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TABLES

Introduction

5.1 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 for the purposes of The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ('the EIA Regulations').

EIA Regulations

5.2 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 *"a generating station, the construction of which (or operation of which) will require a section 36 consent but which is not a Schedule 1 development."*

5.3 It was acknowledged at an early stage that given the nature, location and characteristics of the proposed development that an EIA would be required. It was therefore not considered necessary to seek a screening opinion and this EIA Report is submitted voluntarily.

5.4 Establishing which aspects of the environment and associated issues are relevant for a particular project is captured in the EIA scoping process. The results of the EIA are presented in this EIA Report which, as prescribed in Schedule 4 of the EIA Regulations, is required to include a *"description of the likely significant effects"* of the proposed development; the effects which are not considered to be significant do not need to be described. It is therefore necessary for the scope of the EIA to be appropriately and clearly defined to ensure that any likely significant effects are described and assessed.

5.5 Scoping is the process of identifying those aspects of the environment and associated issues which may be significantly affected by any proposed development and which therefore should be subject to detailed assessment and reported on in the EIA Report. This recognises that there may be some environmental elements where there would be no significant issues or likely effects resulting from the proposed development, and hence where there is no need for further assessment to be undertaken. The Scoping exercise for the proposed development is detailed in **Chapter 6: Scoping and Consultation**.

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

5.7 The EIA Regulations prohibit the Scottish Ministers from granting consent for EIA development unless they have taken the environmental information provided into consideration.

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

Requirements of the EIA Directive and Regulations

5.9 The approach to this EIA has followed the requirements of the EIA Regulations, which transposed the EIA Directive (2011/92/EU as amended by 2014/52/EU) into domestic law. Regulation 4 of the EIA Regulations defines the process of EIA and highlights the factors and their interactions that should be considered. Regulation 5 sets out the minimum requirements for an EIA Report, and notes that where a Scoping Opinion is issued the EIA must be prepared based on that Scoping Opinion.

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

Table 5-1: EIA Report Required Information

Required Information	Relevant Section of the EIA Report
1. Description of the development, including in particular: (a) a description of the location of the development; (b) a description of the physical characteristics of the whole development and the land-use requirements during the construction and operational phases; (c) a description of the main characteristics of the production processes, for instance, nature and quality of the materials used; (d) an estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed development.	A description of the location of the proposed development is presented in **Chapter 2.** A description of the proposed development and its characteristics is presented in **Chapter 3**. The predicted individual environmental effects of the proposed development are reported in **Chapters 7 to 14.**
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 **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.	Provided in **Chapters 7 to 14.**
4. A description of the [environmental factors] 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	Effects on population are discussed in relation to visual impacts, traffic, noise and air quality. Material assets are addressed through the effects identified for land use, soil, geology and waste, hydrology and cultural heritage. Provided in **Chapters 7, 10, 11, 12, 13 and 14**.

Required Information	Relevant Section of the EIA Report
heritage, including architectural and archaeological aspects, and landscape.	
5. A description of the likely significant effects of the development on the environment resulting from, inter alia: (a) the construction and existence of the development, including, where relevant, demolition works; (b) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources; (c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste; (d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters); (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; (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; (g) the technologies and the substances used. 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 longterm, permanent and temporary, positive and negative effects of the development.	Assumptions and limitations of the EIA process are reported as required in the relevant technical chapters. The predicted significant effects of the proposed development are reported in each of the technical chapters as residual effects after relevant mitigation measures are described in the EIA Report (**Chapters 7 to 14**). The methods used to predict significant effects are explained in this chapter and each individual chapter as relevant. Effects have been predicted in relation to the proposed development's construction and permanent use of the land. The operation and nature of these effects and their duration are reported.
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.
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 postproject 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 **(Chapters 7 to 14).** The overall approach to mitigation is discussed in these chapters. Specific mitigation measures are reported in each relevant technical chapter and are summarised in **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.	**Chapter 14** 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.

