Chapter 2: Approach to EIA

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2: Approach to the EIA

Introduction

2.1 Environmental Impact Assessment (EIA) is the process of identifying, evaluating and presenting the likely significant environmental effects (both beneficial and adverse) of development proposals to assist the consenting authority in considering and determining an application. This helps to ensure that the significance of the predicted effects, and the scope for reducing any adverse effects, is properly understood by the public and the relevant determining authority before a decision is made.

2.2 Early identification of potentially adverse environmental effects also leads to the identification and incorporation of appropriate mitigation, management and enhancement measures into the project design to avoid, reduce, and if possible, remedy potentially significant adverse environmental effects.

2.3 A significant environmental effect does not necessarily equate to the refusal of an application for planning permission/consent. It would be one factor which needs to be considered against a broad range of factors in the decision-making process.

2.4 This chapter sets out the general approach that has been used in the EIA for Cnoc Buidhe Wind Energy Hub (hereafter referred to as the Proposed Development). It provides an overview of the key stages that have been followed, in line with statutory EIA requirements and good practice guidance.

2.5 This chapter is supported by the following appendices which are referenced throughout the text:

- EIA-R **Volume 4: Technical Appendices**
  - Technical Appendix 2.1: Summary of EIA Scoping and Gate Check 1 Consultation Responses; and
  - Technical Appendix 2.2: Schedule of Good Practice, Mitigation, Enhancement and Monitoring.

The EIA Process

2.6 As the Proposed Development will exceed the threshold for wind development set out in Schedule 2 of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the EIA regulations), and as it is a scheme that could potentially result in 'significant' environmental effects, it is classified as an EIA development and as such, an EIA is required to be undertaken and the findings presented in an EIA Report (hereafter 'EIA-R').

2.7 The EIA-R presents the findings of the EIA process. The information contained in this EIA-R fulfils the requirements of the EIA Regulations, and once submitted will enable the relevant determining authority, in this case the Scottish Ministers, to make a decision on the application for Section 36 consent, as well as the application for deemed planning permission.

2.8 Regulation 5(2) of the EIA Regulations states that the following information is required in the EIA-R:

- A description of the Proposed Development comprising information on the Site, design, size and other relevant features of the Proposed Development (see **Volume 2**, **Chapter 3: Site Selection and Design Strategy** and **Chapter 4: Development Description**);
- A description of the likely significant effects of the Proposed Development on the environment (see **Chapters 5-14**);
- A description of the features of the Proposed Development and any measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment (see **Chapter 4** and **Chapters 5-14**);
- A description of reasonable alternatives studied by the developer, which are relevant to the Proposed Development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the Proposed Development on the environment (see **Chapter 3**);
- A non-technical summary (NTS) of the information referred to in sub-paragraphs (a) to (d) (see standalone **NTS**);

- Any other information specified in Schedule 4 of the EIA regulations relevant to the specific characteristics of the Proposed Development and to the environmental features likely to be affected (see **Chapters 4-13**).

2.9 As well as the EIA Regulations, the EIA-R has been prepared in accordance with the following advice, guidance and good practice:

- Planning Advice Note 1/2013 (PAN 1/2013) Environmental Impact Assessment (2013) (amended in 2017)[1];
- The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017[2];
- The Scottish Government Onshore Wind Turbines Planning Advice (2014)[3];
- Planning Circular 1/2017: The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017[4];
- Institute of Environmental Management and Assessment (IEMA) (2017) Delivering Proportionate EIA[5];
- NatureScot (formerly Scottish Natural Heritage)[6] (2018) Environmental Impact Assessment Handbook: Guidance for competent authorities, consultation bodies and others involved in the Environmental Impact Assessment Process in Scotland (Version 5)[7] (April 2018); and
- Energy Consents Unit Good Practice Guidance for Applications under Section 36 and 37 of the Electricity Act 1989 (updated July 2022)[8].

2.10 Legislation, policy and guidance of relevance to each topic chapter contained within the EIA-R are specified throughout this EIA-R.

Good Practice Guidance

2.11 PAN 1/2013[1] provides guidance on good practice, and the key steps to be followed in the EIA process are identified in IEMA and SNH (now NatureScot) guidance[7]:

Scoping

- Undertake Scoping exercise to ensure the EIA is focused on identifying key environmental issues and the likely significant effects and methods to assess the identified effects.

