

Chapter 4: Approach to EIA

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4 Approach to EIA

4.1 Introduction

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

4.2 EIA Regulations

- 4.2.1 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 and operation of which will require a Section 36 consent, but which is not a Schedule 1 development (Scottish Government, 2017).
- 4.2.2 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, having regard to the nature of the Proposed Development, significant effects are likely and need to be assessed. It was therefore not considered necessary to seek a screening opinion.
- 4.2.3 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 any 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 Report¹ for the Proposed Development setting out the proposed scope of the EIA Report was submitted to the Energy Consents Unit (ECU) in December 2023 with a request for a formal Scoping Opinion. A Scoping Opinion² was subsequently issued by the ECU on 10 May 2024.
- 4.2.4 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.
- 4.2.5 The EIA Regulations prohibit the Scottish Ministers from granting consent for EIA development unless they have taken the environmental information provided into account.
- 4.2.6 This EIA Report is presented to be taken into consideration by the Scottish Ministers in the determination of this application.

4.3 Requirements of the EIA Regulations

- 4.3.1 The approach to this EIA has followed the requirements of 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(1) notes that “*an application for an Electricity Act consent for EIA development must be accompanied by an environmental impact assessment report (“EIA Report”)*”. Regulation 5 then sets out the minimum requirements of an EIA Report as noted in Table 4.1.

Table 4.1 – Regulation 5 EIA Report Requirements and Location within the EIA Report

Regulation 5 Paragraph	Relevant Section of the EIA Report
(2) <i>An EIA Report is a report prepared in accordance with this regulation by the developer which includes (at least) - (a) a description of the development comprising information on the site, design, size and other relevant features of the development;</i>	– A description of the Proposed Development and its characteristics (comprising information on the site, design, size and other relevant features of the development) is presented in Volume 2, Chapters 2 and 3.

¹ ECU ref ECU00005007 [Scottish Government - Energy Consents Unit - Application Details](https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00005007&T=0)

² The full scoping opinion can be read on the ECU website here:
<https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00005007&T=0>

Regulation 5 Paragraph	Relevant Section of the EIA Report
<i>(b) a description of the likely significant effects of the development on the environment;</i>	– The predicted likely environmental effects of the Proposed Development are reported in Volume 2, Chapters 5-14. This is expanded upon in Table 4.2.
<i>(c) a description of the features of the development and any measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;</i>	– The mitigation measures required to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment are reported in Volume 2, Chapters 5-14. Chapter 15 provides a full schedule of commitments.
<i>(d) a description of the reasonable alternatives studied by the developer, which are relevant to the development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment;</i>	– The alternatives considered are covered under Volume 2, Chapter 2.
<i>(e) a non-technical summary of the information referred to in sub-paragraphs (a) to (d); and</i>	– A Non-Technical Summary (NTS) is provide in Volume 1 of the EIA Report.
<i>(f) any other information specified in schedule 4 relevant to the specific characteristics of the development and to the environmental features likely to be affected.</i>	– A Scoping Report was produced to identify the scope of environmental features likely to be affected upon which this EIA Report is based. A summary of the scoping responses and where they are addressed in the EIA Report is provided in Volume 4, Appendix 4.1. Table 4.2 lists the requirements of the EIA Report as per schedule 4 and identifies where each item can be found in the EIA Report.
<i>(3) Where a scoping opinion is adopted, the EIA report must be based on that scoping opinion and must include the information that may reasonably be required for reaching a reasoned conclusion on the significant effects of the development on the environment, taking into account current knowledge and methods of assessment.</i>	– The EIA Report is based on the Scoping Opinion and additional consultation undertake post Scoping. The EIA Report provides the information required to allow the Scottish Ministers to reach a reasoned conclusion on the significant effects of the Proposed Development on the environment. As set out in this chapter and Chapters 5-14, the assessments in the EIA Report have been carried out in accordance with good practice, taking account current knowledge and methods of assessment.
<i>(4) With a view to avoiding duplication of assessments, account is to be taken of the available results of other relevant assessments in preparing the EIA Report.</i>	– Where relevant any existing assessments are referenced in Volume 2, Chapters 5-14 as appropriate.
<i>(5) In order to ensure the completeness and quality of the EIA Report - (a) the developer must ensure that the EIA report is prepared by competent experts; and (b) the EIA report must be accompanied by a statement from the developer outlining the relevant expertise or qualifications of such experts.</i>	– Volume 2, Chapter 1 provides a statement of competency with relevant qualifications for each expert.

