CONTENTS

INTRODUCTION

5.1 This Chapter sets out the need for Environmental Impact Assessment (EIA) and sets out the approach to assessment taken in respect of the Proposed Development.

5.2 The Proposed Development is an *"installation for the harnessing of wind power for energy production (wind farms) where the development involves the installation of more than 2 turbines; or (ii) the hub height of any turbine or height of any other structure exceeds 15 metres"*. In this regard, the Proposed Development meets the criteria set out in Schedule 2 of the EIA Regulations and therefore requires to be screened as to whether or not it constitutes EIA development as envisaged by Regulation 7.

5.3 It was acknowledged at an early stage in the development process that given the nature, location and characteristics of the Proposed Development that an EIA would be required. It was therefore not considered necessary to seek an EIA Screening Opinion from the Highland Council (THC) and this EIA Report is submitted voluntarily. Accordingly, under the terms of Regulation 6(2)(c) of the EIA Regulations, the Proposed Development is an EIA development for the purposes of the EIA Regulations.

5.4 Establishing which aspects of the environment and associated issues are relevant for a particular project is captured in the EIA scoping process. Scoping is the process of identifying those aspects of the environment and associated issues which are likely to be significantly affected by any Proposed Development and which therefore need to be considered in detail when assessing the potential effects. This recognises that there may be some environmental elements where there would be no significant issues or likely effects resulting from the Proposed Development, and hence where there is no need for further assessment to be undertaken. The scoping exercise for the Proposed Development is detailed in **Chapter 6: Scoping and Consultation**.

5.5 Following the identification of the scope of the EIA, individual environmental matters are subject to survey, investigation and assessment, and individual technical discipline Chapters are prepared for presentation in an EIA Report to accompany the application for a Proposed Development. The assessment methodologies are based on recognised good practice and guidelines specific to each discipline area.

5.6 Regulation 3 of the EIA Regulations prohibit a planning authority from granting planning permission for an EIA development unless an EIA has been carried out in respect of the development and the planning authority has taken into account the environmental information provided.

5.7 This EIA Report is presented in order to be taken into consideration by THC in the determination of the planning application under the Town and County Planning (Scotland) Act 1997 (as amended) for the Proposed Development.

REQUIREMENTS OF THE EIA REGULATIONS

5.8 The approach to this EIA has followed the requirements of the EIA Regulations (as defined in **Chapter 1: Introduction** as the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017). Regulation 4 of the EIA Regulations defines the process of EIA and highlights the factors and their interactions that should be considered. Regulation 5 sets out the minimum requirements for an EIA Report, notes that where a scoping opinion is issued the EIA must

be based on that scoping opinion and requires that EIA Reports are prepared by competent experts.

5.9 Schedule 4 of the Regulations sets out the information that must be included in the EIA Report, summarised in **Table 5-1**. This also identifies where the corresponding information can be found in the EIA Report.

Table 5-1
EIA Report Required Information

Required Information	Relevant Section of the EIA Report
1. Description of the development, including in particular: (a) a description of the physical characteristics of the whole development and the land-use requirements during the construction and operational phases; (b) a description of the main characteristics of the production processes, for instance, nature and quality of the materials used; (c) an estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the Proposed Development.	A description of the location of the development is presented in **Chapter 2**. A description of the Proposed Development and its characteristics is presented in **Chapter 3**. The predicted individual environmental effects of the Proposed Development are reported in **Chapters 7 to 16**.
2. A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors.	Effects on population are discussed in relation to visual/residential amenity impacts, traffic, noise and air quality (**Chapters 7, 12 and 13**). Material assets are addressed through the effects identified for land use, soil geology and waste, hydrological and cultural heritage (**Chapters 14, 10 and 11**).
3. A description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development, resulting from: (a) the existence of the development; (b) the use of natural resources; and (c) the emission of pollutants, the creation of nuisances and the elimination of waste; and the description by the applicant of the forecasting methods used to assess the effects on the environment.	Assumptions and limitations in the EIA process are reported as required in the relevant technical chapters. The predicted significant effects of the Proposed Development are reported as residual effects after relevant mitigation measures in each of the technical chapters of the EIA Report (**Chapters 7 to 16**). The methods used to predict significant effects are explained in this Chapter and each individual chapter as relevant. Effects have been predicted in relation to the project's construction and permanent use of the land. The operation and nature of these effects and their duration are reported.
4. A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.	EIA Report (**Chapters 7 to 16**). The overall approach to mitigation is discussed in this Chapter. Specific mitigation measures are reported in each relevant technical chapter and are summarised in **Chapter 16**.

