# Chapter 5: EIA Methodology

## Contents

# 5 EIA Methodology

## 5.1 Introduction

5.1.1 This Chapter discusses the need for Environmental Impact Assessment (EIA) and sets out the approach to assessment taken in this EIA Report. This EIA Report has been prepared in accordance with The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended) (the EIA Regulations) (Scottish Government, 2017).

## 5.2 EIA Regulations

5.2.1 Where a development falls within one of the descriptions in Schedule 2 of the EIA Regulations and is considered likely to have significant effects on the environment then an EIA is required to be submitted with the application for consent. The Proposed Development falls within Schedule 2 as *"(1) a generating station"*, the construction of which (or operation of which) will require a Section 36 consent under the Electricity Act 1989 but which is not a Schedule 1 development (Scottish Government, 2017).

5.2.2 It was acknowledged at an early stage in the preparation of the application that given the nature, location and characteristics of the Proposed Development that an EIA would be required on the assumption that significant effects are likely and need to be assessed. It was therefore not considered necessary to seek an EIA Screening Opinion.

5.2.3 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 may be significantly affected by a proposed development and therefore should be subject to detailed assessment and reported in an EIA Report. This recognises that there may be some environmental elements where there would be no likely significant effects resulting from a proposed development, and hence where there is no need for further assessment to be undertaken. An EIA Scoping Report[1] for the Proposed Development setting out the proposed scope of the EIA Report and the information required to reach reasoned conclusions on the likely significance of effects of the Proposed Development on the environment was submitted to the ECU in June 2023 with a request for a formal Scoping Opinion. A Scoping Opinion[2] was subsequently issued by the ECU on 14 September 2023. The Scoping exercise for the Proposed Development is detailed in Chapter 6: Scoping and Consultation.

5.2.4 Following the determination 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 the EIA Report to accompany the application for the Proposed Development. The assessment methodologies are based on recognised good practice and guidelines specific to each discipline area and were informed by specific information / requirements provided by consultees during pre-app consultation. Consultation undertaken is described in Chapter 6, Scoping.

5.2.5 The EIA Regulations (The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017[3]) prohibit the Scottish Ministers from granting consent for EIA development unless they have taken the environmental information provided into consideration.

5.2.6 This EIA Report is presented to be taken into consideration by the Scottish Ministers in the determination of the application.

## 5.3 Requirements of the EIA Directive and Regulations

5.3.1 The approach to this EIA has followed the requirements of the EIA Directive (2014/52/EU) and the EIA 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 of an EIA Report, and notes that where a Scoping Opinion is issued, the EIA must be prepared based on that Scoping Opinion. Regulation 5 requires that the EIA Report includes the information identified in the

[1] ECU ref ECU00004851 https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00004851
[2] The full Scoping Opinion can be read on the ECU website here: https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00004851

[3] https://www.legislation.gov.uk/ssi/2017/101/regulation/28

Scoping Report required to reach reasoned conclusions on the likely significance of effects of the Proposed Development on the environment.

5.3.2 Regulation 5 is expanded on in Schedule 4 of the EIA Regulations, which sets out the information that must be included in the EIA Report. Schedule 4 requirements and where the corresponding information can be found in this EIA report are provided in Table 5.1.

