

The North Sea could become the largest energy market in Europe if we know how to work together

By Peter Weinreich-Jensen, CEO of Siemens Energy

The potential in the transition from fossil fuels to climate-neutral energy is enormous. Denmark can, via the North Sea, play a key role in the coming years when Europe fights free of Russian gas. But the countries around the North Sea will need to cooperate at all levels if we are to realize the 2050 vision of a net CO₂ emission of 0.

Our ambition to be independent of fossil fuels – coal, oil and gas in 2050 requires a massive restructuring of our energy system so that it is based on renewable energy sources such as wind and sun. Denmark will play an important role in this future development, where huge investments will transform the North Sea into a climate-neutral energy system.

For decades, the North Sea has supplied Europe with oil and gas. This reduced our dependence on imported oil and created jobs and economic growth. This era is coming to an end. However, the North Sea can continue to be an important powerhouse for Europe, now by providing green energy. The North Sea will play a key role in the future green energy transition and it will become the largest energy market in Europe. It requires a partnership between the eight countries around the North Sea and a collaboration between industries and companies to develop the innovative solutions of the future. The war in Ukraine has also focused on the importance of us in Europe having an independent energy supply, this development will also contribute to that.

The North Sea project: An opportunity for Denmark to contribute

Sea and wind are essential for producing large amounts of green renewable energy at competitive prices. The North Sea has the best resources and one of the best geographies for offshore wind worldwide, and Denmark, with its large ocean areas, has ideal conditions for utilizing offshore wind to produce large amounts of green electricity. The large amounts of green electricity make it possible to produce the green fuels of the future in and around the North Sea. It will also be possible to make a responsible restructuring of existing oil and gas infrastructure, e.g. by electrifying the infrastructure and then depleted oil fields can be used to, for example, store CO₂ captured on land.

The North Sea will soon be the largest supplier of energy in Europe. By establishing a transmission network between offshore wind farms in the North Sea and our

neighboring European countries, we also ensure security of supply between the countries. It will be possible to share energy between the countries and no one risks supply crises and blackouts. The UK's potential capacity of 80 GW of offshore wind can, for example, be shared with Belgium, which only has 6 GW if there is a surplus.

Developing the North Sea into Europe's largest supplier of green energy is fraught with challenges. It is challenging to create an infrastructure that can exchange green electricity and green hydrogen. It is challenging to do the rapid deployment of the huge amounts of renewable energy needed, but if the challenges are overcome, it could become the benchmark for how the future energy transition technology should be delivered, and innovative solutions could be scaled and exported to other parts of the world.

History shows that it is possible to create rapid change – even in capital-intensive industries such as energy. At Siemens Energy, we are present in many countries around the world, where we work with the production of e.g. windmills. We have followed the almost exponentially increasing demand – in Denmark alone we have more than 5,000 employees, and in the coming years we expect that the work around the North Sea will create significant growth and many more jobs.

We are in a hurry if we are to reach the goal

The North Sea is a mega-project that will involve many countries, industries and companies. It will require smart technology, innovative solutions and, not least, huge investments. But if we succeed, it will attract new industries, secure jobs, reduce our dependence on fossil fuels and help ensure a sustainable world.

We believe that close cooperation between countries, governments, partners, customers and supply chains is what is needed to ensure that the North Sea's energy potential is utilized optimally.

We have a long journey ahead of us. Hydrogen, created by wind power, will play a decisive role in the long-term energy storage of the future. There is a lot of wind potential in the North Sea, but we also need to develop technologies to store the wind energy. And we need efficient solutions to transport and deliver the energy to the many people who need it out in the world. In order to develop the necessary solutions, we need to start working now. We don't have time to wait. It is a global challenge, and the time has come for the parties to join forces to develop new technologies and innovative solutions so that we reach the goal of the energy transition by 2050.