European Economic and Social Committee

TEN/726
Offshore Renewable Energy Strategy

OPINION

European Economic and Social Committee

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – An EU Strategy to harness the potential of offshore renewable energy for a climate neutral future
[COM(2020) 741 final]

Rapporteur: **Marcin Wiesław NOWACKI**

Referral	European Commission, 24/02/2021
Legal basis	Article 304 of the Treaty on the Functioning of the European Union
Section responsible	Section for Transport, Energy, Infrastructure and the Information Society
Adopted in section	14/04/2021
Date adopted in plenary	27/04/2021
Plenary session No	560
Outcome of vote (for/against/abstentions)	240/1/4

1. Conclusions and recommendations

1.1 The EESC welcomes this strategy, which aims to harness the potential of offshore renewable energy for a climate neutral future.

1.2 The EESC welcomes the proposals to include marine renewable energy development objectives when drawing up national and regional maritime spatial management plans.

1.3 The Committee considers that the strategy should include calculations of the contribution of wind energy to reducing greenhouse gas emissions to net zero in 2050.

1.4 The EESC welcomes the view that a well-regulated energy market should provide appropriate investment signals. In the Committee's view, a predictable and stable regulatory environment plays a key role in the development of offshore wind energy.

1.5 Given certain characteristics, such as depth and proximity to other countries, the EESC notes that the installation of hybrid projects is only possible in the North Sea and the Baltic Sea. Moreover, in view of the expected pace of development, the EESC believes that in the first instance, EU and national action should focus on unleashing the potential of the most advanced projects which are planned to be connected to the national electricity system in a radial form.

1.6 The EESC is disappointed by the perfunctory way in which the strategy addresses the issue of recycling used wind turbines and recommends that the Commission pay due attention to the issue of decommissioning costs. The EESC would like to highlight the fact that clean energy would improve not only air quality in the local environment, but the environment and climate as a whole.

1.7 The EESC welcomes the identification of potential for the North Sea, the Baltic Sea, the Mediterranean Sea, the Black Sea, the EU Atlantic Ocean and the EU's islands. It is understandable to prioritise the creation of new projects in the North Sea basin given the opportunities offered by existing infrastructure there. However, in order to ensure the security of energy supply as well as social and economic cohesion within the EU, the Committee stresses the need for proportionate investment in offshore wind farms in all EU basins.

1.8 The EESC supports the proposal to amend the TEN-E Regulation to include the one-stop-shop principle for offshore energy projects.

1.9 The EESC is concerned about the lack of details regarding specific measures and support instruments, which may put the financing of renewables at risk. In the Committee's view, a single instrument dedicated to financing offshore wind energy projects should be created within existing programmes. Moreover, such an approach should be extended to other types of renewable energy sources, like onshore wind and photovoltaic power, in keeping with the aspirations of the European Energy Union and the Renewable Energy Directive II, which precisely see more decentralised and regional generation facilities as making a contribution to generating additional potential for regional value creation, to creating jobs, and to putting the public at the heart of policy and making them active producers and prosumers. In this

connection, the EESC notes with some concern that the Commission is currently dealing "only" with offshore and hydrogen technologies, but is neglecting these decentralised approaches.

1.10 The Committee points out that any investment in offshore wind farms should contribute as much as possible to the socio-economic development of the regions in the immediate vicinity of the investment by promoting participation in the project – the "local content factor".

1.11 The EESC welcomes the fact that the strategy is to be complemented by a plan for the development of skills and education systems in the field of offshore wind energy.

1.12 The EESC recognises the EU's desire to take the lead in the offshore wind energy sector and is pleased to support the expansion of wind energy on land as well as at sea. It therefore expects the Commission to complement the offshore strategy with an onshore strategy as soon as possible.

2. Introduction

2.1 The subject of this opinion is *An EU Strategy to harness the potential of offshore renewable energy for a climate neutral future*, published on 18 November 2020. This strategy is an integral part of the European Green Deal.

2.2 The impact assessment accompanying the 2030 Climate Target Plan foresees that by 2030 more than 80% of electricity should come from renewable energy sources and that meeting the 2050 climate target requires offshore wind power of an estimated capacity of 300 GW, which will need to be complemented by approximately 40 GW of ocean energy. The strategy discussed in this opinion shows how the EU can achieve this.

3. General comments

3.1 The strategy aims to speed up the clean energy transition while retaining the important goals of economic growth and job creation in Europe. The main reasons for introducing this strategy are:

- Implementing the commitments of the first global agreement on mitigating climate change (Paris 2015),
- Restoring the competitiveness of the European economy by increasing energy efficiency,
- Creating new jobs by increasing the volume of investment, which will help mitigate the socio-economic impact of the COVID-19 pandemic and contribute to the development of the European economy.