Required Information	Relevant Section of the EIA Report
10. A reference list detailing the sources used for the descriptions and assessments included in the EIA report.	**Chapters 1 to 15** each have a reference list detailing relevant sources used.

EIA and the Design Process

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

5.12 This iterative design process is explained further in **Chapter 2: Site Description and Design Evolution** and the **Design and Access Statement**. Consultation, from key consultees and the public, that also fed into the design process is outlined in **Chapter 6: Scoping and Consultation.**

EIA Project Team and Competency

5.13 The EIA team is led by SLR with assistance from specialist consultants Land Use Consultants (LUC), who have produced the Landscape and Visual Impact Assessment Chapter. Further specialist input was provided by Systra (abnormal load swept path analysis, detailed in Annex A of **Technical Appendix 12.1**), Straten CSL (Aviation Report detailed in **Technical Appendix 14.5**), IFP Design Ltd and Osprey Consulting Services (IFP Aviation Impact Reports detailed in **Technical Appendix 14.3** and **14.4**), RTS Forestry (Forestry assessment, detailed in **Technical Appendix 3.2**), and Parklife Monitoring (Ochils recreation survey detailed in **Technical Appendix 13.1**). **Table 1-1** in **Chapter 1** shows the core EIA Team Assessors' qualifications and experience.

Determining the Scope of the EIA Report

5.14 The EIA Report is the objective assessment of the proposed development, its likely significant environmental effects, and the measures proposed to avoid, reduce and where possible mitigate adverse effects.

5.15 The scope of the EIA Report has been established through a combination of informal consultation with various stakeholders, and an EIA scoping process. The Scoping Request was submitted to the Scottish Ministers in March 2023. A Scoping Opinion was received from the Scottish Ministers in June 2023.

5.16 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.

Approach and Methods

General Approach to the EIA

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

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

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

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

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

5.22 The EIA Regulations require a description of the likely significant effects on the environment, with these covering *"the direct effects and any indirect, secondary, cumulative, transboundary, short term, medium-term and long-term, permanent and temporary, positive and negative effects of the development."*

5.23 Unless qualified elsewhere, the following interpretation is applied with regard to effects. Short term effects are those which extend over a short period of time only and, in the context of the proposed development, are typically those associated with the construction or decommissioning periods or other limited period. Other temporary effects which persist for less than the life of the 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 duration of up to long term are considered reversible, whereas permanent effects are considered irreversible. Where any effect is identified, its duration is described. **Table 5-2** below summarises the interpretation applied with regards to effects.

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

Table 5-2: Interpretation Applied with Regards to Effects

Time Period Effects	Detail	Reversible / Irreversible Effects
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
Permanent effect	An effect which persists beyond the lifetime of the proposed development. This is a permanent effect.	Irreversible

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

- identification of environmental baseline conditions at 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 effect;
- identification of appropriate mitigation measures; and
- assessment of significance of residual effects taking account of any mitigation measures.

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

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

Baseline Conditions

5.27 A fundamental aspect of the EIA is to determine the baseline environmental conditions prevailing at the site. These form the benchmark against which predicted changes resultant from the proposed development are assessed to determine the magnitude of any impact. The baseline conditions have been determined by a number of different methods,

including desktop studies, site surveys, use of analytical models and the acquisition of data from third parties.

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

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

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

5.31 The EIA Report considers the present baseline environment, but also considers how the baseline environment may change during the operational period of the proposed development (for example in relation to climate change).

Consultation

5.32 Consultation has formed an integral part of the EIA process and both the EIA team and the applicant have contacted a number of interested parties to determine their views on the proposed development, collected baseline information and refine survey methodologies.

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

5.34 In relation to the EIA, pre application consultation with the local community has been undertaken through two rounds of public exhibitions. The first series of exhibitions were held on 20, 21 and 22 June 2023, with the aim of introducing the proposed development to the public and to gain feedback on the initial design. The information available included plans of the proposed development layout, information boards explaining the key environmental effects, and photomontages to illustrate anticipated views. The second public exhibition round, comprising four exhibitions, were held on 13, 14, 15, 16 November 2023, with the aim of showing the ‘nearly’ final design and layout of the proposed development, as well as providing a response to feedback received at the June 2023 public exhibitions. The responses received through consultation are detailed in the Pre Application Consultation (PAC) Report submitted with the application for the proposed development.

