



PRESS RELEASE

Producing energy from hydrogen – DEUTZ and RheinEnergie launch joint pilot project

- Climate-neutral flagship project: electricity from a hydrogen engine fed into Cologne's public grid for first time
- Hydrogen engine combined with a generator provides carbon-neutral electric power
- Huge potential for the local, climate-neutral supply of energy

Cologne, June 20, 2022 – Joint pilot project launched: DEUTZ AG and RheinEnergie AG, two Cologne-based companies whose origins date back to the 19th century, are trialing the generation of energy using a stationary DEUTZ hydrogen engine. DEUTZ is a leading global manufacturer of engines and drive technology, while RheinEnergie is a regional energy supplier that has a clear commitment to the green energy transition.

The partners' flagship project got under way on June 20 when the first H₂ genset went into operation at RheinEnergie's cogeneration plant in the Niehl district of Cologne. The combination of a TCG 7.8 H₂ hydrogen engine and a generator will deliver electric power of up to 170 kilovolt-amperes (kVA) during the initial six-month test phase. This electricity will be fed directly into Cologne's power grid. In a second step, the genset's waste heat is to be utilized. The solution being piloted by DEUTZ and RheinEnergie has huge potential for the local, carbon-neutral supply of energy in urban centers.

"We are a utility company for a major city and specialize in concepts for neighborhoods and districts," says Dr. Dieter Steinkamp, CEO of RheinEnergie. "An engine like this can help to provide electricity and heating locally. When combined with heat accumulators, heat pumps, solar installations, and electricity storage, this technology makes it possible to supply entire neighborhoods on a climate-neutral basis."

The engine company.





"The pilot project to generate carbon-neutral energy shows that high tech and the city of Cologne are a great match," says Michael Wellenzohn, member of the DEUTZ Board of Management responsible for sales, marketing, and service. "We have found a strong partner in RheinEnergie and are very excited to put the TCG 7.8 H₂ through its paces in the real world in our pioneering project."

The joint pilot project marks an important step on DEUTZ's journey to volume production of the TCG 7.8 H₂, which is scheduled to start in 2024. With an output of around 200 kilowatts, the hydrogen engine is suitable for all off-highway applications. "We are already seeing a lot of interest in our H₂ engines from customers across all application areas," says Dr. Markus Müller, member of the DEUTZ Board of Management with responsibility for research & development. "And we are already planning further pilot applications."

Together, the partners have invested \in 1.3 million in the pilot project to supply electricity on a climate-neutral basis. A reliable and local energy supply without greenhouse gas emissions necessitates expansion of the H₂ infrastructure and requires sufficient green hydrogen to be made available at affordable market prices. The partners therefore believe that the onus is now on politicians. The European Green Deal will not succeed without regulatory support.



Chairman of the Management Board of RheinEnergie Dr. Dieter Steinkamp and DEUTZ Chief Sales Officer Michael Wellenzohn Source: RheinEnergie AG









DEUTZ H2-Genset on the premises of RheinEnergie in Cologne Source: RheinEnergie AG $\ensuremath{\mathsf{AG}}$

The engine company.





For further information on this press release, please contact:

DEUTZ AG Christian Ludwig Senior Vice President Communications & Investor Relations Tel: +49 (0)221 822 3600 Email: <u>Christian.Ludwig@deutz.com</u>

RheinEnergie AG Christoph Preuß Company Spokesman Tel: +49 (0)221 178 3035 Fax: +49 (0)221 178 90525 Email: presse@rheinenergie.com

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 drive solutions in the power range up to 620 kW for off-highway applications. The current portfolio extends from diesel, gas, and hydrogen engines to hybrid and all-electric drives. DEUTZ drives are used in a wide range of applications including construction equipment, agricultural machinery, material handling equipment such as forklift trucks and lifting platforms, commercial vehicles, rail vehicles, and boats used for private or commercial purposes. DEUTZ has around 4,750 employees worldwide and over 800 sales and service partners in more than 130 countries. It generated revenue of around \in 1.6 billion in 2021. Further information is available at <u>www.deutz.com</u>.

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. Collaboration with companies from the region and across Germany are key to this, particularly when it comes to energy services. The people of the Rhineland are known for being open and friendly, and we deploy these and other positive traits to strengthen our partners' businesses. RheinEnergie generated revenue of approximately €5 billion in 2021. Its infrastructure serves around 2.5 million people in the Rhine region. Further information is available at <u>rheinenergie.com</u>