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## Review of consenting processes for ocean energy in selected European Union Member States



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### ABSTRACT

Consenting is still generally regarded as a non-technological barrier to the progress of the marine renewable energy industry, caused by the complexity of consenting processes and the lack of dedicated legal frameworks. Existing consenting systems for ocean energy projects tend to be based on procedures designed for other sectors and are seen as inappropriate for the specific needs of ocean energy. Licensing procedures are also viewed by developers as time-consuming because regulators see ocean energy as a new activity with unknown or uncertain effects and consequently often apply strong interpretation of the precautionary principle. Consenting processes for ocean energy are, nevertheless, evolving throughout Europe, driven by national and European policies and

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incentives on renewables, changing legal and administrative frameworks to facilitate development and more integrated marine governance. This review compares the consenting processes for ocean energy in different European countries, focusing on aspects thought to hamper operation of the process. It shows that different systems of governance across the EU Member States have resulted in diversity in the design of consenting processes, though common features can also be identified. This evidence-based review enables suggestions for streamlining consenting processes for wave energy.

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## 1. Introduction

Marine renewable energy (MRE – offshore wind, wave and tidal) holds considerable potential for enhancing the diversity of energy sources, reducing greenhouse gas emissions and stimulating the economies of coastal communities. Harnessing this potential nevertheless depends on a variety of factors, including: safe and reliable technology; appropriate policy and regulatory frameworks; stable funding and cost-effective energy production to compete with existing sources of renewable and non-renewable energy; and effective consenting procedures [1]. Under current regulatory frameworks, consenting processes for MRE are still regarded as a non-technical barrier because of the existence of complex consenting procedures and/or the absence of dedicated legal frameworks to support MRE [2–4].

More specifically, most EU Member States still lack a dedicated consenting process for ocean energy (wave and tidal) projects. Procedures designed for sectors such as oil and gas, offshore wind, and aquaculture tend to be used instead, contributing to ambiguity and delays in consenting [5]. This absence of clear and fit-for-purpose consenting processes for ocean energy can lead to the submission of incomplete applications, the use of inappropriate administrative procedures, and uncertainty over Environmental Impact Assessment (EIA) requirements and procedures, with the latter being further fuelled by limited information on the significance of the environmental impacts of different ocean energy technologies [5].

Consenting processes for ocean energy are, however, gaining increased attention and evolving across Europe as a result of the development of national and European policies on renewable energies and the requirement for more integrated marine governance. Due to the different governance systems operating in EU Member States, consenting systems will always have differences although some requirements are more universal, such as those related to the EU Environmental Impact Assessment Directive and Habitats Directive.

Another factor which may influence consenting processes for ocean energy is Maritime Spatial Planning (MSP), which is already operating in countries like Belgium and Germany, where ambitions to develop offshore wind farms has motivated the design and implementation of MSP [6]. Spatial planning is already recognised as having the potential to make an important contribution to the consideration of proposals for offshore wind developments [7–10]. Systems to allocate space for ocean energy are still nevertheless required in several EU countries where applications are generally dealt with on a “first-come, first-served” basis with no over-arching national siting or planning policy. Nevertheless, different licensing procedures tend to operate for designated test centres where demonstration ocean energy projects are being installed (e.g. EMEC, Scotland; Bimpe, Spain; Ocean Plug, Portugal; Wave Hub, England). In many test centres device deployments are already pre-consented, so developers do not have to submit a full application comprising all the typical consents providing certain initial conditions are met, including an environmental appraisal (usually less comprehensive and onerous than a full EIA).

The requirement for EIA of ocean energy projects varies across Europe, from countries where it is compulsory to those where EIA is dependent on the nature, size and location of the development [5].

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