

#COP26:

The North Sea as a springboard
for the green transition

Three recommendations



**UN CLIMATE
CHANGE
CONFERENCE
UK 2021**

IN PARTNERSHIP WITH ITALY

Meet us at COP26

Event 9. November 13:00,
Hall 4 , PV 63, Blue Zone,
Bellona Pavilion



UN CLIMATE CHANGE CONFERENCE UK 2021

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The recommendations in this document are based on
"The North Sea as a Springboard for the Green Transition".
Download the document here:
www.sintef.no/en/events/cop26_northsea



Research partners and contributors to "The North Sea as a Springboard for the Green Transition"



How the North Sea Can Drive the **Green** Transition

At a time when the climate challenge is fast becoming a climate emergency, the North Sea is an ideal platform for developing the climate technologies of the future, according to several leading European research centres.



Nils Anders Røkke
Executive Vice President
Sustainability - SINTEF



Asgeir Tomasgard
Professor and Director
of NTNU Energy
Transition Initiative

“The IPCC made it clear in August that our future climate depends on the decisions we take now. The countries bordering the North Sea have a unique opportunity to use their knowledge and expertise about the area to implement novel solutions to the climate crisis,” says Nils Røkke, Executive Vice President Sustainability in SINTEF.

SINTEF and NTNU will travel to the UN climate change conference COP26 with three strong recommendations on how the North Sea can power the green transition.

The recommendations are based on the document *“The North Sea as a Springboard for the Green Transition”* written by leading scientists from four of Norway’s Centres for Environment-Friendly Energy Research (FMEs) hosted by SINTEF and NTNU, and co-signed by Ruhr Universität Bochum, the British

Geological Survey, the University of Strathclyde, TNO, the University of Oslo, the Technical University of Denmark, the University of Zurich and Fraunhofer.

An economic driver past, present and future

The North Sea has long been an important incubator for innovation, research and technology development. For decades, it has provided us with the oil and gas that heats our homes, moves us around and powers our industrial development.

“By refocusing those competences and experiences, the North Sea can now transition to become a hub for green industries that can make a step change in our battle against the climate crisis and provide Europe with clean fuels and energy,” says prof. Asgeir Tomasgard, Director of NTNU Energy Transition Initiative.

1

A future North Sea network could include offshore wind farms and more cable/pipeline connections between countries. Former offshore installations can be repurposed as energy hubs that can supply ships with hydrogen and facilitate CO₂ storage, helping transport and heavy industry onto the challenging path to decarbonisation.

At COP26 in Glasgow, NTNU and SINTEF will make three recommendations on how to take advantage of this generational opportunity to drive the green transition.

Fivefold increase in education, research and innovation investment needed now

From carbon storage to offshore wind generation, the technology to make these plans a reality exists. But challenges remain to scale these technologies, sustainably, rapidly and effectively. Government investment can accelerate the collaborations between universities, research institutes and industry to deliver better results, faster. This message is broadly corroborated by the International Energy Agency (IEA) Net Zero 2050 report and by the insight provided by Bill Gates, one of the sponsors behind Breakthrough Energy Coalition and Breakthrough Energy Catalyst initiative.

2

North Sea countries must collaborate

The 1.5-degree target will not be met without extensive cooperation between countries, according to the IEA. To unlock the potential of the North Sea, all North Sea nations must work together on research, development, infrastructure and innovation projects. The IEA Net Zero 2050 report recons 40-year delay in reaching net zero at the present level of international collaboration.

3

Take care of nature and biodiversity

Climate-friendly solutions must not have a negative impact on nature. Implementing green energy technologies at scale will use significant areas both on land and at sea. Protecting nature and ensuring biodiversity in line with advice from the UN Nature Panel is paramount.

NORTH SEA NETWORK

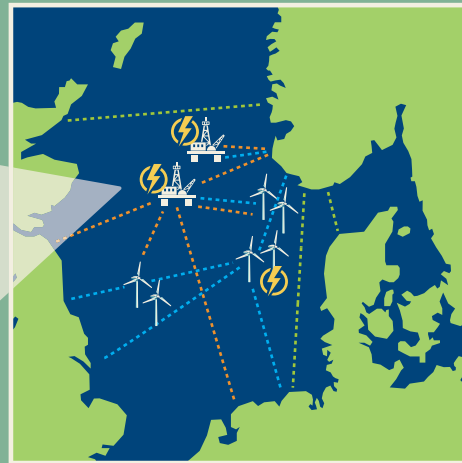
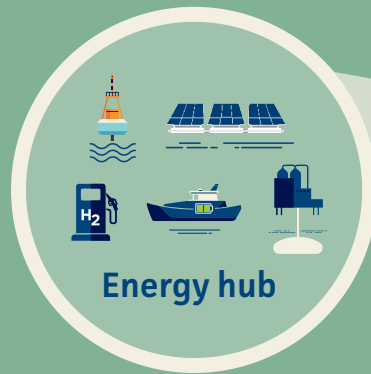
Existing

- Electric cables
- Gas pipelines

New electric cables



Energy hub/
energy island

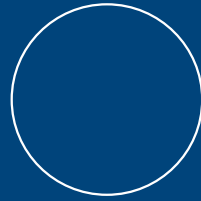
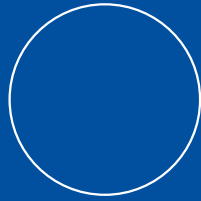


Example of what a future North Sea network would look like, with offshore wind farms, connections between countries and energy hubs that can supply ships with hydrogen and include installations for CO₂-storage. The building of this infrastructure will have to happen in stages. It will require strong international cooperation and coordination between the countries and companies involved in the project. Find out more about these exciting opportunities here: www.sintef.no/en/events/cop26_northsea

Notes



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