

3 Approach to EIA

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3 Approach to EIA

3.1 Executive Summary

3.1.1 This chapter of the Environmental Impact Assessment Report (EIA Report) sets out the broad approach taken to produce the Environmental Impact Assessment (EIA) for the Proposed Development. It also includes details of the consultation undertaken.

3.2 Introduction

3.2.1 The EIA process assists the Energy Consents Unit (ECU) in their determination of the application by identifying where significant environmental effects are predicted. This assessment has been completed in conjunction with consultation with statutory consultees, interested parties and the general public.

3.2.2 The structure of the EIA Report follows the requirements of Schedule 4 of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (Scottish Government, 2017) (hereafter referred to as the 'EIA Regulations') and other relevant good practice guidance. The EIA Report comprises five volumes, with the Non-Technical Summary (NTS) forming a separate stand-alone document (further details are provided in Section 1.7 of Chapter 1 (Introduction)).

3.2.3 This chapter is structured as follows:

- overview of the relevant legislation, policy and guidance;
- an outline of the EIA process that has been followed;
- details of the assessment of potential effects;
- mitigation measures and enhancement;
- the scope of the assessment completed;
- details of the information within the EIA Report as required by the EIA Regulations;
- overview of the consultation undertaken to date; and
- the assumptions made, likely limitations and uncertainty.

3.2.4 This chapter includes the following appendices:

- Appendix 3.1: EIA Scoping Report (2019);
- Appendix 3.2: ECU EIA Scoping Opinion (2019);
- Appendix 3.3: Gatecheck 1 Report;
- Appendix 3.4: Consultee responses to the Gatecheck 1 Report;
- Appendix 3.5: Post-Gate Check 1 Report consultation; and
- Appendix 3.6: The Highland Council Pre-Application Advice Pack.

3.3 Legislation and Guidelines

3.3.1 A number of legislative and best practice documents have informed the EIA process. The main piece of legislation is the EIA Regulations. The Proposed Development meets the Schedule 2, (1) criteria of the EIA Regulations, by nature of it being classed as a generating station which requires consent under Section 36 of the Electricity Act 1989. The criteria for considering whether a Schedule 2 development requires the preparation of an EIA are set out in Schedule 3 of the EIA Regulations, and the Applicant has voluntarily accepted that an EIA is required. Schedule 4 of the EIA Regulations provides details of the information to be included within the EIA Report.

- 3.3.2 In addition to the above, the following regulations and best practice guidance have been referred to:
- The Town and Country Planning Act (Scotland) 1997;
 - The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended), Planning Circular 1/2017 (Scottish Government, 2017b);
 - Scottish Planning Policy (Scottish Government, 2014);
 - Planning Advice Note (PAN) 1/2013 Environmental Impact Assessment (Scottish Government, 2017c);
 - Guidelines for Environmental Impact Assessment, Institute of Environmental Management and Assessment (IEMA, 2006);
 - General Pre-Application and Scoping Advice for Onshore Windfarms, (NatureScot, 2020);
 - Good Practice during Wind Farm Construction Version 4 (SNH, SEPA, Scottish Renewables, FCS, HES, MSS, 2019);
 - A Handbook on Environmental Impact Assessment (V5) (Scottish Natural Heritage, 2018); and
 - Assessing the Cumulative Impact of Onshore Wind Energy Developments (Scottish Natural Heritage, 2012).

3.4 The EIA Process

- 3.4.1 The findings of the EIA are presented in this EIA Report, which has been prepared in accordance with the EIA Regulations.
- 3.4.2 The broad approach which has been followed in undertaking the EIA is presented in this chapter and an overview of the methodology adopted for each technical study is provided within the respective EIA Report technical chapters.

Screening

- 3.4.3 Screening is the process by which it is determined whether or not an EIA should be conducted for the Proposed Development.
- 3.4.4 As set out in paragraph 3.3.1, the Proposed Development falls within Schedule 2 of the EIA Regulations. Schedule 3 of the EIA Regulations sets out the criteria that should be considered in determining whether a Schedule 2 development is likely to have significant environmental effects and hence require a formal EIA. These criteria are:
- the characteristics of the development (e.g. its size, cumulation with other existing developments, use of natural resources, resultant pollution, waste generated);
 - the environmental sensitivity of the location; and
 - the characteristics of the potential impacts (including extent, magnitude, probability and duration).

