



# REPLIES OF THE EUROPEAN COMMISSION

## TO THE EUROPEAN COURT OF AUDITORS' SPECIAL REPORT

Offshore renewable energy in the EU

Ambitious plans for growth but sustainability remains a challenge

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This document presents the replies of the European Commission to observations of a Special Report of the European Court of Auditors, in line with Article 259 of the [Financial Regulation](#) and to be published together with the Special Report.

# I. THE COMMISSION REPLIES IN BRIEF

The Commission welcomes the European Court of Auditors (ECA) report on the offshore renewable energy (ORE) in the European Union (EU). The Commission considers that ORE is crucial for a climate neutral Europe.

The European Green Deal Communication fully recognised this potential in contributing to a modern, resource efficient and competitive economy. The 2030 climate target plan outlined why, and how, greenhouse-gas emissions should be reduced by at least 55% by 2030 compared to 1990. This plan was followed by the European Climate Law that entered into force in 2021, and which refers to the key role of renewables in the energy transition.

Furthermore, Russia's war of aggression in Ukraine has caused upheavals in the energy markets and brought security of supply to the forefront. As a result, the swift and sustainable deployment of offshore renewables have become even more important.

Since November 2020, when the Offshore Renewable Energy Strategy (ORES) was adopted, there have been significant developments in the field of offshore renewable energy, and the actions proposed in ORES have been to a large extent implemented or are well under way. Moreover, Fit-for-55, the revised TEN-E and REPowerEU have demonstrated that offshore renewables will have to be a key factor in ensuring further decarbonisation, security of supply and replacing fossil fuel imports from Russia.

Offshore renewable energy is among the renewable technologies with the greatest potential to scale up and will be a core component of Europe's energy system in the years to come.

In January 2023, building on the EU ORES and the TEN-E regulation, Member States agreed on non-binding goals for ORE generation by 2050, with intermediate goals for 2030 and 2040, in each of the EU's five sea basins. The new goals set a higher ambition level for installed capacity compared to the current strategy. The 2030 goals are nearly twice as high as the 61 GW target set out in the Commission's strategy. This gives an overall ambition of installing approximately 111 GW of ORE generation capacity by the end of this decade and it rises to around 317 GW by mid-century. For the North Sea basin, the Ostend Summit in April 2023 resulted in a further strengthening of the ambition level.

At the same time higher ambitions in offshore renewable sector will have to be turned into reality for the EU to maintain global leadership, which underlines the relevance of the Raw Materials and Net Zero Industrial Acts (NZIA) presented 14 March 2023. Dealing with bottlenecks in the supply chain, including access to skilled labour, is one objective of NZIA to promote a resilient domestic supply chain and avoid creating new dependencies on 3<sup>rd</sup> countries.

## II. COMMISSION REPLIES TO MAIN OBSERVATIONS OF THE ECA

### 1. EU offshore renewable energy strategy and development

The Commission considers that ECA report over the period of the assessment reflects the state of play in the offshore renewable energy sector in an adequate manner and that it gives a balanced account of achievements so far as well as the challenges ahead.

To achieve climate neutrality and energy independence<sup>1</sup>, the Commission agrees that boosting production from offshore renewables is essential whilst ensuring environmental and social sustainability.

As for technological innovation<sup>2</sup>, the Commission acknowledges that the picture is quite dynamic. Hence, it is challenging to capture all details regarding technological maturity level and deployment across EU Member States. The Commission would like to highlight that in addition to offshore wind, several offshore renewable technologies have reached a very advanced technology readiness level as has been reflected in the recent Commission proposal on the Net Zero Industry Act. Offshore renewables constitute a strategic opportunity for EU industrial leadership in a key sector for a decarbonised energy sector and energy security.

The Commission agrees that more efforts could be taken to accelerate the deployment<sup>3</sup> of all types of offshore renewables and will address it implementing Recommendation 1, as offshore wind has a much larger potential in terms of installed capacity, and because bottom fixed wind structures already represent a mature commercially available technology, the relative importance of offshore wind can be expected to grow in the future vis-a-vis ocean energies, even if the Commission will pay more attention to floating solar, wave energy and tidal energy.

### 2. Deploying offshore renewable energy challenges: practical, social, and environmental

A broad set of challenges<sup>4</sup> need to be addressed to make sure that offshore renewables are deployed successfully. Both the Commission and Member States are aware of these challenges, but also recognise that going from awareness to problem solving will require continuous efforts. This is particularly true for the observations concerning the social implications.<sup>5</sup>

As regards the potential conflicts between ORE and fisheries<sup>6</sup>, the Commission recalls that the impact of offshore renewable energy development on the fisheries sector has already been the subject of a number of Commission studies in 2020, notably a study “Overview of the effects of offshore wind farms on fisheries and aquaculture” and a Study for the European Parliament PECH committee on the impact of the use of offshore wind and other marine renewables on European fisheries. A scenario