Required Information	Relevant Section of the EIA Report
5. A non-technical summary of the information provided under paragraphs 1 to 4 of this Part.	A Non-Technical Summary (NTS) is presented as **Volume 1** of this EIA Report.
6. An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.	Assumptions and limitations in the EIA process are reported as required in the relevant technical chapters.
7. The main alternatives studied by the applicant and the main reasons for his choice, taking into account the environmental effects.	The alternatives considered are covered within **Chapter 2**.

EIA AND THE DESIGN PROCESS

5.10 The EIA was treated as an iterative process, rather than a one-off, post design environmental appraisal. This has allowed the findings from the EIA to be fed into the design process, to avoid, reduce and where possible, mitigate environmental effects. Where potentially adverse environmental effects were identified through preliminary investigations as part of feasibility work, or later in the detailed EIA, consideration was given as to how the scheme design could be modified to design out adverse environmental effects, or where this was not possible, to identify appropriate mitigation.

5.11 Design meetings with key consultees including THC were used as a means to help identify any potential adverse environmental effects and amend designs accordingly. This process is explained further in **Chapter 2: Site Description and Design Evolution** and **Chapter 6: Scoping and Consultation**.

EIA PROJECT TEAM AND COMPETENCY

5.12 The EIA team is led by SLR with assistance from specialist consultants where required. **Table 1-1** in Chapter 1 shows the EIA Team Assessors, qualifications and years of experience.

DETERMINING THE SCOPE OF THE EIA REPORT

5.13 The EIA Report is the independent assessment of the Proposed Development, its likely significant environmental effects, and the measures proposed to avoid, reduce and where possible mitigate adverse effects.

5.14 The scope of the EIA Report has been established through a combination of informal consultation with various stakeholders, and an EIA scoping process that culminated in the preparation of a Scoping request to THC.

5.15 The Scoping Report was submitted to THC on 26 August 2022 to accompany a request for the Council to adopt a Scoping Opinion under Regulation 17 of the EIA Regulations. A Scoping Opinion was received from THC (accompanied by various consultee responses) on 19 October 2022. Additional Scoping responses were received from the MOD on 01 November 2022, NatureScot on 08 December 2022 and the THC Historic Environment Team on 09 March 2023.

5.16 The scoping consultation undertaken as part of the EIA process is detailed in **Chapter 6** and **Technical Appendix 6.1**. The responses of all consultations collated during the scoping process are addressed in this EIA Report and referred to as appropriate in each technical EIA Report Chapter.

APPROACH AND METHODS

General Approach to the EIA

5.17 The assessments that have been undertaken as part of the EIA have been based upon the site and study areas. The site is the area contained within the red line boundary shown on **Figure 1.2**. The study areas vary between assessments and are defined in individual EIA Report Chapters.

5.18 Assessments have been undertaken using a 'worst-case' approach. A worst-case approach assumes that the Proposed Development would produce the maximum anticipated effect on the surrounding environment from the range of possible effects projected.

5.19 The EIA has been undertaken based on a fixed location for turbines and infrastructure (subject to micrositing) and a specified turbine envelope for the proposed turbine layout shown on **Figure 3.1a-b**.

5.20 The turbine tip heights, hub heights, blade lengths and all other proposed infrastructure are all based on the Rochdale Envelope[1] principle. The Proposed Development has been assessed within the 50m[2] micrositing boundary put forward.

5.21 Each Chapter considers the range and nature of effects associated with the Proposed Development. The Proposed Development is subject to detailed environmental assessment including establishment of mitigation proposals where appropriate. A statement is then given in each Chapter about the environmental effects subject to detailed assessment.

5.22 The EIA Regulations require a description of the likely significant effects on the environment, with these covering *"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."*

5.23 Unless qualified elsewhere, the following interpretation is applied with regard to effects. Short term effects are those which extend over a short period only and, in the context of the wind farm, are typically those associated with the construction or decommissioning periods or other limited period. Other temporary effects which persist for less than the life of the wind farm are described as medium term, with those extending to the full lifetime of the wind farm described as long term. Any effects which persist beyond the life of the wind farm are considered permanent. Effects with duration of up to long term are considered reversible, whereas permanent effects are considered

[1] The 'Rochdale Envelope' principle is employed where the nature of the Proposed Development means that some details of the whole project have not been confirmed (for instance the precise dimensions of structures, due to unknown market conditions at time of project conception and application) so that when the application is submitted flexibility, whilst still within clearly defined parameters, is sought to address that future uncertainty.

[2] Where the proposed turbines would be constrained by watercourse buffers, heritage features or location of telecommunication link exclusion zones they would not be moved any closer to these features.

irreversible. Where any effect is identified, its duration is described.

