

Annex 1: Work programme

The participating countries acknowledge the progress and deliverables made by the four original Support Groups of the North Seas Energy Cooperation (2016-2019) and hereby reaffirm the objective of the North Seas Energy Cooperation. The participating countries call for taking forward the work carried out so far and further develop this by looking on the promotion of offshore wind, development of offshore grids, interconnectors, offshore hybrid assets, joint projects, and system integration within the framework of the cooperation.

The next step is to move beyond sharing best practices and work together to reach our ambition of net-zero greenhouse gas emission in Europe by 2050. This ambition requires building an energy system mainly based on energy from renewable sources. The North Seas region holds a great potential for delivering large amounts of the required renewable energy, in particular for an accelerated deployment of offshore wind generation capacity.

The countries acknowledge that the experiences and deliverables from the North Seas Energy Cooperation are of universal interest and the solutions and results can be replicated in other contexts.

The four support groups and the ad hoc working group on alignment reflect the challenges in the years ahead for the North Seas countries to develop the potential for offshore renewable energy in the area and the necessary infrastructure to transport it. To ensure interaction between the groups, back-to-back meetings may occur.

Support Group 1: Hybrid and joint projects

The development of renewable resources offshore will play an important role to reach decarbonisation goals and RES targets, including both conventional development (offshore wind generation and grids developed nationally) and hybrid projects. Hybrid projects are important to optimise generation and grid investments, by lowering overall costs and facilitating a more efficient use of maritime space in the North Sea. Large-scale development of offshore wind and grids makes it important to give these projects a special focus with a view to future development.

In establishing a project-based support group for hybrid assets and joint projects, the North Seas Energy Cooperation creates a platform for the relevant countries participating in a hybrid and/or joint project to bring forward joint solutions and thereby delivering results that can benefit all North Seas countries. Support group 1 will work on the already identified potential hybrid and joint projects (Roland Berger study 2019), but not limited to these. Support Group 1 is open to all NSEC parties, irrespective of whether the country is currently developing a hybrid project. Support group 1 will also work on general questions, such as options for potential offshore bidding zone configurations and other regulatory aspects and ways to overcome barriers to hybrid projects.

Besides the assessment of concrete project proposals, the support group will discuss elements of an EU regulatory framework for hybrid and joint projects that facilitates the implementation of such projects. In particular, such regulatory framework for hybrid and joint projects could address the distribution of costs

(such as for support, interconnection, grid access and grid integration) and benefits (such as target accounting and electricity supply) as well as the applicability of EU electricity market rules for hybrid and joint projects. Thereby, the regulatory certainty for investors could be enhanced.

Support Group 1 will work on:

- Assessing and specifying concrete plans for developing potential hybrid projects, including by regular exchanges with key actors from regulators, TSO's research & innovation and offshore wind and industry;
- Assessing the regulatory framework and market arrangements for specific hybrid assets, including elements related to cross-border support (joint project dimension) when relevant and identify options for overcoming identified obstacles;
- Developing further concepts for hybrid and joint projects that generate benefits for all participating parties with the aim of implementing concrete projects of the North Sea countries;
- Discussing criteria for a regional cooperation that allocates the distribution of costs (such as for support interconnection, grid access and grid integration, including a potential joint tender design) and benefits (such as accounting of RES statistics towards the RES target and electricity supply) among the concerned parties and enhances investor certainty, also in a view to possible elements of an EU regulatory framework for hybrid and joint projects projects;
- Alignment of technical standards within hybrid and/or joint projects in close cooperation with the ad hoc working group.

Support Group 2: Maritime Spatial Planning

In order to reach our energy and climate targets, further areas for offshore renewable energies need to be designated. However the space in the North Seas is finite and the demands of both traditional and non-traditional marine uses are increasing. There is a need to better understand the possible ecological limits of large scale wind development in the North Seas and the spatial implications related to other uses. Maritime Spatial Planning provides the tools to balance the spatial needs of different sectors, while at the same time protecting the environment and biodiversity. Within the framework of the maritime spatial planning, the accumulation of environmental impacts has been assessed.

Further work is needed on maritime spatial planning and environmental assessments to be able to utilise the energy potential of the North Seas, herein developing a common framework for assessing environmental impacts, which requires an integrated approach and close cooperation between responsible authorities for energy, maritime spatial planning and environment.

Within a more coordinated maritime spatial planning, also a more coordinated planning of offshore grid projects is needed in order to facilitate the increased deployment of offshore wind generation capacities until 2050 in the North Sea region.

Support Group 2 will work on

- Developing concepts for coordinated planning and development of offshore wind of the North Seas countries and beyond national borders including area mapping;
- Developing concepts for a more coordinated offshore grid planning of the North Seas countries, which is better synchronised within maritime spatial planning, in order to facilitate the increased deployment of offshore wind generation capacities until 2050, including by regular exchanges with relevant key actors from research and industry such as ENTSO-E;

- Developing scenarios for designated further areas for offshore wind;
- Increasing the availability and interoperability of marine data for planning, impact assessment, licensing and operations;
- Address the potential of innovation and multi-use of the maritime space, share experience and best practices;
- Streamlining communication and consultation among North Seas countries in order to prepare coherent maritime spatial plans;
- Exchanging best practices on site preparation and permitting procedures.

