Nedstack Advanced Fuel Cell Manufacturing Centre to break Gigawatt Production Capacity Barrier

Brussels (Belgium) and Arnhem (The Netherlands) July 15th 2022

- Hydrogen technologies are key-enablers of achieving climate goals, green jobs and economic recovery targets while contributing to European energy security policies;
- The IPCEI Hy2Tech Project is a flagship initiative which has received approval from the European Commission;
- Nedstack Fuel Cell Technology, as the first Dutch participant to the IPCEI Hy2Tech project, will realize an advanced manufacturing center with a fuel cell production system which has a Gigawatt per year of stack rated power production capacity;

Hydrogen technology provides a key vehicle in pursuing ambitious European policy targets to combat climate change, to pursue economic recovery and to achieve energy independence. As the hydrogen economy is still in large parts pre-commercial ambitious, supporting policies and public-private initiatives are needed to develop the hydrogen eco-system. Today the European Commission approved the IPCEI Hy2Tech-program on Hydrogen. This Europe wide partnership – which assembles 35 partners from 15 different member states – industrializes hydrogen technologies within the European market. Nedstack is a participant to the IPCEI Hy2Tech program and will realize a semi-automated production system for fuel cell stacks with an annual name plate production capacity of one gigawatt of stack power.

> "Europe has always been a leader in the adoption of hydrogen and fuel cell technology. IPCEI Hy2Tech and our Fuel Cell Giga Factory (FCGF) project help strengthen the European capacity to develop and manufacture key technologies to achieve our climate goals, while protecting employment and energy security.
>
> Mr. Arnoud van de Bree (CEO – Nedstack)

Fuel Cell Production in the Netherlands

Nedstack was founded by AkzoNobel with the purpose of developing and industrializing PEM-Fuel Cell technology for high power applications. The original use cases for such power-plants have been almost exclusively in the field of chlorine-production sites where large volumes of hydrogen were vented as a by-product gas. The relevant key-technologies for producing such fuel cell stacks and fuel cell power plants have been produced in Arnhem, the Netherlands for over two decades and have been applied in hundreds of systems and thousands of stacks since Nedstack was started as an independent company in 1999.

With the emergence of the hydrogen economy however, high-power fuel cell systems are in dire need and provide feasible transition paths for - amongst others - the maritime domain, for balancing and buffering of surplus renewables and to provide an alternative to diesel generators for off-grid power applications.

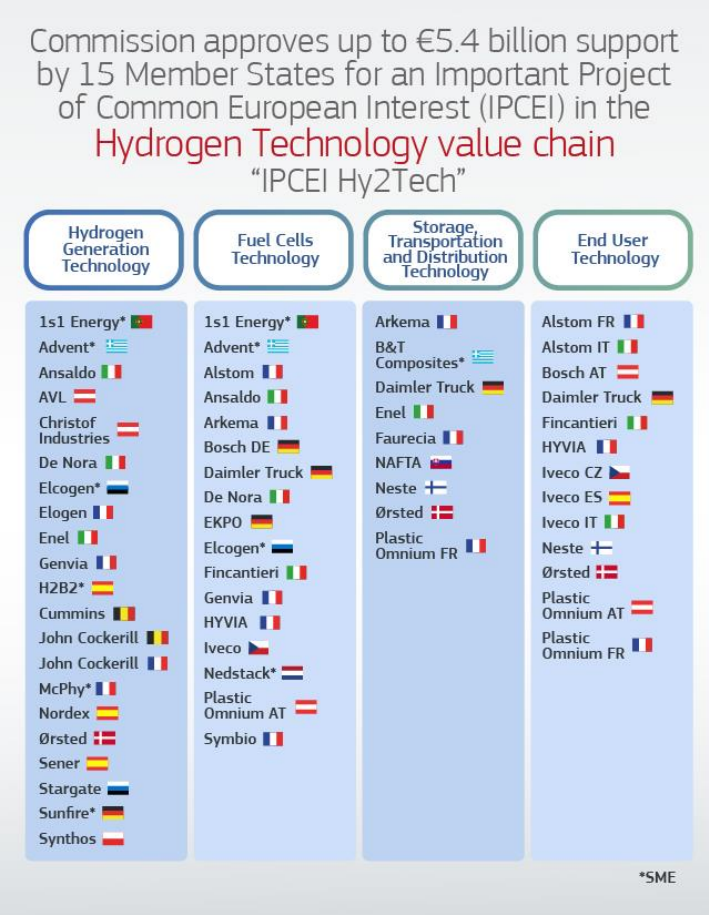
"Due to the rapid scale-up of the hydrogen economy, the current Nedstack production infrastructure has become the limiting factor to our growth and our social impact" says Peter van der Wal – Chief Operations Officer at Nedstack: "The FCGF project serves to radically increase production capacity, to scale up our supply chain, it targets cost reduction, enables wider adoption of zero-emission power solutions and moreover helps to contribute to a NetZero society". The Nedstack Fuel Cell Giga Factory (FCGF) will be accommodated next to Nedstack current operations in Arnhem, the Netherlands at the

