

# 4 Approach to EIA

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## 4 Approach to EIA

### 4.1 Introduction

- 4.1.1 This chapter of the Environmental Statement (ES) sets out the broad approach taken to produce the Environmental Impact Assessment (EIA) for the Revised Development.
- 4.1.2 The EIA process aims to assist South Lanarkshire Council (SLC) in their determination of the planning application by identifying where any significant environmental effects are predicted. This assessment has been carried out in consultation with statutory consultees, interested parties and the general public.
- 4.1.3 The structure of the ES follows the requirements of the *Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 (as amended)* and relevant good practice guidance. The ES comprises three main components – a Non-Technical Summary (NTS), the main ES text and figures (including a summary table of the predicted Environmental Effects and a Schedule of Environmental Commitments), and the ES Appendices.
- 4.1.4 This chapter is structured as follows:
- overview of the relevant legislation, policy and guidance;
  - an outline of the EIA process utilised;
  - the scope of the assessment completed;
  - details of the assessment of potential effects;
  - mitigation measures;
  - enhancement; and
  - the assumptions made, limitations encountered and uncertainty.
- 4.1.5 This chapter is linked to the following appendices:
- Appendix 4.1: SLC Scoping Opinion (2012);
  - Appendix 4.2: EIA Scoping Consultation Responses;
  - Appendix 4.3: 2015 Application Responses; and
  - Appendix 4.4: Additional Consultation Responses (2015/2017).

### 4.2 Legislation, Policy and Guidelines

- 4.2.1 During the EIA, a number of legislative and best practice documents have informed the process. The *European Council Directive 85/337/EEC* requires that certain projects, both public and private, must be assessed with regard to their impacts on the environment. Subsequently, this directive was amended by the *European Council Directive 97/11/EC*, and then more recently by the *European Union Directive 2014/52/EU* which is currently implemented throughout Scotland by *Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017*.
- 4.2.2 As part of the transitional arrangements outlined within the 2017 Regulations, where the Applicant has requested a scoping opinion in respect of a proposed development under Regulation 14(1) of the *Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 (as amended)* before 16 May 2017, the 2011 Regulations continue to apply to an application for planning

permission subsequently submitted for that same proposed development for which the scoping opinion was sought.

- 4.2.3 A Scoping Opinion was sought from South Lanarkshire Council in March 2012 for a wind energy development up to 15 wind turbines (maximum 150 m tip height). The Revised Development is in line with what was scoped in 2012, and as such, the EIA process and structure of the ES will follow the criteria listed within the *Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 (as amended)*, hereafter referred to as the “the EIA Regulations”. This approach was agreed and confirmed with the SLC Planning Officer, by email, dated 03 July 2017.
- 4.2.4 The Revised Development constitutes amendments to the Consented Development, which is an EIA Development. The Applicant has recognised that the determining authority for this Section 42 planning application, SLC, would require an updated EIA to be undertaken in respect of the Revised Development. The information provided within this ES has therefore been prepared in accordance with the Directive and the EIA Regulations to support the Section 42 planning application.
- 4.2.5 The regulations and best practice of core relevance to the EIA process and which have been followed in undertaking this assessment are as follows:
- Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011;
  - Scottish Planning Policy (Scottish Government 2014);
  - Planning Circular 3 2011: Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 (Scottish Government, 2011);
  - National Planning Framework 3 (Scottish Government, 2014);
  - Onshore Wind Turbines (Scottish Government, 2014);
  - Guidelines for Environmental Impact Assessment (Institute of Environmental Management and Assessment (IEMA), 2006);
  - A Handbook on Environmental Impact Assessment (SNH, 2009); and
  - Assessing the Cumulative Impact of Onshore Wind Energy Developments (SNH, 2012).
- 4.2.6 Table 4.1 describes how the information required under *Schedule 4 ‘Content of an Environmental Statement’* of the EIA Regulations is provided in this ES.

**Table 4.1 – Information Required in the ES**

Required Information (EIA Regulations)	Relevant Reference within this ES
<b>PART I</b>	
1. A description of the development, including in particular- (a) a description of the physical characteristics of the development and the land-use requirements during the construction and operational phases; (b) a description of the main characteristics of the production processes, for instance, nature and quality of the materials used; (c) 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 development.	The Revised Development is described in Chapter 3 of the ES, including consideration of anticipated construction methods.  The land use requirements during construction and operational phases are also described in Chapters 3.  Expected residues and emissions are addressed, where relevant, in the appropriate technical chapters of this ES.