4.3.2 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 4.2.

Table 4.2 – Schedule 4 EIA Report Requirements and Location within the EIA Report

Schedule 4 Paragraph	Relevant Section of the EIA Report
<p>1. A description of the development, including in particular:</p> <p>(a) a description of the location of the development;</p> <p>(b) a description of the physical characteristics of the whole development, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases;</p> <p>(c) a description of the main characteristics of the operational phase of the development (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used;</p> <p>(d) an estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases.</p>	<p>– A description of the location of the Proposed Development is presented in Volume 2, Chapter 2.</p> <p>– A description of the Proposed Development and its characteristics (including physical characteristics, operational requirements and estimated energy production) is presented in Volume 2, Chapter 3.</p> <p>– The predicted individual environmental effects of the Proposed Development are reported in Volume 2, Chapters 5-14.</p> <p>– Chapter 8 addresses emissions to water, soil and subsoil. Chapter 11 addresses noise emissions, Chapter 14 addresses emissions relating to air quality.</p>

Schedule 4 Paragraph	Relevant Section of the EIA Report
2. A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.	– 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 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.	– These are provided in Volume 2, Chapters 5-14.
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.	<ul style="list-style-type: none"> – Effects on population are discussed in relation to visual/residential amenity impacts (Chapter 5), water, (Chapter 8), traffic (Chapter 10), noise (Chapter 11). Effects on human health from air quality are discussed in Chapter 14. – Material assets are addressed through the effects identified for land use, soil geology and waste, hydrological (Chapter 8) and cultural heritage (Chapter 9). – Effects on climate are considered within Chapter 14. – Consideration has been given within Chapters 6-8 to the potential impacts that dust generation could have on any identified sensitive ecological or hydrological receptors. – Effects on biodiversity are assessed within Chapters 6 and 7. – Effects on soils and water are assessed within Chapter 8. – Effects on cultural heritage are assessed within Chapter 9. – Effects on landscape are assessed within Chapter 5.
<p>5. A description of the likely significant effects of the development on the environment resulting from, inter alia:</p> <p>(a) the construction and existence of the development, including, where relevant, demolition works;</p> <p>(b) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources;</p> <p>(c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste;</p> <p>(d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters);</p> <p>(e) the cumulation of effects with other existing and/or approved 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;</p> <p>(f) the impact of the development on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change;</p> <p>(g) the technologies and the substances used.</p> <p>The description of the likely significant effects on the factors specified in regulation 4(3) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development.</p>	<ul style="list-style-type: none"> – 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 5-14. The methods used to predict significant effects are explained in this chapter and each individual chapter as relevant. (a) 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. (b) The use of natural resources (in particular land, soil, water and biodiversity) is considered in Chapters 6-8. (c) The emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste is considered in Chapters 5 and 11. (d) The risks to human health, cultural heritage or the environment as a result of accidents or disasters are addressed in Chapter 14. (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 is considered throughout the EIA Report in Chapters 5-14. (f) The impact of the Proposed Development on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the Proposed Development to climate change is considered in Chapter 14. (g) The technologies and the substances used is considered in Chapters 2 and 3. <p>Each technical chapter assesses direct, indirect, secondary, short, medium, long-term, temporary and permanent, positive and negative effects. No transboundary effects are anticipated.</p>

Schedule 4 Paragraph	Relevant Section of the EIA Report
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 5-14.
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.	– The overall approach to mitigation is discussed in this chapter. – Specific mitigation measures are reported in each relevant technical chapter Volume 2, Chapter 5-14 and are summarised in Volume 2, Chapter 15.
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.	– Major Accidents and disasters were scoped out of the EIA Report., however they have been addressed in Chapter 14.
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 15 each have a reference list detailing relevant sources used.

