Green hydrogen import in the EU:

what is needed to accelerate?

Climate change and the new geopolitical reality require a dramatic acceleration of the clean energy transition and a diversification of Europe's energy sources. The European Commission has responded swiftly to this challenge by launching REPowerEU, which includes a target for green hydrogen import of 10 million tons in 2030. This raises the question, "Why is the import of green hydrogen needed and how can projects be fast-tracked?".

Why is hydrogen import fundamental to REPowerEU objectives?

Two main reasons for green hydrogen import can be identified. First, many countries (particularly densely populated ones) lack the renewable energy resources for large-scale production of green hydrogen alongside demands for electricity in other sectors. Producing hydrogen in regions with abundant, reliable renewable energy resources - solar, wind and hydro - for export to other regions offers a solution to this challenge by complementing domestic production. Secondly, hydrogen imports can play an important role in the diversification of energy sources in a sustainable and responsible way. The variety of countries that consider hydrogen export is extensive since the renewable energy needed for green hydrogen production, unlike in the case of oil and gas, is not geologically linked to specific regions.

What is needed to enable hydrogen import projects?

First-mover projects – like Air Products' world-scale green hydrogen projects in NEOM and Oman - will make a significant contribution to the diversification of energy sources in Europe. However, slow progress on the EU regulatory framework has held back investment decisions. To accelerate green hydrogen import in Europe, investors need to have early clarity on the following:

1. Certification of imported green hydrogen: to develop international hydrogen supply chains, it is absolutely essential that renewable hydrogen is recognized as such and counted towards national renewable energy targets under the REDII. In REPowerEU it is suggested that a standardised framework for hydrogen value chains can contribute to this certification process. However, it is important that prospective private-sector investors are included in the process as they will bring important practical experience and knowledge to the discussion.

2. Permitting of import terminals and facilities: REPowerEU recommends that procedures are accelerated to bring down delays for permitting and to simplify the administrative burden. This is crucial for the effective establishment of green hydrogen terminal ports and facilities by 2026.

3. Market structure: hydrogen infrastructure has to date been built and operated by private parties with significant experience, such as Air Products. Industrial processes sensitive to disruptions in the hydrogen supply require quality, stability, and contractual security of supply. In order to achieve this, it is important that companies like Air Products have the assurance that they can continue the rapid construction and operation of import infrastructure in parallel with the development of open-access networks.

4. Hydrogen partnerships: global frameworks can bring provide assurance to investors with the capability and intent to pursue business opportunities in hydrogen. Air Products looks forward to learning more about the proposed Green Hydrogen Partnerships and Global European Hydrogen Facility proposed in REPowerEU to deliver such framework. However, society should not wait for these mechanisms to be put in place before investment decisions are taken.

If we are to achieve carbon neutrality by 2050, it is essential for governments and the private sector to work together to accelerate the uptake of hydrogen across the world. It is critical that governments put in place a supportive regulatory framework. In turn, industry will provide the pioneering projects that will open the gates to a just energy transition on a global scale.