Required Information (EIA Regulations)	Relevant Reference within this ES
<p>2. A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors.</p>	<p>The predicted individual environmental effects of the Revised Development are reported in Chapters 6 to 15 inclusive. Effects on population are assessed in relation to visual impacts (including residential visual amenity), socio-economic, recreation, tourism, traffic, noise and shadow flicker. Material assets are addressed through the assessment of cultural heritage effects and other chapters as appropriate.</p>
<p>3. A description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development, resulting from:</p> <p>(a) the existence of the development;</p> <p>(b) the use of natural resources;</p> <p>(c) the emission of pollutants, the creation of nuisances and the elimination of waste;</p> <p>and the description by the applicant of the forecasting methods used to assess the effects on the environment.</p>	<p>The predicted significant effects of the Revised Development are reported after relevant mitigation measures have been applied to an identified impact, in each of the technical chapters of the ES. Effects have been predicted in relation to the construction, operational and decommissioning phases of the Revised Development, including the nature of these effects and their duration.</p> <p>The overall approach and methods used in the assessment of environmental impacts are discussed in Section 4.7 of this chapter. Prediction methods are discussed in detail within each relevant technical chapter (6 to 15) of the ES. Cumulative effects with other consented and proposed developments are assessed and reported within each of the technical chapters (Chapters 6 to 15) as appropriate.</p>
<p>4. A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.</p>	<p>The overall approach to mitigation is discussed in Section 4.8 of this chapter. Specific mitigation measures are reported in each of the relevant technical sections of the ES and in the schedule of committed mitigation measures presented in Chapter 17.</p>
<p>5. A non-technical summary of the information provided under paragraphs 1 to 4 above.</p>	<p>A Non-Technical Summary (NTS) is presented as a stand-alone document.</p>
<p>6. An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.</p>	<p>Any areas of uncertainty or limitations to the assessment, where they have been identified, are reported in the relevant technical chapters of the ES.</p>
<b>Part II</b>	
<p>1. A description of the development comprising information on the site, design and size of the development.</p>	<p>The Revised Development is described in Chapter 3 of the ES, including the existing site baseline and the Revised Development layout and anticipated infrastructure dimensions.</p>
<p>2. A description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects.</p>	<p>Each technical chapter contains a section on the proposed mitigation measures to avoid, reduce and remedy adverse effects.</p>

Required Information (EIA Regulations)	Relevant Reference within this ES
	The mitigation measures are summarised in Chapter 17: Schedule of Environmental Commitments.
3. The data required to identify and assess the main effects which the development is likely to have on the environment.	The description of the Revised Development in Chapter 3 of the ES contains all the detail required to assess the effects of the Revised Development on the environment. Data on the various technical assessment topics have been obtained through survey, consultation and desk study, as described within each of the technical chapters (6 to 15).
4. The main alternatives studied by the applicant and the main reasons for his choice, taking into account the environmental effects.	The design iteration process is described in Chapter 2 and details how the Revised Development site was chosen and the environmental constraints taken into consideration, resulting in a number of design iterations.
5. A non-technical summary of the information provided under paragraphs 1 to 4 of this Part.	A Non-Technical Summary (NTS) is presented as a stand-alone document.

## 4.3 Legal Framework for the ES

### **Overall EIA Process**

- 4.3.1 In order for the EIA process to be as effective as possible it should be used as an iterative process throughout the design stage, rather than a single assessment performed once the design is finalised. When used as an iterative process, the findings of the EIA can be incorporated within the design of the proposal to provide an optimum design with regard to the Applicant's requirements and the environment.
- 4.3.2 The findings of the EIA are presented in this ES, which has been prepared in accordance with the EIA Regulations.
- 4.3.3 The broad approach which has been followed in undertaking the EIA is presented in this chapter and an overview of the methodology adopted for each technical study is provided within the respective ES technical chapters (Chapters 6 to 15). The ES contains the information specified in *Part I* (where relevant) and *Part II of Schedule 4* of the EIA Regulations (as demonstrated in Table 4.1).

### **Screening**

- 4.3.4 Screening is the process by which it is determined whether or not an EIA should be conducted for a proposed development. This can be done independently or through consultation with the Local Planning Authority (LPA).
- 4.3.5 As the Revised Development constitutes amendments to an EIA development (the Consented Development), it is accepted that the changes that comprise the Revised Development should also be subject to EIA. This conclusion was agreed with SLC.

