

ANNEX C The Alpha Development Decision Notice and Conditions

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Our reference: 051/OW/SG1 - 10

XX Month 2019

Dear Mr Hill,

THE ELECTRICITY ACT 1989 (AS AMENDED)

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

**DECISION NOTICE FOR THE SECTION 36 CONSENT FOR THE CONSTRUCTION
AND OPERATION OF THE SEAGREEN ALPHA OFFSHORE WIND FARM,
APPROXIMATELY 27KM EAST OF THE ANGUS COASTLINE**

1 Application and description of the generating station

1.1 On 14 September 2018, Seagreen Wind Energy Ltd (Company number 6873902) (“the Company”) on behalf of Seagreen Alpha Wind Energy Limited (Company Number 07185533) submitted to the Scottish Ministers an application under the Electricity Act 1989 (as amended) (“the Electricity Act 1989”) for:

- A consent under section 36 (“s.36”) of the Electricity Act 1989 for the construction and operation of the Seagreen Alpha Offshore Wind Farm (“the Alpha Development”), approximately 27 kilometres (“km”) east of the Angus coastline (“the Application”).

1.2 The Company, along with the Application, also submitted to the Scottish Ministers on 14 September 2018, an application under the Electricity Act 1989 for a consent under s.36 of the Electricity Act 1989 for the construction and operation of the Seagreen Bravo Offshore Wind Farm

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(“the Bravo Development”), approximately 38km east of the Angus coastline (“the Applications”). The Alpha Development and the Bravo Development are hereinafter referred to as (“the Seagreen Developments”).

- 1.3 The Application was accompanied by an Environmental Impact Assessment Report (“EIA Report”) as required under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended) (“the 2017 EW Regulations”) and a Habitat Regulations Appraisal (“HRA Report”) as required under the Conservation of Offshore Marine Habitats and Species Regulations 2017 (“the Habitats Regulations”).
- 1.4 An addendum of additional information (“EIA Addendum Report”) concerning ornithology was submitted by the Company on 27 May 2019 in response to issues raised by consultees.
- 1.5 The Scottish Ministers carried out two consultations exercises:
 - A consultation on the Applications (“the Consultation”); and
 - A consultation on the EIA Addendum Report (“the EIA Addendum Consultation”).
- 1.6 The EIA Addendum Report is also referred to as part of the Application.
- 1.7 In addition to the Application, the Company has also applied for a marine licence (under the Marine and Coastal Access Act 2009 and the Marine (Scotland) Act 2010) for the construction of an offshore generating station, including Wind Turbine Generators (“WTGs”), associated foundations and substructures, scour protection and cable protection as required, and subsea inter array cable and protection where appropriate as described below. A separate decision Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) (“the 2007 MW regulations”) notice will be issued in respect of any marine licences granted. Given that the works associated with the generating station are all outside 12nm, marine licences will be granted under section 66(1), item 7 of the Marine and Coastal Access Act 2009 only.
- 1.8 The Application is for the construction and operation of an offshore energy generating station approximately 27km east of the Angus coastline. The generating station comprising:
 1. Up to 70, three-bladed horizontal axis WTGs on the site. There must be no more than 120 WTGs in-combination with the Seagreen Bravo Offshore Wind Farm.

Each WTG will have:

 - a) a maximum rotor tip height of 280 metres (measured from Lowest Astronomical Tide (“LAT”));

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- b) a maximum rotor diameter of 220 metres;
- c) a maximum hub height of 170 metres (measured from LAT);
- d) a minimum blade tip clearance of 32.5 metres (measured from LAT);
- e) blade width of up to 7.5 metres; and
- f) a minimum spacing of 1000 metres crosswind and 1000 metres downwind.

2. No more than 325km of inter-array cable;

3. Up to 70 foundations and substructures and associated fixtures, fittings and protections chosen from the following options:

- a) Gravity base;
- b) Monopile;
- c) Jacket with driven pile foundation;
- d) Jacket with suction caisson foundation;

All as described in the Application.

1.9 The total area within the Alpha Development site boundary is 197km². The location and boundary of the Alpha Development site is shown in Figure 1. **This decision notice contains the Scottish Ministers' decision to grant consent for the Alpha Development detailed above, in accordance with regulation 21 of the 2017 EW Regulations.**

2 Summary of environmental information provided by the Company

2.1 The environmental information provided was:

- An [EIA Report](#) that provided an assessment of the impact on a range of receptors; and
- An [EIA Addendum Report](#) as a result of the responses from Scottish Natural Heritage (“SNH”) and the Royal Society for the Protection of Birds Scotland (“RSPB Scotland”), received through the Consultation.

2.2 In May 2017, the Company submitted a [scoping report](#) and a request for a scoping opinion in respect of the Seagreen Developments to the Scottish Ministers. Following consultation with statutory and other consultees, a [scoping opinion](#) was issued by the Scottish Ministers on 15 September 2017, advising of the scope of the impacts to be addressed and the methods of assessment to be used within the EIA Report.

2.3 The Company currently holds a s.36 consent (“the Original Consent”) and a marine licence (which the Scottish Ministers granted in October 2014 and subsequently varied in August 2018 to remove the maximum installed capacity), for a generating station within the same boundary as the Application. The Company also currently holds a marine licence for the

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Offshore Transmission Asset (“OTA”). The OTA does not form part of the current Application. As the Company had substantial evidence from the previous [Environmental Statement \(“ES”\)](#) submitted on 15 October 2012, including the Addendum of additional information and an Erratum in relation to the HRA Report, contained within the Environmental Statement submitted on 18 October 2013 (collectively referred to as “the 2012 ES”), for the application made for the Original Consent, it was appropriate to scope out a range of potential effects which were not found to be significant previously and where the baseline and assessment methodologies had not changed since 2012. A number of receptors were scoped out of the assessment completely, including: physical environment, water and sediment quality, benthic ecology and other marine users and activities. For the receptors which were scoped in, the assessment was limited to those effects which could be significant.

- 2.4 The EIA Report and the EIA Addendum Report assessed the impact pathways identified in the scoping opinion and were prepared in accordance with the terms of the 2017 EW Regulations. As the request for a scoping opinion was made before 16 May 2017, the transitional arrangements within Part 12 of the 2017 EW Regulations applied.
- 2.5 A summary of the environmental information provided in the EIA Report and the EIA Addendum Report is given below. The EIA Report and the EIA Addendum Report assessed the Alpha Development and the Bravo Development each with a maximum of 70 WTGs separately and in combination with each other with a maximum of 120 WTGs (“the Combined Alpha and Bravo Developments”). The EIA Report and the EIA Addendum Report also assessed the combined Alpha and Bravo Developments cumulatively with other offshore wind farm developments. The Consultation exercise was undertaken and the responses received summarised for the Seagreen Developments rather than individually.
- 2.6 Ornithology
- 2.6.1 The EIA Report assessed the impacts on ornithology receptors during the construction, operation and decommissioning phases of the Seagreen Developments. Impacts scoped into the EIA Report were the potential effects of disturbance and displacement on kittiwake, guillemot, razorbill and puffin and collision mortality on gannet, kittiwake and herring gull. All other potential impacts on birds were scoped out due to the findings of the assessments completed for the 2012 ES remaining valid and agreement with stakeholders during consultation on the scoping report.
- 2.6.2 Additional survey data was collected from the Seagreen Development sites during the 2017 breeding season using a boat based survey method. The surveys were extended to include a more accurate estimation of the flight heights of birds and to survey a larger area than previously surveyed for the 2012 ES. This larger area included a buffer around the Seagreen

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Development sites of 2km. The survey data was then used to update, interpret and verify the results of the surveys undertaken to inform the assessment of impacts within the 2012 ES.

- 2.6.3 The EIA Report concluded that the potential impacts due to disturbance and displacement from the Seagreen Developments were assessed as remaining the same as those previously assessed within the 2012 ES, despite the calculation of those effects over a larger area than was previously assessed. No significant displacement impacts are predicted on any species due to the Seagreen Developments alone or in-combination with any other relevant plans and projects.
- 2.6.4 The EIA Report also concluded that the potential impacts due to collision mortality from the Seagreen Developments are considered to be generally lower than those previously assessed, notwithstanding the changes in methodology, which included the consideration of non-breeding season effects. For gannet, kittiwake and herring gull, no significant impacts are predicted due to collision mortality arising from the Seagreen Developments alone or cumulatively with other relevant projects and therefore no additional mitigation measures are proposed.
- 2.6.5 In addition to the EIA Report, the HRA Report considered the impacts of the Seagreen Developments on the Forth Islands Special Protection Area (“SPA”), Fowlsheugh SPA, St Abb’s Head to Fast Castle SPA, Buchan Ness to Collieston Coast SPA and Outer Firth of Forth and St Andrew’s Bay Complex proposed SPA (“pSPA”). The HRA Report concluded that the Seagreen Developments, both alone and in-combination with other plans and projects, are predicted to result in no adverse effects on the integrity of the pSPA and SPAs.
- 2.6.6 The Company committed to developing an Ornithology Monitoring Strategy (“OMS”) which will validate the findings of the EIA Report. The OMS will be agreed with Marine Scotland and will be used to inform a Project Environmental Monitoring Programme (“PEMP”). The Company will continue to engage with relevant stakeholders to inform the selection of the most appropriate monitoring methods for ornithological receptors.
- 2.6.7 The EIA Addendum Report considered the topic of ornithology for the operational period only. The EIA Addendum Report provided clarification and updates to the EIA Report. The EIA Addendum Report focussed on five species compared to six, because it was agreed that there would be no significant effects on herring gull and therefore no additional assessment was required for this species.
- 2.6.8 The EIA Addendum Report concluded that, based on the worst case scenarios and given the successful implementation of the embedded mitigation measures described in section 18.7 of the EIA Report, adverse

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impacts from the Seagreen Developments were considered to be negligible and of minor significance and therefore not significant in EIA terms.

2.7 Marine Mammals

2.7.1 The EIA Report assessed the potential disturbance, displacement and Permanent Threshold Shift (“PTS”) impacts from underwater noise generated from piling operations. The species subject to the assessment were bottlenose dolphin, harbour seal, grey seal, harbour porpoise, minke whale and white beaked dolphin. All other species and impacts on marine mammals were scoped out as they remained unchanged from the assessments completed for the 2012 ES.

2.7.2 The Company committed to a range of mitigation measures in the EIA Report to reduce the effects on any marine mammals including the implementation of a Piling Strategy (“PS”), incorporating a Marine Mammal Mitigation Plan (“MMMP”), to reduce to acceptable levels, the potential risk of injury or mortality to marine mammals in close proximity to the piling operations. The utilisation of a soft-start procedure during piling operations will be implemented and Acoustic Deterrent Devices (“ADDs”) will be used if required. A Vessel Management Plan (“VMP”) will be developed to include codes of conduct for vessel behaviour and for vessel operators to increase the awareness of areas of high risk.

2.7.3 The specific effects of the Seagreen Developments were predicted to have no significant impact on any marine mammal species. This applies to the Seagreen Developments alone and in-combination with other plans and projects. The assessment within the EIA Report concluded that with or without the use of ADDs incorporated into the construction method, no significant impacts are predicted.

2.7.4 In addition to the EIA Report, the HRA Report considered the impacts of the Seagreen Developments on the Berwickshire and North Northumberland Coast Special Area of Conservation (“SAC”), Isle of May SAC, Firth of Tay and Eden Estuary SAC and Moray Firth SAC. The HRA Report concluded that the Seagreen Developments would not adversely affect the integrity of these protected sites alone or in-combination with other plans or projects.

2.8 Natural Fish and Shellfish

2.8.1 The impacts on natural fish and shellfish during the construction phase of the Seagreen Developments were assessed in the EIA Report. The 2017 scoping opinion identified that the proposed use of monopile foundations for the Seagreen Developments may potentially increase the magnitude of underwater noise, which could have adverse impacts on fish and shellfish populations.

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- 2.8.2 The assessment focused on herring, in line with the 2017 scoping opinion and the potential effects of piling noise to impact their spawning behaviour. The 2012 ES informed the baseline and updated assessments have been undertaken where appropriate, particularly in relation to Atlantic salmon. The EIA Report also reviewed the potential for suspended sediment mobilisation and smothering from gravity base installation in relation to scallops and nephrops and underwater noise in terms of particle motion effects. The marine and migratory fish monitoring strategy prepared in respect of the Original Consent, concluded that no further monitoring was required and this was discussed and agreed at the Forth and Tay Regional Advisory Group (“FTRAG”) meeting held on 24 June 2019.
- 2.8.3 The assessment is based on the worst case scenarios in terms of foundation design which would maximise either the potential for the greater magnitude of underwater noise associated with hammer piling of monopiles to arise or the duration of underwater noise of jacket pin piles as piling in this case would take place over a longer period of time than that of other potential foundation designs.
- 2.8.4 No significant impacts to any fish or shellfish species are predicted. Physical injury and mortality impacts of piling are expected to be negligible, whilst behavioural impacts, including upon herring engaged in spawning behaviour, are expected to be of no more than minor adverse significance which is not considered significant in EIA terms. In addition, no significant cumulative impacts are predicted and therefore no monitoring is required.
- 2.9 Seascape, Landscape and Visual Amenity
- 2.9.1 The EIA Report considered the potential effects upon both seascape and landscape character and visual amenity that may arise from the Seagreen Developments. The EIA Report considered direct impacts or physical changes to seascape; indirect impacts on the character and quality of the seascape; direct impacts on the visual amenity of visual receptors; and indirect impacts on visual receptors in different places.
- 2.9.2 The EIA Report concluded that the Seagreen Developments will have significant effects on visual amenity on two viewpoints at St Cyrus and Braehead of Lunan. These effects result from the Alpha Development being visible from these viewpoints. No significant impacts are predicted for the Bravo Development.
- 2.9.3 The Seagreen Developments are predicted to combine with a number of other onshore and offshore wind farms, as well as other projects, to contribute to cumulative and in-combination effects. The two viewpoints have been assessed to have moderate cumulative effects. These moderate cumulative effects are not considered to be worse than those considered in the Original Consent.

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2.9.4 The location and distance of the Seagreen Developments from the nearest coastline, combined with its siting in the same location as the Original Consent, where the principle of construction and operation of the generating station has effectively already been accepted through the Original Consent, means that there are no additional significant effects upon either the seascape or landscape environment, or visual amenity as a result of the Seagreen Developments.

2.10 Shipping and Navigation

The impacts of the Seagreen Developments on shipping and navigation receptors during the construction, operational and decommissioning phases were considered in the EIA Report. The impacts of the Seagreen Developments in isolation were found to be broadly acceptable for all vessels with the exception of commercial vessels when considered in-combination and cumulatively with other projects. The impact on commercial vessels directly arises from the activities associated with the construction phase. The impacts are likely to have a small spatial extent and be localised to the buoyed construction area; however, it was concluded in the EIA Report that these impacts were found to be acceptable with a number of mitigation measures embedded in project design parameters and mitigation through various communication strategies, all in line with those identified both in the EIA Report at Chapter 18, section 18.36 and also within the 2012 ES.

2.10.1 Cumulative effects, including impacts from the loss of navigable sea room and deviations around the structures, thereby resulting in increased allision (vessel to structure) and collision risk, were reported as being of moderate significance for all vessel types and that impacts on these receptors, remain the same or less than those assessed for the 2012 ES. Impacts on recreational vessels were not assessed as there was no cumulative pathway identified, largely due to the low levels of recreational vessel activity recorded and the distance from shore.

2.11 Military and Civil Aviation

2.11.1 The EIA Report identified major significant effects on military and aviation receptors as a result of the Seagreen Developments during the operational phase.

2.11.2 The EIA Report stated that the Seagreen Developments in isolation would have major significant effects on the Ministry of Defence (“MOD”) Air Traffic Control (“ATC”) Radar at Leuchars Station (formerly RAF Leuchars), Remote Radar Head (“RHH”) Brizlee Wood and RRH Buchan Air Defence Radars (resulting from reflected turbine signals from the WTGs).

2.11.3 The EIA Report also stated that the Seagreen Developments in isolation would have an effect on the National Air Traffic Service Safeguarding

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(“NATS”), En-Route Radar at Perwinnes. The EIA Report concluded that NATS formally confirmed that a mitigation solution had been agreed which involves blanking the Perwinnes radar and implementing a transponder mandatory zone.

2.11.4 No significant impacts are anticipated for helicopter routes or offshore platforms as none are identified in proximity to the Seagreen Developments.

2.11.5 The EIA Report concluded that, with the implementation of suitable mitigation measures, no further assessment with respect to cumulative effects is required. Whilst other wind farm developments may be located in close proximity to the Seagreen Developments, the impact on any aviation receptor is a standalone effect and can therefore be considered in isolation. The EIA Report stated that it will be necessary for mitigation measures to be carried out under separate arrangements, such as negotiations and discussions with the MOD.

2.12 Commercial Fisheries

2.12.1 Impacts during the construction, operation and decommissioning phases of the Seagreen Developments were considered within the EIA Report. The potential effects of decommissioning are considered to be equivalent to, or likely less than those of the construction phase. The assessment of impacts contained within the EIA Report considered the worst case scenario.

2.12.2 During the construction and operational phases, impacts considered were the potential temporary loss of, or restricted access to, traditional fishing grounds, displacement of fishing activity into other areas, safety issues for fishing vessels, increased steaming times to fishing grounds, interference with fishing activity and complete loss of, or restricted access to, traditional fishing grounds.

2.12.3 The predominant fishing activity within the boundaries of the Seagreen Developments is scallop dredging. Trawling for squid and creeling for lobster and crabs also occurs in the immediate vicinity of the Seagreen Developments, however, to a much lesser extent. The wider area around the Seagreen Developments also support nephrops and whitefish fisheries.

