

(English version)

**Question for written answer E-000992/26
to the Commission
Auke Zijlstra (P/E)
(10 March 2026)**

Subject: Decommissioning and recycling of offshore wind turbines

According to recent studies by TNO ⁽¹⁾, the costs of decommissioning offshore wind farms could be significantly higher than previously estimated. For a wind farm of approximately 2 GW, the costs could be as high as EUR 345 million. At the same time, consideration is being given to not removing the foundations of offshore wind turbines entirely, but to cutting them down to six metres below the water surface.

Given the rapid expansion of offshore wind energy in the EU, the question arises as to whether such practices are compatible with European rules on waste management and recycling, in particular under the Waste Framework Directive and the objectives of the Circular Economy Action Plan.

1. Does the Commission consider that the cutting of offshore wind turbine foundations to approximately six metres below the water surface constitutes full decommissioning?
2. Is the partial abandonment of such structures at sea compatible with EU rules on waste management and with the objectives in the areas of recycling and the circular economy?
3. Is the Commission considering EU rules or guidelines for the complete removal and recycling of offshore wind installations at the end of their life cycle?

Submitted: 10.3.2026

**Answer given by Ms Roswall on behalf of the European Commission
(7 July 2026)**

EU legislation does not include a definition of offshore wind turbines decommissioning. The Waste Framework Directive ⁽¹⁾ (WFD) requires that waste be managed without endangering human health and harming the environment. In particular, Article 13 paragraph 1(a) requires Member States to take necessary measures to manage waste without risk to water, air, soil, plants or animals.

The Commission is carefully evaluating possible aspects related to circularity which may be relevant to wind turbines in the framework of the impact assessment for the Circular Economy Act ⁽²⁾ planned for adoption later in 2026.

Moreover, the Marine Strategy Framework Directive ⁽³⁾ requires Member States to ensure that human activities, including decommissioning, do not adversely affect the Good Environmental Status of marine waters. Partial removal of offshore wind turbine foundations must be assessed against Descriptors 1 ⁽⁴⁾, 6 ⁽⁵⁾, 10 ⁽⁶⁾ and 11 ⁽⁷⁾, ensuring no lasting harm to ecosystems or circular economy principles.

Scientific studies ⁽⁸⁾ give some insight into how foundations of offshore wind turbine foundations can function as artificial reefs, possibly enhancing biodiversity. As examples, the abundance of Atlantic cod shows that rock protections around the foundations attracted most fish, and innovative ways to incorporate European flat oyster habitats into the design of offshore wind infrastructure are being tested.

Understanding and minimising environmental impacts of offshore wind, including decommissioning, was also addressed in a recent call under Horizon Europe ⁽⁹⁾.

¹ <https://www.telegraaf.nl/financieel/windparken-volledig-opruimen-veel-duurder-dan-gedacht-optie-is-afzagen-tot-6-meter-onder-wateroppervlak/137314008.html>.

⁽¹⁾ Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, OJ L 312, 22.11.2008, p. 3-30, as amended by Directive (EU) 2018/851 of the European Parliament and of the Council of 30 May, OJ L 150, 14.6.2018, p. 109-140 and Directive (EU) 2025/1892 of the European Parliament and of the Council of 10 September 2025 amending Directive 2008/98/EC on waste, OJ L, 2025/1892, 26.9.2025.

⁽²⁾ https://environment.ec.europa.eu/strategy/circular-economy_en.

⁽³⁾ Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy, OJ L 164, 25.6.2008, p. 19-40.

⁽⁴⁾ Biodiversity.

⁽⁵⁾ Seafloor integrity.

⁽⁶⁾ Marine litter.

⁽⁷⁾ Energy and noise.

⁽⁸⁾ <https://www.sciencedirect.com/science/article/pii/S0165783624000018>.

⁽⁹⁾ <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/HORIZON-CL5-2026-02-D3-08>.