4.4 EIA and the Design Process

- 4.4.1 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 avoid, reduce and where practicable, 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 Proposed Development design could be modified to design out adverse environmental effects, or where this was not practicable, to identify appropriate mitigation.
- 4.4.2 This iterative design process is explained further in Volume 2, Chapter 2: Site Description and Design Evolution.

4.5 EIA Project Team and Competency

- 4.5.1 This EIA has been led by Green Cat Renewables (GCR) with assistance from other specialist technical and environmental consultants. Full details of the project team are set out in Section 1.4 of Chapter 1 of this EIA Report. Table 1.1 in Chapter 1 shows the EIA Team Assessors', qualifications, and years of experience.

4.6 Determining the Scope of the EIA Report

- 4.6.1 The EIA Report is the independent assessment of the Proposed Development, presenting likely significant environmental effects, and the measures proposed to avoid, reduce and where practicable mitigate adverse effects.
- 4.6.2 The scope of the EIA Report has been established through a combination of consultation with various stakeholders, and an EIA scoping process.
- 4.6.3 The EIA Scoping process involves submitting an EIA Scoping Report³ and request for an EIA Scoping Opinion to the consenting authority (in this case the ECU). The consenting authority then consults with appropriate consultees and compiles an EIA Scoping Opinion⁴ advising on the scope of the EIA Report. How the requests of the EIA Scoping Opinion have been addressed in the EIA Report is detailed in the in the Scoping Response Table in Technical Appendix 4.1 and each technical chapter (Chapters 5-14).

³ ECU reference ECU00005007 [Scottish Government - Energy Consents Unit - Application Search](https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00005007&T=0)

⁴ The full scoping opinion can be read on the ECU website here:
<https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00005007&T=0>

Scoping

- 4.6.4 As detailed in Chapter 1 an EIA Scoping Report⁵ for the Proposed Development setting out the proposed scope of the EIA Report was submitted to the ECU in February 2024 with a request for a formal Scoping Opinion.
- 4.6.5 Following the EIA Scoping Report submission, a list of consultees was agreed between the Applicant and the ECU. A list of the statutory and non-statutory consultees consulted on the Giant's Burn Scoping Report and the date of their response is set out in Table 4.3.

Table 4.3: Summary of Scoping Opinion Responses

Consultee	Response Date
Statutory Consultee	
Argyll and Bute Council	04 April 2024
Historic Environment Scotland (HES)	21 March 2024
NatureScot (NS)	29 March 2024
Scottish Environment Protection Agency (SEPA)	13 March 2024
Non-Statutory Consultee	
RSPB Scotland	13 March 2024
Aberdeen Airport	08 March 2024
British Telecommunications plc	05 March 2024
Edinburgh Airport	08 March 2024
Fisheries Management Scotland	08 March 2024
Glasgow Airport	21 February 2024
Glasgow Prestwick Airport	05 March 2024
Highlands and Islands Airports Limited	20 March 2024
Joint Radio Company Limited	29 February 2024
Defence Infrastructure Organisation	13 March 2024
Office for Nuclear Regulation	14 March 2024
NATS Safeguarding	13 March 2024
River Eachaid Fishery Syndicate – Argyll Fisheries Trust	13 March 2024
Scottish Water	13 March 2024
Scottish Rights of Way and Access Society (Scotways)	16 April 2024
Transport Scotland	20 March 2024
Consultees who were consulted but did not provide a response	
Scottish Forestry	Dunoon Community Council
British Horse Society	Kilmun Community Council
Crown Estate Scotland	Sandbank Community Council
John Muir Trust	Hunters Quay Community Council
Oban Airport	South Cowal Community Council
Scottish Wildlife Trust	Cove & Kilcreggan Community Council
Visit Scotland	Inverkip and Wemyss Bay Community Council
Woodland Trust	Gourock Community Council