### **Scoping**

- 4.3.6 The EIA scoping process is undertaken to identify the potentially significant environmental issues which should be considered when assessing the potential effects of a proposed development. An EIA Scoping Opinion may be obtained from the LPA as to which issues should be considered within the

EIA. In reaching its EIA Scoping Opinion, the LPA consults statutory and non-statutory stakeholders for their consideration.

- 4.3.7 An EIA Scoping Opinion was originally requested from SLC in March 2012. The previous developer of the Douglas West project, Community Windpower Limited (CWP) prepared an EIA Scoping Report for a 15 turbine wind farm of up to 150m in tip height on the site, to help inform SLC and consultees in forming their EIA Scoping Opinion. This EIA Scoping Report contained details of the site baseline and proposed which environmental impacts would be assessed in the EIA, and the assessment methodologies that would be used.
- 4.3.8 SLC consulted with a variety of statutory and non-statutory consultees before providing an EIA Scoping Opinion in June 2012 (refer to Appendix 4.1). The EIA scoping responses from statutory and non-statutory stakeholders are provided within Appendix 4.2.
- 4.3.9 A planning application was submitted in July 2015 for a renewable energy development, comprising 15 wind turbines, up to 126.5 m blade tip height, and a Wood Fuel Drying Facility. Consent for the application was granted in February 2016 (Appendix 1.1) and two subsequent Non-Material Variation Submissions to increase the tip height to 131 m and the rotor size to 113 m (CL/15/0273/1), and relocate the substation and construction compound (CL/15/0273/2) have also been consented (Appendix 1.2).
- 4.3.10 Given the change in the layout of the Revised Development to the Consented Development (2015), the Applicant has re-consulted with SLC to confirm that the initial Scoping Opinion of 2012 still stands for the amended proposals. It was concluded that there was no need to re-issue a further scoping request for the amended proposals but that the Applicant may wish to engage directly with any individual consultees whose interests could be affected by the amendments to the proposal as originally scoped and consented. Consequently, a number of consultees have been contacted directly by the Applicant and the EIA technical team in recent months to confirm the scope of the revised assessments.

### **Public Consultation**

- 4.3.11 The European Commission issued the *Public Participation Directive (PPD) (Directive 2003/35/EC)* in 2003 to provide opportunities for the public to be involved in the consenting process for certain activities, through access to information, justice, and consultation on key documents.
- 4.3.12 The EIA Directive was amended to incorporate the requirements of the PPD. The *Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 (as amended)* reflect these changes.
- 4.3.13 Additional relevant policy and legislation which sets out the importance of public consultation and engagement include the following:
- Scottish Planning Policy 2014;
  - The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013; and
  - Planning Advice Note 3/2010: Community Engagement.
- 4.3.14 The Applicant considers public consultation to be an important element of the EIA and planning process. Consultation with the general public has been conducted in accordance with the above legislative and policy requirements, to ensure any concerns were taken into account during the design phase for the Revised Development. This allows information to be gathered which may otherwise have remained unknown.

4.3.15 Further details of the public consultation that was undertaken by the Applicant are provided in Section 4.12 below.

### ***Identification of Issues***

4.3.16 As a result of the scoping and ongoing consultation processes the following issues were assessed during the EIA and reported in the ES:

- landscape and visual impacts;
- ecology and nature conservation;
- ornithology;
- noise and vibration;
- historic environment;
- hydrology, hydrogeology and geology;
- traffic and transport.
- socio-economics and tourism;
- radar, aviation and telecommunications.
- shadow flicker; and
- local residential visual amenity.

## **4.4 The EIA Process**

4.4.1 EIA is the systematic process of compiling, assessing and presenting the significant environmental effects of a proposed development. The assessment is designed to inform the decision-making process to produce an environmentally acceptable project. Identification of potentially significant adverse environmental effects then leads to the design and incorporation of appropriate mitigation measures into both the design of the development and the way in which it is constructed.

4.4.2 Throughout the assessment, a distinction has been made between the term 'impact' and 'effect'. The EIA Regulations refer to the requirement to report the significance of 'effects'. An impact has been defined as the physical change of the characteristics of the receiving environment as a result of the Revised Development (e.g. noise from turbines), whereas an effect refers to the significance of this impact (e.g. a significant residual noise effect on residential properties). These terms have been adopted throughout this ES to present a consistent approach to the assessment and evaluation of effects and their significance.