Baseline Studies

- Examine, through baseline studies, the environmental character of the area likely to be affected by the Proposed Development.

[1] Scottish Government (2013 revised 2017) Planning Advise Note 1/2013: Environmental Impact Assessment [online]. Available at: https://www.gov.scot/publications/planning-advice-note-1-2013-environmental-impact-assessment/documents/
[2] Although the UK has withdrawn recently from the EU from which the EIA Regulations stem (Directive 2014/52/EU), the UK government is committed to maintaining the highest environmental standards and will continue to uphold international obligations through multilateral environmental agreements. For this reason, it is expected that it will be 'business as usual' for EIA, at least in the foreseeable future, and the current EIA Regulations remain in force.
[3] Scottish Government (2014) Onshore Wind Turbines: Planning Advice [online]. Available at: https://www.gov.scot/publications/onshore-wind-turbines-planning-advice/
[4] Scottish Government (2017) Planning Circular 1/2017: Environmental Impact Assessment Regulations [online]. Available at: https://www.gov.scot/publications/planning-circular-1-2017-environmental-impact-assessment-regulations-2017/documents/
[5] Institute of Environmental Management and Assessment (2017), Delivering Proportionate EIA: A collaborative Strategy for Enhancing UK Environmental Impact Assessment Practice. Available [online] at: https://www.iema.net/document-download/33945
[6] Scottish Natural Heritage (SNH) changed its name to NatureScot at the end of August 2020; due to the timescales in which the Callisterhall EIA was undertaken, both these terms are used within this chapter.
[7] NatureScot (2018) Environmental Impact Assessment Handbook V5 [online]. Available at: https://www.nature.scot/doc/handbook-environmental-impact-assessment-guidance-competent-authorities-consultees-and-others
[8] Available at: https://www.gov.scot/publications/good-practice-guidance-applications-under-sections-36-37-electricity-act-1989/

- Identify relevant natural and man-made processes which may already be changing the character of the Site.

Predicting and Assessing Effects

- Consider the possible interactions between the Proposed Development and both existing and future Site conditions.
- Predict and assess the possible effects, both beneficial and adverse, of the Proposed Development on the environment.

Mitigation

- Introduce design and operational modifications or other measures to avoid, reduce or offset adverse effects and enhance beneficial effects.

Integration

- EIA should be an iterative process which aims to ensure early consideration of environmental issues at all stages of the Proposed Development and is founded on appropriate engagement with planning authorities and the consultation bodies. In addition to meeting the requirements of the EIA Regulations, the EIA process should add value to the design process, improving environmental outcomes and creating a framework for community engagement.

Proportionality

- EIA-Rs should be fit for purpose and must be accessible to the consenting authority, consultees and the public. As such, it should focus on significant environmental effects to avoid being overly long in nature.

Efficiency

- Early identification of assessment and information requirements can ensure a coordinated EIA process and minimise delays.

2.12 This EIA-R provides a clear and concise assessment of the Proposed Development and its likely significant effects, including primary, secondary, direct, indirect and cumulative effects, on the natural, built and human environments. The EIA-R provides the relevant determining authority, in consultation with statutory consultees and the wider community, with sufficient information to make an objective judgement as to the acceptability of the Proposed Development, within the context of national, regional and local planning and environmental policy.

EIA Methodology

2.13 Good practice in EIA is defined in a number of sources as set out above. The methods followed in this EIA-R have drawn on these sources to generate a robust assessment. The EIA-R preparation process adopted for the Proposed Development can be summarised as follows and is described in further detail below:

- Scoping and consultation with statutory consultees, non-statutory consultees and the local community to identify the key issues on which the EIA should focus;
- Establishing baseline environmental conditions through desktop research and site surveys;
- Determining how effects could be avoided or reduced through design modification and consultation (embedded design mitigation);
- Identifying the potential effects of the Proposed Development (including the consideration of any good practice construction measures) and any proposed mitigation required to address likely significant effects;
- Assessing the significance of residual environmental effects on the identified receptors against recognised or defined criteria following mitigation;
- Describing how likely significant effects will be monitored (e.g., through conditions attached to a consent); and

- Reporting the process, results and conclusions.

