



# OSTEND DECLARATION OF ENERGY MINISTERS ON

## THE NORTH SEAS AS A GREEN POWER PLANT OF EUROPE

### DELIVERING CROSS-BORDER PROJECTS AND ANCHORING THE RENEWABLE OFFSHORE INDUSTRY IN EUROPE

Recalling the declaration on the North Seas as a Green Power Plant of Europe in Esbjerg signed by the energy ministers of Belgium, Denmark, Germany and the Netherlands on 18 May 2022.

The energy ministers of France, Ireland, Luxembourg, Norway and the United Kingdom are joining this Ostend declaration.

Underlining that energy security and the fight against climate change are crucial to the future of Europe, we need to strengthen our cooperation to ensure affordable, secure and sustainable energy, while at the same time, continuing our efforts to protect the marine ecosystem. In response to Russia's aggression against Ukraine and attempts of energy blackmail against Europe we will accelerate our efforts to reduce fossil fuel consumption as well as dependence on fossil fuel imports and promote the rapid upscaling and deployment of renewable energy for an energy resilient Europe.

Further underlining that the goal of the development of infrastructure, production of offshore renewables and market design for the North Seas, is to accelerate the energy transition and maximise the benefits for households, industry and society as a whole.

Together, we have set ambitious combined targets for offshore wind of about 120 GW by 2030 in the North Seas. Based on the North Seas as a Green Power Plant of Europe, together we aim to more than double our total 2030-capacity of offshore wind to at least 300 GW by 2050.

We acknowledge the progress made since the last summit including through the conclusion of both bilateral agreements on offshore renewable generation and non-binding agreements to cooperate on goals for offshore renewable generation for the North Seas under the revised framework for trans-European energy networks (TEN-E). We fully support the on-going work to develop a high-level strategic integrated offshore network development plan for the North Seas, including by enhanced cross-border coordination of grid and maritime spatial planning.

In that respect we also welcome the initiative that the Transmission System Operators (TSO's) from Belgium, Denmark, Germany and the Netherlands have undertaken to develop a meshed offshore grid and to identify the next steps for its realisation. We invite them to continue the work and extend the process to the TSO's of the five countries that have joined this declaration.

This will contribute to large-scale onshore and offshore production of renewable hydrogen. Germany, Denmark, The Netherlands and The United Kingdom have set combined targets of about 30 GW production capacity by 2030 and look to expand their production even further for 2050.



On this basis, and in order to realise our common vision of the North Seas as a Green Power Plant of Europe, we aim to achieve the following goals for offshore wind energy production:

- **Belgium** will establish 6 GW offshore wind capacity by 2030 and 8 GW by 2040.
- **Denmark** will enable the deployment of at least 5.3 GW total offshore wind capacity in the North Sea in 2030 with a view towards up to 35 GW in the North Sea by 2050 and potentially more depending on European demand for green power.
- **France** aims at establishing at least 2.1 GW of offshore wind by 2030 and 4.6-17 GW by 2050.
- **Germany** will establish at least 26.4 GW offshore wind by 2030 and 66 GW by 2045 in the North Sea.
- **Ireland** will establish at least 4.5 GW offshore wind by 2030 and 20 GW by 2050 in the North Seas.
- **Luxembourg** aims to contribute to the materialisation of the combined offshore wind targets pursued by the co-signatories of this declaration by using dedicated cooperation mechanisms allowing the financial participation in offshore wind projects providing renewable energy statistics in return.
- **Norway** aims to establish at least 3 GW of offshore wind by 2030, including 1,5 GW of floating wind and will award areas that are suitable for 30 GW offshore wind by 2040.
- **The Netherlands** will establish about 21 GW offshore wind capacity around 2030 and studies whether 50 GW in 2040 and 72 GW in 2050 is feasible considering physical space, ecological impact and sufficient demand.
- **The United Kingdom** aims to establish up to 50 GW offshore wind by 2030. This will include up to 5 GW of floating wind. The United Kingdom also aims to establish at least 18 GW interconnection capacity by 2030.

