5 EIA METHODOLOGY

5.1 INTRODUCTION

- 1. Environmental Impact Assessment (EIA) is a process aimed to ensure that permissions for particular types of developments are granted only after assessment of the likely significant environmental effects has been undertaken. The assessment must be carried out following consultation with statutory consultees, other interested bodies and members of the public. This chapter of the Environmental Impact Assessment Report (EIA Report) describes the EIA process for the Heathland Wind Farm (the Development) and is supported by the following Technical Appendices:
 - Technical Appendix A5.1: Scoping Request;
 - Technical Appendix A5.2: Scoping Opinion (received 2nd March 2020); and
 - Technical Appendix A5.3: Gatecheck Report.

5.2 EIA PROCESS

- 2. With an overall generating capacity of over 50 megawatts (MW), consent for the Development is being sought from the Scottish Ministers under Section 36 of the Electricity Act 1989¹. The requirement for EIA in Scotland for wind farm generating stations with an electrical output capacity in excess of 50 MW is provided under Part 4 of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017² (hereafter referred to as the 'EIA Regulations').
- 3. The EIA Regulations implement European Union (EU) Directive 2014/52/EU which amended Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.
- 4. The EIA Regulations outline the process of an EIA and the criteria that would determine if an EIA is necessary or not, the relevant environmental studies and statements, how the information is evaluated by the Scottish Ministers, Planning Authority and consultative bodies, and how this is implemented through consent under Section 36 of the Electricity Act 1989.
- 5. Schedule 2 of the EIA Regulations lists certain types of developments for which an EIA is required where there are likely to be significant effects on the environment by virtue of factors such as the nature, size or location of the development proposal.
- 6. The results of the EIA are presented in this EIA Report which, as prescribed in the EIA Regulations, is required to include a "description of the likely significant effects" of the 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.

5.3 EIA METHODOLOGY

7. The EIA Report has been prepared following a systematic approach to EIA and project design. The process of distinguishing environmental effects is iterative and cyclical, running concurrently with the design process, whereby the design of the Development is refined in order to avoid or reduce potential adverse environmental effects using mitigation as necessary.

¹ UK Government, Electricity Act 1989 [Online] Available at:

https://www.legislation.gov.uk/ukpga/1989/29/contents (Accessed 11/09/2020)

² The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017. London: HMSO [Online] Available at: <u>http://www.legislation.gov.uk/ssi/2017/101/contents/made</u> (Accessed 11/09/2020)

- 8. The EIA process follows a number of stages broadly in line with the following:
 - Site selection and feasibility;
 - Screening to determine if an EIA is required (unless an Applicant volunteers an EIA, as is the case with the Development);
 - Pre-application consultation with statutory and non-statutory consultees;
 - Scoping to identify the parameters of the assessment issues on which the EIA should focus;
 - Baseline studies to establish the current environmental conditions at the Site;
 - Identification of potential environmental effects, including cumulative effects;
 - Mitigation to avoid or reduce the effects through iterative design process;
 - Assessment of residual effects;
 - Preparation of an EIA Report;
 - Submission of the EIA Report;
 - Consideration of application and environmental information by the Scottish Government, the host local authority (South Lanarkshire Council and West Lothian Council, referred to as 'the Councils') and other consultees;
 - Determination of application; and
 - Implementation and monitoring.
- 9. The EIA Regulations require that an EIA Report should include a range of information including: a description of the development, a description of reasonable alternatives, baseline information, a description of the likely significant effects of the development, and mitigation measures amongst other factors.
- 10. This EIA Report has been prepared in accordance with the EIA Regulations and includes the required information.

5.4 CONSULTATION

- 11. Consultation has formed an essential part of the EIA. The EIA team and the Applicant have contacted a number of interested parties over the course of the project to determine their views on the Development and assessment methodology, and to collect baseline information. This engagement has principally been undertaken within the following key stages:
 - Pre-scoping procuring initial feedback on the Development and agreeing extent of consultation;
 - Scoping outlining EIA methodology and documentation of key issues;
 - Technical Consultation gathering baseline information from relevant organisations and confirming survey methodologies outwith the formal Scoping process;
 - Gatecheck engagement with the ECU and key consultees to identify how comments received at Scoping have been incorporated; and
 - Public Consultation: Informing site design including Public Information days & Online Public Exhibitions communication with local communities and consideration of baseline information.
- 12. Further detail on each stage is included in the following subsections.