Scoping and Consultation

2.14 Consultation has formed an integral part of the EIA-R preparation process, and the EIA team and the Applicant have contacted key stakeholders over the course of the project to determine their views on the Proposed Development and to collect baseline information.

Scope of the EIA-R

2.15 A 'Scoping Opinion' can be requested from Scottish Ministers on the information to be provided within an EIA-R under Regulation 17(1) of the EIA Regulations. The purpose of the Scoping process is to ensure that the EIA focusses on the identification of likely significant environmental effects; identifies those effects which are unlikely to need detailed study; and provide a means to reach agreement with statutory and non-statutory consultees on the most appropriate methods of impact assessment.

2.16 The Applicant submitted a request to the Scottish Government Energy Consents Unit (ECU) for a Scoping Opinion on 1st March 2023. This request was accompanied by an EIA Scoping Report prepared by LUC, which set out a summary of the proposals; identified the issues proposed to be included in the EIA-R; and proposed an approach for the assessment of effects for each proposed topic area. The EIA Scoping Report was then issued by the ECU to a list of statutory and non-statutory consultees as agreed with the ECU, including: Argyll and Bute Council (ABC), Historic Environment Scotland (HES), NatureScot, Scottish Environment Protection Agency (SEPA), Scottish Forestry and community councils.

2.17 An EIA Scoping Opinion was received from Scottish Ministers on 1st June 2023. A summary of the key issues raised by consultees in response to Scoping and how these have been addressed in the EIA-R is provided in **Technical Appendix 2.1: Summary of EIA Scoping and Gate Check 1 Consultation Responses.**

Topic Areas Scoped Out

2.18 PAN 1/2013[1] provides advice on the general requirements relating to the preparation and content of an EIA-R and states:

> *"Whilst every ES should provide a full factual description of the development, the emphasis of Schedule 4 is on the significant environmental effects to which a development is likely to give rise. Some effects may be of little value or no significance for the particular development in question. They will therefore need only very brief treatment to indicate that their possible relevance has been considered."*

2.19 Furthermore, PAN 1/2013[1] (as amended) notes that Scoping forms a key part of the EIA process, and that its purpose is to:

- Identify the key issues to be considered;
- Identify those matters which can either be scoped out or which need not be addressed in detail;
- Discuss and agree appropriate methods of impact assessment, including survey methodology where relevant; and
- Identify any other project level assessment or survey obligations which may apply.

2.20 In line with the above guidance, where effects have been identified (whether at Scoping or during detailed assessment) as being not significant to warrant further assessment, these have been 'scoped out' and given only brief treatment in the relevant topic chapters. Effects scoped out of the EIA are detailed in **Chapters 5-13**. Topics scoped out are detailed below.

Decommissioning

2.21 An assessment of effects during the decommissioning phase has not been undertaken in the EIA as the baseline against which to assess likely significant decommissioning effects is not yet known. However, a method statement will be prepared and agreed with the relevant statutory consultees prior to decommissioning of the Proposed Development, and which would be secured through a planning condition.

Population and Human Health

2.22 In reviewing the potential for human health effects, consideration has been given to the significance of primary effects identified throughout the EIA-R to determine if there could be 'secondary effects' on human health. Where primary effects are not predicted to be significant, e.g., operational and cumulative noise, then there is not considered to be a potential secondary health effect.

2.23 Health effects that could be a result of construction and operational noise, and construction traffic accidents have not been considered in detail, as these have not been found to be residually significant as primary effects.

2.24 The effects on private water supplies (PWS) have been considered in **Chapter 9: Hydrology, Hydrogeology and Geology (including peat)** as there are four supplies which have catchments within the Site and therefore could be hydrologically linked to construction works. However, no infrastructure will be within these PWS catchments, therefore these PWS will not be affected. There will therefore be no secondary effects on health as a result of water quantity/water quality deterioration.

2.25 Effects as a result of shadow flicker have been considered in **Chapter 13: Other Issues**. The shadow flicker assessment concludes that shadow flicker occurrence, at the properties assessed, will be below the thresholds for which a significant effect may be likely in accordance with guidance (30 minutes per day or 30 hours per year). It is therefore determined that shadow flicker on nearby properties will be not significant, and there will be no secondary effect on health.

