



European
Commission

Policy brief: Competitiveness of clean energy technology – Ocean Energy

October 2023

Headline findings

- The market is expected to gain significant traction this decade and rapidly ramp up until **2050**.
- Ocean energy technologies are in very different technology readiness and deployment stages. To date, 98% (**521.5 MW**) of deployed ocean energy is based on the tidal range technology.
- The EU is leading the development of ocean energy with **41%** of tidal stream developers with technology readiness level above five in the EU.

Key (competitiveness) challenges for Ocean Energy

Challenge 1

Key inputs such as rare earth elements are subject to high supply risk.

Challenge 2

Long permitting processes and a scarcity of financing present challenges for development of the technology.

Challenge 3

This sector still lacks maturity, and many projects are in their pilot stages.

Key policy recommendations

Recommendation 1

Creating technology-specific auctions can enable the roll-out of commercial devices and, in turn, reduce the levelised cost of energy from this technology.



Recommendation 2

Sharing infrastructure with other renewable installations such as offshore wind can help to boost ocean energy development.



Recommendation 3

Streamline permitting processes and improve availability of financing.

Scan QR code for more information on the Clean Energy Competitiveness Progress Report