**Table 5.1 - Schedule 4 EIA Report Requirements and Location within the EIA Report**

| Schedule 4 Paragraph | Relevant Section of the EIA Report |
|---|---|
| 1. *A description of the development, including in particular:*<br>*(a) a description of the location of the development;*<br>*(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;*<br>*(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;*<br>*(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 and types of waste produced during the construction and operation phases.* | – A description of the location of the Proposed Development is presented in Volume 2, Chapter 2.<br>– A description of the Proposed Development and its characteristics is presented in Volume 2, Chapter 3.<br>– The predicted individual environmental effects including expected residues, emissions and waste of the Proposed Development are reported in Volume 2, Chapters 7 to 16. |
| *2. A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.* | – The alternatives considered are covered under Volume 2, Chapter 2. |
| *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 development 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 baseline and it's likely evolution are provided in Volume 2, Chapters 7 to 16. |
| *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 hydromorphological 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.* | – Effects on population are discussed in relation to visual/residential amenity impacts (Chapter 7), traffic (Chapter 13), noise (Chapter 12) and air quality (scoped out, see Chapter 6).<br>– Material assets are addressed through the effects identified for land use, soil, geology and waste, hydrological (Chapter 10) and cultural heritage. (Chapter 11).<br>– Human health and biodiversity and discussed in chapters 16 and 8 respectively. |
| *5. A description of the likely significant effects of the development on the environment resulting from, inter alia:*<br>*(a) the construction and existence of the development, including, where relevant, demolition works;*<br>*(b) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources;*<br>*(c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste;*<br>*(d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters);*<br>*(e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources;*<br>*(f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change;* | – Assumptions and limitations in the EIA process are reported as required in the relevant technical chapters in Volume 2, Chapters 7 to 16.<br>– The predicted likely 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 in Volume 2, Chapters 7 to 16 and are summarised in Chapter 17.<br>– The methods used to predict likely significant effects are explained in this chapter and each individual chapter as relevant.<br>– Likely significant effects have been predicted in relation to the Proposed Development's construction and permanent use of the land. The operation and nature of these effects and their duration are reported.<br>– Cumulative effects are considered throughout in each technical chapter. |

| Schedule 4 Paragraph | Relevant Section of the EIA Report |
|---|---|
| *(g) the technologies and the substances used.*<br>*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.* | |
| *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.* | – Methodologies, assumptions and limitations in the EIA process are reported as required in the relevant technical chapters in Volume 2, Chapters 7 to 16. |
| *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.* | – EIA Report in Volume 2, Chapters 7 to 16.<br>– The overall approach to mitigation is discussed in this chapter. Specific mitigation measures are reported in each relevant technical chapter and are summarised in Volume 2, Chapter 17. |
| *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.* | – Volume 2, Chapter 16 considers the risk of major accidents and/or disasters relevant to the Proposed Development. |
| *9. A non-technical summary of the information provided under paragraphs 1 to 8.* | – A Non-Technical Summary (NTS) is presented as Volume 1 of this EIA Report. |
| *10. A reference list detailing the sources used for the descriptions and assessments included in the EIA report.* | – Volume 2, Chapters 1 to 16 each have a reference list detailing relevant sources used. |

## 5.4 EIA and the Design Process

5.4.1 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 allow the Proposed Development to avoid, reduce and where possible, mitigate likely significant environmental effects. Where potentially significant 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 Proposed Development design could be modified to design out significant adverse environmental effects, or where this was not possible, to identify appropriate mitigation.

5.4.2 This iterative design process is explained further in Volume 2, Chapter 2: Site Description and Design Evolution, and the Design Statement. Consultation feedback from consultees and the public also fed into the design process and is outlined in Volume 2, Chapter 6: Scoping and Consultation.

## 5.5 EIA Project Team and Competency

5.5.1 This EIA has been led by SLR with assistance from other specialist technical and environmental consultants. Full details of the project team are set out in Section 1.4 of Volume 2: Chapter 1: Introduction of this EIA Report. Table 1.1 in Chapter 1 shows the EIA Team Assessors' qualifications, and years of experience.

## 5.6 Determining the Scope of the EIA Report

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

5.6.2 The scope of the EIA Report has been established through a combination of the requirements of the EIA Regulations, consultation with various stakeholders, and the EIA scoping process, as set out in the Scoping Opinion.

5.6.3 The scoping consultation undertaken as part of the EIA process is detailed in Chapter 6: Scoping and Consultation and Technical Appendix 6.1: Scoping Response Table. 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.

## 5.7 Approach and Methods

**General Approach to EIA**

5.7.1 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.

