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## Masdar and VERBUND to Explore Developing Large-Scale Green Hydrogen Production in Spain

Dubai, Uae (ots/PRNewswire) -

- Masdar, the UAE's flagship renewable energy company, and VERBUND Green Hydrogen GmbH, part of VERBUND group, Austria's leading energy company, sign agreement at COP28 to explore feasibility of large-scale electrolysis in central Spain.
- Agreement creates a 50:50 partnership for a joint study to explore the development of green hydrogen, while consolidating Masdar's and VERBUND's strong commitment in Spain and Europe
- Potential green hydrogen produced could be used to decarbonize hard-to-abate industries in Spain and central Europe to meet net-zero goals.

**COP28, Expo City Dubai;** Abu Dhabi Future Energy Company PJSC – Masdar, one of the world's leading renewable energy companies, and VERBUND Green Hydrogen GmbH have signed a deal to explore developing a green hydrogen plant in central Spain with a view to decarbonizing Europe's hard-to-abate sectors.

As world leaders negotiate at the UN's Climate Change Conference COP28 in the UAE, clean energy pioneers Masdar and VERBUND Green Hydrogen GmbH moved forward with plans to analyze the feasibility of building one of Europe's largest green hydrogen production plants in central Spain. Harnessing the abundant renewable resources of Castilla-La Mancha region, the prospective plant will aim to generate green hydrogen to cover industrial demand in Spain and central Europe. The study will evaluate if green hydrogen produced at the plant has the potential to displace up to 1 million tonnes of carbon emissions annually, equivalent of removing around 700,000 cars from the road every year.

The agreement was signed by Mohammad Abdelqader El Ramahi, Masdar's Chief Green Hydrogen Officer and Hamead Ahrary, Managing Director of VERBUND Green Hydrogen GmbH during COP28 in Expo City Dubai. It cements an earlier pact, signed between the companies during Abu Dhabi Sustainability Week in January 2023, to explore green hydrogen opportunities to cover European demand.

Green hydrogen is produced using electricity from renewable sources whereby the water is separated into oxygen and hydrogen, via the process of electrolysis. It is intended that the explored plant will produce green hydrogen using renewable energy generated by solar power plants, potentially including Masdar's planned gigawatt-scale solar plant in Castilla-La Mancha, and onshore wind farms. The project is expected to stimulate job creation and boost green industry in the sparsely populated area.

Mohammad Abdelqader El Ramahi, Masdar's Chief Green Hydrogen Officer, said: "Masdar is delighted to be moving forward on this milestone project with our strategic partner, VERBUND Green Hydrogen GmbH. As one of Europe's largest planned green hydrogen production plants, the project aims to produce green hydrogen to help decarbonize the continent's hard-to-abate industries while creating jobs and tapping into the region's enormous solar and wind potential. Our successful collaboration on this project paves the way for further development of green hydrogen and a vital pipeline linking centers of production with end-use markets. At COP28, as the world looks for ways to accelerate the journey to net zero, partnerships such as this serve as a powerful example of what can be achieved if we work together with purpose and at pace."

There is huge growth potential for green hydrogen in Europe. Spain currently consumes around 500,000 tonnes of mainly traditional fuel derived 'grey' hydrogen per year, which could be gradually replaced with green hydrogen. By 2035, Austria alone is expected to require around 600,000 tonnes per year of clean hydrogen.

Michael Strugl, Chief Executive Officer of VERBUND, emphasized the innovation and technology leadership in the ramp-up of the hydrogen economy in Europe with this project: "We are very pleased that, within our cooperation with Masdar we can take the next step in the form of a Joint Study Agreement (JSA). The goal is to identify the subsequent way forward towards large-scale hydrogen production in Spain. Partnerships like this are essential to jointly ramp up the European hydrogen market to meet decarbonization goals."

Hamead Ahrary, Managing Director of VERBUND Green Hydrogen GmbH added: "The Spanish market plays a vital role for us, both for the development of local H2 production, as well as for future potential import to central Europe. The joint study will generate valuable insights for the feasibility and execution of a potential project, which would result in the further strengthened positioning of VERBUND in the Spanish market. Hence, we are looking forward to the results of this study."

The planned green hydrogen produced is expected to be used to decarbonize Spain or Europe's hard-to-abate sectors, which could include steel production, fertilizers, chemicals, heavy transportation, and aviation. Currently, steelmaking alone is responsible for 5 percent of European carbon emissions. With most European Union nations pledging to become carbon neutral by 2050, green hydrogen presents a powerful vehicle for achieving that aim.

Expected to be operational by the end of the decade, the planned green hydrogen plant will serve the industrial sector and has

the potential to help decarbonize heavy transportation in Spain as well as in central Europe.

#### About Masdar

Abu Dhabi Future Energy Company (Masdar) is the UAE's clean energy champion and one of the fastest growing companies in the world, advancing the development and deployment of renewable energy and green hydrogen technologies to address global sustainability challenges. Established in 2006, Masdar has developed projects in over 40 countries, helping them to achieve their clean energy objectives and advance sustainable development. Masdar is jointly owned by Abu Dhabi National Oil Company (ADNOC), Mubadala Investment Company (Mubadala), and Abu Dhabi National Energy Company (TAQA), and under this ownership the company is targeting a renewable energy portfolio capacity of at least 100 gigawatts (GW) by 2030 and an annual green hydrogen production capacity of up to 1 million tonnes by the same year.

For more information please visit: <http://www.masdar.ae> and connect: [facebook.com/masdar.ae](https://facebook.com/masdar.ae) and [twitter.com/masdar](https://twitter.com/masdar)

#### About VERBUND

VERBUND Green Hydrogen GmbH is part of VERBUND group which is Austria's leading energy company and one of the largest producers of electricity from hydropower in Europe. VERBUND group generates around 95 percent of its electricity from renewable sources, primarily hydropower. The group trades in electricity in 12 countries and, in 2022, achieved a consolidated result of around €1,700 million and EBITDA of around €3,160 million with around 3,500 employees. With subsidiaries and partners, VERBUND is active in everything from electricity generation and transport to international trading and sales. VERBUND has been listed on the Vienna Stock Exchange since 1988, 51% of the share capital is owned by the Republic of Austria.

VERBUND is the decisive player for the success of the energy turnaround in Austria. The challenges that lie ahead require a cohesive orientation of the entire company, which VERBUND is driving forward with Mission V. Mission V is a long-term and comprehensive transformation program and stands for the will to confront the climate crisis as a force for change. This program is based on the VERBUND Strategy 2030 with its three thrusts: Strengthening the integrated home market, expanding renewable energies in Europe and establishing itself as a European hydrogen player. With Mission V, VERBUND is accelerating the achievement of its strategic goals 2030 and ensuring their implementation.

More information:

For more information please visit: <http://www.verbund.com> and connect: [VERBUND AG: Übersicht | LinkedIn](#)

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