from Siemens Mobility GmbH & Siemens Energy AG

Munich, October 05, 2020

# Siemens Energy and Siemens Mobility jointly drive development of hydrogen mobility

- Memorandum of Understanding for joint holistic hydrogen system for rail
- Siemens Energy and Siemens Mobility decarbonize the mobility sector

Siemens Energy and Siemens Mobility have signed a Memorandum of Understanding (MoU) to jointly develop and offer hydrogen systems for trains. The agreement was signed by Albrecht Neumann, CEO of Rolling Stock at Siemens Mobility and Armin Schnettler, Executive Vice President (EVP) of New Energy Business at Siemens Energy. The project aims at jointly developing holistic hydrogen solutions for rail transport and offering them to customers to promote the hydrogen economy in Germany and Europe and support decarbonization in the mobility sector.

Since its spin-off and public listing last Monday, September 28, 2020, Siemens Energy is no longer part of the Siemens Group. Siemens AG is the largest shareholder of Siemens Energy AG. Siemens Mobility GmbH, which belongs to Siemens AG, and Siemens Energy AG have signed a research cooperation agreement to continue and further expand their joint efforts in the promotion of hydrogen mobility.

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Siemens Gas and Power GmbH & Co. KG Werner-von-Siemens-Straße 1 80333 Munich Germany Joint press release

from Siemens Mobility GmbH & Siemens Energy AG

"The decarbonization of energy systems is a central goal of Siemens Energy. So-

called sector coupling plays a key role here – interconnecting previously separate

energy-relevant sectors such as electricity and heat generation or mobility. This can

be achieved – completely CO<sub>2</sub>-free – with the electrolysis of water using electricity

produced from renewable energy sources," says Armin Schnettler, EVP New Energy

Business at Siemens Energy. "Working together with Siemens Mobility, we want to

drive sector coupling by developing, among other things, an electrolysis and fueling

solution for the fast fueling of hydrogen-powered trains."

"Our cooperation with Siemens Energy paves the way for sustainable and climate-

friendly mobility. This way, we can support our customers in replacing their diesel-

powered trains operating on non-electrified rail lines with emission-free hydrogen-

powered trains over the longer term. Together with Siemens Energy, we can even

offer hydrogen as a 'hydrogen as a service' model for a train's service life," says

Albrecht Neumann of Siemens Mobility.

Over the next twenty years, thousands of diesel-electric multiple-unit trains are to be

successively replaced by more environmentally friendly alternatives in Europe.

Diesel-powered trainsets are still in service today on non-electrified rail routes. In

Germany, for example, these routes account for around 50 percent of the country's

entire rail network. Environmentally friendly battery and hydrogen drives are to be

used as a replacement for the diesel units.

Siemens Energy and Siemens Mobility plan to jointly develop a standardized

hydrogen infrastructure solution for fueling the hydrogen-powered trains of Siemens

Mobility and later expand the solution in pilot projects and specific customer

projects.

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Reference number: HQMOPR202009306012EN

Page 2/4

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Siemens Energy markets the systems and solutions needed for the generation and provision of green hydrogen, while Siemens Mobility focuses on rail transport solutions, including the required train maintenance and depot equipment. Working together, Siemens Energy and Siemens Mobility can offer rail customers a complete solution. This will not only support customer acceptance of hydrogen power in the transport market, but also promote the establishment of a sustainable hydrogen economy in Germany.

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This press release and a press pictures are available at https://sie.ag/36j0cEv

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Siemens Mobility is a separately managed company of Siemens AG. As a leader in transport solutions for more than 160 years, Siemens Mobility is constantly innovating its portfolio in its core areas of rolling stock, rail automation and electrification, turnkey systems, intelligent traffic systems as well as related services. With digitalization, Siemens Mobility is enabling mobility operators worldwide to make infrastructure intelligent, increase value sustainably over the entire lifecycle, enhance passenger experience and guarantee availability. In fiscal year 2019, which ended on September 30, 2019, the former Siemens Mobility Division posted revenue of €8.9 billion and had around 36,800 employees worldwide. Further information is available at: www.siemens.com/mobility.

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Siemens Energy is one of the world's leading energy technology companies. The company works with its customers and partners on energy systems for the future, thus supporting the transition to a more sustainable world. With its portfolio of products, solutions and services, Siemens Energy covers almost the entire energy value chain − from power generation and transmission to storage. The portfolio includes conventional and renewable energy technology, such as gas and steam turbines, hybrid power plants operated with hydrogen, and power generators and transformers. More than 50 percent of the portfolio has already been decarbonized. A majority stake in the listed company Siemens Gamesa Renewable Energy (SGRE) makes Siemens Energy a global market leader for renewable energies. An estimated one-sixth of the electricity generated worldwide is based on technologies from Siemens Energy. Siemens Energy employs 91,000 people worldwide in more than 90 countries and generated revenue of around €29 billion in fiscal year 2019. www.siemens-energy.com.