

**COUNCIL FOR NATURE CONSERVATION
AND THE COUNTRYSIDE**
An Advisory Council to the Department of the Environment

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Connection Arrangements for Offshore Renewable Generation

CNCC welcomes the opportunity to comment on this consultation. Much of the content does not lie within our scope of knowledge and experience, but we believe that it raises a number of important issues that we wish to address.

General points:-

Presentation

We were disappointed in the presentation of this document, which failed to make its highly technical subject matter clear or intelligible to an audience that is not familiar with the technology and terminology of electricity generation, connection and transmission. A number of problems were identified:-

- Poor sentence construction that obscured rather than clarified the meaning. Eg the penultimate sentence on page 8, 'While the developers are currently considering their proposals, for the purpose of this consultation we will assume that for the 600MW wind zone in NI, 2 offshore substations each with two or three export circuits to shore'.
- Poor spelling. Eg 'verses' for 'versus', 'likely hood' for 'likelihood', both on page 10.
- Acronyms introduced without the full name spelled out. Eg TO and SO on page 7.
- No glossary of technical terms such as 'bus section' 'busbars', 'N-1 transmission connection', 'transmission joints'.
- Confusing diagrams, with poor explanation of symbols. Eg Fig 2 Shows a solid purple line in the key, but dotted purple lines on the map, and a number of solid lines in other colours that are not identified. Figs 3, 4, and 5 show a number of geometric shapes in different colours without any key, and with no indication of scale. Figure 6 is even more confusing to a non-expert reader, though its function should be to clarify

the text.

- Inconsistency of approach. Eg Variation 1 (page 12) shows the advantages and disadvantages of the proposed option. These are lacking for Variation 2 and Variation 3.

The cumulative effect is to put off the lay reader, and to make it extremely difficult to address the issues raised on page 7. However, we believe that this consultation may have implications which are of considerable interest to a wider community who may feel excluded from the process.

Omissions

We were disappointed that this document failed to mention three major issues that may have an impact on the choice of system and its location. Conversely, if a particular system is chosen it may have a serious detrimental effect that has not been given any consideration at this stage.

1. Environmental designations. Much of our coastline, and some of our marine environment, is designated in one way or another, ranging from landscape designations (Areas of Outstanding Natural Beauty), through national nature conservation designations (Areas of Special Scientific Interest) to international designations (Special Areas of Conservation, Special Protection Areas, Ramsar Sites and World Heritage Sites). The areas chosen for offshore renewable energy generation are all particularly sensitive, with multiple designations on the adjoining coasts. These designations will have a significant importance in the siting of substations and transmission infrastructure, and could well influence the choice of system, but there is no mention of them anywhere in this document.
2. Land ownership. Considerable lengths of coastline are owned by bodies that may have special status that could influence the siting of infrastructure. Of particular importance are:-
 - The National Trust, which owns about 200 km of Northern Ireland's coastline, most of which has inalienable status, which means that it cannot be sold without the agreement of the Trust's Board of Trustees.
 - The Ministry of Defence, which has significant holdings at Magilligan and Ballykinlar, both adjacent to offshore renewable energy development zones.
3. The underwater environment. The options put forward appear to make an assumption that the topography of the seabed is uniform and benign. The reality is very different, particularly in the areas chosen as Tidal Resource Zones, where, in addition to the strong tides there is often a very uneven and rocky seabed. The laying of the interconnector to Rathlin Island should give some idea of the problems that may be faced.

Specific points:

5.5.2. Figure 6 and accompanying text. The term 'submersible collection hub' is a bit confusing. We assume that it means a submerged structure, rather than one that can be submerged but normally sits on the surface.

5.6.1 Offshore network. This section appears to dismiss the idea of an offshore network, but makes a number of assumptions. Firstly, it suggests that offshore renewables are expected to provide only 800 MW of generation, whereas this is the figure for the first tranche of schemes, involving only part of Wind Resource Zone 2 and part of Tidal Resource Zone 2. The final figure for offshore renewables will be significantly higher than this, as more areas are licensed and the generation technology improves. There are already implications from the Marine Current Turbine in the Strangford Narrows that suggest that tidal generation is possible at much lower tide speeds than had been previously thought, which could open up many more areas of coastline to potential tidal generation. We strongly believe that more consideration should be given to offshore networks, though we can see that linking Offshore Tidal Resource Zone 2 with Offshore Wind Resource Zone 2 may not be feasible. The north coast of Northern Ireland, with 2 Tidal Resource Zones, a Wave Resource Zone and a Wind Resource Zone, is an obvious starting point for serious consideration of an offshore network.

In conclusion, while we understand that the UR's principal objective is to protect consumer interests, we believe that it must take a range of environmental issues into account when making decisions about electricity transmission and distribution networks. We believe that these issues should be addressed at this early stage of the process, and be an integral part of that process, and not merely tacked on as an afterthought. CNCC is keen to see the development of renewable energy generation in Northern Ireland, but we do not wish to see any of our most precious natural resources damaged or compromised in the process.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Patrick Casement', written over a thin horizontal line.

Patrick Casement
Chairman