And we work on the following projects:

- **Belgium, Denmark, Germany and the Netherlands** will strive to develop the first interconnected system of energy islands and clusters in the North Seas by the mid-2030s, thereby contributing to establish the first green European offshore power hub combined with an increasingly meshed offshore grid in the region. These countries invite further countries to join this system.
- **Belgium** will establish the world's first offshore energy island, an energy-hub combining offshore wind generation and cross-border interconnection.
- **Belgium and Denmark** work closely together on hybrid renewable energy projects, including the connection "TritonLink" between both the Danish Energy Island and the Belgian Princess Elisabeth Island.
- **Belgium and the Netherlands** will research the feasibility of an additional offshore hybrid interconnector between both countries.
- **Belgium and the United Kingdom** are working on a hybrid interconnector "Nautilus".



- **Denmark** will establish the world's first multi-phased energy island in the North Sea with an initial capacity of at least 3 GW offshore wind by 2033 and connections to Belgium and Denmark.. Luxembourg has concluded an agreement with Denmark in 2022 on statistical transfers and intends to further financially support the realisation of this project. Work on preparing the ground for further connections to Germany and the Netherlands has priority.
- **Denmark and Belgium** will now work together to investigate a second phase of cooperation on connections between the Danish and Belgian energy island in the North Sea after 2033.
- **Denmark and the Netherlands** will explore how to connect the energy island in the Danish Economic Exclusive Zone (EEZ) to a Dutch energy hub, including perspectives for offshore renewable hydrogen production.
- **Denmark and the United Kingdom** will cooperate on offshore wind development and related areas through knowledge exchange and cooperation on deployment of offshore energy infrastructure including but not limited to offshore wind, interconnection, energy islands/multi-purpose interconnection, renewable hydrogen and carbon storage.
- **Germany** will initiate the development of large-scale demonstration projects for offshore renewable hydrogen production with a total capacity of 1 GW. First auctions will take place within this year.
- **Germany and Denmark** already developed the first of its kind hybrid offshore wind cooperation project Kriegers Flak Combined Grid Solution and will cooperate on the Bornholm Energy Island establishing 3 GW offshore generation capacity in the Baltic Sea including a hybrid interconnector to Germany and a transmission connection to Zealand (Denmark).
- **Germany** together with **Denmark and the Netherlands** is exploring to connect offshore wind farms in the German exclusive economic zone to offshore wind farms in Denmark and the Netherlands, including an interconnector to the Danish Energy Island, and will also investigate cooperating on developing further hybrid renewable energy projects in the North Sea.
- **Germany and the United Kingdom** are working together to identify potentials for hybrid cooperation projects for offshore wind generation and interconnection in the North Sea.
- **Ireland and France** are actively moving toward the completion of the Celtic interconnector with construction works to start this year.
- **Ireland and the United Kingdom** will explore opportunities to cooperate in the development of further interconnection between the Single Electricity Market on the island of Ireland and Great Britain, including hybrid/multi-purpose interconnector projects.
- **Luxembourg** even though it has no national maritime space, hence cannot participate through specific offshore renewable target contributions, still plans to contribute significantly through cooperation on cross-border renewable energy projects, especially by participating regularly in the European Union's Renewable Energy Financing Mechanism thereby securing renewable energies statistics.



- **The Netherlands** works on an Offshore Energy Infrastructure Plan which includes the area's where windfarms are located, where energy-hubs and (hybrid) interconnectors are build and how much electricity and renewable hydrogen should be produced between 2030-2050. Also, to stimulate the development of offshore hydrogen production, the Netherlands will facilitate two demonstration projects: one pilot of <100MW before 2030 and one demonstration project of +/- 500 MW around 2031. After this demonstration phase it is expected that large scale renewable hydrogen production will take place offshore, growing to GW-scale in the years to follow.
- **The Netherlands and the United Kingdom** are working together to facilitate a hybrid interconnector "Lion link".

We will continue planning for multiple energy hubs and islands as well as hybrid cooperation, multi-purpose projects and increased connectivity by carrying out, where appropriate, a screening of the potential for offshore wind, and renewable hydrogen production, in our entire North Seas. This work will be carried out in a coordinated and cooperative manner, building on and consistent with mandatory national and EU planning procedures, where applicable, with the goal of achieving the highest efficiency and common benefits. We will also build on and further intensify common research efforts and explore new ways of building out renewable energy, including innovative partnerships with industry.