2.12.4 The majority of the impacts predicted within the EIA Report are shown to be of minor significance with no requirement for additional mitigation measures. Potential impacts of moderate significance are predicted on local scallop dredgers through temporary loss of, or restricted access to, traditional fishing grounds and displacement during construction. The Company recognised the requirement for mitigation and has committed to follow the FLOWW Guidelines (2015) for affected fisheries.

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2.12.5 The proposed mitigation measures will be incorporated in the Fisheries Management and Mitigation Strategy (“FMMS”) which will be consulted upon with relevant stakeholders.

2.13 Archaeology and Cultural Heritage

2.13.1 All potential impacts on archaeology and cultural heritage were scoped out of the EIA Report based on the 2017 scoping report, which concluded that no further significant effects were predicted than those assessed in the 2012 ES. However, further consideration was to be made in respect of the Bell Rock Lighthouse and Ladyloan Signal Tower during all phases of the Seagreen Developments. This was due to concerns raised by Angus Council in its response to the scoping report.

2.13.2 The EIA Report detailed that the effects arising from the Seagreen Developments on these particular settings were reported to be of moderate/minor significance and therefore not considered significant in EIA terms.

2.13.3 The cumulative assessment presented in the EIA Report considered the impact of the Seagreen Developments alongside WTGs from Neart na Gaoithe and Inch Cape offshore wind farms in relation to the setting of each onshore receptor. During the operation and maintenance phase, setting changes were deemed to have a minor effect on Bell Rock Lighthouse and Ladyloan Signal Tower. These effects were not deemed to be significant in EIA terms.

2.14 Socio-Economics, Tourism and Recreation

2.14.1 The EIA Report focused on the impact that the Seagreen Developments would have on the Scottish and UK economies and the socio-economic context in which the Seagreen Developments would operate. The EIA Report did not consider tourism and recreation impacts that were considered in the 2012 ES as the changes to onshore visibility of the Seagreen Developments are minimal and the conclusions of the 2012 ES in relation to these impacts are still considered valid.

2.14.2 New socio-economic baseline information has been collected since the 2012 ES to reflect changes to the socio-economic, policy and industrial context that have occurred in this time. Particularly, the increase in activity in the offshore wind energy sector in the UK in this time period has resulted in the development of the supply chain and subsequently a greater understanding of the economic opportunities that the offshore wind energy sector can create.

2.14.3 Due to the scale of the Seagreen Developments, there are expected to be significant beneficial impacts upon the Scottish economy during the development and construction of the Seagreen Developments. These

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include direct impacts upon employment likely to occur in the manufacturing, construction, professional and scientific sectors. The economic impact of the Seagreen Developments during the development and construction phase has been estimated to be £549 million Gross Value Added (“GVA”) with 8,540 job years in Scotland and £1.2 billion GVA with 18,770 job years across the UK.

- 2.14.4 During the operational lifetime of the Seagreen Developments it is predicted that continual positive economic impacts upon the Scottish and UK economies will occur. These impacts are not considered to be of significance in EIA terms due to the relative insensitivity of these economies. The annual economic impact of the Seagreen Developments during the operational lifetime has been estimated to be £19 million GVA with 320 jobs in Scotland and £30 million GVA with 410 jobs across the UK.
- 2.14.5 Over the lifetime of the Seagreen Developments, the EIA Report considers an expenditure of £3.5 billion, 27% of which is secured within Scotland and 50% is secured within the UK. The EIA Report also considers a total lifetime expenditure of £5.7 billion, 27% of which is secured in Scotland and 50% is secured within the UK.
- 2.14.6 The additional impacts associated with the cumulative developments of other local offshore wind farm projects have been assessed as being beneficial but minor and therefore not significant in EIA terms. The economic impacts quantified for both the Scottish and UK economies are greater than those described in the 2012 ES. This is due to the greater level of installed capacity and therefore the greater level of investment required.

3 Consultation

- 3.1 In accordance with the 2017 EW Regulations, on 14 September 2018, the Company submitted an EIA Report and HRA Report describing the Seagreen Developments and giving an analysis of its environmental effects. On 15 May 2019, the Company submitted an EIA Addendum Report.
- 3.2 Advertisements of the Application and EIA Addendum Report were made in the local and national press and the Application website. The notices were placed in the public domain and the opportunity given for those wishing to make representations.
- 3.3 The dates of the consultation exercises are given below. The regulatory requirements regarding consultation and public engagement have been met and the responses received taken into consideration. Where matters have not been fully resolved, conditions have been included to ensure appropriate action is taken.

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Document	Date Received	Dates of consultation	Publication
EIA Report and Application	14 September 2018	21 September 2018 to 06 November 2018 21 September 2018 - 25 January 2019 (for planning authorities)	The Scotsman (25 September 2018) Arbroath Herald (27 September and 04 October 2018) Montrose Review (28 September and 05 October 2018) Dundee Courier (25 September 2018) Edinburgh Gazette (25 September 2018) Company Website (21 September 2018)
EIA Addendum Report	15 May 2019	27 May 2019 – 08 July 2019	The Scotsman (27 May 2019) Arbroath Herald (24 and 31 May 2019) Montrose Review (30 May and 06 June 2019) Dundee Courier (27 and 28 May 2019) Edinburgh Gazette (28 and 31 May 2019) Company Website (24 May 2019)

3.4 A summary of the responses received is set out at sections 4, 5 and 6. In addition, specialist advice was provided by Marine Scotland Science (“MSS”) and the Marine Analytical Unit (“MAU”). The advice received from MSS and MAU is set out at section 7.

3.5 The responses to the Consultation are available to review [here](#).

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- 3.6 The responses to the EIA Addendum Consultation are available to review [here](#).
- 3.7 In addition, SNH was consulted on the Appropriate Assessment (“AA”) completed by the Scottish Ministers.

4 Summary of statutory consultee responses

- 4.1 Under the 2017 EW Regulations, the statutory consultees are SNH; the Scottish Environment Protection Agency (“SEPA”); and Historic Environment Scotland (“HES”). The planning authorities whom the Scottish Ministers considered appropriate to consult in respect of the Seagreen Developments are Angus Council, Dundee City Council, East Lothian Council, Fife Council and Scottish Borders Council.
- 4.2 Angus Council
- 4.2.1 Angus Council responded on 9 January 2019 and provided comments focused on changes arising from the Original Consent. Angus Council commented that the Seagreen Developments may give rise to significant impacts specifically in relation to seascape, landscape and visual impacts and impacts on cultural heritage.
- 4.2.2 Angus Council considered the assessment in the EIA Report captured the potential effects associated with the proposed turbine specification and concluded the impact would not be greater than the Original Consent. Angus Council noted the increase in the height of the turbines would mean these would be more visible and there would still be a significant visual impact however, noted this was not unacceptable.
- 4.2.3 Angus Council commented that the Company had considered issues regarding lighting for shipping, navigation and aviation in greater detail however, expressed concern that the lighting issues had still not been sufficiently assessed. Angus Council recommended further consideration is needed.
- 4.2.4 In relation to cumulative impacts, Angus Council expressed its existing concerns remained regarding the visual impact of the relative height of the Forth and Tay Developments. Angus Council recommended a co-ordinated approach to the finalised heights of each development should be considered in order to avoid a poor visual image with differing heights. In addition, it recommended further consideration on the cumulative impacts associated with the lighting of the Forth and Tay Developments to ensure a consistent lighting solution is identified to mitigate adverse impacts.
- 4.2.5 Concerning impacts on cultural heritage, Angus Council commented it had previously expressed concerns regarding the impact on the Bell Rock Lighthouse. Angus Council highlighted the assessment was still limited concerning this however, noted HES was content for this to be scoped out

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of the EIA Report. Angus Council did not provide any further comments on this basis.

4.2.6 Angus Council did not object to the Seagreen Developments and raised no new or significant concerns.

4.2.7 Angus Council responded to the EIA Addendum Consultation on 4 June 2019 and had no additional comments.

4.2.8 Conditions have been placed upon the s.36 consent to provide an opportunity for Angus Council to respond to further consultation on the Design Specification and Layout Plan (“DSLPL”), Design Statement (“DS”) and a Lighting and Marking Plan (“LMP”).

4.3 Dundee City Council

4.3.1 Dundee City Council did not respond to the Consultation, however it provided a response in relation to the EIA Addendum Consultation on 29 May 2019 and had no comments to make.

4.4 East Lothian Council

4.4.1 East Lothian Council responded on 23 January 2019 and made a number of comments in relation to the EIA Report and considered impacts on biodiversity, pollution and shipping, seascape and landscape and decommissioning.

4.4.2 East Lothian Council stated that it did not wish to object to the Seagreen Developments, provided a number of conditions were placed on the s.36 consent.

4.4.3 East Lothian Council also stated that the Seagreen Developments must not be constructed or operated if the originally consented project is built.

4.4.4 East Lothian Council commented it was not clear on whether the impacts on biodiversity would be greater or less than the Original Consent. If SNH considered the adverse effects on the integrity of a Natura 2000 site within or adjacent to East Lothian are greater than the Original Consent, East Lothian Council would object to the Applications.

4.4.5 East Lothian Council expressed concerns with regard to the safety of shipping and the risks of pollution. East Lothian Council requested conditions to be included in the consent to ensure best practice is adhered to, to avoid risk of pollution. A condition to ensure financial provisions are in place is key to ensure East Lothian Council is not responsible for the costs if an incident does occur.

4.4.6 East Lothian Council considered the landscape and visual impacts on two viewpoints at Dunbar cliffs and North Berwick Law. East Lothian Council concluded there would be no significant effect due to the distance of the

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Seagreen Developments from East Lothian. However, requested consideration should be given to the lighting of the turbines and identification lighting should be conditioned to be directional to reduce the visibility. East Lothian Council further recommended a condition should be included to ensure lighting is monitored and a maximum and minimum lighting requirement is included.

- 4.4.7 East Lothian Council expressed concerns with regard to the removal of all structures of the Seagreen Developments and requested to be consulted on any Decommissioning Programme (“DP”) prior to its approval.
- 4.4.8 East Lothian Council expressed the opinion that the whole project including the onshore aspects should be considered and assessed within the EIA Report however, commented Marine Scotland are the authority to determine whether this is satisfactory.
- 4.4.9 East Lothian Council made several comments with respect to planning policies (the National Planning Framework 3, Scotland’s National Marine Plan and the East Lothian Local Development Plan). East Lothian Council noted Scottish planning policy contains strong support for the development of renewable energy as well as protection of the natural and historic environment.
- 4.4.10 East Lothian Council consulted the community councils closest to, and with the greatest theoretical visibility of, the Seagreen Developments: North Berwick, Gullane and District, Dunpender, Dunbar and West Barns Community Councils. Dunbar and West Barns Community Councils expressed concerns on the basis of the height of the turbines and the effects on bird life.
- 4.4.11 The Company provided a response to address East Lothian Council’s comments on 9 July 2019. The Company noted East Lothian Council stated an objection to the Application if SNH consider that there are adverse effects to the integrity of a Natura 2000 site within or adjacent to East Lothian, greater than for the Original Consent. The Company recognised Dunbar and West Barns Community Councils’ concerns regarding the proposed height of the wind turbines and the potential effects on bird life and highlighted an EIA Addendum Report was produced to provide additional information on potential ornithological impacts. The Company noted it concluded, in all cases, effects from the Seagreen Developments, both alone and including the worst case cumulative scenario, would be negligible and less than those predicted for the Forth and Tay Developments as consented in 2014. In addition, the Company commented that the HRA Report concluded there would be no adverse effects on the integrity of any SPA.
- 4.4.12 The Company noted the condition requests from East Lothian Council and stated that it expects consent conditions to be placed upon any consent granted. The Company confirmed that East Lothian Council were consulted

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regarding seascape and landscape visual impacts and additional viewpoints were included as a result. The Company reiterated that as the turbines will be over 70km from the coastline of East Lothian, they will have minimal visual impact, they did however agree with the comments regarding North Berwick Law as not being affected.

4.4.13 East Lothian Council also responded on 15 July 2019 in response to the EIA Addendum Consultation deferring to SNH's expertise on ornithological issues.

4.4.14 SNH responded to the EIA Consultation and stated that the 2018 cumulative impacts have been substantially reduced from those previously assessed in 2014. Therefore East Lothian Council's comment regarding Natura 2000 sites has been satisfied and is not taken as an objection.

4.4.15 Conditions have been placed upon the s.36 consent to mitigate the impacts highlighted by East Lothian Council above, including the requirement to prepare, consult on and adhere to a DSLP, a DS, an LMP, a DP, a Marine Pollution Contingency Plan ("MPCP") and a PEMP to address the concerns outlined above. This will provide an opportunity for East Lothian Council to respond to further consultation on the plans.

4.5 Fife Council

4.5.1 Fife Council provided a response on 13 December 2018 and raised no objection to the Seagreen Developments.

4.5.2 Fife Council highlighted its previous concerns regarding the cumulative impact of the Forth and Tay Developments on bird species, specifically in relation to the Forth Islands SPA. Fife Council is satisfied SNH will provide advice regarding the adverse effect on the integrity of the Forth Islands SPA and any other European site.

4.5.3 Fife Council had no additional comments in response to the EIA Addendum Consultation.

4.5.4 Conditions have been placed upon the s.36 consent to address the concerns raised by Fife Council, including the requirement to prepare, consult on and adhere to a PEMP, this will provide Fife Council the opportunity to comment on further consultation in relation to the cumulative impact on bird species.

4.6 Historic Environment Scotland

4.6.1 HES responded on 4 October 2018 and provided no comments on the Application. HES is content that an assessment on cultural heritage was not included in the EIA Report as per its advice to the scoping report dated 28 June 2017.

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4.6.2 HES had no comments in response to the EIA Addendum Consultation. HES noted there had been no change to the assessed effects on the historic environment.

4.7 Scottish Borders Council

4.7.1 Scottish Borders Council responded on 24 January 2019 and raised no objection to the Seagreen Developments. Scottish Borders Council is of the opinion the revised design is unlikely to create any significant effects as it is very distant from the Borders coastline.

4.7.2 An ecology officer from Scottish Borders Council recognised there may be impacts on St Abb's Head to Fast Castle SPA in relation to kittiwake however, is content this will be considered by the Scottish Ministers. Scottish Borders Council also recommended a condition to ensure mitigation is in place to address any significant adverse impacts on seabird populations at St Abb's Head to Fast Castle SPA. The AA completed by the Scottish Ministers concluded that the Seagreen Developments alone and in-combination with other projects would not adversely affect the integrity of St Abb's Head to Fast Castle SPA.

4.7.3 Scottish Borders Council recommended there should be a condition for a PS. The PS should include mitigation measures to ensure sequential pile driving is avoided in relation to other in-combination proposals.

4.7.4 Conditions have been placed upon the s.36 consent to address the concerns raised by the Scottish Borders Council, including the requirement to prepare, consult on and adhere to a PEMP and a PS (to include monitoring of the impacts of the Seagreen Developments on ornithology receptors). This will provide Scottish Borders Council the opportunity to respond to further consultation in relation to these matters.

4.8 Scottish Environment Protection Agency

4.8.1 SEPA responded on 24 October 2018 and had no comments to make. SEPA noted the location of the Seagreen Developments is beyond the normal regulatory limit of SEPA. SEPA commented on the proposal for onshore connection, which is within SEPA's remit, and noted any changes to this would require further consultation with SEPA.

4.8.2 SEPA received confirmation from the Scottish Ministers that its comments were received however this application was for the offshore wind farm and the 2014 marine licence for the export cable was not being amended.

4.8.3 SEPA had no comments to make on the EIA Addendum Consultation.

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4.9 Scottish Natural Heritage

- 4.9.1 SNH submitted an objection to the Seagreen Developments on 2 November 2018 and advised it was unable to reach a definitive conclusion on the predicted impacts of the Seagreen Developments alone.
- 4.9.2 Concerning ornithology, SNH noted the Company deviated from the scoping opinion in the impact assessment methods, specifically, with the additional survey data, choice of Collision Risk Modelling (“CRM”) options and outputs taken forward into the Population Viability Analyses (“PVAs”). This was later addressed in the EIA Addendum Report.
- 4.9.3 SNH advised, based on the Counterfactual of Population Size (“CPS”), and in-combination with the consented 2014 Neart na Gaoithe and Inch Cape wind farms and other North Sea offshore wind farms, the Seagreen Developments:
- are likely to have an adverse effect on the site integrity of Forth Islands SPA (kittiwake and northern gannet as qualifying interests) and Fowlsheugh SPA (kittiwake as qualifying interests); and
 - could have an adverse effect on site integrity of Forth Islands SPA and Fowlsheugh SPA (razorbill as qualifying interest) and St Abb’s Head to Fast Castle SPA (kittiwake as qualifying interest).
- 4.9.4 In relation to seascape, landscape and visual impacts, SNH advised that the increased turbine height (201 metres to 280 metres) of the Seagreen Developments, in addition to Neart na Gaoithe, Inch Cape and Kincardine offshore wind farms, contributes to a widespread significant adverse cumulative effect on receptors in South Aberdeenshire, Angus and Fife.
- 4.9.5 SNH is broadly in agreement with the Company’s conclusions relating to the nature and extent of the cumulative effects on coastal and landscape character. However, in some instances SNH is of the opinion the Company underestimated the magnitude of cumulative change.
- 4.9.6 SNH advised that for a number of other key natural heritage interests consisting of marine mammals, diadromous fish, marine fish and shellfish, the greatest impacts will arise during the construction phase of the Seagreen Developments. SNH recognised these impacts can be mitigated through conditions and wishes to provide advice on any conditions which mitigate impacts on natural heritage.
- 4.9.7 In relation to marine mammals, SNH agreed with the Company’s conclusion that the magnitude of impact is low and the significance of effect from PTS is minor for all species and scenarios. SNH was satisfied to see the underwater noise modelling was run with a one percent conversion factor.