- 3.4.5 A formal Screening Opinion was not sought from the ECU, as the Applicant has voluntarily accepted that an EIA is required.

Scoping

- 3.4.6 The EIA scoping process is undertaken to identify the potentially significant environmental impacts that should be considered when assessing the potential effects of the Proposed Development. An EIA Scoping Opinion may be obtained from the planning authority (in the case of the Proposed Development, the ECU on behalf of Scottish Ministers) which would set out the matters that should

be considered through the EIA. In reaching its EIA Scoping Opinion, the ECU consults statutory and non-statutory stakeholders for their respective opinions regarding EIA scope.

- 3.4.7 The Applicant requested an EIA Scoping Opinion from ECU in July 2019 through the submission of an EIA Scoping Report (Appendix 3.1), prepared by the EIA Project Team. This EIA Scoping Report contained details of the site baseline and the Proposed Development. It also proposed which environmental impacts would be assessed in the EIA, and the assessment methodologies that would be used.
- 3.4.8 ECU consulted with a variety of statutory and non-statutory consultees before providing an EIA Scoping Opinion in September 2019 (Appendix 3.2). This information has been used to inform the design of the Proposed Development and the scope of the EIA.
- 3.4.9 Direct consultation has also been undertaken with consultees, to confirm and agree the approach and scope of technical surveys and assessments on a topic by topic basis. Details of relevant consultations are included in each technical chapter and were detailed in the Gatecheck 1 Report that was submitted to the ECU in November 2020. See Appendix 3.3 for the Gatecheck 1 Report and Appendix 3.4 for consultee responses to the Gatecheck 1 Report. Further consultation following Gatecheck 1 is detailed in Appendix 3.5.
- 3.4.10 In addition to the above, a Pre-Application Meeting took place with The Highland Council (THC) in May 2019 and the advice received during the meeting and in the subsequently issued Pre-Application Advice Pack (Appendix 3.6) was a key consideration when preparing the Scoping Report. As a major scale planning application, the Proposed Development was subject to a 12-week Proposal of Application Notice (PAN) period in line with the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013. A PAN was submitted by the Applicant to THC in March 2021, detailing what public consultation has been undertaken.

EIA

- 3.4.11 EIA is the systematic process of compiling, assessing and presenting all the significant environmental effects of a proposed development. The assessment is designed to inform the decision-making process by way of setting out the likely environmental profile of a project. Identification of potentially significant adverse environmental effects then leads to the design and incorporation of appropriate mitigation measures into both the design of the scheme and the way in which it is constructed.
- 3.4.12 The main steps in the EIA assessment process for the Proposed Development have been:
- Baseline surveys (where appropriate and where possible) to provide information on the existing environmental character of the proposed site and the surrounding area.
 - Consideration given to the possible interactions between the Proposed Development and the existing and predicted future site conditions. These interactions or effects are assessed using stated criteria based on accepted guidance and best practice.
 - Using the outline design parameters for the Proposed Development, prediction of the likely environmental effects, including direct effects and any indirect, short, medium and long-term, permanent and temporary, beneficial and adverse effects.
 - Identification of mitigation measures designed to avoid, reduce or offset adverse effects as well as enhancement measures that could result in beneficial effects. Assessment of alterations to the design and the reassessment of previously proposed mitigation to establish suitable mitigation for the Proposed Development.
 - Assessment of the significance of any residual effects after mitigation, in relation to the sensitivity of the feature impacted upon and the magnitude of the effect predicted, in line with the methodology identified below in Section 3.5.
 - Identification of any uncertainties inherent in the methods used, the predictions made, and the conclusions drawn during the course of the assessment process.

- Reporting of the results of the EIA in this EIA Report.
- 3.4.13 The EIA process is an iterative process where its findings have informed the design evolution of the project.