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

5.7.3 The EIA has been undertaken based on a fixed location for turbines and infrastructure (subject to micrositing) as shown on Figures 3.1 and 3.2.

5.7.4 The assessment is based on turbine tip heights no greater than 200 m for five of the turbines and no greater than 180m for the remaining four turbines. Turbine heights are shown on Figure 3.1. Hub heights, blade lengths and all other proposed infrastructure are based on the 'Rochdale Envelope'[4] principle. The Proposed Development has been assessed within the 100 m micrositing boundary put forward.

5.7.5 Each chapter identifies the sensitivity of the baseline receptors and then considers the range and nature of the impacts associated with the Proposed Development. The assessment then determines the level of the effect significance before ('potential') and after ('residual') the implementation of the mitigation.

5.7.6 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."* (Paragraph 5, Schedule 4, EIA Regulations 2017).

5.7.7 Unless qualified elsewhere in the EIA Report, the following interpretation is applied with regard to effects. Short term effects are those which extend over a short period of time only and, in the context of the Proposed Development, are typically those associated with the construction or decommissioning periods or other limited periods. Other temporary effects which persist for less than the lifespan of the Proposed Development are described as medium term, with those extending to the full lifetime of the Proposed Development described as long term. Any effects which persist beyond the life of the Proposed Development are considered permanent. Effects with a long-term duration are considered reversible, whereas permanent effects are considered irreversible. Where any effect is identified, its duration is described. Table 5.2 summarises the interpretation applied with regard to the duration of effects.

**Table 5.2 - Interpretation of Time Periods and Duration of Effects**

| Time Period of Effects | Detail | Reveresible/Irreversible |
|---|---|---|
| Short Term Effect | An effect which extends over a short period of time only and are typically those associated with the construction or decommissioning periods or other limited periods. This is a temporary effect. | Reversible |
| Medium Term Effect | An effect which extends over a period of time which is longer that that of a short term effect but which persists for less than the life of the Proposed Development. This is a temporary effect. | Reversible |
| Long Term Effect | An effect which persists to the full lifetime of the Proposed Development. This is a temporary effect. | Reversible |
| Permenant Effect | An effect which persists beyond the lifetime of the Proposed Development. This is a permanent effect. | Irreversible |

5.7.8 Assessment criteria have been used to evaluate likely significant environmental effects. Significance is generally determined through a combination of the sensitivity of a receptor to an effect and the magnitude of the impact. Cumulative effects are assessed for each technical topic. This process is outlined as follows:

- Identification of baseline conditions of the site and its environs, including sensitivity of receptors which may be affected by changes in the baseline conditions.
- Consideration of the magnitude of potential changes to the environmental baseline.

[4] 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 is sought to address that future uncertainty.

- Assessment of the significance of effect taking into account sensitivity of receptors and magnitude of impact/change.
- Identification of appropriate mitigation measures.
- Assessment of significance of residual effects taking account of any mitigation measures.

5.7.9 Where significant environmental effects are predicted in the EIA process, then the EIA Report sets out provides mitigation measures which would be employed to eliminate or ameliorate the effect to acceptable levels where possible. Mitigation measures can be in the form of changes to operational practice, or changes/additions/enhancement to the design. Where effects cannot be mitigated residual effects are discussed.

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

## 5.8 Baseline Conditions

5.8.1 A fundamental aspect of the EIA is to determine the baseline environmental conditions prevailing at the site. The predicted changes resulting from the Proposed Development are assessed against the baseline. The baseline conditions form the benchmark against which predicted changes resultant from the Proposed Development are assessed to determine the magnitude of any potential 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.

5.8.2 The assessment of the impacts of the Proposed Development on each environmental topic 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 study area as pertinent to the particular environmental topic).

5.8.3 Relevant operational and under construction, operational and consented wind farms in the local area are considered to be part of the baseline environment for the purposes of this EIA Report, unless specifically stated otherwise within relevant topic chapters.