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- 4.9.8 SNH noted the Company has identified the need for an European Protected Species (“EPS”) licence and advised an EPS licence would be required for both piling and geophysical surveys. In addition, considering the Company predicted large effect zones of cumulative PTS for minke whale, SNH advised an EPS licence for injury may be required, unless appropriate mitigation is included in the PS.
- 4.9.9 SNH advised there would be no adverse effect on site integrity of any of the SACs, with respect to the following qualifying interests, subject to conditions on any consent or licence granted:
- Moray Firth SAC – bottlenose dolphin;
 - Firth of Tay and Eden Estuary SAC – harbour seal;
 - Isle of May SAC – grey seal; and
 - Berwickshire and North Northumberland Coast SAC – grey seal.
- 4.9.10 Concerning diadromous fish, SNH advised the most significant potential impacts arise from noise, electromagnetic field and sediment. SNH welcomed the Company’s mitigation to minimise impacts on both diadromous and marine fish species, including the Company’s intention to bury cables to a suitable depth for the majority of inter-array cables. SNH welcomed the use of soft start during piling to enable fish to move away from the piling operations.
- 4.9.11 SNH requested clarity on several aspects concerning ornithology. In response to this, the Company provided an EIA Addendum Report to update the ornithological impact assessment.
- 4.9.12 SNH responded to the EIA Addendum Consultation on 5 July 2019 and noted it was content that the updated ornithological impact assessment had been carried out to a high standard.
- 4.9.13 SNH advised the Seagreen Developments, when considered alone, will not lead to adverse impacts on site integrity for any of the SPAs under consideration. SNH advised the cumulative impacts of the Seagreen Developments in-combination with the Inch Cape and Neart na Gaoithe 2018 applications will not have any adverse impacts on site integrity for any SPAs under consideration. SNH commented these cumulative impacts from the Forth and Tay Developments have been substantially reduced from those assessed in 2014.
- 4.9.14 SNH maintains its objection to the Seagreen Developments in-combination with the s.36 consents granted for Inch Cape and Neart na Gaoithe in 2014 as in its view this will lead to an adverse effect on the integrity of Forth Islands SPA with respect to gannet and Forth Islands SPA, Fowlsheugh SPA and St. Abb’s Head to Fast Castle SPA with respect to kittiwake.

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- 4.9.15 SNH has no outstanding concerns in respect of displacement impacts to puffin, guillemot or razorbill.

The Seagreen Developments overlap the Firth of Forth Banks Complex Nature Conservation Marine Protected Area (“NC MPA”). An MPA assessment was completed prior to the Original Consent being granted and this assessment concluded that there would be no significant risk of the Original Consent hindering the achievement of the conservation objectives for the Firth of Forth Banks Complex NC MPA. SNH advised in an email dated 27 August 2019 that this conclusion remains the same for the Application and there is no merit in undertaking a new NC MPA assessment. SNH advised that mitigation options to reduce impacts further as discussed in the 2014 MPA assessment remain valid and should be informed by a benthic monitoring strategy.

- 4.9.16 SNH requested conditions are included on any consent to address all aspects of environmental monitoring and management. SNH further requested that predicted impacts are properly assessed through a robust programme of post-consent monitoring.

- 4.9.17 Conditions have been placed upon the s.36 consent to mitigate the impacts highlighted by SNH above including the requirement to prepare, consult on and adhere to a DSLP, a CoP, a CMS, a CaP, a PEMP, a VMP, a PS and an Environmental Management Plan (“EMP”) The Company is also required to participate in the FTRAG and Scottish Marine Energy Research (“ScotMER”) Programme. This will provide an opportunity for SNH to respond to further consultation.

5 Summary of non-statutory consultee responses

5.1 Aberdeen International Airport Limited (“AIAL”)

- 5.1.1 AIAL responded on 16 November 2018, from an aerodrome safeguarding perspective, and advised that the Seagreen Developments could conflict with safeguarding criteria set out by the Civil Aviation Authority (“CAA”). AIAL stated it had no objection to the Application provided the following conditions are attached to any consents granted:

- 5.1.2 *“(1) That, prior to the commencement of the development, a Primary Radar Mitigation Scheme (“PRMS”) setting out measures to be taken to prevent the impairment of the performance of aerodrome navigation aids and the efficiency of air traffic control services at Aberdeen Airport must be submitted to, and approved in writing, by the Consenting Authority, in consultation with Aberdeen International Airport Limited; and*
- (2) No wind turbine forming part of the development shall be erected other than in accordance with the approved PRMS; and*

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(3) The development must be constructed, commissioned and operated at all times fully in accordance with the approved PRMS.”

5.2 Conditions have been placed upon the s.36 consent to mitigate the impacts highlighted by AIAL, including the requirement to prepare, consult on and adhere to a PRMS to provide AIAL an opportunity to respond to further consultation.

5.3 British Telecom (Radio Network Protection Team) (“BT”)

5.3.1 BT provided a response on 16 October 2018 and raised no objection to the Application. BT studied the Application with respect to electromagnetic compatibility and related problems to BT point-to-point microwave radio links.

5.3.2 BT concluded the Seagreen Developments should not cause interference to BT’s current and presently planned radio network.

5.4 Forth Ports

5.4.1 Forth Ports responded on 13 November 2018 and suggested the cumulative effects of traffic and the need for coastal Vessel Traffic Services should be addressed.

5.4.2 Conditions have been placed upon the s.36 consent to mitigate the impacts highlighted by Forth Ports including the requirement to prepare, consult on and adhere to a VMP to provide Forth Ports the opportunity to respond to further consultation.

5.5 Inch Cape Offshore Limited (“ICOL”)

5.5.1 ICOL responded on 26 October 2018 and provided comments in context with ICOL’s assessments in its 2013 environmental statement and 2017 scoping report. Overall, ICOL noted only methodologies for cumulative assessments relating to ornithology and marine mammals differed. Revised assessments in relation to ornithology were undertaken and provided within the EIA Addendum Report.

5.5.2 In relation to ornithology, ICOL noted the Company’s CRM differed from ICOL’s however, commented the Company’s assessment potentially provides a more realistic scenario and is supportive of continued discussion of using as-built scenarios as the basis of assessments. ICOL noted the parameters used in the CRM were consistent with the parameters used in its assessment.

5.5.3 ICOL commented on the difference in the numbers of grey seals disturbed between the Seagreen Developments, in comparison to Neart na Gaoithe and Inch Cape, is likely to be a difference in assessment methodology used

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at the time of the assessments. ICOL noted the methodology it used was in keeping with the best practice at the time.

5.5.4 In relation to the assessment of the impacts of cumulative PTS on bottlenose dolphin, ICOL agreed with the Company's conclusions.

5.5.5 ICOL disagreed with some of the Company's assessments on commercial fishing, specifically in relation to the Company's statement that construction activities at other projects would be the primary source of disruption to scallop dredging activity. ICOL also suggested that the contribution to cumulative lobster and crab fishing impacts from the Alpha Development and the Bravo Development were similar if not larger than the contribution from Neart na Gaoithe and Inch Cape.

5.5.6 ICOL noted it would be beneficial for an industry decision on standardising night time visual assessments going forward. ICOL commented that it is not clear on what intensity of lighting the Company is considering and suggested there may be a theoretical impact and further justification may be required.

5.6 Maritime and Coastguard Agency

5.6.1 The MCA provided comments on 6 November 2018 specifically regarding the Navigation Risk Assessment ("NRA"). The MCA is satisfied all aspects have been adequately addressed within the NRA however, MCA noted that if consent is to be granted, some matters will require to be addressed and agreed with the MCA prior to construction.

5.6.2 The MCA commented that the turbine layout design and lighting and marking arrangements will require approval by the MCA prior to construction and emphasised this must be discussed at the earliest opportunity. The MCA noted the lighting and marking arrangements should also be agreed in conjunction with the NLB.

5.6.3 The MCA noted a search and rescue checklist will need to be completed and agreed prior to construction. The MCA stated that this includes the requirement for an approved Emergency Response Co-operation Plan ("ERCoP") which should be included as a condition. The MCA commented the s.36 consent should also include the requirement for an agreed construction plan prior to the commencement of any works.

5.6.4 The MCA highlighted that hydrographic surveys are required as part of fulfilling the Marine Guidance Note ("MGN") 543. The MCA requested that the final data is supplied as a digital full density data set, and the report of the survey is submitted to the MCA Hydrography Manager and the UK Hydrographic Office ("UKHO"). In addition, it requested that all hydrographic surveys provide full seafloor coverage.

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- 5.6.5 The MCA noted that export cable routes, cable burial protection index and cable protection are issues that are still to be developed. Therefore, due cognisance is recommended to address cable burial or protection. Any licensed cable protection works must ensure existing and future safe navigation is not compromised.
- 5.6.6 The MCA supported the requirement and use of safety zones during all phases of works. However, noted the operational safety zones may have a maximum 50 metre radius from the individual turbines. MCA highlighted that detailed justification and significant evidence must be provided for a 50 metre operational safety zone.
- 5.6.7 The MCA made no additional comments to make in its response to the EIA Addendum Consultation.
- 5.6.8 Conditions have been placed upon the s.36 consent to mitigate the impacts highlighted by the MCA, including the requirement to prepare, consult on and adhere to a DSLP, a DS, an LMP, an ERCoP, a Construction Programme (“CoP”) a Construction Method Statement (“CMS”), and a Cable Plan (“CaP”). This will provide an opportunity for MCA to respond to further consultation to address the issues detailed above.
- 5.7 Ministry of Defence
- 5.7.1 The MOD objected to the Application due to adverse impacts identified upon the effective operation of Air Defence Radar (“ADR”) and Air Traffic Control (“ATC”). The MOD assessed the location and layout information and provided comments regarding defence maritime interests and military low flying, ATC and ADR.
- 5.7.2 The MOD advised that the Seagreen Developments will impact military low flying training activities in the area and, therefore, recommended the turbine structures must be fitted with appropriate aviation warning lighting to maintain the safety of military aviation. However, it commented there would be no adverse effect on the MOD offshore danger and exercise areas or defence maritime navigational interests.
- 5.7.3 The MOD considered the turbines would cause unacceptable interference to the primary surveillance ATC radar at Leuchars Station (formerly RAF Leuchars). The turbines would also cause unacceptable interference to the ADR at RRH Brizlee Wood and ADR at RRH Buchan. Wind turbines have an effect on the desensitisation of radar which may result in aircraft not being detected and could create unwanted returns to both air traffic controllers and aircrews. The probability of the radar detecting aircraft flying over the vicinity of the turbines would be reduced which would reduce the Royal Air Force’s ability to detect and deter aircraft in the UK sovereign airspace.

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- 5.7.4 The MOD's radar assessments is based on the maximum extent of the area of the Seagreen Developments. Once further details on the layout and dimensions of the Seagreen Developments and mitigation plans are available, the MOD is willing to complete further technical and operational assessments in order to clarify the impact the Seagreen Developments will have upon radars identified.
- 5.7.5 Conditions have been placed upon the s.36 consent to mitigate the impacts highlighted by the MOD including the requirement to prepare, consult on and adhere to an LMP, an Air Traffic Control Radar Mitigation Scheme ("ATC Scheme") and an Air Defence Radar Mitigation Scheme (ADRM Scheme") to provide an opportunity for the MOD to respond to further consultation.
- 5.8 National Air Traffic Services
- 5.8.1 NATS provided a response on 27 September 2018 and expressed concern that the Seagreen Developments would degrade the performance of the en-route radar at Perwinnes, however, noted this could be mitigated. NATS commented the condition imposed on the Original Consent should be included in the new consent, if granted.
- 5.8.2 A condition has been placed upon the s.36 consent to mitigate the impacts highlighted by NATS on the primary radar installation at Perwinnes which includes the requirement to prepare, consult on and adhere to a PRMS. This will provide an opportunity for NATS to respond to further consultation.
- 5.9 Northern Lighthouse Board
- 5.9.1 The Northern Lighthouse Board ("NLB") responded on 17 October 2018 and raised no objection to the Application. The NLB provided comments and advice of a general nature as the final number, size and location of the turbines are not defined within the Application.
- 5.9.2 The NLB noted the cumulative impacts of the Forth and Tay Developments will require further monitoring throughout all stages of the development and operation. The NLB welcomed the Company's continued involvement in the Forth and Tay Offshore Windfarm Developers Group ("FTOWDG").
- 5.9.3 The NLB requested that the Company establish a Navigational Safety Plan ("NSP") and LMP in order to give the best possible indication to the mariner of the nature of the works being carried out. In relation to the LMP, the NLB requested this should indicate proposed marking for the construction, operation and decommissioning phases of the works. The NLB highlighted the marking and lighting of the wind farm may need to be altered or amended to reflect future development in the Inch Cape and Neart na Gaoithe wind farms; therefore, the NLB expects the Company to co-operate fully in this matter.

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- 5.9.4 For the construction phase, the NLB noted the site boundary must be marked by a combination of lit cardinal marks and lit special marked buoys, to be agreed by the NLB. During the operational phase, the NLB advised the wind farm site should be marked and lit, in general, as per the International Association of Marine Aids to Navigation and Lighthouse Authorities Recommendation O-139. During the decommissioning phase, the NLB requested that it is consulted on marking and lighting requirements.
- 5.9.5 The NLB indicated, prior to deployment, the Statutory Sanction of the NLB will be required for all navigational marking and lighting of the site or its associated marine infrastructure. The NLB recommended Notice(s) to Mariners, Radio Navigation Warning and publication in appropriate bulletins will be required stating the nature and timescale of the works. The NLB also noted a requirement that the turbine installation locations, cable routes and cable landing points are communicated to the UKHO to ensure nautical charts are updated correctly. Furthermore, NLB advised a comprehensive contingency plan is required, detailing the emergency response to all possible catastrophic failure and collision scenarios. Powers in respect of the export cable will be applied through the existing OTA marine licence.
- 5.9.6 The NLB made no comments on the EIA Addendum Consultation.
- 5.9.7 Conditions have been placed upon the s.36 consent to mitigate the impacts highlighted by the NLB, including the requirement to prepare, consult on and adhere to a DSLP, a DP, an LMP, a CMS, a CaP, a CoP, an ERCoP, and a NSP providing NLB an opportunity to respond to further consultation.
- 5.10 Royal Society for the Protection of Birds Scotland (“RSPB Scotland”)
- 5.10.1 RSPB Scotland responded on 8 November 2018 and provided detailed comments in relation to the predicted impacts on seabirds. RSPB Scotland objected to the Application based on their view of the significant adverse impacts on seabird populations both in isolation and in-combination with the other Firth of Forth Developments.
- 5.10.2 RSPB Scotland noted that a total of over 1,500 bird mortalities per year is predicted from the in-combination impacts of the Application with Inch Cape and Neart na Gaoithe (both as consented in 2018/19) and that over 2,200 non-breeding season bird mortalities per year are predicted from other wind projects located in UK waters.
- 5.10.3 RSPB Scotland predicted significant adverse effects on the integrity of both Forth Islands SPA with respect to kittiwake and gannet and Fowlsheugh SPA with respect to kittiwake.
- 5.10.4 RSPB Scotland disagreed with the Company’s conclusions in the EIA Report and considered the assessment flawed and it failed to incorporate data that would have resulted in an increase in the level of impacts. RSPB

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Scotland suggested the conclusions reached should not be relied upon and the HRA tests were contradictory.

- 5.10.5 RSPB Scotland expressed disappointment there has been no concrete commitments by the Company or the sector to deliver positive conservation measures that have a positive effect on seabirds.
- 5.10.6 RSPB Scotland maintained its objection in respect of the EIA Addendum Consultation and stated the reasons in its original response still applied.
- 5.10.7 RSPB Scotland advised that the updated predicted population level effects on seabirds remain unacceptable and would represent an adverse effect on the integrity of the relevant SPAs, including the Forth Islands SPA and Fowlsheugh SPA. RSPB Scotland noted that in some instances the EIA Addendum Report predicted impacts greater than those presented in the EIA Report.
- 5.10.8 RSPB Scotland commented that for both gannet and kittiwake CRM, the avoidance rates used were 98.9% ($\pm 0.2\%$) as in accordance with statutory guidance however, recommended a lower rate should be used for gannet during the breeding season. RSPB Scotland noted the EIA Addendum Report referred to the Skov *et al* (2018)¹ and Bowgen and Cook's (2018)² papers which it considered to have several limitations and were of the understanding the Scottish Nature Conservation Bodies ("SNCB") had not changed its recommendations in light of this. It was noted that in situations where scientific data does not allow a complete evaluation of risk to the Natura network, the precautionary principle must be applied. Thus, RSPB Scotland expressed the view it would expect a high level of precaution to be applied to this assessment.
- 5.10.9 The use of CPS in assessing the risks to protected species populations is supported by RSPB Scotland in its response. RSPB Scotland noted there are several references in the EIA Addendum Report to the projected growth of the populations however, advised there is uncertainty surrounding these projections. RSPB Scotland emphasised the focus for interpreting impacts should be on the CPS, not whether a population is predicted to be at the same level or larger than its current level at the end of the Seagreen Developments life.
- 5.10.10 RSPB Scotland recognised there are multiple factors influencing the recorded decline of kittiwake populations and is in agreement that decarbonisation of electricity production is required to meet climate change emission targets. However, they noted further consideration was required on an already declining population and highlighted the Scottish

¹ Skov, H., Heinanen, S., Norman, T., Ward, R.M., Mendez-Roldan, S. & Ellis, I. 2018. ORJIP Bird Collision and Avoidance Study. Final report – April 2018. The Carbon Trust. United Kingdom.

² Bowgen, K. & Cook, A., (2018), Bird Collision Avoidance: Empirical evidence and impact assessments, JNCC Report No. 614, JNCC, Peterborough, ISSN 0963-8091.