4.4.3 The main steps in the assessment process for the Revised Development have been:

- Baseline surveys (where appropriate and where possible) to provide information on the existing environmental character of the site and the surrounding area.
- Consideration of the possible interactions between the Revised Development and the existing and predicted future site conditions. These interactions or effects are assessed using criteria based on accepted guidance and best practice.
- Using the outline design parameters for the Revised Development, prediction of the environmental effects, including direct, indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, beneficial and adverse effects.



- Identification of mitigation measures designed to avoid, reduce or off-set adverse effects and enhance beneficial effects. Re-assessment of alterations to the design and determination of the effectiveness of mitigation proposals.
- Assessment of the significance of any residual effects after mitigation, in relation to the sensitivity of the feature impacted upon and the magnitude of the effect predicted, in line with the methodology identified in Section 4.7 below.
- Identification of any uncertainties inherent in the methods used, the predictions made and the conclusions drawn during the course of the assessment process.
- Reporting of the results of the EIA in this ES.

4.4.4 The EIA process is iterative, with the findings of the EIA fed into the design process over the course of the assessment work.

## 4.5 Scope of the EIA

### ***Technical Scope***

- 4.5.1 The technical scope of the assessment will cover all the effects aforementioned in paragraph 4.3.17, with the following exceptions relating to technical topics which were scoped out of the EIA.
- 4.5.2 No significant health and safety effects have been identified with respect to construction and operation of the Revised Development that would not be appropriately mitigated through good practice in construction and adherence to relevant legislation and guidance, as noted in Section 3.4 of this ES. Infrastructure including roads and properties have been appropriately buffered and are sufficiently separated from the proposed turbine locations to limit any potential health and safety concerns. Therefore, further assessment of health and safety effects has been scoped out of the EIA.
- 4.5.3 There are known utilities within the Planning Application boundary, however as part of their contractual requirements the contractor responsible for undertaking the construction works (the “Contractor”) will be required to undertake a survey and assessment of all utilities and provide adequate mitigation which may include diversions of, or alterations to, certain services if required. Any such mitigation would be agreed with the relevant statutory undertaker prior to the commencement of development. Therefore, impacts to utilities have not been assessed further within this ES.
- 4.5.4 Due to the distance from residential receptors and the use of industry standard measures to control potential effects on air quality during construction (e.g. dust mobilisation and construction vehicle emissions) through implementation of a Construction Environmental Management Plan (CEMP), these effects are not considered likely to be significant. Assessment of effects on air quality during construction has, therefore, also been scoped out of the EIA. A Dust Mitigation Strategy will be included within the CEMP to be approved by SLC prior to commencement, as agreed with the SLC EHO (refer to Appendix 4.4).
- 4.5.5 All other technical topic areas identified in paragraph 4.3.17 have been assessed as part of the EIA process and are reported in the relevant sections of this ES.
- 4.5.6 Each issue has been considered to the appropriate level of detail in the ES, using the information collated during the initial scoping exercise and from the formal EIA Scoping Opinion received SLC (refer to Appendix 4.1), additional EIA Scoping Responses (refer to Appendix 4.4), and information contained within consultation responses to the Consented Development (refer to Appendix 4.3). For each impact, the baseline condition has been described, with the receptor sensitivity identified. The potential effects, including those which are cumulative, have been predicted and assessed for their

significance. Where possible and applicable, mitigation measures have been identified and any potential residual environmental effects assessed.

### ***Spatial Scope***

- 4.5.7 The spatial scope of the EIA, i.e. the geographical coverage of the assessment undertaken, has taken account of a number of factors, in particular:
- the extent of the Revised Development, as defined by the Planning Application boundary (refer to Figures 1.1, 1.2 and 3.5);
  - the nature of the baseline environment, sensitive receptors and the likely impacts that could arise; and
  - the distance over which predicted effects are likely to remain significant and in particular the existence of pathways which could result in the transfer of effects to a wider geographical area than the extent of proposed physical works.
- 4.5.8 In addition to effects arising as a result of the Revised Development, the EIA is also required to assess the predicted significant cumulative effects likely to arise as a result of the Revised Development in combination with other existing or proposed developments in the area. Section 3.2 of this ES lists developments within 5 km of the Revised Development that may give rise to cumulative effects for certain environmental receptors – the locations of these developments are illustrated in Figure 3.4.
- 4.5.9 The spatial extent of the assessment of cumulative effects varies between different environmental issues, as certain environmental effects (e.g. landscape and visual) have a much greater spatial extent than others (e.g. hydrology). For the purposes of assessing cumulative landscape and visual effects, a study area with a radius of 35 km around the site centre was used (refer to Chapter 6 for details). For other assessments, a fixed geographical buffer has not been defined for identifying relevant developments to include in the assessment, rather, professional judgement and the knowledge of the project team and consultees has been used to determine the most appropriate developments to consider. The assessment of cumulative effects with other relevant consented and proposed developments is presented within each of the technical chapters (refer to Chapters 6 to 15) as appropriate, with a summary of cumulative effects presented within Chapter 16. Wind farms which are currently within scoping have been listed where appropriate but have not been included within the cumulative assessments due to the uncertainty over their status and a lack of detailed information.