5.35 In addition, correspondence and meetings with the local community took place throughout 2023, to discuss the progress of the proposed development and the potential for long-term community benefits. These meetings are further detailed in **Chapter 6: Scoping and Consultation** and the PAC Report.

5.36 The extended period of time from the second round of public exhibitions in November 2023, to submission of the Section 36 application in 2025, was due to careful consideration being given to the potential for interaction between current land uses at the

site, in particular with regards to water abstraction, and the proposed development. The final proposals presented as part of the Section 36 application are aligned with the draft proposals presented throughout the public exhibition events in 2023, with only relatively minor amendments made to the site layout since then (see **Chapter 2** for design evolution of site layout).

Sensitivity of Receptors

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

Magnitude of Change

5.38 The magnitude of change on environmental baseline conditions is identified through detailed consideration of the proposed development, taking due cognisance of any legislative or policy standards or guidance, and/or the following factors:

- the degree to which the environment would be changed, e.g. whether the quality is enhanced or impaired;
- the scale or degree of change from the baseline situation;
- whether the change is temporary or permanent, indirect or direct, short term, medium term or long term; and
- changes resulting from any in-combination or cumulative effects.

5.39 The magnitude of change for a receptor that would be affected by a proposed development would be identified on a scale from very low to very high. As with receptor sensitivity or value, a rationale is provided in each topic chapter (**Chapter 7** to **Chapter 14**) that explains how the categories of environmental change are defined. For certain topics, the magnitude of change would be related to guidance on what levels of change are acceptable (e.g. noise), and be based on numerical parameters. For other changes, it will be a matter of professional judgement to determine the magnitude of change, using descriptive terms.

Assessment of Effects

5.40 The assessment of potential effects, using a range of appropriate methodologies, takes into account the construction and operation of the proposed development in relation to the Site and environs. Further detail on decommissioning of the proposed development is provided in **Chapter 3** and **Chapter 6**, however; an assessment of the potential effects of the decommissioning of the proposed development have been scoped out of the EIA as at this stage future baseline conditions cannot be predicted accurately and both the proposals for refurbishment/decommissioning and the future regulatory context are unknown. Methodologies for predicting the nature and magnitude of any potential environmental impacts vary according to the technical subject area. Numerical or quantitative methods of assessment are used to predict values which can be compared against published thresholds and indicative criteria contained in relevant guidance and standards.

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

Assessment of Cumulative Effects

5.42 In accordance with the EIA Regulations, the assessment has considered 'cumulative effects'. By definition, these are effects which result from incremental changes caused by past, present or reasonably foreseeable projects of a similar nature to the proposed development, together with the proposed development. Likely cumulative effects have been defined as the likely effects that the proposed development may have in combination with other wind farm developments in the local area which are at application stage, consented, under construction or operational (i.e. the incremental effects resulting from the proposed development if all other developments are assumed to be constructed / operated). The extent to which the potential combined effects through that co-existence is considered, is described as appropriate throughout **Chapters 7** to **14** of this EIA Report.

5.43 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 from, operational, under construction, consented, or at application stage wind farm sites, within approximately 10km from the proposed turbines, which includes the following schemes:

- Burnfoot Hill Wind Farm (operational), which comprises 13 turbines up to 102m blade tip height, and is approximately 1.2km to the east;
- Burnfoot Hill East Wind Farm (operational), which comprises three turbines up to 135m blade tip height, and is approximately 2.1km to the east;
- Burnfoot Hill North Wind Farm (operational), which comprises two turbines up to 102m blade tip height, and is approximately 1.5km to the east;
- Rhodders Wind Farm (operational), which comprises six turbines up to 102m blade tip height, and is approximately 0.5km to the east; and
- Green Knowes Wind Farm (operational), which comprises 18 turbines up to 95m blade tip height, and is approximately 8.9km to the north east.