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Government's obligation to achieve good environmental status in light of the latest UK marine strategy updated assessment.

- 5.10.11 The Company provided a response to RSPB's comments on 30 July 2019. The Company recognised the differences in opinion however, expressed a willingness for further discussion and co-operation with RSPB Scotland through FTRAG meetings, monitoring and research projects on seabirds in the Forth and Tay region.
- 5.10.12 In relation to the scale of impacts, the Company responded to RSPB Scotland to confirm that although some effects in the Addendum were higher than those previously estimated in the EIA Report, it was explained to RSPB Scotland during a meeting held on 5 March 2019, the reasoning behind this and that, in all cases, the scale of impacts remain well below those predicted for the Original Consent. The Company noted RSPB's concerns regarding the assessment parameters used in the CRM, however remain of the opinion the current collision estimates are precautionary. The Company commented the discussion provided in relation to the projected growth of the populations is a key requirement of the HRA process.
- 5.10.13 The AA completed by the Scottish Ministers further addressed issues raised by RSPB Scotland. Conditions have been placed upon the s.36 consent to mitigate the impacts highlighted by RSPB Scotland to prepare, consult on and adhere to the PEMP, EMP and CMS to address these concerns. The Company is also required to participate in the FTRAG and the ScotMER programme, to contribute to improved understanding of the impacts of the Seagreen Developments, both in isolation and in-combination, on seabird populations. RSPB will be provided the opportunity to respond to further consultation on these plans.
- 5.11 Royal Yachting Association Scotland ("RYA Scotland")
- 5.11.1 RYA Scotland provided a response on 23 October 2018 and confirmed it has no comments in regard to the Application.
- 5.12 Scottish Fishermen's Federation ("SFF")
- 5.12.1 SFF responded on 6 November 2018 and objected to the Seagreen Developments due to concerns regarding potential impacts on commercial fisheries. SFF provided comments on the EIA Report in context with the general planning policies and fisheries policies within Scotland's National Marine Plan ("NMP"). In summary, SFF stated the EIA Report underestimates impacts on commercial fisheries and is not compliant with the NMP.
- 5.12.2 The policies SFF noted the Seagreen Developments run contrary to are listed below:
- GEN 1 General planning principle;

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- GEN 2 Economic benefit;
- GEN 3 Social benefit;
- GEN 4 Co-existence;
- GEN 17 Fairness;
- GEN 18 Engagement;
- GEN 19 Sound evidence;
- Fisheries 1 – which refers to safeguarding fishing opportunities wherever possible;
- Fisheries 2 – which refers to cultural and economic importance of fishing, potential impacts on sustainability of fish and shellfish, and impacts of displacement of fish stocks and the socio-economic costs to fishers; and
- Fisheries 3 – which states that where existing fishing opportunities or activity cannot be safeguarded, an FMMS should be prepared.

- 5.12.3 SFF highlighted that no explanation was provided on the proposed mitigation measures in respect of local scallop dredgers and emphasised that all impacts upon scallop fishers must be suitably mitigation. SFF stressed that clarity was requested on the definition of “local scallop dredgers”. In addition, SSF response noted the socio-economics assessment neglected to quantify the possible loss of fishing catches and the associated effect on the onshore supply chain, both in terms of jobs and value.
- 5.12.4 SFF expressed its understanding that, after 25 years, the Seagreen Developments will be decommissioned and not extended or repowered. In regard to the foundations and sub structures, SFF is concerned about the how the extent of excavation and grouting affects the areas being returned to their original condition and thus suitable for fishing activities after decommissioning. SFF emphasised the importance of forward planning on the decommissioning programme.
- 5.12.5 SFF noted that the assessment of the effects upon natural fish and shellfish resource only considered pile driving noise and considered the thrumming noise and vibration should be assessed and monitored, as it is currently unclear of the impacts on the lifecycle of fish from this source. SFF recommended a condition requiring monitoring to be undertaken in relation to the effects of suspended sediments and smothering on scallops.
- 5.12.6 SFF suggested further discussion is required regarding the possibility of 10% of the inter-array cable not being buried as this may result in areas being closed for fishing activities, specifically in areas of scallop fisheries.
- 5.12.7 SFF stressed the importance of the Fishery Liaison Officer (“FLO”) role in communicating with local fishing interests and noted SFF expects the FLO to have an extensive knowledge of the areas fished by creel vessels.

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- 5.12.8 The Company provided a response to address SFF’s comments raised on 21 December 2018.
- 5.12.9 The Company noted that the most suitable locations for the sustainable development of offshore wind and the area the Seagreen Developments are located in, are included with the Sectoral Marine Plan. The Company highlighted the revised design of the Seagreen Developments does not include changes in any key design parameters impacting on commercial fisheries.
- 5.12.10 In relation to the specific scope of Chapter 11 of the EIA Report it was agreed, following consultation with SFF, MS-LOT and MSS that a full assessment, considering all potential impacts on commercial fisheries, would be undertaken taking into account the updated fisheries baseline. The Company noted a meeting was held on 11 January 2018 with SFF and Marine Scotland to discuss and agree the information supporting the commercial fisheries baseline for assessment. A further meeting was held on 26 February 2018 with local fishermen to present and discuss the fisheries baseline. Formal acceptance of the approach and discussions taken by the Company in respect of consultation with commercial fisheries stakeholders was confirmed by MS-LOT on 10 May 2018.
- 5.12.11 In terms of the assessment of scallop dredgers, the Company recognised the different sensitivities of scallop dredgers with higher dependence on local grounds and nomadic vessels. Separate assessments were carried out for local scallop dredgers and those that are part of the nomadic fleet.
- 5.12.12 The Company highlighted its commitment to co-existence with the fishing industry and to maintain on-going engagement with fisheries stakeholders in relation to relevant aspects of the Seagreen Developments.
- 5.12.13 The Company also recognised the importance of local knowledge to facilitate effective fisheries liaison and would appoint suitable FLOs and fisheries industry representatives.
- 5.12.14 The Company noted specific mitigation measures to be implemented will be discussed with fisheries stakeholders post-consent and will be included in the FMMS and discussed at the Forth and Tay Commercial Fisheries Working Group (“FTCFWG”).
- 5.12.15 The Company noted a study of the potential for suspended sediment mobilisation and deposition from gravity base foundations installation was included within the 2012 ES associated with the Original Consent. The Company also stated that this study concluded no further assessment was required. As no changes to the design of the gravity bases are proposed in the design for the Seagreen Developments, the Company upheld their previous conclusions and no further assessment was carried out.

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- 5.12.16 The Company commented the operational lifetime of the Seagreen Developments is 25 years and after this the wind farm life may be extended, repowered, or decommissioned which are subject to a new consenting process.
- 5.12.17 Conditions have been placed upon the s.36 consent to mitigate the impacts highlighted by SFF including the requirement to prepare, consult on and adhere to a VMP, a CaP, a DP and FMMS. SFF will be consulted on all relevant post-consent plans.
- 5.12.18 The Company will be required to prepare and deliver a PEMP to monitor impacts of the Seagreen Developments on a range of receptors however following the advice from MSS. The Scottish Ministers will require the Company to monitor the effects of sediment deposition however will not require monitoring of the smothering of scallops.
- 5.12.19 In regard to issues raised about suspended sediment mobilisation and deposition when utilising gravity bases for turbine foundations, and given that no further information to support the 2012 study was submitted by the Company to support the Application, monitoring of suspended sediment mobilisation and deposition is included as a requirement of the PEMP condition to which the Company must adhere.
- 5.12.20 A condition requiring an FLO has been attached to the s.36 consent to establish and maintain effective communications between the Company and the fishing industry.
- 5.13 Sport Scotland
- 5.13.1 Sport Scotland provided a response on 1 October 2018 and had no comments on the Application
- 5.14 Transport Scotland (“TS”)
- 5.14.1 TS responded on 11 October 2018 and requested condition 25 in relation to the flow and safety of the Trunk Road network, included in the Original Consent, is included in the revised consent. TS commented that given the increase in the size of the turbines, and the potential for plans to move the turbine components via the road network as well as by sea, additional conditions should be included. TS suggested these additional conditions would ensure interference of traffic on the trunk road is minimised and there would be no detrimental effect on the road and structures. The additional conditions proposed by TS are noted below:

“Condition 1:

Prior to commencement of deliveries to site, the proposed route for any abnormal loads on the trunk road network must be approved by the trunk roads authority prior to the movement of any abnormal load. Any

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accommodation measures required including the removal of street furniture, junction widening, traffic management must similarly be approved.

Condition 2:

During the delivery period of the wind turbine construction materials any additional signing or temporary traffic control measures deemed necessary due to the size or length of any loads being delivered or removed must be undertaken by a recognised QA traffic management consultant, to be approved by Transport Scotland before delivery commences.”

5.14.2 Conditions have been placed on the s.36 consent requiring the Company to prepare, consult on and adhere to a traffic and transportation plan to address these concerns which will provide TS the opportunity to respond to further consultation.

5.15 Whale and Dolphin Conservation (“WDC”)

5.15.1 WDC stated it did not consider it beneficial to engage in detail at this time due to reduced staff capacity. WDC expressed the considerable effort it has invested in engaging and responding to consultations for offshore wind applications and highlighted its primary concern is noise impact during the construction phase.

5.15.2 No comments specifically relating to the Seagreen Developments were provided.

5.16 Consultees which did not respond to the Consultation or the EIA Addendum Consultation

5.16.1 The following consultees did not respond to the Consultation or the EIA Addendum Consultation and therefore nil responses have been assumed:

Fisheries Management Scotland, Atlantic Salmon Trust, Babcock MCS Offshore, Bristows Helicopters Limited, Civil Aviation Authority, Canadian Holding Company Helicopter, Communities Inshore Fishing Alliance, Joint Radio Company, Mainstream Renewable Power Ltd, Marine Safety Forum, Marine Scotland Compliance (Aberdeen, Anstruther and Eyemouth), National Trust for Scotland, North East Regional Inshore Fishery Groups, Oil and Gas UK, Planning (Scottish Government), Salmon Net Fishing Association of Scotland, Scottish Canoe Association, Scottish Creel Fishermen Association, Scottish Fishermen’s Organisation, Scottish Surfing Federation, Scottish Wildlife Trust, Surfers Against Sewage, The Crown Estate Scotland, Transport Scotland – Ports and Harbours, UK Chamber of Shipping, Visit Scotland, Carnoustie Community Council, Murroes and Wellbank Community Council, Arbroath Community Council, Tealing Community Council, Broughty Ferry Community Council, Boarhills and

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Dunino Community Council, Cameron Community Council, Carnoustie Golf Links Management Committee, Colinsburgh and Kinconquhar Community Council, Dundee Sub Aqua Club, Largo Area Community Council, Montrose Port Authority, Strathkinnes Community Council, Fishermen’s Mutual Association (Pittenweem), Cockenzie and Port Seton Community Council, Dunbar Community Council, East Lammermuir Community Council, Gullane Community Council, Longniddry Community Council, Musselburgh and Inveresk Community Council, Prestonpans Community Council, Tranent and Elphinstone Community Council, Heathrow Airport Holdings Limited, West Barns Community Council, Monifieth Community Council, Letham and District, Fintry Community Council, Monikie and Newbigging Community Council, Carnbee and Arncroach Community Council, East Fortune Airfield, Scallop Association, Dunder Community Council, Macmerry and Gladsmuir Community Council, North Berwick Community Council, Tranent and Elphinstone Community Council.

6 Representations from other organisations and members of the public

6.1 No public representations were received during the consultation period.

7 Representations outwith Consultation

7.1 Following the issuing of the Scoping Opinion, Aberdeenshire Council were approached by the Company on 05 February 2018 to seek early agreement to a range of parameters that informed the approach to, and scope of, the SLVIA. The Company received a response from Aberdeenshire Council on 1 March 2018 detailing various matters to be considered. The Company then responded to Aberdeenshire Council on 21 May 2018 to advise that the Company were mindful of these comments and how these matters were addressed within the SLVIA. Aberdeenshire Council provided no response to this and were not consulted on the Application.

8 Advice from third parties

8.1 MS-LOT sought advice from MSS on the Application and the EIA Addendum Report and the MAU on the Application.

8.1.1 MSS provided advice on 20 November 2018 on marine mammals, ornithology, commercial fisheries and marine fish ecology and provided additional comments on 17 July 2019 on the EIA Addendum Consultation. MSS also provided expertise in completing the AA.

8.1.2 MAU reviewed the socio-economic impact assessment and provided comments on 30 July 2019.

8.2 Marine Mammals

8.2.1 MSS provided comments on the marine mammal assessment detailed within the EIA Report. MSS welcomed the inclusion and re-analysis of

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noise modelling where a one percent conversion factor had been used and ADDs have been removed. MSS agreed with SNH that a PS should incorporate appropriate mitigation measures to minimise the risk of PTS. MSS welcomed further discussion on the current best scientific knowledge when devising the PS.

- 8.2.2 MSS agreed with the conclusion of both SNH and the Company, that the significance of effect from PTS is low for all species and scenarios and advised this conclusion was also valid for the disturbance assessment.
- 8.2.3 MSS commented that some scenarios have large effect zones for cumulative PTS for minke whale, at distances which are unlikely to make current mitigation measures effective. MSS noted an EPS licence for injury may be required however, suggested this is likely to be a precautionary measure.
- 8.2.4 MSS has considered the Company's assessment and justifications in relation to the cumulative impact for bottlenose dolphins. MSS is in agreement that the most appropriate assessment for cumulative impact for bottlenose dolphins is disturbance only.
- 8.2.5 MSS noted that the Company have excluded Beatrice offshore wind farm in the cumulative assessment however, considered the inclusion of these figures unlikely to affect the conclusion of the assessment.

8.3 Ornithology

- 8.3.1 MSS provided detailed comments on the ornithology assessment presented in the EIA Report. MSS noted the main assessed impacts for ornithology are collision risk and displacement.
- 8.3.2 MSS commented that the assessed impacts for the Seagreen Developments are likely to be less than for the Original Consent. The revised design will reduce the assessed collision mortality although will not affect assessed displacement mortality. However, MSS noted the increase in spacing between turbines is likely to reduce the displacement rate assumed in the assessment.
- 8.3.3 MSS noted that it was in agreement with the consultation response provided by SNH in that the Company deviated from the scoping advice and misinterpreted the PVA model outputs which means it is not possible to confidently assess the potential impacts on SPA populations.

Collision Risk Modelling

- 8.3.4 MSS agreed with SNH's comment that use of site specific flight height data may better reflect collision risk within the Seagreen Developments area. MSS commented that it was helpful that a study was undertaken to assess the reliability of boat-based observer flight height data. However, noted the

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study suggested large differences in estimates of the proportion of birds at collision risk height. MSS noted the observer data were found to be less precautionary for flight heights for gannets and more precautionary for flight heights for kittiwake.

- 8.3.5 MSS commented that collision mortality estimates for all the Forth and Tay Developments has been summarised in tables within Appendix 8b of the EIA Report; however, Chapter 8 of the EIA Report differs to the tables and includes other developments.
- 8.3.6 MSS advised that the Company should have followed the options and parameters for CRM as advised in the scoping opinion, rather than including a discussion of this.
- 8.3.7 MSS highlighted there are discrepancies between collision mortality estimates presented in Appendix 8a of the EIA Report and those summarised within Chapter 8 of the EIA Report. MSS requested that the Company should provide clarification on why the numbers differ.

Displacement

- 8.3.8 In relation to the displacement mortality assessment, MSS noted the Company followed the approach advised in the scoping opinion. MSS noted the SeabORD displacement tool was not available at the time of assessment so was not run.

Population Viability Analysis and Habitats Regulation Appraisal

- 8.3.9 MSS noted the PVA modelling approach followed the guidance in the scoping opinion. MSS agreed with SNH in that the PVAs should have been run for the specific mortality levels assessed rather than in 50 bird increments. However, commented likely PVA values where mortality impacts fall between the increments used can be inferred through the graphical presentation of the PVA modelling results.
- 8.3.10 MSS agreed with SNH that the CPS estimates appeared to correspond with those presented in the PVA however, the numbers used appear to be incorrect and suggested the PVA outputs has been incorrectly interpreted in the HRA chapter of the EIA Report.
- 8.3.11 MSS advised it is not possible to confidently assess the impacts on SPA populations. This is due to the apparent misinterpretation of the PVA modelling results and the Company not following the scoping opinion for methods to be used for in-combination assessment.
- 8.3.12 MSS reviewed the EIA Addendum Report. MSS noted the assessment is updated to a high standard and clear explanations and summaries have been provided. MSS advised it had two outstanding queries which required further clarification:

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- how the displacement of kittiwake should be assessed during the non-breeding season; and
- whether tidal offsets were used in any of the CRM and on whether heights were relative to mean water level or highest astronomical tide.

8.3.13 The Company addressed MSS's queries in its response dated 30 July 2019. The Company recognised the omission of a qualitative assessment of kittiwake displacement in the non-breeding season was an oversight and provided further information regarding this. The Company clarified that no tidal offset was applied for the Seagreen Developments. The Company noted that for the estimation of effects from Neart na Gaoithe the collision estimates were re-calculated with a tidal offset applied in the EIA Addendum Report and are now estimated accurately.

8.3.14 MSS reviewed the Company's explanation to address its outstanding queries. MSS confirmed it is content these have been addressed and has no further comments to make in correspondence dated 6 August 2019.

8.4 Commercial Fisheries

8.4.1 MSS raised no concerns to the assessment of impacts on commercial fisheries within the EIA Report. MSS noted the Company is committed to additional mitigation measures in respect of local scallop dredgers. However, highlighted further attention is needed in relation to the potential moderate significant impacts on scallop dredgers during the construction phase.