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<sup>1</sup> ECA observations 1-4

<sup>2</sup> ECA figure 1

<sup>3</sup> ECA observations 20, 22, 32, 39, 48, 50, 69, 80, 90, 101

<sup>4</sup> ECA observations 52-101

<sup>5</sup> ECA observations 81 - 86

<sup>6</sup> ECA observations 59 to 66

study for 2030 by the North Sea Energy Cooperation sub-group on Maritime Spatial Planning with a chapter on Spatial impact of offshore wind and grid on other uses of the North Seas is expected to be published in 2023. There is also a specific International Council for the Exploration of the Sea (ICES) working group on Offshore Wind Development and Fisheries (WGOWDF) composed of expert (fisheries) economists and social scientists, fishery/fishing operational experts, marine biologists, oceanographers, survey design and statistical methods experts, and ecosystem scientists from government, academia, and industry.

Since 2015, the Commission has also supported cross-border cooperation between Member States<sup>7</sup> when preparing their maritime spatial plans, including through collaboration projects. For example, the SEANSE project (Strategic Environmental Assessment North Sea Energy, 2018-2020) focused on developing a Common Environmental Assessment Framework in order to develop a coherent evaluation system and understand cross-border cumulative effects of large scale wind farms. Through the European Marine Observation and Data Network EMODnet, the Commission provides access to European marine data across seven discipline-based themes. Eight Member States have already uploaded their maritime spatial plans in EMODnet's human activities portal, which allows observing ORE developments at sea-basin level. The Commission also participates actively in the North Sea Energy Cooperation, where Member States cooperate to assess cumulative impacts of ORE developments, and has recently joined discussions about a Greater North Sea Basin Initiative, which intends to look at developments for energy, food and nature in an integrated way. The Commission will continue its support to Member States in this regard.

The supply risk for raw materials<sup>8</sup> could slow down the rollout of offshore renewable energy. The Commission agrees that raw materials, but also materials in general, represent such a risk. The Commission proposals for a Green Deal Industrial Plan for the Net-Zero Age and for the Net Zero Industrial Acts' (NZIA) highlights the need for the EU to maintain its leadership in the net-zero industries. In the offshore renewable energy sector, which includes the wind and ocean energy industry, the EU needs to keep up its current strong global position. As increased offshore targets in the non-binding agreements put additional pressure on the supply chains, there is a risk of creating an increasing gap between ambition and the capacity to deliver. Offshore renewables can produce economic benefits in terms of value creation, new and better job opportunities and help finance the overall welfare in the Member States. Faced with increasing competition from other regions and countries like for instance China and the US, the ambition level must also encompass the objective to have competitive supply chains in the EU.

The Commission agrees that several aspects on marine biodiversity<sup>9</sup> protection are still to be addressed to realize the full potential of the coexistence with offshore installations such as the knowledge gaps on potential impacts of ORE, the assessment of cumulative effects on biodiversity and the identification of the most appropriate solutions to mitigate impacts but also to increase synergies with biodiversity protection and restoration. The Commission has already provided support to Member States with its guidance document on wind energy developments and the EU nature legislation, including a wildlife sensitivity mapping manual accompanying the guidance.

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<sup>7</sup> ECA observations 67 to 75

<sup>8</sup> ECA observations 87-89

<sup>9</sup> ECA observations 94, 100

### III. COMMISSION REPLIES TO THE RECOMMENDATIONS OF THE ECA

#### 1. Recommendation 1 – Boost the development of offshore renewable energy

**To scale up the development of offshore renewable energy, the Commission should:**

**(a) in its assessment of the draft national energy and climate plans, invite member states to include their national offshore renewable energy targets, broken down by technology type;**

**(b) trigger and support initiatives to promote offshore wind and particularly ocean energy technologies at sea basin level.**

**(Target implementation date: end of 2024 for (a) end of 2025 for (b))**

The Commission accepts these recommendations.

For recommendation 1 (a): the Commission will guide the Member States in specifying their national offshore renewable energy targets, including a breakdown of technology type, when Member States have submitted their final updated national energy and climate plans in 2024. This will build on the guidance the Commission has provided to Member States for drafting their updated national energy and climate plans.

For recommendation 1 (b): the Commission will promote the development of both offshore wind and ocean energy technologies at sea basin level through various regional fora including the TEN-E regional groups and the High-Level Groups (HLG).

This will build on the reinforced provision on offshore network in the revised TEN-E Regulation which includes the requirement on Member States to conclude and regularly update non-binding goals for offshore renewables by 2050 with intermediate targets for 2030 and 2040. The Commission will encourage Member States to promote not only offshore wind but also ocean energy technologies at sea basin level. ENTSO-E with Member States, the Commission, and TSOs collaborate on the development of Offshore Network Development Plans which will provide further strategic guidance for potential investors.