5.44 The study area for considering cumulative effects on landscape and visual amenity is up to approximately 40km from the proposed turbines. Operational, under construction, consented and at application stage wind farm site, between 10km and 40km from the proposed turbines are as follows:

- Craighead Wind Farm (Application Submitted), which comprises eight turbines up to 200m blade tip height, and is located approximately 14.5km to the east;
- Strathallan Wind Farm Phase 1 (operational, and 5 turbines as part of phase 2 consented), which comprises four turbines up to 92.5m blade tip height, and is located approximately 12.5km to the north west;
- Brunt Hill Wind Farm (Application Submitted), which comprises 18 turbines up to 200m blade tip height, and is located approximately 15.3km to the east;
- Braes of Doune Wind Farm (operational), which comprises 36 turbines up to 100m blade tip height, and is located approximately 16km to the north west;

- Rosehill Wind Farm (operational), which comprises 3 turbines up to 99.5m blade tip height, and is located approximately 14.7km to the south;
- Tod Hill Wind Farm – 4 turbines (125m to tip height), Operational, located approximately 17.5km to the south;
- Earlsburn Extension Wind Farm (Application Submitted), which comprises 11 turbines up to 180m blade tip height, and is located approximately 20.2km to the south west;
- Drummarnock Wind Farm (Application Submitted), which comprises 4 turbines up to 180m blade tip height, and is located approximately 19.6km to the south west;
- Craigengelt Wind Farm (operational), which comprises 8 turbines up to 125m blade tip height, and is located approximately 21km to the south west;
- Earlsburn Wind Farm (operational), which comprises 15 turbines up to 110m blade tip height, and is located approximately 21.6km to the south west;
- Kingsburn Wind Farm (operational), which comprises 9 turbines up to 115m blade tip height, and is located approximately 21.2km to the south west;
- Shelloch Wind Farm (operational), which comprises 5 turbines up to 180m blade tip height, and is located approximately 24.5km to the south west;
- Lochelbank Wind Farm (operational), which comprises 12 turbines up to 91m blade tip height, and is located approximately 24.7km to the north east;
- Easter Drumclair Wood Wind Farm (operational), which comprises 2 turbines up to 149.5m blade tip height, and is located approximately 29.1km to the south;
- Binn Eco Park Wind Farm (operational), which comprises 4 turbines up to 115m blade tip height, and is located approximately 30.6km to the north east;
- Burnhead Wind Farm (operational), which comprises 13 turbines up to 127m blade tip height, and is located approximately 30.4km to the south;
- Greendykeside Wind Farm (operational), which comprises 2 turbines up to 100m blade tip height, and is located approximately 31km to the south;
- Drumduff Wind Farm (operational), which comprises 3 turbines up to 120m blade tip height, and is located approximately 31.1km to the south;
- Glentarken Wind Farm (Application Submitted), which comprises 12 turbines up to 180m blade tip height, and is located approximately 31.5km to the north west;
- Mossmorran Wind Farm (operational), which comprises 2 turbines up to 100m blade tip height, and is located approximately 31.6km to the south east;
- The Heights Wind Farm (Application Submitted), which comprises 3 turbines up to 180m blade tip height, and is located approximately 31.7km to the south;
- Little Raith Wind Farm (operational), which comprises 9 turbines up to 126m blade tip height, and is located approximately 31.2km to the south east;
- Drumduff Extension (consented), which comprises 3 turbines up to 149.9m blade tip height, and is located approximately 32km to the south;
- Greengairs East Wind Farm (operational), which comprises 8 turbines up to 149.9m blade tip height, and is located approximately 32.2km to the south;

