

thyssenkrupp Uhde awarded contract by ENOWA to supply a green methanol and methanol-to-gasoline plant

- **CO₂-to-methanol and methanol-to-gasoline demonstration plant to supply synthetic fuels for various applications in the light duty transport sector**
- **uhde® green methanol process enables climate-friendly production of fuels and versatile base chemicals**

thyssenkrupp Uhde has been awarded a contract by ENOWA, NEOM's energy and water company, for engineering services and the supply, design and procurement of equipment for a new CO₂-to-methanol and methanol-to-gasoline demonstration plant at ENOWA's Hydrogen Innovation and Development Center (HIDC) in Saudi Arabia. The plant is a joint development of ENOWA and Aramco and will use the innovative uhde® green methanol process and ExxonMobil's fluidized bed methanol-to-gasoline process. The plant will produce 12 tons of methanol and 35 barrels of gasoline per day.

Methanol produced from hydrogen and carbon dioxide can be used as an energy carrier, a hydrogen carrier and a transport fuel, as well as to store electric power generated from renewable energies. It can also be used as a climate-friendly feedstock in the chemical industry for a large range of products, including plastics, paints and varnishes, building materials, clothing, pharmaceutical products and disinfectants.

Dr. Cord Landsmann, CEO thyssenkrupp Uhde GmbH: "We are very proud that NEOM has selected thyssenkrupp Uhde to supply the plant due to its advanced uhde® green methanol process and its expertise. This is clearly another proofpoint for our technology and knowledge being an enabler for the green transformation."

Dr. Guido Daniel, Executive Director Operating Unit Petrochemicals & Polymers: "This project is a milestone for climate protection, as it is the first reference for the uhde® green methanol process, which makes renewable fuels and chemicals possible. We are extremely pleased to be supplying this innovation to ENOWA and the world, and to be contributing to the reduction of global emissions. And this is only the beginning."

Roland Kaepfner, Managing Director of Hydrogen and Green Fuels at ENOWA: "We value the technology cooperation with thyssenkrupp Uhde and their wealth of expertise and technologies in driving a future green fuels economy. The plant will be a key part of our Hydrogen Innovation and Development Center and produce e-Methanol and e-Gasoline by end of 2025, which will be used for various applications, such as motorsports, off-grid energy and for hydrogen transportation."

Leading technology for reducing emissions

The uhde® green methanol technology for the production of methanol from carbon dioxide and hydrogen is a key technology for climate protection. By switching from fossil to renewable energy carriers and by using captured carbon dioxide for the production of many products, CO₂ emissions can be significantly reduced or avoided. The direct conversion of carbon dioxide to methanol using hydrogen is particularly suitable. The innovative, patented process design offers the greatest possible efficiency and is suitable for both decentralized small and medium-sized methanol plants, as well as for centralized plants for the production of up to several thousand tonnes of methanol per day.

About ENOWA

ENOWA is a world-class energy and water company founded in NEOM, Saudi Arabia. ENOWA produces and delivers clean and sustainable resources for industrial and commercial applications, using a smart and connected system designed to be circular, and which takes advantage of NEOM's optimal solar and wind energy profile. ENOWA benefits from NEOM's greenfield site, which has no legacy infrastructure, to advance energy, water, and hydrogen innovation. ENOWA will act as a catalyst and incubator for developing new, sustainable energy and water businesses while creating a robust economic sector regionally. Through its commitment to renewable energy and efficient water management, ENOWA seeks to become a global reference for industry leaders and to set a benchmark for sustainable economic circular systems around the world.

About NEOM

NEOM is an accelerator of human progress and a vision of what a new future might look like. It is a region in northwest Saudi Arabia on the Red Sea being built from the ground up as a living laboratory – a place where entrepreneurship will chart the course for this new future. It will be a destination and a home for people who dream big and want to be part of building a new model for exceptional livability, creating thriving businesses and reinventing environmental conservation.

NEOM will include hyperconnected, cognitive cities, ports and enterprise zones, research centers, sports and entertainment venues and tourist destinations. As a hub for innovation, entrepreneurs, business leaders and companies will come to research, incubate, and commercialize new technologies and enterprises in groundbreaking ways. Residents of NEOM will embody an international ethos and embrace a culture of exploration, risk-taking and diversity. Further information can be found at: <https://www.neom.com/en-us>

About thyssenkrupp Uhde

thyssenkrupp Uhde combines unique technological expertise and decades of global experience in the engineering, procurement, construction and service of chemical plants. We develop innovative processes and products for a more sustainable future and thus contribute to the long-term success of our customers in almost all areas of the chemical industry. Our portfolio includes leading technologies for the production of base chemicals, fertilizers and polymers as well as complete value chains for green hydrogen and sustainable chemicals. Further information can be found at: www.thyssenkrupp-uhde.com

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