

PRESS RELEASE

DEUTZ and RheinEnergie team up to generate power from a hydrogen engine

- RheinEnergie to pilot DEUTZ hydrogen engine
- CO₂-free engine will initially be deployed at the cogeneration plant in Cologne-Niehl

Cologne, August 23, 2021 – DEUTZ AG and RheinEnergie AG, two Cologne-based companies whose origins date back to the 19th century, are joining forces to run a pilot project in which power is to be generated by a stationary hydrogen engine. DEUTZ is a leading global manufacturer of engines and drive technology, while RheinEnergie is a utility provider that has a clear commitment to the green energy transition.

In its climate roadmap, RheinEnergie has formulated clear targets for the carbon-neutral generation of energy. Hydrogen will have an important role to play here, as a long-term replacement for fossil fuels such as natural gas.

From the beginning of 2022, the intention is to use a hydrogen engine to power a generator that will produce 170 kilovolt-ampere of electricity. The pilot project will be run at RheinEnergie's cogeneration plant in Cologne-Niehl. RheinEnergie is procuring the hydrogen and has already secured its supply.

“We are looking to trial this first system there and to work with the experts from DEUTZ to study the stationary operation of this engine in combination with the generator,” says Dr. Dieter Steinkamp, CEO of RheinEnergie. “This compact system is ideal for use as a decentralized source of energy for climate-compatible buildings and urban quarters, and perhaps also for use in places that are not yet connected to the electricity grid or heating network.”

The first test cycle, lasting around six months, will be focused solely on generating power using the DEUTZ engine. This will be followed by a second phase, also lasting several months, in which the waste heat from the system will also be utilized (cogeneration).

Inhouse development by DEUTZ

The engine that is being trialed has been developed inhouse by DEUTZ, based on an existing diesel engine. “We are extremely proud that our hydrogen engine is ready for the market,” says Dr. Frank Hiller, CEO of DEUTZ AG. “Initial trials have been successfully completed on the test rig. Now we can look forward to putting the TCG 7.8 H2 through its paces in real-world conditions as part of the pilot project with RheinEnergie.”

Due to the available infrastructure, particularly in terms of the supply situation for hydrogen, DEUTZ envisages the engine initially being used in stationary equipment. “But essentially the hydrogen engine with a power output of 200 kilowatts is suitable for all current DEUTZ applications in the off-highway segment,” explains Michael Wellenzohn, member of the DEUTZ Board of Management responsible for sales, marketing, and service. “We are planning to go into volume production from 2024. This first real-world trial is an important milestone on that journey – one that we are delighted to be embarking on with RheinEnergie by our side.”

The two partners will initially be investing a combined total of around €1.3 million in the operating trial at the Niehl plant. And though this pilot project is relatively small in scale, it has the potential to be the beginning of decentralized, sustainable, and greenhouse-gas-free energy supply in urban centers – particularly when the price of hydrogen falls to a level that makes it a viable option for the market.

For further information on this press release, please contact:

Christian Ludwig
DEUTZ AG

Senior Vice President Communications & Investor Relations

Tel: +49 (0)221 822 3600

Fax: +49 (0)221 822 15 3600

Email: Christian.Ludwig@deutz.com

Christoph Preuß
RheinEnergie AG

Head of Press and PR, Company Spokesman

Tel: +49 (0)221 178 3035

Fax: +49 (0)221 178 90525

Email: presse@rheinenergie.com

The engine company.



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About DEUTZ AG

DEUTZ AG, a publicly traded company headquartered in Cologne, Germany, is one of the world's leading manufacturers of innovative drive systems. Its core competencies are the development, production, distribution, and servicing of diesel, gas, and electric drive systems for professional applications. It offers a broad range of engines delivering up to 620 kW that are used in construction equipment, agricultural machinery, material handling equipment, stationary equipment, commercial vehicles, rail vehicles, and other applications. DEUTZ has around 4,600 employees worldwide and over 800 sales and service partners in more than 130 countries. It generated revenue of almost €1.3 billion in 2020. Further information is available at www.deutz.com.

About RheinEnergie AG

RheinEnergie is a utility company based in Cologne and the Rhine region that is active across Germany. As well as energy and drinking water, we provide numerous energy solutions for private individuals, and for trade and industry. Collaborations with companies from the region and across Germany are key to this, and ensure we are securely positioned in the German energy market. The people of the Rhineland are known for being open and friendly, and we employ these and other positive traits to strengthen our partners' businesses. In 2020, RheinEnergie generated €4.04 billion in revenue, and its infrastructure serves around 2.5 million people in the Rhine region . For more information visit rheinenergie.com