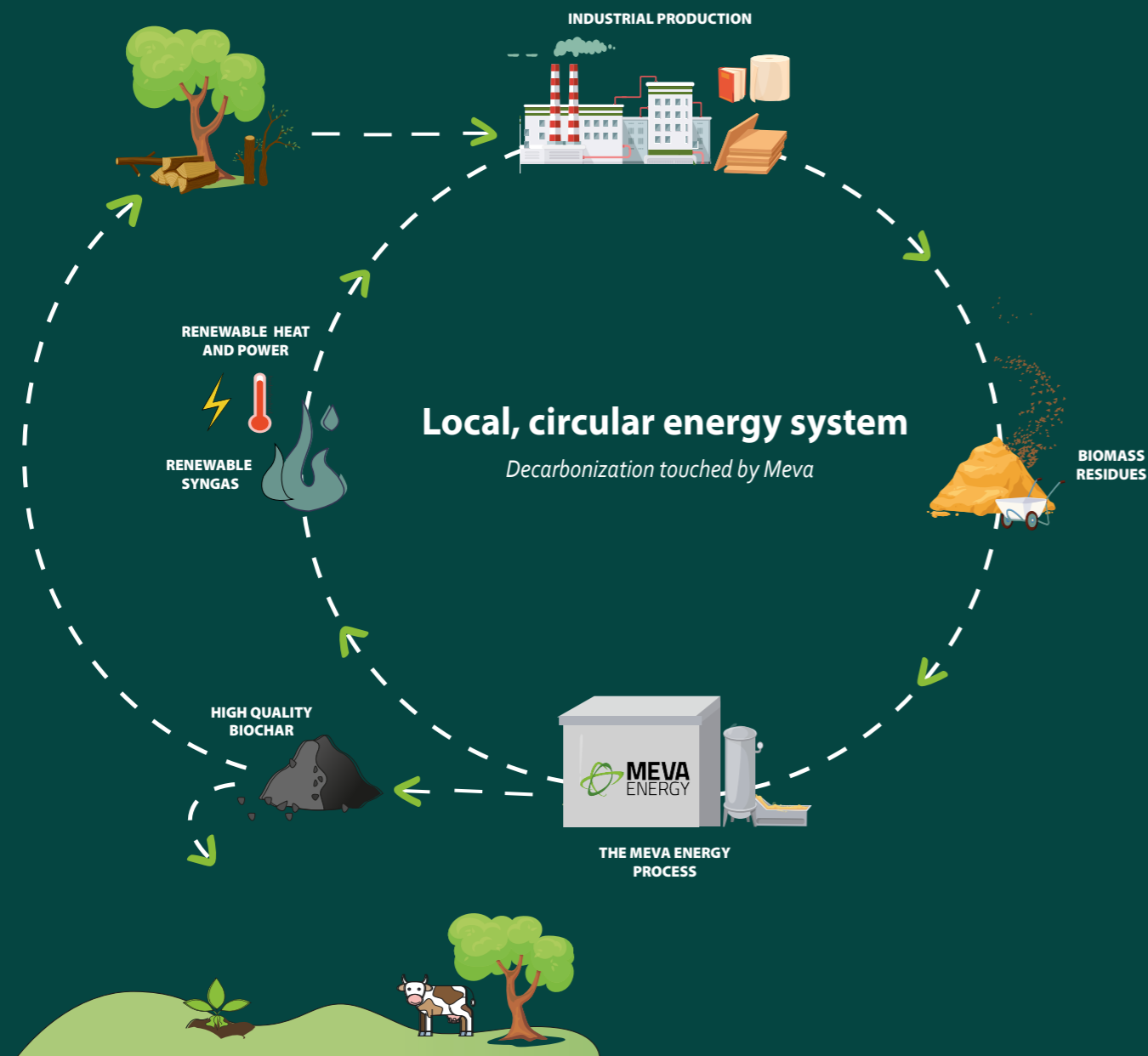
Meva Energy was founded with the clear purpose of decarbonizing industrial heat. Our mission is to accelerate the transition toward a fossil-free manufacturing industry by converting local biomass residues into sustainable biosyngas through innovative technology.

