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Marine Scotland - Licensing Operations Team **Scoping Opinion**

**THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT)
(SCOTLAND) REGULATIONS 2017 (AS AMENDED)**

**THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT)
(SCOTLAND) REGULATIONS 2017 (AS AMENDED)**

**SCOPING OPINION FOR THE PROPOSED SECTION 36 CONSENT AND
ASSOCIATED MARINE LICENCE APPLICATION FOR THE REVISED INCH
CAPE OFFSHORE WIND FARM AND REVISED INCH CAPE OFFSHORE
TRANSMISSION WORKS**

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Note regarding changes to the Environmental Impact Assessment Directive

On the 16 May 2017 The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (herein referred to as ‘The Electricity Works 2017’) and The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (herein referred to as “The Marine Works 2017”) came into force, transposing the requirements of the 2014 amendment (2014/52/EU) to the Environmental Impact Assessment (“EIA”) Directive. The Electricity Works 2017 and The Marine Works 2017 were subsequently amended by The Environmental Impact Assessment (Miscellaneous Amendments) (Scotland) Regulations 2017 which came into force on 30 June 2017 and introduced minor changes. The Electricity Works 2017 and The Marine Works 2017 are hereinafter referred to together as “the 2017 EIA Regulations”.

The 2017 EIA Regulations revoke The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 (as amended) (“The Electricity Works 2000”) and The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) (“The Marine Works 2007”) for Scotland (i.e. out to 12 nautical miles). The 2017 EIA Regulations contain transitional arrangements and revocations and provide that in certain circumstances they will apply, in a modified form, in cases pre-existing as of the 16 May 2017. This is where an applicant for a section 36 consent or a marine licence for an EIA project has, before the 16 May 2017, either – (1) submitted an environmental statement in connection with an application to the Scottish Ministers; (2) made a request to the Scottish Ministers for a scoping opinion in connection with the project; or (3) made a request to the Scottish Ministers for a screening opinion.

As Inch Cape Offshore Limited (“ICOL”) submitted their Scoping Report on 28 April 2017 the 2017 EIA Regulations therefore now apply under the transitional arrangements.

For the ICOL development the transitional arrangements will mean that:

- For processes such as, but not limited to, consultation and publicity requirements, additional information provisions and decision notices the 2017 EIA Regulations will apply.
- ICOL’s application for a Section 36 consent and marine licence will require an Environmental Impact Assessment Report (“EIA Report”). This was previously known as an Environmental Statement (“ES”). For the purposes of this scoping opinion reference will be made to an ES when referring to the document submitted with the original application in 2013 and to an EIA Report when referring to the document that will be required for the new application.

- The scope and level of detail of information to be contained within the EIA Report is as required by The Electricity Works 2000 regulations and The Marine Works 2007 regulations for Scotland.

1 Executive Summary

This is the scoping opinion adopted by the Scottish Ministers as to the scope and level of detail of information to be provided in the Environmental Impact Assessment report ('EIA report') for the proposed Revised Inch Cape Wind Farm and Revised Inch Cape Offshore Transmission Works ("OfTW") as described in the [Scoping Report](#) submitted by Inch Cape Offshore Limited ("ICOL").

This document sets out the Scottish Ministers' opinion on the basis of the information provided in the Scoping Report of 28 April 2017. The scoping request relates to the revised Inch Cape Offshore Wind Farm and Revised Inch Cape Offshore Transmission Works ("Revised Development") to be situated in the same area of the Outer Firth of Tay as the previously [consented](#) Inch Cape Offshore Wind Farm, all as more particularly described at Section 3. **This Scoping Opinion does not cover marine mammals or ornithology – a separate scoping opinion on these receptors will be issued in due course.**

The previous offshore consents (Section 36 and Marine Licence) were granted in 2014 for the construction and operation of the Inch Cape Offshore Wind Farm and associated OfTW in the Outer Firth of Tay ("Original Development"). The wind farm had a potential generating capacity of up to 784 MW. These consents were subject to Judicial Review. Legal proceedings brought by the Royal Society for the Protection of Birds ("RSPB") are ongoing. The RSPB were initially successful in their challenge, however the decision was overturned by the Inner House Court of Appeal. It is not yet known whether the case will be heard by the Supreme Court. In parallel with the Judicial Review ICOL intends to pursue a new consent application for the Revised Development. The Revised Development is intended to take advantage of advancement in offshore wind technology to achieve ICOL's twin objectives of improving project economics while reducing associated environmental effects when compared to the Original Development.

This opinion can only reflect the proposal as currently described by ICOL. The matters addressed by ICOL in the Scoping Report have been carefully considered and use has been made of professional judgment (based on expert advice from stakeholders and Marine Scotland in-house expertise) and experience in order to adopt this opinion. It should be noted that when it comes to consider the Environmental Impact Assessment Report ("EIA Report"), the Scottish Ministers will take account of relevant legislation and guidelines (as appropriate). The Scottish Ministers will not be precluded from requiring additional information if it is considered necessary in connection with the EIA Report submitted with the application for section 36 consent and associated marine licence.

This Scoping Opinion has a shelf life of 12 months from the date of issue. If an application is not received within 12 months then the ICOL must contact the

Scottish Ministers to determine whether this Scoping Opinion requires updating.

The Scottish Ministers have consulted on the Scoping Report and the responses received have been taken into account in adopting this opinion. A series of scoping meetings were held with stakeholders and ICOL to discuss the Scoping Report further. The Scottish Ministers are satisfied that the topics identified in the Scoping Report encompass those matters identified in Schedule 4 of the Electricity Works 2000 and Schedule 3 of the Marine Works 2007, as required by the transitional arrangements of the 2017 EIA regulations.

The Scottish Ministers draw attention to the general points and those made in respect of the specialist topics in this opinion. Where significant effects were identified in the Original Development ES, and the assessment remains relevant, these matters must still be reported in the forthcoming EIA Report, but may be scoped out of further assessment work. Matters are not scoped out unless specifically addressed and justified by ICOL and confirmed as being scoped out by the Scottish Ministers. Detailed information is provided in the specialist topic sections.

2 Introduction

2.1 Background to this scoping opinion

- 2.1.1 We refer to your letter of 28 April 2017 requesting a scoping opinion from the Scottish Ministers under Regulation 7 of the Electricity Works 2000 and Regulation 13 and Schedule 4 of the Marine Works 2007. The request was accompanied by a Scoping Report containing a plan sufficient to identify the site which is the subject of the Revised Development and a description of the nature and purpose of the Revised Development and of its possible effects on the environment. The Scoping Report used the Original Development ES to provide an evidence base for scoping certain topics out where all of the following three criteria were met: (i) no significant effects were identified in the Original Development ES; (ii) the baseline remains valid (iii) there have been no significant changes to the assessment methodology. The Scoping Report was accepted on 05 May 2017.
- 2.1.2 Where, following consultation with statutory consultation bodies and other environmental stakeholders, the Scottish Ministers have confidence that previous assessments may be relied upon to inform a conclusion that there will be no significant environmental effects, the Scottish Ministers are content to conclude that certain topics can be scoped out, as described in 2.1.1, from the environmental assessment to be undertaken in relation to the Revised Development.

2.2 Onshore Transmission Works

- 2.2.1 The Scottish Ministers are aware that ICOL is pursuing a separate scoping opinion from East Lothian Council for the associated onshore transmission works. ICOL intends to apply to East Lothian Council for planning permission in principle for a substation, electricity cables and associated infrastructure to connect their proposed offshore wind farm to the national grid. The proposed application site lies to the east of Preston Links, and consists of a partially restored brownfield site previously used for Cockenzie Power Station. It will be essential that the EIA Report concerning the onshore works be available at the time the EIA Report for the offshore works is being considered so that all the information relating to the project at a “whole” is available. The EIA Report for the offshore works must consider cumulative impacts with the onshore works where applicable.

2.3 The requirement for Environmental Impact Assessment

- 2.3.1 Under the 2017 EIA Regulations, the Scottish Ministers are required to consider whether any proposal is likely to have a significant effect on the

environment. Any proposal to construct or operate an offshore power generation scheme with a capacity in excess of 1 megawatt and within 12 nautical miles (“nm”) requires the Scottish Ministers’ consent under section 36 of The Electricity Act 1989 (“the Act”). The Revised Development falls under Schedule 1 of The Electricity Works 2017, EIA is therefore required.

- 2.3.2 Schedule 9 of the Act places on the Developer a duty to “have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest”. In addition, the Developer is required to give consideration to the UK Marine Policy Statement, Scotland’s National Marine Plan (“NMP”), Scottish Planning Policy, other relevant Policy and National Policy Planning Guidance, Planning Advice Notes, the relevant planning authority’s Development Plans and any relevant supplementary guidance.

2.4 The content of the scoping opinion

- 2.4.1 With regard to your request for a scoping opinion on the proposed content of the required EIA Report, the Scottish Ministers have, in accordance with the 2017 EIA Regulations, considered the documentation provided to date and consulted with the appropriate consultation bodies (see Appendix I) in reaching their scoping opinion.
- 2.4.2 Please note that the EIA process is vital in generating an understanding of the biological, chemical and physical processes operating in and around the proposed development site and those that may be impacted by the proposed activities. We would however state that references made within the scoping opinion with regard to the significance of impacts should not prejudice the outcome of the EIA process. It is therefore expected that these processes will be fully assessed in the EIA Report unless scoped out.

2.5 Duration of consent

- 2.5.1 The consent granted for Original Development had an operational period of 25 years, the Revised Development is proposed to be 50 years. On the basis of expert advice received, the Scottish Ministers consider that, in the majority of cases, the Original Development ES assessment of the effects of a 25 year consent duration is likely to be acceptable. However, the Scottish Ministers are aware that there are inherent uncertainties of modelling population effects which increase with time, and it may not be possible to have confidence in predicted impacts over a 50 year period for some receptors e.g. ornithology.

- 2.5.2 ICOL is advised to identify and, if possible, quantify, the uncertainties associated with modelling population effects over different timescales.

2.6 Consent conditions

- 2.6.1 Where possible the Scottish Ministers recommend that ICOL and relevant stakeholders have discussions, prior to submission of any application, to resolve any issues. Time could be saved post consent if agreements could be reached and agreed by both parties as this could result in a condition not being needed. This could apply to, for example, the Fisheries Management and Mitigation Plan or to issues raised by the Defence Infrastructure Organisation or the National Air Traffic Services.

3 Description of the development

3.1 Background to Original Development application and consent

- 3.1.1 In 2014 ICOL gained offshore consents (Section 36 and Marine Licence) for the construction and operation of the Inch Cape Offshore Wind Farm and associated OfTW, situated in the Outer Firth of Tay off the east coast of Scotland. At that time, the consent allowed delivery of an offshore wind farm project with a potential generating capacity of up to 784 MW.
- 3.1.2 The determination of the offshore consents by the Scottish Ministers followed almost five years of project development, including environmental surveys, engineering design studies and wide-ranging stakeholder engagement.
- 3.1.3 ICOL submitted an ES, which presented the outcomes of the Original Development EIA and supported the Original Application. The outcomes of the ES were accepted as the basis for the determination of the offshore consents by the Scottish Ministers.
- 3.1.4 The consents are currently the subject of an ongoing Judicial Review.

3.2 Background to the new applications for the Revised Development

- 3.2.1 ICOL is seeking new consent for the Revised Development, which is located in the same area as the Original Development (Figure 1). It will be comprised of an offshore array of Wind Turbine Generators (“WTGs”), connected to one another by subsea inter-array cables, which will in turn connect the WTGs to one or two Offshore Substation Platform(s) (“OSPs”), where power generated by the WTGs is transformed and subsequently carried to an onshore landfall location via Offshore Export Cables.

3.3 Description of the Revised Development

- 3.3.1 The Revised Development will comprise of an offshore generating station with a capacity of greater than one megawatt (“MW”) and therefore requires the Scottish Ministers’ consent under Section 36 of the Electricity Act 1989 (Section 36 consent) to allow its construction and operation. The Revised Development will also require a Marine Licence granted by the Scottish Ministers under the Marine (Scotland) Act 2010 to allow for the construction and deposit of substances and structures in the sea and on the seabed.

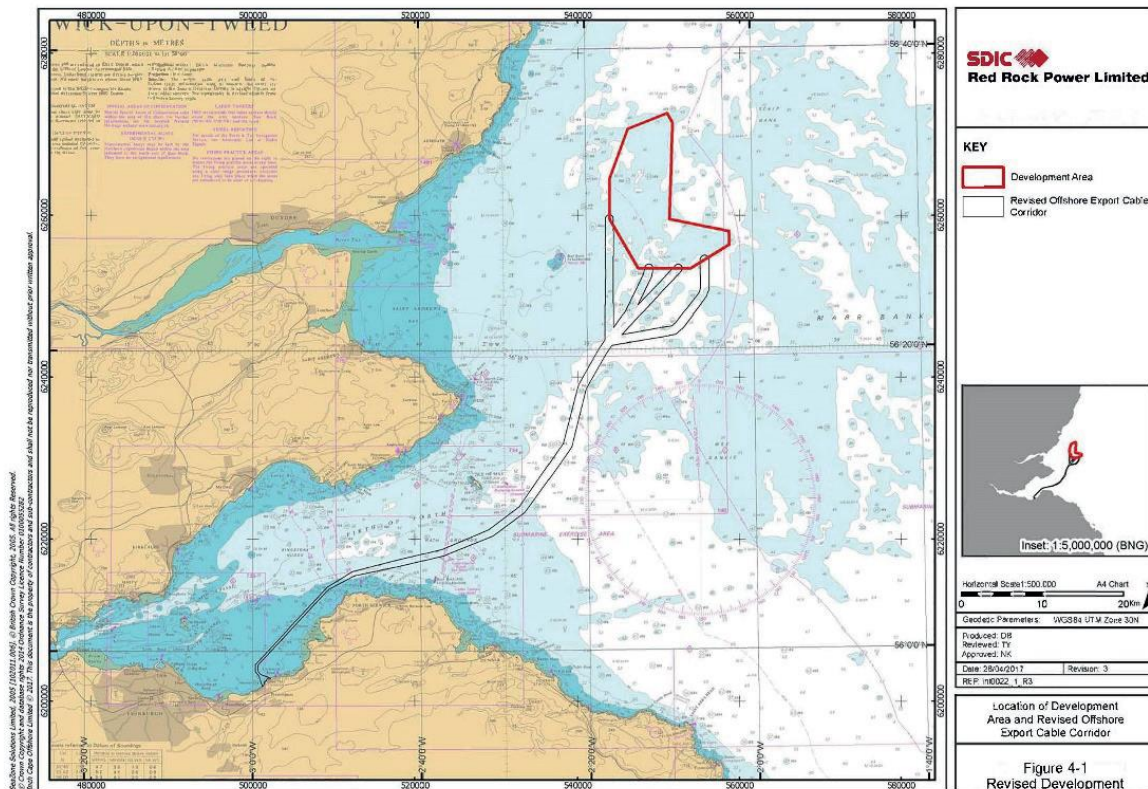


Figure 1 Location of the Revised Development

3.3.2 The revised development will, in summary, consist of the following changes compared to the original application; it should be noted that the consent granted in 2014 was for 110 turbines:

- A reduction in the number of turbines from up to 213 to up to 72
- The minimum blade clearance above highest astronomical tide remains as 22m
- The hub height increase to up to 176m from 92-129m
- The blade tip height increases to 301m from 152- 215m
- The rotor diameter increases to up to 250m from 120-172m
- The indicative minimum separation between turbines would be 1, 278m from 820m

3.3.3 If WTG jacket substructure and pile foundations are used then the main changes will be:

- There will be a reduction in drilling/piling events from 852 to 288, based on four piles for each WTG
- There will be an increase in energy capacity of the hammer from 1200kJ to 2400kJ

3.3.4 However, if gravity based structures are used then the main changes would be:

- An increase in top width from 20m to 30m
- An increase in base diameter from 65m to 90m
- An increase in excavated diameter from 95m to 125m
- An increase in scour protection diameter from 95m to 125m
- An increase in dredger affected diameter from 125m to 140m
- An increase in the shadow (m^2) i.e. total seabed area under each substructure including those exposed and the footprint (m^2) i.e. total seabed area under each substructure which is not exposed from 3,318 m^2 to 6,361 m^2 in both cases
- The footprint including scour protection (m^2) could increase from 7,088 to 12,272
- The dredger affected area footprint (m^2), which would include scour protection and footprint, could increase from 12,272 m^2 to 15,400 m^2
- An increase in the maximum excavated volume per unit (m^3) from 28,503 m^3 to 60,000 m^3
- An increase in the gravel bed/grout diameter from 75m to 100m
- A reduction in overall dredge volume of 36% due to the decrease in turbine number

3.3.5 For the interarray cables the main changes are as follows:

- A change in voltage from 66kV to <132kV
- A reduction in cable length from 353 km to 190 km
- An increase in trench width per cable from 1m to 1-3m
- An increase in trench affected width per cable from 6m to 12-15m
- An increase in typical trench depth from 1m to 1.2m

3.3.6 For the offshore substation platforms there will be no changes if gravity base structures are used for the substructures. If jacket substructures with piled foundations are used the main change is:

- A reduction in piling events from 80 to 16

3.3.7 For the export cables and interconnector cables the parameters will change in the following ways:

- Up to 275kV (alternating current option) rather than a combination of 320kV (direct current option) and 275kV (alternating current option)
- The number of trenches will reduce from 4-6 to 2
- The trench width will range from 1-3m rather than 1m

- The trench affected width per cable will increase from 6m to 12-15m
- The typical trench depth will increase from 1m to 1.2m

3.3.8 The Scoping Report provides more detail on these changes.

4 Aim of this Scoping Opinion

4.1 The scoping process

- 4.1.1 Scoping provides the first identification, and likely significance, of the environmental impacts of the proposal and the information needed to enable their assessment. The scoping process is designed to identify which impacts will, or will not, need to be addressed in the EIA Report. This includes the scope of impacts to be addressed and the method of assessment to be used. The scoping process also allows consultees to have early input into the EIA process, to specify their concerns and to supply information that could be pertinent to the EIA process. In association with any comments herein, full regard has been given to the information contained within the Scoping Report.
- 4.1.2 The Scottish Ministers have also used this opportunity to provide advice in relation to the licensing requirements in addition to the EIA requirements (see Appendix II).

5 Consultation

5.1 The consultation process

5.1.1 On receipt of the scoping opinion request documentation, the Scottish Ministers, in accordance with the EIA Regulations, initiated a 28 day consultation process, which commenced on 05 May 2017. The following bodies were consulted, those marked in **bold** provided a response, those marked in *italics* sent nil returns or stated they had no comments:

- **Angus Council “AC”**
- Atlantic Salmon Trust “AST”
- Babcock MCS Offshore “BH”
- **British Telecom Radio Network Protection Team “BT”**
- CHC Helicopters “CHC”
- Civil Aviation Authority “CAA”
- Cockenzie and Port Seton Community Council “CPSCC”
- *Crown Estate Scotland “CES”*
- **Defence Infrastructure Organisation “DIO”**
- Dunbar Community Council “DCC”
- **Dundee City Council “DC”**
- Dunpender Community Council
- East Lammermuir Community Council “ELCC”
- **East Lothian Council “ELC”**
- *Edinburgh Airport “EA”*
- **Fife Council “FC”**
- Fisheries Management Scotland “FMS”
- Forth Ports “FP”
- Gullane Community Council “GCC”
- Heathrow Airport Holdings Limited “HL”
- **Historic Environment Scotland “HES”**
- *Joint Radio Company “JRC”*
- Longniddry Community Council “LCC”
- Macmerry & Gladsmuir Community Council “MGDD”
- **Mainstream Renewable Power Ltd “MRP”**
- Marine Safety Forum “MSF”
- Marine Scotland Compliance (Aberdeen) “MSC (Ab.)”
- Marine Scotland Compliance (Anstruther) “MSC (Ans.)”
- Marine Scotland Compliance (Eyemouth) “MSC (Eye.)”
- **Maritime and Coastguard Agency “MCA”**
- Musselburgh & Inveresk Community Council “MICC”
- **National Air Traffic Services “NATS”**

- National Trust for Scotland “NTS”
- North Berwick Community Council “NBCC”
- North East Regional Inshore Fishery Groups “IFG”
- **Northern Lighthouse Board “NLB”**
- Prestonpans Community Council “PCC”
- **Royal Society for the Protection of Birds “RSPB”**
- **Royal Yachting Association “RYA”**
- Salmon Nest Fishing Association of Scotland “SNFAS”
- **Scottish Borders Council “SBC”**
- Scottish Canoe Association “SCA”
- Scottish Creel Fishermen Association “SCFA”
- **Scottish Environmental Protection Agency “SEPA”**
- **Scottish Fishermen’s Federation “SFF”**
- Scottish Fishermen’s Organisation “SFO”
- Scottish Government Planning “PSG”
- **Scottish Natural Heritage “SNH”**
- Scottish Surfing Federation “SSF”
- Scottish Wildlife Trust “SWT”
- Seagreen Wind Energy Ltd “SWE”
- **Sport Scotland “SS”**
- Surfers Against Sewage “SAS”
- Tranent & Elphinstone Community Council “TECC”
- **Transport Scotland “TS”**
- *Transport Scotland Ports & Harbours “TS(P&H)”*
- UK Chamber of Shipping “CoS”
- Visit Scotland “VS”
- West Barns Community Council “WBCC”
- *Whale & Dolphin Conservation Society “WDC”*

5.2 Responses received

5.2.1 A total of 19 responses were received. Advice was also sought from Marine Scotland Science (“MSS”). The purpose of the consultation was to obtain advice and guidance from each consultee or advisor as to which potential effects should be scoped in or out of the EIA.

5.2.2 The Scottish Ministers are satisfied that the requirements for consultation have been met in accordance with the EIA Regulations. The sections below highlight issues which are of particular importance with regards to the EIA report. Full consultation responses are attached in Appendix I and each should be read in full for detailed requirements from individual consultees. The Scottish Ministers expect all consultee concerns to be addressed in the

EIA Report unless otherwise stated.

5.3 Meetings with stakeholders

- 5.3.1 A series of meetings were arranged in order to facilitate structured discussion between the Scottish Ministers, ICOL and stakeholders. The meetings allowed for early engagement between stakeholders and ICOL.
- 5.3.2 The meetings were topic related and covered marine mammals, natural fish and benthic ecology, commercial fisheries, sea, landscape and visual impact assessment and ornithology.
- 5.3.3 The aim of the meetings was to provide clarity and answer any questions the stakeholders had with regard to the Scoping Report. This allowed an opportunity to discuss issues in detail in advance of stakeholders completing their scoping responses. The meetings took the form of an overview from the developer and then a discussion on specific issues of concern.
- 5.3.4 The minutes of each meeting were recorded and these, and the discussions themselves, have informed the scoping opinion.

6 Contents of the Environmental Impact Assessment Report

6.1 Requirements from the EIA Regulations

6.1.1 The 2017 EIA Regulations require that the EIA Report is prepared by competent experts and must be accompanied by a statement from the applicant outlining the relevant expertise or qualifications of those experts.

6.1.2 The EIA Report must be based on the Scoping Opinion and must include the information that may be reasonably required for reaching a reasoned conclusion, which is up to date, on the significant effects of the development on the environment, taking into account current knowledge and methods of assessment.

6.1.3 EU guidance on EIA identifies the following qualities of a good Environmental Statement (now known as an EIA Report):

- Includes a clear structure with a logical sequence, for example describing existing baseline conditions, predicted impacts (nature, extent and magnitude), scope for mitigation, agreed mitigation measures, significance of unavoidable/residual impacts for each environmental topic.
- Includes a table of contents at the beginning of the document.
- Includes a clear description of the development consent procedure and how EIA fits within it.
- Reads as a single document with appropriate cross-referencing.
- Is concise, comprehensive and objective.
- Is written in an impartial manner without bias.
- Includes a full description of the development proposals.
- Makes effective use of diagrams, illustrations, photographs and other graphics to support the text.
- Uses consistent terminology with a glossary.
- References all information sources used.
- Has a clear explanation of complex issues.
- Contains a good description of the methods used for the studies of each environmental topic.
- Covers each environmental topic in a way which is proportionate to its importance.
- Provides evidence of good consultations.
- Includes a clear discussion of alternatives.
- Makes a commitment to mitigation (with a programme) and to monitoring.
- Has a Non-Technical Summary (“NTS”) which does not contain

technical jargon

- Further guidance can be found at <http://ec.europa.eu/environment/eia/eia-support.htm>

The Scottish Ministers are aware that the Commission is currently working on guidance to reflect the 2014 amendment to the EIA Directive. This guidance can be found using the above link when published.

6.2 Non-Technical Summary

6.2.1 This should be a concise stand-alone document written in a manner that is appealing to read and easily understood. The NTS should highlight key points set out in the EIA Report. The non-technical summary should include:

- a description of the project including a map and figures as appropriate;
- a description of the main environmental impacts the project is likely to have;
- a description of the measures envisaged to prevent, reduce and offset any significant adverse effects; and
- an outline of the main alternatives studied, including an indication of the main reasons for the primary choice of the project, taking into account the environmental effects of those alternatives and the project as proposed.

6.3 Mitigation

6.3.1 Within the EIA Report it is important that all mitigating measures are:

- clearly stated;
- accurate;
- assessed for their environmental effects;
- assessed for their effectiveness;
- fully described with regards to their implementation and monitoring, and
- described in relation to any consents or conditions

6.3.2 The EIA Report should contain a mitigation table providing details of all proposed mitigation discussed in the various chapters. Refer to Appendix I for consultee comments on specific baseline assessment and mitigation.

6.3.3 Where potential environmental impacts have been fully investigated but found to be of little or no significance, it is sufficient to validate that part of the assessment by stating in the EIA Report:

- the work has been undertaken;
- what this has shown i.e. what impact if any has been identified, and
- why it is not significant?

6.3.4 It is suggested that a chapter is included in the EIA Report which describes the robust scoping process which has been conducted in order to scope certain receptors out of the EIA Report.

6.4 Design Envelope

6.4.1 Where flexibility in the design envelope is required, this must be defined within the EIA Report and the reasons for requiring such flexibility clearly stated. ICOL must also describe the criteria for selecting the worst case, and the most likely, scenario and the impacts arising from these. The Scottish Ministers will determine the application based on the worst case scenario. The EIA may reduce the degree of design flexibility required and the detail will be further refined in a Construction Method Statement (“CMS”) to be submitted to the Scottish Ministers, for their approval, before works commence. Please note however the information provided in Section 11 regarding multi-stage regulatory consent. The CMS will freeze the design of the project and will be reviewed by the Scottish Ministers to ensure that the worst case scenario described in the EIA Report is not exceeded.

7 Interests to be Considered Within the EIA Report

7.1 Introduction

- 7.1.1 The Scoping Report contained a series of questions posed by ICOL and these are used to inform the structure of this opinion. Each question is addressed below and the Scottish Ministers' answers or advice provided. Where necessary, consultee comments have been incorporated to provide further relevant information. The page and table numbers contained within the boxes refer to the Scoping Report.
- 7.1.2 This section contains a summary of main points raised by consultees and the Scottish Ministers' opinion on whether EIA topics should be scoped in or out. The consultation responses are contained in Appendix I and ICOL is advised to carefully consider these responses and use the advice and guidance contained within them to inform the EIA Report.
- 7.1.3 ICOL has used an ES undertaken for the Original Development, which obtained consent in October 2014, for much of the baseline information in their Scoping Report and this is referred to as the [Original Development ES](#) in this opinion. The EIA Report to be submitted for the current project should be a standalone document without the need for users to refer back to the Original Development ES to understand the information contained within the 2017 EIA Report. The Scottish Ministers consider that, where relevant, it would be appropriate for data or other information being relied on from the Original Development ES to be contained in appendices so that the main text of the EIA Report for the current project is concise.
- 7.1.4 It is important to state that any potential significant impact for a particular topic identified in the Original Development ES must be reported within the EIA Report of the Revised Development. This remains the case where it is suggested that a topic should be scoped out i.e. any previously identified significant impacts associated with this topic must still be considered. To ensure that all potential significant impacts (for topics scoped in and out of further assessment) are considered as part of the consent determination they will be reported within the EIA Report for the Revised Development application. Relevant conditions attached to the Original Development consents will also be reported in the EIA Report.