- 4.6.6 A Scoping Opinion⁶ was subsequently issued by the ECU on 10 May 2024.
- 4.6.7 A summary of the key issues raised at Scoping is provided in Technical Appendix 4.1. The EIA Scoping Opinion is further detailed in the consultation tables contained within each technical chapter (Chapters 5 – 14), with reference to how the comments have been addressed.

4.7 Approach and Methods**General Approach to the EIA**

- 4.7.1 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 Site boundary shown on Figure 1.2. The study areas vary between assessments and are defined in individual EIA Report chapters.
- 4.7.2 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. This ensures that the assessment is suitably precautionary.
- 4.7.3 The EIA has been undertaken based on a fixed location for turbines and infrastructure (subject to micro-siting) as shown on Figure 3.1.

⁵ ECU reference ECU00005007 [Scottish Government - Energy Consents Unit - Application Search](https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00005007&T=0)

⁶ The full scoping opinion can be read on the ECU website here:
<https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00005007&T=0>

- 4.7.4 The assessment is based on turbine tip heights no greater than 200 m for five of the turbines and no greater than 180 m for the remaining two turbines. Hub heights, blade lengths and all other proposed infrastructure are based on the Rochdale Envelope⁷ principle. The Proposed Development has been assessed within the 100 m micro-siting boundary put forward.
- 4.7.5 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. The level of residual effect determines whether or not an effect will be considered to be significant in EIA terms.
- 4.7.6 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).
- 4.7.7 Unless qualified elsewhere, the following interpretation is applied with regard to effects. Table 4.4 summarises the interpretation applied with regard to the duration of effects.

Table 4.4 – Interpretation of Time Periods and Duration of Effects

Time Period of Effects	Detail	Reversible/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 than 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
Permanent Effect	An effect which persists beyond the lifetime of the Proposed Development. This is a permanent effect.	Irreversible

- 4.7.8 Assessment criteria have been used to evaluate environmental effects. Significance of the effect is generally determined through a combination of the sensitivity of a receptor to an effect and the magnitude of the impact. 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.
 - Assessment of the significance of effect taking into account sensitivity of receptors and magnitude of impact.
 - Identification of appropriate mitigation measures.
 - Assessment of significance of residual effects taking account of any mitigation measures.
- 4.7.9 Where significant environmental effects are predicted in the EIA process, then the EIA Report sets out mitigation measures which would be employed to eliminate or ameliorate the impact to acceptable levels where practicable. Mitigation measures can be in the form of changes to construction, operational or decommissioning practice, or changes/additions/enhancement to the design. Where impacts cannot be mitigated residual effects are discussed.
- 4.7.10 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.

⁷ 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, whilst ensuring that the assessment remains suitably precautionary by assessing the effects arising from the worst case project parameters for each impact.

4.8 Baseline Conditions

- 4.8.1 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 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.
- 4.8.2 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).
- 4.8.3 Relevant operational, consented, in planning and scoping (if likely to be completed by the Proposed Development construction year)) wind farms are considered to be part of the baseline environment for the purposes of this EIA Report, unless specifically stated otherwise within relevant topic chapters.
- 4.8.4 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).

4.9 Consultation

- 4.9.1 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.

Further Statutory Consultation

- 4.9.2 Throughout the EIA process further consultation was undertaken on specific issues by technical leads. 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.