5.24 Assessment criteria have been used to evaluate environmental effects. Significance is generally determined through a combination of the sensitivity of a receptor to an effect and the magnitude of the change. This process is outlined below:

- identification of baseline conditions of the site and its environs, including the sensitivity of receptors which may be affected by changes in the baseline conditions;
- consideration of the magnitude of potential changes to the environmental baseline;
- assessment of the significance of effect taking into account sensitivity of receptors and magnitude of effect;
- identification of appropriate mitigation measures; and
- assessment of significance of residual effects taking account of any mitigation measures.

5.25 Where significant environmental impacts are predicted in the EIA process, then the EIA Report provides measures which would be employed to eliminate or ameliorate the impact to acceptable levels. Mitigation measures can be in the form of changes to operational practice, or changes/additions to the design.

5.26 The above approach does not, however, apply to all disciplines addressed in the EIA Report, and alternative approaches were therefore developed as appropriate. These are described and justified in the relevant EIA Report Chapter.

Baseline Conditions

5.27 A fundamental aspect of the EIA is to determine the baseline environmental conditions prevailing at the site. These form the benchmark against which predicted changes resultant from the Proposed Development are assessed to determine the magnitude of any impact. The baseline conditions have been determined by a number of different methods, including desktop studies, site surveys, use of analytical models and the acquisition of data from third parties.

5.28 The assessment of each environmental parameter was undertaken in comparison to baseline conditions. The baseline conditions section in each Chapter describes the existing environmental conditions at the site (and in the wider area as pertinent to the particular environmental parameter).

5.29 The sensitivity of the baseline conditions has been defined according to the relative sensitivity of existing environmental features on or in the vicinity of the site, or by the sensitivity of receptors which would potentially be affected by the Proposed Development. Criteria for the determination of sensitivity or importance have been established based on prescribed guidance, legislation, statutory designation and/or professional judgement. The criteria for each environmental parameter are outlined in the EIA Report according to the technical subject area.

5.30 Relevant under construction, operational and consented wind farms are considered to be part of the baseline for the purposes of this EIA Report, unless specifically stated otherwise within relevant topic Chapters.

5.31 The EIA Report considers the present baseline environment, but also considers how the baseline environment may change during the operational period of the Proposed Development.

Consultation

5.32 Consultation has formed an integral part of the EIA process and both the EIA team and the Applicant have contacted a number of interested parties to determine their views on the Proposed Development, collected baseline information and refined survey methodologies. This has included design meetings with key consultees.

5.33 **Chapter 6** of this EIA Report provides a summary of the Scoping consultation with **Technical Appendix 6.1** providing a table of the Scoping responses. Each Chapter of the EIA Report provides a summary of the consultation undertaken for each technical discipline.

5.34 In relation to the EIA, engagement with the local community has been undertaken through two rounds of public consultations to gain feedback on the Proposed Development. The first consultation was held virtually online (in accordance with the Covid Regulations) in October 2022; and the second round in person in November and December 2022. The information available during the consultations included plans of the Proposed Development layout, information boards explaining the key environmental effects, and photomontages to illustrate anticipated views. The responses received through consultation are detailed in the Pre-Application Consultation (PAC) Report submitted with the application for the Proposed Development.

5.35 In addition, meetings with the local community have been ongoing since 2022, to discuss the progress of the Proposed Development and shared ownership offer. These meetings are further detailed in Chapter 6 and the PAC Report.

Assessment of Effects

5.36 The assessment of potential effects, using a range of appropriate methodologies, takes into account the construction and operation of the Proposed Development in relation to the site and environs. Methodologies for predicting the nature and magnitude of any potential environmental impacts vary according to the technical subject area. Numerical or quantitative methods of assessment are used to predict values which can be compared against published thresholds and indicative criteria contained in relevant guidance and standards.

5.37 Not all technical subject areas are capable of being assessed numerically or quantitatively, and thus qualitative assessments are used in certain cases. Such assessments rely on previous experience of similar projects, environments and professional judgement.

Assessment of Cumulative Effects

5.38 In accordance with the EIA Regulations, the assessment has considered 'cumulative effects'. By definition, these are effects that result from incremental changes caused by past, present or reasonably foreseeable projects of a similar nature to the Proposed Development, together with the Proposed Development. Likely cumulative effects have been defined as the likely effects that the Proposed Development may have in combination with other wind farm developments in the local area which are at application stage, consented, under construction or operational (i.e. the incremental effects resulting from the Proposed Development if all other developments are

assumed to be constructed/operated). The extent to which the potential combined effects through that co-existence is considered, is described as appropriate throughout **Chapters 7 to 16** of this EIA Report.