7.2 Metocean and Coastal Processes

- 7.2.1 In the Scoping Report ICOL stated that they considered that the likely impacts on Metocean and Coastal Processes for the Revised Development will be less than those assessed for the Original Development and therefore

should be scoped out of the EIA Report due to the following:

- Changes in the revised design envelope
- Baseline data remaining valid
- No material change to data collection
- No material change to assessment best practice
- No significant effects concluded in the Original Development ES

Scoping Question	Question
7.1.8. (Page 88)	<p>Do you agree that the existing data available to describe the metocean and coastal process baseline remains sufficient to describe the physical environment in relation to the Revised Development?</p> <p>Do you agree that the modelling of the potential impacts on the physical environment (and applying the worst case scenario for the Original Development) provides an appropriate and precautionary basis for assessing the potential impacts of the Revised Development?</p> <p>Do you agree that, in all cases, the assessment scenario previously applied in conducting the Original Development EIA represents the worst case when compared to the Revised Development?</p> <p>Do you agree, with the embedded mitigation in place, that the assessment of Metocean and Coastal Processes should be scoped out of the EIA for the Revised Development?</p> <p>Do you agree that the cumulative impacts on metocean and coastal processes should be scoped out of the EIA for the Revised Development based on the assumptions set out and the conclusions reached in the CIA for the Original Development?</p>
<p>SNH provided advice that noted that they were satisfied that the proposed use of fewer, larger turbines falls well within the worst case scenario previously assessed and that no updates are needed to metocean modelling or modelling of suspended sediment dispersal. SNH also note that for the transmission works there are conditions that apply to the relevant marine licence and that these will be transferred across to any new licence. SNH state they do not identify any outstanding matters requiring reassessment.</p>	

The Scottish Ministers agree with all the questions outlined above and that further assessment of metocean and coastal processes is not required and this receptor should be scoped out of the EIA. The Scottish Ministers also note that there is embedded mitigation and consent conditions which, alongside changes in the design envelope, will mean that the conclusions reached in the Original Development of no significant effects remain valid for the Revised Development.

7.3 Benthic Ecology

7.3.1 In the Scoping Report ICOL stated that they considered that the likely impacts on Benthic Ecology for the Revised Development will be less than those assessed for the Original Development and therefore should be scoped out of the EIA Report due to the following:

- Changes in the revised design envelope
- Baseline data remaining valid
- No material change to data collection
- No material change to assessment best practice
- No significant effects concluded in the Original Development ES

Scoping Question	Question
8.1.9. (Page 120)	Do you agree that the existing data available to describe the benthic ecology baseline remains sufficient to describe the baseline environment in relation to the Revised Development?
The Scottish Ministers agree that the benthic ecology baseline remains sufficient to describe the baseline environment in relation to the Revised Development.	

Scoping Question	Question
8.1.9. (Page 120)	Do you agree that, in all cases, the assessment scenario previously applied in conducting the Original Development EIA represents the worst case when compared to the Revised Development?
The Scottish Ministers agree that the assessment scenario previously applied in conducting the Original Development EIA represents the worst case when compared to the Revised Development.	

Scoping Question	Question
8.1.9. (Page 120)	Do you agree that the embedded mitigation, and the proposed use of current conditions, described provides a suitable means for managing and mitigating the potential effects of the Revised Development on benthic ecological receptors?
The Scottish Ministers agree that, the embedded mitigation, and the use of the current conditions provides a suitable means for managing and mitigating the potential effects of the Revised Development on benthic ecological receptors. However, see comments on shellfish below (Section 7.4).	

Scoping Question	Question
8.1.9. (Page 120)	Do you agree, with the embedded mitigation in place, that the assessment of impacts on benthic ecology receptors should be scoped out of the EIA for the Revised Development?
SNH advised they were satisfied that the scoping report provides full consideration and justification for scoping out benthic interests from further assessment. SNH also noted that no updates were needed for modelling of suspended sediment dispersal.	
The Scottish Ministers agree that, with the embedded mitigation in place, that the impacts on benthic ecology receptors can be scoped out of the EIA Report for the Revised Development.	

Scoping Question	Question
8.1.9. (Page 120)	Do you agree that cumulative impacts on benthic ecology should be scoped out of EIA for the Revised Development based on the assumptions set out and the conclusions reached in the CIA for the Original Development?
As no significant effect was identified in the Original Development ES assessment and the design changes are anticipated to have less of a cumulative impact, the Scottish Ministers agree that cumulative impacts on benthic ecology should be scoped out of EIA.	

Scoping Question	Question
8.1.9. (Page 120)	Do you agree that there is no potential connectivity between these SACs and the Revised Development in relation to benthic ecology or Annex I habitat interests and therefore will not be considered at the Appropriate Assessment stage?
<p>SNH advised they were satisfied that the scoping report provides full consideration and justification for scoping out benthic interests from further assessment.</p> <p>The Scottish Ministers agree there is no potential connectivity between the Isle of May Special Area of Conservation (“SAC”), the Firth of Tay and Eden Estuary SAC and the Moray Firth SAC and the Revised Development in relation to benthic ecology or Annex I habitat interests and therefore this will not need be considered at the Appropriate Assessment stage.</p>	

7.4 Natural Fish and Shellfish

7.4.1 In the Scoping Report ICOL stated that they considered that, except for the impact from piling, all the likely impacts of the Revised Development on Natural Fish and Shellfish, will be less than those assessed for the Original Development and therefore should be scoped out of the EIA Report due to the following:

- Changes in the revised design envelope
- Baseline data remaining valid
- No material change to data collection
- No material change to assessment best practice
- No significant effects concluded in the Original Development ES

Scoping Question	Question
8.2.9. (Page 155)	Are you satisfied that the existing fish and shellfish baseline and proposed updates to that baseline are appropriate to the potential level of impact from this proposed development?
<p>MSS agreed, in the majority of cases, that the existing fish and shellfish baseline and proposed updates are appropriate to the potential level of impact from the proposed development. The exception is in relation to diadromous fish. The main points raised were:</p> <p>MSS provided information on recently published work that provided more evidence</p>	

on:

- Adult salmon routes to the coast during migration (Godfrey et al., 2014 and 2015)
- Coastal migration of salmon smolts (Lothian et al., 2017)
- The importance of geomagnetic navigation post-smolts in migrating to sea feeding grounds and by returning adult salmon in homing to their natal rivers (Putman et al., 2013 and Putman et al., 2014)
- The timing of salmon smolt movement across Scotland (Malcolm et al., 2015)

Godfrey, JD Stewart, DC Middlemas, SJ and Armstrong, JD (2015) Depth use and migratory behaviour of homing Atlantic salmon (*Salmo salar*) in Scottish coastal waters. ICES Journal of Marine Science, 72: 568–575.

<http://icesjms.oxfordjournals.org/content/early/2014/07/16/icesjms.fsu118.full.pdf?keytype=ref&ijkey=y9lmPDRLdC04n7B>

Godfrey, JD, Stewart, DC, Middlemas SJ and Armstrong JD (2014) Depth use and movements of homing Atlantic salmon (*Salmo salar*) in Scottish coastal waters in relation to marine renewable energy development. Scottish Marine and Freshwater Science. Volume 5 Number 18

<http://www.gov.scot/Resource/0046/00466487.pdf>

Lothian AJ, Newton M, Barry, J, Walters M, Miller RC and Adams CE (2017)

Migration pathways, speed and mortality of Atlantic salmon (*Salmo salar*) smolts in a Scottish river and the near-shore coastal marine environment. Ecology of Freshwater Fish. On line

via [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1600-0633/earlyview](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1600-0633/earlyview) as an early view paper

Malcolm, IA, Millar CP and Millidine KJ (2015) Spatio-temporal variability in Scottish smolt emigration times and sizes. Scottish Marine and Freshwater Science. Volume 6 Number 2

<http://www.gov.scot/Resource/0047/00472202.pdf>.

Putman,NF, Lohmann, KJ, Putman, EM, Quinn,TP, Klimley, AP and Noakes, DLG (2013) Evidence for Geomagnetic Imprinting as a Homing Mechanism in Pacific Salmon. Current Biology 23, 312–316

[http://www.cell.com/current-biology/pdf/S0960-9822\(13\)00003-1.pdf](http://www.cell.com/current-biology/pdf/S0960-9822(13)00003-1.pdf)

Putman,NF,Scanlan,MM, Billman,EJ, O’Neil, JP, Couture, RB, Quinn, TP, Lohmann,KJ and Noakes, DLG (2014) An Inherited Magnetic Map Guides Ocean Navigation in Juvenile Pacific Salmon. Current Biology 24, 446–450

[http://www.cell.com/current-biology/pdf/S0960-9822\(14\)00018-9.pdf](http://www.cell.com/current-biology/pdf/S0960-9822(14)00018-9.pdf)

MSS note that this information provides more evidence to support the assumption from the Original Development ES that salmon are present in the Development Area. MSS consider that the Original Development ES understated the likelihood that salmon will be present and that this new evidence provides more detail regarding where the salmon are likely to be.

The 2017 EIA Regulations require that the Scottish Ministers come to a reasoned conclusion, based on up to date information, on the significant

effects of the Revised Development. As the information noted above has been published since the previous assessment the Scottish Ministers advise ICOL to consider whether it changes the outcome of the Original Development ES and, if so, carry out a further assessment. If ICOL consider no further assessment is required they must provide justification of their reasons.

The Scottish Ministers agree, with the exception of diadromous fish, that the existing fish and shellfish baseline and proposed updates are appropriate to the potential level of impact from the Revised Development.

Scoping Question	Question
8.2.9. (Page 155)	Are you satisfied that the EIA should only concentrate on those receptors which may be subject to significant effects from the proposed development?
The Scottish Ministers agree the EIA should only concentrate on those receptors which may be subject to significant effects from the Revised Development.	

Scoping Question	Question
8.2.9. (Page 155)	Are you satisfied with the receptors and potential impact proposed to be included within the impact assessment (i.e. impact of construction noise on hearing specialist)? Are you satisfied that this sufficiently covers the potential impacts on features from the proposed development?
<p>The Scottish Ministers note two potential impacts that require further consideration within the impact assessment:</p> <p><i>Impact of suspended sediment and smothering on scallops and nephrops</i></p> <p>The SFF raised the issue of the need for an assessment of the impact of suspended sediment in smothering species such as scallops and nephrops in their consultation response and during discussions at the stakeholder meetings.</p> <p>Advice from MSS noted that the possible use of gravity base structures would require significant dredging operations and lead to increased suspended solids and increased smothering impacts. MSS note that structures such as monopoles or pin piles would not be likely to have such an effect. Adult and larval scallops have a low tolerance to smothering and to increases in suspended sediment levels although adults are able to swim and may be able to escape the impacts. The behaviour and</p>	

survival of scallop larvae and their ability to settle on suitable substrate would also be affected. Adult nephrops are more tolerant to smothering and to suspended solid load increases and decreases but MSS noted that more information on larval production, larval development and juvenile nephrops behaviour is required to understand the effect on these life stages. MSS note that the dredging would also have an effect by destroying populations of nephrops and by removing sediments best suited to burrowing and that re-colonisation/recovery would be prolonged.

MSS provided advice on a suggested approach for assessing the impact of sediment on scallops and nephrops.

If gravity base foundations are to be used the Scottish Ministers advise that for fish and shellfish ecology further work to assess the impact of sediment on scallops and nephrops is carried out. The Scottish Ministers advise that the following two pieces of work be undertaken:

- **A review of literature on effects of suspended sediments to scallops and nephrops (including different life stages); and**
- **Physical process modelling of likely spatial extent of suspended sediments from activities of concern.**

These could be used to provide a comparison with the spatial extent of the scallop and nephrops fishery, identified from commercial fisheries data (e.g. Vessel Monitoring System (“VMS”) data as described by Kafas *et al* (2012) and found online at Kafas *et al* (2013). This would allow an understanding of the spatial extent of effects, if any, to scallops and nephrops and provide a context within which to consider them. If ICOL consider that there are no significant effects and scope this potential impact out of further assessment they must provide justification for this decision.

Kafas A, Jones G, Watret R, Davies I and Scott B (2012). Representation of the use of marine space by commercial fisheries in marine spatial planning. ICES CM I:23.

Kafas A, Jones G, Watret R, Davies I and Scott B (2013) 2009 - 2013 amalgamated VMS intensity layers, GIS Data. Marine Scotland, Scottish Government. doi: 10.7489/1706-1

The Scottish Ministers note that ICOL carried out a modelling assessment as part of the Original Development ES. This modelling system allowed the baseline environmental conditions to be modelled, against which the impacts and effects due to the development and any cumulative effects with the other Forth and Tay projects could be assessed. No significant effects were identified.

The Scottish Ministers advise ICOL to follow the approach suggested by MSS

and outlined above and provide an overview of the potential impact of suspended sediment and smothering on scallops and nephrops.

Particle motion

Since the Original Development ES for the Inch Cape development was produced there has been a considerable increase in the relevant literature which suggests that there is potential for impacts from acoustic particle motion on fish and invertebrates. An issue that has been raised by MSS at the scoping meetings is the need to consider potential impact of acoustic particle motion on sensitive receptors in addition to the effects of sound pressure on fish species that are sensitive to this.

There is acknowledgement that understanding of the effects from particle motion, and extent of these effects, is currently an area for further development, and there are various initiatives being progressed. MSS considers that the currently available evidence suggests that particle motion could be an important mechanism of effect on fishes and invertebrates. As the 2017 EIA Regulations require the Scottish Ministers to come to a reasoned conclusion on the significant effects on the environment of the development, based on up to date information, this information needs to be taken into account. MSS has provided a list of references.

MSS suggests that ICOL takes the following approach:

- Provide an overview of currently available information on particle motion within the vicinity of noise producing construction and operational activities, including, for example, pile driving, dredging and explosions – both within the water column and the sea bed. This should include consideration of the likely distances at which elevated levels of particle motion may be detected.
- Provide an overview of the published information on sensitive species and potential physiological and behavioural effects of particle motion.
- Give consideration to the potential effects of particle motion on species known to occur around the development site, making use of information on species distribution from the Original Development ES and information which has become available since then. Particular attention should be given to potential effects on species of commercial or conservation concern.
- Provide information on opportunities that the Revised Development may present to investigate effects of particle motion on fish and invertebrates.

The Scottish Ministers agree that the potential impact of particle motion should be assessed and suggests that ICOL follows the approach outlined by MSS.

References which may be useful (not necessarily a comprehensive listing):

Ceraulo, M., Bruintjes, R., Benson, T., Rossington, K., Farina, A. and Buscaino, G. (2016) Relationships of underwater sound pressure and particle velocity in a shipbuilding dock. In: 4th International Conference on The Effects of Noise on Aquatic Life, 10-16 July 2016, Dublin, Ireland.

Farcas, A., Thompson, P. M., & Merchant, N. D. (2016). Underwater noise modelling for environmental impact assessment. *Environmental Impact Assessment Review*, 57, 114-122.

<https://tethys.pnnl.gov/sites/default/files/publications/Farcas-et-al-2016.pdf>

Harding, H, Bruintjes, R, Radford AN Simpson SD (2016) Measurement of Hearing in the Atlantic salmon (*Salmo salar*) using Auditory Evoked Potentials, and effects of Pile Driving Playback on salmon Behaviour and Physiology *Scottish Marine and Freshwater Science Report Vol 7 No 11*

<http://www.gov.scot/Resource/0049/00497598.pdf>

Hawkins, A. and Popper, A. (2016). A Sound Approach to Assessing the Impact of Underwater Noise on Marine Fishes and Invertebrates. *ICES Journal of Marine Science*, 74(3), 635-651.

Mueller-Blenkle, C., McGregor, P.K., Gill, A.B., Andersson, M.H., Metcalfe, J., Bendall, V., Sigray, P., Wood, D.T. & Thomsen, F. (2010) Effects of Pile-driving Noise on the Behaviour of

Marine Fish. COWRIE Ref: Fish 06-08, Technical Report 31st March 2010

https://tethys.pnnl.gov/sites/default/files/publications/Mueller-Benkle_et_al_2010.pdf

Nedelec, S. L., Campbell, J., Radford, A. N., Simpson, S. D., and Merchant, N. D. 2016. Particle motion: the missing link in underwater acoustic ecology. *Methods in Ecology and Evolution*, 7, 836–842.

<http://onlinelibrary.wiley.com/doi/10.1111/2041-210X.12544/pdf>

Popper AN and Hastings MC (2009) The effects of anthropogenic sources of sound on fishes

Journal of Fish Biology (2009) 75, 455–489

<http://onlinelibrary.wiley.com/doi/10.1111/j.1095-8649.2009.02319.x/epdf>

(general review of sound and fish with useful insights on pile driving and particle motion)

Normandeau Associates, Inc. (2012). Principal authors Anthony D. Hawkins and Arthur N. Popper. Effects of Noise on Fish, Fisheries, and Invertebrates in the U.S. Atlantic and Arctic from Energy Industry Sound-Generating Activities. A Literature Synthesis for the U.S. Dept. of the Interior, Bureau of Ocean Energy Management. Contract # M11PC00031. 153 pp.

<https://tethys.pnnl.gov/sites/default/files/publications/Hawkins-and-Popper-2012.pdf>

Popper, A. N., and Hawkins, A. D. 2016. The effects of noise on aquatic life, II. Springer

Science+Business Media, New York.

Popper, A. N., Hawkins, A. D., Fay, R. R., Mann, D. A., Bartol, S., Carlson, T. J., Coombs, S., et al. 2014. Sound Exposure Guidelines. In ASA S3/SC1. 4 TR-2014 Sound Exposure Guidelines for Fishes and Sea Turtles: A Technical Report prepared by ANSI-Accredited Standards Committee S3/SC1 and registered with ANSI, pp. 33–51. Springer, New York.

Radford, CA, Montgomery, JC, Caiger P and Higgs DM (2012) Pressure and particle motion detection thresholds in fish: a re-examination of salient auditory cues in teleosts. The Journal of Experimental Biology 215, 3429-3435
<http://jeb.biologists.org/content/jexbio/215/19/3429.full.pdf>

Roberts L and Elliott M (2017) Good or bad vibrations? Impacts of anthropogenic vibration on the marine epibenthos. Science of the Total Environment 595:255-268.

Roberts, L. (2015). Behavioural responses by marine fishes and macroinvertebrates to underwater noise (Doctoral dissertation, University of Hull).
<https://hydra.hull.ac.uk/assets/hull:11515a/content>

Robinson, S.P., Lepper, P. A. and Hazelwood, R.A. (2014) Good Practice Guide for Underwater Noise Measurement. NPL (National Physical Laboratory) Good Practice Guide No. 133. <http://www.npl.co.uk/upload/pdf/gpg133-underwater-noise-measurement.pdf>

Sigray, P. and Andersson, M. (2011). Particle Motion Measured at an Operational Wind Turbine in Relation to Hearing Sensitivity in Fish. Journal of the Acoustical Society of America, 130(1), 200-207

Spiga I, Caldwell GS and Bruintjes R. (2016) Influence of Pile Driving on the Clearance Rate of the Blue Mussel, *Mytilus edulis* (L.). In: Fourth International Conference on the Effects of Noise on Aquatic Life. 2016, Dublin, Ireland: Acoustical Society of America.
http://eprint.ncl.ac.uk/file_store/production/228332/0752C651-F06C-433D-B504-A5B28F3A73BA.pdf

Thomsen, F., Gill, A., Kosecka, M., Andersson, M. H., Andre, M., Degraer, S., ... & Norro, A. (2015). MaRVEN–Environmental Impacts of Noise, Vibrations and Electromagnetic Emissions from Marine Renewable Energy. Final study report., Brussels, Belgium.

Zhang, Y, Shi F, Song J, Zhang X and Yu S (2015) Hearing characteristics of cephalopods: Modeling and environmental impact study. Integrative Zoology 10 (1) 141–151
<http://onlinelibrary.wiley.com/doi/10.1111/1749-4877.12104/full>

Scoping Question	Question
8.2.9. (Page 155)	Are you satisfied with the proposed approach to the assessment of those effects scoped into the EIA for the Revised Development?

The Scottish Ministers are satisfied with the proposed approach to the assessment of the those effects scoped into the EIA and have provided the comments above in relation to ensuring information on the impacts of a) diadromous fish, b) suspended sediment on scallops and nephrops, and c) particle motion, is up to date and has been considered.

Scoping Question	Question
8.2.9. (Page 155)	Are you satisfied that the embedded mitigation (including Licence conditions) are appropriate to the potential level of impact from this proposed development?
<p>The Scottish Ministers are satisfied with the embedded mitigation but note that further mitigation may be required if any concerns are raised in relation to the noise associated with an increase in hammer energy and that although mitigation against sound pressure will, in general, also apply to particle motion effects there may be a need for additional mitigation depending on the outcome of the assessment described above. Consideration of the new information in relation to diadromous fish will inform whether additional mitigation is required in this respect.</p>	

Scoping Question	Question
8.2.9. (Page 155)	Do you agree that the cumulative impacts on fish and shellfish should be scoped out of the EIA for the Revised Development (with the exception of piling noise effects) based on the assumptions set out and the conclusions reached in the CIA for the Original Development?
<p>The Scottish Ministers agree that the cumulative impacts on fish and shellfish can be scoped out of the EIA for the Revised Development, with the exception of piling noise effects. Depending on the outcome of the particle motion assessment there may be a need to include a cumulative impact assessment for this impact.</p> <p>The Scottish Ministers advise that the worst case scenarios for fish and shellfish for each of the Forth and Tay developments should be identified and used in the following scenario for the cumulative impact assessment:</p> <p>ICOL 2017 with</p> <ul style="list-style-type: none"> Neart na Gaoithe (whichever is the worst case scenario identified from Neart na Gaoithe 2014 as consented or Neart na Gaoithe 2017 scoping report) and 	

- **Seagreen (whichever is the worst case scenario identified from Seagreen Alpha and Bravo 2014 as consented or Seagreen 2017 scoping report)**

Scoping Question	Question
8.2.9. (Page 155)	Do you agree that there will be no LSE with respect to potential impacts from EMF and indirect effects through sediment deposition and therefore will not be considered further for HRA?
<p>SNH advised that any impacts from marine renewables on diadromous fish should now be undertaken via EIA not Habitats Regulations Appraisal (“HRA”). This is because it is not possible to determine which SAC rivers any individuals recorded at sea are coming from or returning to.</p> <p>The Scottish Ministers accept the advice provided by SNH and any effects on diadromous fish should be considered under EIA. Embedded mitigation and consent conditions that will be used in any new consent if granted will reduce the potential for impacts relating to Electromagnetic Fields (“EMF”). The research outlined in the response to the first question in this section in relation to the importance of geomagnetic navigation for salmon should however be considered in terms of EIA. Indirect effects from sediment deposition do not require further assessment for river SAC qualifying features.</p>	

Scoping Question	Question
8.2.9. (Page 155)	The HRA report will include potential impacts from barrier effects and disturbance or physical injury due to operation of the Revised Inch Cape Wind Farm and construction and operation of the Revised OfTW. There is also potential impact for direct temporary habitat disturbance from the OfTW. Do you agree that these potential impacts should be included in the HRA report?
<p>The Scottish Ministers accept the advice provided by SNH and any effects on diadromous fish should be considered under EIA. Therefore the Scottish Ministers do not require potential impacts from barrier effects and disturbance or physical injury due to operation of the Revised Inch Cape Wind Farm and construction and operation of the Revised OfTW, or the potential impact of direct temporary habitat disturbance from the OfTW to be included in the HRA report.</p>	

7.5 Marine mammals

7.5.1 **A further scoping opinion on the marine mammal aspects of the Revised Development will be issued separately.**

7.6 Ornithology

7.6.1 **A further scoping opinion on the ornithological aspects of the Revised Development will be issued separately.**

7.7 Seascape, Landscape and Visual Receptors

7.7.1 In the Scoping Report ICOL stated that they considered that due to the increase in turbine height there will be a requirement to assess the physical presence (during operation) of the WTGs, Met Masts and OSPs against the seascape and/or landscape character, landscape designations and visual amenity (this will also be assessed cumulatively with other projects). Assessment will also be required on the impact of installation vessels and related works at the landfall location for the export cable corridor. All other potential impacts will be scoped out of the Revised Development EIA.

Scoping Question	Question
9.1.8. (Page 280)	<p>Can you confirm that the 50km radius study area is appropriate for the purposes of the SLVIA?</p> <p><i>And</i></p> <p>Can you confirm that you consider the use of the same viewpoints and viewpoint photography previously agreed for the Original Development appropriate?</p>
<p>Angus Council notes that the latest SNH published guidance on visualisations recommends a radius of 45km for turbines 150m+, the guidance, however, does state that greater distances may need to be considered for the larger turbines used offshore. Angus Council recommends that an increased study area is used (a study area of 60km was confirmed by email correspondence on 12 July 2017). With an increased Zone of Theoretical Visibility ("ZTV") radius it is likely that viewpoints from the Braes of Angus may have to be included (see below).</p> <p>Angus Council agree that the same viewpoints as previously agreed are appropriate but note that given the substantial increase in blade tip height and rotor diameter, there may be a need for additional viewpoints from inland locations such as Cat Law, Dreish and the Airlie Monument. They also note that some figures are of poor resolution and on a small scale base and request that the ZTVs and viewpoints are displayed on a 50km OS base at a resolution where place names</p>	

are legible to differentiate between hub and tip visibility.

SNH note in their advice that they broadly accept the continued use of a 50km study area but that there may be sensitive visual receptors located on the border or just beyond that will need consideration.

East Lothian Council (“ELC”) have concerns that, with the increase in maximum tip height, a 50km radius study area will not be appropriate for assessing the impact of the proposals and recommend using a 60km radius study area.

Angus Council, SNH and ELC all provide comments regarding the baseline photography. Angus Council and SNH both note that new photographs will be needed where there have been changes e.g. where turbines or other new development have been erected in recent years, afforestation/deforestation or new power lines.

SNH and ELC both comment that some of the photographs will need to be retaken to represent clearer views or to adhere to SNH’s new guidelines.

ELC has had ongoing discussion with ICOL following the stakeholder meeting on 22 May 2017 and ICOL agreed to include North Berwick Law as a specific viewpoint. ICOL provided wirelines from Berwick Law, Tantallon Castle, Ravenshaugh Sands and Yellow Craig and an additional note in relation to the proposed study area for Seascape, Landscape Visual Impact Assessment (“SLVIA”). ICOL has agreed that these will be included in an appendix of the EIA Report. ELC has subsequently requested one further wireframe for a view towards Bass Rock and an assessment of the effect of night time lighting on this viewpoint. ICOL maintain a 50km study area is sufficient and proportionate to assess the potential significant effects from the Revised Development.

