Combined Response from Isle of Man Government on Rhiannon Wind Farm Stage 2 Preliminary Environmental Information

This represents the combined response from the Isle of Man Government's :

- Departments of Infrastructure (DoI)
- Department of Environment Food & Agriculture (DEFA)
- Manx National Heritage (MNH)

The Isle of Man, through public and organisational submissions, has already made a significant contribution to the consultation process as indicated in the Interim Consultation report. This presumably reflects the interest in the renewables sector and the importance placed on the local marine environment and economy by the island community.

Aviation Issues

The northern boundary of the proposed development is located approximately 20 nautical miles South of Isle of Man Airport (IOMA) and would be within the optical visibility of the Primary Surveillance Radar (PSR) system in operation at that location.

The area is located outside controlled airspace and therefore aircraft operating in that area would be entitled to request an 'Air Traffic Service Outside Controlled Airspace' (ATSOCAS) service. This is a suite of services which include radar based services that provides either traffic information or deconfliction advice to aircraft who request such service.

Given that the proposed area, without technical mitigation, could potentially seriously affect the performance of the PSR and therefore the ability to detect an aircraft without a transponder, the service provided to aircraft who request such service would have to be downgraded to one that gave information against aircraft fitted with and operating a transponder only. This is, by definition, a 'reduced service' with a resultant lowering of safety margins.

An important consideration is the close proximity of the proposed development area to IOM Class D airspace and also the Class A airway 'L10'. It would be difficult if not impossible to detect unauthorised penetrations by non-transponding aircraft of controlled airspace in this area.

It is accepted that the proposed area is not one of high traffic density as regards IOMA movements. However, it is an area frequently used by Hawk aircraft transiting at low levels from RAF Valley in Anglesey, to Southern Scotland and Hawk aircraft inbound to IOMA to carry out training approaches. Such aircraft would routinely communicate with and request a radar service from IOMA ATC prior to entering IOM Controlled Airspace. Aircraft transiting from the North Wales coast to Northern Ireland also regularly use this airspace. Especially at weekends/Bank Holidays when RAF Valley is closed, would routinely communicate with IOM ATC.

This is one of several proposed off-shore developments within the Irish Sea which will impact on IOMA ATC operations. IOMA has already raised serious concerns over the cumulative effect of such developments and in view of this IOMA would be robustly requesting a technical mitigation solution for this proposed development.

Sea Navigation Issues

Issues over impacts on lifeline shipping routes to and from the Isle of Man constitute one of our main concerns regarding this proposed development. In isolation, the Rhiannon Wind Farm will have minor impacts on current main Manx shipping routes (except for the bad weather route used for Isle of Man to Liverpool / Birkenhead sailings), however there are major concerns over safety and the economic implications regarding the cumulative effects if a second development should go ahead as part of the Celtic Array proposals in addition to those proposed in the Walney Extension Wind Farm. Additionally the greater size of the turbines and the final overall dimensions of the field create conditions which we believe may not have been encountered in similar circumstances before and therefore their impact may not be fully understood. Also the extended field significantly narrows the available sea room for transiting shipping along the East coast of the island the importance of which will become increasingly important as other developments in the Irish Sea take place.

Safety of shipping and navigation systems is a key concern of the Isle of Man Government. Wind turbines can interfere with Marine Radars and can cause impact on the detection and tracking ability of other vessels in the vicinity, particularly in bad weather. The Maritime Coastguard Agency recommends that mariners are not to pass at a distance of less than 2 miles from such structures and clearly marked limits of travel (Marine Guidance Notice 372). This can reduce the risk of impact of the turbines on marine radars and potential consequence of maritime casualty. The Isle of Man Government acknowledge that auto sea cluttering and fine tuning are available on marine radar, however it is also known that clutter adjusting also impacts on the radar ability to detect close by objects/targets, particularly if they were relatively small. Any significant risk of incident due to interference with navigation systems, particularly taking account of the increased dimensions of the turbines is of concern to the Isle of Man Government who depend upon a good safety record with regard to transport to and from the island.