5.39 Cumulative wind farm sites (over 50m to blade tip height) within the vicinity of the site are identified on **Figure 5.1a** including all known sites which are operational, under construction, consented and at application stage. Additionally, the Skye Reinforcement Project (which is currently under consideration) would be located to the south of the Proposed Development and is therefore included in the cumulative assessments. The cut-off date for the cumulative assessment was agreed with THC and taken as 31 January 2023, however, the status of relevant projects was monitored and was still relevant at 31 May 2023 when the assessment was undertaken.

5.40 The study area for considering cumulative effects varies per technical discipline and each EIA Report Chapter refers to the cumulative sites considered as appropriate. In general, most specialisms have considered cumulative effects to approximately 10km from the site which includes the developments outlined in **Table 5-2** and shown on **Figure 5.1a**.

Table 5-2: Cumulative Developments

		Project Detail		
Development	**Stage**	**No. of Turbines**	**Tip Height (m)**	**Closest Distance to Proposed Turbine (km and direction)**
Ben Aketil Wind Farm and Extension	Operational	12	100.5	1.3km to the west
Edinbane Wind Farm	Operational	18	100	0.5km to the east
Sumardale Croft Wind Turbine	Operational	1	79	9.8km to the south east
Meadale Farm Wind Turbine	Operational	1	53.7	11km to the south east
Ben Sca Wind Farm and Extension	Approved	9	7 at 135 2 at 149.9	0.7km to the north west
Beinn Mheadhonach	Approved	4	99.5	9km to the south east
Glen Ullinish Wind Farm	Approved	11	149.9	2.8km to the south east
Skye Reinforcement Project	Application	Electricity transmission infrastructure upgrade project that proposes to replace the existing single 132kV overhead line (OHL), spanning 160km between the Fort Augustus 400kV substation on the mainland to Ardmore on the Isle of Skye. There will be a new substation at Edinbane and upgraded pylons/wooden poles passing to the south of the site.		1.5km to the south

5.41 The EIA team is aware of a number of proposals within the Isle of Skye which are subject to scoping requests as shown on **Figure 5.1b,** including:

- Beinn Mheadhonach Wind Farm Redesign (22/02995/SCOP) (5 turbines at 145m tip height).
- Ben Aketil Repowering and Extension (ECU00004552; 22/03617/SCOP) – scoped with ECU July 2022 (10 turbines up to 200m tip height) and the development would replace the existing Ben Aketil Wind Farm.
- Breakish Wind Farm (ECU00004641; 22/05790/SCOP) – scoped with ECU October 2022 (20 turbines up to 180m tip height) in the south of Skye.
- Edinbane Repowering and Extension (ECU00004668; 22/06090/SCOP) – scoped with ECU November 2022 (19 turbines up to 200m tip height) and the development would replace the existing Edinbane Wind Farm.
- Edinbane – Land at 4 Edinbane (22/01084/SCRE) (2 turbines up to 150m tip height).
- Glen Ullinish II Wind Farm (ECU00003449; 22/01468/SCOP) – scoped with ECU March 2022 (59 turbines up to 200m tip height) and the development would replace the consented Glen Ullinish Wind Farm.
- Waternish Wind Farm (22/06165/SCOP) – scoped with ECU December 2022 (15 turbines up to 200m tip height) to the northwest of the site, north of the A850.

5.42 As agreed with THC, these scoping schemes are not included in the assessment of effects due to the lack of firm information on which to base the assessment at the time this EIA was prepared (31 May 2023).

Sensitivity of Receptors

5.43 Criteria for the determination of sensitivity (e.g. 'high', 'medium', or 'low') or of importance (e.g. 'international', 'national', 'regional' or 'authority area') have been established based on prescribed guidance, legislation, statutory designation and/or professional judgement. The criteria for each environmental parameter are provided in the relevant Chapter of the EIA Report.

Magnitude of Effects

5.44 The magnitude of effects on environmental baseline conditions is identified through detailed consideration of the Proposed Development, taking due cognisance of any legislative or policy standards or guidelines, and/or the following factors:

- the degree to which the environment would be affected, e.g. whether the quality is enhanced or impaired;
- the scale or degree of change from the baseline situation;
- whether the effect is temporary or permanent, indirect or direct, short term, medium term or long term;

- any in-combination effects; and
- potential cumulative effects.

5.45 In some cases, the likelihood of effect occurrence may also be relevant and where this is a determining feature of the assessment this will be clearly stated.