2.26 With respect to dust effects during construction and operation of the Proposed Development, the Design Manual for Roads and Bridges (DMRB) states that the locations of 'sensitive receptors' within 200 metres (m) of construction areas should be identified and mitigation measures to reduce dust effects be applied. Whilst one property is within 200 m of construction works, the Applicant will commit to adopting good practice measures for dust management during construction (including keeping material imports sheeted) and will implement these through a Construction Environmental Management Plan (CEMP), thereby controlling and reducing any potential effects that dust generation may have on health. An Outline CEMP is provided in **Technical Appendix 4.1: Outline Construction Environment Management Plan (OCEMP)**. No significant effects relating to dust are therefore predicted and so there will be no secondary effects on health. During operation of the Proposed Development, there will be limited dust-raising maintenance activities and vehicular movements to and from the Site will also be limited.

2.27 It is not considered that there will be a change to any wider determinants of health as a result of the Proposed Development. As such, potential effects on population and human health have been scoped out of detailed assessment.

Major Accidents and Disasters

2.28 In accordance with the latest IEMA guidance[9]a proportionate approach has been adopted for this assessment, given that many events which could be classified as 'major accidents and disasters', and which could cause significant effects on the environment, are not relevant to the Proposed Development or its location. The Proposed Development is not located in an area with a history of natural disasters such as extreme weather events, and its construction and operation will be managed within the requirements of a number of health and safety related Regulations, including the Construction (Design and Management) Regulations 2015 and the Health and safety Work etc. Act 1974.

2.29 Effects which could be deemed to cause a major accident or disaster have been assessed in the EIA. These relate primarily to potential traffic accidents which have been assessed in **Chapter 11: Access, Traffic and Transport.** A peat landslide hazard risk assessment (PLHRA) has been undertaken to understand the risk of peat instability during construction and the receptors which this could affect – see **Technical Appendix 9.4: Peat Landslide Hazard and Risk Assessment (PLHRA).**

2.30 The guidance is clear that major accidents and disasters can also be scoped out where proposed design measures or compliance with legislation and best practice will minimise the likelihood of a major accident or disaster occurring. Specific to the Proposed Development, this includes a failure of the structural integrity of a turbine(s) or a mechanical fault. Modern turbines are fitted with sensors which detect if wind speeds are too high to operate safely, resulting in their shut down. This prevents excessive wear and damage to the gearbox and reduces the risk of turbines catching fire, the occurrence of blade failure or even a failure of the structural integrity of the turbine itself. Turbines will also be constructed to very high design standards specified by the manufacturer and will be maintained on a regular basis to ensure that they are structurally sound.

[9] IEMA (2020) Major Accidents and Disasters in EIA: A Primer

2.31 The occurrence of wind turbines catching fire from suspected lightning strikes is also very rare, and there is no evidence that human life has been at risk from such events occurring in the past; assisted by turbine designs that include an embedded lightning protection system.

2.32 With regards to the Battery Energy Storage System (BESS), this will be designed to adhere to industry safety standards and be constructed and operated in line with best practice safety guidance. Nonetheless, there remains a low risk of potential BESS failure resulting in fire or thermal runaway. As per the Fire Safety (Scotland) Regulations 2006, the Applicant has a responsibility to ensure that the risks are understood, accounted for and mitigated as far as practicable, in agreement with relevant consultees. This includes ensuring BESS containers have the appropriate in-built safety systems (including, but not limited to, temperature monitoring, fault detection, gas and smoke detectors, liquid cooling system, forced ventilation, remote monitoring system and an automatic shutdown system). The design of the BESS layout will include additional safety mitigation, including ensuring the suitable spacing between adjacent containers (and between containers and other receptors) to minimise fire spread. A Fire Safety Plan (FSP) will be prepared and included in the CEMP.

2.33 The Construction (Design and Management) Regulations 2015 have formed an integral part of the conceptual design of the Proposed Development. Any health and safety risks have been taken account of and their consideration reflected in the design. Surveys and investigations have been undertaken throughout the pre-consent phase to, as far as reasonably practicable, identify, manage and if possible, avoid any potential risks during construction.

