

Power2X Drives Sustainable Aviation Fuel with eFuels Rotterdam Project

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Power2X, a pioneer in the green energy sector, has taken a significant step forward with its eFuels Rotterdam project, a large-scale production facility designed to deliver sustainable aviation fuel (eSAF) and ultra-low carbon fuels. This ambitious project brings together Power2X, engineering firm Worley, and technology giant Honeywell, combining their expertise to advance sustainable aviation and align with Europe’s ambitious decarbonization goals.

At the heart of the eFuels Rotterdam project lies Honeywell’s eFinishing™ methanol-to-jet processing technology. This innovative technology leverages green hydrogen, produced from renewable energy and water, and biogenic carbon to create methanol, which is then refined into eSAF. Notably, Honeywell’s eFinishing technology can reduce greenhouse gas emissions by up to 88% compared to conventional jet fuel. Furthermore, it produces a “drop-in” fuel, seamlessly compatible with existing aviation infrastructure.

Worley, a global leader in engineering and project management, is playing a crucial role in bringing the project to fruition. The company is responsible for managing the foundational phases, including delivering a comprehensive Class III estimate and supporting the early project design phase. Worley’s expertise will be instrumental in defining the Front-End Engineering Design (FEED) and developing efficient execution strategies to minimize risks and optimize project timelines.

Sustainable aviation fuel (SAF) is a critical component in the global effort to decarbonize the aviation sector. The European Union’s ReFuelEU Aviation Regulation mandates the increased utilization of SAF, including synthetic fuels like eSAF, to meet the region’s ambitious decarbonization targets. The eFuels Rotterdam hub is projected to contribute significantly to this goal, aiming to supply 40% of Europe’s required eSAF volume.

The eFuels Rotterdam facility is expected to commence operations by the end of this decade, with an anticipated production capacity exceeding 250,000 tonnes per year of eSAF. This project represents a significant milestone in the transition to a more sustainable future for the aviation industry.

This collaboration between Power2X, Worley, and Honeywell demonstrates the power of industry collaboration in driving innovation and achieving ambitious sustainability goals. By leveraging advanced technologies like eFining and implementing robust project management strategies, the eFuels Rotterdam project paves the way for a future where sustainable aviation fuels play a pivotal role in decarbonizing transportation.