3.5 Assessment of Effects

- 3.5.1 Throughout the assessment, a distinction has been made between the term ‘impact’ and ‘effect’. The EIA Regulations refer to the requirement to describe the “likely significant effects on the environment”. An impact is defined as the likely change to the characteristics/nature of the receiving environment as a result of the Proposed Development (e.g. noise from turbines), whereas the ‘effect’ relates to the significance of the impact (e.g. a significant residual noise effect on residential properties). These terms have been adopted throughout this EIA to present a consistent approach to the assessment and evaluation of effects and their significance.
- 3.5.2 The exception to this is the Landscape and Visual Impact Assessment which classifies the level of change to the receiving environment as the “magnitude of change” in line with the recommendations of the Guidelines for the Landscape and Visual Impact Assessment (V3) (Landscape Institute, 2013). However, this terminology should be considered interchangeable with “magnitude of impact”.
- 3.5.3 Within the EIA Report, the assessment of effects for each environmental topic takes into account the environmental impacts of the construction, operational and decommissioning phases of the Proposed Development and the environmental impacts should the Proposed Development not be consented (the ‘do-nothing’ scenario).
- 3.5.4 In order to determine whether the potential effects of the Proposed Development are likely to be ‘significant’ a number of criteria are used. These significance criteria vary between topics but generally include:
- international, national and local designations or standards;
 - relationship with planning policy;
 - sensitivity of the receiving environment;
 - magnitude of the impact;
 - reversibility and duration of the effect; and
 - inter-relationship between effects.
- 3.5.5 Effects that are considered to be significant, prior to mitigation but following the implementation of best practice, are identified within the EIA Report. The significance attributed to the resultant effect is informed by professional judgement, as to the sensitivity of the affected receptor(s) and the nature and magnitude of the predicted changes/impacts. For example, a major adverse change/impact on a feature or site of low importance will have an effect of lesser significance than the same impact on a feature or site of high importance.
- 3.5.6 Table 3.1 is used as a guide to the relationship between the sensitivity of the identified receptor and the anticipated magnitude of an impact/change. Professional judgement is however also important in establishing the suitability of this guiding ‘formula’ to the assessment of the significance of each individual effect.

Table 3.1 – Guide to the Inter-Relationship between Magnitude of Impact and Sensitivity of Receptor

		Sensitivity of Receptor/Receiving Environment to Change			
		High	Medium	Low	Negligible
Magnitude of Impact/Change	High	major	moderate to major	minor to moderate	negligible
	Medium	moderate to major	moderate	minor	negligible
	Low	minor to moderate	minor	negligible to minor	negligible
	Negligible	negligible	negligible	negligible	negligible

3.5.7 The following terms are used in the EIA Report, unless otherwise stated, to determine the level of effects predicted to occur:

- **major** beneficial or adverse effect – where the Proposed Development would result in a large improvement (or deterioration) to the existing environment;
- **moderate** beneficial or adverse effect – where the Proposed Development would result in a medium improvement (or deterioration) to the existing environment;
- **minor** beneficial or adverse effect – where the Proposed Development would result in a small improvement (or deterioration) to the existing environment; and
- **negligible** beneficial or adverse effect – where the Proposed Development would result in a no discernible improvement (or deterioration) to the existing environment.

3.5.8 Using professional judgement and with reference to the Guidelines for Environmental Impact Assessment (IEMA, 2004), the majority of the assessments within this EIA Report consider effects of moderate and greater significance to be significant. Minor effects and less are non-significant. Any deviations from this approach are clearly stated within the individual technical chapters.

3.5.9 Summary tables that outline the predicted effects associated with an environmental issue, the appropriate mitigation measures required to address these effects and subsequent overall residual effects are provided at the end of each technical chapter of the EIA Report. Distinction has also been made between direct and indirect, short and long term, permanent and temporary, beneficial and adverse effects.

Cumulative Effects

3.5.10 Part 5(e) of Schedule 4 of The EIA Regulations states that EIA Reports should include an assessment of *“the cumulation of effects with other existing and/or approved development, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources”*. Where appropriate, the description of the likely significant effects on the factors specified in Regulation 4(3) of the EIA Regulations must cover the cumulative effects of the Proposed Development. This would include any cumulative effects on population and human health, biodiversity, protected species and habitats, land, soil, water, air and climate; and material assets, cultural heritage and the landscape.