2.34 All construction activities will be managed within the requirements of the Regulations and will also comply with the requirements of the Health and Safety at Work etc. Act 1974 as noted above. To further reduce possible health and safety risks, a Health and Safety Plan for the project will also be drawn up. All staff and contractors working on the construction will be required to comply with the safety procedures and work instructions outlined in the plan at all times.

2.35 To ensure that hazards are appropriately managed, risk assessments will be undertaken for all major construction activities, with measures put in place to manage any hazards identified.

2.36 With respect to turbine icing, the Scottish Government web-based renewables advice for onshore wind turbines states that "*The build-up of ice on turbine blades is unlikely to present problems on the majority of sites. When icing occurs, the turbines' own vibration sensors are likely to detect the imbalance and inhibit the operation of the machines*". In addition, the Applicant will implement measures to ensure the safety of workers and the general public in relation to ice throw and ice fall, including notices throughout the Site alerting members of the public of the possible risk of ice throw and ice fall under certain conditions.

Telecommunications

2.37 As confirmed through Scoping consultation (see **Technical Appendix 2.1**) there are no telecommunication links within, or in the vicinity of the Site, which could experience interference effects from the Proposed Development. Therefore no effects are anticipated on telecommunications and this topic is scoped out.

Consultation with Statutory and Non-Statutory Consultees

2.38 In accordance with the ECU's Good Practice Guidance[8], the Applicant engaged with the ECU prior to the application being made through the Section 36 Gatecheck process (Gatecheck 1 and 2). The purpose of Gatecheck 1 was to allow the Applicant to seek feedback from key consultees on the design evolution and comments on how issues raised at Scoping were intended to be addressed in the EIA-R. To inform this, the Applicant submitted a Gate Check 1 Report to the ECU on 1st October 2024 which provided information on the design evolution (including comparative wirelines), details of post-scoping consultation, details of the final proposals and a scoping response summary table. The ECU subsequently issued the information to statutory consultees for feedback. Responses were received from the following consultees, and are summarised in **Table 2 of Technical Appendix 2.1**:

- NatureScot;
- HES;
- SEPA;
- East Kintyre Community Council;
- West Kintyre Community Council.

- Argyll District Salmon Fisheries Board;
- Scottish Forestry; and
- Kintyre Rainforest Alliance.

2.39 The Gatecheck 2 stage provides the opportunity for the Applicant to meet with the ECU in the final stages of the EIA-R preparation to ensure that the proposed documentation being submitted with the application is in accordance with the requirements set out in the EIA Regulations, and meets any specific requirements of the ECU. The Applicant and LUC attended a Gate Check 2 call with the ECU on 9th December 2024 to agree advertising and publicity details, the list of consultees and the proposed submission date.

2.40 Further details of engagement with statutory and non-statutory consultees by topic specialists to inform the assessments are included in **Chapters 5-13** of the EIA-R.

Public Consultation and Exhibitions

2.41 Public consultation is a key component of the EIA process. The Applicant consulted the public and local communities by engaging with local community representatives and groups. Two rounds of in-person public exhibition events, which were also available online, have been undertaken in addition to liaison with neighbours, host and neighbouring community councils (West Kintyre Community Council and East Kintyre Community Council), as well as East Kintyre Renewable Energy Group (EKREG) and Kintyre Wind (local wind farm community benefit and ownership representatives). Events were held on 22nd and 23rd November 2022 and again on 28th November 2023 which provided members of the public the opportunity to view the proposals (including visualisations), learn about the EIA process, the Section 36 consent process, the proposed community benefits and next steps for the project.

2.42 An opportunity was provided for members of the public to provide online or postal feedback, speak directly to a project team member at the in person drop-in events, or request a call from the project team. Feedback forms were made available at the in-person events and were also sent via post to approximately 5000 residences and businesses within East Kintyre, West Kintyre, Campbeltown and the Laggan Community Council boundaries.

2.43 The project website[10] has been kept up to date with progress updates and any relevant news stories relating to the Proposed Development.

2.44 The Applicant has also engaged with local community councils, ward councillors and local residents through in-person meetings or video calls. Further information is provided in the standalone **Pre-Application Report (PAC Report)** which accompanies the Section 36 application.