### ***Temporal Scope***

- 4.5.10 The baseline period used for the assessment of environmental effects is from 2009 to 2017, as this is the period in which the baseline environmental surveys were undertaken. The assumption at this stage is that a planning application will be submitted in late autumn 2017, with an aspiration to achieve determination in late early 2018. For the purposes of the EIA, if approved, construction is assumed to commence in 2018. The proposed operational life for the Revised Development is 25 years, after which time it will be decommissioned.
- 4.5.11 For construction effects, the assessment also takes into account the time of day that works are likely to be undertaken, for example if any night time working is required to minimise disruption to road users.
- 4.5.12 For operational effects, the assessment takes into account the continuous operation of the wind turbines.
- 4.5.13 For the assessment of cumulative effects, it has been assumed that all other relevant developments potentially giving rise to cumulative effects (refer to paragraph 4.5.9) would be under construction

and / or operational (whichever is the worst-case scenario) concurrently with the Revised Development.

- 4.5.14 For the purposes of this assessment it has been assumed that the Revised Development will be decommissioned once the 25 year operational period is complete, thus decommissioning impacts have been considered within this ES. However, there is the potential for the Applicant to apply for further consent, once this 25 year period is complete, to continue operating the Revised Development, though further assessment work would need to be undertaken at this time.

## 4.6 Regulatory Consultation

- 4.6.1 Consultation remains a critical component of the EIA process. In order to inform the EIA, there has been ongoing consultation with statutory consultees, engagement through the formal EIA Scoping process and subsequent discussions, correspondence and meetings, as required.
- 4.6.2 The organisations who were contacted either directly by the Applicant or by the LPA through the formal EIA Scoping process or the planning application process for the Consented Development are outlined in Appendices 4.1 and 4.2. Additional consultation undertaken post-scoping can be found in Appendix 4.4 and consultee responses to the planning application for the Consented Development can be found in Appendix 4.3.

## 4.7 Assessment of Effects

- 4.7.1 Within the ES, the assessment of effects for each environmental topic takes into account the environmental impacts of both the construction and operational phases of the Revised Development. Furthermore, a number of criteria are used to determine whether or not the potential effects of the Revised Development are likely to be 'significant'. These significance criteria vary between topics but generally include:
- international, national and local designations or standards;
  - relationship with planning policy;
  - sensitivity of the receiving environment;
  - magnitude of impact;
  - reversibility and duration of the effect; and
  - inter-relationship between effects.
- 4.7.2 Effects that are considered to be significant are identified within the ES. The significance of the resultant effect reflects judgements as to the importance or sensitivity of the affected receptor(s) and the nature and magnitude of the predicted changes. For example, a major adverse impact on a feature or site of low importance will have an effect of lesser significance than the same impact on a feature or site of high importance. Table 4.2 is used as a guide to demonstrate the relationship between the sensitivity of the identified receptor and the anticipated magnitude of an impact. Professional judgement is, however, equally important in verifying the suitability of this guiding 'formula' to the assessment of the significance of each individual effect. Therefore, the table below may change between technical assessments.

**Table 4.2 - Guide to the Inter-Relationship between Magnitude of Impact and Sensitivity of Receptor**

		Sensitivity of Receptor / Receiving Environment to Change			
		High	Medium	Low	Negligible
Magnitude of Change	High	Major	Moderate to Major	Minor to Moderate	Negligible
	Medium	Moderate to Major	Moderate	Minor	Negligible
	Low	Minor to Moderate	Minor	Negligible to Minor	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

4.7.3 The following terms are used in the ES, unless otherwise stated, to determine the level of effects predicted to occur:

- Major beneficial or adverse effect – where the Revised Development would result in a substantial improvement (or deterioration) to the existing environment.
- Moderate beneficial or adverse effect – where the Revised Development would result in a noticeable improvement (or deterioration) to the existing environment.
- Minor beneficial or adverse effect – where the Revised Development would result in a small improvement (or deterioration) to the existing environment.
- Negligible – where the Revised Development would result in no discernible improvement (or deterioration) to the existing environment.

