

European consortium MadoquaPower2X announces industrial-scale power to green hydrogen and ammonia project in Sines, Portugal

Total investment of €1 billion in 500MW green hydrogen and 500ktpa ammonia production, reducing CO₂ emissions by up to 600,000 ton per annum and creating more than 200 jobs.



Lisbon, 22 April 2022 – Portuguese project developer Madoqua Renewables (**Madoqua**) announces a partnership with Dutch energy transition project developer and consultancy Power2X (**Power2X**) and Danish fund manager Copenhagen Infrastructure Partners' Energy Transition Fund (**CIP**) to build MadoquaPower2X, a €1 billion industrial-scale project for the production of green hydrogen and ammonia in Sines, Portugal, creating 200+ direct and indirect jobs.

MadoquaPower2X will use renewable energy and 500MW of electrolysis capacity. It is the first project to be installed at the future energy and technological hub of Sines, with an industrial scale production of 50,000 tons of green hydrogen and 500,000 tons of green ammonia per year.

This project is the first real step in the implementation of a new energy transition model, of which Portugal is an early mover, asserting itself as a relevant player in the new energy world order.

The hydrogen produced under this project can be used by the local industry as well as processed to create green ammonia for export from the terminal at port of Sines.

Rogaciano Rebelo, CEO of Madoqua, explains "*We are proud to bring this strong consortium to Portugal and collaborate with partners across the green hydrogen and hydrogen derivatives value chain. Portugal is structurally well positioned to play a leading role in the emerging energy transition space in Europe. The project, along with the development of dedicated renewable power generation assets, will contribute significantly towards Portugal's National Hydrogen Strategy (EN-H2)*".

Electricity will be sourced from renewable power produced in Portugal, in particular from renewable energy communities for wind and solar plants that are being developed in parallel. This approach will ensure availability of dedicated renewable energy throughout the lifetime of the project.

The project is currently under development and is expected to be fully permitted and ready for a final investment decision by the end of 2023, with construction to commence thereafter and first hydrogen production by the middle of the decade.

Occo Roelofsen, CEO of Power2X, comments *“Power2X is excited to develop this flagship project together with our partners in order to accelerate Europe’s energy transition and contribute significantly to the 2050 net-zero target. MadoquaPower2X will pave the way for decarbonization of critical industrial processes and reduced dependency on natural gas imports”*.

MadoquaPower2X, including future phases, will make significant contributions towards Portugal’s National Hydrogen Strategy (EN-H2) by 2030. In particular, the project will contribute nearly 25% of Portugal’s envisaged 2GW electrolyser capacity by 2030. The integrated hydrogen and ammonia project will generate 1,000 (direct and indirect) jobs, including future phases, which equates to 10% to 12% of new job creation targets. Furthermore, at €1 billion of investment, the project will contribute 10% to 15% of Portugal’s hydrogen investment targets. Additionally, if preferred over ammonia production, MadoquaPower2X could meet 100% of Portugal’s gas grid hydrogen injection targets. Lastly, as this project has the capacity to consume all locally produced hydrogen for ammonia production, it is proud to support the Sines green hydrogen loop initiative as one of the largest launching customers.

João Galamba, Portuguese Secretary of State of Environment and Energy, highlights that *“This important investment represents the actual implementation of Portugal’s National Strategy for Hydrogen, in line with the European Industrial Strategy, as well as the more recent measures proposed by the European Commission on Repower EU”*.

The consortium members are exploring opportunities with stakeholders to further expand the project to potentially produce 1 million ton of green ammonia per year, reducing CO₂ emissions by up to 1 million ton per annum. Subsequent phases will commence development in 2024, with full commissioning before 2030.

Philip Christiani, Partner at CIP, said *“We are thrilled to announce our involvement in MadoquaPower2X, a pioneering European green hydrogen project. Sines provides an excellent location for this project – proximity to local heavy industry, an existing export terminal and the political will demonstrated by Portugal to be a key green hydrogen leader in Europe. We look forward to working with our consortium partners to bring MadoquaPower2X to life”*.

Consortium members

Madoqua Renewables is a Portuguese industrial transformation and development company focused on energy transition and delivery of new generation industrial process assets with a specific focus on net zero carbon projects. Madoqua Renewables is developing project assets valued at €2 billion across the hydrogen value chain.

Power2X is a project developer and consultancy for energy transition projects across Europe, Africa and the Middle East. The company is based in Amsterdam and works with several business partners on new projects in the energy transition. The focus is on sizeable projects in green and blue hydrogen, biofuels, as well as related conversion, storage and end use assets, all with a focus on decarbonizing industry.

Copenhagen Infrastructure Partners is the world’s largest fund manager within greenfield renewable energy infrastructure investments. CIP manages nine funds, with €16 billion under management from 100 institutional investors from Europe, Asia, Australia and North America and multi-lateral organizations. MadoquaPower2X will form part of CIP’s Energy Transition Fund, which focuses on power-to-x and other next generation renewable technologies in order to facilitate the decarbonization of hard-to-abate sectors such as agriculture and transportation.

More information can be found at <https://cippartners.dk>
<https://power2x.com>
<https://madoquaventures.com>