Baseline Characteristics

2.45 Part 3 of Schedule 4 of the EIA Regulations states that an EIA-R should include;

> *"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".*

2.46 The purpose of the EIA is to predict how environmental conditions may change as a result of a development. This requires that environmental conditions now and, in the future, assuming no development on the Site, are established. These conditions are referred to as the 'baseline' and are usually established through a combination of desk-based research, site survey, consultation and empirical studies and projections. Together, these describe the current and future character of the Site and surroundings, and the value and vulnerability of key environmental resources and receptors.

2.47 Making predictions about how parameters such as land use, landscape, views and other environmental characteristics may change in the future relies on assumptions about future development and environmental trends. For this reason, where other development is not proposed in the vicinity of the Site, the baseline adopted for the EIA is normally taken as the current

[10] https://www.cnocbuidhewindenergyhub.com/

character and condition of the Site and surrounds, and the likely significant environmental effects of the Proposed Development are then assessed in the context of the current conditions alone. In the case of the Proposed Development, however, the adjacent consented Tangy IV Wind Farm will form a key part of the future baseline. As such, consideration of this has been given in the EIA-R assessments, particularly in relation to landscape and visual impacts (see 'Cumulative Effects' section below and EIA-R **Chapter 5**).

2.48 It is accepted that the baseline conditions may gradually alter through time as a result of climate change which has the potential to alter the landscape and the baseline environmental conditions. However, these climate change effects are unlikely to materially alter the findings of the EIA. Further details as to how climate change may impact each topic area are set out in each topic chapter (**Chapters 5-12**) and **Chapter 13.**

2.49 Baseline conditions, and the means by which these have been established, are set out in **Chapters 5 -13** of this EIA-R.

2.50 As natural processes and/or human activities can affect the baseline ('status quo'), it is important to establish future baseline scenario in the absence of the Proposed Development, i.e., the likely environmental conditions that will exist should the Proposed Development not be constructed. Establishing the future baseline scenario requires transparent decision making as to what natural process changes and/or changes as a result of human activity should be included or excluded from the future baseline scenario.

2.51 Consideration of the future baseline scenario which acknowledges the absence of the Proposed Development is described in **Chapters 5-13** of this EIA-R.

Consideration of Reasonable Alternatives

2.52 The EIA-R is required to consider reasonable alternatives for the Proposed Development, as specified in Schedule 4, paragraph 2 of the EIA Regulations *"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".*

2.53 The EIA-R provides a description of the site selection and design evolution of the Proposed Development and the alternative designs that this process suggested, along with consideration of these alternatives in **Chapter 3**.

Avoidance of Effects through Design and Good Practice

Embedded Design Mitigation

2.54 EIA is an iterative process which aims to ensure early consideration of environmental issues at all stages of project development. In this way, the findings from the EIA can be fed into the design process, to avoid, reduce and if possible, remedy adverse environmental effects. This approach has been followed in the design of the Proposed Development and is considered to represent 'embedded design mitigation', i.e., mitigation which has been incorporated into the design of the Proposed Development.

2.55 Where potentially adverse significant environmental effects were identified through environmental baseline surveys, or later in the design process, consideration was given as to how the design should be modified to 'design out' adverse significant environmental effects, i.e., through embedded design mitigation, or where this was not possible, to determine appropriate mitigation for any remaining significant adverse effects. This process is explained further in **Chapter 3** and in the subsequent assessment chapters (**Chapters 5 -13**).

2.56 It should be noted that mitigation for one effect may result in the creation or increase of another effect, for example, moving a turbine to avoid an area of deep peat may result in the turbine being located in an area that is more visible to human receptors. Therefore, it is sometimes necessary to make compromises to strike a balance between potentially competing effects and produce a design which is considered, on balance, to be the most appropriate considering all factors.

Good Practice

2.57 The EIA-R also details good practice measures of relevance to each topic that will be employed during the construction and operational phase of the Proposed Development. Good practice is not considered as mitigation but the minimum standards which are expected to be implemented in accordance with best practice industry guidelines. As such, they are to be treated as an inherent part of the construction process, and are considered during the course of the assessments.

2.58 Technical Appendix 2.1 provides a consolidated list of mitigation, good practice, enhancement and monitoring for the Proposed Development which have been identified through the EIA process.