5.4.1 Pre-scoping

13. Following initial feasibility and preliminary environmental surveys, consultation was commenced with the Councils and the Energy Consents Unit (ECU) in November 2019. The primary purpose was to introduce the Development and to agree the approach to scoping including agreement on the consultees to be contacted as part of the scoping exercise.

Ecology surveys

- 14. Ecology surveys for the Extant Consent were undertaken between July and October 2013, with an update survey undertaken in August 2015.
- 15. A summary of the results of these surveys was provided in an Ecology Consultation Report (as provided in Appendix A8.5 of Chapter 8 Ecology) submitted to NatureScot on the 8th April 2019. The purpose of this was to agree the scope of ecology surveys at Heathland Wind Farm (the Site).
- 16. The Ecology Consultation Report (issued to NatureScot for agreement in April 2019) detailed the proposed scope of ecology surveys for 2019, designed to inform the Ecological Impact Assessment (EcIA). Targeted badger surveys were included following recommendation by NatureScot.

5.4.2 Scoping

- 17. The aim of the Scoping process is to identify key environmental issues at an early stage, to determine which elements of the Development are likely to cause significant environmental effects and identify issues that can be 'scoped out' of the assessment. This established the work and level of detail required for preparation of the EIA Report.
- 18. The request for a Scoping Opinion was submitted to the Scottish Government in December 2019. The request was accompanied by a Scoping Report which described the Development, the proposed EIA methodology, and the key issues to be addressed, which has been provided as Appendix A5.1. The document was also sent to a range of consultees as agreed in advance with the ECU.
- 19. The Scoping Opinion was issued by the ECU and received in March 2020, a copy of which is included as Appendix A5.2.
- 20. **Table 5.1** provides an overview of the issues raised by the consultees at the scoping stage. The detail of the individual responses received during the EIA, including at the scoping stage, is set out in the relevant technical chapters. Where appropriate, reference is provided as to where the comments have been addressed within this EIA Report.

Consultee	No Response	No Comments	Landscape and Visual	Ecology / Ornithology	Hydrology / Hydrogeology	Peat / Soils / Geology	Cultural Heritage	Noise	Aviation / Telecoms	Forestry	Socio-economics / Landuse / Touris	Access / Traffic	Climate Change / Carbon Balance	Cumulative Effects	Policy	Relevant Chapter
					S	tatu	tory	Con	sult	ees						
South Lanarkshire Council								X				X				Chapter 12 – Traffic and Transportation Chapter 13 – Noise
West Lothian Council			X													Chapter 6 - LVIA
Scottish Environment Protection Agency (SEPA)					X	X				X			X			Chapter 10 – Hydrology and Hydrogeology

Table 5.1: Scoping Responses

Consultee	No Response	No Comments	Landscape and Visual	Ecology / Ornithology	Hydrology / Hydrogeology	Peat / Soils / Geology	Cultural Heritage	Noise	Aviation / Telecoms	Forestry	Socio-economics / Landuse / Touris	Access / Traffic	Climate Change / Carbon Balance	Cumulative Effects	Policy	Relevant Chapter
					-				4		0	4				Chapter 11 – Geology, Soils and Peat
																Chapter 15 – Forestry Chapter 17 – Climate Change
NatureScot (formerly known as Scottish Natural Heritage			X	X		X										Chapter 6 – LVIA Chapter 8 – Ecology Chapter 9 – Ornithology Chapter 11 – Geology, Soils and Peat
Historic Environment Scotland							X							X		Chapter 7 — Archaeology and Cultural Heritage
					Nor	n-Sta	atuto	ory C	Consi	ultee	es					
Arqiva									X							Chapter 14 – Aviation, Radar and Telecommunication
Atkins Global									X							Chapter 14 – Aviation, Radar and Telecommunication
British Telecoms									X							Chapter 14 – Aviation, Radar and Telecommunication
British Horse Society	X															Chapter 16 - Socioeconomics
Civil Aviation Authority - Airspace	X															Chapter 14 – Aviation, Radar and Telecommunication
The Coal Authority					X	X										Chapter 10 – Hydrology and Hydrogeology Chapter 11 – Geology, Soils and Peat
Crown Estate Scotland	\mathbf{X}															n/a
Defence Infrastructure Organisation	X															Chapter 14 – Aviation, Radar and Telecommunication
Edinburgh Airport									\boxtimes							Chapter 14 – Aviation, Radar and Telecommunication