The Scottish Ministers advise the following:

- **As the turbine height in the Revised Development are larger than any that have been considered previously the Scottish Ministers consider that using a 50km radius study area with the addition of potentially sensitive visual receptors located outside this will ensure that areas where there could be a significant effect will be taken into account.**
- **The additional potentially sensitive visual receptors should be as agreed with the relevant local authorities. The Scottish Ministers agree with the inclusion of wirelines from Berwick Law, Tantallon Castle, Ravenshaugh Sands and Yellow Craig and recommend that the additional viewpoint towards Bass Rock as suggested by ELC is included.**

- **That ICOL discuss with Angus Council the inclusion of viewpoints for Cat Law, Dreish and Airlie Monument.**
- **That ICOL retake photographs where stakeholders have recommended that this should be done to represent clearer views or to adhere to SNH's new guidelines.**

Scoping Question	Question
9.1.8. (Page 280)	Are you happy with the proposed methodology and approach to conducting the SLVIA?
<p>Angus Council note they are generally content but state that the specific comments they made in relation to the assessment in Original Development ES will require to be addressed. The comments received previously include Angus Council's opinion that standard guidance had not been followed and that more clarity on the rationale for the sensitivity assessment was required. For the Revised Development Angus Council note that lighting will be part of the assessment and request that lighting scenarios be compared with the brightness of lighting which currently exists on telecommunication masts within the Sidlaws.</p> <p>ELC provide detailed comments on the proposed methodology in their response and note that they are happy with the proposed methodology and approach to conducting the SLVIA provided additional information with regard to impact on onshore works are included and the viewpoints from East Lothian are not scoped out and the assessment of night time impact is included.</p> <p>SNH raise concerns in their advice that the wind farm design is contrary to SNH guidance and provide a list of issues that will need addressing for the revised submission. They note that cumulative effects of the design, particularly for ICOL in combination with the Neart na Gaoithe development, will need to be taken into consideration. SNH note that the turbines proposed by ICOL are considerably larger than any others that SNH has considered to date and also state that care will need to be taken in proposing such large-scale turbines so close to sensitive landscape and coastal receptors. SNH provide advice on a range of information which may best support and explain the design evolution for ICOL and the Scottish Ministers recommend that ICOL take this advice into account when drafting the Revised Development EIA Report.</p> <p>The Scottish Ministers:</p> <ul style="list-style-type: none"> • Agree with the summary of potential effects and whether they should be scoped in or out as listed in Table 9-5 and 9-6 but note that the assessment should include additional viewpoints (see above) 	

- **Advise ICOL provide a clear explanation of the approach being taken to the wind farm design and the choice of layout taking into account advice from SNH and comments received previously from Angus Council**
- **Advise ICOL that where the design and layout differ from SNH guidance reasons for this must be given**
- **Agree that the proposed revisions should be considered in relation to the consented development rather than the original “worst case”**
- **Agree that the baseline coastal character assessment previously undertaken by the Forth and Tay offshore wind developer’s group can be used**
- **Agree with the suggestion by SNH that a comparison of the model outputs of the increase in turbine size in appropriate increments (either as individual or composite ZTVs) with the ZTV for the 2014 consented scheme is provided to give more detailed information on the amount and range of visibility of the larger turbines**

Scoping Question	Question
9.1.8. (Page 280)	Are you satisfied with the proposed approach to the cumulative SLVIA? Are there any changes to those projects listed that you consider should be included in the cumulative SLVIA?
<p>Angus Council advise that large turbine developments in eastern Perthshire, as well as the proposed wind farm at Glen Dye should be considered as part of the cumulative effects. Angus Council note they can provide an up to date list of wind turbine development in Angus and would want to agree which developments are included within the cumulative SLVIA prior to be it being carried out. Angus Council can confirm that Dusty Drum, East Skichen and Nether Kelly can be scoped out of the SLVIA. Angus Council also raised concerns regarding the potential for vastly different sizes of WTGs in the different offshore developments, leading to unacceptable cumulative impacts. Angus Council note that they consider an acceptable proposal would be for the different developments to narrow the design envelope size and create greater consistency between developments.</p> <p>ELC consider that the SNH guidance on Assessing the cumulative impact on onshore wind energy developments (2012) would be applicable for this development. ELC consider there are wind turbines outwith the 50km ZTV that will add to the cumulative impact on views from East Lothian. ELC note that SNH recommend a maximum of 60km from a proposed site but also take into consideration that the assessment should focus on likely significant effects. On this basis ELC consider that the onshore turbines at Earls Seat in Fife and those at Crystal Rig and Aikengall in East Lothian/Scottish Borders should be included (as a</p>	

minimum) when assessing cumulative impact from East Lothian.

As noted above SNH raise concern that the lack of coherent layout design is contrary to SNH guidance. SNH note that there should be a clear statement of the design rationale, including any technical constraints which have influenced the turbine layout. SNH consider that the cumulative impacts with the existing offshore developments at Neart na Gaoithe and Seagreen would intensify and highlight that a rigorous design process is likely to reduce the potential for significant effects.

SNH recommend consideration is given to the Kincardine floating wind demonstration project in relation to sequential cumulative impacts on coastal transport routes.

The Scottish Ministers advise that the following developments should be considered in the cumulative impact assessment for SLVIA:

- **Worst case scenario of Neart na Gaoithe (2014 as consented) or Neart na Gaoithe (2017 scoping report)**
- **Worst case scenario of Seagreen Alpha and Bravo (2014 as consented) or Seagreen (2017 scoping report)**
- **Kincardine Offshore Windfarm**
- **Forthwind Offshore Windfarm (2016 consent)**
- **Forthwind Offshore Wind Demonstration Project**
- **Onshore wind farms as advised by Local Authorities**

7.8 Archaeology and Cultural Heritage

7.8.1 In the Scoping Report ICOL stated that they considered that for all but damage to, or removal of, heritage features resulting from direct physical impacts during the construction phase of the wind farm and Revised OfTW, and setting changes during the operation phase of the wind farm, the likely impacts from the Revised Development will be less than those assessed for the Original Development and therefore should be scoped out of the EIA Report due to the following:

- Changes in the revised design envelope
- Baseline data remaining valid
- No material change to data collection
- No material change to assessment best practice
- No significant effects concluded in the Original Development ES

Scoping Question	Question
9.2.8. (Page 301)	Do you agree that the existing data, supplemented with the updated UK Hydrographic Office, Historic Environment Scotland and Historic Environment Records datasets and geophysical survey work, are sufficient to describe the baseline environment in relation to the physical impacts from the Revised Development?
<p>Historic Environment Scotland (“HES”) note that there has been a substantive review of historic environment baseline data and are content that this is sufficient to underpin the forthcoming assessment.</p> <p>The Scottish Ministers agree that there are sufficient data to describe the baseline environment in relation to the physical impacts to archaeology and cultural heritage from the Revised Development.</p>	

Scoping Question	Question
9.2.8. (Page 301)	Do you agree that, in all cases, the assessment scenario previously applied in conducting the Original Development EIA represents the worst case when compared to the Revised Development?
<p>The Scottish Ministers agree that the assessment scenario previously applied in conducting the Original Development EIA represents the worst case when compared to the Revised Development.</p>	

Scoping Question	Question
9.2.8. (Page 301)	Do you agree that the embedded mitigation, and the proposed use of consent conditions, described provides a suitable means for managing and mitigating the potential effects of the Revised Development on archaeology and cultural heritage receptors?
<p>HES welcome the proposal to ensure that appropriate mitigation is embedded into the revised scheme. As part of this, HES would highlight the requirement for the preparation of a project specific Written Scheme of Investigation (“WSI”) with a Protocol for Archaeology Discoveries (“PAD”).</p> <p>The Scottish Ministers agree that the embedded mitigation and use of consent conditions as described provide a suitable means of managing and mitigating the potential effects of the Revised Development on archaeology and cultural heritage receptors. The Scottish Ministers agree a project</p>	

specific WSI with a PAD should be prepared.

Scoping Question	Question
9.2.8. (Page 301)	Do you agree, with the embedded mitigation in place, that the assessment of impacts in relation to the damage to or removal of heritage features resulting from direct physical impacts from the wind farm and export cable route can be scoped out of the Revised Development EIA?
The Scottish Ministers agree that, with the embedded mitigation in place, the assessment of impacts in relation to the damage to, or removal of, heritage features resulting from direct physical impacts from the wind farm and export cable route can be scoped out of the Revised Development EIA.	

Scoping Question	Question
9.2.8. (Page 301)	Do you agree that the EIA should only focus on the setting impacts from the previously assessed receptors and any further archaeology and cultural heritage receptors associated with the additional visibility from the increase in turbine height?
The Scottish Ministers agree the EIA should focus only on the setting impacts from the previously assessed receptors and any further archaeology and cultural heritage receptors associated with the additional visibility from the increase in turbine height.	

Scoping Question	Question
9.2.8. (Page 301)	Do you agree that cumulative impacts on archaeology and cultural heritage receptors should be scoped out of the EIA for the Revised Development, for all elements other than setting impacts?
The Scottish Ministers agree that cumulative impacts on archaeology and cultural heritage receptors should be scoped out of the EIA for the Revised Development, for all elements other than setting impacts.	

Scoping Question	Question
9.2.8. (Page 301)	The impacts on Setting will be assessed using Managing Change in Historic Environment: Setting (HES 2016) as

	guidance and following the same approach as the previous assessment for the Original Development EIA. Do you agree that this is the appropriate approach to take?
<p>Angus Council agree with the use of this guidance but refer back to their response to the Original Development EIA which noted that they were of the opinion that the impacts on the setting of the Bell Rock Lighthouse and Ladyloan Signal tower required further consideration.</p> <p>HES recommend cumulative impacts are carefully considered and provided consulting Managing Change guidance note 2016. HES also recommended that particular attention is paid to Bell Rock Lighthouse as part of the EIA Report and that the assessment is supported by visualisations.</p> <p>https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=80b7c0a0-584b-4625-b1fd-a60b009c2549</p> <p>The Scottish Ministers agree that the impacts on setting should be assessed using Managing Change in Historic Environment: Setting (HES 2016) and other guidance as recommended by Historic Environment Scotland. The Scottish Ministers agree that the same approach as the previous assessment for the Original Development EIA should be followed. The Scottish Ministers note the concerns of Angus Council and HES with respect to Bell Rock Lighthouse and Ladyloan Signal tower and recommend that ICOL continue discussions with appropriate stakeholders with regard to setting changes (as outlined in Table 9-22).</p>	

7.9 Commercial Fisheries

7.9.1 In the Scoping Report ICOL stated that they concluded that the likely impacts on Commercial Fisheries for the majority of impacts from the Revised Development will be less than those assessed for the Original Development and will be scoped out of the EIA Report due to the following:

- Changes in the revised design envelope
- Baseline data remaining valid
- No material change to data collection
- No material change to assessment best practice
- No significant effects concluded in the Original Development ES

7.9.2 As there is a requirement to review the most recent landings data, impacts on both the Development Area and Revised Export Cable Corridor during Construction and Operation will be considered in the Revised Development for the following:

- Temporary loss or restricted access to fishing grounds (construction and operation)
- Increased steaming times to fishing grounds (construction and operation)
- Displacement of fishing vessels into other areas (construction and operation)
- Complete loss or restricted access to fishing grounds (operation only)

Scoping Question	Question
9.3.8. (Page 346)	Are you satisfied that the EIA should only concentrate on those receptors which may be subject to significant effects from the proposed development?
<p>The Scottish Fishermen’s Federation (“SFF”) agreed that only those receptors which may be subject to significant effects from the Revised Development should be considered within the EIA as long as the points raised in their response were taken into account. The main points they raised are noted below in response to the third question.</p> <p>The Scottish Ministers agree that the EIA should only concentrate on those receptors which may be subject to significant effects from the Revised Development. The Scottish Ministers recommend that ICOL consider in detail the points raised by SFF.</p>	

Scoping Question	Question
9.3.8. (Page 346)	Are you satisfied with the proposal to update the commercial fish baseline?
<p>SFF noted they were satisfied with the proposal to update the commercial fish baseline and advise the inclusion of data from the UK Fishermen’s Information Mapping project (“UKFIM”) database at the Crown Estate and any relevant data from Scotmap. SFF note that the longer the timeline for the data the better and particularly recommend inclusion of 7-10 years of data for scallops to take account of fluctuations in the population. SFF also stress the importance of getting validation of the data from the fishing industry, this could potentially be done through the Commercial Fish Working Groups.</p> <p>MSS provided a series of references that could be used to update the baseline data:</p>	

- Kafas A, McLay A, Chimienti M, Scott BE, Davies I, and Gubbins M (2017) ScotMap: Participatory mapping of inshore fishing activity to inform marine spatial planning in Scotland. Marine Policy, 79.
- Plotter data from the Crown Estate's FIM database
- "Evidence Gathering in Support of Sustainable Scottish Inshore Fisheries" <http://www.masts.ac.uk/research/sustainable-scottish-inshore-fisheries/>
- "Scottish Inshore Fisheries Integrated Data System ("SIFIDS")" <http://www.masts.ac.uk/research/emff-sifids-project/>
- Interpolated VMS fishing tracks can assist with direction of fishing. MSS has a paper in preparation by a former student placement that might be useful. Available on request.

The Scottish Ministers advise that the proposal to update the commercial fish baseline is acceptable and advise ICOL to take account of the detail of SFF's comments and the data sources listed above.

The Scottish Ministers advise ICOL to obtain validation of the data from the fishing industry and to discuss with the SFF how this could best be done.

Scoping Question	Question
9.3.8. (Page 346)	Are you satisfied with the receptors and potential impact proposed to be included within the impact assessment? Are you satisfied that this sufficiently covers the potential impacts on features from the proposed development?
<p>SFF raise a series of points where they disagree that all relevant receptors have been included and also where they disagree with the potential impact proposed. The main points have been summarised below but the Scottish Ministers recommend ICOL carefully consider the detail of the SFF response.</p> <ul style="list-style-type: none"> • The effect of smothering by suspended sediment has not been fully assessed for either nephrops or scallops • Further analysis of the new design being proposed will be required to ascertain that temporary or permanent loss of access to fishing grounds, safety issues for fishing vessels and displacement of fishing activity is significantly less than for the original design • The SFF recommend a report prepared for the Crown Estate 'Changes to fishing practices around the UK as a result of the development of offshore windfarms' to provide information that will be relevant to the use of the Development Area with regard to fishing • SFF note that, based on experience from other developments, interference with fishing vessels, in terms of vessel movements and queuing, will be a bigger issue that developers claim and should be scoped in • The SFF want to be consulted on the Construction Management Plan, 	

particularly in relation to defined navigation routes

- The SFF do not accept that any of the worst case scenarios are Negligible or Minor or Moderate and want all the potential impacts scoped in until the baseline and projections can be shown to back up the claim
- The SFF also note that the export cable corridor was decided without considering fishing activity and recommend a rerouting exercise takes place or that this is scoped in and that the affected local industry is consulted properly

SFF do not agree with what has been scoped out of Table 9-29. Working through the impacts listed as scoped out in Table 9-29 of the scoping report, the Scottish Ministers suggest the following:

CONSTRUCTION (& DECOMMISSIONING) PHASE

Direct temporary habitat disturbance:

The Scottish Ministers note that the total area disturbed is 1.3km² less than the Original Development ES, which equates to a 23% reduction in total disturbed area. The Scottish Ministers consider that the Original Development ES provided sufficient evidence for scoping out impacts which were considered not to be significant. The Scottish Ministers advise ICOL to discuss with SFF which data the SFF consider inadequate and update the baseline accordingly.

Indirect disturbance as a result of sediment deposition

Temporary increases in suspended sediment concentrations

The Scottish Ministers have suggested an approach for assessing the potential impact of smothering of nephrops and scallops by suspended sediment in the Natural Fish and Shellfish section.

Barrier effects, disturbance or physical injury associated with construction noise

The Scottish Ministers have outlined an approach to assessing the impact of particle motion in the Natural Fish and Shellfish section. The impacts on hearing specialists will be scoped in and assessed for the Natural Fish and Shellfish receptor. The Scottish Ministers consider that the effects associated with construction noise are therefore dealt with appropriately.

Safety issues for fishing vessels, obstacles on the seabed ***Obstacles on the seabed***

Interference to fishing activities arising from navigational conflict

The Scottish Ministers consider that these should be scoped out of the Commercial Fisheries section as they should be included in the Shipping and Navigation section. The Scottish Ministers recommend that ICOL have ongoing consultation with the SFF to ensure their concerns are taken into account in Vessel Management Plans and other relevant documentation. The Scottish Ministers advise ICOL to discuss with SFF what their specific concerns are and ensure these are captured by the Navigational Risk Assessment.

OPERATION AND MAINTENANCE PHASE

Long term loss of original habitat

SFF consider this impact should be scoped in as evidence from other developments indicates that this impact is significant (see Crown Estate reference above for more information). The Scottish Ministers advise ICOL to consider the reference and have further discussion with SFF as to whether this changes the effect of the potential impact.

Behavioural responses to EMF associated with cabling

Disturbance or physical injury associated with operational noise

Effect on fish and shellfish resources due to reduced fishing effort within Development Area

Creation of new habitat due to presence of project specific infrastructure

This was discussed further with SFF (telephone call 20 July 2017 and follow up email of 25 July 2017) and SFF agreed these could be scoped out as outlined in Table 9-29. SFF raised some concern about the effect of development impacts on fishing and suggested that to fully assess the effect on fish and shellfish resources there would need to be monitoring of all catches. The Scottish Ministers referred back to the Original ES and note that this potential impact is related to the effect on the fish and shellfish resource if there were a change in fishing pressure i.e. if there was a reduction in fishing activity within the Development Area due to the presence of infrastructure there may be an impact on existing fish and shellfish resources. The Original ES suggested this would be negligible/minor (positive). The impact on the activity of fishing rather than the resource is scoped in (Complete or restricted access to fishing grounds) which would take into account SFF's concerns.

Temporary habitat disturbance via O&M activities

This was discussed further with SFF (telephone call 20 July 2017 and follow up email of 25 July 2017) and SFF noted that as long as the effects were temporary then this effect could be scoped out. The Scottish Ministers advise ICOL to have ongoing discussion with SFF to confirm the temporary nature of the disturbance.

***Safety issues for fishing vessels, obstacles on the seabed
Interference to fishing activities arising from navigational conflict***

As discussed above for construction. SFF noted that there had been issues at the Beatrice Offshore Wind Limited site in relation to vessels ‘queuing’ while waiting to undertake work on the site. The Scottish Ministers agree this effect can be scoped out and advise ICOL to discuss with SFF how this issue can be dealt with in the Shipping and Navigation section.

The Scottish Ministers agree that temporary or complete loss, or restricted access to fishing grounds should be scoped in as outlined in Table 9-29. The Scottish Ministers recommend that ICOL use the Crown Estate document as suggested by SFF to inform the scope of work on this. The Scottish Ministers agree that displacement of fishing activity and increased steaming times to fishing grounds should be scoped in as outlined in Table 9-29.

The Scottish Ministers note that for the export cable the effects on anchoring operations and snagging risk for commercial fishing vessels are scoped in to the Revised Development EIA for the Shipping and Navigation section. This potential impact is anticipated to have no worse an impact than the Original Development but is scoped in to take into account that the baseline AIS data may change. ICOL should note the concerns of the SFF and ensure that they are consulted.

Scoping Question	Question
9.3.8. (Page 346)	Are you satisfied that the embedded mitigation and the proposed use of Consent conditions are appropriate to the potential level of impact from this Revised Development?
SFF provided detailed information on the relevance of the consent conditions but note that they do not accept that the potential impacts on fisheries would be less in the Revised Development and would expect to see a full and proper assessment done. SFF notes the importance of consulting SFF and ensuring that mitigation measures are agreed. The SFF notes were some conditions require further detail to	

ensure all relevant information is included. The SFF notes that the Fisheries Liaison Officer must fully understand and engage in the responsibilities outlined for their role. SFF also raises concerns regarding the route of the offshore transmission works.

The Scottish Ministers advise ICOL to consider the detail of the SFF response and work with the SFF, other relevant stakeholders and the Scottish Ministers to agree the text of the consent conditions. The Scottish Ministers note that, where possible, agreeing e.g. the Fisheries Management and Mitigation Plan prior to submitting the application will save time post consent.

Scoping Question	Question
9.3.8. (Page 346)	Do you agree on the projects proposed to be included in the cumulative impact assessment?
<p>SFF recommend including the 2B Energy Development (included as Forthwind Offshore Wind Demonstration Array – Phase 1 and 2) and the Levenmouth demonstration turbine (now known as Offshore Renewable Energy Catapult). SFF want the displacement effect of other projects around the UK on the nomadic scallop fleet to be taken into account along with the impact of East coast projects on the wider squid fleet. The SFF note that the different restrictions imposed by Forth Ports which impact on the space needed for fishing activity need to be included.</p> <p>The Scottish Ministers recommend the following projects are included in the cumulative impact assessment:</p> <ul style="list-style-type: none"> • Worst case scenario of Neart na Gaoithe (2014 as consented) or Neart na Gaoithe (2017 scoping report) • Worst case scenario of Seagreen Alpha and Bravo (2014 as consented) or Seagreen (2017 scoping report) • Kincardine Offshore Windfarm • Forthwind Offshore Windfarm (2016 consent) • Forthwind Offshore Wind Demonstration Project • Offshore Renewable Energy Catapult Levenmouth <p>In addition the Scottish Ministers agree, with some additions, with the list of projects provided by ICOL for assessing the cumulative impact on the nomadic scallop fleet. The Scottish Ministers note that these projects may be relevant for assessment the cumulative impact on the squid fishery.</p> <ul style="list-style-type: none"> • European Offshore Wind Deployment Centre • Hywind Scotland Pilot Park 	

- **Blyth Offshore Windfarm – 2 turbines**
- **Blyth Offshore Wind Demonstration Project – 15 turbines**
- **Beatrice Offshore Windfarm**
- **Moray Offshore East Development**
- **Moray East Offshore Windfarm – Alternative Design**
- **Moray Firth Offshore Wind Western Development Area**
- **Rampion Offshore Windfarm**

Scoping Question	Question
9.3.8. (Page 346)	Do you agree that cumulative impacts on Commercial Fisheries should be scoped out of EIA for the Revised Development (with the exception of loss or restricted access to fishing grounds, increased steaming times to fishing grounds and displacement of fishing vessels into other areas) based on the assumptions set out and the conclusions reached in the CIA for the Original Development?
The Scottish Ministers agree that the cumulative impacts on Commercial Fisheries of loss or restricted access to fishing grounds, increased steaming times to fishing grounds and displacement of fishing vessels into other areas should be scoped in and other impacts scoped out.	

7.10 Shipping and Navigation

7.10.1 In the Scoping Report ICOL note that Marine Guidance Note (“MGN”) 371 has been updated to MGN 543. A full assessment and comparison against MGN 543 has not been undertaken but there will be a post consent requirement that the Revised Development meets the design requirements set out in MGN 543. Given this change and the potential variations in the AIS baseline since the shipping traffic surveys in 2012 it is proposed that a revised shipping and navigation assessment be included in the Revised Development EIA for the following impacts:

- During operation and maintenance of the Revised Inch Cape Wind Farm: Vessel to vessel collision risk and allision risk for commercial vessels, commercial fishing vessels and recreational vessels
- During operation and maintenance of the Revised OfTW: Effects on anchoring for commercial vessels

7.10.2 For all other impacts ICOL stated that they considered that the likely impacts on Shipping and Navigation for the Revised Development will be less than those assessed for the Original Development and therefore

should be scoped out of the EIA Report due to the following:

- Changes in the revised design envelope
- Baseline data remaining valid
- No material change to data collection
- No material change to assessment best practice
- No significant effects concluded in the Original Development ES

Scoping Question	Question
9.4.8. (Page 368)	Does the shipping baseline assessment require updating within marine traffic survey data (in line with MGN 543)?
<p>The Maritime Coastguard Agency ("MCA") noted that there is a requirement to complete traffic studies within 24 months prior to the EIA Report submission and that they would expect a new traffic study to be undertaken. The MCA would welcome discussions with ICOL to agree the survey data requirements. The Royal Yachting Association ("RYA") also raised this issue but noted that for recreational vessels the new edition of the UK Coastal Atlas of Recreational Boating uses Automatic Identification System ("AIS") to produce heat maps of recreational vessel activity. The RYA consider that this data source should provide a better update of recreational traffic than a further 28 days of AIS data collection. ICOL note that none of the registered cruising routes or usage data outlined in the RYA atlas interact directly with the Revised Development area.</p> <p>The MCA note that a Navigational Risk Assessment update will need to be submitted in accordance with MGN 543 and the MCA Methodology for Assessing the Marine Navigational Safety & Emergency Response Risks of Offshore Renewable Energy Installations. ICOL have identified that a Formal Safety Assessment ("FSA") will be carried out in line with the International Maritime Organization FSA process.</p> <p>The MCA also note that particular attention should be paid to cabling routes and, where appropriate, burial depths for which a Burial Protection Index study should be completed and subject to the traffic volumes, an anchor penetration study may be necessary.</p> <p>The Scottish Ministers agree that the shipping baseline assessment requires updating with marine traffic survey data (in line with MGN 543) but recommend that ICOL have on-going discussions with the MCA and the RYA to agree these requirements. The Scottish Ministers recommend that ICOL discuss and agree the specific requirements for an updated Navigational Risk Assessment with the MCA.</p>	

Scoping Question	Question
9.4.8. (Page 368)	If updating is required do you agree that, given the level of data obtained for the Original Development EIA, validation against AIS data only is an acceptable approach?
<p>The MCA provide a range of services that will need to be taken into account given the implications of the site size and location. These include Search and Rescue resources and the Emergency Response Co-operation Plans. Attention should be paid to the level of radar surveillance, AIS and shore-based VHF radio coverage and given due consideration for appropriate mitigation such as radar, AIS received and in-field, Marine Band VHF radio communications aerial(s) (VHF voice with Digital Selective Calling (DSC)) that can cover entire wind farm sites and their surrounding areas.</p> <p>As noted above the RYA highlight that for recreational vessels the new edition of the UK Coastal Atlas of Recreational Boating uses AIS to produce heat maps of recreational vessel activity. The RYA consider that this data source should provide a better update of recreational traffic than a further 28 days of AIS data collection. ICOL note that none of the registered cruising routes or usage data outlined in the atlas interact directly with the Revised Development area.</p> <p>The Scottish Ministers agree that validation against AIS data only will likely be an acceptable approach in most cases but recommend that ICOL have on-going discussions with the MCA and the RYA to agree whether some data will require alternative methods of validation.</p>	

Scoping Question	Question
9.4.8. (Page 368)	Are you satisfied that the NRA/EIA should only concentrate on those receptors which may be subject to significant effects from the proposed development?
<p>The RYA agree that the Navigational Risk Assessment (“NRA”)/EIA should only concentrate on those receptors which may be subject to significant effects from the Revised Development.</p> <p>The Scottish Ministers agree with this approach but recommend that ICOL confirm with the MCA which receptors should be included in the Navigational Risk Assessment to ensure the requirements the MCA outline in their consultation response are taken into account.</p>	

Scoping Question	Question
9.4.8. (Page 368)	Are you satisfied with the receptors and potential impacts proposed to be included within the impact assessment? Are you satisfied that this sufficiently covers the potentially significant impacts from the proposed development?
<p>The SFF comment that there is a need for anchorages/laybys for construction vessels, particularly tugs with barges to be scoped in owing to their possible impacts on static fishing gears inshore of the development. The SFF would also expect any potential impacts on Search and Rescue missions to be taken into account.</p> <p>The SFF state there should be industry involvement in agreeing the Construction Method Statement, Development Specification and Layout Plan, Vessel Management Plan and Navigational Safety Plan.</p> <p>The Northern Lighthouse Board confirm that they are content with the topics to be included in the EIA Report.</p> <p>The RYA agree with the impacts scoped in or out from the Revised Development EIA Report and that the appropriate receptors and impacts have been included.</p> <p>The MCA provide a list of the possible impact on navigational issues from a range of activities and as noted above.</p> <p>The Scottish Ministers recommend that ICOL confirm with the MCA which receptors should be included in the Navigational Risk Assessment to ensure the requirements the MCA outline in their consultation response are taken into account.</p> <p>The Scottish Ministers recommend that ICOL note the concerns of the SFF regarding anchorages and laybys for construction vessels and consider how to take this into account in the Vessel Management Plan. The Scottish Ministers recommend that ICOL continue to consult SFF to ensure this issue is covered by the Vessel Management Plan.</p>	

Scoping Question	Question
9.4.8. (Page 368)	Are you satisfied that the embedded mitigation (including Licence conditions) are appropriate to the potential level of impact from this proposed development?
The Scottish Ministers agree that the embedded mitigation (including licence	

conditions) are appropriate to the potential level of impact from the Revised Development.

7.11 Socio Economics

7.11.1 In the Scoping Report ICOL stated that they considered that only impacts on the construction employment and the wider economy will be assessed in the Revised Development EIA , both at a project level and cumulatively with those projects identified below:

- Neart na Gaoithe Offshore Windfarm
- Seagreen Alpha and Bravo Offshore Windfarms
- Beatrice Offshore Windfarm
- Moray Offshore East Development
- Moray West Offshore Windfarm
- European Offshore Wind Deployment Centre
- Hywind Scotland Pilot Park
- Kincardine Offshore Windfarm

7.11.2 All other impacts will be scoped out of the EIA Report due to the following:

- Changes in the revised design envelope
- Baseline data remaining valid
- No material change to data collection
- No material change to assessment best practice
- No significant effects concluded in the Original Development ES

Scoping Question	Question
9.5.7. (Page 380)	Are you satisfied that the review of new data detailed above is sufficient to conclude that there has been no material change in the socio-economic activity in the area since the submission of the Original Development ES?
<p>RYA Scotland notes that the Scottish Marine Recreation and Tourism Survey was published in 2015 and contains mapped information about a wide range of recreational activities. A strategic framework for Scotland's Marine Tourism Sector has also been published.</p> <p>The Scottish Ministers agree with the RYA that the survey and framework mentioned above should be consulted to confirm the results do not result in a material change in the socio-economic activity. Subject to this confirmation, The Scottish Ministers agree that the review of new data as outlined in the Scoping Report is sufficient to conclude there has been no material change in</p>	

the socio-economic activity in the area since the submission of the Original Development ES.

