Total renewable and energy efficiency solutions

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Paris, May 31, 2023 - TotalEnergies is joining forces with Tree Energy Solutions (TES) to study and develop a large-scale production unit in the United States for e-natural gas (e-NG), a synthetic gas produced from renewable hydrogen and CO2.

The project, which is expected to produce 100,000 to 200,000 metric tons of e-NG per year, will be equally owned by the partners and operated by TotalEnergies. This partnership combines TES" e-NG know-how with TotalEnergies" expertise in renewable power generation, large-scale project management and natural gas liquefaction.

The resulting e-NG produced can be transported and/or liquefied, then sold like natural gas, using existing infrastructure, and end customers will be able to use it without any adaptation to their facilities.

TotalEnergies and TES will carry out the preliminary studies and aim to reach a Final Investment Decision (FID) in 2024. The project is expected to benefit from tax credits under the 2022 Inflation Reduction Act (IRA).

TotalEnergies is a global multi-energy company that produces and markets energies: oil and biofuels, natural gas and green gases, renewables and electricity. Our more than 100,000 employees are committed to energy that is ever more affordable, cleaner, more reliable and accessible to as many people as possible. Active in nearly 130 countries, TotalEnergies puts sustainable development in all its dimensions at the heart of its projects and operations to contribute to the well-being of people.

Energy reliability is the ability of a power system to withstand instability, uncontrolled events, cascading failures, or unanticipated loss of system components. Put another way, it means being able to consistently depend on power delivery to homes, buildings, and devices, even in the face of physical and cyber events that cause power disruptions.

Energy reliability is critical to Americans" daily lives. It is vital to human health, safety, and well-being and the nation"s economic prosperity and security. Reliable energy keeps life-saving hospital equipment and communications systems operating, buildings at safe temperatures with good ventilation, and much more. The effects of climate change and aging U.S. energy infrastructure are key challenges to energy reliability.

Various technologies enable energy to be harnessed and stored for later use. Pumped storage hydropower is responsible for most U.S. commercial energy storage capacity and has been used for more than 100 years. Wind and solar energy can be captured and stored for later use with batteries, and researchers are investigating geothermal energy storage.

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Energy storage is also essential to clean transportation. To ensure on- and off-road vehicles reliably move people and goods from one place to another, EERE invests in research and development of hydrogen storage and batteries.

The U.S. Department of Energy"s Energy Storage Grand Challenge is a comprehensive program to accelerate the development, commercialization, and use of next-generation energy storage technologies. As part of this program, the Long Duration Storage Shot aims to reduce the cost of grid-scale energy storage by 90% for systems that deliver at least 10 hours of duration within the decade.

This decade is critical to our success in limiting global surface temperature increase to 1.5?C above pre-industrial levels in accordance with the Paris Agreement. There is therefore an urgent need for rapid and immediate action to reduce global carbon dioxide (CO2) emissions by 2030, with a significant proportion of this reduction occurring within the field of energy.

Yet, today, the energy transition remains off-track and global greenhouse gas emissions have reached record levels. IRENA"s World Energy Transitions Outlook 2023: 1.5?C pathway concludes that a significant acceleration in the deployment of renewable energy, energy storage and renewable fuels, coupled with tangible progress in energy efficiency and electrification of end-use sectors, are required to put the world back on course to meet global climate goals.

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