RWE announces large scale green hydrogen plant in Grangemouth

- Grangemouth Green Hydrogen, could be built in the industrial heartland of Scotland with major chemical company INEOS the first hydrogen customer
- The project is scheduled to be operational by 2029, potentially producing 3.6 tonnes of hydrogen per hour, helping shape Scotland’s hydrogen economy
- RWE’s green hydrogen project in Grangemouth will encourage additional green investment, creating opportunities, jobs, and local economic benefits

Grangemouth, Scotland, 14 May 2024

RWE, the UK’s leading electricity generator and one of the country’s leading renewable energy companies, today announced that we plan to develop a groundbreaking green hydrogen project at Grangemouth. This initiative underscores RWE’s commitment to driving forward the hydrogen economy and contributing to Scotland’s decarbonisation goals. Tackling emissions by diversifying and boosting renewable energy infrastructure and usage is a key part of the Scottish Governments ‘Just Transition’ and RWE’s Grangemouth Green Hydrogen plant will accelerate the move to a sustainable economy.

RWE will supply the first hydrogen produced to INEOS Grangemouth, assisting them in significantly reducing their greenhouse gas emissions. Once developed, consented and operational, the initial capacity is anticipated to be up to 200MWe, potentially producing up to 3.6 tonnes of hydrogen per hour, with ambitions for potential expansion to 600MWe at a later date. This project will reduce INEOS’s carbon emissions and will offer other industrial users the chance to transition to green hydrogen, putting Grangemouth at the heart of decarbonisation in Scotland.

The project, could be operational by 2029 and constructed on land within the Grangemouth industrial complex, adjacent to the INEOS facility and the hydrogen produced will be piped a short distance to the site. This project will support INEOS Grangemouth’s commitment to have Net Zero carbon emissions by 2045 and contribute to the decarbonisation of other existing and future industries in Grangemouth.

RWE has completed concept, feasibility and pre-Front-End Engineering Design (FEED) studies. A grid connection has been secured and the company is shortlisting electrolyser suppliers. The
next steps will be progressing towards a planning application which will include local consultation on the project.

RWE and INEOS share a common vision for shaping the future hydrogen economy in Grangemouth and Scotland. Working together on this reflects the joint commitment to driving innovation, fostering sustainability, and supporting Scotland’s broader net zero targets to deliver a greener future, safeguard jobs and decarbonise key industrial sectors.

Sopna Sury, COO Hydrogen RWE Generation; “This is a significant step towards RWE’s ambitions for the production of green hydrogen in Scotland. As one of the world’s leading energy companies, RWE has significant experience in onshore and offshore wind, developing green hydrogen production plants and operating large scale gas plants. This project at Grangemouth aligns with the Scottish Government’s vision for a ‘Just Transition’, putting Scotland at the forefront of the green revolution while protecting jobs and decarbonising Grangemouth.”

Colin Pritchard, Sustainability Director at the INEOS Grangemouth site, said, “We are pleased to support RWE in their investment in green hydrogen at our site in Grangemouth. This perfectly augments our project to develop a low-carbon (blue) hydrogen production unit at Grangemouth, with the CO2 exported deep underground in the North Sea via the Acorn transport and storage system. Together these projects support delivery of our net zero roadmap and place Grangemouth at the heart of Scotland’s future hydrogen economy.”

Scotland holds strategic importance for RWE, with approximately 480MW of installed renewable capacity across 26 sites. With further expansions underway, including 100MW of onshore wind in construction, RWE remains committed to driving the transition to renewable energy and advancing hydrogen development initiatives across the country.

RWE is dedicated to delivering clean, reliable, and sustainable energy solutions to communities across the UK. RWE is actively developing green hydrogen projects across Europe and targets 2GW of its own green hydrogen electrolyser capacity in its core markets by 2030.

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RWE is leading the way to a green energy world. With its investment and growth strategy Growing Green, RWE is contributing significantly to the success of the energy transition and the decarbonisation of the energy system. Around 20,000 employees work for the company in almost 30 countries worldwide. RWE is already one of the leading companies in the field of renewable energy. Between 2024 and 2030, RWE will invest 55 billion euros worldwide in offshore and onshore wind, solar energy, batteries, flexible generation, and hydrogen projects. By the end of the decade, the company’s green portfolio will grow to more than 65 gigawatts of generation capacity, which will be perfectly complemented by global energy trading. RWE is decarbonising its business in line with the 1.5-degree reduction pathway and will phase out coal by 2030. RWE will be net-zero by 2040. Fully in line with the company’s purpose - Our energy for a sustainable life.

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