# NORTH SEA GAS TSOs DECLARATION

On the harmonious development of the North Sea Energy Resources

The North Sea has the potential to deliver more affordable, secure and sustainable energy for Europe. The deployment of renewable energy in the North Sea, including green electricity and green hydrogen from offshore wind, together with carbon capture and sequestration, will be key to achieve the target of net-zero greenhouse gas emissions by 2050, as set in the European Climate Law and UK Net Zero Strategy. Developing European renewable potential and high-capacity transmission and storage infrastructure will also improve energy security for final consumers, in line with the REPowerEU objectives, North Sea Transition Deal and British Energy Security Strategy.

The European Commission's Strategy on Offshore Renewable Energy estimates that the objective to have an installed capacity of 300 GW by 2050 is realistic and achievable. In the Esbjerg declaration of May 2022, Denmark, Belgium, the Netherlands and Germany have decided to jointly develop "The North Sea as a Green Power Plant of Europe": the four countries have set ambitious combined targets for offshore wind of at least 65 GW by 2030 and aim to more than double the total capacity to at least 150 GW by 2050, delivering more than half of capacity needed to reach EU climate neutrality. This will contribute to large-scale onshore and offshore production of green hydrogen: the four countries have set combined targets of about 20 GW production capacity already in 2030 and look to expand production even further in 2050. The UK targets to increase offshore wind installed capacity fivefold to 50 GW by 2030 and ambitions to deploy 10 GW of low carbon hydrogen production by 2030. In Ireland, there are targets of 7GW of offshore wind by 2030, incorporating 2GW of green hydrogen production.

In the Joint Statement on the North Seas Energy Cooperation (NSEC) and the NSEC-UK Memorandum of Understanding on offshore renewable energy cooperation, the NSEC member countries and the UK recognize their historic opportunity to accelerate the delivery of regional offshore renewable energy and are setting a framework for greater cooperation.

## Our commitment

Undersigning Transmission System Operators[1] (TSOs) of Belgium, Denmark[2], France, Germany, Ireland, Norway (ISO[3]), the Netherlands and the United Kingdom fully support the ambition stated by the participating countries of the North Sea Conference. They are fully committed to cooperate among themselves and with electricity TSOs to develop a new energy system and related on- and offshore hydrogen infrastructure, which will enable the efficient production and transport of renewable energy to supply the countries around the North Sea. As members of the European Hydrogen Backbone, the signatories have identified the North Sea as one of the major import routes of hydrogen to Europe by pipeline.

Taking into account prospects for offshore wind capacity of each country around the North Sea, some countries will benefit from excess renewable energy production while other countries will not have enough domestic resources. This will drive import-export flows between countries thanks to a renewable offshore energy system – both electricity and hydrogen – which will be developed in a way to foster integration of variable renewable resources into the European energy system. A balanced system of electrification and hydrogen in the North Sea is the way forward since this will reduce the overall system costs. Among others, offshore and onshore electrolysers will provide a flexible demand to help balance the electricity system and avoid curtailments of wind energy. Hydrogen can also provide cheaper transport of energy from remote offshore wind parks to consumers using hydrogen or other derived products from hydrogen. Hydrogen can also be stored for security of supply in mid- to long-term energy storage, by means of new or repurposed gas storage facilities (e.g., salt caverns).

Carbon removal technologies are necessary to achieve net-zero greenhouse gas emissions, among others to capture unavoidable emissions from industrial processes. The North Sea has many depleted oil and gas reservoirs and aquifers that could be used for storing $CO_2$ permanently, subject to environmental assessment. $CO_2$ can be transported by ship, but bulk transport by pipeline would be cheaper for high volumes. An optimized $CO_2$ pipeline network connecting industrial areas to depleted reservoirs and aquifers in the North Sea could be built by installing new pipelines or repurposed from existing gas pipelines. $CO_2$ transport capacities by offshore pipelines for permanent sequestration in the North Sea may also be developed by some gas TSOs.

With their experience in operating gas pipelines in and around the North Sea with third-party access services in a regulated environment, ensuring safe gas supply to European customers, gas TSOs are well placed to deploy hydrogen pipeline infrastructure, possibly by repurposing existing natural gas offshore pipelines and/or installing new pipelines, and, depending on national specificities and market organisation, this experience may also be useful to deploy $CO_2$ transport infrastructure.