4.7.4 Using professional judgement and with reference to the Guidelines for Environmental Impact Assessment (IEMA, 2004), this ES considers effects of moderate and greater significance to be significant, whilst those of minor significance and less to be not significant.

4.7.5 Summary tables that outline the predicted effects associated with an environmental issue, the appropriate mitigation measures required to address these effects and subsequent overall residual effects are provided at the end of each technical chapter of the ES. Distinction has also been made between direct and indirect, short and long term, permanent and temporary, and beneficial and adverse effects.

4.7.6 In general decommissioning effects are anticipated to be similar to those of construction, but for a shorter time period. Therefore, the majority of the chapters assess the construction and decommissioning effects as similar, with the construction effects being a worst case scenario.

***Cumulative Effects***

4.7.7 The EIA Regulations stipulate that cumulative effects should also be considered. Cumulative effects are those which result from incremental changes caused by past, present or reasonably foreseeable future actions resulting from the introduction of the Revised Development. These cumulative effects cover the combined effect of individual impacts from the Revised Development and combined impacts of several developments, as noted within the guidance provided by SNH in the document “Assessing the Cumulative Impact of Onshore Wind Energy Developments” (2012). Developments considered in addition to the Revised Development are existing and other proposals, covering all developments, including other wind farms (SNH, 2012). Wind farms which are currently within

scoping have been listed where appropriate but have not been included within the cumulative assessments due to the uncertainty over their status and a lack of detailed information.

- 4.7.8 The SNH 2012 guidance has been used throughout the assessment of cumulative effects for the Revised Development. Where appropriate, any additional guidance or legislative provisions consulted during the assessment of cumulative effects are detailed.
- 4.7.9 The spatial and temporal scopes for assessment of cumulative effects are described in Section 4.5 above.
- 4.7.10 Within each technical chapter, any potential cumulative effects are assessed, and reported where significant. A summary of cumulative effects is presented within Chapter 16.

## 4.8 Mitigation Measures

- 4.8.1 The EIA Regulations require the EIA to present a description of the measures proposed to avoid, reduce and, if possible, offset significant adverse effects. Wherever reasonably practicable, mitigation measures are proposed for each significant environmental effect predicted, and can take various forms including:
- changes to the Revised Development design;
  - physical measures applied on site; and
  - measures to control particular aspects of the construction or operation of the Revised Development.
- 4.8.2 Where none of the above are deemed practicable, the detailed design of the Revised Development will be required to include measures to mitigate any significant adverse effects.
- 4.8.3 Mitigation measures are presented as commitments in order to ensure a level of certainty as to the environmental effects of the Revised Development. As a result, it can, therefore, be assumed that the Applicant is committed to implementing, or to require implementation of all mitigation measures identified in this ES. There are various ways in which a level of certainty can be ensured, such as through the use of conditions attached to any planning permission or through a Section 75 Legal Agreement. Whilst the planning authority can seek to ensure the implementation of specific mitigation measures where they are deemed to address a significant environmental effect that would otherwise make the proposal unacceptable on planning grounds, there are a range of other mitigation measures proposed in the ES which do not fall into this category but which, nonetheless, seek to ensure the most environmentally acceptable scheme. Therefore, notwithstanding any statutory mechanisms to ensure implementation, the Applicant and the Contractors will be committed to implementing all mitigation measures identified in this ES relating to the construction and operation of the Revised Development.
- 4.8.4 A schedule of all of the mitigation measures proposed in this ES is presented in Chapter 17.

## 4.9 Enhancement

- 4.9.1 Similar to the reporting of mitigation measures, where opportunities for environmental enhancement have been identified and agreed by the Applicant, these have been included in the summary of committed measures reported at the end of each technical chapter, and in Chapter 17.

