The challenges faced with use of Rochdale Envelope in offshore wind and marine renewables EIA

The offshore wind and marine renewables industry is rapidly evolving, with on-going improvements and developments in turbine technology, infrastructure and installation techniques. This means, at the time of application for consent, defined details of proposed developments are not often available at time of application. An approach often used in consenting applications is the ‘Rochdale Envelope’. The Rochdale Envelope approach has found favour with emerging industries that are developing innovative new technologies in the offshore renewables industries. The approach (also termed ‘Design Envelope’) allows issues associated with projects where there are uncertainties over the final details of the proposed development to be addressed, whilst ensuring compliance with environmental legislation. These uncertainties could include scale, type of device, elements and dimensions of the device or other factors, if there remain limitations in the amount of details that is available on the project at the time which consent is being sought.

The Rochdale Envelope approach provides essential flexibility to enable projects to take full advantage of on-going improvements and developments. To commit to a detailed project design at consenting stage would prevent projects benefiting from lessons learned from other work being done in the industries, including the continued testing of the proposed tidal technology.

The approach also allows the detailed design of a project to vary within specific defined parameters, the procurement process and detailed design of technology remains flexible and can make use of technology evolution, whilst retaining a competitive market.

The Environmental Impact Assessment (EIA) is based on assessing the realistic worst-case scenario where flexibility on a range of options is sought as part of the consent application. The project description and methodology will fall within a range of defined criteria, an envelope of potential development, which describes the potential extent and nature of the development. This approach allows a degree of flexibility for determining the final specific project details post-consent, maintaining flexibility, while still meeting the requirements of the EIA process.

The Rochdale Envelope is not problem free, however; at very start of the application process, for example, providing a detailed Scoping Opinion to inform what is required for a full EIA may be difficult. A lack of adequate information may result in delays related to difficulties for regulators in making consent decisions and the issue of consent conditions to ensure the development does not have any significant effects on the environment. Later in the application process, a lack of adequate information may result in delays related to difficulties for regulators in making a consent decision and in the drafting of consent conditions to ensure the development does not have any significant impacts.
Difficulties are also faced when defining and presenting a ‘worst-case’ to both the general public and the regulators. ‘Worst-case’ will be different for different receptors, and ways to present this will need to be considered carefully, particularly in cumulative impact assessments.

The use of the Rochdale Envelope has the potential advantages and disadvantages:

Advantages
- Flexibility to attract a wide range of technology developers;
- Reduce cost and time for technology developers to install devices that are within ‘envelope’;
- Flexibility to select optimum device technology for the conditions; and
- Flexibility in supply chain options.

Disadvantages
- Complex EIA;
- More information provided in EIA could actually result in less flexibility;
- Regulators are most satisfied where flexibility is constrained and the project, and resultant environmental impacts, can be precisely defined;
- How big an envelope is acceptable to the regulators? If an envelope is too wide, this could result in more potential environmental impacts, making it more difficult for regulator to consent project;
- Theoretical cumulative impacts of projects may exceed regulatory thresholds for certain environmental receptors;
- A tightly defined envelop presents risks to the project if later changes are required, primarily in terms of delay to programme and additional costs in revisiting the assessments; and
- Stakeholder and regulator consultation can be challenging when seeking agreement on the approach to EIA and the assessment results.

The Rochdale Envelope principle has been used successfully in the consenting of tidal energy developments, include the MeyGen Tidal Array with conditions that the final details are within the envelope and fully approved by the consenting authority prior to construction.

The offshore wind farms in development around Scotland have used the Rochdale envelope approach, and some have struggled with getting them sufficiently narrow. Even then, with advances in technology, some of the offshore windfarms are having to revisit the consenting process because technology has changed so much since submission.

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