Product offering and applications

HOT GAS 	COLD GAS 	HEAT & POWER 
Used in an industrial burner for production of high temperature heat, typically to dry or condition material output in a large industrial context.	High quality process heat via cold biosyngas used in industrial burners, typically to dry or condition material output in large industrial context.	High-power efficiency is achieved through the combination of biomass gasification and high-efficiency genset.
Effect Minimum of 4.5 MW	Effect Minimum of 4.5 MW	Effect Minimum of 1.4 MWe
Target segments Metallurgy Lime Concrete Ceramics and glass	Target Segments Tissue drying	Target Segments Wood and furniture

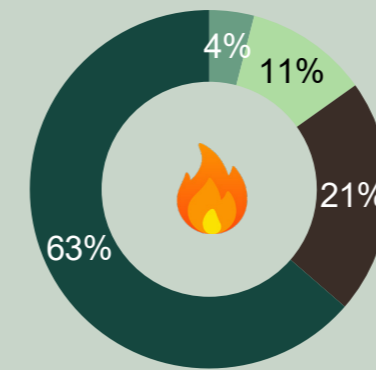
A circular solution addressing the energy trilemma: Sustainable, Affordable, and Secure

Meva Energy provides decentralized energy solutions for local energy production. By utilizing nearby biomass residues, we create a local, circular energy system with minimal transport and energy loss. Additionally, the process generates biochar, a carbon-rich material that can be used as a carbon sink in soil, contributing to additional emission reductions.



Gas composition capable of replacing fossil fuels

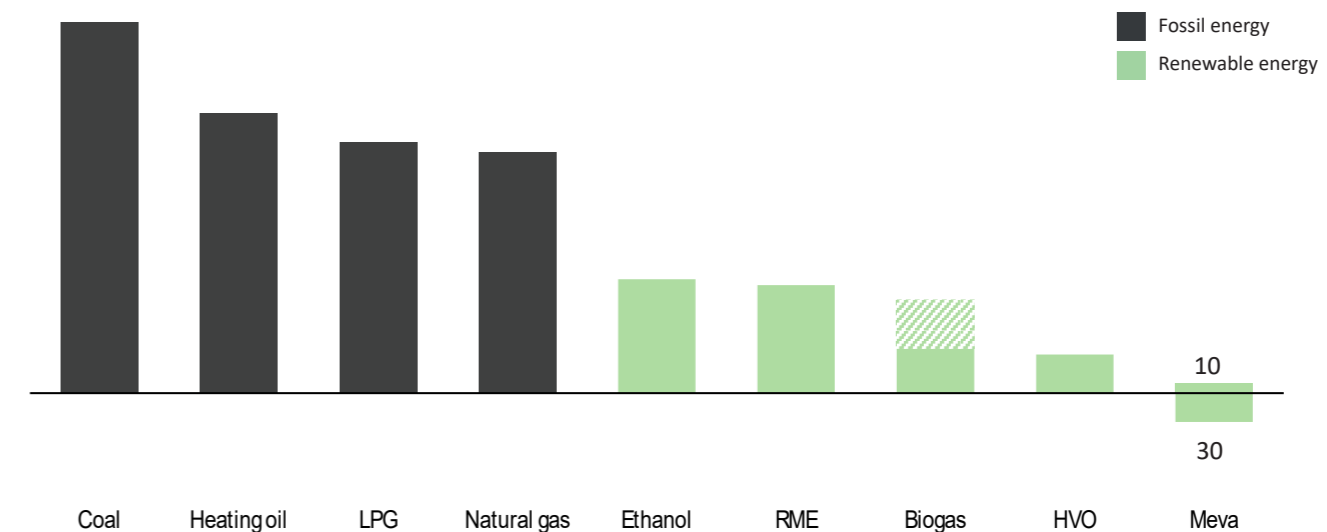
Meva's biosyngas offers a significantly lower climate impact while matching the price and quality of fossil alternatives like LPG.



