

The North Sea, the new frontier of the energy transition

By Adam Middleton is President, Siemens Energy in France.

"The North Sea, the new frontier of the energy transition In a guest piece for "Les Echos", Adam Middleton, President of Siemens Energy France, explains how the North Sea, which has played a major role in supplying Europe with gas and oil for 60 years, can now play a key role in accelerating the energy transition.

The North Sea has the potential to become a technology laboratory and a model for the rest of the world, Middleton argues, speaking of a "new Eldorado for wind power," which can be used to produce green hydrogen, thus creating a hydrogen economy. "

For 60 years, the North Sea has played a major role in supplying Europe with gas and oil. Today, it is in pole position to accelerate our energy transition. Huge investments can indeed make this maritime space the largest zero-carbon energy production system in Europe by 2050. And in the context of the war in Ukraine, the region is more strategic than ever to reduce dependence on Russian gases.

With its unique meteorological, geopolitical and geological characteristics, the North Sea possesses key assets for the production of clean energy. Shallow waters and very strong winds make it one of the world's best fields for offshore wind power. Certainly, there are still these obstacles to overcome - difficult weather conditions. strong tides. access to infrastructure to name a few - but once these challenges have been overcome, the North Sea has what it takes to become a technological laboratory and serve as an example to the rest of the world.

Since the beginning of the 2000s, the "growth of offshore wind power has not ceased to accelerate, and it is now establishing itself as a realistic and affordable solution. To achieve the ambition of carbon neutrality in 2050, it would be necessary to multiply by 10 the capacity of offshore wind power in Europe, and increase it to 300GW. LamerduNord can clearly take a significant share and thus become the new Eldorado of wind power.

From this new source of clean energy, it will be possible to produce green hydrogen destined to play a central role in the future. This naturally presupposes the large-scale development of the technologies necessary for its production, storage and transport. But here again, everything is possible with public and private investment. And this is the key to creating a "hydrogen economy" and making it the fuel of the future, including for maritime and air transport. The North Sea can become the largest zero-carbon energy system in Europe by 2050.

To date, in France, approximately 60% of energy still comes from fossil fuels. We will therefore not replace them overnight, but we can drastically and quickly reduce the emissions linked to

their production. For example, by electrifying offshore platforms that today use gas turbines to transport their production onshore via pipelines, as shown by the Hywind Tampon project in Norway. Natural gas development can also be cleaner thanks to CO₂ capture and storage technologies. Connecting networks supplying heavy port industries in Rotterdam and Teesside in the United Kingdom prevent CO₂ from escaping into the atmosphere.

Whether it's modernising assets, experimenting with new technologies or connecting energy networks between European countries, the solutions are on the table. But the energy transformation in the North Sea presupposes the coordination of large-scale operations.

Increased collaboration between partner states is needed. Let's pool experiences and sectoral skills through strategic partnerships. And let's accelerate the integration of our low-carbon power generation technologies to make the North Sea megaproject a reality. History has proven that rapid transitions are possible even in capital-intensive sectors like energy.

If we can develop an interconnected low-carbon energy system in the North Sea, then it will become a feasible model and blueprint for implementation everywhere else. Done well, such a project will attract new industries, help boost employment, create growth, reduce dependence on fossil fuels and help create better living conditions for our children.