5.8.4 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 (for example in relation to climate change or planned felling).

5.8.5 Each chapter includes consideration of the future baseline in the absence of the Proposed Development.

## 5.9 Consultation

5.9.1 Consultation has formed an integral part of the EIA process and both the EIA team and the Applicant have contacted statutory and non-statutory consultees to determine their views on the Proposed Development, to collect baseline information and refine survey methodologies.

5.9.2 Chapter 6 of this EIA Report provides a summary of the scoping consultation. Technical Appendix 6.1 provides a table of the scoping responses. Each technical discipline chapter of the EIA Report provides a summary of the consultation undertaken, in conjunction with an explanation as to how this has been considered.

5.9.3 In relation to the EIA, engagement with the local community has been undertaken through a number of mechanisms:

- In June 2023, a project website was launched providing an opportunity to comment on proposals: https://projects.statkraft.co.uk/Carn-Fearna/
- The first round of public information events were held online in-person on 21, 22 and 23 November 2023 in Contin, Tarvie and Strathpeffer. All the exhibition material was also available online for a period of 4 weeks.
- The second round of public information events were held in-person on 15 and 16 May 2024 in Contin, Garve and Strathpeffer. Again all the exhibition material was also available online for a period of 4 weeks.

5.9.4 The responses received through public consultation are detailed in the Pre-Application Consultation (PAC) Report submitted with the application for the Proposed Development.

5.9.5 In addition, correspondence and meetings with the local community took place from September 2023, and have continued in 2024 and 2025, to discuss the progress of the Proposed Development. This includes regularly attending the host Community Council's monthly meeting. These meetings are further detailed in Chapter 6 of the EIA Report and within the PAC Report.

## 5.10 Assessment of Effects

5.10.1 The assessment of likely significant effects, using a range of appropriate methodologies, takes into account the construction, operation and decommissioning of the Proposed Development in relation to the site and environs. It should be noted that the potential effects from decommissioning are anticipated to be similar or less than the effects of construction, explained in further detail in Chapter 6. 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. These are described in each technical chapter where relevant.

5.10.2 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, baseline information interpretation and professional judgement. Each chapter assesses interactions between effects as relevant.

**Assessment of Cumulative Effects**

5.10.3 In accordance with the EIA Regulations, this EIA Report has assessed 'cumulative effects'. By definition, these are effects that result from incremental changes caused by past, present or reasonably foreseeable projects, together with the Proposed Development. Likely cumulative effects have been defined as the likely effects that the Proposed Development may have cumulatively with the actual or anticipated effects of other wind farm developments in the local area which are consented or at application stage, in addition to the operational and under construction developments which form part of the baseline environment (i.e. the incremental effects resulting from the Proposed Development if all other developments are assumed to be constructed/operated). The likely cumulative effects are assessed for each technical discipline in Chapters 7 to 16 of this EIA Report.

5.10.4 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 15 km from the proposed turbines[5] which includes the schemes shown in Table 5.3.

5.10.5 The cumulative situation changes frequently as applications are made, refused or withdrawn, and the layouts of submitted application wind farms are changed, and it is therefore necessary to decide on a cut-off date when the sites and layouts to be included are fixed. The final list of sites to be included was agreed with THC on 14th November 2024, and this is therefore the cut-off date for the cumulative assessments. Any changes in the cumulative situation after this date are not incorporated in the assessments.