The importance of the direct and adverse weather routes - operated very successfully by Isle of Man Steam Packet Company since 1830 - to the islands population cannot be over stressed. Therefore it is imperative that these routes be maintained and protected without restrictions in order that the lifeline to the island can be sustained. Any development that restricts route options makes cancellations or delays more likely to our scheduled 'life line' ferry services.

Additionally there could be a gradual shift of some transiting shipping Northwards and more regularly into or close to Manx Waters.

Biological Environment

We note that the previously raised issues of basking sharks, marine mammals and birds have been considered as part of the initial PEI document, and preliminarily assessed as minor or negligible. However, due to the time scales involved, rapid developments within the renewables sector and active research in relation to these species we would strongly encourage continued dialogue with the relevant organisations on the Isle of Man:

In relation to birds, DEFA, Manx Birdlife and Manx National Heritage (Manx shearwaters and the Calf of Man) are the primary contacts.

Manx Whale and Dolphin Watch continue to collect data on various cetaceans, including Risso's Dolphins, which are of particular relevance to this development. Annual sightings data for this and other species are collated and are available from this organisation.

We also note the contribution of the developers to better understanding of basking shark behaviour and movement via the tagging programme, and would strongly encourage continued dialogue and cooperation with both the Manx Basking Shark Watch and the Manx Wildlife Trust.

DEFA are the primary contacts for marine habitat, species protection and fisheries management issues.

Commercial Fisheries

In general we would recommend the continuation of liaison and discussion with DEFA, their Fisheries Science advisors at Bangor University and the MFPO in relation to the latest spatial and temporal data relating to local fishing activity.

The new Chief Executive of the MFPO is Dr David Beard (Tel. 01624842144)

In addition to items already covered, some specific issues of commercial fisheries interest for the Isle of Man are listed below.

Potential Effort Displacement

Landings for whelk into the Isle of Man have seen an increase from 135 tonnes in 2011 (£107,701) to 453 tonnes in 2013 (£353,253). This increase is of potential significance for several reasons, and while specific local management is in place for this fishery, DEFA would like to ensure that appropriate consideration of potential effort displacement of whelk fishing vessels from the Rhiannon Wind Farm site. This potential impact on whelk fishing is noted as moderate and, as such, continued dialogue with DEFA fisheries and MFPO in relation to potential loss of fishing grounds and likely implications is recommended.

Scallop and Queen scallop fishing – larval supply and construction effects

Particle tracking modelling by Bangor University (http://fisheries-conservation.bangor.ac.uk/iom/documents/3.pdf) has indicated potential source/sink connections within the Irish Sea, including the likely relevance to north Wales in providing scallop spat for the central and northern Irish Sea.

Given recent research on the potential effects of noise on scallop larvae (http://www.nature.com/srep/2013/131003/srep02831/pdf/srep02831.pdf) we would encourage the developers to continue dialogue with DEFA, Bangor University and relevant fisheries organisations to ensure appropriate consideration is given to potential effects on long-term population dynamics for this important species.

Additional locally relevant fisheries and habitat reports may be found at the following: http://fisheries-conservation.bangor.ac.uk/iom/reports.php.en?menu=2&catid=10723&subid=10814

Herring spawning grounds

The issue of Herring spawning ground impacts has been acknowledged in the Fish and Shellfish Ecology section as potentially of major significance. The most recent and comprehensive Irish Sea data is collected by AFBI (Northern Ireland) and recommend Dr Pieter-Jan Schon as an important primary contact (Pieter-Jan.Schon@afbini.gov.uk). As you are likely aware, the Herring spawning area associated with the Dong- Walney Extension project has recently introduced an extended no-piling period in relation to mitigating potential impacts on herring aggregation, spawning and larval development periods.

Cumulative Impacts

We envisage that many of these issues will likely become increasingly relevant in relation to cumulative impact consideration for the Irish Sea Zone development area as a whole and would welcome further dialogue on this complicated issue.