Mitigation

5.46 Mitigation is considered as an integral part of the overall design strategy for the Proposed Development, including 'embedded' mitigation (e.g. altering and refining the Proposed Development to reduce landscape and visual impact, watercourse crossings or avoid sensitive species and habitats) rather than relying solely on 'add-on' measures to prevent or reduce significant environmental effects. Identifying mitigation measures is also a requirement of the EIA Regulations under which this EIA Report is prepared. The Applicant has adopted an iterative approach, whereby mitigation is assessed and considered at all stages of the project, and the final design of the Proposed Development has evolved over the project life time, systematically being optimised during the EIA process in response to increasing knowledge of the site and potential environmental effects.

5.47 Some of the measures described within **Chapters 7 to 15** of this EIA Report do not relate only to likely significant adverse effects, but have been included as good practice to reduce the level of adverse effects, or enhance the level of beneficial effects, of the Proposed Development. Where relevant, these 'good practice measures' are described in the EIA Chapters. **Chapter 16** provides a summary of the mitigation measures proposed throughout the EIA Report and **Technical Appendix 3.1** documents the measures to employed throughout construction.

5.48 Where significant environmental effects are predicted in the EIA process, the EIA Report provides measures which would be employed to eliminate or ameliorate the effect. Mitigation measures are envisaged through the consideration of alternatives, changes/additions to the design of the Proposed Development, or project management or operation to prevent, reduce or, where possible, offset any adverse significant effects.

5.49 In some cases, environmental mitigation through compensation may be appropriate to provide replacement features or assets (e.g. habitat to replace that which has been disturbed or lost due to the construction of the Proposed Development). However, compensation may not initially be effective at remedying effects, as compensation may take time to mature sufficiently to enable the effect of the disturbance or loss to be offset.

5.50 Where complete avoidance of potential effects is not feasible during refinement of the site design, additional measures are identified to reduce effects. These include a range of mitigation proposals such as the use of construction methods, avoidance of sensitive habitats, landscaping and site operation activities. Mitigation measures follow standard techniques and best practice and are therefore considered to be effective for the purposes of assessment.

Monitoring

5.51 Also incorporated, where appropriate, are monitoring measures to ensure that the Proposed Development and any mitigation measures perform as required.

5.52 The EIA Report sets out details of any post-consent monitoring which is proposed. This includes, where appropriate, proposals to measure the effectiveness of the identified mitigation measures.

STATEMENT OF SIGNIFICANCE

5.53 Assessing the significance of effects relies, at least in part, on value judgements including placing weight or value on the environment likely to experience the change. The significance of effects at the assessment stage relates back to the effects deemed to be significant at the Scoping stage.

5.54 The significance of an effect is derived from an analysis of:

- the sensitivity of the receiving environment or receptor to change, including its capacity to accommodate the kinds of changes the Proposed Development may bring about;
- the amount and type of change, often referred to as the impact magnitude which includes the timing, scale, size and duration of the impact;
- the likelihood of the impact occurring – which may range from certainty to a remote possibility;
- comparing the impacts on the environment which would result from the Proposed Development with the changes that would occur without the Proposed Development - often referred to as the "do nothing" or "do minimum" comparison; and
- expressing the significance of the effects of the project, usually in relative terms, based on the principle that the more sensitive the resource, the more likely the changes and the greater the magnitude of the changes, compared with the do nothing comparison, the greater will be the significance of the effect.

5.55 As the significance of effects will differ depending on the context and the 'receptors' affected by the Proposed Development, there is no general definition of what constitutes significance. In EIA, the term significance reflects both its literal meaning of 'importance' and its statistical meaning where there is an element of quantification. This combination of judgemental/subjective and quantifiable/objective tests has become the standard approach to understanding and applying the test of 'significance'.

5.56 Significant effects are defined in each of the topic specific Chapters. Any effects associated with the Proposed Development are considered to be negative except where it is stated that they are positive. An effect assessed as significant does not necessarily mean it is unacceptable; other factors such as mitigation require to be taken into account.

ASSUMPTIONS, LIMITATIONS AND TECHNICAL DIFFICULTIES

5.57 The EIA process is designed to enable good decision-making based on the best possible available information about the environmental implications of a Proposed Development.

5.58 It is not considered that any matter has prevented the accurate assessment of potential environmental impacts or the identification of appropriate mitigation measures. The environmental impacts reported in this EIA Report, and the level of mitigation described, effectively sets the minimum standard which will be achieved by the final development. The Applicant has a

commitment to ensuring that, where details of the Proposed Development differ from those assessed in the EIA, the Proposed Development will not have any adverse environmental impacts which are significantly worse than those which have been assessed and reported in this EIA Report.

REFERENCES

Town and County Planning (Scotland) Act 1997 as amended.

Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017.