

e-Fuels for climate-friendly data centers: Rolls-Royce and INERATEC launch partnership

In anticipation of rising energy demand: INERATEC's e-Fuels will fuel emergency power systems in data centers

Karlsruhe, Germany, August 06 2025 – The technology group Rolls-Royce and INERATEC, a leading manufacturer of Power-to-X plants and climate-neutral e-Fuels, have formed a strategic partnership to decarbonize backup power for data centers. Their goal: to replace fossil diesel in emergency power systems with synthetic fuels produced from renewable hydrogen and CO₂. The collaboration opens up a new and largely overlooked use case for e-Fuels in the digital age—powering critical infrastructure in an increasingly AI-driven world.

Fueling emergency power systems with e-Fuels

Data centers are among the fastest-growing energy consumers, primarily due to the increasing use of artificial intelligence. At the same time, these data centers – some of which form part of critical infrastructure – must be protected against power outages. This is precisely where the partnership between Rolls-Royce Power Systems and INERATEC comes in. The companies intend to use INERATEC's synthetic e-Diesel, which is produced using green hydrogen and CO₂, as an alternative to fossil diesel for generators. Initially, the focus will be on German data centers.

Rolls-Royce Power Systems plans to support the use of INERATEC's sustainable fuels in its emergency power systems for data centers. The result is a reliable, cost-efficient, CO₂-neutral solution to one of the challenges facing digital infrastructure.

'mtu emergency generators from Rolls-Royce are already approved for operation with sustainable fuels. Customers in the critical infrastructure sector, such as data centers, who are aiming to reduce their carbon footprint, will soon be able to use e-fuels. We are committed to the use of e-Fuels in data centers together with INERATEC,' explained Tobias Ostermaier, President of the Stationary Power Solutions business unit at Rolls-Royce Power Systems.

'The secure energy supply for AI-powered data centers is one of the defining challenges of our time. Our e-Fuels offer a climate-neutral solution that is scalable, dependable, and ready for immediate deployment,' says Maximilian Backhaus, Chief Commercial Officer at INERATEC. 'Together with Rolls-Royce, we're bringing this solution to the places where it's needed most—starting now.'

The collaboration will begin with a focused market launch in Germany. Short delivery routes from INERATEC's ERA ONE production facility in Frankfurt will enable rapid rollout. INERATEC's e-Fuels are produced using renewable electricity and captured CO₂, and comply with internationally recognized environmental standards such as ISCC. In the long term, the two partners aim to implement their cooperation internationally.



Rolls-Royce and INERATEC have entered into a strategic partnership. © INERATEC



Fueling emergency generators with sustainable e-Fuels. © INERATEC

Rolls-Royce Power Systems

Based in Friedrichshafen, Germany, Rolls-Royce Power Systems offers innovative power and propulsion technology solutions under the mtu brand, including high-speed engines and systems for ships, heavy land and rail vehicles, and military applications. Its portfolio ranges from advanced diesel and gas engines to battery solutions and integrated energy systems for safety-critical applications and continuous power supply, as well as for combined heat and power generation and microgrids. With over 10,000 employees worldwide, Power Systems is playing an active role in driving the energy transition.



INERATEC is committed to defossilizing and decarbonizing the world. The company produces e-Fuels and e-Chemicals: carbon-neutral fossil fuel substitutes for use in the aviation, shipping and chemical industries. Its modular, scalable plants use renewable hydrogen and biogenic CO₂ to produce synthetic kerosene, gasoline, diesel, waxes, methanol and natural gas. The company is based in Karlsruhe, Germany, and backed by diverse international investors.

Media contact

INERATEC GmbH

Isabel Fisch

+ 49 1621852663

isabel.fisch@ineratec.de