Consultee	No Response	No Comments	Landscape and Visual	Ecology / Ornithology	Hydrology / Hydrogeology	Peat / Soils / Geology	Cultural Heritage	Noise	Aviation / Telecoms	Forestry	Socio-economics / Landuse / Touris	Access / Traffic	Climate Change / Carbon Balance	Cumulative Effects	Policy	Relevant Chapter
Fisheries Management Scotland	X															Chapter 8 - Ecology
Fisheries – Local District Salmon Fisheries	X															Chapter 8 - Ecology
Forth District Salmon Fisheries Board	X															Chapter 8 - Ecology
Glasgow Airport		X														Chapter 14 – Aviation, Radar and Telecommunication
John Muir Trust	X															Chapter 16 - Socioeconomics
Joint Radio Company		X														Chapter 14 – Aviation, Radar and Telecommunication
Marine Science Scotland				X	X											Chapter 8 - Ecology
Ministry of Defence (MoD)		X														Chapter 14 – Aviation, Radar and Telecommunication
Mountaineering Scotland		X														Chapter 16 - Socioeconomics
NATS Safeguarding									X							Chapter 14 – Aviation, Radar and Telecommunication
RSPB Scotland				X												Chapter 8 – Ecology Chapter 9 – Ornithology
Scottish Forestry										X						Chapter 15 - Forestry
Scottish Rights of Way and Access Society (ScotWays)											X					Chapter 16 - Socioeconomics
Scottish Water					X											Chapter 10 — Hydrology and Hydrogeology
Scottish Wildlife Trust	X															Chapter 8 – Ecology Chapter 9 – Ornithology
Spectrum Licencing Ofcom	X															Chapter 14 – Aviation, Radar and Telecommunication
Transport Scotland												\boxtimes				Chapter 12 – Traffic and Transportation

Consultee	No Response	No Comments	Landscape and Visual	Ecology / Ornithology	Hydrology / Hydrogeology	Peat / Soils / Geology	Cultural Heritage	Noise	Aviation / Telecoms	Forestry	Socio-economics / Landuse / Touris	Access / Traffic	Climate Change / Carbon Balance	Cumulative Effects	Policy	Relevant Chapter
Visit Scotland	X															Chapter 16 - Socioeconomics
West of Scotland Archaeology Service							X									Chapter 7 — Archaeology and Cultural Heritage
					A	dditi	ional	l Cor	nsult	ees						
Fauldhouse Community Council	X															General
Forth Community Council	X															General
Tarbrax Community Council	X															General
West Calder Community Council	X															General

5.4.3 Further Technical Consultation

5.4.3.1 The Councils

Landscape and Visual Assessment

- 21. Following receipt of the Scoping responses, the Councils were consulted to agree the scope of the cumulative Landscape and Visual Impact Assessment (cLVIA). Both Councils responded confirming agreement with the approach outlined.
- 22. SLC were satisfied with the revised viewpoint list and made no further requests, and had no further comments of the proposed approach to the LVIA.
- 23. WLC also confirmed agreement with the revised viewpoint list which included the viewpoints requested by WLC within their scoping response at: the A70 at Maidenhill; the summit of West Cairn Hill within the Pentland Hills; and on the B8084 south of Armadale. WLC also requested an additional night-time viewpoint from Longridge, which has been included within the assessment.

Noise

- 24. The Councils' Environmental Health Officers (EHO) were consulted following scoping to confirm the scope and methodology of the noise assessment, in particular the approach to the cumulative assessment.
- 25. The EHOs were provided with a baseline noise report (provided as Appendix 13.1 of Chapter 13 Noise) which set out the understanding of the baseline noise environment, including receptors, background noise levels and other wind farm developments which Arcus proposed to include within the assessment. The report also outlined the proposed approach to assessment.
- **26.** WLC had '*no significant issues with the methodology'*. Following comments from SLC on the baseline report, further amendments were made to the approach and agreement was

confirmed with SLC on the proposed scope and methodology of the noise assessment. This is further detailed in Chapter 13 - Noise.