In order to support these steps, we commit to continue to engage with the European Commission, EU Member States, third countries, regional fora, industry and global partners based on the following principles:

- The overarching framework for ambitious voluntary regional offshore renewable energy cooperation will be the North Seas Energy Cooperation (NSEC) and the memorandum of understanding between the NSEC and UK. Through this framework, we will deliver upon our combined offshore renewables ambitions, including through the promotion of cooperation projects, offshore energy hubs, offshore grids and enhanced cross-border connectivity.
- We will take all relevant and appropriate steps to accelerate regulatory and permitting processes for renewable energy and the related grid infrastructure, and aim to work with the European Commission to actively support these efforts. To this end, renewable energy should serve public interest and public safety while promoting balanced co-existence of renewable energy, biodiversity and environmental protection as well as to contribute to a healthy marine ecosystem. With regard to support schemes, we will continue to improve the design and cross-border coordination of tenders, including auctions.
- We encourage relevant institutions to address all bottlenecks and barriers arising from permitting procedures, in order to speed up the green transition. Several signatories still have to build large-scale offshore wind in areas where a complex legislative framework applies, which can impede the build-out of offshore energy. We welcome steps to optimize the permitting process in order to meet the expectations related to the green transition.



- We will work together to take the appropriate steps in adjusting, clarifying and implementing the relevant regulatory regimes in order to ensure the timely realisation of jointly beneficial and hybrid offshore renewable projects. In the context of the revisions of the EU's and the UK's respective electricity market design, we recall the instrumental role of efficient and effective offshore electricity market arrangements for a swift realisation of joint and hybrid offshore renewable energy projects. Particular attention should be given to a fair distribution of costs and benefits between market actors with the aim of maximising the benefits for households, industry, including TSOs and offshore wind farm developers, an efficient utilisation of grid and market resources and an effective grid and market integration of offshore renewable electricity. We look forward to the upcoming European Commissions' guidance for fair and efficient cost and benefit sharing for offshore network development plans, developed in the context of the TEN-E framework and for cross-border offshore renewable and grid projects.
- We support an approach in which the grid infrastructure is delivered in time in order to avoid stranded offshore wind production and facilitate an accelerated development and integration of renewable energy.
- We see the healthy environmental state of the marine ecosystem of the North Seas and an effective use of the limited marine space as a shared responsibility, and therefore stress the importance of regional cooperation on Maritime Spatial Planning. We will ensure that maximising our common offshore resources takes place with due regard for the protection of marine and other biodiversity and ecosystems, the economic wellbeing of local communities, viable and sustainable food production, e.g. fisheries and other activities, taking place within our shared maritime space. We will therefore explore the potential for cooperating on a joint process for environmental impact assessments and formal safety assessments.
- In the development of energy hubs, we will explore ways to promote onshore and offshore production of hydrogen including the necessary transmission and pipeline infrastructure and we will explore the possible synergies of cooperating on offshore hydrogen production and transmission. We will also consider how an appropriate regulatory framework and support for the required technological innovation for renewable hydrogen can support European industrial leadership on the development of a hydrogen value chain, including related hydrogen backbone infrastructure, the development and production of green fuels and the phase-out of imported natural gas.
- Given the potential role of carbon capture, utilisation and storage (CCUS) for contributing to decarbonisation, and the potential of the North Seas to store CO<sub>2</sub> in geological formations, we underline the need to better coordinate storage and offshore infrastructure planning in those countries who intend to use formations under the North Seas for this purpose.
- We support the development of a well-functioning market for hydrogen. In order to scale up capacity nationally and regionally, we welcome the contribution that the important projects of common European interest (IPCEI) make to establishing cross-border hydrogen supply chains and production hubs in the North Seas region and beyond. For cross-border cooperation, we will continue to work under the revised framework for TEN-E to identify relevant projects of common interest (PCIs) and/or projects of mutual interest (PMIs). For a well-functioning market for hydrogen across Europe, each signatory will accompany and support the necessary regulation and standards.



