



EU offshore renewable energy strategy

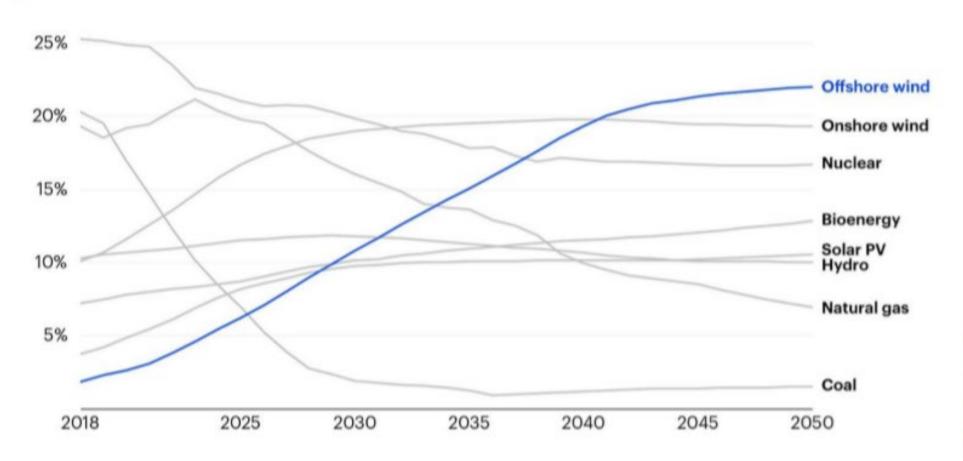
WCEF Side event: Circular Design for the Sustainability of the Offshore Renewable Energy Sector – 22 June 2021

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Why offshore renewable energy?

Shares of electricity generation by technology in the EU, Sustainable Development Scenario Offshore Wind Outlook 2019





Several technologies that are complementary and at different stages of maturity











The EU offshore strategy: a step-change

Offshore wind: 300GW

Ocean energy: 40GW

2050



2030



Offshore wind : ≥ **60GW** Ocean energy: ≥ **1GW**

2025



Pilot farms:

Floating wind: 150 MW Ocean energy: 100 MW

Today

Offshore wind: 12GW Ocean energy: 13MW



Industrial dimension: infrastructure and supplychain





Circularity and offshore renewables

- Applying circular economy approaches to the life cycle of installations:
- ⇒ reducing the environmental impacts of offshore technologies
- ⇒ mitigating increased dependencies, critical raw material substitution
- Current R&I priorities in offshore wind: optimisation of existing manufacturing processes, infrastructure development, circular advanced materials and digitalisation.
- Harmonising technical standards
- Research on recyclability and the impact on design is still rather fragmented
- ⇒ systematically integrate the principle of 'circularity by design' into renewables research & innovation.