

by the Editorial Staff

E.ON and Tree Energy Solutions announce strategic partnership to import green hydrogen

E.ON and Tree Energy Solutions (TES) want to drive the ramp-up of the future hydrogen economy jointly and agreed on a strategic partnership to import green hydrogen at scale into Germany. Within the framework of the partnership the companies will investigate potential joint engagements along the entire hydrogen value chain to build a source for secure, long-term green hydrogen supply.

In addition to green electrification, green gases like hydrogen are an irreplaceable part of a successful energy transition. They are needed to replace fossil fuels in the energy landscape of the future and to meet the Paris climate targets. E.ON is ready to support the development of a hydrogen economy in Germany and Europe competently and actively. The company will significantly expand the commitment and plans to engage in electrolyzers, grid infrastructure, and renewable energies to produce green hydrogen close to our customers as well as engage in investments along the entire hydrogen value chain. To emphasise the relevance of the topic, a new E.ON Hydrogen unit was established at the end of 2021.

TES is developing a green energy hub in the German port of Wilhelmshaven. The energy hub will feature a receiving terminal, storage facilities and a clean, zero-emissions oxy-fuel combustion power plant. In addition, TES is developing the production of green hydrogen in solar belt countries and investing in the supply chain and relevant infrastructure. TES will efficiently transport green hydrogen produced from solar electricity, in the form of fossil-free green gas (CH₄) to Europe and is planning to invest in infrastructure to transport the CO₂. Patrick Lammers, COO at E.ON, says: "The ramp-up of a functioning hydrogen economy must have top priority in Germany and Europe. The partnership with TES is an important step on the way to a sustainable energy landscape while ensuring security of supply. It moves us a step closer to net-zero; without the use of green gases such as hydrogen, it will be impossible to completely avoid CO₂ emissions." "This is an exciting long-term partnership that will allow us to combine relevant experience to accelerate the decarbonisation of the energy chain," Paul van Poecke, Founder and Managing Director at TES said. "Our ambition is to build the Wilhelmshaven location into a hub for international hydrogen trading and upgrade the infrastructure accordingly. Through this hub TES will supply a mix of green and clean energy to economically lead Europe to reach its net-zero ambitions. We are excited to partner with E.ON to reach net-zero in the German market and support E.ON in its decarbonisation strategy."

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Presidents of Uzbekistan and Turkey launch two new power plant facilities in Uzbekistan | 63

Uzbekistan's Ministry of Energy announces that President of the Republic of Uzbekistan, Shavkat Mirziyoyev, and Turkish President, Recep Tayyip Erdogan, today attended the ceremony of commissioning a new 240 MW thermal power plant ("TPP") and starting construction of a 220 MW piston gas power plant. At the commissioning ceremony, the two heads of states took part in a virtual tour of Cengiz Enerji's new plants. The TPP, which has been built by the Turkish company Cengiz Enerji, and is in the Kibray district of the Tashkent region, will produce 1.9 billion kilowatt-hours ("kWh") of electricity per year. Total project cost is \$150 million with c. 600 specialist workers having participated in its construction. Post-commissioning, 100 new jobs have also been created. The Presidents also announced launching construction of a separate gas piston power plant, by Cengiz Enerji, with 220 MW capacity - in the Khavas district of the Syrdarya region. This plant will produce 1.76 billion kWh of electricity per year, with construction work also creating 600 jobs and 100 new jobs post-commissioning. Total project cost is estimated at \$140 million. It is anticipated that opening will take place in September 2022. The installation of modern energy-saving devices at these two plants will enable savings of 440 million m³ of natural gas per year, for Uzbekistan. The Presidents were also informed about two further new thermal power plants, operated and commissioned by Turkey's Aksa Enerji, in January of this year. The two thermal power plants will contribute capacities of 270 MW and 240 MW of new electricity to Uzbekistan's grid, respectively. The 270 MW plant is located in Bukhara district of Bukhara region, while the 240 MW facility has been built in the Tashkent region's Kibray district. These thermal power plants will add total capacity of 4.2 billion kilowatt-hours of annual electricity production. Due to the high efficiency of modern appliances employed, 550 million m³ of natural gas per year can be saved compared to old existing facilities. With the amount of natural gas saved Uzbekistan's energy producers will be able to generate an additional 1.9 billion kilowatt-hours of electricity annually.

Wärtsilä sustainable fuels paper explores the various options for energy's decarbonised future

The technology group Wärtsilä has published an important paper on the role of sustainable fuels in the energy sector's transition towards decarbonised power generation. Future carbon-neutral fuels and the use of flexible engine power plants capable of utilising such fuels, will be central to this transition. Along with the growing need to decarbonise engine power plants, Wärtsilä has invested heavily in the study of alternative future fuels at its dedicated fuel laboratory where a broad range of fuels have been tested. As part of the company's new world-class Smart Technology Hub, fuel testing and the assessment of engine compatibility will uniquely be able to be carried out under one roof. The fuel options are broken down into three categories, namely Power-to-X (P2X), Bio-to-X (B2X) and Waste-to-X (W2X). P2X fuels are produced through the electrolysis of water into hydrogen and its various derivatives. They can be considered 'green' only if the power used for the process is from renewable energy sources. B2X includes biofuels and biogas which, particularly as blends, will likely be used in certain areas of the world as a locally suitable solution. W2X fuels include plastic or tyre pyrolysis oils or gasified municipal waste. Since they support a circular economy, they have value for sustainability and decarbonisation.

www.wartsila.com/sustainable-fuels