3.5.11 Cumulative effects are those which result from incremental changes caused by past, present or reasonably foreseeable future actions resulting from the introduction of the Proposed Development. These cumulative effects cover the combined effects of individual impacts from the Proposed Development and, separately, combined impacts of several developments together, as noted within the guidance provided by SNH in the document *“Assessing the Cumulative Impact of*

Onshore Wind Energy Developments” (SNH, 2012). Developments considered in addition to the Proposed Development are existing, approved and proposed developments (those awaiting determination within the planning process), covering all types of developments, including other wind farms (SNH, 2012).

3.6 Mitigation Measures

3.6.1 The EIA Regulations require the EIA to present a description of the measures proposed to avoid, reduce and, if possible, offset significant adverse effects. Wherever reasonably practicable, mitigation measures are proposed for each significant environmental effect predicted, and can take various forms including:

- changes to the scheme design;
- physical measures applied on site; and
- measures to control particular aspects of the construction or operation of the scheme.

3.6.2 Where the potential remains for likely significant effects after taking into account good practice and embedded design mitigation, additional mitigation measures are identified to reduce the residual effect to a non-significant level wherever possible.

3.6.3 Mitigation measures are presented as commitments in order to ensure a level of certainty as to the environmental effects of the Proposed Development. There are various ways in which a level of certainty can be ensured, such as through the use of planning conditions. Therefore, notwithstanding any statutory mechanisms to ensure implementation, the Applicant and therefore the Contractors will be committed to implementing all mitigation measures identified in this EIA Report relating to construction of the Proposed Development.

3.6.4 A schedule of all of the mitigation measures proposed in this EIA Report is presented in Chapter 16 (Schedule of Environmental Commitments).

Enhancement

3.6.5 Similar to the reporting of mitigation measures, where opportunities for environmental enhancement (i.e. measures which go above and beyond offsetting adverse effects and which improve on the baseline) are proposed, these have been included in the summary of environmental mitigation reported at the end of each technical chapter, and in Chapter 16.

3.7 Residual Effects

3.7.1 Chapter 17 (Summary) summarises the residual effects resulting from the Proposed Development following implementation of the proposed mitigation measures.

3.8 Scope of the EIA

Technical Scope

3.8.1 The technical scope of the assessment will cover all the impacts agreed through the EIA Scoping and consultation process. The following technical areas have been scoped out of the EIA¹:

- **Ecology and Nature Conservation**
 - Habitats: Coniferous woodland plantation, mixed woodland plantation, dry heath, marshy grassland and bare/disturbed ground have been scoped out of the assessment.
 - Fungus: Violet coral fungus has been scoped out of the assessment.
 - Protected species: As the field study area does not contain habitats suitable to support badger or red squirrel and no records of these species were made during field surveys, these species are not considered further in this assessment. Likewise, no records of wildcat

¹ Further details on the scope of assessments is provided in within the technical chapters.

or pine marten were recorded and the habitats in the field study area are considered to be of low suitability for these species, therefore, they are not considered further in this assessment.

- Freshwater invertebrates (including freshwater pearl mussel): No significant effects are considered to be possible on watercourses following the application of standard mitigation measures, such as pollution prevention measures, therefore freshwater invertebrates are scoped out of this assessment.
- Invertebrates: Surveys of this species group were considered unnecessary as the Ecological Impact Assessment (EclA) adopts a precautionary approach and includes appropriate mitigation, where required, to avoid significant effects.
- **Ornithology** - All designated sites relating to ornithology that do not contain Slavonian grebe as a qualifying feature have been scoped out of the ornithological assessment.