Scoping Question	Question
9.5.7. (Page 380)	Are you satisfied with the receptors and potential impacts to be included within the impact assessment? Are you satisfied that this sufficiently covers the potentially significant impacts from the proposed development?
<p>RYA Scotland note that it is unclear whether there will be significant cumulative impact of a series of hazards from UK and foreign recreational sailors passing up the east coast of Scotland on passage for the Northern Isles or Caledonian Canal. Certain areas may require increased watchkeeping effort, such as the Kincardine Floating Wind Scheme and the Aberdeen Offshore Wind Farm. The Scottish Ministers note that no evidence is provided to indicate that this is likely to be a significant effect.</p> <p>The Scottish Ministers agree with the receptors and potential impacts to be included within the impact assessment and are satisfied that this covers the potentially significant impacts from the Revised Development.</p>	

7.12 Other human considerations (Other Activities and Marine Users)

7.12.1 In the Scoping Report ICOL stated that they concluded that the likely impacts on Other Human Considerations from the Revised Development will be less than those assessed for the Original Development and will be scoped out of the EIA Report due to the following:

- Changes in the revised design envelope
- Baseline data remaining valid
- No material change to assessment best practice
- No significant effects concluded in the Original Development ES

Scoping Question	Question
9.6.8. (Page 403)	Are you satisfied that the review of baseline data is sufficient to confirm that there has been no significant change in the baselines associated with Other Activities as reported in the EIA for the Original Development?
<p>As discussed in the shipping and navigation section the RYA Scotland note that since the original scheme was consented a new edition of the UK Coastal Atlas of Recreational Boating has been published by RYA. This revised atlas uses AIS</p>	

tracks to produce heat maps of recreational vessel activity. ICOL note that none of the registered cruising routes or usage data outlined in the atlas interact directly with the Revised Development area.

Sport Scotland recommend ICOL to consult with relevant local clubs and sports groups, and with relevant Scottish Governing Bodies of Sport (“SGBs”) for both onshore and offshore interests. It will also be important for land-based elements of the proposal not to negatively impact on access rights.

The Scottish Ministers recommend ICOL continue to consult with relevant stakeholders as suggested by SportScotland. The Scottish Ministers are satisfied that there is unlikely to have been a significant change in the baseline associated with Other Activities as reported in the Original Development ES.

Scoping Question	Question
9.6.8. (Page 403)	Are you satisfied that the receptor groups detailed within the Other Activities chapter be scoped out of the EIA for the Revised Development based on the reduced design envelope, the use of all embedded mitigation measures set out in the Original Development ES and in the consents for the Original Development and the continued validity of the original baseline data?
<p>The RYA Scotland state that Notice to Mariners, while important, are not a sufficient way of publicising developments to recreational sailors. The RYA note work is progressing to deliver a new publication of Sailing Directions and Anchorages for the East Coast of Scotland to address these issues, which will complement the existing series of Clyde Cruising Club publications. The RYA note that having details of the Revised Development in this publication or subsequent updates would be useful additional mitigation.</p> <p>The Scottish Ministers agree that the receptor groups detailed within the Other Activities chapter can be scoped out of the EIA for the Revised Development based on the reduced design envelope. The Scottish Ministers agree with the use of all embedded mitigation measures set out in the Original Development ES and in the consents for the Original Development but recommend ICOL investigate getting details of the development into the new Sailing Directions and Anchorages publication as mentioned above. The Scottish Ministers agree that the original baseline data remains valid.</p>	

7.13 Aviation

7.13.1 In the Scoping Report ICOL provide detail on the potential effects on civil and military aviation receptors resulting from the construction, operation and maintenance and decommissioning of the Revised Development. This includes consideration of:

- Proximity to and operations of civil airports
- Types of radar operating over the Revised Development
- Civil aviation agencies including NATS (main en-route air navigation provider in the UK)
- Helicopter operations
- MoD operations of relevance.

7.13.2 The scoping report scopes in the effect on the National Air Traffic Services (“NATS”) (En Route) Public Limited Company (“NERL”) Radar, the Air Traffic Control (“ATC”) Radar and the air defence radar at Brizlee Wood during operation and maintenance for cumulative impact assessment. All other potential effects are scoped out.

7.13.3 There were no specific scoping questions within the scoping report. In terms of consultee responses the Defence Infrastructure Organisation were content that military aviation matters are suitably addressed. The Ministry of Defence (“MOD”) have not conducted a new technical and operational assessment of the revised development, and as such, are unable to comment on whether conditions 20 and 21 of the original consent would be applicable to any revised development. This means further engagement will be required between ICOL and the MOD. Edinburgh Airport has no objections to this proposal. NATS Safeguarding stated the development did not conflict with their safeguarding criteria and they had no safeguarding objection to the Revised Development.

7.13.4 The Scottish Ministers agree with the approach outlined in the scoping report and agree that ongoing consultation will be required.

8 Marine Planning

8.1 Background

- 8.1.1 Offshore Renewable Energy development should be in accordance with the UK Marine Policy Statement and Scotland's National Marine Plan ("NMP").
- 8.1.2 **The UK Marine Policy Statement 2011** – The UK Administrations share a common vision of having clean, healthy, safe, productive and biologically diverse oceans and seas. Joint adoption of a UK-wide Marine Policy Statement provides a consistent high-level policy context for the development of marine plans across the UK to achieve this vision. It also sets out the interrelationship between marine and terrestrial planning regimes. It requires that when the Scottish Ministers make decisions that affect, or might affect, the marine area they must do so in accordance with the Statement.
- 8.1.3 **Scotland's NMP 2015** – Developed in accordance with the Marine (Scotland) Act 2010 and the Marine and Coastal Access Act 2009 (as amended), the NMP provides a comprehensive statutory planning framework for all activities out to 200 nautical miles. This includes policies for the sustainable management of a wide range of marine industries. The Scottish Ministers must make authorization and enforcement decisions, or any other decision that affects the marine environment, in accordance with the NMP. The NMP sets out a presumption in favour of sustainable development and use of the marine environment when consistent with the policies and objectives of the Plan.

9 Land Use Planning

9.1 Background

- 9.1.1 The Scottish Government's planning policies are set out in the National Planning Framework, Scottish Planning Policy, Designing Places and Circulars.
- 9.1.2 The National Planning Framework is the Scottish Government's Strategy for Scotland's long term spatial development.
- 9.1.3 Scottish Planning Policy ("SPP") is a statement of Scottish Government policy on land use planning and contains:
- The Scottish Government's view of the purpose of planning,
 - the core principles for the operation of the system and the objectives for

key parts of the system,

- statutory guidance on sustainable development and planning under Section 3E of the Planning etc. (Scotland) Act 2006,
- concise subject planning policies, including the implications for development planning and development management, and
- The Scottish Government's expectations of the intended outcomes of the planning system.

9.1.4 Other land use planning documents which may be relevant to this proposal include:

- Aberdeenshire Local Development Plan 2016
- Angus Council Renewable Energy Implementation Guide
- Angus Council Strategic Landscape Capacity Assessment for Wind Energy in Angus
- Angus Local Development Plan
- Angus windfarms – landscape capacity and cumulative impact study
- Dundee Local Development Plan
- East Lothian Local Development Plan
- Fife Local Development Plan (FIFEplan)
- Fife Planning Guidance – Renewable Energy
- Fife Planning Guidance – Wind Energy
- Highland Coastal Development Strategy
- Highland Renewable Energy Strategy and Planning Guidelines
- Highland-wide Local Development Plan
- Marine Guidance Note 543 (M+F) Safety of Navigation: Offshore Renewable Energy Installations – UK Navigational Practice, Safety and Emergency Response
- MCA Methodology for Assessing the Marine Navigational Safety & Emergency Response Risks of Offshore Renewable Energy Installations
- Moray Local Development Plan
- Moray Structure Plan
- Moray Wind Energy Policy Guidance
- National Planning Framework 3
- PAN 1/2011: Planning and Noise
- PAN 1/2013: Environmental Impact Assessment
- PAN 51: Planning, Environmental Protection and Regulation (Revised 2006)
- PAN 60: Planning for Natural Heritage
- PAN 62: Radio Telecommunications
- PAN 68: Design Statements
- PAN 75: Planning for Transport
- PAN 79: Water and Drainage

- PAN 2/2011: Archaeology – Planning Process and Scheduled Monument Procedures
- Scottish Borders Local Development Plan
- Scottish Borders Planning Guidance – Visibility Mapping for Windfarm Development
- Scottish Borders Planning Guidance – Wind Energy
- Scottish Borders Renewable Energy Supplementary Guidance (Still in draft state)
- Scottish Planning Policy
- SNH Guidance – Visual Representation of wind farms 2017

10 General EIA Report Issues

10.1 Gaelic Language

- 10.1.1 Where developments are located in areas where Gaelic is spoken, Developers are encouraged to adopt best practice by publicising the project details in both English and Gaelic.

10.2 Application and EIA Report

- 10.2.1 A gap analysis template is attached at Appendix III to record the environmental concerns identified during the scoping process. This template should be completed and used to inform the preparation of the EIA Report. Please note that the EIA Report must contain all of the information specified in the scoping opinion. On submission of the application and supporting EIA Report, the Scottish Ministers, via a gatecheck process, will review the completed template in conjunction with the EIA Report to ensure this is the case. The gatecheck will also include an EIA audit. If information requested at scoping stage has not been provided in the EIA Report then the applicant will be asked to provide that information before the application can be accepted.
- 10.2.2 Please note all aspects of this scoping opinion should be considered when preparing a formal application to reduce the need to submit additional information in support of the application. The consultee comments presented in this opinion are designed to offer an opportunity to consider all material issues relating to the development proposals.
- 10.2.3 The exact nature of the work that is needed to inform the EIA may vary depending on the design choices. The EIA must address this uncertainty so that there is a clear explanation of the potential impact of each of the different scenarios. It should be noted that any changes produced after the EIA Report is submitted may require further environmental assessment and

public consultation.

- 10.2.4 In assessing the quality and suitability of applications, the Scottish Ministers will use the gap analysis and this scoping opinion in assessment of the application. In addition to scoping, applications are required to go through a gate check process. See Appendix II for further information on this. In the event of a submitted application not containing essential information, the Scottish Ministers reserves the right not to accept the application. Developers are advised not to publicise applications in the local or national press, until their application has been accepted by the Scottish Ministers.

11 Multi-Stage Regulatory Consent

- 11.1.1 The Marine Works 2017 (as amended) and The Electricity Works 2017 (as amended) both contain provisions regulating the assessment of environmental impacts. A multi-stage consent process arises where a consent procedure comprises more than one stage, one stage involving a principal decision and one or more other stages involving an implementing decision(s) within the parameters set by the principal decision. While the effects which a project may have on the environment must be identified and assessed at the time of the procedure relating to the principal decision if those effects are not identified or identifiable at the time of the principle decision, assessment must be undertaken at the subsequent stage.
- 11.1.2 The definition in The Electricity Works 2017 (as amended) is as follows (the definition in The Marine Works 2017 (as amended) provides for the same but in relation to “regulatory approvals”): *“application for multi-stage consent” means an application for approval, consent or agreement required by a condition included in an Electricity Act consent where (in terms of the condition) that approval, consent or agreement must be obtained from the Scottish Ministers before all or part of the development permitted by the Electricity Act consent may be begun*”.
- 11.1.3 A section 36 consent or marine licence granted by the Scottish Ministers for your Revised Development is likely to have several conditions attached requiring approvals etc. which fall under this definition, for example the approval of a CMS.
- 11.1.4 When making an application for multi-stage consent ICOL will require to satisfy the Scottish Ministers that no significant effects have been identified in addition to those already assessed in the EIA report. In doing so, ICOL will require to account for current (meaning at the time of application for multi-stage consent) knowledge and methods of assessment which address

the likely significant effects of the development on the environment so to enable the Scottish Ministers to reach a reasoned conclusion which is up to date.

- 11.1.5 If during the consideration of the information provided in support of an application for multi-stage consent the Scottish Ministers consider that the development may have significant environmental effects which have not previously been identified in the EIA report (perhaps due to revised construction methods or updated survey information), then information on such effects will be required. This information will fall to be dealt with as additional information under the EIA Regulations and procedures for consultation, public participation, public notice and decision notice of additional information will apply.

12 Judicial review

- 12.1.1 All decisions may be subject to judicial review. A judicial review statement should be made available to the public.

Signed

Gayle Holland

28 July 2017

Authorised by the Scottish Ministers to sign in that behalf

Appendix I: Consultee Responses

Consultee Comments relating to Inch Cape Offshore Windfarm – Revised Design Parameters

Angus Council

In response to your email of 5 May 2017 in connection with the above my Council would offer the following response.

The key considerations from the proposal in relation to impacts on Angus are:

1. Landscape impact;
2. Seascape impact
3. Visual impact;
4. Cumulative landscape
5. Cumulative seascape impact
6. Cumulative visual impact; and
7. Impact on cultural heritage.

Therefore our response is related specifically to certain topics and questions within Section 9 of the Scoping Report.

9.1.8 Scoping Questions – SLVIA

Can you confirm that the 50km radius study area is appropriate for the purposes of the SLVIA?

The maximum height of the turbines have been increased to 301m therefore the turbines would be visible over an increased distance therefore it is considered that the study area should be increased. It is noted that the latest SNH published guidance on visualisations recommends a radius of 45km for turbines 150m+. The guidance does not however state that greater distances may need to be considered for the larger turbines used offshore.

Are you happy with the proposed methodology and approach to conducting the SLVIA?

We are generally content with the proposed methodology and approach to conducting the SLVIA but this would be subject to our specific comments made in Angus Council's response to Marine Scotland in respect of the original development being addressed in the SLVIA (Paragraphs 6.13-6.19).

We note that lighting will be part of this assessment and would request that lighting

scenarios be compared with the brightness of lighting which currently exists on telecommunication masts within the Sidlaws.

Can you confirm that you consider that the use of the same viewpoints and viewpoint photography previously agreed for the original development appropriate?

The same viewpoints will continue to be relevant and it would be appropriate that they are used again. However, given the substantial increase in blade tip height and rotor diameter, we would wish to consider the need for additional viewpoints from inland locations. Figures 9-5 and 9-6 are of poor resolution and on a small scale base. To evaluate the need for additional viewpoints, we would request the ZTVs (and viewpoints) on a 50k OS base, at a resolution where place names are legible. These should differentiate between hub and tip visibility. With an increase ZTV radius it is likely that viewpoints from the Braes of Angus may have to be included. These may potentially include Cat Law, Dreish and Airlie Monument.

It is noted that baseline photography will be checked to assess changes. In particular, there is likely to be some viewpoints where turbines have been erected in recent years which would now be visible in the photography. In these circumstances, the photography will have to be retaken. This is less likely to affect coastal viewpoints.

Are you satisfied with the proposed approach to the cumulative SLVIA? Are there any changes to those projects listed that you consider should be included in the cumulative SLVIA?

With the substantial increase in height, there is the possibility that the proposed development would be more prominent from further afield thereby not only increasing visual effects but cumulative effects also. It would therefore be appropriate that large turbine developments in eastern Perthshire (constructed and consented) be included. In addition, the proposed wind farm at Glen Dye (Aberdeenshire) is likely to have cumulative effects and should be included. We would wish to agree the developments which will be included within the cumulative SLVIA prior to it be carried out. Angus Council can provide an up-to-date list of wind turbine development in Angus. These should be considered against the revised and more detailed ZTV to identify where cumulative effects are likely. Having reviewed Table 9-7 we can advise that the following developments can be scoped out of the SLVIA – Dusty Drum, East Skichen and Nether Kelly.

In relation to the cumulative assessment of the offshore developments we have concerns regarding the potential for vastly different sizes of turbines in the different off-shore developments which could lead to unacceptable cumulative impacts. It is considered that the applicants make clear their intentions with regards to the

existing consents as these design envelopes could have to form part of the cumulative assessment. It would be likely that an acceptable proposal would seek to narrow envelope size and create greater consistency between developments.

9.2.8. – Scoping Questions – Archaeology and Cultural Heritage

Do you agree that cumulative impacts on archaeology and cultural heritage receptors should be scoped out of the EIA for the Revised Development, for all elements other than setting impacts?

Angus Council considers that this is not an unreasonable approach to take given the impacts of the proposal on archaeology and cultural heritage features within the Angus Council administrative area.

The impacts on Setting will be assessed using the Managing Change in Historic Environment: Setting (HES 2016) as guidance and following the same approach as the previous assessment for the Original Development EIA. Do you agree that this is an appropriate approach to take?

We would agree that impacts on setting should be assessed using Managing Change in Historic Environment: Setting (HES 2016) as guidance however Angus Council would require our comments made in relation to impacts on the setting of the Bell Rock lighthouse and Ladyloan Signal Tower to be addressed (paragraphs 6.36-6.41). Angus Council was concerned that the existing proposal would have had a measurable impact on the setting of the Bell Rock lighthouse which was downplayed in the ES.

Dundee City Council

Thank you for your invitation to comment on the revised Scoping Report associated with development of the Inch Cape Offshore Windfarm. The framework for environmental assessment of the revised proposals laid out in the report appears satisfactory and at this time I have no other comments to make.

I trust that this is of assistance.

East Lothian Council

I refer to your request for our views on the contents of the scoping opinion for the above proposal. I have some comments on the detail of assessment of the offshore works, but would also comment on the approach to EIA with regard to the connection between assessment of offshore and onshore works.

Consideration of Onshore Works

In section 3.2.7 paragraph 65 the Scoping Report states that the Onshore Transmission Works (OnTW) are not considered in detail within this Scoping Report as planning permission is being separately sought for these works. It is the Council's view that both onshore and offshore works are an integral part of the main project, which consists of the offshore Inch Cape Wind Farm and the onshore transmission works. The EU Interpretation line on associated works (2011) (Interpretation line suggested by the Commission as regards the application of Directive 85/337/EEC to associated/ancillary works) notes that "the environmental impact study for the main project should include a description of its likely significant effects, e.g. effects resulting from the use of natural resources or cumulative effects. Thus, an assessment of the environmental effects of the associated works (such as use of natural resources) should be included in the EIA for the main project..."

The Council was previously asked for a Scoping Opinion on the onshore part of the works. East Lothian Council gave its view that to allow a competent decision to be made on the application for renewal of permission for the onshore works, the Environment Statement for the onshore works would have to include or provide appropriate cross-reference to an up to date and adequate environmental assessment of the offshore works. The applicant did not agree with this approach and stated that a Scoping Direction from the Scottish Ministers would be sought. It remains our view that current assessment for the whole project (onshore and offshore) is required. In the case of *Berkely v SSETR* (2000) [WLR21/7/2000 p420] Lord Hoffman said the Environment Statement should constitute a single and accessible compilation. East Lothian Council has previously accepted that this requirement is met provided there is a link between the documents for the onshore and offshore works, and both are current and available.

The Scoping Report submitted does not cover the detailed assessment of the onshore works, and accordingly here I only comment on the offshore part of the assessment covered by the Scoping Report. However, it is East Lothian Council's view that assessment of both parts of the project should be up to date at the point of decision and that further consideration of the scope of assessment of the onshore aspect of the works will be required.

Approach to EIA

For evaluation of significance of impact, paragraph 158 notes that only Moderate/Major or Major effects are taken as significant. There could be some potential for impacts identified as ‘moderate’ to be significant also, particularly for impacts involving a partial loss to a key feature of baseline conditions impacting on a moderately sensitive receptor.

HRA

The previous assessment considered impacts on the Firth of Forth Special Protection Area and Forth Islands Special Protection Area, both of which are partly within East Lothian. This Council is content to leave comment on this and other ornithological aspects of the assessment to Scottish Natural Heritage, who have particular expertise and responsibilities in this area.

Offshore Human Environment

Landscape

The SNH guidance ‘Visual Representation of wind farms’ was revised in February 2017 and should be used for any SLVIA. Guidelines for Landscape and Visual Impact Assessment (GLVIA3) by the Landscape Institute and Institute of Environmental Management and Assessment, 3rd Edition 2013 should be used for any SLVIA. East Lothian Council has carried out a Local Landscape Designation Review (2016) published as Technical Note 9 and Appendices I to VI and we would refer the applicant to this as an additional data source (see ‘additional information’ below).

The Scoping Report notes that Environmental Impact Assessment (EIA) must assess likely significant effects of proposed development and that the revised Environmental Statement (ES) will be more focussed. It looks to demonstrate that the conclusions reached in the original EIA are valid and that those outcomes that will not encounter a significant effect will be scoped out of the application. We have concern that the applicant may therefore scope out any visuals from East Lothian as the previous scheme was not identified as having a significant impact on views from East Lothian. We would want to see visuals from East Lothian for the reasons detailed below. We would also expect consideration to be given to the landscape and visual impact of any onshore works within the scope of this ES as this is an integral part of this scheme that could have significant impact on East Lothian due to onshore works being proposed within East Lothian. The only mention of this in the scoping report is the assessment of the impact of installation vehicles and related works at the landfall location for the export cable corridor during the construction phase.

Section 9.1 of the Scoping Report discusses the Seascape, Landscape and Visual Receptors.

The development area for both the original and revised remains unchanged.

East Lothian's coastline lies at the edge of the previously assessed 50km radius area from the outermost turbines. The previous assessment was for turbines up to a maximum tip height of 215m. The current proposal is for turbines up to 301m to blade tip. This is a significant 40% increase in height. The scoping report (in para 444) concludes that due to the increase in turbine height there will be a requirement to assess the physical presence of the wind turbines against visual amenity, amongst other factors. SNH guidance advises that ZTVs for wind turbines over 150m should extend to 45km and it was agreed in the previous EIA that as the proposed wind turbines were 215m the ZTV should extend to 50km from the outermost wind turbine. In para 450 the scoping report states that the 50km study area used for the original development is still considered valid for the revised increase in height and that wind turbines at this distance are unlikely to give rise to significant effects. However even given the allowance for earth curvature (as detailed in Annex D of SNH guidance 'Visual Representation of wind farms' revised February 2017) the proposed turbines at 301m to blade tip with a rotor diameter of 180m (maximum currently available) will sit 134m to blade tip above the horizon with the nacelle 44m above the horizon. This changes the impact of the proposals, increasing their visibility and possibly the impact and effect of movement on viewers. The scoping report notes that the assessment will be for turbines with a rotor diameter of 250m. This lowers the hub height, however blades of this length are not currently available. Therefore assessing the proposed lower hub height would not necessarily represent a worst case scenario.

Although there is no specific guidance in relation to assessing the cumulative impact of offshore windfarms in our opinion the SNH guidance on 'assessing the cumulative impact of onshore wind energy developments' March 2012 would be applicable for this development. The Scoping Report has only identified turbines within the 50km ZTV for cumulative assessment, however in our opinion there are wind turbines outwith this distance that will add to the cumulative impact on views from East Lothian that should be included in this cumulative assessment. SNH recommend maximum 60km from proposed site, but the assessment should focus on likely significant effects. We suggest that consideration be given to including the onshore turbines at Earls Seat in Fife and those at Crystal Rig and Aikengall in East Lothian/Scottish Borders at a minimum when assessing cumulative impact from East Lothian.

The SNH guidance 'Visual Representation of wind farms' revised February 2017 notes in section 5 paras 217 and 218 notes that lighting required for offshore

turbines is often one of the major visual issues relating to this type of development and refers to paras 174-177 ‘Turbine Lighting’ for guidance on how to provide visualisations showing the impact of night time lighting of turbines.

The 50km boundary intersects with East Lothian at one of our darkest and least developed areas along the Tantallon to Tynninghame coast. This is identified as a Special Landscape Area in the proposed East Lothian LDP. The Tantallon Coast Statement of Importance for this SLA describes this coastline as the wildest, most remote and least developed area of mainland East Lothian. The Statement of Importance specifically states that despite the busy shipping lanes and views of development in Fife much of this section of the coast still has an elemental feel deriving from the presence of the sea, rocky cliffs and expansiveness of sands at Ravensheugh combined with wide coastal skies. We would be concerned that additional development of a large horizontal field of wind turbines set within the sea could detract from the ‘wildness’ feel of the area both in day time views and on the night time darkness and dusk/dawn views. We would request therefore that the effects of night lighting on East Lothian are assessed. An assessment should be made of the proportion of horizontal field occupied by the turbines assessed cumulatively with the existing development visible within the views, including settlement and other windfarms existing, granted and in planning.

The Bass Rock is set off this coast and a significant impact could be caused if the turbines are viewed in views of the Bass Rock from important tourist viewpoints from the coast such as Yellowcraig and Broad Sands to the west of North Berwick, North Berwick beaches and Seabird Centre, North Berwick Law, Seacliff beach, and Tantallon Castle. This should be assessed and representative wirelines provided to show whether/how the proposals impact on the setting of the Bass Rock and other offshore islands, including the Isle of May.

The scoping report asks if the previous images would be suitable for use in the current SLVIA. Viewpoint 25 from Dunbar Cliffs was the only previous viewpoint submitted from East Lothian. The location of this viewpoint is suitable as this is representative of coastal visitors, walkers on the John Muir Way as well as local residents/settlement. SNH guidance ‘Visual Representation of wind farms’ revised February 2017 notes in section 206 that visualisations should be prepared that represent the specific time of day and season when there is optimal visibility and clarity. The submitted image has cloud overshadowing the section of the sea where the turbines would be located which gives the impression of haziness in this view. We suggest that a new image in line with SNH’s recommendations be provided for this viewpoint. Photographs should be cropped and enlarged from a photograph taken with a 50mm fixed focal length.

Given the increased size of the turbines we would request an additional viewpoint from North Berwick Law. Although outwith the 50km distance its raised elevation

will increase visibility of the proposed turbines from it. This viewpoint represents an important visitor attraction and viewpoint within East Lothian. It also provides 360o views making it an ideal location to assess cumulative impacts of both onshore and offshore wind turbines.

With regard to the specific questions asked in the scoping report:

- **Can you confirm that the 50km radius study area is appropriate for the purposes of the SLVIA?**
We would suggest a ZTV up to 60km given SNH's guidance on cumulative assessment and the proposed increased size of the turbines.
- **Are you happy with the proposed methodology and approach to conducting the SLVIA?**
Yes provided the additional information with regard to impact of onshore works are included and the viewpoints from East Lothian are not scoped out and the assessment of the night time impact is included.
- **Can you confirm that you consider the use of the same viewpoints previously agreed for the Original Development appropriate?**
We are happy with the viewpoint from Dunbar cliffs, but also request the inclusion of a viewpoint from North Berwick Law and assessment of the impact on the Bass Rock on viewpoints from East Lothian as wirelines as well as night-time lighting assessment.
- **Are you satisfied that the viewpoint photography previously taken can be used again (updated where appropriate)?**
No – see above comments
- **Are you satisfied with the proposed approach to the cumulative SLVIA? Are there any changes to those projects listed that you consider should be included in the cumulative SLVIA?**

We suggest that consideration be given to including the onshore turbines at Earls Seat in Fife and those at Crystal Rig and Aikengall in East Lothian/Scottish Borders at a minimum when assessing cumulative impact from East Lothian.

Cultural Heritage

In terms the Historic Environment for the Offshore works potential indirect effects should be considered. The onshore works should be considered as part of the assessment as noted above.

Essentially doubling the blade heights will potentially have significant impacts on a number of Heritage receptors in East Lothian including (but not limited to) North Berwick Law and Dunbar Battery. The choice of the final receptors to be assessed should be based upon a ZTV, which identifies the potential heritage receptors that may be impacted upon. For avoidance of doubt, 50km is not considered a sufficient distance for production of a ZTV; the ZTV for cultural heritage receptors should show any area within East Lothian which has theoretical visibility regardless of

distance.