Meva's quality biosyngas meets the high standards for paper drying in Kisa

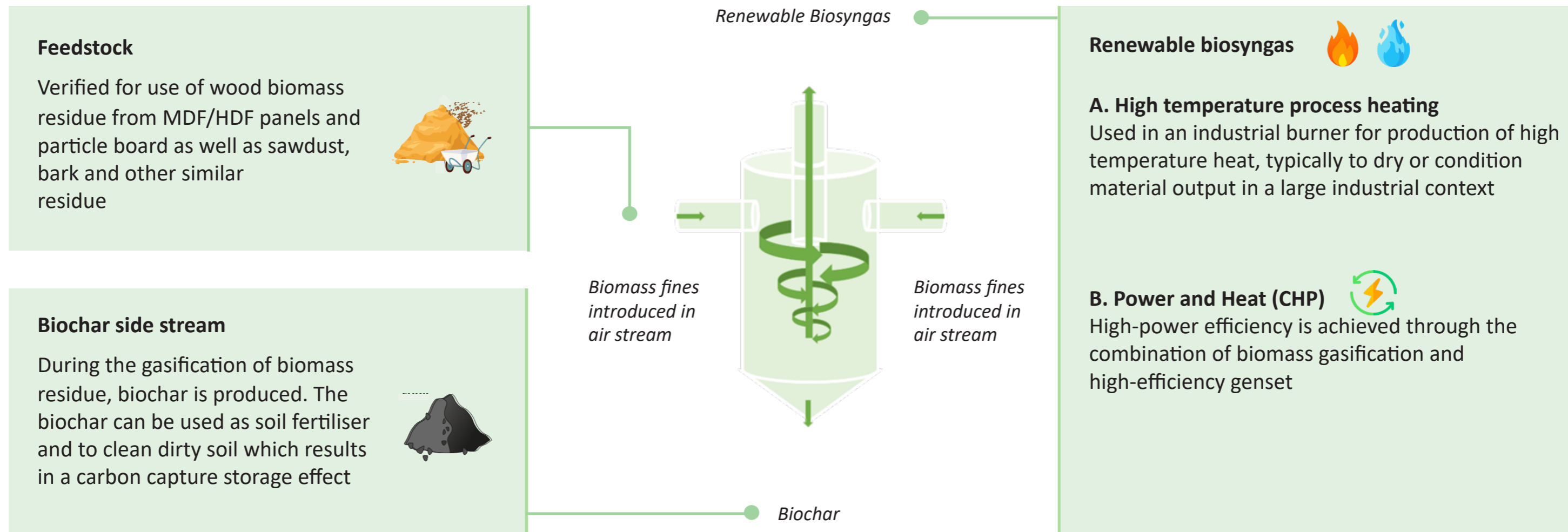
High quality biochar enabling negative climate impact

Combining waste utilization with the replacement of fossil gas with renewable gas together with carbon sequestration from biochar, Meva's biomass gasification technology can not only reduce emissions but also achieve negative emissions. The biochar can offset the CO₂, resulting in a potential carbon footprint in the range of -30 to 10 g CO₂ /kWh.



