

Nordic Offshore Wind Conference: Connecting the Baltic Sea with the North Sea

31 October-1 November 2024
University of Southern Denmark
Degnevej 14, 6705 Esbjerg Ø, Denmark



University of
Southern Denmark



Nordic Energy
Research

Offshore wind power is an important part of the energy transition for Nordic countries. According to the Esbjerg Accord, offshore wind power in the North Sea is targeted to be at least 65 GW by 2030. The Swedish Energy Agency reported a potential to enable 30 GW of offshore wind in the North Sea, Baltic Sea, and Gulf of Bothnia. While the North Sea and the Baltic Sea are both crucial locations for offshore wind, connecting them has strategic significance for the Nordic countries. It enables sharing and optimizing renewable energy resources, facilitating the integration of the energy market. Additionally, it provides a more resilient and robust energy system, reducing the impact of intermittent energy production. This connection promotes cost efficiency, increases competitiveness, and encourages the exchange of technological expertise. Furthermore, the connection leads to more strategic planning and reduces the environmental impact.

The Nordic countries have different focuses on offshore wind technology. Denmark is leading in fixed offshore wind, while Norway focuses on floating offshore wind. Given the significant ambition for offshore wind power, Nordic countries face several common challenges, such as application processes, technical barriers, and safety and environmental concerns. Furthermore, the integration of a large amount of wind power into the grid can significantly influence the grid's resilience due to geopolitical conflicts. Sabotaging a single cable could not only disrupt the power grid in Denmark but also affect neighboring countries. Therefore, the Nordic Countries must coordinate research and authority processes in order to secure a leading position in offshore wind power.

The Nordic Offshore Wind Conference will bring together various stakeholders, including researchers, practitioners, industrial associations, and policymakers from the Nordic region's offshore wind industry. The goal is to share expertise in offshore wind, discuss how Nordic countries can benefit from each other's experience and knowledge in connection with the rapid development of offshore wind power, and eventually contribute to developing an integrated Nordic model for sustainable offshore wind to contribute to the net zero goal.

We have invited colleagues from public institutions, industrial associations, research institutions, private organizations, and NGOs in the Nordic region.

Department of Law and Department of Business and Sustainability at the University of Southern Denmark are the conference organizers. The organizing committee for the conference is Professor Bent Ole Gram Mortensen (conference chairman), Associate Professor Jette Thygesen from Department of Law, and Associate Professor Yingkui Yang from the Department of Business and Sustainability.

31 October

1st conference day

University of Southern Denmark
Degnevej 14, 6705 Esbjerg Ø

09:30-10:00 Conference registration (includes coffee and bread)

10:00-10:10 **Conference opening**

Session 1:

Harmonize technical standards and regulatory frameworks: the legal and regulatory challenges for off-shore wind power farms

10:10-10:30 Experience from Denmark – challenges and solutions
Speaker: Bettina Jørgensen, TotalEnergies

10:30-10:50 Experience from Norway – challenges and solutions
Speaker: Sigrud Eskeland Schütz, University of Bergen

10:50-11:10 Experience from Sweden – challenges and solutions
Speaker: Melina Malafray, Uppsala University

11:10-11:40 Panel discussion about building offshore wind parks in the Nordic region
Moderator: Bent Ole Gram Mortensen
Panel participants: the speakers from Session 1

11:40-12:00 **Coffee break**

Session 2:

Integration of multiple offshore wind farms into the national grids: challenges and opportunities

12:00-12:20 Experience from Denmark
Speaker: Lykke Mulvad Jeppesen, Ørsted

12:20-12:40 Experience from Norway
Speaker: Astrid Green, Norwegian Offshore Wind

12:40-13:00 Experience from Sweden
Speaker: Vattenfall

13:00-13:30 Panel discussion
Moderator: Jette Thygesen
Panel participants: the speakers from Session 2

13:30-14:30 **Lunch**

Session 3: <i>An efficient adaptation and utilization of large-scale offshore wind</i>	
14:30-14:50	“The interplay between offshore wind and the hydrogen and P2X industry” Speaker: David Dupont-Mouritzen, Copenhagen Infrastructure Service Co. (CIP)
14:50-15:10	“Efficient operation of offshore wind” Speaker: Peter J. H. Esmann, Siemens Gamesa
15:10-15:40	Coffee break
15:40-16:00	“Demand side flexibility: lessons from the Nordic countries” Speaker: Amin Hajizadeh, Aalborg University
16:00-16:20	“Danish experiences from offshore wind development: experience from Broholm Energy Island” Speaker: Helle Munk Ravnborg, Energy Island Bornholm
16:20-16:40	“The hydrogen ecosystem in the Nordic region” Speaker: Andreas Karhula Lauridsen, European Energy
16:40-17:10	Panel discussion: “How can we optimize the use of offshore wind power in the Nordic region?” Moderator: Yingkui Yang <i>Panel participants: the speakers from Session 3</i>
17:10-17:30	Closing remarks for day 1
18:30-	Conference dinner Restaurant Madklubben Skolegade 44, 6700 Esbjerg

1 November	
2nd conference day University of Southern Denmark Degnevej 14, 6705 Esbjerg Ø	
Session 1: <i>Sustainable energy policy for offshore wind</i>	
9:30-9:50	“The need for a market-oriented model for expanding offshore wind” Speaker: Martin Risum Bøndergaard, Green Power Denmark
9:50-10:10	“New policy for offshore wind” Speaker: Tooraj Jamasb, Copenhagen Business School
10:10-10:30	“Sustainable policy for offshore wind” Speaker: Dorothy Jane Dankel, SINTEF
10:30-10:50	“Port Esbjerg – starting point for the Danish offshore wind industry” Speaker: Dennis Jul Pedersen, Port Esbjerg
10:50-11:10	Coffee break
11:10-11:40	Panel discussion on the construction of offshore wind power farms in the Nordic Region Moderator: Bent Ole Gram Mortensen <i>Panel participants: the speakers from Session 1</i>
11:40-12:00	Conference closing
12:00-13:00	Lunch
13:00-15:00	Trip to Port Esbjerg Duration: 2 hours Meeting point: University of Southern Denmark, Degnevej 14, 6705 Esbjerg Ø