## 4.10 Consideration of Alternatives

- 4.10.1 EIA legislation requires the consideration of alternatives and an indication of the reasons for selecting the site advanced, except, as noted in Planning Advice Note (PAN) 58, where limited by constraints of commercial confidentiality.
- 4.10.2 As detailed in Chapter 2, the Revised Development site was part of an extensive search for potential wind farm sites originally undertaken by CWP. It involved a desk-based assessment utilising secondary data and a Geographical Information System (GIS) to identify constraints at a particular site. Sites that were not deemed suitable at a given time (i.e. 'the alternatives') were disregarded.
- 4.10.3 The principle of a wind farm on this site was established through the Consented Development, (the 2015 Application) and as such the site is considered an appropriate and viable location for a wind energy project.
- 4.10.4 Following the submission of the 2015 Application the UK Government announced it would end all financial support for onshore wind generation in the UK. As a result, projects which could not become commercially operational by 31 March 2017 would be reliant solely on electricity generated and sold to the wholesale power market. Consequently, the Applicant is now seeking to optimise the Consented Development to maximise energy production, within acceptable limits, to ensure that the Revised Development is viable subsidy-free. Details of the proposed changes are outline in Chapter 2.

## 4.11 Assumptions, Limitations and Uncertainty

- 4.11.1 The EIA process is designed to enable informed decision-making based on the best available information about the environmental implications of a proposed development. However, there will always be some uncertainty inherent in the scale and nature of the predicted environmental effects as a result of the level of detailed information available at the time of assessment, the potential for minor alterations to the proposed development following completion of the ES and / or the limitations of the prediction processes.
- 4.11.2 A number of assumptions were made during the EIA process and are detailed below:
- The principal land uses adjacent to the site remain unchanged during the course of the Revised Development's lifetime.
  - Current applications for wind farms are included within the assessment of cumulative effects for each technical aspect.
  - Information provided by third parties (including publicly available information and databases) is correct at the time of submission.
- 4.11.3 Further to this, more specific assumptions may be made with regards to the individual technical aspects and are detailed within each chapter.
- 4.11.4 Certain limitations have also been encountered when conducting the EIA:
- whilst baseline conditions have been assumed to be accurate at the time of surveying, due to the dynamic nature of the environment, these conditions may change during site preparation, construction and operation; and
  - the assessment of cumulative effects is dependent on the availability of information on other developments.
- 4.11.5 There is also the potential for a degree of uncertainty as certain aspects of the Revised Development may be subject to change until a detailed design has been finalised. This uncertainty can come in the forms of:

- turbine selection;
  - foundation and infrastructure design; and
  - micro-siting of the turbines which may change due to investigation findings or implementation of mitigation measures.
- 4.11.6 Information on the construction of the Revised Development has been developed by the project team based on professional judgement and outline design works, on the most likely methods of construction, plant, access routes and working areas etc. for the purposes of the EIA. The final choice on construction methods will rest with the Contractors and may differ from those used in this assessment, with any such uncertainty stated in Section 3.4 of the ES.

## 4.12 Public Consultation

### ***Overview***

- 4.12.1 A programme of pre-application community engagement has been undertaken by the Applicant. A standalone Pre-Application Consultation Report has been prepared which gives details of the various meetings, correspondence, public exhibitions and other discussions which have taken place with the communities closest to the Revised Development site. The Report also details the findings of that work and illustrates the ways in which community engagement has helped identify potential issues arising from the emerging development proposal and, where appropriate, shape the final proposal which is now the subject of this planning application.
- 4.12.2 The Applicant is grateful to residents and local representatives for their input into the pre-application community engagement process and for their participation in a number of the meetings, discussions and consultation events.

### ***Public Exhibitions***

- 4.12.3 Two Public Exhibitions were held by the Applicant on 26 June 2017 in the St. Bride's Centre, Douglas, and on 27 June 2017 in the Coalburn Miners Welfare.
- 4.12.4 The public events were advertised in the Lanark Gazette on 14 June 2017. Supplementary publicity for both events comprised the placing of posters in local shops and public places in Douglas and Coalburn.
- 4.12.5 Both events depicted the proposal and key environmental issues on a series of exhibition boards. Project staff were available to assist with interpretation of the information on display and answer questions from visitors to the events from 2 pm until 8 pm both days.
- 4.12.6 Visitors to the public events, aside from asking a member of the project staff a question directly, were also able to fill in a comments sheet on the day of the event or take it away and forward it to the Applicant at a later date.
- 4.12.7 A total of 7 people were recorded as attending the public event in Douglas and 7 in Coalburn. Both events were attended by a relatively diverse cross section of the local population.
- 4.12.8 A number of other discussions have been held with local groups and neighbours closest to the site as set out within the accompanying Pre-Application Consultation Report.