8.4.2 MSS emphasised that the potential impacts on the nephrops fisheries along the export cable was still relevant to the overall project, despite the transmission assets being licensed separately. MSS expects the mitigation to be proposed regarding this to be included in the FMMS.

8.4.3 MSS commented that its involvement in the FTCFWG is key to support discussion on mitigation and validation of assessment assumptions.

8.4.4 MSS provided further clarity in correspondence dated 21 October 2019 in relation to the particular comment from SFF on suspended sediment and the potential smothering of scallops. In giving its advice, MSS assumed that SFF is requesting monitoring of the potential smothering of juvenile scallops rather than monitoring of sediment plumes caused by offshore wind farms. MSS gave consideration to potential methods which could be used to monitor juvenile scallops in the offshore area however, owing to juvenile scallops size and location, MSS advised that juvenile scallops do not tend to be caught through traditional scallop survey techniques which largely catch adult scallops only. Direct observation methods were also considered but MSS advised that such methods would be ineffective for this purpose. MSS also advised that to the best of its knowledge, there are

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no current practicable methods by which to fulfil what it assumes to be an in situ monitoring condition as suggested by SFF.

8.5 Marine Fish Ecology

8.5.1 MSS advised that it is broadly in agreement with the assessments and conclusions presented in the EIA Report.

8.5.2 MSS welcomed the embedded mitigation measures included within the EIA Report and the Company’s inclusion of the relevant conditions attached in the Original Consent to prevent, reduce and where possible, offset any significant adverse impacts on the environment.

8.6 Socio-economics

8.6.1 MAU advised that overall the assessment was consistent with its expectations and concluded the Seagreen Developments do not raise any significant issues relative to the Original Consent.

8.7 Summary

8.7.1 The Scottish Ministers have considered the advice provided by MSS and MAU in reaching their decision.

9 **Public Local Inquiry (“PLI”)**

9.1 Scottish Ministers did not require a PLI to be held.

10 **The Scottish Ministers’ Considerations**

10.1 Environmental Matters

10.1.1 The Scottish Ministers are satisfied that an environmental impact assessment has been carried out. Environmental information including the EIA Report and EIA Addendum Report has been produced and the applicable procedures regarding publicity and consultation laid down in regulations have been followed. The environmental impacts of the Alpha Development have been assessed and the Scottish Ministers have taken the environmental information into account when reaching their decision.

10.1.2 The Scottish Ministers are satisfied that the Company, when formulating its proposal to construct the generating station, had 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.

10.1.3 The Scottish Ministers have had regard to the desirability of the matters mentioned in the previous paragraph and the extent to which the Company has done what it reasonably could to mitigate the effects of the Alpha

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Development on those features, and are satisfied that the Company has done what it reasonably could with regard to mitigation.

10.1.4 The Scottish Ministers have considered fully and carefully the Application, the EIA Report, HRA Report, the EIA Addendum Report and all relevant responses from consultees, MSS and, MAU.

10.2 Main Determinative Issues

10.2.1 The Scottish Ministers, having taken account of all relevant information, consider that the main determining issues are:

- The extent to which the Alpha Development accords with and is supported by Scottish Government policy and the terms of the NMP and relevant local development plans;
- Renewable energy generation and associated policy benefits;
- Economic impacts; and
- The significant effects of the Alpha Development on the environment, which are in summary:
 - Impacts on marine mammals and seabirds including impacts on European sites and European offshore marine sites;
 - Impacts on commercial fisheries;
 - Impacts on seascape, landscape and visual amenity; and
 - Impacts on aviation and defence.

10.3 Scottish Government Policy Context

10.3.1 The NMP, formally adopted in 2015, and recently reviewed in Spring 2018, provides a comprehensive statutory planning framework for all activities out to 200nm. The Scottish Ministers must take authorisation and enforcement decisions, which affect the marine environment, in accordance with the NMP.

10.3.2 Of particular relevance to this proposal are:

- Chapter 4 policies 'GEN 1-21', which guide all development proposals;
- Chapter 6 Sea Fisheries, policies 'FISHERIES 1-3';
- Chapter 8 Wild Salmon and Diadromous Fish, policies 'WILD FISH 1 and 3'
- Chapter 11 Offshore Wind and Marine Renewable Energy, policies 'RENEWABLES 1, 3-10';
- Chapter 12 Recreation and Tourism, policies 'REC & TOURISM 2 and 6';
- Chapter 13 Shipping, Ports, Harbours and Ferries, policies 'TRANSPORT 1 and 6';

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- Chapter 14 Submarine Cables, policies ‘CABLES 1, 2 and 5’; and
- Chapter 15 Defence, policy ‘DEFENCE 1’.

- 10.3.3 Offshore wind is seen as an integral element in Scotland’s contribution towards action on climate change. The development of offshore wind also represents one of the biggest opportunities for sustainable economic growth in Scotland for a generation. Scotland’s ports and harbours present viable locations to service the associated construction and maintenance activities for offshore renewable energy. The Alpha Development will contribute to Scotland’s renewable energy targets and will provide wider benefits to the offshore wind industry which are reflected within Scotland’s offshore wind route map and the national renewables infrastructure plan.
- 10.3.4 Scottish Planning Policy 2014 (“SPP”) sets out Scottish Government’s planning policy on renewable energy development. Efficient supply of low carbon and low cost heat and generation of heat and electricity from renewable energy sources are vital to reducing greenhouse gas (“GHG”) emissions and can create significant opportunities for communities. Renewable energy also presents a significant opportunity for associated development, investment and growth of the supply chain, particularly for ports and harbours. Communities can also gain new opportunities from increased local ownership and associated benefits.
- 10.3.5 Whilst the SPP makes clear that the criteria against which applications should be assessed will vary depending upon the scale of the generating station and its relationship to the characteristics of the surrounding area, it states that these are likely to include impacts on landscapes and the historic environment, ecology (including birds, mammals and fish), biodiversity and nature conservation; the water environment; communities; aviation; telecommunications; noise; shadow flicker and any cumulative impacts that are likely to arise. It also makes clear that the scope for the generating station to contribute to national or local economic development should be a material consideration when considering an application.
- 10.3.6 Scotland’s National Planning Framework 3 (“NPF3”) sets out the ambition for Scotland to move towards a low carbon country, placing emphasis on the development of onshore and offshore renewable energy. NPF3 recognises the significant wind resource available in Scotland, and reflects targets to meet at least 30% of overall energy demand from renewable sources by 2020 including generating the equivalent of at least 100% of gross electricity consumption from renewables with an interim target of 50% by 2015. It also identifies targets to source 11% of heat demand and 10% of transport fuels from renewable sources by 2020.
- 10.3.7 NPF3 aims for Scotland to be a world leader in offshore renewable energy and expects that, in time, the pace of onshore wind development will be overtaken by the development of marine energy including wind, wave and tidal.

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10.4 Impacts of the Development on the environment

10.4.1 *Impacts on marine mammals, seabirds, European sites and European offshore marine sites*

10.4.2 The Habitats Regulations require the Scottish Ministers to consider whether the proposed development would be likely to have a significant effect on a European site or European offshore marine site (either alone or in-combination with other plans or projects), as defined in the Habitats Regulations.

10.4.3 Owing to the view of SNH that the Seagreen Developments are likely to have a significant effect on the qualifying interests of the Forth Islands SPA, Fowlsheugh SPA, St Abb's Head to Fast Castle SPA, Buchan Ness to Collieston Coast SPA, Outer Firth of Forth and St Andrews Bay Complex pSPA, Moray Firth SAC, Firth of Tay and Eden Estuary SAC, Isle of May SAC and Berwickshire and North Northumberland Coast SAC, MS-LOT on behalf of the Scottish Ministers, as the "competent authority", was required to carry out an AA.

For marine mammal species, the main impact of the Seagreen Developments will be from underwater noise from piling during construction.

10.4.4 For the SAC qualifying interests, namely bottlenose dolphin, harbour seal and grey seal, SNH advised that that there would be no adverse effect on site integrity of the above SACs. The AA considered the conservation objectives, the populations at the sites, the predicted levels of effect and population consequences, the precaution in the assessment methods and the advice from SNH. The Scottish Ministers concluded that the Seagreen Developments, subject to the application of conditions, would not adversely affect the site integrity of the Moray Firth SAC, with respect to bottlenose dolphin, the Firth of Tay and Eden Estuary SAC with respect to harbour seal and the Isle of May and Berwickshire and North Northumberland Coast SACs with respect to grey seal, either alone or in-combination with the Forth and Tay Developments. The AA provides detail on the noise propagation modelling and population modelling undertaken to inform the assessment.

10.4.5 For bird species, the main impacts come from either collision and/or displacement and barrier effects. SNH considered that there would be a likely significant effect as follows:

- Forth Islands SPA –kittiwake, gannet, herring gull, puffin, guillemot and razorbill;
- Fowlsheugh SPA –kittiwake, herring gull, guillemot and razorbill;
- St Abb's Head to Fast Castle SPA – kittiwake, herring gull, guillemot and razorbill;

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- Buchan Ness to Collieston Coast SPA – kittiwake, herring gull and guillemot; and
- Outer Firth of Forth and St Andrews Bay Complex pSPA – kittiwake, gannet, herring gull, puffin, guillemot and razorbill.

- 10.4.6 After receiving the EIA Addendum Report, SNH maintained its objection to the Seagreen Developments in-combination with the s.36 consents granted for Neart na Gaoithe and Inch Cape offshore wind farms in 2014, based on its view that this would cause an adverse effect on site integrity of Forth Islands SPA with respect to gannet and kittiwake and Fowlsheugh SPA and St Abbs Head to Fast Castle SPA with respect to kittiwake.
- 10.4.7 SNH advised that for the Seagreen Developments in-combination with the s.36 consents granted for Neart na Gaoithe and Inch Cape offshore wind farms in 2018/2019 there would be no adverse effect on site integrity of any SPA.
- 10.4.8 RSPB Scotland also objected to the Seagreen Developments both in isolation and in-combination with the other Forth and Tay Developments due to what in its view were unacceptable impacts on the seabird qualifying interests of Forth Islands SPA and Fowlsheugh SPA. However, RSPB did recognise that the Seagreen Developments represent a reduction in predicted impacts from the Original Consent on internationally important seabird populations.
- 10.4.9 The AA considered the conservation objectives, populations at the sites, the predicted levels of effect and population consequences, the fact that the effects are less than in those associated with the Original Consent, the precaution in the assessment methods and the advice from SNH. The Scottish Ministers concluded that, subject to the application of conditions, the Seagreen Developments would not adversely affect the site integrity of the Forth Islands SPA, Fowlsheugh SPA, Buchan Ness to Collieston Coast SPA, St Abb's Head to Fast Castle SPA, or the Outer Firth of Forth and St Andrews Bay Complex pSPA either alone or in-combination with other projects. Full details of the assessment methodology is provided in the AA.
- 10.4.10 In reaching their conclusions in the AA, the Scottish Ministers have given considerable weight to SNH's advice. The methods advised by SNH through scoping and subsequent clarifications have been incorporated into the assessment. As such, divergence from SNH advice is limited to differing conclusions in relation to site integrity for gannet at Forth Islands SPA, and kittiwake at Forth Islands SPA, Fowlsheugh SPA, and St Abb's Head to Fast Castle SPA when considering the Alpha Development and Bravo Development in-combination with the 2014 s.36 consents granted for the Neart na Gaoithe and Inch Cape offshore wind farms. In reaching a different conclusion, the Scottish Ministers consider that the level of impact being adverse to site integrity is a subjective opinion. In reaching their own conclusions, the Scottish Ministers have taken account of the entire context

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of this assessment, in particular its highly precautionary assumptions, which make it very unlikely the number of impacted individuals will be as large as the values presented in the assessment. For these reasons the Scottish Ministers consider the levels of assessed impact to be reasonable and are satisfied there will be no adverse impacts on site integrity of any of the SACs, SPAs or the pSPA considered in the AA.

- 10.4.11 The Scottish Ministers are currently in the process of identifying a suite of new marine SPAs in Scottish waters. In 2014, advice was received from the SNCBs on the sites most suitable for designation and at this stage they became draft SPAs (“dSPAs”). Once the Scottish Ministers have agreed the case for a dSPA to be the subject of a public consultation, the proposal is given the status of pSPA and receives policy protection, which effectively puts such sites in the same position as designated sites, from that point forward until a decision on classification of the site is made. This policy protection for pSPAs is provided by SPP (paragraph 210), the UK Marine Policy Statement (paragraph 3.1.3) and the NMP for Scotland (paragraph 4.45). The Outer Firth of Forth and St. Andrew’s Bay Complex pSPA is currently at consultation and, therefore, is included in the AA.
- 10.4.12 It is not a legal requirement under Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna or flora (“the Habitats Directive”) or the Habitats Regulations for the AA to assess the implications of the Seagreen Developments on the pSPA. Nevertheless, the AA includes an assessment of implications upon this site in accordance with domestic policy. The Scottish Ministers are required to consider article 4(4) of Council Directive 2009/147/EC on the conservation of wild birds (“the Birds Directive”) in respect of the pSPA. The considerations under article 4(4) of the Birds Directive are separate and distinct to the considerations which must be assessed under this Habitats Directive assessment but they are, nevertheless, set out within the AA.
- 10.4.13 SNH advised that the Seagreen Developments in-combination with the other Forth and Tay Developments would not adversely affect the integrity of the Outer Firth of Forth and St Andrews Bay Complex pSPA. The completed AA came to the same conclusion.
- 10.4.14 Considering article 4(4) of the Birds Directive, the Scottish Ministers concluded that the Seagreen Developments will not cause pollution or deterioration of habitats or any disturbance as the Seagreen Development areas are some distance from the pSPA boundary.
- 10.4.15 In accordance with regulation 33 of The Conservation of Offshore Marine Habitats and Species Regulations 2017, the Scottish Ministers will review their decision authorising the Seagreen Developments as soon as reasonably practicable following the formal designation of the pSPA. If required, this will include a supplementary AA being undertaken concerning the implications of the Seagreen Developments on the site as designated (as

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the site is currently a pSPA, the conservation objectives are currently in draft form; the conservation objectives will be finalised at the point at which the site is designated). If the conservation objectives, site boundary and qualifying features do not change when the site becomes designated, then a further AA may not be required as the effects of the Seagreen Developments have been fully considered in the current AA.

- 10.4.16 Conditions requiring the Company to prepare, consult on and adhere to a CMS, an EMP, a PS, a VMP, a CaP, a CoP, a DSLP and a PEMP, and to participate in the FTRAG and ScotMER Programme, have been attached to the s.36 consent to mitigate these concerns.
- 10.4.17 The Scottish Ministers consider that, having taken into account the information provided by the Company, the responses of the consultative bodies, and having regard to the conditions attached, there are no outstanding concerns in relation to the impact of the Alpha Development on marine mammals, seabirds, European sites or European offshore marine sites which would require consent to be withheld.

10.5 *Impacts on commercial fisheries*

- 10.5.1 Moderate significant effects were predicted by the Company in relation to local scallop dredgers and the lobster and crab fishery during the construction phase. Mitigation has been proposed by the Company to minimise the significance of these effects to minor. The Company concluded that with additional mitigation measures there would be no significant effects on commercial fisheries. The Company is committed to include the proposed mitigation measures within the FMMS.
- 10.5.2 SFF responded on behalf of its members and objected to the Seagreen Developments. SFF objected to aspects of the assessment presented in the EIA Report and expressed the opinion the Seagreen Developments are not compliant with the NMP. SFF raised specific concerns in relation to the proposed mitigation measures for local scallop dredgers and requested that further discussion was required regarding the possibility of a small percentage of inter-array cables not being buried. SFF requested that monitoring should be undertaken in relation to the effects of suspended sediments and smothering on scallops. SFF expressed concerns that at the end of the Seagreen Developments operational life the area would not be returned to its original condition and thus not suitable for fishing activities. SFF suggested forward planning on the decommissioning aspects was required. SFF further highlighted the importance of the role of the FLO in communicating with local fishing interests.
- 10.5.3 Conditions requiring the Company to prepare, consult on and adhere to a CaP, DP, FMMS, PEMP (to include commercial fisheries) and a VMP have been attached to the s.36 consent to mitigate concerns regarding commercial fisheries. Monitoring of suspended sediment mobilisation and

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deposition when utilising gravity bases for turbine foundations, is included as a requirement of the PEMP condition. In addition, a condition requiring a FLO to establish and maintain effective communications between the Company, any contractors or sub-contractors, fishermen and other users of the sea during the construction phase of the Alpha Development has been included. A condition which requires the Company to remain a member of the FTCTFWG, to facilitate communication and development of relevant post-consent plans is also included. In addition, a condition is included which requires the Company to participate in the ScotMER programme, to contribute to an improved understanding of the impacts of the Seagreen Developments on commercial fisheries.

- 10.5.4 The Scottish Ministers consider that, having taken into account the advice received from MSS on the applicability of potential scallop surveys, it is not reasonable to require the Company to carry out monitoring of the effects of smothering of juvenile scallops therefore this is not a requirement of the PEMP. The Scottish Ministers, following issues raised, do require monitoring of suspended sediment mobilisation and deposition to be included as a requirement of the PEMP.
- 10.5.5 The Scottish Ministers also consider that, having taken into account the information provided by the Company, the responses of the consultative bodies, the NMP and having regard to the conditions attached to the s.36 consent, there are no further outstanding concerns in relation to the impact of the Alpha Development on commercial fisheries which would require consent to be withheld.
- 10.6 *Impacts on seascape, landscape and visual amenity*
- 10.6.1 The Company identified the Seagreen Developments will have significant effects on visual amenity on the seascape neighbouring the Angus coastline at viewpoints at St Cyrus and Braehead of Lunan. These effects result from the Alpha Development being visible from these viewpoints, with no significant effects predicted for the Bravo Development. The Seagreen Developments in-combination with other offshore and onshore windfarms and other projects are not considered to be significant in SLVIA terms and the Company suggested this is comparable to the Original Consent.
- 10.6.2 SNH advised that the increased turbine heights of the Seagreen Developments, in addition to Neart na Gaoithe, Inch Cape and Kincardine offshore wind farms, would introduce significant effects on receptors in South Aberdeenshire, Angus and Fife. SNH is of the opinion the Company underestimated the magnitude of cumulative change, however did not object to the Seagreen Developments on these grounds.
- 10.6.3 Angus Council advised that whilst the increase in the height of the turbines would have significant impacts upon landscape and seascape character, these impacts were not considered to be unacceptable. Angus Council recommended a co-ordinated approach to the finalised heights of the Forth

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and Tay Developments should be considered in order to avoid a poor visual image with differing heights.