5.4.3.2 NatureScot

Landscape and Visual Assessment

- 27. NatureScot confirmed agreement with the outlined scope of the cLVIA through email consultation dated 25th June 2020.
- 28. Through this consultation with NatureScot regarding the scoping of the cumulative LVIA, NatureScot requested that West Cairn Hill viewpoint be used as an additional night-time assessment viewpoint. It was considered that this viewpoint did not merit a night time visualisation and this was communicated to NatureScot in email correspondence dated 30th June 2020, however West Cairn Hill has been included as a standard viewpoint within the assessment.
- 29. Full details on NatureScot consultation with regard to LVIA is provided in Chapter 6 Landscape and Visual Impact Assessment.

Surveys at Woodmuir Plantation

- 30. NatureScot were consulted in May 2020 regarding the extension of the Site boundary to the north to include Woodmuir Plantation. The consultation was to confirm the requirement and extent of the additional surveys required. Arcus proposed to undertake the following additional surveys in the extended section:
 - Badger, pine marten, red squirrel, otter and water vole;
 - Great crested nest HIS survey;
 - Habitat survey (Phase 1 and NVC).
- 31. Arcus did not propose to undertake further bat surveys given the low level of bat use.
- 32. Woodmuir Plantation was covered appropriately by VP surveys in 2018/2019, therefore Arcus proposed that additional ornithology surveys would not be required.
- 33. NatureScot confirmed additional species and habitat surveys would be required, which were subsequently undertaken by Arcus in May 2020. NatureScot agreed that no further bat surveys required. NatureScot confirmed that if the existing survey work covers Woodmuir Plantation appropriately and complies with NatureScot guidance then it is satisfactory, and may feed into the ornithology results.

5.4.4 Gatecheck

- 34. In line with the ECU Gate-checking procedure³ for Section 36 developments, a Gatecheck report was issued to the ECU and statutory consultees in September 2020 with a proposed design for submission. The Gatecheck report describes how the design of the Development has evolved since the pre-scoping stage, either as a response to environmental constraints identified during the EIA process or through consultation feedback from statutory and non-statutory consultees.
- 35. The Gatecheck report provided an overview of how the points raised by consultees at Scoping had been or were being addressed through the progression of the EIA e.g. through layout design iteration, targeted surveys, mitigation etc. The Stage 1 Gatecheck Report is included as Appendix A5.3.

³ Scottish Government (2020), Gate-checking process for Section 36 and Section 37 applications [Online] Available at: <u>https://www.gov.scot/Topics/Business-Industry/Energy/Infrastructure/Energy-</u> <u>Consents/Guidance/Gatecheckingprocessforsection36andsection37applica</u> (Accessed on 11/09/2020)

5.4.4.1 Landscape and Visual Assessment

- 36. In September 2020, WLC provided their response to the Stage 1 Gatecheck Report. The response highlighted potential changes to the Longhill Burn scheme which would affect the cumulative scenario used within the LVIA. Through further discussions, WLC confirmed that although a new planning application for Longhill Burn was intended to be submitted for a layout with 200 m to tip (now has been submitted to WLC, 0915/FUL/20), the consented eight turbine Longhill Burn scheme (0359/FUL/19) would be most suitable to use within the cumulative visualisations for the LVIA.
- 37. The LVIA has therefore proceeded as such, whilst reference will still be made to the 0488/PAC/20 application within the chapter (Chapter 6 Landscape and Visual Impact Assessment).

5.4.5 Public Consultation

38. Public consultation is a key component to the EIA process and the Applicant consulted the members of the local community through public consultation events in February 2020 (in person) and early December 2020 (virtual). Additionally, there has been meetings held with the local Community Councils. Table 5.2 summarises the steps undertaken to ensure the local community were informed and involved with the process.