Environmental Subgroup on Common Environmental Assessment Framework (CEAF)

- Cooperating to share existing data and generate new, standardized data and information for the wider North Seas, needed for making environmental impact assessments;
- Developing and sharing relevant knowledge on species, habitats and ecosystem through monitoring and joint research using an adaptive management approach;
- Developing further tools within a common environmental assessment framework for cumulative impacts from offshore renewable energy, particularly wind energy, as a support tool for decision making in Maritime Spatial Planning.

Support Group 3: Support framework and finance

Offering the offshore wind sector long-term prospects is vital in order to facilitate long-term investments and further cost reductions. At the Ministerial meeting in Esbjerg in 2019, North Seas countries agreed to work together to achieve an indicative aggregate installed capacity of EU Member States of the North Seas Energy Cooperation of at least 70 GW by 2030 based on their current national plans for offshore wind deployment.¹

The group will coordinate the offshore tenders by means of sharing information regarding the national tender schedules as well as exchanging best practices on tender design, including zero-subsidy support design elements to foster system and sector integration as well as look into aspects on decommissioning, lifetime extension and repowering of wind farms. In addition the group will look into joint cross-border offshore projects, including new financing opportunities under the new Connecting Europe Facility and the Union Renewable Energy Financing mechanism.

Support Group 3 will work on:

- Achieving an indicative aggregate installed capacity of EU Member States of the North Seas Energy Cooperation of at least 70 GW by 2030;
- Establish and improve the coordination on timing of tenders and their realization (including in the context of the National Energy and Climate Plans) and finalizing the portal on firmly planned tenders for offshore wind to increase visibility of planned investments for investors;
- Best practice exchange on support scheme design for offshore wind, including the handling of zero subsidy bids and including sector integration components, also with the aim to identify common principles as well as possible options for alignment;
- Discuss different grid connection regimes and the ownership of the connection to shore with a view to tender design;
- Study the impact of reconfiguration of potential offshore bidding zones on support schemes;

¹ Aggregated planned project pipeline by EU Member States of the North Seas Energy Cooperation (including for offshore areas other than the North Seas). Source: Member States.

- Bringing together obstacles for hybrid and joint offshore projects with regard to tender design, notably with the aim of identifying cornerstones to regulate central key uncertainties (such as basic principles with the necessary flexibility for concrete projects);
- Analyse and develop additional options for financing for hybrid (pilot) and joint projects, in particular through the Connecting Europe Facility (new window for cross-border projects in the field of renewable energy), the Union renewable energy financing mechanism under the Regulation on the Governance of the Energy Union and the Invest EU Programme;
- Decommissioning, repowering and lifetime extension of offshore wind farms.

Support Group 4: Delivering 2050

The overall challenge for this group is to look at the challenges ahead on the way to 2050. Herein lies the question of how to absorb the increased amount of energy produced in the North Seas, both with regards to onshore grid connection as well as opportunities related to visionary concepts such as a hub-and-spoke model for the North Seas including sector coupling and sector integration.

The European Commission expects a 150% increase in Europe's electricity consumption going towards decarbonisation in 2050. This new electricity consumption might be located close to the coast, but it will also be likely to be placed in some of the existing industrial clusters – eg. chemical industrial clusters, where there will be a high need for renewable based hydrogen and other e-fuels. The need for the NSEC to look further than producing electricity is inevitable.

Support Group 4 will work on:

- Discussing and concretising visionary ideas such as hub-and-spoke concepts, power-to-x alongside other potential (offshore) technologies like gas to wire;
- Best practice exchange on onshore grid planning of the North Seas countries in order to facilitate the increased deployment of offshore wind generation capacities until 2050, including by regular exchanges with relevant key actors from research and industry such as ENTSO-E;
- Ensuring dialogue and timely cooperation with onshore grid developers and other relevant stakeholders regarding plans for offshore wind generation and offshore grids;
- Exchanging best practices in communicating the societal value of grid expansion.

Ad hoc working group on alignment

Aligning rules, regulation and technical standards holds great potential for contributing to cost reduction for the offshore industry and thus the establishment of offshore wind farms in the North Seas. Today the existing rules, regulation and standards differ to a certain extent among the North Seas countries. In order to secure progress in alignment the ad hoc working group will work on one area at the time, identified by the high level group.

The working group will consist of identified relevant ministries and national authorities on the given subject and will report to the Coordinators group. The working group will work on identifying means to reduce unnecessary regulation and thereby costs for the industry on the identified area and hereafter present it at the high level group.

The ad hoc working group can among other areas work on:

- Aviation markings and light
- Health and safety
- Park layout

Final note

The newly appointed SG's are to be constituted in the beginning of 2020.

All work under this work programme will be undertaken in line with existing obligations under international law as well as relevant EU legislation and subject to available resources. Where relevant, the agreed measures to implement such legislation will be notified to the relevant authorities. As part of their participation in the support groups, countries are free to focus on the work areas of their interest.