

CARBON LIMITS



Press Release

New Re-Stream study assesses the feasibility of transport of hydrogen and CO₂ in European gas and oil infrastructure

Brussels, 28 October 2021: A study undertaken by Carbon Limits and DNV confirms European oil and gas pipelines' ability to transport CO₂ and hydrogen cost-efficiently. The transport would facilitate the deployment of carbon capture and storage (CCS) and hydrogen technologies in Europe and help reduce the cost of the energy transition.

The findings of the study may help address knowledge gaps by understanding the ability of onshore and offshore European infrastructure to carry hydrogen and CO₂.

"The study's findings are very promising" said Gaëlle Cauchois, Principal Consultant and Project Leader of the Re-Stream study at Carbon Limits "Re-Stream results are an important contribution to the ongoing policy discussions on hydrogen and CCS, and a solid base on which to carry out more targeted research".

"The findings give infrastructure operators the confidence needed to undertake further research, testing and studies to assess specific conditions of individual pipelines for reuse, ultimately contributing to the transport of CO₂ and hydrogen in Europe." said Jørg Aarnes, Global Lead - Hydrogen and CCS, Energy Systems at DNV.

The European Commission underlined its interest in repurposing the EU's existing pipeline infrastructure in the [Hydrogen](#) and [Energy System Integration](#) Strategies, but information on reusability was relatively scarce. The study's purpose was to provide fact-based results on technical aspects and cost related information in time for the publication of the upcoming Hydrogen and Decarbonised Gas Market Package and Carbon Removal and/or carbon capture, use and storage (CCUS) Strategy. The data can help inform the upcoming regulatory work to scale up hydrogen and CCUS technologies in the EU.

The approach of Carbon Limits and DNV's pipeline research team combined data collection and mapping of existing pipelines; identification of CO₂ and hydrogen storage locations, potential CO₂ emitters and hydrogen producers and users; assessment of the potential for pipeline reuse and identification of case studies for economic assessment; economic assessment of reusing existing pipelines compared to new build; identification of technical challenges and mitigation options to unlock the reuse potential.

The Re-Stream study report is available on Carbon Limits website, [here](#).

Background

The study was commissioned by Concawe, the scientific and technical body of the European Petroleum Refiners Association, Gas Infrastructure Europe (GIE), the European Network of Transmission System Operators for Gas (ENTSOG), and the International Association of Oil & Gas Producers (IOGP Europe). The quantity of pipelines covered in the Re-Stream project represents a significant portion of the onshore and offshore oil and gas pipeline network in Europe.

At the end of November 2021, the partners will host an online webinar to present the study's findings and methodology. Further details on the event will be made available shortly.

If you require any further information on the study, please contact: gie@gie.eu

Editorial notes

- > **Carbon Limits** is a Norwegian consultancy dedicated to making a difference to climate change mitigation. Carbon Limits works with public authorities, private companies, finance institutions and non-governmental organizations to reduce emissions of greenhouse gases from a range of sectors. CCUS and H₂ are part of the main focus areas of Carbon Limits, along with decarbonization of the oil and gas sector, carbon and climate finance, climate policy and biogas and waste to energy. www.carbonlimits.no / restream@carbonlimits.no
- > **DNV** provides assurance to the entire energy value chain through its advisory, monitoring, verification, and certification services. As the world's leading resource of independent energy experts and technical advisors, the assurance provider helps industries and governments to navigate the many complex, interrelated transitions taking place globally and regionally, in the energy industry. DNV is committed to realizing the goals of the Paris Agreement, and supports customers to transition faster to a deeply decarbonized energy system
- > **Concawe**, Science Division of the European refiners Association. www.concawe.eu
- > **Gas Infrastructure Europe (GIE)** is the association of the gas infrastructure operators active in transmission, storage and LNG terminals. Its 70 members come from 26 European countries. They work and innovate with renewable and low-carbon molecules to enable EU citizens and industries to benefit from a sustainable, efficient and secured energy supply - www.gie.eu / gie@gie.eu.
- > **The European Network of Transmission System Operators for Gas (ENTSOG) facilitates the integration** of the European gas markets, ensuring technical interoperability and providing security of supply by gas infrastructure planning to achieve EU energy and climate goals - www.entsog.eu / info@entsog.eu.
- > **The International Association of Oil & Gas Producers (IOGP Europe)** is the voice of the European oil & gas industry, pioneering excellence in safe, efficient, and sustainable energy supply – an enabling partner for a low carbon future - www.iogpeurope.org.