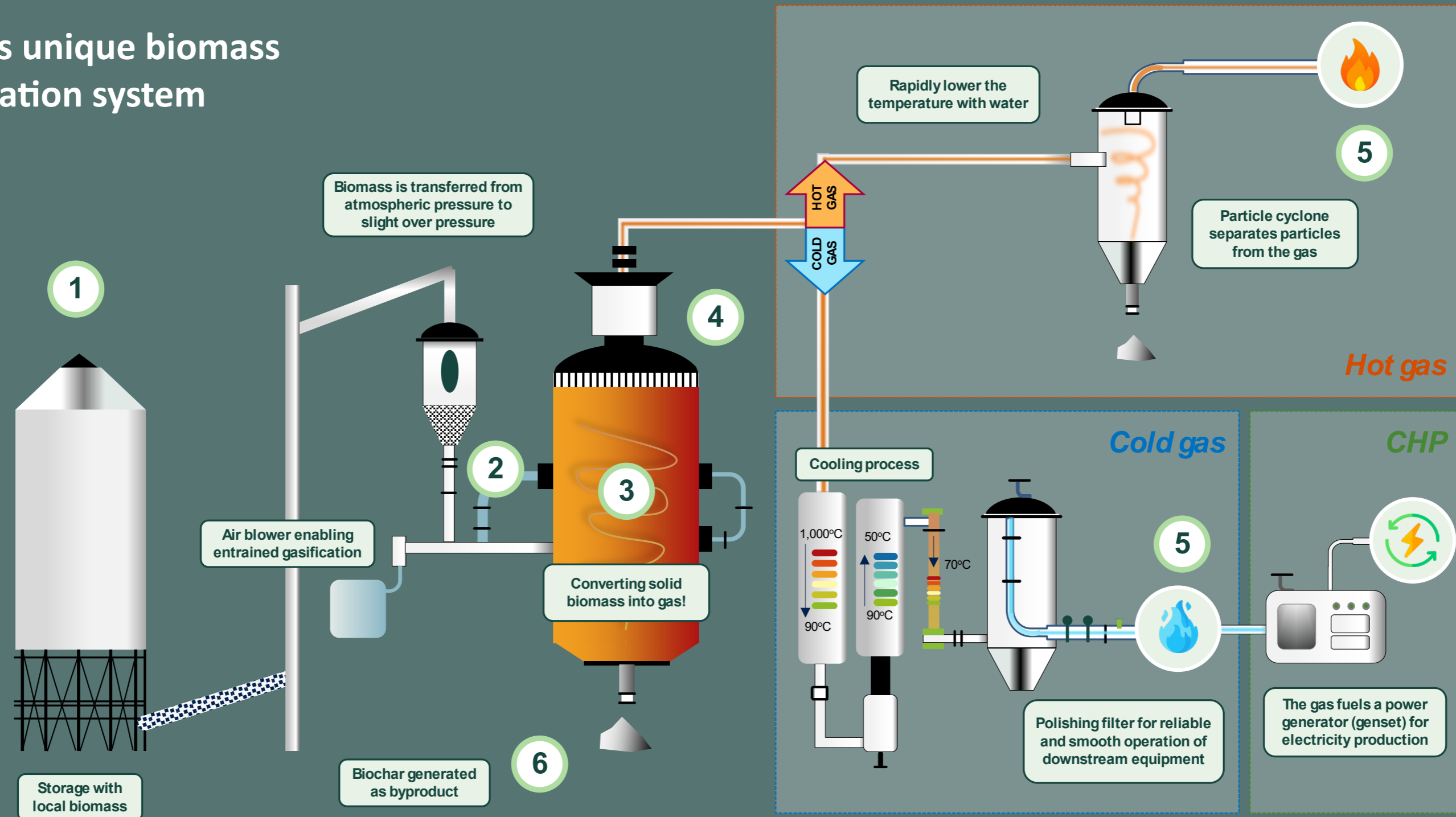
Patented technology with unique feedstock acceptance and negative CO₂ potential

The cutting-edge technological features of Meva



For high temperature industrial heat applications up to 3,000 C	CO ₂ reduction 100% (vs. fossil fuels)	Energy output 4.5-20 MW	Patented technology 4 Patent families
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Meva's unique biomass gasification system



- 1 Full allowance of feedstock**
Efficient processing of utilising fine biomass particles (<2mm), allowing for wide feedstock flexibility
- 2 Entrained gasification for stable gas quality**
The patented particle airflow technology ensures stable gas quality through entrained gasification

- 3 Reactor efficiency from high conversion rate**
Near-complete transformation of feedstock into syngas and maximising energy output while minimising losses
- 4 Reactor dimensions in compact system**
Enables compact system design with high scalability

- 5 Gas composition capable of replacing fossil fuels**
Proven high quality biosyngas with industrial maturity across segments
- 6 Top quality biochar enabling negative climate impact**
The residual biochar is of high quality and serves as a carbon sink in soil or a valuable input for industrial applications

Cold gas application

Renewable gas for tissue drying hoods

Meva Energy's gasification plant is replacing fossil gas consumption at Sofidel Sweden's tissue mill in Kisa. By switching to renewable biosyngas, the mill reduces up to 8,500 tons of CO₂ per year compared to the carbon footprint of fossil LPG. The on-site plant ensures a decentralized energy supply, eliminating the need for long-distance fuel transportation. By utilizing low-value feedstock for on-site energy generation, the system provides an effective, independent, and stable fuel cost structure.

Alongside bio-syngas, the Kisa plant also produces biochar. Biochar is a solid material that can be used as a carbon sink, as well as having commercial value for use in soil improvement and animal feed. Producing renewable gas to replace fossil gas, together with applying biochar as a carbon sink, can lead to a CO₂ reduction of up to 10,600 tonnes.



About the plant

Site: Sofidel Kisa, Sweden

Application: Renewable gas for tissue drying hoods

Gas production: 4,5 MW

Biochar output: 400 ton/year

Feedstock: Locally generated wood pellets made from sawdust

CO₂ reduction potential: 10.600 tonnes CO₂/year (including biochar sequestration)

Energy Independence: A stable, local energy source that decreases reliance on volatile fossil fuel markets.