The identified receptors should be considered for cumulative impacts as well as individually as there is the potential for impact associated with other offshore (and in some cases onshore) windfarms.

The Scoping Report does not appear to assess any Historic Environment receptors in East Lothian.

Weather effects (climatic factors)

There is some evidence emerging that windfarms can have an impact on local weather (see for example citations in <http://www.see.leeds.ac.uk/admissions-and-study/research-degrees/icas/rossbrooks/> and “Impacts of Wind farms on Land Surface Temperatures in Nature Climate Change at <http://www.nature.com/nclimate/journal/v2/n7/full/nclimate1505.html> . The possible effects suggested include formation of sea fog or alternatively ‘holes’ in clouds, and warmer surface night time temperatures. If this is the case, there could be consequent impacts including on landscape/seascape through formation of cloud; implications for precipitation (including precipitation patterns onshore); and possibly biodiversity through local temperature changes.

While recognising that this is very much an emerging area, and it is by no means certain that such an effect would occur, or if it did, be significant, some consideration should be given to the possibility, including a cumulative effect with other proposals in the area. If the effect is unknown provision for monitoring should be considered.

Additional information for the applicant

The development plan for East Lothian consists of the South East Scotland Plan (SESPan) and the East Lothian Local Plan 2008, links to which can be found here: http://www.eastlothian.gov.uk/info/204/local_development_plan/231/statutory_development_plans/3 . The proposed East Lothian Local Development Plan has just been submitted to the DPEA for Examination. Links to submitted documents can be found here: http://www.eastlothian.gov.uk/info/204/local_development_plan/1818/proposed_ldp_submitted_to_scottish_ministers_for_examination/2 . Other supporting documentation (including Technical Note 9: Landscape Review) can be found here: http://www.eastlothian.gov.uk/info/204/local_development_plan/1777/proposed_local_development_plan

East Lothian Council – Further information regarding SLVIA received 12 June 2017

It remains East Lothian Council's view as expressed to Marine Scotland in our response to Scoping, that these wirelines should be included within the Environmental Statement along with the others noted in our response to Scoping. The viewpoint from North Berwick Law should be submitted in the photographic format submitted in SNH guidance on visual representation of windfarms. The other views note in our response we consider to be acceptable as wirelines.

These comments only concern the SLVIA and not cultural heritage which needs to be considered separately.

East Lothian Council – Further information regarding SLVIA received 14 June 2017

We consider the sensitivity of North Berwick Law to be 'High' as it involves 'people engaged in outdoor recreation'; this is a well used and popular recreational asset, with a viewpoint indicator at the top. We consider the Magnitude of Impact may be moderate, in that it is potentially a partial loss or alteration of one or more key elements/features of baseline conditions, in this case the sea view/horizon. Using your matrix on page 41, this would represent a Major/moderate impact which is significant. We therefore request a full assessment and photomontages for the viewpoints both at Dunbar (which has the potential to be significant on its own due both to recreational and residential use) and North Berwick Law – due to its high sensitivity as noted above.

It is our view that the impact on the landscape and seascape as a whole has the potential to be significant, and the purpose of the ES is to understand the nature of this impact. This could include the impact of the development on views from East Lothian overall, even though not all of these views might alone and in themselves be significant. We consider that the additional wireframes would allow wider public understanding of the impact (or lack of) on views from the beaches and attractions in East Lothian, and would therefore aid their participation in decision making. We are not requesting photographs from these viewpoints but that the wireframes already produced be included.

To allow for a focussed and proportionate study however we have not requested that full analysis be done from each of these additional wireframe viewpoints, nor the provision of the amount of photomontage material suggested by SNH in their guidance on visual representation of windfarms.

East Lothian Council – Further information regarding SLVIA received 20 June 2017

Thank you for agreement on including North Berwick Law as a viewpoint, and the addition of the wireframes as an appendix. I think this is a good approach given both the wide area that is potentially affected and the desirability of keeping assessment focussed, and we appreciate that. Would it be possible to request the preparation of one further wireframe, and if helpful its inclusion in the ES appendix? The viewpoints we suggested for wireframes were proposed to inform understanding of the interaction of the proposal with the seascape, of which the distinctive islands of the Forth are an important feature. Since the meeting (and submitting our Scoping Response) we have given this some further consideration, in particular as regards the proposal in relation to the Forth islands. There are several viewpoints where we thought it might be useful to have further wirelines, however there is one general view in particular which we do not consider is properly covered by those we previously requested. This is the view towards the Bass Rock from approximately 358200, 685137. This point on the A198 has a good view towards the Bass from the cliff top, which is likely to be similar to those obtained from North Berwick Golf course and the coast road/clifftop generally. We think this would be sufficiently different from the others previously requested as it has the Bass Rock on the horizon, rather than framed by the sea as in the view from North Berwick Law, and also (we think) would have the island and the proposal viewed together. This road was one of the most frequently mentioned places in our recent consultation on Special Landscape Areas as having good views, and is promoted by East Lothian Council as ‘Scotlands Golf Coast Road’.

As regards the study area for landscape and visual impacts of this proposal alone (i.e. not cumulative impacts) consider as stated in our Scoping Response to Marine Scotland that this should extend to 60km. For East Lothian, a very small part of the area with open sea views in the general direction of Inchcape is caught within the 50km study area proposed. The ZTV up to 80km supplied shows that there is considerable theoretical visibility within East Lothian in areas between 50 and 60km where a sea view is part of the character of the area, including some of the most strongly coastal areas of East Lothian with views towards the proposal. Although Inch Cape is at some distance which undoubtedly reduces its presence in the view, it nonetheless has a potential to become an element within such sea views, which is a change to baseline conditions.

Fife Council

Having examined the relevant information regarding the above, Fife Council has no formal comment to make on the scoping at this time but would wish to be kept informed of, and consulted upon, future stages of the process.

Please note that this comment is in relation to both (our references) 17/01466/CON and 17/01495/CON.

Northern Lighthouse Board

Thank you for your correspondence dated 05 May 2017 requesting a response to the submission by **Inch Cape Offshore Wind Farm Limited** in which they seek confirmation that Northern Lighthouse Board is satisfied with the topics covered in preparation of an Environmental Impact Assessment submission for the revised development layout and associated infrastructure at the Inch Cape OWF.

We would advise that the Northern Lighthouse Board are content with the topics to be included in the EIA and those sections requiring updated data. NLB are likewise content with the extension of operational life to 50 years at this site.

Maritime and Coastguard Agency

The MCA has reviewed the Offshore Scoping Report 2017 provided for by the Inch Cape Offshore Wind Farm as detailed in your email dated 5th May 2017 and would comment as follows:

The Environmental Statement should supply detail on the possible the impact on navigational issues for both Commercial and Recreational craft, viz.

Collision Risk
Navigational Safety
Visual intrusion and noise
Risk Management and Emergency response
Marking and lighting of site and information to mariners
Effect on small craft navigational and communication equipment
The risk to drifting recreational craft in adverse weather or tidal conditions
The likely squeeze of small craft into the routes of larger commercial vessels.

A Navigational Risk Assessment update will need to be submitted in accordance with MGN 543 and the MCA Methodology for Assessing the Marine Navigational Safety & Emergency Response Risks of Offshore Renewable Energy Installations.

It is noted that traffic studies were carried out in 2012, however in line with the requirement that traffic studies should be completed within 24 months prior to the Environmental Statement submission we would expect a new traffic study to be undertaken. We would welcome discussions with the developer to agree the survey data requirements.

Particular attention should be paid to cabling routes and where appropriate burial depth for which a Burial Protection Index study should be completed and, subject to the traffic volumes, an anchor penetration study may be necessary. If cable protection are required e.g. rock bags, concrete mattresses, the MCA would be willing to accept a 5% reduction in surrounding depths referenced to Chart Datum. This will be particularly relevant where depths are decreasing towards shore and potential impacts on navigable water increase.

Any application for safety zones will need to be carefully assessed and additionally supported by experience from the development and construction stages.

Particular consideration will need to be given to the implications of the site size and location on SAR resources and Emergency Response Co-operation Plans (ERCoP). Attention should be paid to the level of radar surveillance, AIS and shore-based VHF radio coverage and give due consideration for appropriate mitigation such as radar, AIS receivers and in-field, Marine Band VHF radio communications aerial(s) (VHF voice with Digital Selective Calling (DSC)) that can cover the entire wind farm sites and their surrounding areas.

Scottish Borders Council

Many thanks for bringing this to my attention and offering the opportunity to submit comments in respect of the scoping request.

Given the considerable distance the proposal is from the Scottish Borders coastline, I confirm on behalf of the Council that we do not wish nor feel the requirement to submit any comments. I'm sure there will be other bodies closer to the proposal who will therefore be more likely to have an interest in the proposal and will submit consequent comments.

Scottish Natural Heritage

Thank you for this scoping consultation, requesting advice from SNH on natural heritage interests to be addressed under Environmental Impact Assessment (EIA) and Habitats Regulations Appraisal (HRA) for the Inch Cape offshore wind farm.

The applicant is scoping for a new application in respect of the wind farm (proposing use of larger turbines) and confirming the location of the cable landfall. This scoping relates to the marine elements and the onshore works will be scoped separately under planning.

SNH's previous advice (7 March 2014 and 4 July 2014) raised significant issues in relation to the cumulative impacts of the Forth & Tay wind farm proposals – Inch Cape alongside Neart na Gaoithe and Seagreen (alpha and bravo) – in relation to ornithology and seascape, landscape and visual interests. These responses are important context for any reapplications now being made for the Forth & Tay wind farms. Our new advice will also reflect discussions at the recent scoping meetings for landscape and biological receptors.

We advise that the EIA of Inch Cape's new application should update the assessment for the following receptors:

- **ornithology** – please see **Appendices A(i) – A(iv)**
- **marine mammals** – please see **Appendix B**
- **seascape, landscape and visual interests** – please see **Appendix C**

We also provide our advice on the receptors we consider can be scoped out of any reassessment – please see **Appendix D**.

This scoping response provides our recommendations on the approach to impact assessment for each receptor. We also recommend that pre-application dialogue continues after scoping in order to address any queries or points of clarification and to confirm final methodological details. We strongly recommend that this is co-ordinated, as far as possible given uncertain time-scales for resubmission, across all three Forth & Tay developers. We therefore welcome the proposal for a meeting, post-scoping of all three proposals, to review the ornithology advice.

Our advice anticipates new Section 36 and marine licence applications from Inch Cape early in 2018. We therefore highlight that this scoping advice is limited to the same time-frame. We expect substantial advances in methodology over the next 12 months so that if the application is significantly delayed we may wish to update our advice in some respects.

There are four key areas for reassessment where we highlight that further discussion may be helpful, to agree the approach and ensure consistent application across the Forth & Tay wind farm proposals:

- Displacement modelling for seabirds
- Addressing non-breeding season seabird impacts
- Population modelling for seabirds

- Underwater noise modelling for marine mammals

Please see the relevant appendices for further advice in this regard.

Inch Cape are applying for a consent duration of 50 years, whereas their existing consent is for a period of 25 years, with all supporting assessments undertaken on this basis. If there is to be a change to the period of consent it will need further discussion as it has particular implications for population modelling in respect of seabird interests and marine mammals – please see **Appendix A(i)** and **Appendix B**.

Further Information and Advice

We would be grateful if you could copy us into the formal scoping opinion once issued. Please don't hesitate to contact us if you need any further information or advice from SNH in respect of this response.

APPENDIX A(i) – ORNITHOLOGY

ADVICE FOR INCH CAPE OFFSHORE WIND FARM

Ornithological interests are addressed in section 8.4 and Appendix B (HRA screening) of Inch Cape’s scoping report. Changes to turbine numbers and parameters are the key consideration for reassessment of potential ornithological impacts, as summarised in Table 4-1. In this regard, we provide the following advice; please see **Appendix A(iii)** for our advice in relation to the transmission works.

On the basis of Inch Cape’s intended application timeframe we confirm that no further baseline survey is required (SNH advice note of 2 February 2017): the available datasets are summarised in Table 8-31 of the scoping report. This advice may change if their application is delayed.

BIRD RECEPTORS FOR REASSESSMENT

For the original assessments, the Forth & Tay developers – Inch Cape, Seagreen (alpha, bravo) and Neart na Gaoithe – collaborated on an extensive scoping exercise to consider the range of bird species potentially impacted by the developments. We have reviewed the final HRA short-list of SPA populations requiring assessment.

- **SPA seabird colonies**

For seabird species of concern, we confirm that SNH does not require any assessment against regional populations – our focus remains on the individual breeding colonies, particularly SPAs. In this regard, the final HRA short-list comprised a range of breeding seabird interests from a range of SPA colonies within foraging range of the proposed Forth & Tay wind farms. SNH has reviewed this list in order to confirm key species and SPAs for reassessment.

Table 1. SPA seabird interests for reassessment

Species	Impact	Key SPAs for reassessment
Gannet	Collision	Forth Islands SPA (Bass Rock)
Kittiwake*	Collision	Forth Islands SPA, Fowlsheugh SPA
Herring gull*	Collision	Forth Islands SPA, Fowlsheugh SPA
Puffin	Displacement	Forth Islands SPA
Guillemot*	Displacement	Forth Islands SPA, Fowlsheugh SPA
Razorbill*	Displacement	Forth Islands SPA, Fowlsheugh SPA
* We will review the updated apportioning calculations for these three species in		

order to confirm whether or not any further reassessment is needed for either Buchan Ness – Collieston Coast SPA or St Abb's – Fast Castle SPA. (On the basis of previous advice we consider this unlikely.)

On the basis of previous advice, we don't consider that Inch Cape (on its own or in combination with the other Forth & Tay proposals) will give rise to significant population level impacts in relation to lesser black-backed gull, fulmar, common tern and Arctic tern at any of the identified SPAs.

- **Outer Firth of Forth & St Andrews Bay pSPA**

Scottish Government is currently considering the designation of a new suite of marine SPAs. This process is significantly further ahead than it was at the time of the original assessments and the formal proposals were submitted to Government for consideration on 30 June 2015. As a result the qualifying features of the Outer Firth of Forth & St Andrews Bay pSPA must be subject to HRA. The proposed site boundary and features of interest are now available.¹ We provide our scoping advice in respect of pSPA features of interest below.

Table 2 gives an overview of proposed pSPA seabird interests and whether or not these are also qualifying interests of SPA breeding colonies in the area. We then consider potential impacts on these pSPA features in order to confirm our scoping advice in **Table 3**. We confirm that these species are the only ones needing consideration in respect of the wind farm: we provide advice in relation to the transmission works in **Appendix A(iii)**.

Table 2. Firth of Forth and St Andrews Bay Complex pSPA – breeding colony and marine seabird interests

Species	SPA breeding colonies HRA shortlist	Marine pSPA	
		breeding	non-breeding
Gannet	✓	✓	✗
Kittiwake	✓	✓	✓
Herring gull	✓	✓	✓
Puffin	✓	✓	✗
Guillemot	✓	✓	✓
Razorbill	✓	✗	✓
Common tern	✓	✓	✗

¹ <http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/proposed-marine-spas/firth-of-forth-and-st-andrews-bay/>

Arctic tern	✓	✓	✗
Shag	✗	✓	✓
Manx shearwater	✗	✓	✗
Little gull	✗	✗	✓
Black-headed gull	✗	✗	✓
Common gull	✗	✗	✓

Inch Cape lies roughly 10km from the pSPA and is therefore very unlikely to disturb or displace seabirds while they're foraging within the pSPA. Outwith the pSPA we advise that impacts on individuals can only meaningfully be considered in relation to these birds as members of a breeding population. Six key pSPA interests – gannet, kittiwake, herring gull, puffin, razorbill, guillemot – are scoped in for reassessment – see **Table 3** below. For these species, we have set out our advice above ('SPA seabird colonies') and this also covers pSPA requirements (see further discussion under 'approach to assessment').

Table 3. Firth of Forth and St Andrews Bay Complex pSPA – SNH scoping advice

pSPA seabirds	SNH scoping advice: include for assessment (yes / no) and rationale	
Gannet, Kittiwake, Herring gull, Puffin, Razorbill, Guillemot	✓	These key species and pSPA interests should be scoped in to the Inch Cape reassessment and are addressed in this response.
Common tern, Arctic tern	✗	Inch Cape did not record either tern species on-site in any significant numbers. We do not consider that the wind farm presents any significant risk to these species and they can be scoped out of assessment.
Shag	✗	Shag were included on the original Forth & Tay 'long-list' but the developers, including Inch Cape, did not record this species on-site in any significant numbers. We do not consider the wind farm presents any significant risk to shag and it can be scoped out of assessment.
Manx shearwater	✗	Manx shearwater were included on the original Forth & Tay 'long-list'. Although this species is difficult to survey, we do not consider it will be present on-site at any of the

		wind farms in any great numbers. We do not consider that any of the wind farms present a significant risk to this species and confirm that it can be scoped out of assessment.
Little gull, Common gull, Black-headed gull	×	We have reviewed available information on these wintering gull species. The boundary of the pSPA is drawn to protect the key concentrations of these birds in the non-breeding season. We confirm that Inch Cape has not recorded any of these species on-site in any significant numbers so that they can be scoped out of assessment.

• Other birds

All other bird interests were fully considered and addressed in pre-application dialogue and in final assessments for the previous application. The key possible impact from the Forth & Tay wind farms on these interests relates to the collision risk that turbines may present to birds on migration. In this regard, Marine Scotland commissioned a strategic ‘worst case’ collision risk assessment² for all wind farms proposed in Scottish waters at the time. We used the outputs from this strategic CRM to inform our previous advice.

Since this work was published, a number of the wind farms included for assessment have been withdrawn, and the remaining schemes are in the process of refining their design envelopes. In this regard, the proposed design changes at Inch Cape lie well within the ‘worst case’ previously assessed, so that we can continue to rely on the outputs from Marine Scotland’s strategic CRM. We confirm that current offshore wind proposals in Scottish waters do not present significant risk to any other bird interests and we do not require any individual developer to submit further information in this regard.

These aspects are discussed in paragraphs 373 and 374 of the Inch Cape scoping report (p199) and also referenced in Appendix B (on HRA screening). In respect of paragraph 46 (p35 of Appendix B), SNH confirms that we do not have any outstanding concerns in respect of osprey, corncrake, purple sandpiper or whimbrel. These have been addressed in the strategic CRM report and we do not consider that any of the Scottish wind farms, either individually or in combination, will present a significant risk of collision to these species. There is no further assessment or any reassessment that we require Inch Cape to undertake in this regard.

² *Strategic Assessment of Collision Risk of Scottish Offshore Windfarms to Migrating Birds.* Available from: <http://www.gov.scot/Resource/0046/00461026.pdf>

We note that the estimates of collision provided in Table 3-11 (p 33 of Appendix B) could be misleading when taken out of context. As noted above, these are estimates of collision risk to migratory populations flying through Scottish waters from breeding locations across a range of different countries (i.e. not solely UK breeding birds). Thus for whimbrel (discussed in paragraph 44) the estimated collision risk (671 birds) should be considered against a migratory population of 500,000 individuals (the whole Icelandic population – see paragraph 3.103 of the MS report). This is the relevant context, not the UK breeding population, and in this regard we confirm that the estimate of whimbrel mortality is not significant.

APPROACH TO ASSESSMENT

Inch Cape only presents a risk to seabirds when they're outwith SPA or pSPA boundaries. Therefore, as previously advised, any potential wind farm impacts should be considered in relation to the conservation objective for 'population of the bird species as a viable component of the SPA'. This means that the significance of any collision mortality, disturbance or displacement of individual birds at sea is considered in relation to the consequent effects on SPA breeding populations. We do not require any assessment against regional populations nor do we require a separate assessment for the pSPA.

We note that for impacts occurring in the non-breeding season it is a complex task to determine the proportion which should be assigned back to the relevant (SPA) breeding populations. We provide our recommendations on methodology in the relevant sections below.

ASSESSMENT METHODOLOGIES

• COLLISION RISK

The key species at risk of collision from Forth & Tay wind farms are **gannet**, **kittiwake** and **herring gull**. Please refer to SNH guidance³ for advice on definitions of breeding and non-breeding seasons:

Species	Breeding	Non-breeding
Gannet	mid-March - September	October - mid-March
Kittiwake	mid-April - August	September - mid-April
Herring gull	April - August	September - March

³ Explanatory notes for table of 'Seasonal Periods for Birds in the Scottish Marine Environment'.
<http://www.snh.gov.uk/docs/A2200567.pdf>

Work on ways to incorporate uncertainty into collision risk modelling is ongoing but there is not yet any agreement on a final approach (please see **Appendix A(iii)** for further discussion). We therefore advise that the Band offshore model is used to update the calculations for reassessment⁴.

We provide copies of our final collision risk workings for Inch Cape, as consented (110 turbines, blade length of 86m and hub height of ~111m). We request that the developer updates and resubmits these same spreadsheets with their supporting calculations for the new design scenario – the changes in turbine numbers and the new turbine parameters.

We recommend that collision risk modelling (CRM) is undertaken for the two scenarios at either ‘end’ of the updated design envelope. For these scenarios our advice on updating the CRM for each species is as follows:

- **Gannet, kittiwake**

CRM outputs should be presented for model options 1 and 2 using Johnston *et al* flight heights⁵ and a 98.9% (+/- 2 standard deviations, SD) avoidance rate. Until better data becomes available, we do not require, nor do we recommend, that option 3 outputs are presented for kittiwake or gannet. This recommendation is based on advice agreed between SNH and the other statutory nature conservation bodies.⁶

- **Herring gull**

CRM outputs should be presented for model options 1, 2 and 3 using Johnston *et al* flight heights and a 99.5% (+/- 2 SD) avoidance rate.

In order to consider any population consequences arising from these estimated collisions, the overall impacts will need to be apportioned by season, between SPAs and across age classes. We advise on this as follows:

Apportioning collision mortality between seasons

Annual CRM totals will need to be apportioned between breeding and non-breeding seasons following SNH guidance as defined above. For half months the collisions calculated for that month are split equally between breeding and non-breeding period.

⁴ Band collision risk model, guidance and model spreadsheets available from: <https://www.bto.org/science/wetland-and-marine/soss/projects>

⁵ Flight height data available from <https://www.bto.org/science/wetland-and-marine/soss/projects>

⁶ SNCB advice on use of the Band model and avoidance rates: <http://www.snh.gov.uk/docs/A1464185.pdf>

Apportioning collision mortality between age classes

Collision mortality will need to be apportioned between age classes. In this regard, we note that the CEH population models do not address sabbaticals (see further discussion in the ‘population consequences’ section below): we therefore recommend that all adults recorded during survey work are considered as breeding adults. We note that this is a precautionary assumption and it may be possible to refine it – further discussion may be helpful.

Apportioning collision mortality in the breeding season to breeding colonies

Impacts which occur during the breeding season will need to be apportioned between the breeding colonies (SPA and other) within foraging range of the proposed wind farm. The current method for doing so is set out in SNH guidance⁷.

We advise that this is a two-step process:

- The first step is to apportion impacts between SPA and non-SPA breeding colonies within foraging range of the wind farm. We recommend that this is done on the basis of Seabird 2000 data as this provides a common reference point and many of the non-SPA breeding colonies have not been counted since this time. Seabird 2000 data is available from JNCC who manage the seabird monitoring database⁸.
- Impacts assigned to the SPA component then need to be further apportioned between the individual SPAs within foraging range. For this step, the most recent colony counts should be used and those for the key SPAs are presented in **Appendix A(ii)**.

Addressing collision mortality in the non-breeding season

We advise that assessment of collision mortality in the non-breeding season for **herring gull**, **kittiwake** and **gannet** can use the approach agreed for herring gull during the Moray Firth determinations. While many **herring gulls** remain locally in the Forth & Tay over-winter, there is also an influx of wintering birds from elsewhere. Any collisions which might occur at the wind farm will therefore need to be apportioned between the local SPA breeders and these other wintering birds. We consider that a similar method can be worked up for **kittiwake** and **gannet**: defining the overall wintering population in the Forth & Tay and determining what proportion of this comprises birds from the relevant SPA breeding colonies.

• DISPLACEMENT

We advise that reassessment of displacement impacts should be undertaken for

⁷ SNH guidance on apportioning breeding season impacts:

<http://www.snh.gov.uk/docs/A1355703.pdf>

⁸ Seabird monitoring programme: <http://jncc.defra.gov.uk/smp/>

puffin, guillemot and razorbill. Please refer to SNH guidance definitions of breeding and non-breeding seasons:

Species	Breeding	Non-breeding
Puffin	April - mid-August	mid-August - March
Guillemot	April - mid-August	mid-August - March
Razorbill	April - mid-August	mid-August - March

Our preferred approach to assessment would be to use the updated displacement model commissioned by MSS and produced by CEH⁹. The seabird distribution maps used to inform this displacement modelling are based on 2010/2011 tracking data and we recommend that they are updated to take account of more recent information.

SNH does not advise non-breeding season assessment for puffin as this species disperses from the Forth & Tay region over-winter and is not present in significant numbers. Guillemot and razorbill do, however, remain in the area and are proposed features of the marine pSPA. The new CEH model is only applicable to displacement in the breeding season and we therefore request that displacement in the non-breeding season is considered for these two species using the approach described in joint SNCB guidance.¹⁰

In this regard, we advise using a **60% rate of displacement** and a **1% rate of mortality**. We consider that a 1% rate of mortality is sufficiently precautionary for guillemot and razorbill in the non-breeding season based on outputs from previous CEH modelling¹¹.

The estimates of displacement thus calculated will need to be apportioned and assigned back to the relevant SPA breeding colonies using the same approach recommended above under collision risk. The non-breeding season mortality can then be apportioned and considered alongside the breeding season impacts for each species.

• IMPACTS ON PREY

SNH confirms that we do not require any reassessment of potential impacts on seabird prey species from piling (underwater noise) impacts during construction

⁹ CEH simplified displacement model:

<http://marine.gov.scot/data/simplified-displacement-model-foraging-birds>

¹⁰ SNCB joint guidance note on displacement assessment

http://jncc.defra.gov.uk/pdf/Joint_SNCB_Interim_Displacement_AdviceNote_2017.pdf

¹¹ CEH original displacement model for the Forth & Tay, further information available from: <http://www.gov.scot/Topics/marine/marineenergy/Research/SB7>

(see Table 8-37 in the scoping report, p229). Any such impacts are relatively short-term and we believe would be offset by greatly reduced long-term impacts (habitat / prey loss) from using fewer turbines.

We also note that the Inch Cape lies at least 10km from the Firth of Forth and St Andrews Bay Complex pSPA so that we do not identify any likely significant effects from the proposed wind farm piling on any prey species or supporting habitats within this pSPA.

• **POPULATION CONSEQUENCES**

The impacts of collision and displacement will need to be considered in the context of relevant SPA breeding colonies. Where apportioned impacts are large and / or the SPA populations are small it is likely that population models will be required to establish whether or not there could be long-term impacts on population viability. We cannot provide our final advice in this regard until the outputs are available for the updated collision risk and displacement modelling. We will compare these outputs against the previous estimates (taken from the SNH collision risk spreadsheets and the CEH displacement models) in order to provide advice on the requirements for population modelling.

If population modelling is required for the revised Inch Cape proposal, we recommend:

- a) reviewing the utility of the models commissioned by Marine Scotland and produced by CEH¹² for kittiwake, herring gull, guillemot and razorbill;
- b) reviewing the Macarthur Green population modelling for gannet and puffin;
- c) only producing further models for particular species if it's not possible to utilise either (a) or (b); in this case we would be requesting the production of deterministic, density independent Leslie Matrix Models.

As well as modelling their individual impacts Inch Cape should also model cumulative impacts with the other Forth & Tay proposals (see below). We request that the counterfactual of population size and population growth rate are presented as part of the model outputs¹³, both for the impacts of Inch Cape on its own and

¹² The 2014 CEH population modelling report is available here:

<http://www.gov.scot/Topics/marine/marineenergy/Research/SeabirdsForthTay>

Further information may also be available from the recent MS contract on 'Testing and Validating Metrics of change produced by Population Viability Analysis (PVA)'

¹³ Cook, A.S.C.P. & Robinson, R.A. 2016. Testing sensitivity of metrics of seabird population

cumulatively.