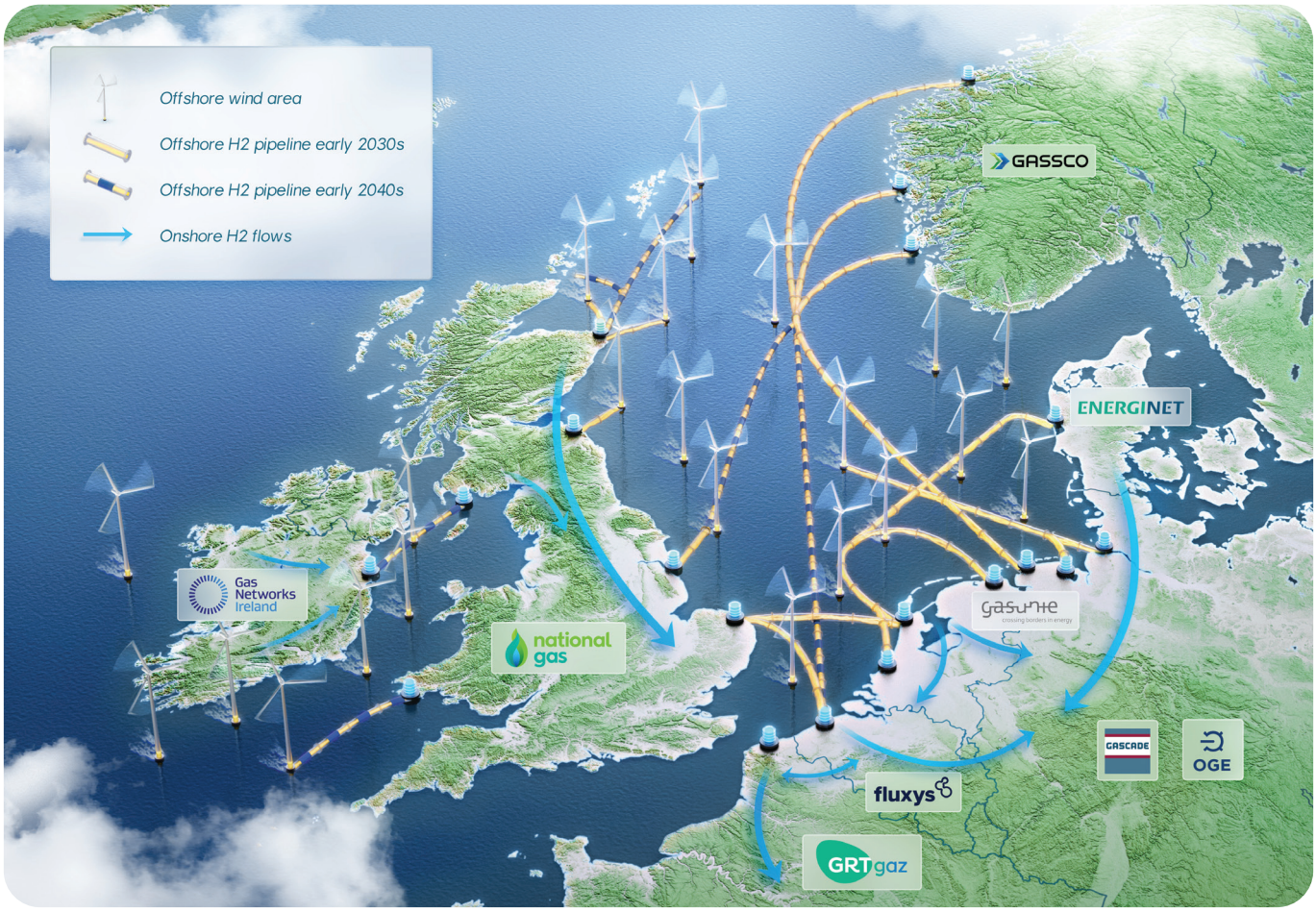
[1] TSOs in the meaning of the European Third Energy Package Directive 2009/73/EC, including Full Ownership Unbundling (OU), Independent Transmission Operator (ITO) and Independent System Operator (ISO)
[2] Energinet on behalf on the future hydrogen operator awaiting a political agreement
[3] Gassco as the independent system operator of the Norwegian Gas Transport System

## Our call for action

In order to make it happen, gas and electricity TSOs, future hydrogen network operators, policymakers and stakeholders have to cooperate on key aspects of the future energy system in the North Sea. The gas TSOs put forward the following key action points:

- A cost-benefit methodology and its implementation for the optimal deployment of electricity and hydrogen in a long-term perspective and addressing cross-border cost allocation and financing issues between countries, alongside with possibilities to initiate bilateral initiatives;
- Supporting the development of a legal and regulatory framework for the optimal deployment of the necessary hydrogen transmission infrastructure, in order to enable market players to make commitments and enable TSOs/HNOs to build the infrastructure;
- Supporting the development of a legal and regulatory framework for the optimal deployment of the necessary $CO_2$ transmission infrastructure, in order to enable market players to make commitments and to build the infrastructure;
- The development of a market framework enabling the early deployment of the offshore hydrogen value chain, in order to supply hydrogen at competitive prices for downstream markets;
- The Harmonisation of hydrogen interoperability and quality parameters for the offshore backbone, in order to enable trading across transmission systems without unnecessary barriers;
- The speeding-up of permitting processes and maritime spatial planning (master plan), with the involvement of electricity and gas TSOs;
- Establish a system of working groups with the gas and electricity TSOs, future hydrogen network operators, policymakers and other relevant stakeholders to ensure an optimal cross-country coordination in tackling the above-mentioned action points.

## Offshore hydrogen backbone in the North Sea to provide Europe with green hydrogen from wind energy - a shared vision by 9 European operators[4]




[4] The map is for illustrative purposes, based on EHB and PCI initiatives. The realization of the concrete pipeline projects will be determined later.

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**“Let’s combine our forces on hydrogen infrastructure to ensure not a single gust of wind goes to waste in the North Sea”**