

ROADMAP

Roadmaps aim to inform citizens and stakeholders about the Commission's work in order to allow them to provide feedback and to participate effectively in future consultation activities. Citizens and stakeholders are in particular invited to provide views on the Commission's understanding of the problem and possible solutions and to make available any relevant information that they may have.

TITLE OF THE INITIATIVE	OFFSHORE RENEWABLE ENERGY STRATEGY
LEAD DG – RESPONSIBLE UNIT	DG ENER - B1
LIKELY TYPE OF INITIATIVE	COMMISSION COMMUNICATION
INDICATIVE PLANNING	<i>Early Q4 2020</i>
ADDITIONAL INFORMATION	https://ec.europa.eu/energy/topics/renewable-energy/eu-strategy-offshore-renewable-energy_en

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A. Context, Problem definition and Subsidiarity Check

Context

The European Green Deal aims at tackling climate and environment-related challenges that are central tasks for this Commission, and in particular making Europe the first climate-neutral continent by 2050. The Commission's Long-Term strategy "A Clean Planet for All" of 2018, indicates that a massive scale-up of offshore wind in Europe will be required while other renewable ocean energy (e.g. wave, tidal), possibly accompanied by storage and conversion facilities, should also play a significant role.

Furthermore, the recovery from the COVID-19 crisis, in particular through the "Next Generation EU" instrument, will be based on investments in line with the Green Deal priorities as key drivers for European jobs and economically sustainable and inclusive growth. Cross European deployment of offshore renewable energy that respects the principle to "do no harm" and underpinning value chains will be highly relevant in this perspective.

In this context, the Commission 2020 Work Programme foresees the adoption of an Offshore renewable energy strategy proposing ways forward to support the step up and long-term sustainable development of this sector.

Problem the initiative aims to tackle

The European Green Deal Communication states that offshore wind production will play an instrumental role in building a power system largely based on renewables and contribute to the 2030 and 2050 energy and climate objectives. It also calls for tapping into the growing potential of emerging offshore renewable energy (floating wind, wave, tidal, salinity gradient, ocean thermal energy conversion, floating photovoltaic), while at the same time managing the maritime space sustainably. The Green Deal also emphasizes the importance of regional cooperation between Member States to achieve these objectives. Finally, it addresses the key role of a common grid able to transmit efficiently on land the energy generated offshore.

Europe's offshore renewable energy potential is big (more than 250 GW of installed offshore wind anticipated in 2050) and covers the North Sea, Baltic Sea, Black Sea, Mediterranean and the Atlantic Ocean. Offshore renewable energy has a significant sustainable and inclusive growth potential across the entire EU, which is gaining even more importance in the context of the COVID-19 recovery measures.

The current offshore wind and renewable development pace is far too slow and constrained to meet the needed massive scale up to ensure climate neutrality by 2050. There are major obstacles to its wider and efficient deployment. The offshore renewable energy potential of the European wide sea space also needs to be better understood and exploited in a fair and responsible way with the many other sea natural capital and users (ecosystems, defence, shipping, fishery, sailing and tourism), while complying with the European Green Deal engagements on sustainability, notably environmental and biodiversity protection and restoration. Grid planning also needs to be upgraded to address the particular challenges of grid deployment in the different sea areas.

Only a step change in regional cooperation between the Member States and European coordination will allow leveraging the EU's offshore renewables to the necessary capacity by 2050 in cost efficient, sustainable and cohesive ways. Obstacles to overcome to deliver this step change concern grid planning, market arrangements, common projects, de-risking of projects, research and innovation including in new business models, as well as

technical challenges.

Without a strategic approach across European and national policy as well as financial instruments to step up and steer the long term sustainable development of offshore energy, the EU risks losing its current technological and industrial leadership in this field, and failing to grasp its related post COVID-19 recovery sustainable growth and inclusive jobs potential. We could even have Member States or regions developing in a sustainable way offshore energy, while others do not capitalise on its potential or exploit it in an environmentally harmful way.

Basis for EU intervention (legal basis and subsidiarity check)

The legal basis for this initiative is Article 194(2) of the Treaty on the Functioning of the European Union. It is therefore an initiative in the area of energy, which is a shared competence between the EU and Member States. When identifying in which areas EU action could bring added value for accelerating the clean and sustainable energy transition through offshore renewable energy development, this Strategy will properly take into account the principle of subsidiarity. The same is applicable for the policy initiatives that will follow the communication. EU action is the most efficient and effective option to ensure a comprehensive, integrated and cost-efficient development of offshore renewable energy development in a sustainable, coherent and coordinated way across the regions of the EU. This is necessary to achieve a transversal reduction of greenhouse gas emissions without creating unnecessary obstacles to the internal energy market.