Due to the lack, or low numbers of 'at-risk' flights or breeding activity recorded during baseline surveys, and lack of habitat suitability within the Site, the following target species have also been scoped out:

- Wildfowl: no suitable habitat for geese or swans found within survey area, and no estimated collision rates;
- Other raptor species: no breeding evidence within 2km of site, and low activity rates recorded during baseline surveys. Low collision rates predicted.
- Other waders: which were non-breeders (lapwing, ringed plover, woodcock), or found breeding in low numbers (common sandpiper, curlew and snipe) within the context of likely NHZ 7 populations, generally in areas away from infrastructure, with consequently low or zero collision rates predicted; and
- All passerine species, as per SNH (2017 and 2018b) guidance.
- **Archaeology and Cultural Heritage** - Assessment for the potential for direct effects upon archaeological remains have been scoped out with the agreement of The Highland Council Historic Environment Team.
- **Shadow Flicker** - The advice sheet from Scottish Government, Onshore Wind Turbines, a web-based guide (Scottish Government, 2014a) sets out the potential geographic area which may fall under assessment: *"Where this (shadow flicker) could be a problem, Applicants should provide calculations to quantify effect. In most cases however, where separation is provided between wind turbines and nearby dwellings (as a general rule ten rotor diameters), 'shadow flicker' should not be a problem."*

Published research by the Department of Energy and Climate Change (DECC), Update of UK Shadow Flicker Evidence Base (DECC, un-dated), evaluates the current international understanding of shadow flicker and confirms an acceptable study area for assessment is ten rotor diameters from each turbine and within 130 degrees either side of north.

The maximum rotor diameter of the proposed turbines would not exceed 158m, so the area where shadow flicker could be a problem extends to a maximum of 1.58km (1.63km if you include a 50m micro-siting allowance).

The nearest residential property is 2.4km from the closest turbine, therefore there are no residential properties within 1.58km (1.63km) and shadow flicker is scoped out of the EIA.

- **Noise** – Assessment of potential effects of construction noise has been scoped out due to separation distances from receptors, anticipated timings and anticipated construction noise levels. This is in line with THC Environmental Health Officer’s response to Scoping.
- **Forestry** - Scottish Forestry agreed within their scoping response that Forestry be scoped out of the EIA.
- **Ice Throw** - Has been scoped out of the EIA given the very low risk and the mitigation measures that will be taken.
- **Human health** - The assessment of potential human health effects will be undertaken in the context of residential amenity (namely visual amenity (Chapter 8) and noise (Chapter 11)) and as such a specific assessment has been scoped out of the EIA.
- **Major Accidents and/or Disaster** - The risk of major accidents and/or disaster is extremely low and as such has been scoped out of the EIA.
- **Air Quality** - In line with the Institute of Air Quality Management (IAQM) Land Use Planning and Development Control: Planning for Air Quality Guidance (IAQM, 2017) and in agreement with THC (February 2020), air quality has been scoped out of the EIA.
- **Telecommunications** – Operators of telecommunication networks have been consulted with final proposed turbine locations (refer to Appendix 3.5) and have confirmed that no impacts on telecommunication pathways are anticipated and no fixed links have been identified within proximity of the Site. As such further assessment has been scoped out of the EIA.
- **Land Use** – Chapter 2 (Design Iteration and Proposed Development) provides a description of the current land use of the Site which will be largely unchanged as a result of the Proposed Development. Chapter 5 (Ecology) provides an assessment of the temporary and permanent habitat loss and land take. Chapter 13 (Socio-Economics, Tourism and Recreation) provides an assessment of impacts on the recreational use of the land. As such a specific assessment of Land Use has been scoped out of the EIA.
- **Outdoor Access** – THC’s Access Officer requested through Scoping that an Outdoor Access Plan be submitted as part of the EIA to address impacts on Outdoor Access. An Outline Outdoor Access Plan accompanies the planning application as a standalone document and will be updated post-consent in agreement with THC. Impacts on recreational users of local viewpoints and walking routes is assessed within Chapter 8 (Landscape and Visual) and Chapter 13 (Socio-economics, Tourism and Recreation), as such a specific assessment of Outdoor Access is scoped out of the EIA.

3.8.2 All other technical topic areas identified in Table 3.2 have been assessed as part of the EIA process and are reported in the relevant sections of this EIA Report.