Date	Exercise							
November 2019	troductory e mails to all local community councils to introduce OF Renewables and provide an update on the project.							
January 2020	Presentation events and discussion of the project with Tarbrax Community Council (13 th January) and Forth Development Trust (16 th January)							
February 2020	Presentation and discussion of the project with Fauldhouse Community Council (5 th February)							
February 2020	Leaflet mailshot to all addresses within 5 km of proposed site perimeter with details of the project and first stage public exhibitions (around 5,000 properties in total)							
February 2020	 First stage public exhibitions held: Willie Waddell Sport and Community Centre, 24th February (4.00pm – 8.00pm) Tarbrax Village Hall, 25th February (3.00pm-7.00pm) 							
February/March 2020	Follow up to queries and questions raised at public exhibitions							
November – December 2020	Leaflet mailshot to all addresses within 5 km of the proposed site perimeter with details of the project website and public exhibition (around 5,000 properties in total). Second stage public exhibitions were held virtually for two weeks between 30 th November and 13 th December on wwwedf-re.uk/our-sites/heathland							

Table 5.2: Overview of Community Engagement throughout the EIA Process

39. The aim of the public information days was to provide information regarding the Development and invite comments to ensure that local community considerations were taken into account. These events provided members of the public the opportunity to interact with representatives of the Applicant's and the EIA team, learn more about the

Development and preliminary findings of the EIA, and provide comment on the Development.

- 40. The exhibitions included a series of information boards which outlined details of the Development (as design evolved), including the proposed number of turbines, proposed access to the Site and anticipated ancillary infrastructure, previous planning history and context of the Development, design iterations, details of the EIA process, a programme for submission and details on how to keep informed with the process.
- 41. Additionally, a 3D visual model of the Development was provided for the first stage exhibitions which provided a full range of visualisations from the surrounding area and interactive flythrough visualisations.
- 42. The first round of exhibitions had 70 attendees. The second round of exhibitions, which were held virtually. The website for the virtual exhibition has approximately 88 visits over the two-week duration.
- 43. Further information with respect to the pre-application consultation is recorded in the Pre-Application Consultation Report (PAC Report) which accompanies the Section 36 application.

5.5 TECHNICAL ASSESSMENTS

- 44. Each of the technical assessments contained in Chapters 6 to 18 of this EIA Report follows a systematic approach with the main steps as follows:
 - Introduction, assessment methodology and significance criteria;
 - Establishment and description of the baseline conditions;
 - Assessment of potential effects;
 - Cumulative effects assessment;
 - Summary of effects (residual effects); and
 - Statement of significance.
- 45. A summary of each step is highlighted below.

5.5.1 Introduction, Assessment Methodology and Significance Criteria

- 46. Each technical assessment sets out the relevant legislation, policy and guidance together with scope and methodology used to carry out the assessment of potential effects, including the criteria that are used to establish which effects are significant. The methodology seeks to ensure transparency in the assessment. Each technical assessment has the criteria set out for assessing significance. Where a level of significance is attributed to an effect, this is based on technical guidance and professional judgement, informed by consideration of the sensitivity of the receptor and the degree of the effect.
- 47. This section also sets out the scoping requirements and pre-application consultation responses that form the framework and scope of the specialist assessment work for the topic.

5.5.2 Description of Baseline Conditions

48. In order to evaluate the potential environmental effects, the existing environmental conditions were recorded through field and desktop research. Prior to the fieldwork studies, desktop studies were undertaken to gain a preliminary understanding of the study area. Where appropriate and required, site-specific baseline field surveys were undertaken by experienced professionals to provide an understanding of the current condition of the Site and the surrounding area.

- 49. This forms the baseline, alongside a prediction of these conditions into the future. Such predictions can involve a high number of variables and be subject to large uncertainties, and as a result, in some cases, the current baseline condition is assumed to remain unchanged throughout the timeframe of the Development.
- 50. The baseline has been used to assess the sensitivity of receptors within the study areas. Wind farms that are operational or consented at the time of commencing the assessments are treated as being part of the existing baseline except where specific guidance advises to the contrary.
- 51. The approach to describing baseline conditions is set out in each relevant technical chapter. Baseline information is used to inform the layout of the Development. From baseline information, constraints were identified which were considered as part of the design process. Further detail on the design process adopted for the Development is detailed in Chapter 2 Site Selection and Design and Chapter 3 The Development.