Identification of Likely Significant Effects

2.59 Part 5 of Schedule 4 of the EIA Regulations states:

> *"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".*

2.60 Each technical chapter contains a section that identifies the likely effects on the environment that may arise as a result of the construction and operation of the Proposed Development. Decommissioning is described, but not assessed in EIA terms. The significance of environmental effects is typically assessed by considering both the character of the change (i.e., the size and duration of the effect) and the value/sensitivity of the environmental resource that experiences this effect (i.e., the receptor).

2.61 In accordance with the EIA Regulations, effects may be direct, indirect, primary, secondary or cumulative. Within these categories, they may also be short, medium or long term, permanent or temporary, beneficial or adverse. Direct (or primary) effects are changes to the baseline arising directly from activities that form part of the Proposed Development, for example, a localised increase in noise during construction. Indirect (or secondary) effects are those that arise as a result of a direct effect, for example, deterioration of water quality in a watercourse due to a discharge could have secondary effects on aquatic biodiversity.

2.62 Effects and receptors have been described using quantitative criteria wherever possible using those factors listed below. Where different terminology has been used, this is stated clearly in the relevant chapter.

- The nature of the effect, described as adverse, neutral or beneficial;
- The magnitude of the effect, based on a scale of major, moderate, minor or none;
- The likelihood of the effect occurring, based on a scale of certain, likely or unlikely;
- The duration of the effect, based on a scale of long, medium and short term;
- The reversibility of the effect, being either reversible or irreversible;
- The value of the receptor, based on a scale of international, national, regional, local and negligible;
- The sensitivity of the receptor to the effect, based on a scale of high, medium and low and in some instances negligible; and
- The occurrence of the effect during the phased implementation of the project.

2.63 Each of the technical chapters provides the specific criteria, including sources and justifications, for quantifying the significance of effects, and this is predominantly done by combining sensitivity of receptor and magnitude of effect[11]. Where possible, this has been based upon quantitative and accepted criteria together with the use of value judgements and expert

[11] This excludes aviation as there are currently no relevant benchmarks or standards upon which to assess likely significant effects in EIA terms. As such, the purpose of this assessment is to understand the potential impact and what mitigation may be required (if necessary) to suitably manage these impacts.

interpretations. The threshold at which effects are likely to be 'significant' is defined in each of the technical chapters where relevant.

2.64 Unless otherwise stated in methodologies set out in the individual assessment chapters, effects of '**Major**' or '**Moderate**' significance are considered to be 'Significant' in the context of the EIA Regulations.

2.65 The assessment of effects in each chapter has been assessed for the Proposed Development as a whole (i.e. including turbines, battery energy storage system and other infrastructure). As such, unless otherwise stated, the assessment of effects includes all components of the Proposed Development. Where necessary, however, reference to specific components of the Proposed Development have been made in the assessments.

2.66 As noted above, decommissioning effects have not been assessed because of the long timeframe until their occurrence (>40 years), the uncertainty in relation to future baseline conditions and the resulting difficulty in predicting these effects with confidence. They are, however, considered to be similar to those of construction effects in nature but are likely to be of a shorter duration.

Interrelationship between Effects

2.67 Although the EIA-R is structured in standalone topic specific chapters, many of the considerations are interrelated, such as ecology and hydrology. As such, the interrelationship between potential effects between two topic areas is also to be considered in accordance with the EIA Regulations and is addressed in **Chapters 5-13** and summarised in **Chapter 14: Summary of Significant Effects**.

Cumulative Effects

2.68 As required by Part 5 of Schedule 4 of the EIA Regulations, the EIA-R considers the possible cumulative effects that a proposal may have with existing or consented developments. The EIA Regulations state that EIA-Rs 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".*

2.69 NatureScot guidance defines cumulative effects as "the combined effect of a set of developments". These are typically the 'additional' effects caused by a proposed development together with other similar developments, or as the 'total' effect of a set of developments, collectively. Additional effects result from the incremental changes associated with the addition of a proposed development to a baseline which is already supporting similar developments that are considered to have similar effects, i.e., the cumulative effects of the contribution of a proposed development to the existing baseline. The 'total' effect is the combined effects of several developments, for example, several developments each producing insignificant effects may have a combined effect that is considered significant.

