



Elia presents its plans for an energy island, which will be called the *Princess Elisabeth Island*

- The artificial island in the Belgian part of the North Sea is an innovative masterpiece and a world first
- The island will become a European hub for offshore wind energy
- The North Sea is becoming a crucial link in our energy supply

OSTEND – In the presence of federal ministers Tinne Van der Straeten (Energy) and Vincent Van Quickenborne (North Sea), system operator Elia has presented its draft plans for what will be the world's first artificial energy island. The Princess Elisabeth Island will be located almost 45 km off the Belgian coast and will serve as the link between the offshore wind farms in the second offshore wind zone (which will have a maximum capacity of 3.5 GW) and its onshore high-voltage grid. The energy island will also be the first building block of a European offshore electricity grid that will serve as a central hub for new interconnectors with the UK and Denmark. The island is an innovative tour de force that once again puts Belgium on the map as a pioneer in offshore energy.

Belgium's Maritime Spatial Plan (2020-2026) provides for the development of a new wind power production zone in the Belgian part of the North Sea: the Princess Elisabeth zone. In line with the Belgian Electricity Act, Elia is responsible for extending the transmission grid based on plans that must be approved by appropriate ministers. The draft plans for the first energy island are now ready and the tender process is being prepared.

A world first in the Belgian part of the North Sea

The Princess Elisabeth Island will be the world's first artificial energy island. It will be an innovative tour de force that will combine both direct current (HVDC) and alternating current (HVAC). The island's high-voltage infrastructure will bundle the wind farm export cables from the Princess Elisabeth zone together, while also serving as a hub for future interconnectors with the UK (Nautilus) and/or Denmark (TritonLink). These will be hybrid interconnectors that have a dual function and will therefore be more efficient. They will ensure the exchange of electricity between countries and will also be connected to gigantic offshore wind farms in the North Sea that will provide our country with large volumes of renewable energy.

A gateway to large amounts of renewable energy



For more information

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The energy island will be located almost 45 kilometres off the coast and will occupy an area of approximately five hectares above the waterline. The artificial island will be constructed in the Princess Elisabeth wind zone and will be constructed from concrete caissons filled with sand. The island will mainly house transmission infrastructure that will be linked to new wind farms (which will have a maximum capacity of 3.5 GW) and will form part of connections to future interconnectors. A small harbour and helicopter pad are also due to be built for maintenance teams. In order to connect all future offshore installations to the Belgian high-voltage grid, 300 km of alternating current cables and 60 km of direct current cables will be needed. The energy island will rely on support from Belgium's post-COVID-19 recovery plan, which Belgium asked the European Commission to approve, meaning it is due to receive a subsidy of around €100 million.

Timing

The tender process for the island is being prepared, as is the development of the environmental impact assessment, the preparation of the permitting procedure and the application for a concession of public space. The construction of the island is due to start in 2024 and the island should be completed in mid-2026. From then on, the construction of the electrical infrastructure on the energy island will start. The construction of future wind farms is being organised by the Government through a series of tenders. The connection of the wind farms to the Elia grid is linked to the commissioning of two onshore grid reinforcement projects: the Ventilus and Boucle du Hainaut. Elia aims to achieve full connection capacity by 2030.



The Princess Elisabeth Island constitutes a big leap forward for the energy transition. In addition to bringing 3.5 GW of additional offshore wind energy to shore, the island will also be the first link in a European offshore electricity grid. It will allow us to access the huge offshore wind potential that the North Sea still has to offer us.

– **Chris Peeters, CEO Elia Group**



The plans for an energy island were developed as part of the recovery plan for Europe. The Federal Government has stepped up a gear in terms of offshore wind development. Thanks to the very first energy island, new interconnections, three new wind farms in the North Sea and the repowering of the first offshore wind zone, we are transforming the North Sea into one big green power plant. By quadrupling offshore wind capacity by 2040, we will reinforce our energy independence, reduce our energy bills and reduce our CO₂ emissions.

– **Tinne Van der Straeten, Minister for Energy**



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The North Sea is becoming the powerhouse behind our energy independence. However, recently, following the acts of sabotage inflicted on the North Stream gas pipelines, it has become more crucial than ever for us to protect such critical infrastructure from sabotage and attacks. We will secure both the cables which transport electricity to the mainland and the energy island against these kinds of events. We recently passed a law that significantly strengthens such measures. We are now providing for the use of video surveillance at sea, drones, the tracking of foreign boats in our waters and having competent services carry out regular safety analyses.

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–Vincent Van Quickenborne, Minister for the North Sea



About Elia Group

One of Europe's top five TSOs

Elia Group is a key player in electricity transmission. We ensure that production and consumption are balanced around the clock, supplying 30 million end users with electricity. Through our subsidiaries in Belgium (Elia) and the north and east of Germany (50Hertz), we operate 19,192 km of high-voltage connections, meaning that we are one of Europe's top 5 transmission system operators. With a reliability level of 99.99%, we provide society with a robust power grid, which is important for socio-economic prosperity. We also aspire to be a catalyst for a successful energy transition, helping to establish a reliable, sustainable and affordable energy system.

We are making the energy transition happen

By expanding international high-voltage connections and incorporating ever-increasing amounts of renewable energy into our grid, we are promoting both the integration of the European energy market and the decarbonisation of society. We also continuously optimise our operational systems and develop new market products so that new technologies and market parties can access our grid, thus further facilitating the energy transition.

In the interest of society

As a key player in the energy system, Elia Group is committed to working in the interest of society. We are responding to the rapid increase in renewable energy by constantly adapting our transmission grid. We also ensure that investments are made on time and within budget, with a maximum focus on safety. In carrying out our projects, we manage stakeholders proactively by establishing two-way communication channels between all relevant parties very early on in the development process. We also offer our expertise to different players across the sector in order to build the energy system of the future.

International focus

In addition to our activities as a transmission system operator, we provide various consulting services to international customers through our third subsidiary, Elia Grid International (EGI). Elia (in Belgium) is also part of the Nemo Link consortium, which operates the first subsea electrical inter-connector between Belgium and the UK. The legal entity Elia Group is a listed company whose core shareholder is the municipal holding company Publi-T.

More information: eliagroup.eu

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