Finally, we request that the modelling of impacts is undertaken over two time periods; 25 years (as used for the original consent) and 50 years (as proposed now). No recovery period should be applied to either model run. **We highlight** that it is more difficult to make predictions over a longer time-frame as uncertainty in the model outputs increases with the length of model run. For SPA seabird species this may make it harder to conclude no long-term impacts on population viability and no adverse impact on site integrity.

CUMULATIVE IMPACTS

We have reviewed the projects listed in the Inch Cape scoping report for cumulative impact assessment. In this regard, we advise that assessment focuses on Inch Cape in combination with the other Forth & Tay wind farms: Neart na Gaoithe and Seagreen (alpha and bravo). This assessment will require population models to consider the impacts of each wind farm individually and also together.

We do not advise that Inch Cape present an ornithological impact assessment in combination with any of the other proposals listed in section 5.7.2 (offshore wind farms), 5.7.3 (onshore wind farms), 5.7.4 (coastal projects) or 5.7.5 (other onshore projects).

In this regard, if there are any aspects which need further consideration we shall do so in providing our advice at application stage.

APPENDIX A(ii) – SEABIRD POPULATION COUNTS

Table 4. Most recent population counts for the key seabirds and SPAs of relevance to the Inch Cape reassessment.

Species	SPAs	SPA citation populati on	P/I	SNH/JNC C 2014 advice: SPA counts	P/I	SNH/JNCC 2014 advice: dates of counts	Most recent count s	P/I	Dates of most recent counts
Gannet	Forth Islands	21,600	P	55,482 [§]	P	2009	75,259	P	2014
Kittiwake	Buchan Ness / Collieston Coast	30,452	P	12,542 [§]	P	2007	Counts undertaken 2016-2017		
	Forth Islands	8,400	P	3,776 [§]	P	2012	4,333	P	2015
	Fowlsheugh	36,650	P	9,337 [§]	P	2012	9,655	P	2015
	St. Abb's Head to Fast Castle	21,170	P	6,317 [§]	P	Trend applied	2,779	P	2016
Herring Gull	Buchan Ness / Collieston Coast	4,292	P	3,079 [§]	P	2007	Counts undertaken 2016-2017		
	Forth Islands*	6,600	P	5,027 [§]	P	2002	6,500	P	2014-2016
	Fowlsheugh	3,190	P	259 [§]	P	2012	125	P	2015
	St. Abb's Head to Fast Castle	1,160	P	356 [§]	P	Trend applied	325	P	2016
Puffin	Forth Islands	14,000	P	50,282	P	2009	51,956	P	2013

Guillemot**	Buchan Ness / Collieston Coast	17280 ^a	I	25,857	I	2007	<i>Counts undertaken 2016-2017</i>		
	Forth Islands	8000 ^a	I	29,169	I	2011	30,910	I	2015-16
	Fowlsheugh	56,450	I	60,193	I	2012	55,507	I	2015
	St. Abb's Head to Fast Castle	31,750	I	58,617	I	1998/2000***	33,627	I	2016
Razorbill**	Forth Islands	2800 ^a	I	4,950	I	2011	4,993	I	2015
	Fowlsheugh	5,800	I	7,048	I	2012	7,426	I	2015
	St. Abb's Head to Fast Castle	2,180	I	4,588	I	<i>Trend applied</i>	2,067	I	2016

* Please be aware that herring gull at Forth Islands SPA and fulmar at Forth Islands SPA and Fowlsheugh SPA may not qualify as designated interests.

** For guillemot and razorbill the counts were converted to 'individuals on land equivalent' then corrected using (x 1.34) to give total breeding adults in population.

*** Best available estimate at the time of our 2014 advice.

~ Buchan Ness / Collieston Coast counted 2016-17, counts should be available shortly from the seabird monitoring database. If not, we will provide further advice.

§ Our 2014 advice used number of individuals – converted to pairs (0.5*individuals) for consistency.

a The SPA citation uses number of pairs – so converted to number of individuals (2*pairs) for consistency.

APPENDIX A(iii) – ORNITHOLOGY

TRANSMISSION WORKS

Inch Cape are proposing minor changes to the export cable, see Table 4-7 (p. 46) and discussion under section 4.5.3. They have confirmed their choice of landfall point in vicinity of Cockenzie, illustrated on Figure 4-1 (p. 32) and discussed in section 4.5.4 (p. 47). The landfall option at Seton Sands has now been removed from the design envelope (paragraph 83, p. 31).

In this regard, we have considered the proposed transmission works in relation to the relevant qualifying interests of the Firth of Forth and St Andrews Bay Complex pSPA, in order to confirm that in our view there are no outstanding matters requiring further assessment.

Potential impacts from the transmission works on seabird species were fully considered for the relevant marine licence. We do not consider there will be any significant disturbance to these seabirds (including pSPA qualifiers) arising from the proposed cable-laying activity in the export corridor. The relevant conditions on the issued licence will be transferred to any new licence and these address our recommendations to ensure good working practice is adopted for cable installation.

We also confirm that non-breeding waterfowl interests were fully considered as qualifying features of the Firth of Forth SPA. In this regard, planning consent has been issued for the onshore works – including the cable landfall and intertidal works – and remains current¹⁴.

APPENDIX A(iv) – ORNITHOLOGY

UNCERTAINTY IN COLLISION RISK MODELLING

The following request is additional to our statutory scoping advice, and the information does not need to be included in any application submission (provided this is not significantly delayed).

While there is current discussion around ways to incorporate uncertainty into collision risk modelling there is no agreement on a final approach. However, if

¹⁴ Planning consent for the Inch Cape onshore transmission works issued in 2014:
<https://pa.eastlothian.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVal=N6LDH7GN7T000>

And renewed in 2016:
<https://pa.eastlothian.gov.uk/online-applications/applicationDetails.do?activeTab=documents&keyVal=OGZYRVGN07V00>

possible, we would find it helpful if Inch Cape could provide the following information. This would help us in thinking about these issues for the future. We'd welcome any comments.

Table 5. Incorporating uncertainty in collision risk modelling

Data	Parameter	Unit	Figures to be presented and notes
Survey data	*Proportion of birds at collision risk height		Used for Basic Band model Option 1 only. Mean + standard deviation (SD) of proportion of birds in site survey data estimated to be flying in the rotor swept area.
	*Bird density estimates	birds/km ²	Mean + SD for survey data with multiple counts per month and/or per season and/or per year.
Development data	Total power output of proposed development	MW	Single value required.
	Turbine rating / capacity	MW	Single value required.
	Width of development	km	Single value required.
	Latitude of development	decimal degrees	Single value required: central point of wind farm footprint.
	Number of blades		Single value required.
	Rotor radius	m	Single value required.
	Maximum blade chord width	m	Single value required.
	Hub height	m	Single value required: measured from Highest Astronomical Tide.
	Tidal offset	m	Single value required.
	Blade pitch	degrees	Going forward we would welcome further discussion on whether this parameter can

			be calculated as a function of wind speed.
	Turbine rotation speed	rpm	Going forward we would welcome further discussion on whether this parameter can be calculated as a function of wind speed.
	Turbine operation time	%	Going forward we would welcome further discussion on methods to calculate and refine this parameter.

APPENDIX B

MARINE MAMMALS

Marine mammals are addressed in section 8.3 and Appendix B (HRA screening) of Inch Cape's scoping report. Changes to proposed piling activity and associated underwater noise impacts will be the key issue for the marine mammals reassessment – please see the summary of changes in Table 4-2 (p36) of the scoping report and further discussion in section 8.3.6 and Table 8-24 (p172-176).

In this regard, we welcome Inch Cape's suggestion at the scoping meeting (held 26 May 2017) that they'd find it helpful to hold two further pre-application workshops (post-scoping):

- (i) to agree the methodology for noise impact assessment; and
- (ii) to discuss initial outputs from the updated noise modelling and agree approaches to investigate any population level effects.

We address these aspects in our advice below.

SPECIES FOR REASSESSMENT

Based on previous advice and discussion at the Forth & Tay offshore wind developers' group (FTOWDG), we advise that reassessment focuses on the following marine mammal interests:

- **Bottlenose dolphin**

Bottlenose dolphin are a qualifying interest of the Moray Firth Special Area of Conservation (SAC) and we have advised that there is connectivity between Inch Cape and this protected area. The reference population for assessment is that given in guidance from the statutory nature conservation bodies (SNCBs) on management units for cetaceans in UK waters (2015)¹⁵. For bottlenose dolphin

¹⁵ Guidance on cetacean management units from:
http://jncc.defra.gov.uk/pdf/Report_547_webv2.pdf

this is the coastal east Scotland population and we advise referring to Cheney *et al* (2013) for the most up-to-date population estimate¹⁶.

- **Harbour seal / Grey seal**

Harbour seal are a qualifying interest of the Firth of Tay and Eden Estuary SAC and we have advised that there is connectivity between Inch Cape and this protected area. Grey seal are a qualifying interest of the Isle of May SAC and Berwickshire and North Northumberland Coast SAC and we have advised that there is connectivity between Inch Cape and these two protected areas.

For each species, the population present in the east coast seal management unit¹⁷ should be used as the reference population for assessment and we take this as equivalent to the SAC population. The most up-to-date population estimates can be obtained from the Special Committee on Seals (SCOS)¹⁶ as discussed in the scoping report (para. 326).

- **Harbour porpoise**

For harbour porpoise, we advise that the reference population against which to judge impacts is that for the North Sea management unit. We advise using the population estimate in SNCB guidance¹⁴ unless any more up-to-date information becomes available before assessment commences. In addition, the estimate of abundance within SCANS III block R can be used to consider impacts at a regional scale.

- **Minke whale**

For minke whale, we advise that the reference population against which to judge impacts is that for Celtic and Greater North Seas management unit. We advise using the population estimate in SNCB guidance¹⁴ unless any more up-to-date information becomes available before assessment commences. In addition, the estimate of abundance within SCANS III block R can be used to consider impacts at a regional scale.

- **White beaked dolphin**

For white beaked dolphin, we advise that the reference population against which to judge is that for Celtic and Greater North Seas management unit. We advise using the population estimate in SNCB guidance¹⁴ unless any more up-to-date

¹⁶ Cheney, B., Thompson, P.M., Ingram, S.N., Hammond, P.S., Stevick, P.T., Durban, J.W., Culloch, R.M., Elwen, S.H., Mandleberg, I., Janik, V.M., Quick, N.J., Islas-Villanueva, V., Robinson, K.P., Costa, M., Einfeld, S.M., Walters, A., Phillips, C., Weir, C.R., Evans, P.G.H., Anderwald, P., Reid, R.J., Reid, J.B. & Wilson, B. 2013. Integrating multiple data sources to assess the distribution and abundance of bottlenose dolphins *Tursiops truncatus* in Scottish waters. *Mammal Review*, **43**, 71-88.

¹⁷ Seal management areas are determined by the Special Committee on Seals (SCOS): <http://www.smru.st-andrews.ac.uk/documents/SCOS.pdf>

information becomes available before assessment commences. In addition, the estimate of abundance within SCANS III block R can be used to consider impacts at a regional scale.

- **European protected species (EPS)**

All cetaceans (species of whale, dolphin and porpoise) are classed as European protected species (EPS) for which Government has published guidance on licensing requirements¹⁸. Table 8-20 (p158) of the scoping report lists the range of EPS that could occur in the Forth & Tay region. These will need consideration in relation to EPS licensing requirements and we advise referring to the joint SNCB guidance¹⁴ to determine the reference populations against which to judge favourable conservation status.

KEY IMPACTS TO CONSIDER

We have reviewed Inch Cape's scoping tables in relation to potential impacts on marine mammals arising from the offshore wind farm (Table 8-24) and transmission works (Table 8-25). We are satisfied with what's been done here and agree with the outcomes from this scoping as summarised in Tables 8-29 and 8-30 (p191-192). This identifies that the following impacts are **scoped in** to reassessment:

- **Offshore wind farm piling activity**

We agree that the greatest potential effect on marine mammals is likely to be disturbance resulting from piling work to install the turbine foundations. In this regard, we request that the relevant underwater noise modelling is updated for the key species of concern – bottlenose dolphin, harbour seal, grey seal, harbour porpoise, minke whale and white beaked dolphin – in order to consider the proposed design changes (see next section).

- **Geophysical survey**

The applicant plans to address this matter in the reassessment which we consider helpful.

- **Installation of the export cable**

While we do not anticipate any likely significant effects we note the applicant plans to address the slight alterations to these cable works in the reassessment.

APPROACH TO UNDERWATER NOISE MODELLING

Marine mammal densities

Knowledge of marine mammal densities in the study area (or zone of impact) is required in order to predict the numbers of individuals which might be impacted by underwater noise.

¹⁸ EPS licensing guidance available from: www.gov.scot/Resource/0044/00446679.pdf

The Inch Cape scoping report identifies most of the key data sources for marine mammal densities for the Forth & Tay area – see Table 8-21 and paragraphs 319 - 326. However, we advise that there is more recent work which may help determine the bottlenose dolphin densities in this area. Quick *et al* (2014)¹⁹ provide an estimate for the Forth & Tay based on data up to 2013, but there may be even more recent information than this.

We also note that Marine Scotland's passive acoustic monitoring network on the Scottish east coast may give some background context in relation to dolphin species and harbour porpoise²⁰.

Methodology

At the scoping meeting (26 May 2017), Inch Cape indicated that they will work to progress noise impact assessment methodologies, taking accounts of developments in the approach and recommended guidance since the time of previous assessment. We welcome this and are happy to participate in a workshop to discuss and agree the methodological details.

For assessing risk of injury, we recommend that both the instantaneous and cumulative thresholds for permanent threshold shift (PTS) are addressed: the instantaneous PTS threshold will inform the mitigation methods, while the cumulative PTS threshold informs any required assessment of population consequences. In this regard we are happy with the use of single-number thresholds as discussed at the scoping meeting.

For behavioural disturbance, we advise that assessment incorporates a dose-response function (to address the range of individuals' responses to noise), rather than relying on a single-number threshold. We recommend adapting the approach presented in Thompson *et al* (2013)²¹ – based on harbour porpoise data from Brandt *et al* (2011)²² – to allow for this more realistic assessment.

¹⁹ Quick, N.J., Arso, M., Cheney, B., Islas-Villanueva, V., Janik, V.M., Thompson, P.M. & Hammond, P.S. 2014. The east coast of Scotland bottlenose dolphin population: Improving understanding of ecology outside the Moray Firth SAC. Report to the UK Department of Energy and Climate Change's Offshore Energy Strategic Environmental Assessment Programme (14D/086).

²⁰ Further details on the East Coast Marine Mammal Acoustic Survey (ECOMMAS) are available from:

<http://www.gov.scot/Resource/0050/00507404.pdf>

²¹ Thompson, P.M., Hastie, G.D., Nedwell, J., Barham, R., Brookes, K.L., Cordes, L.S., Bailey, H. & McLean, N. (2013) Framework for assessing impacts of pile-driving noise from offshore wind farm construction on a harbour seal population. *Environmental Impact Assessment Review*, 43, 73–85.

²² Brandt, M., Diederichs, A., Betke, K. & Nehls, G. (2011) Responses of harbour porpoises to pile driving at the Horns Rev II offshore wind farm in the Danish North Sea. *Marine Ecology Progress Series*, 421, 205–216.

POPULATION CONSEQUENCES

Inch Cape suggest a further workshop to discuss the initial noise modelling outputs once these are available. Again we welcome this and are happy to participate. We think it should be possible to review these outputs for the revised proposal and broadly compare them against those for the original application. Despite differences in methodology, each form of underwater noise modelling should give the predicted number of animals suffering hearing loss (permanent threshold shift, PTS) and the predicted number of animals disturbed. So a broad comparison should be possible.

This will inform whether or not the revised predictions are any worse than those previously assessed. If not, we will not require any further consideration of population consequences – these were already assessed as acceptable for the consented development. However, in the meantime, we have no issues if Inch Cape wish to further develop their approach to population modelling, on the contingency that it may be required if the piling impacts prove greater than what was previously assessed.

CUMULATIVE IMPACTS

Any requirements for cumulative impact assessment can be discussed at the second workshop proposed by Inch Cape. This will only be necessary if the piling (underwater noise) impacts are greater than previously assessed. However, in the meantime, we have no issues if Inch Cape wish to further develop their approach to address cumulative impacts. As a first step, we recommend they review the available marine mammals assessment for Aberdeen Harbour expansion works²³.

²³ Appropriate assessment for Aberdeen Harbour expansion works, see p40 onwards for the marine mammal assessment: <http://www.gov.scot/Resource/0050/00509289.pdf>

APPENDIX C

SEASCAPE, LANDSCAPE & VISUAL IMPACT ASSESSMENT

Summary of previous SNH advice

Taken on its own, we have advised that the **Inch Cape wind farm will have significant adverse landscape, seascape and visual impacts**. It will form a visually prominent feature and introduce significant change to the open sea views experienced from coastal settlements and key routes along the Angus coastline. It will have major effects on coastal character including the highly scenic bays of Montrose and Lunan.

We have also advised that Inch Cape, in combination with Neart na Gaoithe, will affect the landscape setting of St Andrews (including appreciation of its historic skyline) and alter the sense of remoteness and naturalness experienced at both Tentsmuir and the Isle of May national nature reserves (NNRs).

In our response of 7 March 2014, we advised that:

The proposed Forth & Tay wind farms [will] cause widespread and significant adverse landscape and visual impacts along the Scottish east coast from St Cyrus in Aberdeenshire, through Angus and Fife south to Dunbar in East Lothian. The scale and extent of development, if consented, is unprecedented within Scotland (onshore or offshore) in recent times.

This forms the context to any resubmission.

Approach to wind farm design

Seascape, landscape and visual interests are addressed in section 9.1 (p255-280) of Inch Cape's scoping report. The proposed design changes are significant and have the potential to cause greater effects. Given this, and SNH's previous advice, we are surprised that the report does not acknowledge this and include better explanation of the approach being taken to wind farm design at Inch Cape and the design 'evolution'.

Reviewing the preliminary wirelines for the revised proposals (up to 72 turbines, max. height of 301m), it is evident that the design issues intensify with the significant increase in turbine height and drop in turbines numbers. In particular we note the following:

- The proposed changes will draw particular attention to wind farm design. For the original proposals, the turbines 'visually merged' into a single dense band running along the horizon and the turbine layout was not apparent. This will no longer be the case.

- Due to the increases in turbine height and spacing, individual turbines will be more easily seen and the rotational blade movement may become more noticeable.
- The depth of field will also be more apparent; it will be possible to see into the wind farm and potentially pick out the more distant turbines.
- Overall, the visual complexity will increase: this will be of particular concern in relation to views from the closest coastal stretches and nearby coastal settlements.

It will be essential to address these issues early on in the design process for the revised submission, also giving consideration to the cumulative effects, particularly for Inch Cape in combination with Neart na Gaoithe.

The scoping report does not explain, nor provide any supporting information for, the choice of layout that's presented. In the northern part of the site there are prominent gaps in the grid of turbines whereas to the south the density is greater. This leads to an incoherent arrangement particularly as seen in views from the south-west. **This lack of coherent design is contrary to SNH guidance²⁴** and care will need to be taken in proposing such large-scale turbines so close to sensitive landscape and coastal receptors.

In this context, there should be a clear statement of the design rationale, including any technical constraints which have influenced the turbine layout. The proposed revisions should be considered in relation to the consented development (up to 110 turbines, 215m max. height) rather than the original 'worst case' (up to 213 turbines, 215m max. height). We also suggest there would be benefit in reviewing the embedded design mitigation (section 9.1.4 of the scoping report) and reworking the previous 'design sensitivity analysis' to compare the merits of alternative turbine layouts (grid, offset grid and arc) for the revised proposals.

Finally, we note that there will need to be agreement on how best to approach the cumulative impact assessment in respect of seascape, landscape and visual interests – particularly the impacts of Inch Cape in combination with Neart na Gaoithe, as highlighted in our advice on the original applications. Please see further discussion below.

²⁴ *Siting and designing wind farms in the landscape*. SNH (2014). Available from: www.snh.org.uk/pdfs/strategy/renewables/Guidance_Siting_Designing_wind_farms.pdf
SNH advice on offshore wind design statements. SNH (2016). Available on request.

Information required for reassessment

SNH has produced guidance on scoping for offshore renewables²⁵ and on *Visual Representation of Wind Farms* (including those offshore)²⁶. While this remains relevant, we note that the turbines now proposed at Inch Cape – upper limit 301m in height to blade tip, with tower heights of 176m and blades lengths of 125m – are considerably larger than any others which SNH has considered to date.

We provide advice below on the range of information – zones of theoretical visibility (ZTVs), design analysis, wirelines and photomontages – which may best support and explain the design evolution for Inch Cape:

- **Study area and viewpoints**

We are still reviewing the additional ZTV provided by Inch Cape (received 9 June 2017). We broadly accept the continued use of a 50km study area, however, we note that there may be sensitive visual receptors located on the border or just beyond, that will need consideration.

- **Coastal character – baseline information**

We advise that Inch Cape can utilise the baseline coastal character assessment previously undertaken by the Forth & Tay offshore wind developer's group (FTOWDG).

- **Visibility and zones of theoretical visibility**

We consider it would be helpful to explore the changes in visibility from use of larger turbines. In this regard, we suggest that the increase in turbine size could be modelled in appropriate increments (determined by the design process) with the outputs presented on a composite ZTV, or perhaps as individual ZTVs. These could then be compared against the ZTV for the consented scheme (i.e. 110 turbines, 215m max. height) which may help us understand if there is any 'step change' to the amount or range of visibility.

- **Viewpoint Selection and Assessment**

We are content with the same viewpoint selection being used as for the previous assessment, however, note our comments above about sensitive viewpoints on the 'borderline' of the 50km study area.

- **Baseline photography**

We broadly accept continued use of existing baseline photography (collectively produced by FTOWDG), but new photography may be necessary for any views have

²⁵ *Offshore renewables – guidance on assessing the impact on coastal landscape and seascape*. SNH (2012). Available from: www.snh.gov.uk/docs/A702206.pdf

²⁶ *Visual Representation of Wind Farms*. SNH (2014). Available from: www.snh.gov.uk/planning-and-development/renewable-energy/visual-representation/

changed substantially (this would mainly be a risk in relation to inland viewpoints, where changes such as afforestation / deforestation, new power lines or other new development may alter the foreground significantly).

We also note that all photographs for viewpoints along the Angus coast – St Cyrus, Montrose, Lunan and Arbroath signal tower (viewpoints 3, 5, 6 and 11) – have been taken with the sun to the southeast (when turbines would be viewed partially looking into the sun). We recommend that at least one of these photographs is re-taken to represent the clearer views during late afternoon when the turbines would be front-lit with the sun behind the viewer.

- **Wirelines**

We consider that the main effect of the increase in height is the change in perspective of the development offshore, such that the 301m turbines would appear closer in view (than the 215m ones). We think it should be possible to explore this quite straightforwardly using analysis based on the increased vertical field of view, and comparing this with the previous assessment. As a *purely theoretical* example, 301m turbines at 26km distance may appear (from the same viewpoint) as if they were 215m turbines at 18km. We think it important to explore this issue and would welcome any other ideas on the approach.

- **Photomontages**

It is our understanding that the 301m turbines are likely to be using larger circumference (thicker) towers, and there may also be an increase in blade width. The photomontages should address these changes in order to consider whether they make a discernable difference to the appearance of the turbines, particularly in closer views.

Cumulative impact assessment

The cumulative impacts with the existing offshore developments at Neart na Gaoithe and Seagreen will intensify. In addition the increase in height will contribute to increased experience of wind energy development on shore. A rigorous design process is likely to reduce the potential for significant effects.

We recommend that consideration is given to the Kincardine floating wind demonstration project particularly in relation to sequential cumulative impacts on coastal transport routes.

We defer to the relevant local authorities to provide up-to-date information on current onshore wind farms to be considered.

APPENDIX D

NATURAL HERITAGE INTERESTS SCOPED OUT OF FURTHER ASSESSMENT

We confirm that we have reviewed our previous advice (7 March 2014) for all other natural heritage interests – benthic ecology, physical processes and fish of conservation concern. We consider that these receptors can all be scoped out of any assessment for the revised proposals at Inch Cape on the basis of the following advice:

Benthic interests

The proposed use of fewer, larger turbines at the Inch Cape wind farm will reduce the scale of habitat loss and / or habitat disturbance so that impacts fall within the ‘worst case’ previously assessed for all proposed foundation types (Figure 4-3 of the scoping report, p34). As discussed in Table 8-4 (p106), a number of conditions apply to the original Section 36 consent and will be transferred to any new consent: these will minimise and mitigate any impacts on benthic ecology. The same is true for the marine licence relating to the transmission works and export cable.

We are satisfied that the scoping report provides full consideration and justification for scoping out benthic interests from further assessment.

Physical processes

For the wind farm, we are satisfied that the proposed use of fewer, larger turbines falls well within the ‘worst case’ previously assessed and that no updates are needed to metocean modelling or modelling of suspended sediment dispersal. In respect of the transmission works, we note that conditions apply to the relevant marine licence and will be transferred to any new licence. In this regard we do not identify any outstanding matters requiring reassessment.

We are satisfied that the scoping report provides full consideration and justification for scoping out physical processes from further assessment.

Fish of Conservation Concern

We have discussed marine fish with Marine Scotland Science (MSS) and they will provide advice on these interests, particularly in relation to cod, herring and sandeel.

Potential impacts on diadromous fish species (and other qualifying interests of SAC rivers) were fully considered in Appendix D of our 7 March 2014 advice where we set out good practice measures and mitigation options to address any impacts. These recommendations have been adopted via conditions on the Section 36 consent and marine licences. The conditions will be transferred to any new consent (and licences) so that we require no reassessment in this regard.

Note: Although we are not advising reassessment we would like to clarify that any

impacts from marine renewables on diadromous fish should now be undertaken via EIA, as HRA will no longer apply. This is based on legal advice that SNH has received since the time of last assessment, informed by the fact it hasn't proven possible to determine which SAC rivers any individuals recorded at sea are coming from or returning to.

BT Radio Network Protection

Thank you for your email.

We have studied this offshore wind turbine proposal with respect to EMC and related problems to BT point-to-point microwave radio links. The conclusion is that the project will not cause interference to BT's current and presently planned radio networks.

Defence Infrastructure Organisation

Please accept this email as confirmation that the Defence Infrastructure Organisation (DIO), on behalf of the Ministry of Defence (MOD), wishes to be considered a statutory consultee and be duly notified of the project updates.

DIO is content that military aviation matters are adequately considered in the Scoping Report at Chapter 9.7 and will continue to work with the developer to ensure that the MOD's concerns are addressed. Please note that at this time, the MOD has not conducted a new technical and operational assessment of the revised development, and as such, is unable to comment on whether Conditions 20 and 21 of the original 2014 consent would be applicable.

DIO contact details should be as follows; Desmond Egan, 0121 311 3790, DIO-safeguarding-wind@mod.uk

Historic Environment Scotland

Thank you for your consultation which we received on 05 May 2017 about the above scoping report. We have reviewed the details in terms of our historic environment interests. This covers world heritage sites, scheduled monuments and their settings, category A-listed buildings and their settings, inventory gardens and designed landscapes, inventory battlefields and historic marine protected areas (HMPAs).

The relevant council's archaeological and cultural heritage advisors will also be able to offer advice on the scope of the cultural heritage assessment. This may include heritage assets not covered by our interests, such as unscheduled archaeology, and category B- and C-listed buildings.

Proposed Development

I understand that the development comprises revised proposals for the Inch Cape Off-Shore Wind Farm and associated transmission works, near the east coast of Angus. It is my understanding that the revised scheme will consist of an array of up to 72 turbines and seeks to take advantage of advancements in offshore wind technology with the objective of improving the economic and environmental performance of the wind farm. I note that it is envisaged that the parameters of the revised wind farm proposals will be comparable to consented Inch Cape Off-Shore Wind Farm scheme.

Scope of assessment

I can confirm that there are no marine or terrestrial heritage assets within our remit located within the proposed development area.