3.2 According to this strategy, offshore wind capacity will be increased from the current level of 12 GW to at least 60 GW by 2030 and to 300 GW by 2050. Furthermore, the Commission intends to add 40 GW of ocean energy and other emerging technologies such as floating wind and floating photovoltaic installations by 2050.

3.3 Investments worth an estimated EUR 800 billion are needed to achieve these objectives. Greater involvement of the EU and of Member States' governments is also needed, as under current

policies the present and projected installation capacity would lead to only approximately 90 GW in 2050.

3.4 The EESC welcomes the presentation of this strategy, which includes regulatory proposals and measures that make it possible to focus on developing, strengthening and deepening of cooperation on offshore wind energy.

3.5 The Committee notes that the data and information mentioned above illustrate the scale of the challenges faced by investors, EU industry and transmission and distribution system operators. The strategy presents optimistic prospects such as opportunities to boost private investment or create new jobs. However, the Committee notes that the strategy only makes use of vague information on predictions for the development of offshore wind energy in the context of job creation. Moreover, it is important to note that additional jobs will be created not just in the energy sector but also in onshore activities such as port development and shipping. Similarly, the strategy addresses the impact of the industry's development on EU GDP.

3.6 The EESC notes that the strategy draws on an interconnected environment, in which the offshore renewables industry has to cohabitate with a number of "other activities at sea" (tourism, fisheries, aquaculture etc.), hybrid projects interact with cross-border interconnectors, development is driven by targets set in multiple countries, and landlocked countries may finance offshore projects. Since offshore projects are co-financed by the EU, the EESC recommends ensuring transparency on the issue of burden and benefit sharing.

3.7 The EESC is disappointed that the strategy does not include calculations of the contribution of wind energy to reducing greenhouse gas emissions to net zero in 2050. Focusing only on installed capacity means that this key factor for achieving the objectives of the Green Deal is overlooked.

4. Outlook for offshore renewable energy technologies

4.1 EU offshore installations generate 12 GW, which is equivalent to 42% of the world's offshore wind capacity. Most projects are turbines located on the seabed. The Committee believes that this technology has reached a certain degree of maturity, which is illustrated by a 44% reduction in the LCOE for offshore wind energy over 10 years.

4.2 The Committee has doubts as to whether the offshore wind energy development strategy should be based on developing technologies such as hybrid projects, and draws attention to the need to generate competitively priced energy that will make it possible to rebuild the EU economy after the coronavirus crisis.

5. The EU's sea basins: a vast and varied potential to deploy offshore renewables

5.1 The EESC welcomes the identification of potential for the North Sea, the Baltic Sea, the Mediterranean Sea, the Black Sea, the EU Atlantic Ocean and the EU's islands. Determining the potential for sea basins in the strategy will allow regulatory action to be properly planned and the objectives to be achieved.

5.2 It is understandable to prioritise the creation of new projects in the North Sea basin given the opportunities offered by existing infrastructure there. However, in order to ensure the security of energy supply as well as social and economic cohesion within the EU, the Committee stresses the need for an energy mix that is not overly reliant on one source of energy, as well as proportionate investment in offshore wind farms in all EU basins.

5.3 At the same time, the Committee notes that the offshore wind energy development strategy is moving towards regionalisation.

6. Maritime spatial planning for sustainable management of space and resources

6.1 In order to speed up the development of wind energy, it is necessary to ensure a reasonable coexistence between offshore installations and other uses of marine space while also protecting biodiversity. The EESC welcomes the proposals to include marine renewable energy development objectives when drawing up national and regional maritime spatial management plans, while also inviting the Commission to state explicitly that the estimated 3% of European maritime space required for scaling up the offshore renewables industry is an average figure, and that specific factors such as the nature of the wind and the various kinds of environment need to be taken into account.

6.2 The EESC agrees that the development and publication of management plans would signal to companies and investors the intentions of governments with regard to the future development of the offshore renewable energy sector, facilitating public and private sector planning.

6.3 The environmental impact of the installations is currently subject to a thorough and lengthy assessment during the process of obtaining all necessary administrative decisions. Therefore, the EESC supports the proposal to amend the TEN-E Regulation to include the one-stop-shop principle for offshore energy projects.

7. A new approach to offshore renewable energy and grid infrastructure

7.1 Most offshore wind farms currently in operation have been deployed as national projects connected directly to the shore via radial links. However, in order to speed up the development of offshore wind energy, reduce costs and reduce the marine area used, it is proposed to focus on hybrid projects. Such a system is an intermediate state between traditional projects connected radially to the national electricity system and the full meshed grid model. The strategy also presents the rather optimistic assumption that neighbouring Member States should jointly set far-reaching targets for offshore wind.

7.2 Given certain characteristics, such as depth and proximity to other countries, the EESC notes that the installation of hybrid projects is only possible in the North Sea and the Baltic Sea. Moreover, in view of the expected pace of development, the EESC believes that in the first instance, EU and national action should focus on unleashing the potential of the most advanced projects which are planned to be connected to the national electricity system in a radial form.