Commissioned: 2023

Power & Heat (CHP) application

Turning furniture waste into renewable energy at IKEA Industry, Poland

Meva Energy are building a gasification plant at IKEA Industry's furniture production in Poland, Zbąszynek. By utilizing IKEA's production residues, Mevas gasification technology will convert waste into renewable power and heat, which will be fed back into the factory. This will establish a local, circular energy system for the production site, reducing costs and CO₂ emissions by up to

From production waste with low or negative value...

Industrial production processes, such as engineered wood and furniture manufacturing, generate large volumes of fine fraction biomass residues.



Because of the glue used in board materials, they often contain high levels of nitrogen, which results in NO_x emissions during combustion. This makes the residues environmentally problematic and expensive to dispose of. Classified as waste with little or even negative value, they represent a growing burden for industries striving to meet both economic and environmental targets.

...to cost effective energy production.

Meva Energy's gasification technology can take advantages of this fine fractionated residual stream from EW processing. At Ikea Industry's factory in Zbąszynek, Poland approx. 20% of the factory's waste will be used as fuel in Meva Energy plant to supply 2,8 MW of energy back to IKEAs factory.



As much as possible, we want to have our own locally produced renewable energy, thereby contributing more renewable energy to our society.

Andreas Carlsson
Sustainability Manager, IKEA Industry

20,000

Potential CO₂ reduction

2,8MW

Power

2026

Start-up



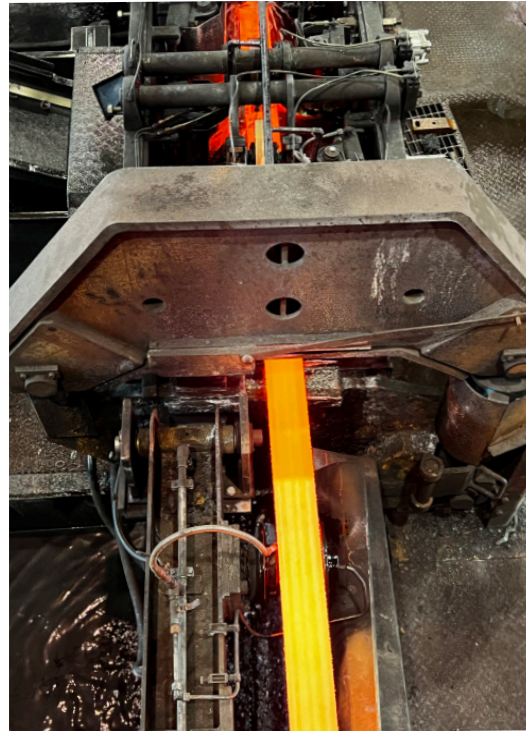
About the plant

- 10 year supply contract of renewable power and disposal service of furniture wood waste.
- Power: 2,8 MWel
- Heat: 4,8 MWel
- Fuel: Saw dust and cuttings from MDF and particle board.
- Wood to power efficiency: 30-32%
- 20 000 tons CO₂ reduction per year.

Hot gas application

Fossil-free metal melting at Elcowire

Meva Energy has partnered with Elcowire Group to design, build, and operate an energy plant for the world's first copper smelting without fossil fuels. Through a 15-year agreement, Meva Energy will supply 9 MW of renewable biosyngas to Elcowire's Helsingborg facility, replacing fossil natural gas in their copper smelting furnaces. This project marks a historic milestone for the metal industry, enabling the first fossil-free copper production in scopes 1 and 2.



Tackling one of Metallurgy's toughest challenges

For decades, the metallurgy sector has faced one of its toughest challenges: achieving the extreme temperatures needed to melt metals without relying on fossil fuels. Copper production, in particular, has been heavily dependent on fossil energy sources like natural gas to reach the high temperatures required for melting in their furnace.

Setting a new standard for metal industry

Together with Elcowire Group, we're tackling this challenge. Meva Energy's gasification technology will enable Elcowire to replace natural gas with renewable hot biosyngas, derived from industrial biomass residues. This will enable Elcowire to melt copper without the use of any fossil-based fuels, demonstrating that fossil-free production is not only possible but scalable, even in energy-intensive industries like metal manufacturing.