5.5.3 Assessment of Potential Effects

- 52. The prediction of potential significant effects covers the three phases of the Development; construction, operation and decommissioning, as different environmental effects are likely to arise during the different stages. The effects during construction and decommissioning are generally considered to be short term effects, and those arising as a result of the operation of the Development are generally considered to be long term effects. Each technical assessment considers the nature of effects and includes cumulative effects with other developments where appropriate.
- 53. Following identification of potential environmental effects, the baseline information is used to predict changes to existing conditions, and conduct an assessment of these changes.
- 54. The significance of effects resulting from the Development is determined through a combination of the sensitivity of the receiving environment (the sensitivity) and the predicted degree of change (the magnitude) from the baseline state.

5.5.4 Sensitivity of Receptors

- 55. Environmental sensitivity may be categorised by multiple factors, such as the presence of rare or endangered species, transformation of natural landscapes, soil quality and land-use etc. The initial assessment, consultation and scoping stages identified these factors along with the implications of the predicted changes.
- 56. The sensitivity classification of the receiving environment varies between the different technical areas of assessment e.g. landscape and visual, ecology, noise etc. Table 5.3 details a general framework for determining the sensitivity of receptors, however each technical assessment will specify their own appropriate sensitivity criteria that will be applied during the EIA and details will be provided in each technical chapter.

Sensitivity of Receptor	Definition
Very High	The receptor has little or no ability to absorb change without fundamentally altering its present character, is of very high environmental value, or of international importance.
High	The receptor has low ability to absorb change without fundamentally altering its present character, is of high environmental value, or of national importance.
Medium	The receptor has moderate capacity to absorb change without significantly altering its present character, has some environmental value, or is of regional importance.

 Table 5.3: Framework for Determining Sensitivity of Receptors

Sensitivity of Receptor	Definition						
Low	The receptor is tolerant of change without detriment to its character, is low environmental value, or local importance.						
Negligible	The receptor is resistant to change and is of little environmental value.						

5.5.5 Magnitude of Effect

57. For the purposes of environmental assessment, the magnitude of an 'effect' is generally dependent on the degree to which the change affects the feature or asset, from a fundamental, permanent or irreversible change that changes the character of the feature or asset, to barely perceptible changes that may be reversible. Magnitude would also encompass the certainty of whether an impact would occur. General criteria for assessing the magnitude of an effect are presented in Table 5.4. Each technical assessment will apply their own appropriate magnitude of effects criteria during the EIA, with the details provided in the relevant EIA chapter.

Magnitude of Effects	Definition
High	A fundamental change to the baseline condition of the asset, leading to total loss or major alteration of character.
Medium	A material, partial loss or alteration of character.
Low	A slight, detectable, alteration of the baseline condition of the asset.
Negligible	A barely distinguishable change from baseline conditions.

Table 5.4: Framework for Determining Magnitude of Effects

58. If the effects of zero magnitude (i.e. none / no change) are identified, this will be made clear in the assessment.

5.5.6 Significance of Effect

59. The sensitivity of the asset and magnitude of the predicted impacts will be used as a guide, in addition to professional judgement, to assess the level of effects. Table 5.5 summarises guideline criteria for assessing the significance of effects.

Magnitude of Effect	Sensitivity of Receptor										
	Very High	High	Medium	Low	Negligible						
High	Major	Major	Moderate	Moderate	Minor						
Medium	Major	Major / Moderate	Moderate	Minor	Negligible						
Low	Moderate	Moderate	Minor	Negligible	Negligible						
Negligible	Minor	Minor	Negligible	Negligible	Negligible						

Table 5.5: Framework for Assessment of Effects

60. Major or moderate effects are considered to be 'significant' in the context of the EIA Regulations, and are shaded in light grey in the above table.

- 61. Zero magnitude effects upon a receptor will result in no effect, regardless of sensitivity.
- 62. This EIA Report generally follows the above principles in relation to the identification of significant effects; however, some technical assessments may adopt a variation process. The assessment criteria used to determine effects and whether they are significant are made explicit in each technical assessment chapter within this EIA Report.