3.8.3 Each issue has been considered to the appropriate level of detail in the EIA Report, using the information collated during consultations. For each impact the baseline condition has been described, with the receptor sensitivity identified. The potential effects have been predicted and assessed for their significance. Where possible and applicable, mitigation measures have been identified and any potential residual environmental effects assessed.

Spatial Scope

3.8.4 The spatial scope of the EIA, in other words the geographical coverage of the assessment undertaken, has taken account of a number of factors, in particular:

- the extent of the Proposed Development (Figure 1.2);

- the nature of the baseline environment, sensitive receptors and the likely impacts that could arise; and
- the distance over which predicted effects are likely to remain significant and in particular the existence of pathways which could result in the transfer of effects to a wider geographical area than the extent of proposed physical works.

Temporal Scope

- 3.8.5 The baseline years used for the assessment of environmental effects are 2018-2021, as this is the year in which the assessment work was undertaken.
- 3.8.6 For the purposes of the EIA, construction is assumed to commence in 2025 and expected to last for a period of 18 months.
- 3.8.7 For construction effects, the assessment also takes into account the time of day that works are likely to be undertaken, for example if any night-time working is required to minimise disruption to road users.
- 3.8.8 The Applicant is seeking consent for 50 years of operation.
- 3.8.9 It is anticipated that the levels of effect during decommissioning would be similar but of a lesser level than those during construction. Decommissioning would be undertaken in line with best practice processes and methods at that time and will be managed through an agreed Decommissioning Environmental Management Plan.

3.9 EIA Report

- 3.9.1 Table 3.2 sets out where the ‘Information for Inclusion in Environmental Impact Assessment Reports’ (Schedule 4 of the EIA Regulations) has been provided in this EIA Report.

Table 3.2 – Information Required in the EIA Report

Required Information (EIA Regulations)	Relevant Reference within this EIA Report
<p>1. A description of the development, including in particular:</p> <p>(a) a description of the location of the development;</p> <p>(b) a description of the physical characteristics of the whole development, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases;</p> <p>(c) a description of the main characteristics of the operational phase of the development (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used;</p> <p>(d) an estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities</p>	<p>The Proposed Development is described in Chapter 2 (Design Iteration and Proposed Development) of the EIA Report, including consideration of anticipated construction methods and the operation of the Proposed Development.</p> <p>Figure 1.1 shows the site location plan and Figure 1.2 and 1.3 the Proposed Development layout.</p> <p>No demolition works are required.</p> <p>The land use requirements during construction and operational phases are also described in Chapter 2 (Design Iteration and Proposed Development).</p> <p>Expected residues and emissions are addressed, where relevant, in the appropriate technical chapters of this EIA Report.</p>

Required Information (EIA Regulations)	Relevant Reference within this EIA Report
and types of waste) produced during the construction and operation phases.	
2. A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.	Section 3.11 below provides an overview of the Consideration of Alternatives, and a description of the alternatives studied by the Applicant is provided in Chapter 2 (Design Iteration and Proposed Development).
3. A description of the relevant aspects of the current state of the environment (the “baseline scenario”) and an outline of the likely evolution thereof without implementation of the project as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of relevant information and scientific knowledge.	A description of the existing environment is provided within each technical chapter. Evolution of the site in the absence of the Proposed Development (the “do-nothing scenario”) is addressed in Chapter 2 (Design Iteration and Proposed Development) and where appropriate within each technical chapter.
4. A description of the factors specified in regulation 4(3) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydro morphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.	<p>The receptors with the potential to be significantly affected by the Proposed Development are detailed within each of the technical chapters.</p> <p>The assessment of potential population and human health effects has been undertaken in the context of residential amenity (i.e. visual impacts, noise, socio-economics, recreation and tourism).</p> <p>Biodiversity is addressed in Chapter 5 (Ecology and Nature Conservation) and Chapter 6 (Ornithology).</p> <p>Soil is addressed in Chapter 10 (Geology and Soils) and water in Chapter 9 (Hydrology and Hydrogeology).</p> <p>Material assets are addressed through the assessment of cultural heritage effects in Chapter 7 (Archaeology and Cultural Heritage) and other chapters such as Chapter 8 (Landscape and Visual) as appropriate.</p> <p>Air Quality has been scoped out of the EIA.</p> <p>Effects on climate change and greenhouse gas emissions are addressed in Chapter 14 (Climate Change).</p>

