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Dear Laura Morley,

WDC comments on the Inch Cape Offshore Wind Farm Environmental Statement

We understand that Inch Cape Offshore Wind Farm will be located approximately 15 to 22 kilometres (km) to the east of the Angus coastline in Scotland (see Figure 1.1 below). The Wind Farm has a grid connection agreement for 1,050 Megawatts (MW) and is anticipated to consist of up to 213 wind turbine generators.

Thank you for the opportunity to provide comments on the Inch Cape Environmental Statement. The ES has been well written and is very clearly laid out. Given our area of interest, we have only focused on the marine mammal sections.

WDC are endeavouring to assist with the environmentally sustainable development of marine renewable energy in Scotland. Whilst welcoming the Scottish Governments' commitment to renewable energy generation, particularly noting the potential consequences of climate change for cetaceans, we have serious concerns about current levels of uncertainty and the possible negative impacts these developments, both individually and cumulatively, may have on cetaceans (whales, dolphins and porpoises) and seals in Scottish waters.

In summary

There is considerable scientific uncertainty surrounding the impacts of pile driving during construction on all species, and in this region. As a result, our preference is that pile driving is not used at all during construction.

The predicted increase in disturbance and displacement of bottlenose dolphins, harbour porpoises, grey and harbour seals, from the construction of Inch Cape, and in-combination with other proposed developments, leads us to believe that whilst the ES has been well presented, it is not possible to rule out Likely Significant Effects. We are also concerned about potential impacts to priority marine features, including minke whales and white-beaked dolphins

We understand from the Environmental Statement and a meeting with the developers project specific mitigation and monitoring plans will be developed prior to construction and will reflect current guidance at the time of construction. However, the lack of a Marine Mammal



Monitoring Programme (MMMP) and a detailed Mitigation Plan to reduce the impacts of pile driving, increased vessel movements and in combination/cumulative impacts on marine mammals in the area makes it difficult to provide comments on this aspect of the Environmental Statement.

For the MMMP, marine mammal observers should be from a JNCC accredited source and there should be enough of them to work continuously without tiring. Passive acoustic monitoring (PAM) should be conducted in parallel to visual observations at all times. For the Mitigation Plan, we do not consider 'soft-start' to be an adequate mitigation measure to ensure there are no significant impacts. Whilst a common sense measure, soft start is not a proven mitigation technique and so cannot be relied upon to mitigate impacts, especially for developments in close proximity to Special Areas of Conservation (SACs). Only proven mitigation measures can be relied upon to maintain the conservation objectives and should consent be given, this should be a condition.

The MMMP and Mitigation plan should be developed in consultation with scientists with expertise in the Natura species to ensure that monitoring of the bottlenose dolphin, and grey and harbour seal SAC populations contribute to existing monitoring studies, to understand how bottlenose dolphins and seals use the area and to assess any changes to site use or other significant impacts. The MMMP should be appropriate to the level of works. WDC requests involvement in the development of these plans.

Specific comments

Table 14.8: Criteria used for predicting significance of impacts. Whilst we understand that this assessment matrix was agreed with academics and the Statutory Nature Conservation Bodies (SNCBs) prior to the assessment, potentially affecting up to 10 % of a population cannot be considered to be of negligible-minor impact. Affecting up to 10 % of a species protected by Natura designations is not considered precautionary, or appropriate. We consider this figure to be arbitrary and without scientific basis, if there is supporting evidence, this should be made available.

Pile driving

Alternatives to pile driving should be considered. Use of noise-reducing techniques could considerably reduce the radius of impacts of this development and those in the region, would reduce cumulative impacts and could mean that there is less dependence on mitigation and less risk to developers. Should pile driving be conducted, further information on the pile driving method and mitigation techniques to reduce the impact of underwater noise generated during pile driving needs to be covered more significantly (as requested above). Considerable uncertainty remains about the efficacy of active acoustic devices, and the impacts resulting from their use and we do not consider their use to be a suitable or adequate mitigation.

Increase in vessel movements

We have concerns about the increase in vessel movements in the area during construction and, to a lesser extent, operation, especially considering the close proximity to the Firth of Tay and Eden Estuary harbour seal SAC. The port(s) to be used for Inch Cape Offshore Wind Farm have yet to be decided, so we cannot make any specific comments at present.

