## Press release



Steel Europe

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## thyssenkrupp Steel and RWE sign a contract for supply of green electricity to the first direct reduction plant

- First green electricity supply contract to supply the direct reduction plant.
- Renewable energy is a cornerstone of the tkH2Steel transformation project.
- Close cooperation between thyssenkrupp Steel and RWE to achieve climate goals.
- Energy is generated at RWE's Kaskasi offshore wind farm in the North Sea

Duisburg, February 19, 2024. thyssenkrupp Steel and RWE have signed a long-term Power Purchase Agreement (PPA) to supply green electricity to the first direct reduction plant at the Duisburg location with electrically powered melters. The contract, with a term of 10 years, provides for a delivery volume of 112 GWh per year. The electricity will be generated at RWE's Nordsee Kaskasi offshore wind farm, 35 kilometers off the coast of Heligoland. This means offshore wind energy will make a significant contribution to supplying the energy for the tkH2Steel transformation project in future, and will help in achieving climate goals. Additional contracts with green electricity producers will be required to fully supply the system with green electricity.

## Electric hot metal from renewable energy: primary steel production will be climate-friendly

In conjunction with the two electrically operated melters, the direct reduction plant will be integrated into Europe's biggest iron and steel plant as a technologically new plant combination. The direct reduction plant which is 100% hydrogen-capable produces directly reduced iron (DRI), referred to as sponge iron, from iron ore. The DRI is melted into hot metal using  $CO_2$ -free electricity in the two identical melters. With a capacity of 2.3 million metric tons of regeneratively produced hot metal per year, up to 3.5 million metric tons of  $CO_2$  emissions can be avoided annually. This innovative approach is a significant step on the path to sustainable and carbon-neutral steel production.

## Green electricity is the foundation of a sustainable industry

The partnership with RWE is an important building block in the company's energy strategy, as part of the tkH2Steel transformation project, with the goal of sustainable steelmaking. This

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strategy envisages successively increasing the requirement for electricity generated from renewable sources, and thus paving the way for carbon-neutral production.

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"Renewable energy is a core element in our transformation strategy alongside the use of regeneratively produced hydrogen – a separate public call for tenders is currently underway for this," explains Dr Arnd Köfler, Chief Technology Officer at thyssenkrupp Steel. "The cooperation with RWE is the first step towards meeting the renewable electricity requirements in the tkH2Steel project. By concluding this PPA, we are taking one step further on the path to carbon-neutral production."

Ulf Kerstin, Chief Commercial Officer of RWE Supply & Trading, also welcomes the cooperation: "We are delighted that we can support thyssenkrupp Steel in decarbonizing steel production. With our Growing Green investment and growth campaign launched in 2021, we are further expanding our green electricity portfolio in Germany and making a significant contribution to the success of the energy transition. Kaskasi is our sixth wind farm in the German North Sea and the next farms are already under development. The North Sea cluster will create a further 1.6 gigawatts of offshore wind power in the coming years. "

The signing of the green electricity PPA between thyssenkrupp Steel and RWE emphasizes how both companies not only depend on but are also committed to a sustainable and futureoriented energy supply in industry.

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