10,000

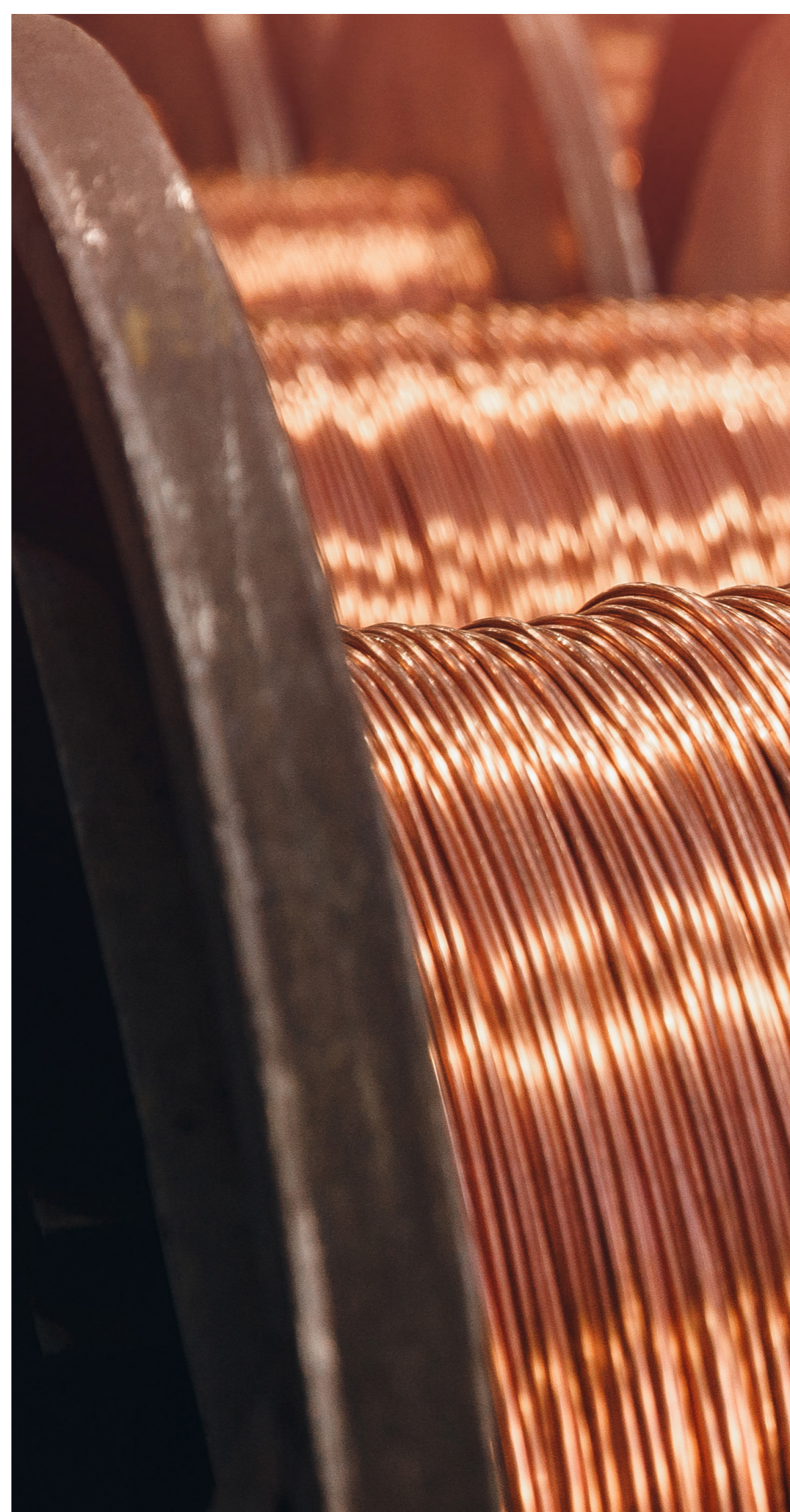
Potential CO2 reduction

9MW

Gas capacity

2027

Start-up



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This partnership with Meva Energy is a game-changer for us. By being the first in the world to adopt fossil-free biogas for copper melting, Elcowire is not only advancing our own sustainability efforts but also setting a new benchmark for the entire metallurgy sector.

We are proud to lead this transformation toward a greener, more sustainable future.

Paul Gustavsson
CEO, Elcowire Group



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