Nature Conservation, Ornithology and Marine Mammals

Taking the PEI reports at face value, it is accepted that the potential impacts on key species in the vicinity of the Isle of Man (plus the impact on Manx National Heritage's main areas of ecological interest on the island) are judged to be negligible to minor and therefore not significant enough to warrant special mitigation.

However we are concerned that there seems to be no provision in the assessments for ongoing monitoring to test the predictions and therefore we might never know as time goes on if the biodiversity responded as expected or not.

In addition we have the following detailed comments:

Nature Conservation chapter

1. Though there is reference to the Calf of Man under 'other national designations' (p.20) and it is indeed a bird sanctuary, mention ought to be made that it is statutorily protected by Manx National Heritage under the Manx Museum and National Trust Act.
2. It might be helpful for future reference to mention the existence of the Manx Marine Environmental Assessment, the Manx Marine Plan and the Isle of Man Biodiversity Strategy as sources of information and policy development.

Ornithology.

3. There was a large difference between the bird data for 2010/2011 and those for 2012, but the earlier data was from boat-based observations and the later, from aerial surveys. This warrants a statement on whether these are of comparable quality, in order to justify whether they can be used together, showing differences between years, rather than differences between methods.

4. If it is due to the methods then this would require further consideration regarding the use of this data.

5. Paragraph 12.64 – Although Manx shearwaters travel long distances, the nearest colony, on the Isle of Man, is not mentioned as a likely source in this section. Though the numbers at this site are currently relatively small, most of these birds are likely to use the proposal site during at least a part of the breeding period.

6. Paragraph 12.67 – The Isle of Man holds a significant population of great black-backed gull in the British context, with 405 nests counted in 1999, and this might merit a mention here, though perhaps alluded to in 12.259.

7. Paragraph 12.97 – note that gannets nest in the Irish Sea at Scar Rocks (Wigtownshire), one of the closest colonies to the site. This is one species for which

it might be possible to attribute sightings clearly to a colony, if this were necessary, as colonies tend to have distinct foraging areas.

8. Table 12.38 – With regard to hen harriers, the 2010 count found 29 territorial pairs on the Isle of Man. The numbers will rise following breeding. Some of these are likely to move off the island in the winter and winter roost figures show a decline through the winter period, suggesting that birds drift away through this period. It is also possible that birds move in from other breeding areas. The figure given in the table is a population of 75, with a nominal one bird suggested as 'crossing the site boundary'. It is not clear how these figures are derived. It seems feasible that the Rhiannon site might lie on a route between the Isle of Man and the visible landmark of Snowdonia to the south and might therefore receive raptors migrating north or south. Is the single bird crossing the site boundary a realistic figure? Unfortunately we don't know the route taken by birds wandering in the non-breeding season, but bearing in mind the significant population on the Isle of Man, and the possibility of other birds moving through, a greater number might be expected.

9. This matter of realistic migrant risk figures no doubt reflects the lack of knowledge of migrants in flight and also their relationship with structures at sea, which is an issue relating to other migratory birds and therefore a matter of particular interest in terms of monitoring, so that more informed predictions can be made in future. The monitoring of birdlife is not recommended in the report, on the basis that there is not a predicted significant impact on any bird species, however, the science is only emergent and many assumptions have to be made and this can only be improved if studies are undertaken that show what impact is or is not actually occurring. We therefore suggest that consideration be given to monitoring bird movements through and around any resulting site, and also the effects on seabird species at the highest relative risk, at least in terms of a few representative species, at appropriate (highest risk) times of the year.

10. The conclusion of this chapter is that there are no significant impacts across the site, but consideration should be given (in balance with other factors) to the avoidance of the far west of the proposal area, where there are greater concentrations of some of the species that have received most comment.

Michael Gallagher
Director of Planning & Building Control
Department of Infrastructure

On behalf of Isle of Man Government

21st May 2014