We do, however, understand that there is some potential for direct impacts on a number of undesignated wrecks within and in the vicinity of the proposed development area. We would therefore recommend that potential impacts on these are assessed with appropriate involvement of archaeological expertise depending on the specific location of works and cabling. In addition, indirect impacts to undesignated historic assets on the seabed within the proposed development area and possibly beyond which may be caused by alteration to tidal currents and sedimentary regimes, and by changes to the chemical balance of water and seabed sediments, should be assessed.

We can also confirm that there are a number of terrestrial heritage assets within a seascape setting in the vicinity of the proposed development area which may be affected by the proposals. These include assets located along the coastline as well as the Category A listed Bell Rock Lighthouse (LB45197) located shortly to the west of the proposed development area. In line with this, we would recommend that particular attention is paid to the Bell Rock Lighthouse as part of any Environmental Impact Assessment (EIA) undertaken for the proposed development, and that this is supported by visualisations.

We also note the potential for cumulative impacts on the setting of terrestrial heritage assets caused by the development of this wind farm in combination with other existing and proposed off-shore wind farms in the area. In this case, we would also recommend that cumulative impacts are carefully considered.

While assessing the impact of this development on setting it may also be helpful to consult our revised Managing Change guidance note (2016), which can be found at: <https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=80b7c0a0-584b-4625-b1fd-a60b009c2549>.

Scoping Report

We welcome the thorough scoping exercise for undertaken for the proposed development as set out in Section 9.2 the Scoping Report (2017). We note that this builds on the previous Environmental Impact Assessment (EIA) (2013) undertaken in support of the consented Inch Cape Off-shore scheme. As part of this, we note that there has been a substantive review of historic environment baseline data and are content that this is sufficient to underpin the forthcoming assessment. We also note that the Scoping Report identifies key changes in the design envelope for the new development and considers whether these may give rise to additional effects on the historic environment.

In line with the above, we note that it is proposed to assess where the revised proposals may give rise to direct impacts on marine archaeology caused by the construction of the wind farm and export cable corridor, as well as indirect effects on the setting of terrestrial heritage assets caused during the operational phase of the revised development. We also note that potential cumulative effects have also been identified for assessment.

We support this approach and also welcome where it is proposed to ensure that appropriate mitigation is embedded into the revised scheme. As part of this, we would highlight the requirement for the preparation of a project specific Written Scheme of Investigation (WSI) with a Protocol for Archaeological Discoveries (PAD). This should adhere to the same principles as that proposed for the original Inch Cape Wind Farm proposals.

We hope this is helpful. Please contact us if you have any questions about this response. The officer managing this case is Alison Baisden and they can be contacted by phone on 0131 668 8575 or by email on Alison.Baisden@hes.scot.

Mainstream Renewable Power Ltd

- 1. Cumulative assessments – updated design.** Since the submission of the Inch Cape scoping report, NnGOWL has submitted a scoping report for an updated design for the Neart na Gaoithe project. The updated design comprises a maximum of 56 turbines. The maximum tip height is anticipated to be fixed early-mid July and this information can be provided to ICOL when available, to inform any relevant cumulative assessments or photomontages.
- 2. Cumulative assessments – existing consent.** Section 5.7 of the Inch Cape scoping report states that cumulative assessments will consider NnG ‘as consented’. The NnG existing consents (granted in October 2014, varied in March 2016) were granted for a maximum of 75 turbines. Should these consents remain in place, please note that a maximum of 64 turbines will be

constructed. I recommend this is reflected in cumulative assessments to avoid overstating cumulative effects.

3. **Cumulative assessments – future submissions.** NnGOWL is open to working collaboratively with ICOL and other neighbouring offshore developers, to seek to gain consistency in assessment approaches. We would be happy to meet ICOL at any time to discuss relevant topics.
4. **Commercial Fisheries Working Group (CFWG).** Paragraph 571 on page 320 states that the CFWG no longer exists. I believe this may have been stated in error – it is NnGOWL's understanding that the group continues to exist although there have been no meetings in recent months.

National Air Traffic Services

The proposed development has been examined from a technical safeguarding aspect and does not conflict with our safeguarding criteria. Accordingly, NATS (En Route) Public Limited Company ("NERL") has no safeguarding objection to the proposal.

However, please be aware that this response applies specifically to the above consultation and only reflects the position of NATS (that is responsible for the management of en route air traffic) based on the information supplied at the time of this application. This letter does not provide any indication of the position of any other party, whether they be an airport, airspace user or otherwise. It remains your responsibility to ensure that all the appropriate consultees are properly consulted.

If any changes are proposed to the information supplied to NATS in regard to this application which become the basis of a revised, amended or further application for approval, then as a statutory consultee NERL requires that it be further consulted on any such changes prior to any planning permission or any consent being granted.

Royal Society for the Protection of Birds

RSPB Scotland welcomes this opportunity to comment on the scoping report for the above noted proposed offshore windfarm.

The new Inch Cape proposal represents a significant change to the original consented development. It is likely that a comparison between the two will show a significant reduction in predicted impacts on internationally protected seabird

populations within and beyond the Forth and Tay region. However, there is no doubt that this project is located within an environmentally sensitive region, particularly for seabirds. We therefore continue to have significant concerns with the risks this project poses to these seabird populations. In addition we have concerns with the potential in- combination impacts presented by other offshore proposals, including the Neart na Gaoithe, Seagreen Alpha and Bravo projects and effects on the Firth of Forth and St Andrew's Bay Complex proposed SPA.

To assess these risks adequately through the Environmental Impact Assessment and Habitats Regulations Appraisal and to ensure the population scale effects of the proposal are clearly understood by the decision-maker, use must be made of the latest and best available science. We are referring to relevant science and environmental information which has emerged since the original Inch Cape project consent was granted in October 2014.

We have developed a set of focused recommendations on the assessment parameters that are included in the detailed annex. These have been prepared following discussions with Marine Scotland, Scottish Natural Heritage and Red Rock Ltd and consideration of the Inch Cape's scoping report. We hope the annex is of assistance with the relevant aspects to the ornithological assessment, including answers to the questions raised in the scoping report. We do acknowledge that further discussion will be required to address some outstanding issues. We are very keen to offer our support where clarification or further discussion is required.

ANNEX: RSPB Scotland scoping response – 13th June 2017

1.0 Operational Lifetime

In principle we support seeking to extend the operational lifetimes of offshore wind projects. This could increase renewable energy generation and increase the overall lifecycle efficiencies of large scale renewable infrastructure. However, a proposed operating lifetime of up to 50 years presents challenges to the environmental assessment, which need to be overcome to enable a determination.

Our primary concern is the degree of uncertainty in predicting population scale effects on protected seabird colonies. Confidence in projected population model outputs decreases as time increases. This increasing lack of confidence extending to 25 years and beyond has a direct effect on the decision-makers' ability to reach an ecologically robust conclusion on the potential adverse effects to the Natura network and its protected species. We would welcome further discussion on this topic as mechanisms for addressing the issue may exist.

2.0 Environmental Baseline

2.1 Survey data

The dedicated two-year ornithology site survey data is now 5 - 7 years old. We do not request an updated survey, however we highlight the spatial and temporal variability of seabird distributions. As a consequence the survey data may not represent an accurate account of seabird usage within and around the site. This element of uncertainty could increase with time. As the project progresses, if consented, there could be a 7-10+ year gap between baseline and pre-construction surveys. This element of uncertainty must be a consideration within the assessment.

2.2 Impacts and Species Scoped In

Potential Impact	Species to be included in
Displacement	Puffin Razorbill Guillemot Kittiwake
Barrier	Puffin Razorbill Guillemot Kittiwake Gannet
Collision	Kittiwake Gannet Herring Gull Great Black Backed Gull Lesser Black Backed Gull

2.3 Cumulative/ In-combination Assessment

To undertake this part of the assessment a worst case scenario must be established. All three Forth and Tay developers have indicated their intention to submit new alternative designs with fewer, larger turbines. However, all four project consents issued in 2014 could be progressed.

Working on the above basis and with the assumption that the 2014 projects have the greatest potential impact to birds. We would suggest the worst-case scenario is the Inch Cape revised development plus the Neart na Gaoithe and Seagreen Alpha and Bravo consented projects issued in 2014.

Verification will be required to demonstrate the working assumption above; that the 2014 consents are in fact the worst case in terms of impact. Another aspect, which will require further discussion, is that since 2014 there have been changes to the methods of assessing ornithological impacts and these need to be accommodated.

3.0 Assessment Methodologies

3.1 Reference Populations

The RSPB holds the results of an extensive seabird tracking programme. The information could provide additional evidence of seabird foraging distances. Information that can be used to identify reference populations for assessment purposes.

In discussion with Inch Cape, we raised the potential of providing analysed information on foraging ranges to support the assessment. We will seek to provide this in due course.

3.2 Displacement

We defer to the guidance provided by SNH on the various attributes for undertaking a displacement assessment.

3.3 Barrier

We defer to the guidance provided by SNH on the various attributes for undertaking a assessment of barrier impacts.

3.4 Collision risk modelling:

At present Band (2012) is the preferred model for undertaking the collision risk assessment.

Model Options:

We recommend use of the following model options and species specific avoidance rates. These recommendations align with SNH guidance except for our request to also present collisions for gannet applying a 98% avoidance rate during the breeding season. This is to account for the fact that the evidence presented in Cook *et al.* (2014)²⁷ for a change in avoidance rate for gannet was based almost entirely on non-breeding birds and as such is

²⁷ Cook, A.S.C.P., Humphreys, E.M., Masden, E.A. and Burton, N.H.K. 2014. The avoidance rates of collision between birds and offshore turbines. BTO Research Report No. 656.

considered to ensure suitable precaution is applied in the assessment. This is in contrast to other species such as Kittiwake and the gulls where the BTO review’s evidence base included breeding birds.

Species	Basic model	Extended model
Gannet	98.9% non-breeding/ 98.0% breeding	n/a
Kittiwake	98.9%	n/a
Lesser black backed	99.5%	98.9%
Herring gull	99.5%	99.0%
Great black-backed	99.5%	98.9%

Nocturnal activity:

We recommend that values are used as per the previous 2013/14 guidance provided by SNH. We do not accept the suggested change for breeding gannet (rate of 1 which equates to 0%), unless a detailed breakdown of the timing of surveys is presented. This is because including a proportion of birds flying at night compensates for the likely under-recording of birds associated with peaks in foraging activity outwith the survey timings.

For example, Warwick-Evans *et al.*,(2015)²⁸ reported the highest levels of gannet activity between the hours of 0400 and 0600 in the morning, with a slightly lower peak between 0300 and 0400. And Cleasby *et al* (2015) reported that activity associated with foraging by plunge diving, when collision risk is greatest²⁹, was highest between 0500 and 0600 and between 1900 and 2000. The purpose of differentiating between night-time and daytime flight activity, as detailed in the Band Model Guidance, is simply to separate between times when surveys take place (“daytime”) and where they do not (“night-time”) and the flight activity factor applied is a correction for this. In the absence of presentation timings for when the original surveys

²⁸ Warwick-Evans, V., Atkinson, P.W., Gauvain, R.D., Robinson, L.A., Arnould, J.P.Y. & Green, J.A. (2015). Time- in-area represents foraging activity in a wide-ranging pelagic forager. *Marine Ecology Progress Series*, 527, 233-246.

²⁹ Cleasby, I. R., Wakefield, E. D., Bearhop, S., Bodey, T. W., Votier, S. C., & Hamer, K. C. (2015). Three- dimensional tracking of a wide-ranging marine predator: flight heights and vulnerability to offshore wind farms. *Journal of Applied Ecology*, 52(6), 1474-1482

were carried out, it is unlikely they carried out surveys so far from shore between 0300 and 0600, and to a lesser extent between 1900 and 2000. As such the results for gannet could omit a large part of flight activity and therefore produce a potentially serious underestimation of collision risk. Reducing the nocturnal activity rating to 0% is therefore not considered sufficiently precautionary.

Summer

Breeding season: as per SNH guidance.

Boat based bias: we support SNH's current position of not accounting for boat based biased as there is a lack of data to support any assumptions.

Proportion from SPA: As per SNH approach.

Age classes: Recommend including all age classes as per SNH advice and justification provided below which is equally relevant in this instance.

Winter

It is vital for consideration to also be made to potential impacts during the non-breeding season.

Non-breeding season: Non breeding season mortality should be detailed.

Boat based bias: As per above.

Proportion from SPA: Non-breeding season collision mortality impacts must be considered in the context of the relevant SPA populations. To account for potential in-combination impacts to seabird populations we would also welcome further discussion on how to consider these mortalities in the context of regional BDMPs (east coast region) as listed in Furness, 2015.³⁰

We state this requirement for non-breeding season impact assessment as the JNCC guidance "The UK SPA network: its scope and content" recognises in the following paragraphs, protection requirements must apply across the year in order for the special conservation measures to achieve their conservation objectives:

"A5.5 Qualifying species... In all these and similar

³⁰ Furness, R.W. 2015. Non-breeding season populations of seabirds in UK waters: Population sizes for Biologically Defined Minimum Population Scales (BDMPs). Natural England Commissioned Reports, Number 164.

instances, the provisions of the Habitats Regulations apply throughout the year, with no implied seasonality.

...

A5.5.2 Seasonal occurrence... The inclusion of a site within a species suite ensures consideration of the conservation needs and ecological requirements of the relevant species at all times of year.”

Proportion immature birds: Not to be excluded as per above justification.

Proportion adults: As above.

Remove winter influx adults: As per SNH advice

Remove winter influx

Immature: As per SNH advice

3.5 PVAs

Species to be addressed: As per SNH advice.

Model population: As per SNH advice.

Type: Either deterministic or stochastic.

Run: As per SNH advice.

Demographic rates: As per Horswill & Robinson, 2015.³¹

Output metrics: Present either as formula or table to allow for testing a range of mortality input scenarios. To present counterfactuals as per Cook & Robinson, 2016.³²

3.6 Assemblages

At page 253, the scoping report asks for clarity on the status that ‘*should be afforded to species that are listed as named components of SPA assemblage features, and how these named components should be treated?*’

The assemblage, as set out in the SPA citations, is specific to that designated site and comprises the relevant populations for each of the individual species that make that assemblage. Any change to individual species populations will alter the sites’ assemblage of species. Therefore both the assemblage and the species populations within it need to be considered as part of the HRA. The two are not mutually exclusive.

³¹ Horswill, C. & Robinson R. A. 2015. Review of seabird demographic rates and density dependence. JNCC Report No. 552. Joint Nature Conservation Committee, Peterborough.

³² Cook, A.S.C.P. & Robinson, R.A. 2016. Testing sensitivity of metrics of seabird population response to offshore wind farm effects. JNCC Report No. 553. JNCC, Peterborough.

3.7 pSPAs

Firth of Forth and St Andrew's Bay Complex proposed SPA (pSPA) requires inclusion in the assessment. The supporting habitats within this pSPA are especially relevant to the cabling corridor. Such development could lead to habitat disturbance or loss within the pSPA. The relative importance of the cable corridor in terms of the quality of habitat and how its structure and function could be affected.

Royal Yachting Association (Scotland)

I have read the above scoping report on behalf of RYA Scotland. I welcome the proposal for larger but fewer turbines and make the following comments:

9.4.6 I agree with the impacts scoped out or in from the Revised Development EIA in Table 9-35.

9.4.7 I agree that an updated hazard workshop will not be required (paragraph 614). I will be happy to discuss any issues relating to recreational vessels with the developers and their consultants.

9.4.8 Scoping questions – shipping and navigation

- Since the original scheme was consented the RYA has published a new edition of the UK Coastal Atlas of Recreational Boating (<http://www.rya.org.uk/knowledge-advice/planning-environment/Pages/uk-coastal-atlas-of-recreational-boating.aspx>). This replaces the files listed in paragraph 599. The revised atlas uses AIS tracks to produce heat maps of recreational vessel activity. It is thought that about 20% of cruising recreational craft now transmit an AIS signal. These vessels' routes are considered to be representative of all recreational craft routes when away from the coast, as in the case of the Inchcape development.
- The above source of data should provide a better update of recreational traffic than a further 28 days of AIS data collection.
- The NRA/EIA should concentrate on those receptors which may be subject to significant effects from the proposed development.
- I am satisfied that the appropriate receptors and impacts have been included within the impact assessment
- Notices to Mariners, while important, are not a sufficient way of publicising developments to recreational sailors. Work is progressing on writing a book of Sailing Directions and Anchorages for the East Coast of Scotland that will be published by Imray and will complement the existing series of Clyde Cruising Club publications. It will replace the existing Pilot Handbook of the

Forth Yacht Clubs Association, which is out of print. Getting details of the scheme into the publication or subsequent updates will be useful additional mitigation.

9.5.7 Scoping questions- Socio-economics

- Since the previous EIA, the Scottish Marine Recreation and Tourism Survey was published in 2015 and contains mapped information about a wide range of recreational activities (<http://www.gov.scot/Topics/marine/seamanagement/national/RecandTourism>). A strategic Framework for Scotland's Marine Tourism Sector has also been published (https://www.tmi.org.uk/files/documents/resources/Scotland_Marine_Tourism_Strategy_%202015-2020_Awakening_the_Giant.pdf). Although there has been increased activity in marine tourism, including recreational boating, it is unlikely to be adversely impacted by the revised development and indeed there may be possible beneficial impacts, for example on harbour maintenance.
- It is unclear whether there will be a significant cumulative impact of a series of hazards for UK and foreign recreational sailors passing up the east coast of Scotland on passage for the Northern Isles or the Caledonian Canal. Paragraph 649 mentions four new developments since the previous EIA. For the sake of accuracy it is Moray East that is at a more advanced stage than Moray West. Hywind demo is not on any cruising route. However, the Kincardine Floating Wind Scheme is on the east coast route and the Aberdeen Offshore Wind Farm extends northwards the area busy with shipping around the entrance to the port of Aberdeen. In places like these, increased watchkeeping effort is required.

Scottish Environment Protection Agency

Thank you for your consultation email which SEPA received on 5 May 2017.

Advice for Marine Scotland

1.1 We note that this Scoping Opinion is for the offshore components only of the revised Inchcape Offshore Windfarm and associated offshore transmission works **and have reviewed a copy of the Scoping Report 'Inchcape Windfarm New Energy for Scotland Offshore Scoping Report' dated 2017.**

As we only now comment on proposals for works above MLWS which fall under the appropriate Town and Country Planning (Scotland) Act, we have no comments to

make on the Scoping Report for the offshore element of this proposal.

Please refer to our standing advice on marine consultations within guidance document [SEPA standing advice for The Department of Energy and Climate Change and Marine Scotland on marine consultations](#).

If, after consulting this guidance, you consider that a particular part of this proposal is novel or raises a particular environmental issue relevant to our interests which is not addressed by the standing advice, then we would welcome the opportunity to be re-consulted. Please note that the site specific issue on which you are seeking our advice must be clearly indicated in the body of your consultation request.

We do note however that the proposed offshore wind farm will require transmission cabling and other associated infrastructure works. We will welcome future engagement through the appropriate Town and Country Planning (Scotland) Acts in due course.

If you have any queries relating to this letter, please contact me by telephone on 01786 452537 or e-mail at planning.se@sepa.org.uk

Scottish Fishermen's Federation

The SFF welcomes the opportunity to comment on the Scoping Request on behalf of its 9 constituent associations:- the Anglo Scottish Fishermen's Association, Clyde Fishermen's Association, Fishing Vessel Agents & Owners Association (Scotland) Ltd, Mallaig & North-West Fishermen's Association Ltd, Orkney Fisheries Association, Scottish Pelagic Fishermen's Association Ltd, Scottish White Fish Producers' Association Ltd and the Shetland Fishermen's Association), who represent more than 500 individual fishing vessels.

Page 23 Para 41 omits the need for the development to make a profit which as far as the SFF is concerned is the primary driver for the development. Not a good start to the discussion, omitting such relevant truths.

On Page 24 the document cherry picks aspects of Scotland's National Marine Plan, purely to support its own case but neglecting to consider the measures in the plan that are designed to protect existing activities such as fishing.

Section 5.7 Cumulative Impact Assessment, to 5.7.1 must be added the 2B Energy Development and the Levenmouth demonstration Turbine (which seem to be an afterthought in 5.7.2.)

This EIA must take cognisance of the displacement effect of the many other current projects around the UK on the nomadic scallop fleet, and those projects on the East coast also impact on the wider squid fleet.

Table 5-4 in 5.7.4 needs to include the many different restrictions Forth Ports are imposing on their area which impact on the space needed for fishing activity.

Referring to Table 7-2 in section 7.1.3 the SFF would contend that the effect of smothering by suspended sediment has not been fully assessed yet, either on Nephrops or Scallops.

Regarding Table 8-3, the SFF contention is that despite the change in specification for the export cable there still needs to be an assessment of the impact of it on Nephrops trawl grounds and the effects of sediment in smothering such as scallops and Nephrops must be assessed, which seems to be contrary to the descriptions in Table 8-6.

Section 8.2 National Fishing and Shellfish

The SFF has recommended the inclusion of scallop data over at least a 7 to 10 year scale to get a true picture. Also squid has become more dominant since the initial ES so must be included and there are also sources such as UKFIM and Scotmap which may assist in establishing baselines. On completion of assembly of all these fishery outputs the SFF would recommend validation by industry.

Moving on to the Table 8-15. The SFF would contend that the previous ES has again paid insufficient attention to the potential smothering of species on the export cable route.

Again with Table 8-16 on Cumulative impact the SFF believes there is insufficient proof of the Direct Habitat loss or disturbance being negligible, only by installing a proper monitoring system can this be assessed fully.

Table 9-25 on page 303/4 needs to add any information available from the UK FIM dataset at the Crown Estate and any relevant data gleaned from the Marine Scotland Scotmap exercise and modern updates.

Regards Data Coverage on Page 305/6, the SFF would further stress the importance of industry validation of the data baseline.

And moving to Age of the Data, on page 306, the SFF would contend that the longer a timeline of data that can be provided the better the picture of activity will be, this is particularly relevant to Scallop Fisheries.

The SFF would say that para 567 on page 308 is being disingenuous and the ecological impacts on target species still needs to be scoped in.

With regard to the Table 9-25, the SFF would contend that without proper analysis of

the new design there is no proof to claim that temporary or permanent loss of access to fishing grounds is significantly less so should be properly scoped, and the SFF would note the information in the report prepared for the Crown Estate, “Changes to fishing practices around the UK as a result of the development of offshore windfarms” which is the only real work done on the subject to date.

This also applies to “Safety issues for fishing vessels” and “Displacement of Fishing Activity”. The SFF would also note that experience in other development leads us to believe that Interference with fishing vessels, in terms of vessel movements and queuing, will become an every bigger issue than developers claim so should be scoped in.

Regarding section 9.3.4 the SFF would expect to be fully engaged in Consultation on the CMP and particularly the bullet point in 571, page 420 on defined navigation routes.

The SFF would note that it is offering an updated ToR for the CFWG which includes the option of one development using the apparatus individually to liaise with industry, rather than obfuscate the issues waiting for other developments to join in.

Regarding 9.3.5 the SFF will write separately on the relevance of the Consent conditions, but would not accept that the potential impacts on Fisheries would be less in the revised development so would expect to see a full and proper assessment done.

Regarding table 9-29, the SFF will not accept, without proper data, that any of the worst case scenarios are Negligible or Minor or Moderate, so all need to be scoped in until the baseline and projections can be shown to back up the claim. This includes obstacles on the seabed as we interpret that to include export cables, Interference to fishing activities has been seen as an emerging issue in other developments so must be scoped in.

Moving on to Table 9-30 the potential impacts of the Export Cable Corridor have always been down played by the developer, despite the route having been decided the route without considering fishing activity. The SFF would recommend a rerouting exercise takes place otherwise it must be scoped in for all impacts and phases and the affected local industry will need to be consulted properly.

Para 5.7.8 only identified a few of the UK-wide developments which will impinge on the Scallop fleet so the SFF would expect those others to be considered.

The SFF would content that Table 9-31 down plays, if not ignores, the cumulative impacts of the renewables developments and would expect to see a revised baseline provided and those issues scoped in to properly define the impacts of the

development on all the local fisheries.

The Questions in 9.3.8 are therefore answered:-

- Yes, as long as they pay due attention to the points raised above.
- Yes
- No and No
- No
- No, there are numerous developments especially in terms of the Scallop fisheries, which need to be included
- No

The Section 9.4, Shipping and Navigation, must scope in the need for anchorages and laybys for construction vessels, particularly tugs with barges and their possible impacts on static fishing gears inshore of the development.

Therefore the SFF would state the case for industry involvement in agreeing the CMS, DS and LP, VMP and NSP.

The SFF would also expect the development to take special cognisance of any potential impacts on S&R missions.

Scottish Fishermen's Federation – Further information regarding Licence Consent Conditions received 02 July 2017

The SFF are content with conditions 1-14, with two caveats:-

The SFF believes that based on previous experience with developers it should be included in the list of consultees for condition 10 regarding the CMS and with the proviso that meaningful interaction occurs on condition 12 regarding the DSLP, to the extent that fishers belief it provides mitigation.

Regarding conditions 15-17. The SFF expects greater details regarding Marine Co-ordination, transit corridors, anchorages and any need for “queuing space” for tugs with limited manoeuvrability, and full consultation with industry on these.

No comment Condition 16, 19, 20, 21, 23, 25, 26, 27, 28 or 30.

Condition 18 must prove the export cable route is not a barrier to commercial fisheries, especially Nephrops and the inter array cables need to be sufficiently buried to not hinder fishing. The SFF must be consulted on these issues.

Condition 22, the SFF would expect to follow on from a proper consultation exercise as in the above referring to conditions 10 and 14.

Condition 24 must be expanded to provide baselines for Nephrops, scallops and squid and ongoing monitoring surveys for these 3 species which are of paramount importance to the area.

With regard to Condition 29, the SFF notes the absence of a CFWG meeting in the last two years and expects the development to sign up to a revised ToR for these and engage properly with the WG.

The SFF would expect, having learnt from previous experience in this sector, that the mitigation measures are agreed and in place before the development is licenced and allowed to proceed.

Furthermore with recent experience in mind the SFF would expect MS(LOT) to enforce the spirit and practice of the condition being implemented by all employees, contractors and sub-contractors.

The SFF would further expect that the MS(LOT) would ensure that the development FLO fully understand and engages in the responsibilities outlined.

Regarding the OTW licence conditions, the SFF would observe that up till now the development has not paid any more than lip service to information from the fishing industry as to how damaging their proposed route is. Said route having been developed without industry consultation.

Therefore the SFF would actively object to the route as it stands and would expect the developer to revisit the plan and ensure it does not become a closure for a certain part of the Nephrops fisheries.

Sport Scotland

Thank you for consulting with **sportscotland** regarding the above.

In relation to sports interests that may be affected, we note that the original Scoping Report for the previous design made reference to marine recreation and potential impact on recreational vessels. It is welcomed that this be considered.

sportscotland has consulted the Outdoor Pursuits Group of the Scottish Sports

Association, and contacted RYAS about this proposal. RYAS advise that they have been consulted separately and understand the main difference from the previous application is that better technology is expected to be available - similar to Moray Offshore East and West where the revised application envisages larger but fewer turbines which would be beneficial for other users of the sea. They note there are new data sources since the previous application and the Kincardine floating windfarm also needs to be taken into account. We have received no further responses.

sportscotland does not have detailed knowledge of the sport interests at or in the vicinity of the site in question and it will be important not to rely solely upon **sportscotland** for a view from the sport sector. We therefore advise the applicant to consult with relevant local clubs and sports groups, and with relevant Scottish Governing Bodies of Sport (SGBs), for both onshore and offshore interests. The Governing Bodies of Sport should be able to put the applicant in touch with relevant club interests in the area that it would be beneficial to consult with. Contact details for SGBs can be found on our website at the following link:

<http://www.sportscotland.org.uk/sport-a-z.aspx>.

We also note the information available from the Scottish Marine Recreation and Tourism Survey 2015, please see below link. It should, however, be noted that this may not include all recreation and tourism interests.

<http://www.gov.scot/Topics/marine/seamanagement/national/RecandTourism>.

It will also be important for the land-based elements of the proposal not to impact negatively on access rights in the area - we would advise consultation with Council's Access Officers to address any potential impacts on access rights, and with the Local Access Forum, as well as with the Council's Sports Development and Outdoor Education staff.

