

Siemens Energy

Carsten Hasbach | Government Affairs
August 3, 2022



We are a
**global leader
in the energy
business.**



~ **1/6**

of global electricity generation
is based on our technology.

> **50%**

of our portfolio is based on
technology that is relevant in
a decarbonized energy world.

We are present in

> **90** countries.

91,000

employees work as a team
to energize society.¹

¹ Number of employees as of September 30, 2021
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Our setup

The leading pureplay energy company

Our offering

Across the value chain

Broad technology portfolio

Products
Solutions
Services

Generation
Transmission
Storage

From
Conventional
to Renewables

Siemens Energy AG

Gas and Power ("GP")

Siemens Gamesa
Renewable Energy ("SGRE")

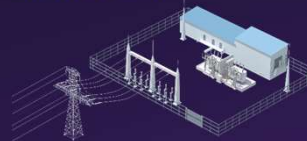
Generation



Industrial
Applications



Transmission



New
Energy



Central

Distributed

67% owned

Onshore



Offshore



NET ZERO
through hybrid
power plants

up to 60%
H₂ capable gas
turbine portfolio¹

SF₆-FREE
portfolio that is
market-leading

100% H₂
Enabling hydrogen economy

>260 Mt
GHG savings p.a.
to customers

Silyzer 300 – Full Module Array

The next paradigm in PEM electrolysis

Silyzer 300

Full module array
(24 modules) ...



... and close-up of 6
modules (Linz plant)



SIEMENS
energy

17.5 MW

plant power demand

>75.5%

plant efficiency

24 modules

to build a full module array

335 kg

hydrogen per hour

New Energy Business in action

Haru Oni, Chile Producing green fuel from wind and water

- The first commercial facility to produce climate-neutral fuels is currently under construction.
- In the future, electrolyzers from Siemens Energy will produce green hydrogen using wind from the windswept Strait of Magellan.
- Synthetic methanol is produced from the hydrogen with the help of CO₂ – the basis for e-fuels that can power cars, trucks, ships, and airplanes.
- Production will be increased to more than 550 million liters of e-fuels annually by the middle of the decade.
- Synthetic fuels emit 90% less CO₂ than fossil fuels and can make a key contribution to the decarbonization of transportation.
- Siemens Energy is a co-developer of the project led by HIF and serves as systems integrator to cover the entire value chain. Project partner Porsche will initially use the synthetic fuels in test vehicles.

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New energy Business in China

Beijing Green Hydrogen Technology Development, China

- 1 MW green H2 solution for production of green H2 for hydrogen fuelling station in Yanqing District, Beijing.
- Wind and solar energy as basis for green H2 production.
- Silyzer 200 solution with PEM technology.



- Fueling station used for H2 bus fleet during a major Sports event in early 2022.

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China's H2 market is fast developing, attractive and challenging

- China is already the largest global H2 producer (33 mio. tons annually) and demand will continue to grow
- National H2 policy released in March 2022 plus >200 provincial H2 policies existing
- China's R&D expenses for H2 surpassed combined spendings of US and Europe
- State-owned-Enterprises (SoE) are key drivers
- Innovation gaps are quickly closed by Chinese companies
- SoEs already participating in international H2 projects (e.g. Latam)

Thank you!

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More information can be found on our website:
[siemens-energy.com](https://www.siemens-energy.com)