**Table 5.3– Wind Farms Included in the Cumulative Assessment (45 km Radius)**

| Wind Farm Name | Status | Number of Turbines | Turbine Dimensions | Approx. Distance to Proposed Development |
|---|---|---|---|---|
| Abhainn Dubh | Application | 9 turbines | 149.9 m to blade tip | 9.5 km |
| Achany | Operational | 19 turbines | 100 m to blade tip | 41 km |
| Acheilidh | Application | 12 turbines | 200 /230 m | 42 km |
| Achany extension | Consented | 18 turbines | 149.9 m to blade tip | 43 km |
| Auchmore 1&2 | Operational | 2 turbines | 79 m to blade tip | 13 km |
| Beinn Tharsuinn (including Beinn an Oighrean) | Operational | 19 turbines | 80 m/99.5 m to blade tip | 25 km |
| Bhlaraidh | Operational | 32 turbines | 125 m/135 m | 40 km |
| Bhlaraidh extension | Consented | 15 turbines | 180 m | 40 km |
| Coire na Cloiche | Operational | 13 turbines | 99.5 m to blade tip | 23 km |
| Corriemoillie | Operational | 17 turbines | 125 m | 8 km |
| Corrimony | Operational | 5 turbines | 100 m | 37 km |
| Chrathaich | Application | 14 turbines | 149.9 m | 40 km |
| Fairburn | Operational | 20 turbines | 100 m | 9 km |
| Farr | Operational | 40 turbines | 101 m | 42 km |
| Garvary | Application | 24 turbines | 180 m | 41 km |
| Glen Kyllachy | Operational | 20 turbines | 110 m | 43 km |
| Kirkan | Consented | 17 turbines | 175 m | 7 km |
| Lairg | Operational | 3 turbines | 100 m to blade tip | 44 km |
| Lairg II | Consented | 10 turbines | 150 m/180 m/200 m to blade tip | 42 km |
| Loch Liath | Application | 13 turbines | 180 m/200 m | 36 km |
| Lochluichart and extension | Operational | 23 turbines | 125 m | 9 km |

[5] Measurements taken from nearest proposed turbines to nearest existing/consented or application turbines.

| Wind Farm Name | Status | Number of Turbines | Turbine Dimensions | Approx. Distance to Proposed Development |
|---|---|---|---|---|
| Lochluichart Extension II | Consented | 5 turbines | 149.9 m | 10 km |
| Meall Buidhe | Consented | 8 turbines | 144.5 m/149.9 m to blade tip | 31 km |
| Moy | Operational | 20 turbines | 126.5 m | 42 km |
| Novar and extension | Operational | 50 turbines | 55.5 m/99.5 m | 13 km |
| Rosehall | Operational | 19 turbines | 90 m to blade tip | 41 km |
| Strathoykel | Application | 11 turbines | 200 m | 35 km |
| Strathrory Redesign | Consented | 7 turbines | 149.9 m/160 m/ 180 m to blade tip | 36 km |

5.10.6 The study area for considering cumulative effects on landscape and visual amenities is up to approximately 45 km from the Proposed Development.

5.10.7 Cumulative wind farm sites within the study area are identified on Figure 7.14b. This includes all known sites which are operational within 45 km, and also sites that are under construction, consented, at application and at the Scoping stage. The cut-off date for the cumulative assessment was agreed with the Highland Council as 14 November 2024, after which any new developments entering the public domain have not been considered within the cumulative assessment.

**Sensitivity of Receptors**

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

**Magnitude of Impact**

5.10.9 The magnitude of impact on environmental baseline conditions is identified through detailed consideration of the Proposed Development, taking due regard of any legislative or policy standards or guidance, and/or the following factors:

- the degree to which the environment would be impacted, e.g. whether the quality of the environment is enhanced or impaired;
- the scale or degree of impact from the baseline situation;
- whether the impact is temporary or permanent, indirect or direct, short-term, medium-term or long-term;
- the frequency of the impact;
- any in-combination impacts; and
- potential cumulative impacts.

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

**Mitigation**

5.10.11 Mitigation is considered an integral part of the overall design strategy for the Proposed Development, including 'embedded' mitigation (e.g. altering and refining the Proposed Development's design 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 throughout the development of the Proposed Development, and the final design of the Proposed Development has evolved being optimised during the EIA process in response to increasing knowledge of the site and potential environmental impacts.