8. **A clearer EU regulatory framework for offshore renewable energy**

8.1 The EESC welcomes the statement that a well-regulated energy market should provide appropriate investment signals. In the Committee's view, a predictable and stable regulatory environment plays a key role in the development of offshore wind energy.

8.2 The expected increase in the importance of cross-border energy projects means that clarification of the electricity market rules is needed, which was provided in the Staff Working Document accompanying this strategy.

8.3 The current legal framework does not provide for innovative technologies such as hybrid energy islands or offshore hydrogen production. The Commission suggests a separate marine market area with the possibility of reallocating part of the congestion revenues to producers as the best model for regulating hybrid projects. The EESC supports the objective of creating offshore bidding zones on the assumption that they will simplify the regulation of the energy market.

8.4 The EESC welcomes the efforts aimed at ensuring stability on the income side for investors. The Committee calls for flexibility in the possibility of promoting the development of offshore wind energy in Member States where this technology is at an early stage of development, including by granting direct support without the need for a competitive procedure, in accordance with the provisions of the RED Directive.

9. **Mobilising private-sector investment in offshore renewables: the role of EU funds**

9.1 The investment needs for implementing the strategy are estimated at almost EUR 800 billion, of which around two thirds would be to fund the associated grid infrastructure and one third for offshore generation. Investment in onshore and offshore renewable energy grids in Europe over the 10 years leading to 2020 were approximately EUR 30 billion. The strategy envisages an increase to more than EUR 60 billion in the coming decade and an even greater increase after 2030. Furthermore, the strategy expresses the expectation that most of these investments will come from private capital. However, the document shows that the Commission, the European Investment Bank and other financial institutions will work together to support strategic investments in offshore wind energy.

9.2 The EESC is concerned about the lack of details regarding specific measures and support instruments, which may put the further promotion of renewables at risk. Based on the current strategy, a range of eight different EU funds will be available to investors. The expected proportions in this area are not indicated, in particular the extent of the share of EU funds is not known. In the Committee's view, creating a single instrument dedicated to the financing of offshore wind energy projects within existing programmes is essential in ensuring that the projects will be financed and developed quickly. Moreover, such an approach should be extended to other types of renewable energy sources.

9.3 The EESC points out that any investment in offshore wind farms should contribute as much as possible to the socio-economic development of the regions in the immediate vicinity of the investment by promoting participation in the project – the "local content factor".

9.4 The strategy foresees the possibility of a renewable energy financing mechanism which can offer ways of sharing the benefits of offshore energy projects with Member States that do not have a coastline. In the Committee's view, the assumption that landlocked Member States would want to finance wind energy using their own resources in exchange for statistical benefits is too optimistic.

10. Focusing research and innovation on supporting offshore projects

10.1 The EESC is deeply disappointed by the perfunctory way in which the strategy addresses the issue of recycling used wind turbines. The strategy states that it is necessary to integrate the principle of "circularity by design" into renewables research and innovation more systemically. However, it does not provide any details regarding potential implementation of this principle. The Committee notes that the processing of used wind blades on land is a growing problem in places such as Germany, where the possibility of burying them in the ground is being considered. It is worth noting that offshore windmills are much larger in size, which is directly reflected in the scale of the problem.

10.2 The EESC would like to highlight the fact that clean energy would improve not only air quality in the local environment, but the environment and climate as a whole. The EESC protests against the rapid development of offshore wind energy without taking into account its potential impact on the environment and recommends that the Commission pay due attention to the issue of decommissioning costs: in reality, in cases where projects are financed by EU funding, these costs should already be evaluated in advance and proper liability respected.

10.3 The EESC welcomes the fact that the new strategy is to be complemented by a plan for the development of skills and education systems in the field of offshore wind energy drawn up by DG EMPL and DG MARE. The expansion of skills is a fundamental element in the development of this sector. The sustainable and rapid development of this sector calls for training programmes to be implemented for Member States where this technology is still at an early stage of development. The strategy shows that existing EU instruments and funds can be used for this purpose. In the Committee's view, the importance of developing skills in offshore wind energy requires dedicated instruments and funds to be created at EU level.

11. A stronger supply and value chain across Europe

11.1 Strengthening the supply chain requires a total investment of around EUR 0.5-1 billion. The EESC regrets the lack of a clear indication of how these funds would be mobilised or a time horizon.

11.2 The EESC welcomes the plan to strengthen the Clean Energy Industrial Forum and to create a dedicated group on marine renewable energy within it in 2021.

11.3 The Committee has serious concerns about the plans for the Commission and ENTSO-E to promote standardisation and interoperability between converters from different manufacturers by 2028. This date is too far away, especially given that 60 GW is to be built in offshore wind

farms by 2030. The Committee would like to see a date that would allow a realistic time frame to develop standards for equipment.

Brussels, 27 April 2021

Christa SCHWENG
The president of the European Economic and Social Committee