- 10.6.4 Angus Council and East Lothian Council recommended further consideration is required on the cumulative impacts associated with the lighting of the Forth and Tay Developments to ensure a consistent lighting solution is identified to mitigate adverse impacts.
- 10.6.5 Conditions requiring the Company to prepare, consult on and adhere to a LMP, DSLP and DS have been attached to the s.36 consent. to mitigate the potential impacts as detailed above. SNH, Angus Council and East Lothian Council will therefore have the opportunity to engage in further consultation on these plans.
- 10.6.6 The Scottish Ministers consider that, having taken into account the information provided by the Company, the responses of the consultative bodies and having regard to the conditions attached to the s.36 consent, there are no outstanding concerns in relation to the impact of the Alpha Development on seascape, landscape and visual amenity which would require consent to be withheld.
- 10.7 *Impacts on aviation and defence*
- 10.7.1 MOD submitted an objection to the Seagreen Developments due to unacceptable interference to the primary surveillance ATC radar at Leuchars Station (formerly RAF Leuchars) and the ADR at RRH Buchan and RRH Brizlee Wood. The MOD requested that further engagement take place with the Company to identify a technical solution to mitigate impacts.
- 10.7.2 MOD further requested that the WTGs are fitted with appropriate aviation warning lighting. Further requirements regarding aviation lighting were recommended by NLB and MCA and the requirements for aviation and navigational lighting will be implemented through s.36 consent conditions.
- 10.7.3 NATS and AIAL had no safeguarding objections to the Seagreen Developments provided that conditions were attached to the s.36 consent to address its concerns.
- 10.7.4 Conditions requiring the Company to prepare, consult on and adhere to an LMP, a DSLP, a DS, a PRMS, an ADRM Scheme and ATC Scheme, have been attached to the s.36 consent to address these concerns.
- 10.7.5 The Scottish Ministers consider that, having taken into account the information provided by the Company, the responses of the consultative bodies, and having regard to the conditions attached, there are no outstanding concerns in relation to the impact of the Seagreen Developments on aviation and defence which would require consent to be withheld.

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10.8 *Renewable energy generation and associated policy benefits*

- 10.8.1 The key environmental benefit of the generating station is to offset GHG emissions that might otherwise be produced by other means of electricity generation. Over the lifetime of the Seagreen Developments, carbon emissions from fabrication, construction, operation and decommissioning will be offset by the net reduction in emissions through the low carbon wind energy technology.
- 10.8.2 There are multiple benefits associated with the Seagreen Developments, including:
- a) The reduction in emissions of carbon dioxide, nitrogen oxides, and sulphur dioxide during the operational phase equivalent to the annual emissions of carbon dioxide, nitrogen oxides, and sulphur dioxide from traditional thermal generation sources;
 - b) Improvements to the security of the UK's domestic energy supply through increased energy generation;
 - c) Reduction in the reliance on fossil fuels; and
 - d) Providing a contribution towards the ambitious Scottish, UK and European Union renewable energy targets.
- 10.8.3 The proposed installed generating capacity of the Seagreen Developments is around 1500MW (however, the exact value is dependent on the nominal capacity and number of WTGs installed and cannot yet be confirmed). Based on the Scottish Government's published Renewable Electricity Output Calculator³, it is estimated that, depending on the fuel type displaced, up to 1,552,544 tonnes of carbon dioxide will be saved each year. In addition, it is estimated that the Development will generate enough electricity to meet the needs of the equivalent 829,951 Scottish households per year.

10.9 *Economic benefits*

- 10.9.1 SPP advises that economic benefits are material issues which must be taken into account as part of the determination process. SPP also confirms the Scottish Ministers' aim of achieving and thriving a renewables industry in Scotland. Furthermore, national policy and strategies, such as NPF3 and The Scottish Energy Strategy: The future of energy in Scotland (Scottish Government, 2017), support the role of renewable energy development in achieving socio-economics benefits and supporting the growth of the low carbon economy. The EIA Report reported that the Seagreen Developments would support the development of the domestic renewable energy industry and offset GHG emissions.
- 10.9.2 Whilst impacts on tourism and recreation were scoped out of the EIA Report, as the conclusions reached in the 2012 ES were considered to remain valid,

³ <https://www.gov.scot/Topics/Statistics/Browse/Business/Energy/onlinetools/ElecCalc> (Last accessed: 16/09/2019)

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the Company assessed socio-economic impacts related to the offshore elements of the Seagreen Developments on the Scottish and UK economies. The Company gave specific consideration to local authority areas in the vicinity of the Seagreen Developments namely Fife, Angus, Dundee and East Lothian.

- 10.9.3 The Company estimated significant beneficial impacts upon the Scottish economy during the development and construction of the Seagreen Developments including direct impacts on employment. The economic impact during this phase has been estimated to be £549 million GVA and 8,540 job years in Scotland and £1.2 billion GVA and 18,770 jobs years across the UK.
- 10.9.4 During the operational phase, the Company estimates that the annual economic impact of the Seagreen Developments is £19 million GVA with 320 jobs in Scotland and £30 million GVA with 410 jobs across the UK.
- 10.9.5 The scope of the assessment did not include the economic impacts associated with decommissioning, as the expenditure on decommissioning is unknown at this stage. However, the Company suggested the expenditure on decommissioning is likely to be comparable to, but lower than, the construction phase.
- 10.9.6 The economic impacts quantified for both the Scottish and UK economies are greater than those described in the 2012 ES. This is due to the greater level of installed capacity and therefore the greater level of investment required.
- 10.9.7 In its consultation response, the SFF stated that the socio-economics assessment neglected to quantify the possible loss of fishing catches and the associated effect on the onshore supply chain, both in terms of jobs and value.
- 10.9.8 MAU advised that the socio-economic assessment is consistent with its expectations and commented that the Seagreen Developments do not raise any significant issues relative to the Original Consent.
- 10.9.9 The Scottish Ministers consider that there is sufficient information regarding the socio-economic impacts of the Seagreen Developments to inform their decision.

11 The Scottish Ministers' Determination

- 11.1 The Scottish Ministers are satisfied that an environmental impact assessment has been carried out, and that the applicable procedures regarding publicity and consultation in respect of the Application and EIA Addendum Report have been followed.

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- 11.2 When formulating proposals for the construction of the proposed generating station the Company must comply with paragraph 3 of Schedule 9 to the Electricity Act 1989. Paragraph 3(1)(a) of Schedule 9 requires the Company in formulating such proposals 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. Paragraph 3(1)(b) requires the Company to do what it reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects. Under paragraph 3(3) of that Schedule, the Company must also avoid, so far as possible, causing injury to fisheries or to the stock of fish in any waters.
- 11.3 Under paragraph 3(2) of Schedule 9, the Scottish Ministers must have regard to the desirability of the matters mentioned in paragraph 3(1)(a) of that Schedule and the extent to which the Company has complied with its duty under paragraph 3(1)(b). Under paragraph 3(3) the Scottish Ministers must avoid, so far as possible, causing injury to fisheries or to the stock of fish in any waters.
- 11.4 In considering the Application, the Scottish Ministers have had regard to the desirability of the matters mentioned in paragraph 3(1)(a) of Schedule 9 and the extent to which the Company has complied with its duty under paragraph 3(1)(b). The Scottish Ministers consider that the Company has done what it reasonably can to mitigate the effect of the proposed Alpha Development on the matters mentioned in paragraph 3(1)(a). The Scottish Ministers are content that the requirements of paragraph 3 of Schedule 9 are satisfied.
- 11.5 The Scottish Ministers have weighed the impacts of the proposed Alpha Development, and the degree to which these can be mitigated, against the economic and renewable energy benefits which would be realised. The Scottish Ministers have undertaken this exercise in the context of national and local policies.
- 11.6 The Scottish Ministers have considered the extent to which the Alpha Development accords with and is supported by Scottish Government policy, the terms of the SPP, the NMP, local development plans and the environmental impacts of the Alpha Development, in particular: impacts on seabirds and marine mammals (including impacts on European sites and European offshore marine sites), impacts on seascape, landscape and visual amenity, impacts on commercial fisheries, impacts on cultural heritage and impacts on aviation and defence. The Scottish Ministers have also considered the estimated contribution made by the Alpha Development to reducing carbon dioxide emissions and the socio-economic and the renewable energy benefits of the Alpha Development.
- 11.7 The Scottish Ministers are satisfied that the environmental issues have been appropriately addressed by way of the design of the Alpha Development and

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through mitigation measures, and that the issues which remain are, on balance, outweighed by the benefits of the Alpha Development. In particular, The Scottish Ministers are satisfied that the proposal will not adversely affect the integrity of the Forth Islands SPA, Fowlsheugh SPA, St Abb's Head to Fast Castle SPA, Moray Firth SAC, Firth of Tay and Eden Estuary SAC, Berwickshire and North Northumberland Coast SAC, Isle of May SAC.

- 11.8 The Scottish Ministers have had regard to the requirements of Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds, and Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora.
- 11.9 In their consideration of the environmental impacts of the Alpha Development, the Scottish Ministers have identified conditions to be attached to the consent to reduce and monitor environmental impacts. These include requirements for pre-construction, construction and operational monitoring of birds, commercial fisheries and marine mammals and the preparation, consultation, approval and implementation of a CMS, EMP and VMP.
- 11.10 A condition requiring the appointment of an Environmental Clerk of Works ("ECoW") and defining the terms of the ECoW's appointment has been attached to the s.36 consent. The ECoW will be required to monitor and report on compliance with all consent conditions, monitor that the Alpha Development is being constructed in accordance with plans and the terms of the Application, the s.36 consent and all relevant regulations and legislation. The ECoW will also be required to provide quality assurance on the final draft versions of any plans and programmes required under the consent.
- 11.11 The Scottish Ministers are satisfied, having regard to current knowledge and methods of assessment, that this reasoned conclusion, as required under the 2017 EW Regulations, is valid.
- 11.12 Subject to the conditions set out in Annex 2, the Scottish Ministers grant consent under s.36 of the Electricity Act 1989 for the construction and operation of the Alpha Development (as described in Annex 1).
- 11.13 The embedded mitigation and any additional mitigation identified in the EIA Report has been incorporated into the conditions of this s.36 consent and/or any marine licence(s) granted. The conditions also capture monitoring measures required under Regulation 22 of the 2017 EW Regulations.
- 11.14 In accordance with the 2017 EW Regulations, the Company must publicise notice of this determination and provide that a copy of this decision letter may be inspected on the application website, in the Edinburgh Gazette and a newspaper circulating in the locality to which the application relates is situated. The Company must provide copies of the public notices to the Scottish Ministers.

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- 11.15 Copies of this letter have been sent to the public bodies consulted on the application, including the relevant planning authorities, SNH, SEPA and HES. This letter has also been published on the [Marine Scotland Information website](#).
- 11.16 The Scottish Ministers' decision is final, subject to the right of any aggrieved person to apply to the Court of Session for judicial review. Judicial review is the mechanism by which the Court of Session supervises the exercise of administrative functions, including how the Scottish Ministers exercise their statutory function to determine applications for consent. The rules relating to the judicial review process can be found on the [website of the Scottish Courts](#). Your local Citizens' Advice Bureau or your solicitor will be able to advise you about the applicable procedures.

Yours sincerely,

Zoe Crutchfield

Leader, Marine Scotland Licensing Operations Team

A member of the staff of the Scottish Ministers

XXXXXX 2019

ANNEX 1 – DESCRIPTION OF THE ALPHA DEVELOPMENT

An offshore energy generating station approximately 27km east of the Angus coastline. The energy generating station comprising:

1. Up to 70, three-bladed horizontal axis Wind Turbine Generators (“WTGs”) on the site. There must be no more than 120 WTGs in combination with the Seagreen Bravo Offshore Wind Farm.

Each WTG will have:

- a) a maximum rotor tip height of 280 metres (measured from Lowest Astronomical Tide (“LAT”));
- b) a maximum rotor diameter of 220 metres;
- c) a maximum hub height of 170 metres (measured from LAT);
- d) a minimum blade tip clearance of 32.5 metres (measured from LAT);
- e) blade width of up to 7.5 metres; and
- f) a minimum spacing of 1000 metres crosswind and 1000 metres downwind.

2. No more than 325km of inter-array cable;

3. Up to 70 foundations and substructures and associated fixtures, fittings and protections chosen from the following options:

- a) Gravity base;
- b) Monopile;
- c) Jacket with driven pile foundation;
- d) Jacket with suction caisson foundation;

All as described in the Application.

ANNEX 2 – SECTION 36 CONSENT CONDITIONS

The consent granted under Section 36 of the Electricity Act 1989 is subject to the following conditions:

Seagreen Wind Energy Ltd (“the Company”) currently holds a section 36 consent (“the Original Consent”) and marine licence (which the Scottish Ministers granted in October 2014) for an offshore wind farm within the same boundary as the Seagreen Alpha Offshore Wind Farm (“the Alpha Development”). The Company must not construct the Alpha Development if construction of the wind farm for which the Original Consent was granted, has commenced.

The Company must submit the requested plans as detailed in the conditions prior to the Commencement of the Alpha Development, where required, in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with any such advisors or organisations as detailed in the conditions or as may be required at the discretion of the Scottish Ministers. Commencement of the Alpha Development cannot take place until such approvals are granted.

The Alpha Development must, at all times, be constructed in accordance with the approved plans as updated or amended.

Any updates or amendments made to the approved plans must be submitted, in writing, to the Scottish Ministers for their prior written approval.

The Company must satisfy itself that all contractors or sub-contractors are aware of the extent of the Alpha Development for which this consent has been granted, the activity which is consented and the terms of the conditions attached to this consent.

All contractors and sub-contractors permitted to engage in the Alpha Development must abide by the conditions set out in this consent.

The Company must assume responsibility for any costs and management associated with the clean-up of any pollution event caused during all construction, operation and maintenance activities of the Alpha Development.

The Company must ensure that all personnel adhere to the Scottish Marine Wildlife Watching Code, where appropriate, during all construction, operation and maintenance activities.

Part 1 – Conditions Attached to Section 36 Consent

1 Duration of the Consent

The consent is for a period of 25 years from the date of Final Commissioning of the Alpha Development.

Written confirmation of the dates of First Commissioning of the Alpha Development and Final Commissioning of the Alpha Development must be provided by the Company to the Scottish Ministers and to Aberdeenshire Council, Angus Council, Dundee City Council, East Lothian Council, Fife Council and Scottish Borders Council no later than one calendar month after these respective dates.

Reason: *To define the duration of the consent.*

2 Commencement of the Alpha Development

The Commencement of the Alpha Development must be no later than five years from the date of this consent, or in substitution such other later period as the Scottish Ministers may hereafter direct in writing. The Company must provide written confirmation of the intended date of Commencement of the Alpha Development to the Scottish Ministers and to Aberdeenshire Council, Angus Council, Dundee City Council, East Lothian Council, Fife Council and Scottish Borders Council no later than one calendar month before that date.

Reason: *To ensure that the Commencement of the Alpha Development is undertaken within a reasonable timescale after consent is granted.*

3 Decommissioning

There must be no Commencement of the Alpha Development unless a Decommissioning Programme (“DP”) has been submitted to and approved in writing by the Scottish Ministers.

The Alpha Development must be decommissioned in accordance with the approved DP, unless otherwise agreed in writing in advance with the Scottish Ministers.

Reason: *To ensure the decommissioning and removal of the Alpha Development in an appropriate and environmentally acceptable manner, and in the interests of safety and environmental protection.*

4 Assignment

This consent must not be assigned without the prior written authorisation of the Scottish Ministers. The Scottish Ministers may authorise the assignment of the consent (with or without conditions) or refuse assignment as they may see fit. The consent is not capable of being assigned, alienated or transferred otherwise than in accordance with the assignment procedure as directed by Scottish Ministers.

Reason: To safeguard the obligations of the consent if transferred to another company.

5 Redundant wind turbine generators

If one or more Wind Turbine Generator (“WTG”) fails to generate electricity for a continuous period of 12 months, then unless otherwise agreed in writing by the Scottish Ministers, the Company must: (i) by no later than the date of expiration of the 12 month period, submit a scheme to the Scottish Ministers setting out the manner in which the relevant WTG(s) and associated infrastructure will be removed from the site and the sea bed restored; and (ii) implement the approved scheme within six months of the date of its approval, or such other date as agreed in writing by the Scottish Ministers, all to the satisfaction of the Scottish Ministers.

Reason: To ensure that any redundant WTG(s) is/are removed from the site, in the interests of safety, amenity and environmental protection.

6 Incident Reporting

In the event of any breach of health and safety or environmental obligations relating to the Alpha Development during the period of this consent and decommissioning, the Company must provide written notification of the nature and timing of the incident to the Scottish Ministers within 24 hours of the incident occurring. Confirmation of remedial measures taken and/or to be taken to rectify the breach must be provided, in writing, to the Scottish Ministers within a period of time to be agreed by the Scottish Ministers.

Reason: To keep the Scottish Ministers informed of any such incidents which may be in the public interest.