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Corkscrew injuries

The extent of corkscrew injuries is likely to be underestimated due to the low probability than carcasses make it ashore and are found. Fife has been identified as one of the UK's hotspots for corkscrew injuries as a cause of death for harbour seals, especially in summer months (Bexton et al., 2012). The use of ducted propellers should not be permitted unless they are guarded or potential impacts can be effectively mitigated in some other way, especially for harbour seals. If ducted propellers are to be used, a proposed Marine Mammal Corkscrew Injury Monitoring Scheme (MMCIMS) should include Marine Mammal Observer searches for seal carcasses to determine if injuries to seals are occurring. Beach searches should be conducted regularly enough to allow the carcasses to be 'fresh' enough for a cause of death, where possible, to be determined. There is growing evidence that harbour porpoises suffer from 'corkscrew injuries', in addition to seals (Deville et al., 2013), including around Fife (Scottish Marine Animal Stranding Scheme (SMASS), unpublished data). Therefore any stranded marine mammals should be reported to the SMASS. Should any incident that results in mortality occur during construction, activities should be halted immediately until an investigation can be completed.

Harbour seals

Section 67: *The percentage of the reference population predicted to be affected ranges from 7.4 to 12.2 per cent for PTS (low to medium magnitude of impact) to up to 53.3 per cent for some form of behavioural displacement (high magnitude of impact).* Whilst we agree that these are classified as a 'high magnitude of impact' we have serious concerns about these values. Affecting such a high number of individuals from a SAC population is unacceptable, and could have devastating effects for an already declining population.

Section 110 and 163 states that *'the risk of corkscrew injury to harbour seal is deemed to be high. There are, however, such low numbers of harbour seals associated with the Firth of Tay and Eden Estuary SAC that the number of animals at risk of exposure to corkscrew injury is innately very low. Therefore, the impact of increased risk of injury to harbour seals from the use of ducted propellers during operation and maintenance activities is considered to be of minor magnitude.'* We whole heartily disagree with this statement.

Section 113. *Robust mitigation methods need to be put in place to ensure that there is no increase in adult (and juvenile) mortality due to PTS or that behavioural displacement that affects breeding.* WDC considers that a loss of even 1 individual from this decreasing harbour seal population is considered to be 'too high' (and significant at a population level), especially considering the significant decrease in the population which has occurred without the construction of marine renewable developments in the area.

Harbour porpoises

The Joint Nature Conservation Committee (JNCC) currently has contract out to identify whether persistent areas for harbour porpoise are supported by available evidence, with a view to future SAC designations. Whilst we note that there are currently no SACs for harbour porpoises in Scotland, as an Annex II species and given the high density of porpoises in the proposed development and surrounding area, this area has the potential to be designated as

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an SAC to protect the harbour porpoise and for these reasons we feel that the harbour porpoise should be considered on the same level as harbour seals, grey seals and bottlenose dolphins.

There is still considerable uncertainty about the most appropriate management unit to use for harbour porpoise (Northridge, 2012). There is growing evidence of biologically distinct populations within the North Sea. The assessment of cumulative impacts needs to include all developments in the same range used for the population estimate.

Section 81: *The number of harbour porpoises predicted to be affected through temporary displacement is large and the duration of the effect is medium term.* When cause of death (CoD) can be determined from stranded harbour porpoises in Scotland, the main CoD is due to bottlenose dolphin attacks. Whilst the impact of PTS onset and behavioural displacement of harbour porpoises is expected to be minor, we have concerns about the high level of displacement potentially moving porpoises into areas with high densities of bottlenose dolphins, that they would normally avoid.

As mentioned above, we also have concerns about the use of ducted propellers causing fatal cork-screw injuries to harbour porpoises.

Bottlenose dolphins

Sections 84 and 86: We agree that *'a moderate impact for the duration of the piling activities is predicted over the medium term'*. However, we have concerns about the high level (15.3-19.4 %) of the population showing behavioural displacement during construction.

Aberdeen Harbour Development Environmental Impact Assessment Scoping Report has recently been submitted to Marine Scotland. Whilst we understand that to-date Inch Cape did not need to account for Aberdeen Harbour extension in their cumulative impacts assessment, if construction of the two developments is likely to overlap, cumulatively there is likely to be a significant impact on the Moray Firth SAC bottlenose dolphin population. Furthermore, due to the known connectivity of the Moray Firth bottlenose dolphins, and the vast quantity of proposed and consented activity on the east coast of Scotland, we feel that the proposed Ardersier, Invergordon and Nigg developments should also be included in the cumulative impact assessment.

White-beaked dolphin and minke whales

The area next to Inch Cape has been highlighted as an important habitat for white-beaked dolphins and minke whales by Marine Scotland in their Marine Protected Areas consultation. Therefore, we do not agree that potentially affecting up to 10 % of the populations can be considered 'low impact' and 'minor'.