5.10.12 Where significant environmental effects are predicted in the EIA process, the EIA Report proposes measures which would be employed to avoid or minimise the effect where practicable. Mitigation measures are envisaged through the consideration of alternatives, changes/additions to the design of the Proposed Development, or management to prevent, reduce or, where possible, offset any adverse significant effects.

5.10.13 Some of the measures proposed as described within Chapters 7 to 16 of this EIA Report do not relate only to addressing likely significant adverse effects but have been included as good practice to reduce the level of adverse effects or enhance the level of positive effects, of the Proposed Development. Where relevant, these 'good practice measures' are described in the EIA chapters. Chapter 17 provides a summary of the mitigation measures proposed throughout the EIA Report.

5.10.14 In some cases, mitigation of effects through offsetting may be appropriate to provide replacement features or assets (e.g. compensation habitat to replace that which has been disturbed or lost due to the construction of the Proposed Development or compensatory planting due to felling).

**Enhancement**

5.10.15 Opportunities for environmental enhancement measures within the site have been given due consideration throughout the design evolution process. Enhancement refers to measures to be implemented which don't form mitigation by avoiding, reducing or offsetting effects; but instead provide an opportunity to improve the characteristics, features, land use or habitats on-site to make them into a better state than are currently present prior to the Proposed Development being constructed. There is, therefore, a net or new benefit to the environment. Enhancement measures are noted in the technical chapters where relevant and in particular in the Outline Nature Enhancement Management Plan (NEMP) presented as Technical Appendix 8.5.

**Monitoring**

5.10.16 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.

**Consideration of Transboundary Effects**

5.10.17 Regulation 29 of the EIA Regulations refers to development with significant transboundary effects as being development proposed to be carried out in Scotland that is likely to have significant effects on the environment in another European Economic Area (EEA) State other than the United Kingdom (UK).

5.10.18 The nature of the Proposed Development and the location of the application site are such that significant transboundary effects are not predicted for the Proposed Development and therefore scoped out of the EIA Report.

**Statement of Significance**

5.10.19 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.

5.10.20 Determining the likely significance of an effect is derived from an analysis of:

- the sensitivity of the receiving receptor to change, including its capacity to accommodate the kinds of changes the Proposed Development may bring about;
- the amount and type of impact, often referred to as the impact magnitude which includes the timing, frequency, scale, size and duration of the impact;
- the likelihood of the impact occurring which may range from certainty to a remote possibility; and
- expressing the significance of the effects of the Proposed Development, usually in relative terms, based on the principle that the more sensitive the receptor, the more likely and the greater the magnitude of the impact (compared with the baseline), then the greater the resulting significance of the effect.

5.10.21 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 a significant effect. 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'.

5.10.22 Significant effects are defined in each of the topic-specific chapters and refer to both potential effects (prior to any mitigation) and residual effects (after mitigation has been applied). The Statement of Significance in EIA terms relates primarily to the predicted residual effects.

5.10.23 In the EIA Report, any effects associated with the Proposed Development are considered to be adverse except where it is stated that they are positive.

5.10.24 It is worth noting that an effect assessed to be significant does not necessarily mean it is unacceptable. This is supported by Policy 11 of NPF4 where it is noted that it is recognised that significant landscape and visual impacts *"are to be expected for some forms of renewable energy. Where impacts are localised and/ or appropriate design mitigation has been applied, they will generally be considered to be acceptable"*.

**Assumptions, Limitations and Technical Difficulties**

5.10.25 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.

5.10.26 It is not considered that any matter has prevented the accurate assessment of the likely significant environmental effects of the Proposed Development or the identification of appropriate mitigation measures.

## 5.11 References

European Union (2014). Directive 2014/52/EU of the European Parliament and of the Council amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0052. Accessed on: 12 August 2024.

Scottish Government (2017). The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017. Available at: https://www.legislation.gov.uk/ssi/2017/101/contents/made. Accessed on: 12 August 2024.