B. What does the initiative aim to achieve and how

The offshore energy strategy will investigate how to best leverage the huge potential of offshore renewable energy deployment in a sustainable way, in line with the “do not harm” principle established in the European Green Deal. It will propose strategic way(s) forward and identify actions at European, (trans)national and regional levels to foster an ambitious and sustainable deployment and integration of this type of energy by 2030 and 2050. The strategy will set up a consistent and holistic approach to ensure that the offshore renewable energy deployment contributes to the Green Deal objectives and post-COVID-19 recovery measures. The revision of the Regulation on the Trans-European Energy Networks will form a core element of the strategy. In view of the potential of using offshore renewable energy to produce renewable hydrogen via electrolyzers, other initiatives such as the Energy system integration strategy and Hydrogen strategy will also contribute to these objectives.

The scale-up of sustainable offshore renewable energy in Europe needs to be addressed in a comprehensive, integrated and cost-efficient manner between the concerned policy fields.

A massive scale-up of offshore renewable energy in Europe will require a sound assessment of its potential environmental impacts and a long-term regional cooperation and planning framework which brings together relevant Member States, National Regulatory Authorities, Transmission System Operators, renewable energy suppliers, local authorities, citizens and stakeholders. Coordinated planning of cross-border offshore electricity grids development and onshore landing-points will be essential. The regulatory and support framework will need to ensure efficient and market based uptake of the energy in the onshore electricity system as well as to facilitate regional cooperation. The sharing of experiences in auction design or cross-border cost-allocation could allow identifying best practices. An ambitious R&I to develop offshore renewables and grid technology is also important.

The access to sea space will be a crucial factor in the development of offshore renewable energy. The strategy will propose ways to ensure the scale up in offshore energy can occur in a way that is sustainable, fair and respectful to other sea space users and natural capital, while considering the specific space constraints of each sea basin. Regional cooperation and European coordination will also be necessary to achieve results in this framework.

The strategy will integrate the environmental impacts of offshore renewable energy deployment in line with the commitments in the EU Biodiversity strategy and European environmental legislation. Aspects such as minimising the impact on biodiversity and marine environment while ensuring win-win solutions, circular economy (including recycling and reuse of components), prevention and mitigation of potential negative effects will be an important part of the strategy.

In view of the importance of the offshore energy for future EU competitiveness, we need a more strategic approach to this sector. The strategy will also propose ways to support and strengthen the EU industrial and technological global leadership in this sector, based on a domestically-based production across the value-chain.

The strategy will put emphasis on how to make the deployment of offshore renewable energy a pillar of an inclusive and sustainable growth promoting regional cohesion across the EU and contributing to a just transition, with a particular attention put on employment and (re)skills dimensions.

Finally, the strategy will look into how available EU financial tools can be used more strategically to support the above objectives.

C. Better regulation

Consultation of citizens and stakeholders

A comprehensive consultation of citizens and stakeholders is planned. As this strategy covers a very broad range of activities, it is critical to involve interested parties from different horizons. This will be ensured by meetings with relevant stakeholders, as well as by organising several webinars.

Furthermore, together with the publication of the Roadmap, the Commission is launching a questionnaire to allow all categories of stakeholders to provide meaningful input. Those wishing to share more detailed information can do so thanks to the proposed questionnaire format, which also includes open-ended questions. In addition, there is a possibility to upload position papers. Citizens and stakeholders are encouraged to take part in this consultation, as their valuable contributions will feed into the strategy. This consultation will be published on the Commission's central [public consultations page](#) and on [the consultation website of the Energy Directorate General](#). The questionnaire also allows for providing separate submissions by interested stakeholders. A summary of all consultation activities' results will be published on the consultation page.

Evidence base and data collection

This Communication will be based on comprehensive internal knowledge, data and models. Furthermore, several studies financed by the Commission are currently in progress and will serve as input for the strategy. In particular, studies on the offshore potential in the Baltic and Mediterranean Sea, recommendations for market arrangements and financing of offshore hybrid assets in the North Sea and technical requirements for High Voltage Direct Current grid connection might lead to valuable insights.

While the strategy will identify policy areas where action will be taken by the Commission, the specific follow-up actions will follow their own approval process, in line with better regulation requirements, including the requirement to conduct an impact assessment and an in-depth public consultation when applicable.