The Commission will also, together with the Member States and relevant TSO's, ACER and National Regulatory Authorities, publish a guidance for a specific cost-benefit analysis and cost sharing for cross-border offshore grid projects. This will enhance investor certainty and hence promote the development of offshore renewables.

## 2. Recommendation 2 – Better address the challenges raised by offshore renewable energy development

**The Commission should assist member states in addressing challenges that may have an adverse effect on the development of EU offshore renewable energy. In particular, the Commission should:**

**(a) assess the potential employment, skills and social implications of ORE development in the offshore energy sector and for other users of the sea, notably fisheries;**

The Commission **accepts** this recommendation.

The Commission accepts the recommendation to the extent it is possible under the very dynamic nature of future offshore renewable energy developments. For example, 2030 ambitions for the North Sea alone have almost doubled over the past few years. ORE development – and thus its socioeconomic implications – will differ widely depending on scale, time, location or sea basin.

The Commission will carry out an in-depth analysis of the evolving job creation potential, employment trends and skill requirements in offshore renewable energy. The analysis will also cover, to the extent possible, other socio-economic implications of ORE development such as energy supply, energy prices and distributional impacts, including at sectoral and regional levels, as well as public perceptions and social acceptance of ORE development. The analysis will integrate the results of the 2023/24 EU-level assessment of the updated National Energy and Climate Plans and further take into account relevant outcomes of related studies, notably on “Assessing and Monitoring Employment and Distributional Impacts of the Green Deal” (AMEDI/AMEDI+).<sup>10</sup>

The results of the analysis will be published by the Commission in 2025.

**(b) building on the proposed Regulation on critical raw materials, promote the results of the ongoing research on circularity and monitor their uptake by the industry;**

The Commission **accepts** this recommendation.

The Critical Raw Materials Act adopted by the Commission on 16 March 2023 aims at strengthening the European critical raw materials value chain in order to secure a sustainable supply of critical raw materials for the European industry. The Act contains provisions requesting the Member States to design measures aiming at improving the circularity of the critical and strategic raw materials and by this fostering the creation of a secondary raw materials market in the EU. The results of the R&I projects funded under the Horizon Europe will also contribute to the achievement of such goals.

**(c) complement its support to member states in terms of identifying, estimating and addressing the effects that offshore renewable energy installations have on ecosystems and biodiversity, by including the cumulative effects at sea basin level.**

The Commission **accepts** this recommendation to the extent covered by the existing legal framework.

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<sup>10</sup> Further detail on the DG EMPL – JRC AMEDI/AMEDI+ projects can be found under: <https://ec.europa.eu/social/main.jsp?catId=1588&langId=en>

The Commission, building upon its previous experience and actions, will support Member States to enhance knowledge on the cumulative impacts of offshore energy deployment, both through research and innovation funding, and by promoting regionally the cooperation between Member States. Under the OSPAR Convention for the protection of the N-E Atlantic coastal and marine environment a technical group dedicated to the offshore renewable energy development is exploring through studies the impacts of offshore renewable energies on biodiversity. However, knowledge gaps still exist. Most research focuses on specific areas and species, which corresponds to the current level of deployment of offshore wind farms. The expected large scale deployment of this technology is likely to have cumulative impacts that can be hardly foreseen based on current knowledge.

The Marine Strategy Framework Directive does require regional or sub-regional cooperation for monitoring, but does not introduce a requirement for cooperation on monitoring and tackling cumulative impacts of any human activity. This Directive regulates the quality of the marine environment and not human activities impacting it.

In terms of guidance support has been given to Member States for the practical implementation of impact assessments including joint assessments on sea basin scale, building of capacity, expertise, cooperation, etc... Several guidelines are available<sup>11</sup>.

For ORE development, Member States can draw from a number of EU funds, including Cohesion, EMFAF, while various technical assistance mechanisms exist to support investment needs on ORE. In addition, research funds under Horizon or the LIFE programme can help Member States to get more knowledge on impacts of specific renewables on biodiversity at sea basin scale, and also to increase the knowledge on the distribution of species/habitats and their conservation status.

**(Target implementation date: end of 2025 for a), end of 2027 for b) and c))**

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<sup>11</sup> Commission Notice - Guidance document on wind energy developments and EU nature legislation. C(2020) 7730 final of 18/11/2020). Available at: [wind\\_farms\\_en.pdf \(europa.eu\)](#)

COMMUNICATION FROM THE COMMISSION – Guidelines on State aid for climate, environmental protection and energy 2022 (2022/C 80/01) - [EUR-Lex - 52022XC0218\(03\) - EN - EUR-Lex \(europa.eu\)](#)

Guidelines supported by EU funding and promoted through the EC web.

**Planning offshore renewable energy with nature in mind Guiding principles.** Guidelines developed under the LIFE programme - [Planning-offshore-renewable-energy-with-nature-in-mind-FINAL-23-April-2021.pdf \(seas-at-risk.org\)](#)