

Press release

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Hydrogen energy crucial to a climate-neutral future

Recognising the increasing importance of hydrogen to decarbonisation of the energy supply, Axpo has published a white paper on the role and potential of hydrogen in Switzerland. Axpo uses the latest data to demonstrate the economic viability and potential uses of hydrogen as an energy source. The paper also takes a critical look at the key challenges facing the hydrogen economy in Switzerland.

The Axpo white paper argues that green hydrogen produced from renewable energy is already playing a crucial role in efforts to reduce CO₂ emissions. Focusing on Switzerland's hydrogen economy, the report analyses green hydrogen research and development projects, and makes the following key findings:

- Hydrogen offers significant opportunities for the energy transition, especially in sectors that are difficult to electrify, such as industries with high-temperature processes or energy-intensive mobility requiring high energy density.
- Green hydrogen and its derivatives offer long-term and compact energy storage options with the potential for use in heavy-duty, marine and air transportation, possibly through e-fuels.
- The optimised use of electrolyzers is crucial. At low utilisation, high fixed costs are significant, while at high utilisation, electricity costs dominate.
- This electricity generation from hydrogen is not yet economically viable due to the current efficiency of hydrogen production and it can be assumed that the use of reconversion in Switzerland will remain limited for the time being.

Green hydrogen a key element of energy transition

Produced using electricity from renewable energy sources, green hydrogen is considered a key element in Switzerland's future energy supply. Axpo plays a leading role in green hydrogen research and production in the country. It is also pursuing a number of projects across Europe aimed at contributing to a climate-neutral future with net-zero greenhouse gas emissions. In Switzerland, Axpo is about to open its first own hydrogen production plant (2.5 MW) at the Reichenau hydroelectric power plant in Domat/Ems. The power-to-gas plant will produce 350 tonnes of green hydrogen a year. This corresponds to around 1.5 million litres of diesel fuel.

"Hydrogen still has a few hurdles to overcome. But Axpo is convinced of the potential of green hydrogen as a clean, renewable and versatile energy source," says Axpo CEO Christoph Brand. The company's hydrogen business is able to draw on Axpo's

deep expertise in renewable energies, trading and sales, as well as deployment optimisation and marketing. It also advises and supports companies switching to green hydrogen.

Axpo CEO Christoph Brand: "We are actively committed to building a hydrogen economy in Switzerland and other European countries, as demonstrated by the commissioning of our very first hydrogen production plant in the near future, with even more initiatives in the pipeline."

Further projects planned

In addition to Reichenau, Axpo is planning further projects in Switzerland and internationally. One of those currently under development is the climate-friendly hydrogen plant in Wildegg-Brugg. Over the next years, this will become the largest hydrogen plant in Switzerland, with a capacity of up to 15 MW. Axpo attaches great importance to a sustainable hydrogen ecosystem, covering both its production and distribution. Through the company's participation in Swiss Green Gas International, a joint initiative of leading Swiss energy industry stakeholders, Axpo is also researching and planning hydrogen logistics in both Switzerland and Europe.

Here you will find the direct link to the white paper and further information about Axpo's [hydrogen business](#).

About Axpo:

Axpo is driven by a single purpose – to enable a sustainable future through innovative energy solutions. Axpo is Switzerland's largest producer of renewable energy and an international leader in energy trading and the marketing of solar and wind power. Axpo combines the experience and expertise of more than 6,000 employees who are driven by a passion for innovation, collaboration and impactful change. Using cutting-edge technologies, Axpo innovates to meet the evolving needs of its customers in over 30 countries across Europe, North America and Asia.

Additional information

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In addition, Luka Cuderman, Business Strategy Lead in Axpo's hydrogen team, will be available between 12:00 and 13:00 to answer specific technical questions.
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