

Policy topic or question	Design flexibility in ORE development / planning consenting - Identification of technical / design changes in offshore renewable energy projects resulting in material changes in decision making and impact assessment
Proposer (Name/Government Department)	Tom Woolley & Karina Fitzgerald Department of Housing, Local Government and Heritage
Research for policy requirement	<p>Under the Maritime Area Planning (MAP) Act 2021 new consenting processes are being established for offshore renewable energy (ORE). The first commercial scale ORE projects will be fixed foundation offshore wind projects. It is recognised that the technology used in such projects continues to evolve at pace, enabling more electricity to be produced in a given footprint. Such advances may result in changes to individual turbines of which a number would make up a particular project.</p> <p>The pace of change is such that improved technology may emerge between an ORE project being scoped by an applicant and receiving planning consent to begin building. In these cases, it may be that changes to design need to be accommodated in the consenting process; the process will need to accommodate design flexibility.</p> <p>To inform the Government’s view on how such variation might be accommodated in ORE decision making and how much change is reasonable, an improved understanding is needed as to the degree to which changes in technology alter the impact of wind farms as identified in assessments such as EIA (Environmental Impact Assessment) and AA (Appropriate Assessments) processes. This study will seek to review examples of global ORE activity to date and provide insights that informs the ORE consenting process and related guidelines.</p>
Scope and objectives of work needed	<p>Key objective: - Review global examples of ORE activity to date for the purposes of informing the Government’s understanding as to the degree to which changes in technology alter the impact of wind farms. To include:</p> <ol style="list-style-type: none"> 1. Identify examples where ORE proposals have changed between scoping and development / planning consent being granted; 2. Characterise these changes e.g. part of turbine that changed such as the blade or overall height; 3. Describe the change in impact identified resulting from a given technology change as well as any changes in impact management measures e.g. mitigation. This would be comparing the impact of the project as it is first proposed to that identified in the final, consented project;

	<ol style="list-style-type: none"> 4. For each technology variation provide insight quantifying the extent of change that might be considered reasonable when comparing the initial proposal and consented project; 5. Identify examples elsewhere where greater or less flexibility is possible and what project characteristics / consenting system approached determine the extent to which flexibility is enabled e.g. proximity to land, proximity to other activities, sea floor geology; 6. Identify areas within other, comparable Irish consenting processes where similar flexibilities are to be found and describe how these work, making recommendations for transferable lessons for ORE; 7. Based upon understanding of design changes that may be identified between scoping and development / planning consent being granted, clarify the extent design flexibility can be accommodated in the decision making processes as set out in relevant legislation as well as in AA and EIA processes; 8. Identification of expected future technology development changes related to fixed foundation offshore wind turbines in the coming 10 years and description of impact if these changes are realised through variation during a project consent process. Future technology development may be expected continuation or increase in known types of technical change, as well as new and / or substantially different technical change.
<p>Expected outputs</p>	<p>An evidence base drawing upon global best practice and available foresight that provides evidence to support a position on the expected impacts resulting from offshore wind project proposal variation occurring between scoping and planning / development consent. This will be provided in such a way as to inform ongoing ORE-related activity in Government such as development of guidelines and decision making processes.</p>