**Plate 4.1 – Photograph of the Public Exhibition boards in St Bride’s Centre, Douglas.**

***Feedback from the Community***

4.12.9 In summary, feedback from the two closest communities (Douglas and Coalburn) to the Revised Development has been broadly neutral, with both communities recognising the change in financial circumstances for onshore wind projects in the UK since the application for the Consented Development was made. Table 4.3 summarises the main issues raised during the pre-application consultation events, along with the Applicant’s response as to how this feedback has been incorporated into the Revised Development.

**Table 4.3 – Feedback from the Community**

Main Issues Raised	Applicant’s Response
Community Benefit contributions should be managed locally to maximise the benefit from the Revised Development to the communities closest to the site.	The Applicant remains committed to providing Community Benefit funding of £5,000/MW of installed capacity. The main aim of this funding will be to support the delivery of strategic projects in Douglas, Coalburn and the immediate surrounding area over the next 25 years. The Applicant is currently exploring a range of options for use of the funding with the local community and SLC (refer to Chapter 13 of the ES). The final Community Benefit arrangements are to be agreed with the local community and SLC.
Further discussions need to be had on the Community Benefit options and how they would be structured before any final decisions are made.	Agreed. Discussions are ongoing with the local community and SLC about the best ways in which this funding can be used to maximise benefit to the local area.
Potential for part of the Community Benefit contribution from the Revised Development being used to contribute to the energy bills of each household in Douglas and Coalburn was met positively by most. Some issues	The Applicant acknowledges a general desire to explore this opportunity in more detail, and will prepare further details on the proposed operation of the scheme for discussion with SLC and the local community.



Main Issues Raised	Applicant's Response
<p>were raised in respect of how such an arrangement would operate, particularly in terms of the area of benefit and circumstances around rented accommodation and social housing.</p>	
<p>Both communities were understanding of the reasoning behind the revisions to the scheme in the context of the new financial climate for onshore wind in the UK.</p>	<p>Noted.</p>
<p>Both communities commented positively on the Revised Development continuing to be progressed by a local company (now in partnership with Blue Energy) with a view to maximising benefits for the local area.</p>	<p>Noted, the Applicant is committed to maximising the local benefits from the Revised Development wherever possible.</p>
<p>Some concern was raised in respect of cumulative impact in relation to the number of wind turbines proposed in the wider area but it was acknowledged that the principle of having wind turbines on this site has already been accepted.</p>	<p>This point is noted, as is the recognition that the acceptability of wind turbines on this site has already been established through the Consented Development. A summary of potential cumulative impacts is provided within Chapter 16 of the ES.</p>
<p>One local resident raised a number of questions in respect of potential impact on his own property, primarily in respect of any noise or visual impact.</p>	<p>Noted. The Applicant is in direct contact with the local resident regarding the issues raised.</p>
<p>Strong desire from both communities to secure public access improvements, and safeguard the original Heritage Trail proposal for the benefit of both villages. Some detailed discussions were had about specific improvements/repairs that could be undertaken on land within the control of the Applicant.</p>	<p>The Applicant remains committed to the development of a Heritage Trail and formal footpath network linking Douglas and Coalburn through the site, with interpretation areas informed by community consultation. The Heritage Trail through the site and adjoining land also has the potential to become an interesting addition to the Clyde Walkway Extension which is currently being developed to link the Clyde Walkway at New Lanark with the end of the River Ayr Way at Glenbuck.</p>
<p>Confirmation was sought as to whether the Heritage Trail proposal remained part of the Revised Development.</p>	<p>As noted above, the Applicant remains committed to the development of a Heritage Trail and formal footpath network linking Douglas and Coalburn through the site.</p>

## Conclusions

- 4.12.10 In addition to the public consultation events, the Applicant has held a number of additional discussions to ensure that the two communities in closest proximity to the site are fully aware of the emerging development proposal and to ensure that the Applicant is aware of the views of the local communities in order to best design the finalised development scheme to mitigate any concerns wherever possible.
- 4.12.11 The Applicant confirms that the company will continue to liaise with the local community during the planning application process and during the construction, operational and decommissioning phases of the Revised Development.

## 4.13 Summary

- 4.13.1 This chapter has detailed the background and broad methodology used to conduct the EIA and produce the ES for the Revised Development. An overview of the relevant legislation and guidance documents has been provided with the main legislative document being the *Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011*. Following this, an outline of the EIA process is detailed, with the scope of the assessment also detailed. General assumptions, limitations and uncertainties are stated.

## 4.14 References

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