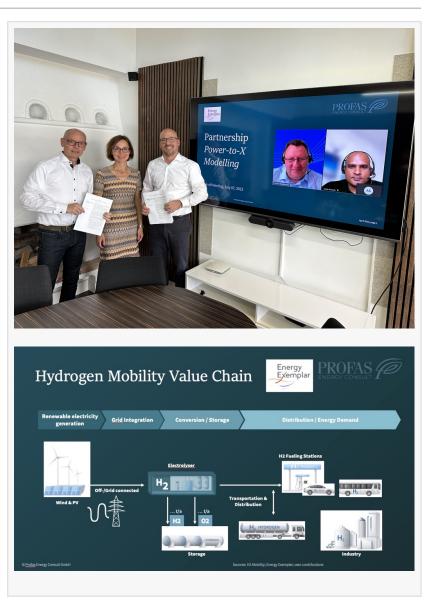


In world first, Profas Energy Consult partner with Energy Exemplar to model hydrogen value chain

Profas and Energy Exemplar aim to increase transparency across the hydrogen value chain and accelerate the green hydrogen market

LONDON, UNITED KINGDOM, July 17, 2023 /EINPresswire.com/ -- The German hydrogen and energy transition consulting firm <u>Profas</u> <u>Energy Consult</u> has partnered with <u>Energy Exemplar</u> to model the latest and most sophisticated needs of the hydrogen value chain using PLEXOS.

In a world first, Profas Energy Consult, who specialise in development support and implementation coaching for green hydrogen projects, will work with Energy Exemplar to build on its market-leading modelling software platform, PLEXOS, and optimise hydrogen and power-to-X projects. The hydrogen market being in early stages has previously been reliant on basic modelling including spreadsheets to model scenarios. This approach is reaching an end as multiple technology



options, renewable weather scenarios, as well as optimal positioning in the grid are playing a key role in project profitability.

Profas Energy Consult and Energy Exemplar will bring their respective expertise in hydrogen and modelling to introduce transparency to hydrogen project value flows, making final investment decisions simpler. They will also ensure that capital is put into projects with the highest chance

of success. Profas and Energy Exemplar will develop state-of-the-art project and asset models to simulate hydrogen projects and their commercial impact in the energy market.

Potential use cases for the specialised "hydrogen-only" PLEXOS software include modelling costminimised power supply from volatile renewable energy sources, optimal power purchase agreements, energy market trading effects, as well as the value of ancillary services. The modelling will be of particular interest and appeal to hydrogen and power-to-X project developers, as well as financial institutions and investors.

Armin Schnettler, Managing Director of Profas Energy Consult, said: "Optimising the Power-to-X value chain requires OEM-specific operating models, degradation effects, maintenance and replacement efforts, to calculate financial data over the desired lifetime – for instance, revenues and cash flows."

Michael Schneider, SVP and Head of EMEA at Energy Exemplar, said: "By simulating renewable energy supply and its volatility, PPAs and market price forecasts, different hydrogen technology options, the optimal ratings of the electrolyser resp. power-to-X plant will be derived, ensuring the lowest cost of hydrogen and highest economic benefit."

The news comes as the global energy transition enters its next phase. The 'green' hydrogen economy is accelerating the decarbonisation of sectors which are hard to electrify. More than 1,000 renewable and low-carbon hydrogen projects requiring \$320 billion in investment by the end of 2030 have been announced globally.

According to the International Renewable Energy Agency's (IRENA) <u>2023 1.5C scenario</u>, global electricity demand is expected to triple compared with 2020 with direct and indirect electrification. Smart electrification and effective hydrogen usage will have to be combined to enable the effective integration of renewables.

PLEXOS has emerged as the market-leading simulation and optimisation platform for market players in need of the means to make intelligent decisions by processing and drawing insights from vast amounts of data.

Energy Exemplar and Profas Energy Consult plan to have the first dedicated "hydrogen" tool chain based on PLEXOS ready to use by Q4 of 2023. They aim to have completed the power-to-X value chain simulation models in 2024.

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About Energy Exemplar:

Energy Exemplar is the leading simulation software provider for the world energy market. Headquartered in Australia but with a global presence, it gives energy companies the tools and expertise to light a path forward to a cleaner, greener future. Its state-of-the-art modelling software, including the world-leading PLEXOS suite, empowers more than 500 clients across 73 countries to run simulations, analyse scenarios, simplify decisions and make the switch quickly and safely to net zero. Now the go-to provider of energy solutions for the world's top market stakeholders, Energy Exemplar is helping to shape tomorrow's world.

Combining constant innovation with a passion for sustainability, Energy Exemplar has made the crystal ball a reality with its PLEXOS suite. Using PLEXOS, clients can build datasets on electric power, water and gas, and digitally replicate real-world energy markets with unmatched accuracy. PLEXOS simulations inform trading, generation scheduling, capacity expansion and market analysis. As the need to decarbonise grows urgent, PLEXOS has become the essential tool for the secure transformation of the world energy market.

For more information visit: <u>https://www.energyexemplar.com/</u>

About Profas Energy Consult:

Profas Energy Consult GmbH is a consulting and investment practice, specialising in development support and implementation coaching for successful green hydrogen and Power-to-X projects.

Managing Directors Natalia Westhaeuser (MBA) and Armin Schnettler (Univ.-Prof. Dr.-Ing.) are also engaged as Operating Partners of FiveT Hydrogen, the 360-degree financial partner of the hydrogen industry. FiveT Hydrogen is developing an investment fund family focusing exclusively on clean hydrogen. With this focus, FiveT Hydrogen has already launched the world's first and largest infrastructure fund together with Ardian in the Hy24 joint venture.

For more information visit: <u>https://profas-energy.com/</u>

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