I trust that this response is of assistance, but please let me know if you require anything further.

Transport Scotland

With reference to your recent correspondence on the above development, we acknowledge receipt of the ES Seeping Report prepared by New Energy for Scotland in support of the above development.

This information has been passed to SYSTRA Limited for review in their capacity as Term Consultants to Transport Scotland – Trunk Road and Bus Operations

(TRBO). Based on the review undertaken, we would provide the following comments.

Proposed Development

Consent was granted in 2014 for a Section 36 and Marine License application for the construction and operation of up to 213 wind turbines at Inch Cape Offshore Wind Farm. We understand that Inch Cape and their associated OfTW, Inch Cape Offshore Limited (ICOL) are now seeking consent for a revised scheme. The revised scheme is being developed to take advantage of advancements in offshore wind technology, and includes a maximum of 72 turbines with a rotor diameter of up to 250m. The wind farm is located in the North Sea around 15 km off the Angus coastline. The nearest trunk roads to the development site are the A92(T) and the A90(T).

We understand that the application for the Revised Development is being pursued in parallel with a Judicial Review process for the original development, resulting from a challenge by the RSPB over the lawfulness of the consent granted. We also note that in the event that the original consent is upheld (which we believe is now the case), either the original or the revised scheme will be constructed- not both.

The Seeping Report (SR) states that ICOL is applying separately for planning permission for the onshore transmission works element of the project.

Construction Effects and Environmental Assessment

The SR indicates that the design of the Revised Development is yet to be finalised. As such, no decisions have been made as to the nature of the foundations and sub-structures to be installed and the ports and vessels to be used in construction. The SR states that once these details are known, a more detailed description of construction methods will be prepared. This approach is acceptable and once these details are available, we will be able to comment further as to the level of assessment that may be required.

We note that no mention has been made regarding the potential for abnormal loads utilising the trunk road network. Transport Scotland would advise that if abnormal loads associated with the project are required to be transported on the Trunk Road network, then an assessment of the route to site in terms of its suitability for the transportation of these abnormal loads will require to be provided.

Advice received from Marine Scotland Science

SUMMARY OF MSS ADVICE RECEIVED.

COMMENTS ON MARINE FISH ECOLOGY, COMMERCIAL FISHERIES AND SOCIO-ECONOMICS – received 02 June 2017

Marine Scotland Science has reviewed the submitted scoping report and has provided the following comments.

marine fish ecology

The scoping report provided by ICOL to address a change in the design provides a useful description of the design envelope parameters and changes. The biggest change with regards impact pathways to marine fish species would seem to be in relation to the increase in hammer energy associated with the increased size of the turbines. MSS agree that this should be the main focus of the change in design envelope for the project and is content that all other identified impacts remain within the worst case scenario of the Original Development assessments.

The scoping report presents fish and shellfish receptor groups, as identified from site specific surveys. The marine fish receptor group identified as ‘hearing specialists’ is identified as the only group to be ‘scoped in’ against potential impacts from construction noise. MSS is content with this approach with when considering sound pressure effects from impact piling.

The scoping report provides an overview of the baseline data used to inform the original application in 2011 and highlights the work that was done post submission – both ICOL commissioned site specific surveys and studies and also external or pre-existing broader scale data and studies. MSS is content with these sources of data.

Paragraph 272 raises key fish habitats such as spawning and nursery areas and correctly states that both the Coull *et al.* (1998) and Ellis *et al.* (2012) are currently widely used by industry, are considered to be ‘worst case’ as a basis for considering potential impacts on key species, and that no update to those references has occurred since the Original Development EIA was completed. Whilst MSS maintains a recommendation of their use, we would also note that there is some new literature available (such as González-Irusta and Wright (2016a) relating to cod spawning grounds and González-Irusta and Wright (2016b) relating to haddock spawning grounds) that may be worth considering. On the basis of some of this literature, MSS have very recently produced new spawning area maps for cod and haddock. These will be available online in due course but until such time, MSS is happy to provide these should they be requested.

MSS welcomes the use of additional data sources, as identified.

MSS note from Table 8-10 that there have recently been reported landings of herring caught within the local area. MSS recommend that this is explored further and given any relevant considerations.

Whilst MSS is broadly in agreement with the proposed scope within the report, which places focus on assessing the impacts of underwater noise from sound pressure, it is prudent to note here that the effects of underwater sound arise from two mechanisms: sound pressure and acoustic particle motion. Potential effects of sound pressure have received more attention than those of particle motion and as such our understanding of its propagation and consequences is greater than that of particle motion. The effects of particle motion on marine organisms is a relatively new field of research, and there are important knowledge gaps relating to the propagation of particle motion, and also its potential effects on marine fish and shellfish behaviour and physiology. However, MSS recommend that particle motion is addressed within the EIA, making use of such peer-reviewed literature and project reports as are available.

Specific questions relating to marine fish species from the scoping report:

Q1: Are you satisfied that the existing fish and shellfish baseline and proposed updates to that baseline are appropriate to the potential level of impact from this proposed development?

A: MSS is satisfied.

Q2: Are you satisfied that the EIA should only concentrate on those receptors which may be subject to significant effects from the proposed development?

A: MSS is satisfied with this approach.

Q3: Are you satisfied with the receptors and potential impact proposed to be included within the impact assessment (i.e. impact of construction noise on hearing specialists)? Are you satisfied that this sufficiently covers the potential impacts on features from the proposed development?

A: MSS is satisfied with this approach when considering sound pressure effects. Based on our comments above, consideration of acoustic particle motion should be given in relation to other receptors.

Q4: Are you satisfied that the embedded mitigation (including Licence conditions are appropriate to the potential level of impact from this development?

A: Revised noise assessment withstanding, MSS is satisfied that the embedded

mitigation is appropriate. Should any concerns be raised in relation to noise associated with an increase in hammer energy from impact piling, MSS reserve the right to consider this aspect further.

Q5: Do you agree that the cumulative impacts on fish and shellfish should be scoped out of EIA for the Revised Development (with the exception of piling noise effects) based on the assumptions set out and the conclusions reached in the CIA for the Original Development?

A: MSS is content that cumulative impacts on fish and shellfish can be scoped out of EIA for the Revised Development with the exception of piling noise effects.

References

Coull, K.A., Johnstone, R., and Rogers, S.I. (1998). Fisheries Sensitivity Maps in British Waters. Published and distributed by UKOOA Ltd., Aberdeen, 58 pp.

Ellis, J.R., Milligan, S.P., Readdy, L., Taylor, N. and Brown, M.J. (2012). Spawning and nursery grounds of selected fish species in UK waters. Sci. Ser. Tech. Rep., Cefas Lowestoft, 147: 56 pp.

González-Irusta, J. M., & Wright, P. J. (2016a). Spawning grounds of Atlantic cod (*Gadus morhua*) in the North Sea. ICES Journal of Marine Science: Journal du Conseil, 73(2), 304-315.

González-Irusta, J. M., & Wright, P. J. (2016b). Spawning grounds of haddock (*Melanogrammus aeglefinus*) in the North Sea and West of Scotland. *Fisheries Research*, 183, 180-191.

commercial fisheries

MSS has reviewed the design envelope parameters of the revised development (Section 4) and the Commercial Fisheries section (Section 9.3) of the Inch Cape Scoping Report 2017. The report confirms the commercial fisheries receptors of relevance to the revised development. The following changes to the revised development, affecting the impact on commercial fisheries, are noted:

- A 50% reduction in construction period (2 years in total),
- same total development area (150 km²),
- a smaller number of WTGs (66% reduction),
- same gravity foundations,
- same minimum spacing between WTGs (820 m),
- a shorter inter-array cable (46% reduction; 90-100% buried),
- 500 m 'rolling' safety zone around working areas during construction,
- Progressive installation of inter-array cables and ongoing cable burial and protective works,

- reduced number of vessel movements by 57%

MSS is in agreement that the spatial coverage of the data from the original development EIA remain valid for the revised development EIA. Furthermore, MSS agrees with the conclusion that baseline will need to be updated and reviewed in order to consider the most recent 5 years' worth of data (§563 & §566). Note that most available landings data will cover years from 2012 up to the end of 2016 (§551; in agreement with §558)

MSS supports continuous engagement with the fishing industry through all phases (§570) and continuation of the developer's commitment in principle to a regional Commercial Fisheries Working Group (§570).

Tables 9-29 and 9.31 provide a summary of the potential impacts of the revised development and in combination with other plans, projects and activities, respectively. MSS is in agreement with the effects currently scoped in for all phases and the CIA:

- Temporary loss or restricted access to fishing grounds
- Increased steaming times to fishing grounds
- Displacement of fishing vessels into other areas

All three potential impacts have been justified as 'updated baseline is needed to properly assess magnitude of the impact on the fisheries'. Additional data sources that can be used to characterise the commercial fishing patterns include:

- Kafas, A., McLay, A., Chimienti, M., Scott, B. E., Davies, I., and Gubbins, M. 2017. ScotMap: Participatory mapping of inshore fishing activity to inform marine spatial planning in Scotland. Marine Policy, 79.
- Plotter data from TCE's FIM database
- "Evidence Gathering in Support of Sustainable Scottish Inshore Fisheries" <http://www.masts.ac.uk/research/sustainable-scottish-inshore-fisheries/>
- "Scottish Inshore Fisheries Integrated Data System (SIFIDS)" <http://www.masts.ac.uk/research/emff-sifids-project/>
- Interpolated VMS fishing tracks can assist with direction of fishing. MSS has a paper in preparation by a former student placement (Mailys Bilett) that might be useful. Available on request.

MSS is in agreement with the projects identified to be the basis of the Commercial Fisheries Cumulative Impact Assessment (§577 and §578).

Questions on Section 9.3.8

- Q1 – MSS agrees that the EIA should concentrate on significant effects only
- Q2 – Happy with the proposal for a baseline update. Additional sources of information highlighted.
- Q3 - MSS is in agreement with the effects currently scoped in for all phases and the CIA
- Q4 – MSS is content

- Q5 – MSS is content
- Q6 – MSS is content

socio economics

MSS has no comments on socio economics

COMMENTS ON DIADROMOUS FISH

Diadromous fish advice received 10 July 2017

Thank you for seeking advice from MSS on specific matters in relation to diadromous fish. We have noted that MS-LOT accepts the advice provided by SNH in relation to HRA not applying to this development and that only comments from MSS in relation to EIA have been requested.

Q1. Do you agree with the conclusions in the 2013 ES that there was no significant effect on any diadromous species in relation to EIA based on the information available at the time the assessment was carried out? (If no please provide reasons)

Yes

*Q2. If the answer to Q1. is “yes” what information is available **now**, which was not available in 2013, that could change the outcome of the assessment to show significant effects in relation to EIA? (The Inch Cape scoping report mentions some recent research e.g. Harding et al 2016 and Armstrong et al 2015)*

The Research Updates section in the scoping report is useful. However, there is other new information now available which should also be considered.

- Re the likelihood that diadromous fish may be in the development area, there is now some published information based on satellite tagging returning adult salmon caught on the north coast (Godfrey et al, 2014 a,b) which indicates that returning adult salmon which have reached the coast, do not necessarily then follow the coast, but may move offshore before coming back in again. There is also older published information, which indicates that under some conditions acoustically tagged salmon may indeed follow the coast. The developing picture is quite complicated and the statement in the scoping report that it is unlikely that salmon would enter the Development Area on route to the coast during migration may not be correct.
- Various studies have also been carried out recently on coastal migration of salmon smolts at various Scottish locations mainly. These generally used acoustically tagged salmon smolts and acoustic receiver arrays and one study used a specially designed surface trawl with video capability. Although mainly not formally published yet, there is some information available from these studies which would in general support the tentative smolt migration picture given in the 2013 ES.

- There is now published information for Pacific salmon (various Putman et al papers), which is also likely to be relevant to Atlantic salmon, of the importance of geomagnetic navigation both by post-smolts in migrating to sea feeding grounds and by returning adult salmon in homing to their natal rivers. Such navigation must make use of small differences in the ambient magnetic fields which should be considered in relation to the magnetic fields associated with cables.
- Information on the timing of salmon smolt movement across Scotland has also now been published which may be useful in considering possible mitigation.
- There has been recently been focus in some published papers on the potential importance of particle motion, in relation to sound, to some fish species such as salmon. Although particle motion is mentioned in the 2013 ES, there may be a need to consider it in more detail and this is the subject of a separate advice request to MSS.
- Although there is now more up to date information on the state of salmon and sea trout populations, MSS has now given this consideration and is not suggesting that this needs to be reviewed at this stage.

Q3. Does any of the new information change the baseline, considering that Inch Cape assumed the species passed through the site?

There is an increased probability that wording in the 2013 ES may understate the likelihood that salmon will be present in the development area. In that connection, MSS would also note that the absence of salmon and sea trout in the conventional trawl surveys which had been carried out in survey work commissioned by ICOL for the 2013 ES should not be taken as evidence for absence of these species as they are now known to spend most of their time very close to the surface where they would not be caught in conventional trawls.

Q4. If an updated assessment is advised how should any new information be used by Inch Cape to inform an assessment under EIA?

Relevant new information now available needs to be reviewed somewhere. It is more that there is a need to review the new information than that the outcome will necessarily change.

Q5. If an updated assessment is advised which species should be included?

Only salmon, there is insufficient new information for the other species.

FURTHER REFERENCES FOR DIADROMOUS FISH –received 17 July 2017

In relation to Q2 please provide clarity as follows:

1st bullet – please give full references for Godfrey et al papers.

Godfrey, J. D., Stewart, D. C., Middlemas, S. J., and Armstrong, J. D. Depth use and migratory behaviour of homing Atlantic salmon (*Salmo salar*) in Scottish coastal waters. ICES Journal of Marine Science, 72: 568–575.

<http://icesjms.oxfordjournals.org/content/early/2014/07/16/icesjms.fsu118.full.pdf?keytype=ref&ijkey=y9lmPDRLdC04n7B>

Godfrey, JD, Stewart, DC, Middlemas SJ and Armstrong JD (2014) Depth use and movements of homing Atlantic salmon (*Salmo salar*) in Scottish coastal waters in relation to

marine renewable energy development. Scottish Marine and Freshwater Science. Volume 5 Number 18

<http://www.gov.scot/Resource/0046/00466487.pdf>

2nd bullet – please provide references for the information which is publically available from the studies which you refer to.

Acoustic curtain tracking studies of salmon smolts took place in 2016 at two sites on the Scottish west coast, one site in the Cromarty and inner Moray Firth and at the mouth of the River Deveron and are taking place this year at two sites on the Scottish west coast, a site in the inner Moray Firth, and at the mouth of the Aberdeenshire Dee. Surface trawling with a specially designed net which also had video and PIT tag detection capability was carried out this year in the Moray Firth area. Although there have been various presentations on various aspects of these studies at meetings open to the public, the only formally published paper to date is Lothian *et al* (2017) which includes information for smolts emigrating from the River Deveron

Lothian AJ, Newton M, Barry, J, Walters M, Miller RC and Adams CE (2017) Migration pathways, speed and mortality of Atlantic salmon (*Salmo salar*) smolts in a Scottish river and the near-shore coastal marine environment. Ecology of Freshwater Fish.

On line via [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1600-0633/earlyview](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1600-0633/earlyview) as an early view paper

3rd bullet – please provide references for Putman et al papers

Putman,NF, Lohmann, KJ, Putman, EM, Quinn,TP, Klimley, AP and Noakes, DLG (2013) Evidence for Geomagnetic Imprinting as a Homing Mechanism in Pacific Salmon. Current Biology 23, 312–316

[http://www.cell.com/current-biology/pdf/S0960-9822\(13\)00003-1.pdf](http://www.cell.com/current-biology/pdf/S0960-9822(13)00003-1.pdf)

Putman,NF,Scanlan,MM, Billman,EJ, O’Neil, JP, Couture, RB, Quinn, TP,

Lohmann, KJ and Noakes, DLG (2014) An Inherited Magnetic Map Guides Ocean Navigation in Juvenile Pacific Salmon. *Current Biology* 24, 446–450
[http://www.cell.com/current-biology/pdf/S0960-9822\(14\)00018-9.pdf](http://www.cell.com/current-biology/pdf/S0960-9822(14)00018-9.pdf)

MSS would note that the 2013 ES did examine and use useful material which was available at the time – including Lohmann *et al.* (2008) and Yano *et al.* (1997), and information on swimming depth of salmon.

4th bullet – please provide publication details for the information relating to movement of salmon smolts in Scotland

This bullet was in connection with the timing of salmon smolt movement across Scotland and particularly referred to

Malcolm, IA, Millar CP and Millidine KJ (2015). Spatio-temporal variability in Scottish smolt emigration times and sizes. *Scottish Marine and Freshwater Science*. Volume 6 Number 2

<http://www.gov.scot/Resource/0047/00472202.pdf>. However more detailed information for some rivers is coming out of the various studies referred to in the 2nd bullet response above.

5th bullet – please provide full references for information on particle motion when responding to the particle motion request for info

Has been attended to in the particle motion request

With regards Q3, please could you clarify where in the 2013 ES that the likelihood of salmon being present in the development area is understated, considering that the assessment assumed salmon were present.

Statements in the 2013 ES Chapter 13 of the type

“conservative assumption that these species will be present in the Development Area and/or Offshore Export Cable Corridor.”

“As no definitive migratory routes exist for Scottish east coast Atlantic salmon it must be assumed that some individuals migrate through the Project area enroute from or to their natal rivers.”

“As the migration routes of these three species are not fully established, the precautionary assumption must therefore be that they may pass through the Offshore Export Cable Corridor during migrations to and from natal rivers”

understate the likelihood that salmon will be present. It is not that they may be present, it is that they are very likely to be present.

However, the 2013 ES did correctly note that

“No Atlantic salmon or sea lamprey were recorded during site specific surveys, however as these species are rarely captured at sea through trawling, this is not an indication that they do not migrate through the Development Area.”

and usefully refer to Malcolm *et al* (2010) with reference to likely behaviour of emigrating smolts and returning adults (see below).

There was an attempt in the 2017 Scoping Report to update on the likely presence of salmon.

“281. The research on the migratory routes of Atlantic salmon (Malcolm et al., 2010), also presented in the original ES, concluded that during migration of Atlantic salmon, fish followed the coastline to reach their migratory point. The Development Area is located at a minimum of 15 km from the coastline, and the location relative to the SACs designated for salmon makes it unlikely therefore that salmon would enter the Development Area on route to the coast during migration. Although it is difficult to conclude where smolt migrate, ongoing research and the general consensus within the scientific community is that they also migrate along coastal waters.”

This has shortcomings. It is likely in this part of Scotland that there is an offshore movement south of adult salmon returning to rivers, prior to fish following the coastline north to reach their natal rivers. Contrary to what is said, it is not unlikely that salmon will enter the Development Area on route to the coast during migration. And regarding smolt movement, it is not the case that there is a general consensus within the scientific community is that the smolts also migrate along coastal waters. The 2013 ES usefully referred to Malcolm et al (2010) which noted smolts had been recorded moving quickly to deeper more offshore waters with no evidence for coastal migration. The not yet published information from the various studies referred to in the 2nd bullet response would generally support this too.

COMMENTS ON NATURAL FISH AND SHELLFISH

MS-LOT used advice provided previously for the Moray East development on the effect of sediment on scallops and requested further advice regarding nephrops (see below). Confirmation was received from MSS that the Moray East advice was relevant to the nephrops as well as scallops.

Advice received previously (09 May 2017) in relation to Moray East

Thank you for your question. MSS would suggest that, should an assessment be required of the impact of sediment suspension and smothering of the different life stages of scallops, the following two pieces of work be undertaken:

- A review of literature on effects of suspended sediments to scallops (including different life stages); and
- Physical process modelling of likely spatial extent of suspended sediments from activities of concern.

These could be used to provide a comparison with the spatial extent of the scallop fishery, identified from commercial fisheries data (e.g. VMS data as described by Kafas *et al* (2012) and found online at Kafas *et al* (2013) . This would allow an understanding of the spatial extent of effects, if any, to scallops and provide a context within which to consider them.

References

Kafas, A., Jones, G., Watret, R., Davies, I., Scott, B., 2012. Representation of the use of marine space by commercial fisheries in marine spatial planning. ICES CM I:23.

Kafas, A., Jones, G., Watret, R., Davies, I., Scott, B., 2013. 2009 - 2013 amalgamated VMS intensity layers, GIS Data. Marine Scotland, Scottish Government. doi: 10.7489/1706-1

Advice received in relation to Inch Cape and the impact of gravity bases on scallops and nephrops (19 July 2017)

The developer is very keen to stress the reduced impacts of the development because of decreases in the numbers of WTGs, OSPs and inter-array cabling etc to be used, however it still represents a large project. Furthermore, the possible use of gravity base structures throughout the windfarm is concerning from a benthic ecology perspective. Significant dredging operations will be required to “prepare” the seabed for the installation of the GB structures which will result in the generation of increased suspended solid loads and increased smothering impacts as construction and (decommissioning) take place. Recovery times from these activities are estimated to be two to three years nearshore with up to ten years in deeper waters. Dredging pits are likely to be persistent features of the seabed topography for several years (Newell, R. C., et al, 1998). Reductions in dissolved oxygen levels and possible increases in heavy metal/chemical loads in the water column may also take place. Installation of alternative structures (monopoles or pin piles for example) would be less harmful in my opinion however the cabling required for these would be the same as for GBS I assume.

Pecten maximus has a low tolerance to smothering and to increases in suspended sediment levels so the mollusc would be adversely affected by the activities noted above. Spawning takes place in autumn of the first year after settlement and

subsequently in spring and autumn every year after that for a maximum of 20 years or so. Increased sediment loads and increased smothering of the seabed and dissolved chemicals levels will also impact the behaviour and survival of veliger larvae and their ability to settle onto suitable substrate. I would also note however that adults have the ability to swim and so may be able to escape the impacts from certain environmental factors such as those discussed here. Also, the avoidance of spawning/settlement periods when installing/removing hardware may be beneficial (if that is possible?).

Nephrops norvegicus is tolerant to smothering and to suspended solid load increases and decreases so these factors would probably not affect adult populations (more information on larval production larval development and juvenile *Nephrops* behaviour is needed) however removal of habitat by dredging would have a significant effect by destroying populations and removing the sediments best suited to burrowing. It has also been shown that re-colonisation/recovery of *Nephrops* populations after removal or would be prolonged.

From the above it would seem the *P. maximus* is vulnerable to impacts from the development while *N. norvegicus* probably isn't. Mapping of where these animals occur in relation to windfarm activities is needed along with information on population structure, recruitment levels and fishing effort. Mitigation also needs to be considered here.

COMMENTS ON PARTICLE MOTION – received 28 July 2017

Particle motion

Since the original Environmental Statement for the Inch Cape development was produced there has been a considerable increase in the relevant literature which suggests that there is potential for impacts from acoustic particle motion on fish and invertebrates. An issue that has been raised by MSS at the scoping meetings is the need to consider potential impact of acoustic particle motion on sensitive receptors in addition to the effects of sound pressure on fish species that are sensitive to this.

There is acknowledgement that understanding of the effects from particle motion, and extent of these effects, is currently an area for further development, and there are various initiatives being progressed. MSS considers that the currently available evidence suggests that particle motion could be an important mechanism of effect on fishes and invertebrates. As 2017 EIA Regulations require the Scottish Ministers to come to a reasoned conclusion on the significant effects on the environment of the development, based on up to date information, this information needs to be taken into account. MSS has provided a list of references, which may be useful, which is appended.

MSS suggests that ICOL takes the following approach:

- Provide an overview of currently available information on particle motion within the vicinity of noise producing construction and operational activities, including, for example, pile driving, dredging and explosions – both within the water column and the sea bed. This should include consideration of the likely distances at which elevated levels of particle motion may be detected.
- Provide an overview of the published information on sensitive species and potential physiological and behavioural effects of particle motion.
- Give consideration to the potential effects of particle motion on species known to occur around the development site, making use of information on species distribution from the original ES and information which has become available since then. Particular attention should be given to potential effects on species of commercial or conservation concern.
- Provide information on opportunities that the development may present to investigate effects of particle motion on fish and invertebrates.

Appendix II: Licensing Process

Consent Timescale and Application Quality

In December 2007, the Scottish Ministers announced an aspirational target to process new section 36 applications within a 9 month period, provided a Public Local Inquiry (“PLI”) is not held. This scoping opinion is specifically designed to improve the quality of advice provided to developers and thus reduce the risk of additional information being requested and subject to further publicity and consultation cycles. The Scottish Ministers will complete a processing agreement with ICOL.

Application

The application letter must detail how many licences are being sought, what marine licensable activities are proposed and what legislation the application is being made under.

Developers are required to submit two hard copies of the EIA report together with an electronic copy in a user-friendly PDF format which will be placed on the Scottish Government website. If requested to do so the developer must send to the Scottish Ministers such further hard copies of the EIA report as requested. Developers may be asked to issue the EIA report directly to consultees and in which case consultee address lists should be obtained from the Scottish Ministers.

Scottish Natural Heritage (“SNH”) has produced a Service Level Statement (“SLS”) for renewable energy consultation. This statement provides information regarding the level of input that can be expected from SNH at various stages of the EIA process. Annex A of the SLS details a list of references, which should be fully considered as part of the EIA process. A copy of the SLS and other vital information can be found on the renewable energy section of their website – www.snh.org.uk.

Ordnance Survey (“OS”) Mapping Records

Developers are requested at application stage to submit a detailed OS plan showing the site boundary and location of all deposits and onshore supporting infrastructure in a format compatible with The Scottish Government’s Spatial Data Management Environment (“SDME”), along with appropriate metadata. The SDME is based around Oracle RDBMS and ESRI ArcSDE and all incoming data should be supplied in ESRI shape file format. The SDME also contains a metadata recording system based on the ISO template within ESRI ArcCatalog (agreed standard used by The Scottish Government); all metadata should be provided in this format.

Gatecheck

The Scottish Ministers undertakes a gatecheck prior to formal submission of

applications and advises you to take full advantage of this service. The gatecheck is not designed as an in depth evaluation of the content of an EIA Report. However, it will allow the Scottish Ministers the confidence that minimum legislative requirements have been met prior to formal submission of the EIA Report. This should reduce the risk of the potential requirement for you to submit an addendum to the EIA Report and therefore be subject to re-advertisement and re-consultation. In order to assist the gatecheck process, a thorough gap analysis (Appendix III) of the issues identified in this Scoping Opinion should be drawn up for submission with the EIA Report. The timeline for the gatecheck will be agreed with ICOL through the processing agreement.

Advertisement

Where the developer has provided the Scottish Ministers with an EIA Report, the developer must publish their proposals in accordance with Regulation 14 of The Electricity Works 2017 (as amended) and Regulation 16 of The Marine Works 2017 (as amended). Licensing information and guidance, including the specific details of the adverts to be placed in the press, can be obtained from the Scottish Ministers. In addition, requirements under The Electricity (Applications for Consent) Regulations 1990 must be met.

If additional information is submitted further public notices will be required.

EPS licence

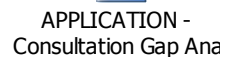
European Protected Species (“EPS”) are animals and plants (species listed in Annex IV of the [Habitats Directive](#)) that are afforded protection under [The Conservation \(Natural Habitats, &c.\) Regulations 1994](#) (as amended) and [The Offshore Marine Conservation \(Natural Habitats, &c.\) Regulations 2007](#) (as amended). All cetacean species (whales, dolphins and porpoise) are European Protected Species. If any activity is likely to cause disturbance or injury to a European Protected Species a licence is required to undertake the activity legally.

A licence may be granted to undertake such activities if certain strict criteria are met:

- there is a licensable purpose;
- there are no satisfactory alternatives, and;
- the actions authorised will not be detrimental to the maintenance of the population of the species concerned at favourable conservation status in their natural range.

Applicants must give consideration to the three fundamental tests and may choose to apply for an EPS licence following any grant of consent once construction methods have been finalised, however it is useful to include a shadow EPS assessment within the EIA Report.

Basking sharks are also afforded protection under the Wildlife & Countryside Act 1981 (as Amended by the Nature Conservation (Scotland) Act 2004).

[illegible]