Required Information (EIA Regulations)	Relevant Reference within this EIA Report
<p>5. A description of the likely significant effects of the development on the environment resulting from, inter alia:</p> <p>(a) the construction and existence of the development, including, where relevant, demolition works;</p> <p>(b) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources;</p> <p>(c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste;</p> <p>(d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters);</p> <p>(e) the cumulation of effects with other existing and/or approved development, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources;</p> <p>(f) the impact of the development on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the development to climate change;</p> <p>(g) the technologies and the substances used.</p> <p>The description of the likely significant effects on the factors specified in regulation 4(3) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the development including in particular those established under Council Directive 92/43/EEC and Directive 2009/147/EC.</p>	<p>The predicted potential significant effects arising from the construction, operation and decommissioning of the Proposed Development (both alone and cumulatively with other existing/approved development), the measures required to mitigate these, and the significant residual effects, have been reported in each of the technical chapters of the EIA Report.</p> <p>Effects have been predicted in relation to each of the construction, operational and decommissioning phases of the Proposed Development, including the nature of these effects and their duration.</p> <p>The overall approach and methods used in the assessment of environmental impacts are discussed in this EIA Report. Prediction methods are discussed in detail within each relevant technical chapter of the EIA Report.</p>

Required Information (EIA Regulations)	Relevant Reference within this EIA Report
<p>6. A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.</p>	<p>An overview of the methodology of the assessment is provided within this chapter, while the individual technical chapters provide details of each technical assessment.</p>
<p>7. A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases.</p>	<p>The overall approach to mitigation is discussed in Section 3.6 of this EIA Report. Specific mitigation measures are reported in each relevant technical section of the EIA Report and in the schedule of committed mitigation measures presented in Chapter 16 (Schedule of Environmental Mitigation).</p>
<p>8. A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to legislation of the European Union such as Directive 2012/18/EU of the European Parliament and of the Council or Council Directive 2009/71/Euratom or relevant assessments may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.</p>	<p>Whilst a specific assessment of the risks of major accidents and/or disaster was scoped out, the predicted significant effects of the Proposed Development are reported after relevant mitigation measures have been applied to an identified impact, in each of the technical chapters of the EIA Report.</p>
<p>9. A non-technical summary of the information provided under points 1 to 8.</p>	<p>A Non-Technical Summary (NTS) of this EIA Report is presented as a stand-alone document.</p>
<p>10. A reference list detailing the sources used for the descriptions and assessments included in the EIA report.</p>	<p>References are provided at the end of each chapter of the EIA Report.</p>

- 3.9.2 The EIA Report comprises five volumes (further details are provided in Section 1.7 of Chapter 1 (Introduction)).

3.10 Consultation

- 3.10.1 Consultation is a key component of the EIA process. Consultation with statutory and non-statutory consultees has been undertaken by the Applicant since the feasibility stages of the Proposed Development.
- 3.10.2 The Applicant has continually engaged through both formal consultation (such as the request for an EIA Scoping Opinion) and informally through meetings, calls and emails. Details of the additional consultation undertaken outwith EIA Scoping with consultees can be found in Appendices 3.3 to 3.6 and within each technical chapter.
- 3.10.3 The Applicant has also consulted with the general public throughout the design of the Proposed Development. In line with good practice for the consenting stage of major development projects as set out within the Planning Circular 3/2013 'Development Management Procedures', a programme of pre-application community engagement has been undertaken by the Applicant.
- 3.10.4 A standalone Pre-Application Consultation (PAC) Report has been prepared which provides details of the various meetings, correspondence, public exhibitions and other discussions which have taken place with the communities closest to the Proposed Development site. The Report also summarises the consultee consultation undertaken as part of the EIA.
- 3.10.5 The Applicant is grateful to residents and local representatives for their input into the pre-application community engagement process and for their participation in meetings, discussions and consultation events.
- 3.10.6 The scope of the EIA and the design of the Proposed Development have been influenced by all consultation.