- The Energy Ministers of the EU and Norway recall the instrumental role of the TEN-E framework and the status of PCI's and PMI's as well as the Connecting Europe Facility, the Renewable Energy Financing Mechanism to steer a more speedy and targeted co-financing of electricity interconnections, hybrid and renewable energy generation, that supply consumers across Europe with affordable, renewable energy. The Energy Ministers of the EU and Norway will work towards strengthening these EU financing instruments based on an improved and more effective use of Union funds. The Energy Ministers of the EU and Norway call on the relevant institutions, including the European Investment Bank, to deepen its active support to the Member States, regions and stakeholders in using and ensuring efficient use of all the relevant EU financing programmes, such as the cohesion policy funds, the Innovation Fund, Horizon Europe and InvestEU, for stimulating renewable energy in a synergetic way.
- The Energy Minister of the UK recalls the instrumental role of national funding instruments such as the UK's Cap and Floor Regime and Multi-Purpose Interconnector Pilot Scheme. The UK will also work to strengthen these national financing instruments.
- We acknowledge the potential role of ocean energy technologies in exploiting the North Seas' renewable energy resources and support further efforts in their development and deployment.
- We will monitor the development of technology for solar photovoltaic within offshore wind farms. Where feasible and necessary we will take steps together to remove barriers for large-scale demonstrations so the technology can further develop and we will gain valuable insights in the operational and environmental challenges. The objective is to create the opportunity for offshore solar to become a viable addition to offshore wind farms to create a more steady flow of energy on the offshore grid.
- Increased offshore renewables deployment is creating an increasing demand for skilled workforce to carry out the necessary planning, construction and operation of the relevant offshore assets. The need for skilled workers is a regional challenge. We will therefore explore the possibilities of enhanced qualification, reskilling and training across the North Sea regions.
- We will cooperate to keep physical and cyber security of offshore energy infrastructure on top of the European agenda. We will share best practices, with the aim to identify common principles as well as possible options for alignment on tender requirements. We will continue to further develop our relationship with partners to address mutual threats and ensure continued resilience of our energy systems. Energy security and resilience can only be delivered through allies acting in partnership – collaborating on approaches, information sharing, and capabilities.
- We encourage the relevant institutions to examine how tender procedures could contribute to the green and sustainable transition in Europe by creating lead markets for innovative, green and circular products and supply chains aligned with our climate neutrality objectives, in line with our common WTO-obligations, such as responsible business conduct.



- We will continue to collaborate closely with our industries across European borders to realise the full potential of renewable energy in our societies. In this regard, we will further explore possible ways to improve standardization of the relevant technologies and, where necessary, we will use targeted measures to develop critical technologies for the green transition. To support the competitiveness of European industry and reach climate neutrality, we will continue to improve energy efficiency through investments and system integration in order to reduce our dependency on energy import, whilst exploring opportunities for diversification based on openness to trade and investments.
- We recognise the considerable supply chain bottleneck challenges currently impacting developers of offshore renewables projects, including those arising due to Russia's illegal invasion of Ukraine, which threaten to undermine achievement of our ambitious offshore energy goals. We therefore commit to continuing constructive engagement with industry and other stakeholders in order to overcome these challenges, including through collaboration within the Clean Energy Industrial Forum's working group on offshore renewable energy established by the European Commission and the UK's Offshore Wind Industry Council (OWIC).
- We recognise the importance of the European Commission's Green Deal Industrial Plan and the Net Zero Industry Act to enhance the competitiveness of Europe's net-zero industry and support the fast transition to climate neutrality. We will support the effort to provide a simplified regulatory framework for clean tech by seeking evidence-based and cost-effective solutions, giving the best conditions to speed up the green transition. Ensuring swift deployment of offshore renewable energy in relation to this is essential and will also help facilitate the development of renewable hydrogen solutions.





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Signed in Ostend, Belgium on the 24th of April 2023,

The Minister for Energy  
of the Kingdom of Belgium

The Minister for Climate,  
Energy and Utilities  
of the Kingdom of Denmark

The Minister of Energy  
Transition  
of the French Republic

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Tinne Van der Straeten

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Lars Aagaard

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Agnès Pannier-Runacher

The Vice Chancellor and Federal  
Minister for Economic  
Affairs and Climate Action  
of the Federal Republic of  
Germany

The Minister for the Environ-  
ment, Climate and Communi-  
cations  
of Ireland

The Minister of Energy and  
Spatial Planning  
of the Grand Duchy  
of Luxembourg

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Robert Habeck

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Eamon Ryan

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Claude Turmes

The Minister for Energy and  
Energy Policy  
of The Netherlands

The Minister of Petroleum and  
Energy  
of The Kingdom of Norway

The Secretary of State for  
Energy Security and Net Zero  
of the United-Kingdom of  
Great Britain and Northern  
Ireland

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Rob Jetten

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Terje Aasland

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Grant Shapps