Community Consultation

- 4.9.3 In relation to the EIA, engagement with the local community has been undertaken through a number of mechanisms:
- In December 2023, a project website was launched providing opportunity to comment on proposals: <https://projects.statkraft.co.uk/giants-burn/>.
 - The first round of public information events were held online between 15 April and 5 May 2024 and in-person on 24 April at Innellan and Dunnon, and on 25 April in Kilmun and Cove.
 - The second round of public information events were held online between 31 March and 21 April 2025 and in-person on 1 April in Dunoon, 2 April in Innellan and Kilmun, and 3 April in Sandbank and Cove.
- 4.9.4 In addition, correspondence and meetings with the local community took place in December 2023, to discuss the progress of the Proposed Development.
- 4.9.5 Full details of the public consultation undertaken and the public responses received are contained within the Pre-Application Consultation (PAC) Report submitted with this application for the Proposed Development.

4.10 Assessment of Effects

- 4.10.1 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. 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.
- 4.10.2 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.

Assessment of Cumulative Effects

- 4.10.3 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 other

development proposals in the local area which are consented or at application stage in addition to the operational 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 extent to which the potential cumulative effects through that co-existence of developments is assessed and described as appropriate throughout Chapters 5-14 of this EIA Report.

- 4.10.4 The study area for considering cumulative effects varies per technical discipline and each EIA Report chapter refers to the cumulative development proposals considered as appropriate. In general, most specialisms have considered cumulative effects to approximately 15 km from the proposed turbines⁸ which includes the following development proposals:

Operational

- Inverclyde Wind Farm;
- High Mathernock & Priestside Farm; and
- Cruach Mhor Wind Farm

Scoping

- Inverchaolain Wind Farm
- 4.10.5 The study area for considering cumulative effects on landscape and visual amenity is up to approximately 30 km from the Proposed Development.
- 4.10.6 Cumulative development proposals within the study area are identified on Figure 5.9. This includes all known sites which are operational within 30 km, and also sites that are consented, in planning and at Scoping stage. The cut-off date for the cumulative assessment was 13 May 2025, after which any new developments entering the public domain have not been considered within the cumulative assessment.

Sensitivity of Receptors

- 4.10.7 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 parameter are provided in the relevant chapter of the EIA Report.

Magnitude of Impact

- 4.10.8 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 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.
- 4.10.9 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

- 4.10.10 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.

⁸ Measurements taken from nearest proposed turbines to nearest existing/consented or application turbines.

- 4.10.11 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 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.
- 4.10.12 Some of the measures described within Chapters 5-14 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 15 provides a summary of the mitigation measures proposed throughout the EIA Report.
- 4.10.13 In some cases, environmental mitigation 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). However, offsetting may take some time to remedy effects, as compensation may take time to mature sufficiently to enable the effect of the disturbance or loss to be offset.

Enhancement

- 4.10.14 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 Biodiversity Enhancement Strategy (BES) presented as Technical Appendix 6.5.

Monitoring

- 4.10.15 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

- 4.10.16 In accordance with the EIA Regulations, this assessment has considered 'transboundary effects'. 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).
- 4.10.17 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

- 4.10.18 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.
- 4.10.19 The 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) and the greater the resulting significance of the effect.
- 4.10.20 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'.
- 4.10.21 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.

- 4.10.22 Any effects associated with the Proposed Development are considered to be adverse except where it is stated that they are beneficial. 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, Limitation and Technical Difficulties

- 4.10.23 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.
- 4.10.24 It is not considered that any matter has prevented the accurate assessment of likely significant environmental effects or the identification of appropriate mitigation measures. The environmental effects reported in this EIA Report, and the level of mitigation described, effectively set the minimum standard which will be achieved by the construction and operation and maintenance and decommissioning of the Proposed Development.

4.11 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 03 June 2025.

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 03 June 2025.

Scottish Government (2022). Energy Consents Unit Good Practice Guidance for Applications under Section 36 and 37 of the Electricity Act 1989. Available at: [Energy Consents Unit: Good Practice Guidance for Applications under Section 36 and 37 of the Electricity Act 1989 - February 2022](#). Access on 03 June 2025.