2.70 For the purposes of this EIA, and for the majority of topics, cumulative effects have been defined as the likely 'additional' effects that the Proposed Development may have on a given receptor in combination with other wind farms which are at application stage or are consented. Wind farms which are already part of the baseline i.e. which are under construction or operational, are considered in the primary assessment of the Proposed Development. Schemes at EIA Scoping stage are not included due to the increased uncertainty that they will progress to an application, as well as the lack of quantitative data available for them which is otherwise required to enable a robust and meaningful cumulative assessment. In addition to assessing the additional cumulative effects of the Proposed Development in combination with other schemes, **Chapter 5: Landscape and Visual Impact Assessment** assesses the combined (or total) cumulative effects of the Proposed Development assuming that all current and future developments are constructed/become operational.

2.71 It should be noted that the specific wind farms which are included within the cumulative effect assessment varies from one technical chapter to another according to the particular effects which are under consideration, for example all of the cumulative developments within a 45 kilometre (km) radius are included within **Chapter 5**, however this approach is not appropriate for **Chapter 10: Noise and Vibration** due to the potential receptors being more localised. All technical specialists

were provided with the same cumulative data as was gathered to inform the assessment in Chapter 5 to ensure consistency. This was then supplemented where required.

2.72 The cut-off date for cumulative data collection was the 31st October 2024. After the cut-off date, Clachaig Glen Wind Farm was consented on 8th November 2024. Due to the location of this scheme within approximately 7 km of the Proposed Development, an exception was made and the landscape and visual assessment, including visualisations, were updated accordingly to reflect this status change. Any additional changes to the cumulative baseline after 8th November have not been considered.

2.73 At the time of writing, the consented Tangy IV Wind Farm (directly adjacent to the south of the Site), which will replace the existing operational Tangy I and II Wind Farms, has not entered into construction, therefore the baseline for the purposes of assessment continues to include Tangy IV as a consented scheme only in accordance with NatureScot guidance and as agreed with NatureScot through consultation (see Chapter 5). Where appropriate, however, additional photomontage visualisations have been prepared to show the Tangy IV turbines instead of the existing Tangy I and II turbines given that this is the future baseline in which the Proposed Development will operate – see Chapter 5 and Technical Appendix 5.1: LVIA and Visualisation Methodology.

2.74 Should additional schemes enter into planning after the Proposed Development, then it will be for the EIA for those schemes to consider the Proposed Development in their respective cumulative assessments, where appropriate.

Additional Mitigation, Enhancement and Monitoring

2.75 Part 7 of Schedule 4 of the EIA Regulation states that an EIA-R should include:

> *"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."*

2.76 The EIA has identified where there are likely to be any significant effects, and where possible, has identified opportunities to mitigate these effects. Making a judgement on the likely effectiveness of the mitigation measures proposed are then documented within this EIA-R as 'residual effects'. It should be noted that mitigation required to address likely significant effects is considered to be 'additional' to the embedded design mitigation and good practice measures noted above, and so are distinguished in this regard in the assessments.

2.77 For reference, all proposed mitigation, good practice, enhancement and monitoring measures are set out on a topic-by-topic basis in Appendix 2.1 and Appendix 4.1.

Data Gaps, Assumptions and Uncertainty in Assessment

2.78 Part 6 of Schedule 4 of the EIA Regulations requires that EIA-Rs provide:

> *"details of difficulties, (for example, technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved".*

2.79 Whilst any topic specific assessment limitations are discussed in Chapters 5-13, it is considered that this EIA-R contains adequate information to enable the Scottish Ministers and consultees to review it and form a reasoned conclusion on the significant effects of the Proposed Development on the environment.

2.80 Each topic chapter also lists the relevant assumptions that have been made when completing the assessment. Again, it is not considered that these assumptions present limitations to understanding the potential significant effects.

Competent Experts

2.81 Regulation 5(5)(a) and (b) of the EIA Regulations states that:

> *"In order to ensure the completeness and quality of the EIA-R–*
>
> *(a) the developer must ensure that the EIA-R is prepared by competent experts; and*
>
> *(b) the EIA-R must be accompanied by a statement from the developer outlining the relevant expertise or qualifications of such experts".*

2.82 **Technical Appendix 1.1: Statement of Expertise** includes a statement of competency, setting out the qualifications and experience of lead chapter authors.