- Westfield Wind Farm (operational), which comprises 4 turbines up to 110m blade tip height, and is located approximately 32.7km to the east;
- Greengairs Wind Farm (operational), which comprises 9 turbines up to 125m blade tip height, and is located approximately 32.2km to the south west;
- Standhill Farm Wind Farm (operational), which comprises 2 turbines up to 84m blade tip height, and is located approximately 33.5km to the south;
- Torrance Farm Wind Farm (operational), which comprises 3 turbines up to 125m blade tip height, and is located approximately 34.6km to the south;
- Forrestfield Wind Farm (operational), which comprises 4 turbines up to 125m blade tip height, and is located approximately 34.4km to the south;
- Gevens Wind Cluster Wind Farm (operational), which comprises 3 turbines up to 99.5m blade tip height, and is located approximately 34.7km to the south east;
- Torrance Farm Extension Wind Farm (operational), which comprises 2 turbines up to 125m blade tip height, and is located approximately 35.2km to the south;
- Dewshill Wind Farm (consented), which comprises 2 turbines up to 200m blade tip height, and is located approximately 36.1km to the south;
- Middle Balbeggie Farm Wind Farm (operational), which comprises 2 turbines up to 126.5m blade tip height, and is located approximately 39.1km to the east;

5.45 Cumulative wind farm sites that are at Scoping stage (i.e. do not yet have a full planning or Section 36 application submitted) have been excluded due to insufficient certainty on whether these schemes will progress to full application and to their final scale or design.

5.46 Cumulative wind farm sites within the vicinity of the site are identified on **Figure 7.6**. **Figure 7.6** which includes all known operational sites within 40km, and also sites that are under construction, consented, or at application stage. The cut-off month for the cumulative assessment was agreed with Clackmannanshire Council, Perth and Kinross Council, and NatureScot and taken as 19 March 2025.

Mitigation

5.47 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 to reduce landscape and visual impact, reduce the number of watercourse crossings or avoid sensitive species and habitats) rather than relying solely on ‘enhancement’ measures to prevent or reduce environmental effects. Identifying mitigation measures is also a requirement of the EIA Regulations. The applicant has adopted an iterative approach, whereby mitigation is assessed and considered at all stages of the project, and the final design of the proposed development has evolved over the project life time, being systematically optimised during the EIA process in response to increasing knowledge of the site and potential environmental effects.

5.48 Some of the mitigation measures described within **Chapters 7** to **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 mitigation measures are described in the EIA chapters and have been taken into account in the assessment of effects. **Chapter 15** provides a summary of the mitigation measures proposed throughout the EIA Report.

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

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

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

Monitoring

5.52 Also incorporated, where appropriate, are monitoring measures to ensure that the proposed development and any mitigation measures perform as required.

5.53 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

5.54 In accordance with the EIA Regulations, the assessment has considered 'transboundary effects'. Regulation 29 of the EIA Regulations refers to development with significant transboundary effects as being developments proposed to be carried out in Scotland that are *"likely to have significant effects on the environment in an EEA State"*. 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.

Statement of Significance

5.55 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.

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

- the sensitivity of the receiving environment or receptor to change, including its capacity to accommodate the kinds of changes the proposed development may bring about;
- the amount and type of change, often referred to as the impact magnitude which includes the timing, scale, size and duration of the impact;
- the likelihood of the impact occurring – which may range from certainty to a remote possibility;

- comparing the impacts on the environment which would result from the proposed development with the changes that would occur without the proposed development - often referred to as the *"do nothing"* or *"do minimum"* comparison; and
- expressing the significance of the effects of the project, usually in relative terms, based on the principle that the more sensitive the resource, the more likely the changes and the greater the magnitude of the changes, compared with the do nothing comparison, the greater will be the significance of the effect.

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

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

Assumptions, Limitations and Technical Difficulties

5.59 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.

5.60 It is not considered that any matter has prevented the accurate assessment of potential environmental impacts or the identification of appropriate mitigation measures. The environmental impacts reported in this EIA Report, and the level of mitigation described, effectively sets the minimum standard which will be achieved by the final development. The applicant has a commitment to ensuring that, where details of the proposed development differ from those assessed in the EIA, the proposed development will not have any adverse environmental impacts which are significantly worse than those which have been assessed in the EIA and reported in this EIA Report.

References

The Electricity Act 1989.

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.

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IEMA (2004). Guidelines for Environmental Impact Assessment.

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