5.5.7 Cumulative Effects Assessment

- 63. In accordance with the EIA Regulations, the assessment has considered 'cumulative effects'. By definition, these are effects that result from incremental changes caused by past, present or reasonably foreseeable developments together with the Development being assessed. For the cumulative assessment, the combined effects of several developments in isolation may be insignificant but cumulatively when considered with other developments have a significant effect.
- 64. Cumulative assessment addresses the combined effects from the addition of the Development to a baseline of identified wind farms on landscape and visual, hydrology, ecology, ornithology, noise, cultural heritage, traffic and transport, recreation, tourism and other impacts.
- 65. Other developments which may come forward in the future, but which do not currently have sufficient information available in relation to their likely effects to make an informed cumulative assessment (*e.g.* those within scoping), are not considered in detail in this EIA Report.
- 66. The extent of any cumulative assessment is defined in each technical assessment chapter and can include both existing and proposed wind farm developments and other forms of development. The potential landscape and visual effects, for example, which relate to the intervisibility of individual wind farm development schemes, will be much more wide ranging than noise effects which will be limited to receptors in the more immediate vicinity of the Development.
- 67. Consideration of cumulative effects has been undertaken for all technical assessments. Where no cumulative effects are likely, this is stated. Operational wind farms are considered to be part of the baseline in the majority of assessments. In relation to some of the technical chapters, specific guidance and policy exists advising that effects associated with existing wind farm developments should be considered as cumulative effects. Where relevant, these are noted within each chapter.

5.5.8 Mitigation Measures

- 68. The Institute for Environmental Management and Assessment (IEMA) EIA Guide to Delivering Quality Development Report⁴ demonstrates that EIA is an iterative process rather than a unique, post-design, environmental appraisal. In adopting this approach, the findings of the technical environmental studies used to inform the design of the project, and hence achieve a 'best fit' with the environment. This approach has been adopted in respect of the Development; where potentially significant effects have been identified, their avoidance or minimisation has been prioritised at the design stage. This is referred to within this EIA Report as 'embedded design', i.e. mitigation that is embedded within the project design, and includes best practice as well as design features.
- 69. In line with the mitigation hierarchy identified in Planning Advice Note (PAN) 1/2017, the strategy of avoidance, reduction and remediation is a hierarchical one, which seeks to:
 - First to avoid potential effects;

⁴ IEMA (2016) Environmental Impact Assessment Guide to: Delivering Quality Development [Online] Available at: <u>https://www.iema.net/assets/newbuild/documents/Delivering%20Quality%20Development.pdf</u> (Accessed 21/08/2020)

- Then to reduce those which remain; and
- Lastly, where no other measures are possible, to propose compensatory measures.
- 70. Appropriate mitigation measures are discussed within each technical chapter as relevant.

5.5.9 Residual Effects

- 71. The residual effects of the Development are those that remain, assuming successful implementation of the identified mitigation and enhancement measures.
- 72. Residual effects are identified in each technical assessment alongside an assessment of whether any residual effects are significant or not in terms of the EIA Regulations.

5.5.10 Statement of Significance

73. Following the identification of residual effects, each Chapter will present a Statement of Significance. Effects are considered to be significant for the purposes of the EIA Regulations where the effect is classified as being of 'major' or 'moderate' significance.

5.6 THE EIA REPORT

- 74. The information that an applicant is required to submit as part of the EIA process is presented in this EIA Report. The preparation and production of this EIA Report has been conducted in accordance with relevant regulations and good practice guidance. Relevant legislation, policy and guidance are referred to in each of the technical assessments within the EIA Report. Overarching regulation, policy and guidance documents have been used in preparing this EIA Report are:
 - The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017⁵;
 - The Electricity Works (Environmental Impact Assessment) (Scotland) Amendment Regulations 2017⁶;
 - Scottish Planning Policy (SPP) (June 2014)⁷;
 - Planning Advice Note (PAN) 1/2013: Environmental Impact Assessment, 2013⁸ which, whilst prepared to inform EIAs under the Town and Country Planning (Scotland) Act 1997 as amended, is also relevant to EIAs produced under the EIA Regulations;
 - Planning Circular 1/2017: Environmental Impact Assessment Regulations, 2017⁹
 - Environmental Impact Assessment Handbook (Scottish Natural Heritage, 2018)¹⁰; and
 - Environmental Impact Assessment Guide to Delivering Quality Development (Institute of Environmental Management and Assessment [IEMA], 2016)¹¹.