7 Implementation in accordance with approved plans and requirements of this consent

Except as otherwise required by the terms of this consent, the Alpha Development must be constructed and operated in accordance with the Application, the Environmental Impact Assessment Report (“the EIA Report”) submitted by the Company on 14 September 2018 and the addendum to the EIA Report, submitted by the Company on 27 May 2019 and any other supplementary and supporting information lodged in support of the Application.

Reason: To ensure that the Alpha Development is carried out in accordance with the approved details.

8 Transportation for site inspections

As far as reasonably practicable, the Company must, on being given reasonable notice by the Scottish Ministers (of at least 72 hours), provide transportation to and from the site for any persons authorised by the Scottish Ministers to inspect the site.

Reason: *To ensure access to the site for the purpose of inspecting compliance with this consent.*

9 Construction Programme

The Company must, no later than six months prior to the Commencement of the Alpha Development, submit a Construction Programme (“CoP”), in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with Scottish Natural Heritage (“SNH”), the Maritime and Coastguard Agency (“MCA”), and any such other advisors or organisations as may be required at the discretion of the Scottish Ministers. Commencement of the Alpha Development cannot take place until such approval is granted.

The CoP must set out:

- a) The proposed date for Commencement of the Alpha Development;
- b) The proposed timings for mobilisation of plant and delivery of materials, including details of onshore lay-down areas;
- c) The proposed timings and sequencing of construction work for all elements of the Alpha Development infrastructure;
- d) Contingency planning for poor weather or other unforeseen delays; and
- e) The scheduled date for Final Commissioning of the Alpha Development.

The final CoP must be sent to the Northern Lighthouse Board (“NLB”), Scottish Fishermen’s Federation (“SFF”), Aberdeenshire Council, Angus Council, Dundee City Council, East Lothian Council, Fife Council and Scottish Borders Council for information only.

Reason: *To confirm the timing and programming of construction.*

10 Construction Method Statement

The Company must, no later than six months prior to the Commencement of the Alpha Development submit a Construction Method Statement (“CMS”), in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with SNH, the MCA, and any such other advisors or organisations as may be required at the discretion of the Scottish Ministers. Commencement of the Alpha Development cannot take place until such approval is granted.

The CMS must include, but not be limited to:

- a) Methods of construction as they relate to all aspects of the Alpha Development.
- b) Details of the commencement dates, duration and phasing for the key elements of construction, the working areas, the construction procedures and good working practices for installing the Alpha Development.

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- c) Details of the roles and responsibilities, chain of command and contact details of company personnel, any contractors or sub-contractors involved during the construction of the Alpha Development.
- d) Details of the manner in which the construction related mitigation steps proposed in the Application are to be delivered.

The CMS must adhere to the construction methods assessed in the Application. The CMS also must, so far as is reasonably practicable, be consistent with the Design Statement (“DS”), the Environmental Management Plan (“EMP”), the Vessel Management Plan (“VMP”), the Navigational Safety Plan (“NSP”), the Piling Strategy (“PS”), the Cable Plan (“CaP”) and the Lighting and Marking Plan (“LMP”).

The final CMS must be sent to the NLB for information only.

Reason: To ensure the appropriate construction management of the Alpha Development, taking into account mitigation measures to protect the environment and other users of the marine area.

11 Piling Strategy

The Company must, no later than six months prior to the Commencement of the Alpha Development, submit a Piling Strategy (“PS”) informed through engagement with the Forth and Tay Regional Advisory Group (“FTRAG”), in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with SNH, and any such other advisors as may be required at the discretion of the Scottish Ministers. Commencement of the Alpha Development cannot take place until such approval is granted.

The PS must include, but not be limited to:

- a) Details of expected noise levels from pile-drilling/driving in order to inform point d below;
- b) Full details of the proposed method and anticipated duration of piling to be carried out at all locations;
- c) Details of soft-start piling procedures and anticipated maximum piling energy required at each pile location;
- d) Details of any mitigation such as Passive Acoustic Monitoring (“PAM”), Marine Mammal Observers (“MMO”), use of Acoustic Deterrent Devices (“ADD”) and monitoring to be employed during pile-driving, as agreed by the Scottish Ministers; and
- e) A Marine Mammal Mitigation Plan (“MMMP”).

The PS must be in accordance with the Application and must also reflect any relevant monitoring or data collection carried out after submission of the Application. The PS must demonstrate the means by which the exposure to and/or the effects of underwater noise have been mitigated in respect to harbour porpoise, minke whale, bottlenose dolphin, harbour seal, grey seal and Atlantic salmon.

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The PS must, so far as is reasonably practicable, be consistent with the EMP, the Project Environmental Monitoring Programme (“PEMP”) and the CMS.

Reason: *To mitigate the underwater noise impacts arising from piling activity.*

12 Development Specification and Layout Plan

The Company must, no later than six months prior to the Commencement of the Alpha Development, submit a Development Specification and Layout Plan (“DSLPL”), in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with Aberdeenshire Council, Angus Council, East Lothian Council, Fife Council, Dundee City Council, Scottish Borders Council, SNH, the MCA, the NLB, the SFF, the Ministry of Defence (“MOD”), and any such other advisors or organisations as may be required at the discretion of the Scottish Ministers. Commencement of the Alpha Development cannot take place until such approval is granted.

The DSLPL must include, but not be limited to the following:

- a) A plan showing the location of each individual WTG (subject to any required micro-siting), including information on WTG spacing, WTG identification/numbering, seabed conditions, bathymetry, confirmed foundation type for each WTG and any key constraints recorded on the site;
- b) A list of latitude and longitude co-ordinates accurate to three decimal places of minutes of arc for each WTG. This should also be provided as a Geographic Information System shape file using WGS84 format;
- c) A table or diagram of each WTG dimensions including - height to blade tip (measured above Lowest Astronomical Tide (“LAT”)) to the highest point, height to hub (measured above LAT to the centreline of the generator shaft), rotor diameter and maximum rotation speed;
- d) The generating output of each WTG used on the site (Figure 1) and a confirmed generating output for the site overall;
- e) The finishes for each WTG (see condition **24** on WTG lighting and marking); and
- f) The length and proposed arrangements on the seabed of all inter-array cables.

Reason: *To confirm the final Development specification and layout.*

13 Design Statement

The Company must, no later than six months prior to the Commencement of the Alpha Development, submit a Design Statement (“DS”), in writing, to the Scottish Ministers. The DS, which must be signed off by at least one qualified landscape architect, as instructed by the Company prior to submission to the Scottish Ministers, must include representative wind farm visualisations from key viewpoints as agreed with the Scottish Ministers, based upon the final DSLPL as approved by the Scottish

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Ministers as updated or amended. The Company must provide the DS, for information only, to Aberdeenshire Council, Angus Council, East Lothian Council, Fife Council, Dundee City Council, Scottish Borders Council.

Reason: *To ensure that the Alpha Development is carried out in accordance with the approved details, and to inform interested parties of the final wind farm scheme proposed to be built.*

14 Evidence supporting ornithology collision risk assessment.

In the event that the Company builds both the Alpha Development and the Seagreen Bravo Offshore Wind Farm (“the Bravo Development”), and the ratio of the WTGs is not 50:50, the Company must, no later than six months prior to the Commencement of the Alpha Development provide evidence using a methodology approved by the Scottish Ministers that the collision risk effects on kittiwake and gannet are no greater than what was assessed for the worst case scenario of 120 WTGs in the Application, if this evidence is requested by the Scottish Ministers. Such approval may only be granted following consultation by the Scottish Ministers with any advisors or organisations as may be required at the discretion of the Scottish Ministers. Commencement of the Alpha Development cannot take place until such approval is granted.

Reason: *To ensure that the effects upon kittiwake and gannet are no greater than those assessed within the Appropriate Assessment.*

15 Environmental Management Plan

The Company must, no later than six months prior to the Commencement of the Alpha Development, submit an Environmental Management Plan (“EMP”), in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with SNH, SFF, East Lothian Council, and any such other advisors or organisations as may be required at the discretion of the Scottish Ministers. Commencement of the Alpha Development cannot take place until such approval is granted.

The EMP must provide the over-arching framework for on-site environmental management during the phases of development as follows:

- a) All construction as required to be undertaken before the Final Commissioning of the Alpha Development; and
- b) The operational lifespan of the Alpha Development from the Final Commissioning of the Alpha Development until the cessation of electricity generation (environmental management during decommissioning is addressed by the Decommissioning Programme provided for by condition **3**).

The EMP must be in accordance with the Application insofar as it relates to environmental management measures. The EMP must set out the roles, responsibilities and chain of command for the Company personnel, any contractors

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or sub-contractors in respect of environmental management for the protection of environmental interests during the construction and operation of the Alpha Development. It must address, but not be limited to, the following over-arching requirements for environmental management during construction:

- a) Mitigation measures to prevent significant adverse impacts to environmental interests, as identified in the Application and pre-consent and pre-construction monitoring or data collection, and include reference to relevant parts of the CMS (refer to condition **10**);
- b) Marine Pollution and Contingency Plan (“MPCP”);
- c) Management measures to prevent the introduction of invasive non-native marine species;
- d) A site waste management plan (dealing with all aspects of waste produced during the construction period), including details of contingency planning in the event of accidental release of materials which could cause harm to the environment. Wherever possible, the waste hierarchy of reduce, reuse and recycle should be encouraged; and
- e) The reporting mechanisms that will be used to provide the Scottish Ministers and relevant stakeholders with regular updates on construction activity, including any environmental issues that have been encountered and the way in which these have been addressed.

The EMP must be regularly reviewed by the Company and the Scottish Ministers or FTRAG, at intervals agreed by the Scottish Ministers. Reviews must include, but not be limited to, the reviews of updated information on construction methods and operations of the Alpha Development and updated working practices.

The EMP must be informed, so far as is reasonably practicable, by the baseline monitoring or data collection undertaken as part of the Application and the PEMP.

The final EMP must be sent to Aberdeenshire Council, Angus Council, Dundee City Council, Fife Council and Scottish Borders Council for information only.

Reason: *To ensure that all construction and operation activities are carried out in a manner that minimises their impact on the environment, and that mitigation measures contained in the Application, or as otherwise agreed are fully implemented.*

16 Vessel Management Plan

The Company must, no later than six months prior to the Commencement of the Alpha Development, submit a Vessel Management Plan (“VMP”), in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with SNH, the MCA, the NLB, the SFF, Forth Ports (“FP”), and any such other advisors or organisations as may be required at the discretion of the Scottish Ministers. Commencement of the Alpha Development cannot take place until such approval is granted.

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The VMP must include, but not be limited to, the following details:

- a) The number, types and specification of vessels required;
- b) How vessel management will be coordinated, particularly during construction, but also during operation of the Alpha Development; and
- c) Location of working port(s), the routes of passage, the frequency with which vessels will be required to transit between port(s) and the site and indicative vessel transit corridors proposed to be used during construction and operation of the Alpha Development.

The confirmed individual vessel details must be notified to the Scottish Ministers in writing no later than 14 days prior to the Commencement of the Alpha Development, and thereafter, any changes to the details supplied must be notified to the Scottish Ministers, as soon as practicable, prior to any such change being implemented in the construction or operation of the Alpha Development.

The VMP must, so far as is reasonably practicable, be consistent with the CMS, the EMP, the PEMP, the NSP, the FMMS and the LMP.

Reason: *To mitigate the impact of vessels.*

17 Operation and Maintenance Programme

The Company must, no later than three months prior to the Commissioning of the first WTG, submit an Operation and Maintenance Programme (“OMP”), in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with SNH, the MCA and any such other advisors or organisations as may be required at the discretion of the Scottish Ministers.

The OMP must set out the procedures and good working practices for operations and the maintenance of the WTG’s, substructures, and inter-array cable network of the Alpha Development. Environmental sensitivities which may affect the timing of the operation and maintenance activities must be considered in the OMP.

The OMP must, so far as is reasonably practicable, be consistent with the EMP, the PEMP, the VMP, the NSP, the CaP and the LMP.

The final OMP must be sent to the NLB for information only.

Reason: *To safeguard environmental interests during operation and maintenance of the Alpha Development.*

18 Navigational Safety Plan

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The Company must, no later than six months prior to the Commencement of the Alpha Development, submit a Navigational Safety Plan (“NSP”), in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with the MCA, FP, the NLB and any other navigational advisors or organisations as may be required at the discretion of the Scottish Ministers. Commencement of the Alpha Development cannot take place until such approval is granted.

The NSP must include, but not be limited to, the following issues:

- a) Navigational safety measures;
- b) Construction exclusion zones;
- c) Notice(s) to mariners and radio navigation warnings;
- d) Anchoring areas;
- e) Temporary construction lighting and marking; and
- f) Buoyage.

The Company must confirm within the NSP that they have taken into account and adequately addressed all of the recommendations of the MCA in the current Marine Guidance Note (“MGN”) 543, and its annexes that may be appropriate to the Alpha Development, or any other relevant document which may supersede this guidance prior to approval of the NSP.

Reason: *To mitigate the navigational risk to other legitimate users of the sea.*

19 Emergency Response Co-operation Plan

The Company must, no later than six months prior to the Commencement of the Alpha Development, submit an Emergency Response Co-operation Plan (“ERCoP”) for the construction, operation, maintenance and decommissioning phases of the Alpha Development, in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with the MCA. Commencement of the Alpha Development cannot take place until such approval is granted. The ERCoP should follow the MCA [template and guidance](#). The ERCoP must be developed in discussion with the MCA.

The final ERCoP must be sent to the NLB for information only.

Reason: *For emergency response planning relating to the Alpha Development and requirements for Search And Rescue (“SAR”) helicopter operations.*

20 Inter Array Cable Plan

The Company must, no later than six months prior to the Commencement of the Alpha Development, submit a Cable Plan (“CaP”), in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with SNH, the MCA, the NLB, the SFF and any such other advisors or organisations as may be required at the discretion of the Scottish

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Ministers. Commencement of the Alpha Development cannot take place until such approval is granted. The CaP must be in accordance with the Application.

The CaP must include, but not be limited to, the following:

- a) The vessel types, location, duration and cable laying techniques for the inter array cables;
- b) The results of monitoring or data collection work (including geophysical, geotechnical and benthic surveys) which will help inform inter array cable routing;
- c) Technical specification of inter array cables, including a desk based assessment of attenuation of electro-magnetic field strengths and shielding;
- d) A Cable Burial Risk Assessment (“CBRA”) to ascertain burial depths and where necessary alternative protection measures;
- e) Methodologies and timetable for post-construction and operational surveys (including over trawl) of the inter array cables with measures to address and report to the Scottish Ministers any exposure of inter array cables.

Any consented cable protection works must ensure existing and future safe navigation is not compromised. The Scottish Ministers will accept a maximum of 5% reduction in surrounding depth referenced to Chart Datum. Any greater reduction in depth must be agreed in writing by the Scottish Ministers.

Reason: To ensure all environmental and navigational issues are considered for the location and construction of the inter array cables.

21 Lighting and Marking Plan

The Company must, no later than six months prior to the Commencement of the Alpha Development, submit a Lighting and Marking Plan (“LMP”), in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with Aberdeenshire Council, Angus Council, East Lothian Council, Fife Council, Dundee City Council, the Scottish Borders Council, the MCA, the NLB, the MOD and any such other advisors or organisations as may be required at the discretion of the Scottish Ministers. Commencement of the Alpha Development cannot take place until such approval is granted.

The LMP must provide that the Alpha Development be lit and marked in accordance with the current Civil Aviation Authority (“CAA”) and MOD aviation lighting policy and guidance that is in place as at the date of the Scottish Ministers approval of the LMP, or any such other documents that may supersede this guidance prior to the approval of the LMP.

The LMP must also detail the navigational lighting requirements detailed in the International Association of Marine Aids to Navigation and Lighthouse Authorities (“IALA”) Recommendation O-139 or any other documents that may supersede this guidance prior to approval of the LMP.

Reason: *To ensure navigational safety and the safe marking and lighting of the Alpha Development.*

22 Aviation Radar

The Company must, prior to the Commencement of the Alpha Development, submit an Air Traffic Control Radar Mitigation Scheme (“ATC Scheme”), in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with the MOD. Commencement of the Alpha Development cannot take place until such approval is granted.

The ATC Scheme is a scheme designed to mitigate the impact of the Alpha Development upon the operation of the Primary Surveillance ATC Radar at RAF Leuchars (“the Radar”) and the air traffic control operations of the MOD which is reliant upon the Radar.

The ATC Scheme must set out the appropriate measures to be implemented to mitigate the impact of the Alpha Development on the Radar and must be in place for the operational life of the Alpha Development provided the Radar remains in operation.

No WTGs forming part of the Alpha Development may become operational, unless and until all those measures required by the approved ATC Scheme to be implemented prior to the operation of the turbines have been implemented and the Scottish Ministers have confirmed this in writing. The Alpha Development must thereafter be operated fully in accordance with the approved ATC Scheme.

Reason: *To mitigate the adverse impacts of the Alpha Development on the air traffic control radar.*

23 Air Defence Radar Mitigation Scheme

The Company must, prior to the Commencement of the Alpha Development, submit an Air Defence Radar Mitigation Scheme (“ADRM Scheme”), in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation of the ADRM Scheme with the MOD. Commencement of the Alpha Development cannot take place until such approval is granted.

The ADRM Scheme must address the impacts on the Air Defence Radar at Remote Radar Head (“RRH”) Buchan and RRH Brizlee Wood.

The Company must comply with all obligations within the approved ADRM Scheme for the duration of the operational life of the Alpha Development.

