



On the Road to Decarbonisation with Hydrogen: ArcelorMittal, VEO and McPhy to Build Pilot Electrolysis Plant in Eisenhüttenstadt

- Newly developed electrolysis demonstration plant with 2 MW capacity to go into operation in 2024
- Hydrogen to be used directly in steel production and for logistics processes on the site
- The Brandenburgish Technical University Cottbus-Senftenberg is providing scientific support for the project to further develop the technology
- The state of Brandenburg is funding the project cost with approximately five million euros

Eisenhüttenstadt (Germany) and Grenoble (France), April 5, 2023 - 5:45 pm CEST - The global steel and mining group **ArcelorMittal** is moving forward on the path to climate-neutral steel production at its Eisenhüttenstadt site. Together with energy supplier **Vulkan Energiewirtschaft Oderbrücke (VEO)** - a joint venture between the city of Eisenhüttenstadt and ArcelorMittal - and **McPhy Energy**, specialized in low-carbon hydrogen production and distribution equipment (electrolyzers and refueling stations), ArcelorMittal Eisenhüttenstadt will build a pilot electrolysis plant and a hydrogen filling station on the plant site.

The innovative demonstration project includes the supply of two McLyzer electrolyzers with an output of 1 MW each. In addition, a long-term 5-year service contract was agreed upon. The state of Brandenburg is funding the project with 5.1 million euros as part of the regional innovation cluster.

The electrolyzers will produce hydrogen for direct use in steel production. The hydrogen will first be used in the cold rolling mill. The hydrogen filling station is used to refuel forklifts or trucks with some of the hydrogen produced. The oxygen also generated during electrolysis is to be reused on site in production, for example in the hot rolling mill.

Smart operating modes to increase energy efficiency

Another goal is to optimize the overall energy efficiency of the production site by testing newly developed smart operating modes in real-world applications. They should make it possible to determine the best combination of software and hardware to improve system performance - comparable to software improvement in aircraft by implementing an intelligent strategy to control aircraft functions. The Brandenburgish Technical University (BTU) Cottbus-Senftenberg is providing scientific support for the project and analyzing data from hydrogen use at the demonstration plant to improve efficiency and support further development of electrolyzers.

Reiner Blaschek, CEO ArcelorMittal Germany: *"The demonstration plant will serve H2 use in steel production as well as the logistical use of hydrogen-powered vehicles around steel production. With this project, we want to examine and show how further emission reductions are possible now, before a complete change in*

technology and the use of further hydrogen in the coming years will fully convert production to climate neutrality.”

Prof. Dr. Jörg Steinbach, Minister of Economics of the State of Brandenburg: *“The use of hydrogen in steel production contributes significantly to the urgently needed hydrogen infrastructure as a necessary building block for maintaining the steel industry in Brandenburg and for the energy transition. The project couples the energy, industry and mobility sectors and helps to reduce CO2 emissions in steel production and in the state of Brandenburg in the long term.”*

Jean-Baptiste Lucas, Chief Executive Officer of McPhy: *“We are proud to participate in this large-scale and innovative project alongside ArcelorMittal and the State of Brandenburg. This is our first major contract in the industrial sector, one of the most strategic and promising applications for green hydrogen. The work will be carried out in Germany, close to our site in Wildau. This is a milestone in our European expansion strategy and a proof of the importance of our pan-European industrial set-up.”*

Prof. Dr. Lars Röntzsch, BTU Cottbus: *“Increasing energy efficiency through the use of intelligent operating modes in electrolysis is a challenging topic that we are very happy to work on scientifically in order to make our contribution to ensuring that this important future technology enables climate-neutral operation in such an energy-intensive industry as the steel industry. Hydrogen will be of great importance as a green energy carrier for industry and mobility in Brandenburg.”*

ABOUT ARCELORMITTAL

Germany

With a production volume of around 8 million tonnes of crude steel, ArcelorMittal is one of the largest steel manufacturers in Germany. The automotive, construction and packaging industries are among its customers, as is the household goods sector. The company operates four large production sites in Germany. These include two integrated flat steel mills in Bremen and Eisenhüttenstadt and two long steel mills in Hamburg and Duisburg. In addition, the Group operates ArcelorMittal Construction in Sandersdorf/Brehna, a production site with sales for sandwich panels as well as profiling facilities for cassette, trapezoidal, support, design and corrugated profiles. In addition, the Group has a strong distribution network in Germany with four steel service centres and ten steel trading locations. ArcelorMittal operates a pipe mill in Altensteig. The group employs about 8,500 people in Germany.

Further information is available at <https://germany.arcelormittal.com>

Worldwide

ArcelorMittal is the world's leading steel and mining company with a presence in 60 countries and primary steelmaking facilities in 16 countries. In 2022, ArcelorMittal had revenues of \$79.8 billion and crude steel production of 59 million tonnes, while iron ore production reached 45.3 million tonnes. Our goal is to produce ever smarter steels that have positive benefits for people and planet. Steels that are produced with innovative processes that use less energy, emit significantly less carbon and reduce costs. Steels that are cleaner, stronger and reusable. Steels for electric vehicles and renewable energy infrastructure that will support society as it moves through the new century. With steel at our core, our inventive people and an entrepreneurial culture at our heart, we will help the world make this transformation. This is what it takes to be the steel company of the future. ArcelorMittal is listed on the New York (MT), Amsterdam (MT), Paris (MT), Luxembourg (MT) and Spanish stock exchanges of Barcelona, Bilbao, Madrid and Valencia (MTS).

For more information on ArcelorMittal, please visit <http://corporate.arcelormittal.com>



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ABOUT MCPHY

Specialized in hydrogen production and distribution equipment, McPhy is contributing to the global deployment of low-carbon hydrogen as a solution for energy transition. With its complete range of products dedicated to the industrial, mobility and energy sectors, McPhy offers its customers turnkey solutions adapted to their applications in industrial raw material supply, recharging of fuel cell electric vehicles or storage and recovery of electricity surplus based on renewable sources. As designer, manufacturer and integrator of hydrogen equipment since 2008, McPhy has three development, engineering and production centers in Europe (France, Italy, Germany). Its international subsidiaries provide broad commercial coverage for its innovative hydrogen solutions. McPhy is listed on Euronext Paris (compartment B, ISIN code: FR0011742329, MCPHY).

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