⁷ The Scottish Government (2014) Scottish Planning Policy [Online] Available at:

⁵ Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 [Online] Available at: <u>http://www.legislation.gov.uk/ssi/2017/101/contents/made (</u>Accessed 11/09/2020)

⁶ Electricity Works (Environmental Impact Assessment) (Scotland) Amendment Regulations 2017 [Online] Available at: <u>http://www.legislation.gov.uk/ssi/2017/451/made</u> (Accessed 11/09/2020)

https://beta.gov.scot/publications/scottish-planning-policy/ (Accessed 11/09/2020) ⁸ The Scottish Government (2013, Rev. 2017) Planning Advice Note 1/2013 Environmental Impact Assessment [Online] Available at: http://www.gov.scot/Publications/2013/08/6471 (Accessed 11/08/2020)

⁹ The 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/ (Accessed on 11/08/2020)

¹⁰ Scottish Natural Heritage (2018) Environmental Impact Assessment Handbook [Online] Available at: <u>https://www.nature.scot/handbook-environmental-impact-assessment-guidance-competent-authorities-consultees-and-others</u> (Accessed 11/08/2020)

¹¹ IEMA (2016) Environmental Impact Assessment Guide to: Delivering Quality Development

- 75. This EIA Report conveys the findings of the assessment of the potential significant environmental effects of the Development during construction, operation and decommissioning.
- 76. The EIA Report includes chapters covering the following areas, supported by associated figures and Technical Appendices:
 - **Chapter 1 Introduction**: Provides background information about the Applicant and an overview of the Development and Site;
 - Chapter 2 Site Selection & Design: Provides details of the site selection exercise and alternative layouts that were considered within the design evolution process;
 - Chapter 3 The Development: Provides a detailed description of the Development including details of the construction, operational and decommissioning arrangements;
 - **Chapter 4 Energy and Planning Policy:** Identifies the energy and land use policy and outlines the need for the Development and its benefits within the context of international climate change agreements and European, UK and Scottish renewable energy policy;
 - **Chapter 5 EIA Methodology:** Provides an overview of the EIA process, its regulatory context and an outline of the methodology used to assess environmental effects and ensure a consistent and transparent approach to assessment. It describes the scoping and consultation process that assisted in the identification of likely significant environmental effects to be given further consideration;
 - **Chapters 6 to 18 Technical EIA Chapters:** Each technical chapter as shown in Table 1.1 will provide a description of the baseline environmental conditions specific to the relevant topic and will assess the potential environmental impacts (positive or negative) due to the Development in line with the EIA methodology. This will include a description of any proposed mitigation or enhancement measures and a statement of predicted residual impacts. The Forestry technical chapter will follow a different structure in that it will describe the baseline forestry conditions and will provide a forest design plan as a result of the Development, but will not describe the environmental impacts as a result of this forest design plan which will be assessed within each specific technical chapter; and
 - **Chapter 19 Summary of Mitigation**: Provides a summary of the findings of the EIA, including a tabular summary of all residual effects and proposed mitigation.
- 77. Each of the technical chapters follows the broad assessment principles outlined in Section 5.5.

5.7 ASSUMPTIONS AND LIMITATIONS OF EIA

- 78. A number of assumptions have been made during preparation of this EIA Report, as set out below. The assumptions are:
 - The principal land uses adjacent to the Site remain as they are at the time of the submission of the application, except in cases where permission has already been granted for development. In these cases, it is assumed that the approved development will take place, and these have been treated as contributing to "cumulative" effects; and
 - Information provided by third parties, including publicly available information and databases is correct at the time of submission.

The EIA has been subject to the following limitations:

• Baseline conditions are accurate at the time of the physical surveys but, due to the dynamic nature of the environment, conditions may change during the site preparation, construction and operational phases; and

- The assessment of cumulative effects has been reliant on the availability of known information relating to existing wind farm developments as at September 2020.
- 79. Assumptions specific to certain environmental aspects are discussed in the relevant Chapters of this EIA Report.