IPKW business park. The project will help to lift the regional hydrogen eco-system into a new era of industrialized and green fuel cell production. A first phase of the production system is expected to see start-of-production in 2023, where the full line should be able to meet the gigawatt capacity rate in 2026.

IPCEI and the Nedstack Fuel Cell Giga Factory

The Commission has approved, under EU State aid rules, an Important Project of Common European Interest ('IPCEI') to support research and innovation and first industrial deployment in the hydrogen technology value chain. The project, called "IPCEI Hy2Tech" was jointly prepared and notified by fifteen Member States: Austria, Belgium, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Italy, Netherlands, Poland, Portugal, Slovakia and Spain.

The Member States will provide up to €5.4 billion in public funding, which is expected to unlock additional €8.8 billion in private investments. As part of this IPCEI, 35 companies with activities in one or more Member States, including small and medium-sized enterprises ('SMEs') and start-ups, will participate in 41 projects. Executive Vice-President Margrethe Vestager, in charge of competition policy, said: "Hydrogen has a huge potential going forward. It is an indispensable component for the diversification of energy sources and the green transition. Investing in such innovative technologies can however be risky for one Member State or one company alone. This is where State aid rules for IPCEI have a role to play. Today's project is an example of truly ambitious European cooperation for a key common objective. It also shows how competition policy works hand in hand with breakthrough innovation."



National Process

The Netherlands is the second largest hydrogen producer in Europe today and accommodates a strong ecosystem of hydrogen and fuel cell related businesses and academia. Moreover, the Netherlands is amongst the European countries with an established National Hydrogen Plan and agenda. On the basis

of this national policy framework and in light of the larger climate agenda, the Netherlands is actively participating in a variety of European hydrogen programs amongst which the IPCEI on hydrogen. The Hy2Tech project constitutes the first 'wave' of the IPCEI on hydrogen and more Dutch initiatives are currently in a formal notification process or under planning in next waves.

The Nedstack FCGF-project is still pending final approval by the Dutch national government. Since 2020 a selection and tender process has taken place to evaluate and rank the variety of Dutch initiatives fitting the IPCEI profile. The FCGF-project has been formally notified based on this process and following the European approval the formal process of national approval is expected to come to a close this summer.

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About Nedstack

Nedstack is a Dutch developer and manufacturer of PEM Fuel cell power solutions for high power and safety relevant applications. Nedstack was founded in 1999 and is incorporated in Arnhem, the Netherlands, and is committed to contribute to a NetZero society by delivering state-of-the-art hydrogen fuel cell based power solutions.

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About the IPCEI on Hydrogen

Where private initiatives supporting innovation fail to materialize because of the significant risks such projects entail, the IPCEI Communication allows Member States to jointly fill the gap to overcome these market failures and boost the realization of innovative projects.

https://ec.europa.eu/commission/presscorner/detail/en/ip_22_4544

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