Press Release

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TÜV SÜD joins international consortium to develop cutting-edge renewable hydrogen technology

Munich. The H24All project, led by a consortium of fifteen partners, has presented an application for European Green Deal funding to develop Europe's first 100 megawatt (MW) alkaline electrolyzer plant, which will be connected to a Repsol industrial site.

The consortium aims to pave the way for a new and competitive hydrogen industry based on European know-how through innovation by developing, building, operating and demonstrating the sustainability of a 100 MW high-pressure alkaline electrolyzer. The technology will be demonstrated in real operation according to end-users' needs, meeting market requirements for competitive low-carbon hydrogen production.

Partners in the consortium represent the whole value chain of hydrogen from six different countries (Belgium, Denmark, Germany, Norway, Spain, and Turkey). The partners include research centers, material suppliers, engineering firms specializing in electrolyzers, electro-intensive industries, energy and automotive companies, universities, and industry associations, all of which have a high level of expertise in this field and are safety-oriented and committed to CO_2 reduction.

During the H24All project, partners will bring together different innovative solutions that will together represent, in a record time, significant progress in hydrogen technologies that improve the competitiveness and viability of an electrolyzer while reducing the investment needed as well as operating costs. The objective for the Green Deal project will be to boost the technology and the use of renewable hydrogen by reducing the cost to close to €3/kg H_2.

This project will be the validation reference of an innovative and competitive technology at pre-commercial scale. The economic and business-modelling case will provide quantitative evidence that will reduce the risk for other hydrogen infrastructure deployment across Europe. The complete timeline of the project encompasses an expected three years of research, development and construction plus two years of a demonstration and validation phase.

This initiative will represent a major boost to the technological development of renewable hydrogen production and will have a positive effect on other industries, such as mobility, refining, synthetic fuel production and renewable power generation.

Founded in 1866 as a steam boiler inspection association, the TÜV SÜD Group has evolved into a global enterprise. More than 25,000 employees work at over 1.000 locations in about 50 countries to continually improve technology, systems and expertise. They contribute significantly to making technical innovations such as Industry 4.0, autonomous driving and renewable energy safe and reliable. As a service provider for safe hydrogen applications, TÜV SÜD has a comprehensive network of experts and technical testing facilities in Germany, the European Union and other countries of relevance such as the USA, China or Japan. More information can be found at www.tuvsud.com/hydrogen.

Note for editorial staff: The press release is available on the Internet at www.tuvsud.com/newsroom.

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