Reason: *To mitigate the adverse impact of the Alpha Development on air defence radar at RRH Buchan and RRH Brizlee Wood.*

24 Primary Radar Mitigation Scheme

No part of any WTG shall be erected until a Primary Radar Mitigation Scheme (“PRMS”) has been submitted to and approved in writing by the Scottish Ministers following consultation with Aberdeen Airport Limited, NATS (En Route) Public Limited Company (“NERL”) and the MOD. Commencement of the Alpha Development cannot take place until such approval is granted.

No WTG shall be erected until the technical mitigation measures set out in the approved PRMS have been implemented in accordance with its terms and the Alpha Development must thereafter be operated fully in accordance with such approved PRMS.

Reason: *To mitigate adverse impact to the radar and associated air traffic operations at Aberdeen Airport.*

25 Charting requirements

The Company must, prior to the Commencement of the Alpha Development, and following confirmation of the approved DSLP by the Scottish Ministers (refer to condition 12), provide the positions and maximum heights of the WTGs, and construction equipment to the United Kingdom Hydrographic Office (“UKHO”), and Defence Geographic Centre (“DGC”) for aviation and nautical charting purposes. The Company must, within one month of the Final Commissioning of the Alpha Development, provide the coordinates accurate to three decimal places of minutes of arc for each WTG, position and maximum height of the WTGs to UKHO, MOD and DGC for aviation and nautical charting purposes.

Reason: *For aviation and navigational safety.*

26 Project Environmental Monitoring Programme

The Company must, no later than six months prior to the Commencement of the Alpha Development, submit a Project Environmental Monitoring Programme (“PEMP”), in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with SNH, the SFF, the Royal Society for the Protection of Birds Scotland (“RSPB Scotland”), and any other environmental advisors or organisations as required at the discretion of the Scottish Ministers. Commencement of the Alpha Development cannot take place until such approval is granted. The PEMP must be in accordance with the Application as it relates to environmental monitoring.

The PEMP must set out measures by which the Company must monitor the environmental impacts of the Alpha Development. Monitoring is required throughout the lifespan of the Alpha Development where this is deemed necessary by the Scottish Ministers. Lifespan in this context includes pre-construction, construction, operational and decommissioning phases.

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The Scottish Ministers must approve all initial methodologies for the above monitoring, in writing and, where appropriate, in consultation with FTRAG referred to in condition 7 of this consent in respect to all receptors listed below in point a).

Monitoring must be done in such a way as to ensure that the data which is collected allows useful and valid comparisons between different phases of the Alpha Development. Monitoring may also serve the purpose of verifying key predictions in the Application. In the event that further potential adverse environmental effects are identified, for which no predictions were made in the Application, the Scottish Ministers may require the Company to undertake additional monitoring.

The PEMP must cover, but not be limited to, the following matters:

- a) Pre-construction, construction and post-construction (if considered appropriate by the Scottish Ministers) monitoring or data collection as relevant in terms of the Application, and any subsequent monitoring or data collection for impacts on the following receptors:
 1. Birds;
 2. Marine Mammals;
 3. Commercial Fisheries;
 4. Diadromous fish;
 5. Benthic communities; and
 6. Seabed scour and local seabed sediment deposition
- b) The participation by the Company to contribute to data collection or monitoring of wider strategic relevance, identified and agreed by the Scottish Ministers.

The Company have committed to developing an Ornithology Monitoring Strategy (“OMS”) which will validate the findings of the EIA Report. The OMS must be submitted to the Scottish Ministers for their written approval, the approved OMS will be used to inform the PEMP.

Due consideration must be given to the Scottish Marine Energy Research (“ScotMER”) programme, or any successor programme formed to facilitate these research interests.

Any pre-consent monitoring or data collection carried out by the Company to address any of the above issues may be used in part to discharge this condition subject to the written approval of the Scottish Ministers.

The PEMP is a live document which will be regularly reviewed by the Scottish Ministers, at timescales to be determined by them to identify the appropriateness of on-going monitoring. Following such reviews, the Scottish Ministers may, in consultation with the FTRAG require the Company to amend the PEMP and submit such an amended PEMP, in writing, to the Scottish Ministers, for their written approval. Such approval may only be granted following consultation with the FTRAG

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and any other environmental, or such other advisors as may be required at the discretion of the Scottish Ministers.

The Company must submit written reports and associated raw and processed data of such monitoring or data collection to the Scottish Ministers at timescales to be determined by them. Consideration should be given to data storage, analysis and reporting and be to Marine Environmental Data and Information Network (“MEDIN”) standards.

Subject to any legal restrictions regarding the treatment of the information, the results are to be made publicly available by the Scottish Ministers, or by such other party appointed at their discretion.

The Scottish Ministers may agree, in writing, that monitoring may be reduced or ceased before the end of the lifespan of the Alpha Development.

Reason: *To ensure that appropriate and effective monitoring of the impacts of the Alpha Development is undertaken.*

27 Forth and Tay Regional Advisory Group

The Company must participate in the Forth and Tay Regional Advisory Group (“FTRAG”) or any successor group, established by the Scottish Ministers for the purpose of advising the Scottish Ministers on research, monitoring and mitigation programmes for, but not limited to, ornithology, marine mammals, diadromous fish, benthic and marine fish. The extent and nature of the Company’s participation in the Regional Advisory Group is to be agreed by the Scottish Ministers.

Reason: *To ensure effective environmental monitoring and mitigation is undertaken at a regional scale.*

28 Fisheries Management and Mitigation Strategy

The Company must no later than six months prior to the Commencement of the Alpha Development, submit a Fisheries Management and Mitigation Strategy (“FMMS”), in writing, to the Scottish Ministers for their written approval, in consultation with SFF and other fisheries representatives. Commencement of the Alpha Development cannot take place until such approval is granted. The FMMS must be defined and finalised in consultation with the Forth and Tay Commercial Fisheries Working Group (“FTCFWG”).

In order to inform the production of the FMMS, the Company must monitor or collect data as relevant and agreed with Scottish Ministers.

The FMMS must include a transit plan, which must lay out guidelines to address potential interactions with fishing activity, for vessels operating in and around the Alpha Development and transiting to the Alpha Development.

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As part of any finalised FMMS, the Company must produce and implement a mitigation strategy for each commercial fishery that can prove to the Scottish Ministers that they would be adversely affected by the Alpha Development. The Company, any contractors, or sub-contractors working for the Company must implement the mitigation measures committed to be carried out by the Company within the FMMS. The Company must participate in and remain a member of the FTCFWG or any successor group formed to facilitate commercial fisheries dialogue.

Reason: *To mitigate the impact on commercial fishermen.*

29 Environmental Clerk of Works

Prior to the Commencement of the Alpha Development, the Company must at its own expense, and with the approval of the Scottish Ministers in consultation with SNH, appoint an independent Environmental Clerk of Works (“ECoW”). The ECoW must be appointed in time to review and approve the draft version of the first plan or programme submitted under this consent to Scottish Ministers, in sufficient time for any pre-construction monitoring requirements, and remain in post until agreed by the Scottish Ministers. The terms of appointment must also be approved by the Scottish Ministers in consultation with SNH.

The terms of the appointment must include, but not be limited to:

- a) Quality assurance of final draft versions of all plans and programmes required under this consent;
- b) Responsible for the monitoring and reporting of compliance with the consent conditions and the environmental mitigation measures for all wind farm infrastructure;
- c) Provision of on-going advice and guidance to the Company in relation to achieving compliance with consent conditions, including but not limited to the conditions relating to and the implementation of the CMS, the EMP, the PEMP, the PS, the CaP and the VMP;
- d) Provision of reports on point b & c above to the Scottish Ministers at timescales to be determined by the Scottish Ministers;
- e) Induction and toolbox talks to onsite construction teams on environmental policy and procedures, including temporary stops and keeping a record of these;
- f) Monitoring that the Alpha Development is being constructed in accordance with the plans and this consent, the Application and in compliance with all relevant regulations and legislation;
- g) Reviewing and reporting incidents/near misses and reporting any changes in procedures as a result to the Scottish Ministers; and
- h) Agreement of a communication strategy with the Scottish Ministers.

Reason: *To ensure effective monitoring of and compliance with the environmental mitigation and management measures associated with the Alpha Development.*

30 Fisheries Liaison Officer

Prior to the Commencement of the Alpha Development, a Fisheries Liaison Officer (“FLO”), must be appointed by the Company and approved, in writing, by the Scottish Ministers (following consultation with SFF and the FTCFWG). The FLO must be appointed by the Company for the period from Commencement of the Alpha Development until the Final Commissioning of the Alpha Development. The identity and credentials of the FLO must be included in the EMP (referred to in condition 15). The FLO must establish and maintain effective communications between the Company, any contractors or sub-contractors, fishermen and other users of the sea during the construction of the Alpha Development, and ensure compliance with best practice guidelines whilst doing so.

The responsibilities of the FLO must include, but not be limited to:

- a) Establishing and maintaining effective communications between the Company, any contractors or sub-contractors, Fishing Industry Representatives (“FIR”) fishermen and other users of the sea concerning the overall Alpha Development and any amendments to the CMS and site environmental procedures;
- b) The provision of information relating to the safe operation of fishing activity on the site of the Alpha Development; and
- c) Ensuring that information is made available and circulated in a timely manner to minimise interference with fishing operations and other users of the sea.

Reason: *To facilitate engagement with the commercial fishing industry.*

31 Protocol for Archaeological Discoveries

The Company must, no later than six months prior to the Commencement of the Alpha Development, submit a Protocol for Archaeological Discoveries (“PAD”) and a Written Scheme of Investigation (“WSI”) which sets out what the Company must do on discovering any marine archaeology during the construction, operation, maintenance and monitoring of the Alpha Development, in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with Historic Environment Scotland (“HES”) and any such advisors as may be required at the discretion of the Scottish Ministers.

Commencement of the Alpha Development cannot take place until such approval is granted. The Reporting Protocol must be implemented in full, at all times, by the Company.

Reason: *To ensure any discovery of archaeological interest is properly and correctly reported.*

32 Construction Traffic Management Plan

In the event that major offshore components require onshore abnormal load transport, the Company must, no later than six months prior to the Commencement of the Alpha Development, submit a Construction Traffic Management Plan (“CTMP”) in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with Transport Scotland and any such other advisors as may be required at the discretion of the Scottish Ministers. Commencement of the Alpha Development cannot take place until such approval is granted.

The CTMP must include:

- a) A mitigation strategy for the proposed route for any abnormal loads on the trunk road network including any accommodation measures required, incorporating the removal of street furniture, junction widening, or traffic management of road based traffic and transportation associated with the construction of the Alpha Development. All construction traffic associated with the Alpha Development must conform to the approved CTMP; and
- b) Any additional signing or temporary traffic control measures deemed necessary due to the size or length of loads being delivered or removed as a result of the Alpha Development, must be undertaken by a recognised QA traffic management consultant.

Reason: To maintain the free flow and safety of the trunk road network.

DEFINITIONS AND GLOSSARY OF TERMS

- “AA” means the Appropriate Assessment;
- “ADD” means Acoustic Deterrent Devices;
- “ADR” means Air Defence Radar;
- “the Alpha Development” means the Seagreen Alpha Offshore Wind Farm
- “Applications” means the EIA Report, HRA Report and supporting documents submitted by the Company on 14 September 2018 to construct and operate an offshore generating station;
- “ATC” means Air Traffic Control;
- “the Bravo Development” means the Seagreen Bravo Offshore Wind Farm
- “Commencement of the Development” means the date on which the first construction activity occurs in accordance with the EIA Report submitted by the Company on 14 September 2018;
- “the Company” means Seagreen Wind Energy Ltd, Company number (6873902) having its registered offices at No. 1 Forbury Place, 43 Forbury Road, Reading RG1 3JH
- “the Consultation” means consultation on the Applications;
- “CPS” means Counterfactual of Population Size;
- “CRM” means Collision Risk Modelling;
- “dSPA” means draft Special Protection Area;
- “ECoW” means Environmental Clerk of Works;
- “EIA” means Environmental Impact Assessment;
- “EIA Addendum Report” means the addendum of additional information to the EIA Report submitted on 15 May 2019;
- “the EIA Addendum Consultation” means the consultation on the EIA Addendum Report;
- “EIA Report” means Environmental Impact Assessment Report;
- “EPS” means European Protected Species;
- “EU” means European Union;
- “FLO” means Fisheries Liaison Officer;
- “the Forth and Tay Developments” means combinations of the previous and existing consents for Neart na Gaoithe Offshore wind farm (granted October 2014 and December 2018), the existing consent for Inch Cape offshore wind farm (granted October 2014 and June 2019), the existing consents for the Seagreen Alpha and Seagreen Bravo offshore wind farms (granted October 2014) and the applications for new consents (submitted September 2018);
- “GHG” means greenhouse gas;
- “GVA” means Gross Value Added;
- “HAT” means Highest Astronomical Tide;
- “HRA Report” means Habitat Regulations Appraisal;
- “IALA” means International Association of Marine Aids to Navigation and Lighthouse Authorities;
- “LAT” means Lowest Astronomical Tide;
- “MW” means megawatt;

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- “nm” means nautical miles;
- “OMS” means Ornithology Mitigation Strategy;
- “the Original Consents” means the s.36 consents and marine licences (which the Scottish Ministers granted in October 2014) for two offshore wind farm developments within the same boundary as the current Applications that the Company currently holds.
- “OSP” means Offshore Substation Platform;
- “OTA” means Offshore Transmission Asset;
- “PLI” means Public Local Inquiry;
- “PRMS” means Primary Radar Mitigation Scheme;
- “pSPA” means Proposed Special Protection Areas;
- “PTS” means Permanent Threshold Shift;
- “PVA” means Population Viability Analysis;
- “RRH” means Remote Radar Head;
- “SAC” means Special Area of Conservation;
- “ScotMER” means Scottish Marine Energy Research Programme;
- “SeabORD” means Seabird Offshore Renewable Development tool;
- “the Seagreen Developments” means the Seagreen Alpha Offshore Wind Farm (“the Alpha Development”), approximately 27km east of the Angus coastline and the Seagreen Bravo Offshore Wind Farm (“the Bravo Development”), approximately 38km east of the Angus coastline
- “SPA” means Special Protection Area;
- “s.36” means section 36 of the Electricity Act 1989 (as amended);
- “the 2012 ES” means the Environmental Statement submitted by the Company on 15 October 2012 including the addendum of additional information and Erratum in relation to the HRA Report contained within the Environmental Statement submitted on 18 October 2013 for the applications made for the Original Consents;
- “WCS” means worst case scenario; and
- “WTG” means wind turbine generators.

Organisations and Companies

- “AIAL” means Aberdeen International Airport Limited;
- “BT” means BT Radio Network Protection;
- “FTCFWG” means the Forth and Tay Commercial Fisheries Working Group;
- “FTRAG” means Forth and Tay Regional Advisory Group;
- “HES” means Historic Environment Scotland;
- “ICOL” means Inch Cape Offshore Limited;
- “MAU” means Marine Scotland Marine Analytical Unit;
- “MEDIN” Marine Environmental Data and Information Network
- “MCA” means the Maritime and Coastguard Agency;
- “MMO” means Marine Mammal Organisation;
- “MOD” means the Ministry of Defence;
- “MS-LOT” means Marine Scotland Licensing Operations Team;

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- “MSS” means Marine Scotland Science;
- “NATS” means National Air Traffic Service Safeguarding;
- “NLB” means the Northern Lighthouse Board;
- “RAF” means the Royal Air Force;
- “RYA” means Royal Yachting Association;
- “RSPB Scotland” means The Royal Society for the Protection of Birds Scotland;
- “SEPA” means The Scottish Environment Protection Agency;
- “SFF” means The Scottish Fishermen’s Federation;
- “SNH” means Scottish Natural Heritage;
- “TS” means Transport Scotland;
- “UKHO” means United Kingdom Hydrographic Office; and
- “WDC” means Whale and Dolphin Conservation.

Plans and Programmes

- “ADRM Scheme” means Air Defence Radar Mitigation Scheme;
- “ATC Scheme” means Air Traffic Control Radar Mitigation Scheme;
- “CaP” means Cable Plan;
- “CMS” means Construction Method Statement;
- “CoP” means Construction Programme;
- “DP” means Decommissioning Programme;
- “DS” means the Design Statement;
- “DSL P” means Development Specification and Layout Plan;
- “EMP” means Environmental Management Plan;
- “ERCoP” means Emergency Response Co-operation Plan;
- “FMMS” means Fisheries Management and Mitigation Strategy;
- “LDP” means Local Development Plans;
- “LMP” means Lighting and Marking Plan;
- “MPCP” means Marine Pollution Contingency Plan;
- “MMMP” means Marine Mammal Mitigation Plan;
- “MGN” means Marine Guidance Note;
- “NMP” means the National Marine Plan;
- “NPF3” means Scotland’s National Planning Framework 3;
- “NRA” means Navigation Risk Assessment;
- “NRIP” means the National Renewables Infrastructure Plan;
- “NSP” means Navigational Safety Plan;
- “PEMP” means Project Environmental Monitoring Programme;
- “PS” means Piling Strategy;
- “SPP” means Scottish Planning Policy 2014; and
- “VMP” means Vessel Management Plan;

Legislation

- “the Birds Directive” means Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds, as amended and as codified by Directive 2009/147/EC of the European Parliament and of the Council of 30th November 2009;
- “the Electricity Act 1989” means the Electricity Act 1989 (as amended);
- “the Habitats Regulations” means the Conservation of Habitats and Species Regulations 2017 and the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended);
- “the Habitats Directive” means Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and wild fauna and flora (as amended);
- “the 1999 Order” means the Scotland Act 1998 (Transfer of Functions to the Scottish Ministers etc.) Order 1999;
- “the 2007 MW Regulations” means the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2007 (as amended);
- “the 2009 Act” means the Marine and Coastal Access Act 2009;
- “the 2010 Act” means the Marine (Scotland) Act 2010;
- “the 2017 EW Regulations” means The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended); and