Cumulative impacts

Section 252: *Other developments are considered to be of a sufficiently long distance from the Development Area and Offshore Export Cable Corridor, or there are no noisy or otherwise disturbing activities that may impact on marine mammals predicted to occur in relation to the Project, for there to be a cumulative effect on marine mammals.* As stated above, all developments within the known reference population for each species should be assessed for

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cumulative impacts.

Habitat Regulation Appraisal (HRA)

Whilst not a requirement for the HRA, WDC are grateful to note that the potential impact on other cetacean species e.g. minke whale, harbour porpoise and white-beaked dolphin, which are listed as Priority Marine Features and minke whale and white-beaked dolphin which are drivers in the Scottish Marine Protected Areas project, have been given adequate consideration in the HRA.

Section 372: WDC welcomes Inch Cape's collaboration with Marine Scotland, TCE and FTOWDG to conduct pre-, during and post-construction monitoring to provide valuable data regarding the predicted to actual effects of the Project on marine mammal species to inform and further develop best practice measures.

A licence to cause disturbance to EPS will be required for construction.

The Inch Cape Environmental Statement, including HRA, has been very well presented and the appropriate analysis (and more) has been conducted. However, WDC objects to this development unless effective mitigation methods are developed and implemented during construction of the Inch Cape Wind Farm. The proposed development is not compatible with the requirements on the Habitats Directive due to the potential effects on the integrity of the Firth of Tay and Eden Estuary harbour seal SAC. WDC feels that more needs to be done to ensure the survival of this population, rather than accepting that it is not going to be a biologically viable population in next few years.

Should consent be given, an annex of suggested license conditions is attached.

We hope you find these comments useful and would be happy to discuss any of these comments further.

Yours Sincerely,

[Redacted Signature]

Scottish Policy Officer

References

Bexton, S., Thompson, D., Brownlow, A., Barley, J., Milne, R., and Bidewell, C. 2012. Unusual Mortality of Pinnipeds in the United Kingdom Associated with Helical (Corkscrew) Injuries of Anthropogenic Origin. *Aquatic Mammals*, 38, 229–240. doi:10.1578/AM.38.3.2012.229

Deaville, R., Brownlow, A., Penrose, R., Smith, B., Barnett, J., Perkins, M. and Jepson, P. 2013. Turning the screw: Shipstrike in UK stranded cetaceans. 27th Conference of the European Cetacean Society Abstract book p 48-49.

Available at <http://www.escolademar.pt/ecs2013/scientific-program/>

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Northridge, S. 2012. MS Offshore Renewables Research: Work Package C2: Request for advice on the populations of cetaceans that might be involved in significant interactions with marine renewable energy developments in Scottish marine waters.

Available at <http://www.scotland.gov.uk/Resource/0040/00401645.pdf>

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ANNEX

Should consent be given to this proposed development, WDC suggests the following consent conditions:

- Alternative methods to pile driving should be investigated.
- If pile driving is used, a noise-reducing barrier (such as a bubble curtain) should be maintained around the source to mitigate the impacts of radiated noise levels. The barrier should remain in place until piling has been completed. The use of noise-reducing techniques is the best way to reduce construction impacts to marine mammals.
- Visual and acoustic monitoring should be ongoing throughout construction.
- Activities should be halted when marine mammals approach within a specified distance of operations (mitigation zone).
- Ground-truthing of modelled noise assessment data should be undertaken.
- The Marine Mammal Protection Plan should be developed in consultation with scientists with expertise in the Natura species to ensure that monitoring of the bottlenose dolphin, and grey and harbour seal SAC populations contribute to existing monitoring studies, to understand how bottlenose dolphins and seals use the area and to assess any changes to site use and are appropriate to the level of works.
- The monitoring plan should include the recommendations from the Aberdeen scientific study 'Population consequences of disturbance'.
- The monitoring plan should be appropriate to all developments in the area (Near na Gaoithe, Inch Cape, Firth of Forth, Aberdeen Bay and in the Moray Firth), scientifically robust, and all the developers should work together to achieve this.
- The use of ducted propellers should not be allowed.
- If the use of ducted propellers is permitted during construction and/or operation, there should be regular monitoring of beaches for stranded animals to determine if any injuries to marine mammals, e.g. corkscrew injuries, are occurring.
- Should any incident that results in mortality occur during construction, activities should be halted immediately until an investigation can be completed.

Recommendation to Marine Scotland

An audit of Environmental Impact Assessments associated with marine spatial planning and the renewable energy industry should be undertaken, to identify strengths and weaknesses in assessments, with a view to ensuring best practice.

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