

# Joint press release

Munich/ Tokyo, September 6, 2021

**Press release by Siemens Energy and Toray**

## **Siemens Energy and Toray to develop partnership through PEM water electrolysis based on a new membrane technology**

- Contributing to a carbon-neutral society through green hydrogen production
- Both companies to cooperate on R&D and Demonstration project adopted by Green Innovation Funding Program in Japan

Toray Industries, Inc. and Siemens Energy K.K., the Japanese subsidiary of Siemens Energy AG, were adopted by the Green Hydrogen Project under the Green Innovation Funding Program organized by the Japanese Ministry of Economy, Trade and Industry (METI) and the New Energy and Industrial Technology Development Organization (NEDO). The two companies will receive the funding together with six other companies including the Yamanashi Prefectural Enterprises Bureau, and Tokyo Electric Power Company. Siemens Energy and Toray are jointly promoting the technological development and demonstration of the largest multi megawatt class PEM (PEM = Polymer Electrolyte Membrane) electrolysis in Japan with new membrane technology from Toray.

Siemens Energy and Toray Industries will cooperate to provide optimum solutions in order to contribute to the realization of a carbon-neutral society in countries and regions around the world by utilizing our hydrogen related technologies, business and global network. The joint vision of the two companies is to advance the technology for the production of green hydrogen from innovative PEM water electrolysis using renewable energy sources. The resulting green hydrogen can not only be used for large-scale power generation and other electric power applications, but also for sector coupling such as heat, transport, and industrial applications. Toray will provide Siemens Energy with

**Siemens Energy AG**  
Communications  
Head: Robin Zimmermann  
Otto-Hahn-Ring 6  
81739 Munich  
Germany

**'TORAY'****Innovation by Chemistry**

**Toray Industries Inc.**  
Corporate Communications Dept.  
1-1, Nihonbashi-Muromachi 2-chome  
Chuo-ku, Tokyo 103-8666  
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Toray's proprietary hydrocarbon electrolyte membranes. The two companies will work together to promote the installation and demonstration of these membranes in Siemens Energy's large industrial scale PEM water electrolyzer.

## Contacts for journalists

### Siemens Energy

Alfons Benzinger

Phone: +49 174 155 9447

E-mail: [alfons.benzinger@siemens-energy.com](mailto:alfons.benzinger@siemens-energy.com)

### Toray Industries

E-mail: [newsrelease.toray.mb@mail.toray](mailto:newsrelease.toray.mb@mail.toray)

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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 more than 90,000 people worldwide in more than 90 countries and generated revenue of around €27.5 billion in fiscal year 2020. [www.siemens-energy.com](http://www.siemens-energy.com).

**Toray** is an integrated chemical industry company that leverages core strengths in organic synthetic chemistry, polymer chemistry, biotechnology, and nanotechnology to supply materials across a range of fields. These include fibers and textiles, performance chemicals, carbon fiber composite materials, environment and engineering, and life sciences. The company has contributed to society through business since its founding. In 2018, it formulated the Toray Group Sustainability Vision, under which it seeks to help materialize a world that completely offsets greenhouse gas emissions

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through absorption by 2050. Toray aims to reach carbon neutrality by 2050 for society overall and for itself. It will do so by expanding Green Innovation Businesses to cut greenhouse gas emissions and help resolve environmental, resource, and energy issues and by developing technologies and products that contribute to absorbing greenhouse gases. Toray operates in 29 countries and regions, has around 46,000 employees, and posted revenue of ¥1,883.6 billion (about 14.5 billion euros) in the fiscal year ended March 31, 2021.

**Siemens Energy AG**  
Communications  
Head: Robin Zimmermann  
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