3.11 Consideration of Alternatives

- 3.11.1 EIA legislation requires the consideration of alternatives and an indication of the reasons for selecting the site advanced, except, as noted in Planning Advice Note (PAN) 58, where limited by constraints of commercial confidentiality.
- 3.11.2 Alternatives considered may relate to alternative sites, alternative technologies or alternative development designs for the identified site.
- 3.11.3 The Applicant is a leading developer of onshore wind farms, owning nearly 2GW of operational onshore wind capacity across UK and Ireland and further developing over 1GW to meet net zero goals. As part of their approach to identifying suitable sites for development, the Applicant has considered the opportunity for extensions to their existing operational sites.
- 3.11.4 As an extension to the Operational Development, the Proposed Development site has been demonstrated to be a viable and productive site for wind energy generation.
- 3.11.5 The Applicant considered a number of alternative layouts and different scales of turbine for the Proposed Development, to arrive at the design for which consent is sought. A full description of the site identification and design iteration process is given in Chapter 2 (Design Iteration and Proposed Development).

3.12 Assumptions, Limitations and Uncertainty

- 3.12.1 The EIA process is designed to enable informed decision-making based on the best available information about the environmental implications of a proposed development at the time of writing. Furthermore, the reasoned conclusion of the Scottish Ministers on the likely significant effects on the environment must have regard to current knowledge and methods of assessment. However, there will always be some uncertainty inherent in the scale and nature of the predicted environmental effects as a result of the level of detailed information available at the time of assessment, and/or the limitations of the prediction processes.

- 3.12.2 A number of assumptions were made during the EIA process and are described below:
- The developments included within the cumulative assessment are based on those identified prior to 30th March 2021.
 - The principal land uses adjacent to the site remain unchanged during the course of the Proposed Development's lifetime (with the exception of proposed and consented wind energy projects which are discussed as part of the cumulative impact assessment described in each technical chapter).
 - Information provided by third parties, including publicly available information and databases, are correct at the time of submission.
- 3.12.3 Any specific assumptions made with regards to the individual technical disciplines are described within each technical chapter.
- 3.12.4 A key limitation has been that while baseline conditions have been assumed to be accurate at the time of surveying, due to the dynamic nature of the environment, these conditions may change during site preparation, construction and operation.
- 3.12.5 There is also the potential for a degree of uncertainty as certain aspects of the Proposed Development may be subject to change until a detailed design has been finalised. This uncertainty can come in the forms of:
- turbine selection;
 - foundation and infrastructure design; and
 - micro-siting of the turbines and/or ancillary infrastructure which may change due to investigation findings or implementation of mitigation measures.
- 3.12.6 The assessment has followed a 'Rochdale Envelope'² approach to ensure that worst-case scenarios have been considered and these precautionary assumptions mean that, in reality, effects are likely to be less than predicted.
- 3.12.7 Any limitations to the EIA are summarised in each technical chapter, where relevant, together with the means proposed to mitigate these.
- 3.12.8 Figures for land take and habitat loss should be considered as approximate and could vary once the detailed design is developed. Detailed design will endeavour to refine the design to ensure further reduction in land take and habitat loss wherever possible.
- 3.12.9 Information on the Proposed Development construction has been developed by the project team based on professional judgement and outline design works, on the most likely methods of construction, plant, access routes, working areas, and so on for the purposes of the EIA. The final choice on construction methods will rest with the contractors and may differ from those used in this assessment.

3.13 Summary

- 3.13.1 This chapter has detailed the methodology used to conduct the EIA and produce the EIA Report for the Proposed Development. An overview of the relevant legislation and guidance documents has been provided with the main legislative document being The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended). Following this, the EIA process and the scope of the assessment are detailed. General assumptions, limitations and uncertainties are also stated.

² The 'Rochdale Envelope' is an acknowledged way of dealing with an application comprising EIA development where details of the project have not been resolved at the time when the application is submitted. This allows some flexibility in design options, whilst still ensuring that the worst-case impacts of the final development are fully assessed during the Environmental Impact Assessment (EIA)

3.14 References

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