2. ENVIRONMENTAL IMPACT ASSESSMENT

2.1 Introduction

2.1.1 The proposed development is categorised as a 'schedule 2' development under the Electricity Works (Environmental Impact Assessment (Scotland) Regulations 2017 ("the 2017 EIA Regulations"). If schedule 2 development is likely to have significant environmental effects because of factors such as its nature, size or location, it is considered an 'EIA development'. This can be confirmed via a request to the Scottish Government for a Screening Opinion under Regulation 8(1) of the EIA Regulations. In this case, the applicant has decided to submit an EIA Report with its application for consent for the proposed development without seeking a Screening Opinion.

2.1.2 The applicant submitted a request for a Scoping Opinion from the Scottish Ministers on 28th April 2017, under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000. The request was accompanied by a Scoping Report, prepared on behalf of the applicant, which set out a summary of the proposals; identified the likely significant environmental effects, and summarised the proposed scope of the EIA. The Scoping Report was simultaneously issued to a list of statutory and non-statutory consultees.

2.1.3 Regulation 40(1) of the 2017 EIA Regulations states that where the developer submitted a request for a scoping opinion before 16 May 2016, the EIA report should be prepared in accordance with the modifications contained with the transitional provisions of the 2017 EIA Regulations. In particular, the scope and level of detail of information to be contained in the EIA report is determined by reference only to the scope and level of detail of information which immediately prior to 16 May 2017 had to be included in an environmental statement in accordance with regulation 4(1) and schedule 4 of Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000.

2.1.4 This EIA report has been prepared in accordance with the relevant provisions of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 and Electricity Works (Environmental Impact Assessment (Scotland) Regulations 2017, referred to together as 'the 2017 EIA Regulations'.

2.1.5 A Scoping Opinion was received from the Scottish Ministers in October 2017. The Scoping Opinion was provided with reference to The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017, subject to the transitional provisions set out in Part 12. EIA Chapter 7: Scoping and Consultation, provides a summary of the scoping and consultation process and responses received.

2.2 Assessment Methodology

2.2.1 The EIA Report provides impact assessment chapters for the relevant factors specified in regulation 4(3) and Schedule 4 of the EIA Regulations where they are likely to be significantly affected, taking account of the description of the proposed development and the mitigation by design.

2.2.2 Each impact assessment chapter will describe 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 proposed development.

2.2.3 In this EIA Report, the term 'impact' is used to refer to physical constructions or disturbance that may impact the surrounding environment (e.g. erection of a steel tower is an impact). 'Effects' has been used to refer to the effect that physical constructions may have on the surrounding environment (e.g. physical disturbance to habitats/ habitat loss/ fragmentation due to the erection of a steel lattice tower is an effect).

2.2.4 Unless qualified elsewhere, the following interpretation is applied with regard to effects. Short-term effects are those which extend over a short period only and, in the context of the wind farm, are typically those associated with the construction or decommissioning periods or other limited periods. Other temporary effects which persist for less than the life of the wind farm are described as medium-term, with those extending to the full lifetime of the wind farm described as long-term. Any effects which persist beyond the life of the wind farm are considered permanent. Effects with a duration of up to and including long-term are considered reversible, whereas permanent effects are considered irreversible. Where permanent or long-term effects occur, this has been identified.

2.2.5 Assessment criteria are required in order 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 summarised as follows:

- identification of baseline conditions of the site and its environs, including the 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 change;
- identification of appropriate mitigation measures; and
- assessment of significance of residual effects taking account of any mitigation measures.

2.2.6 The above approach does not, however, apply to all disciplines addressed in the EIA Report; for example, where best practice guidance recommends an alternative approach for a specific discipline. Each of the impact assessment chapters provides details of the assessment methodology used, including the specific criteria for defining the sensitivity of the baseline environment, quantifying the magnitude of change and for assessing whether the effects are deemed significant or not significant under the terms of the EIA Regulations.

Baseline Conditions

2.2.7 The assessment of each environmental effect is undertaken with reference to baseline conditions, which are described in the relevant technical chapter. This describes the existing environmental conditions at the site and in the wider area as pertinent to the particular environmental parameter. The 'no development' future baseline scenario is described in Chapter 4 (Site Selection and Alternatives), however is not discussed further in each technical chapter.

2.2.8 Data was collected through site visits and field surveys, statutory and non-statutory consultation, and review of maps, records, information and reports. This EIA Report has been prepared using survey data collected for the ES (2014) which has been reviewed and reused where appropriate and, where necessary, additional surveys were undertaken for the proposed development in 2016 and 2017. Each technical chapter provides a description of the baseline data used and identifies any difficulties encountered in compiling the required information and the main uncertainties involved.

Assessment of Effects

Sensitivity/Importance of Receptors

2.2.9 The sensitivity of the baseline conditions was defined according to the relative importance of existing environmental features within or in the vicinity of the site, or by the sensitivity of receptors which would potentially be affected by the proposed development.

2.2.10 Criteria for the determination of sensitivity (e.g. high, medium, or low) or of importance (e.g. international, national, regional or authority area) were 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

2.2.11 The magnitude of change to environmental baseline conditions was identified through detailed consideration of the proposed development, taking due cognisance of any legislative or policy standards or guidelines, and/or the following factors:

- the degree to which the environment is affected, e.g. whether the quality is enhanced or impaired;
- the scale or degree of change from the existing situation;
- whether the effect is temporary or permanent, indirect or direct, short term, medium term or long term;
- any in-combination effects; and
- potential cumulative effects.

2.2.12 In some cases, the likelihood of impact occurrence may also be relevant, and where this is a determining feature of the assessment this is clearly stated.

Mitigation

2.2.13 Section 38 and Schedule 9 of the Electricity Act 1989 ("the 1989 Act") sets out that when formulating a proposal to construct a generating station, the applicant:

- *shall have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiological features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest; and*
- *shall do what he reasonably can to mitigate any effect that the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects.*

2.2.14 Through the evolution of the proposals, the applicant has been mindful of the above obligations under the 1989 Act, and has sought to identify appropriate mitigation measures and strategies as part of the design of the proposed development. Mitigation by design was considered as an integral part of the overall design strategy for the 16 turbine development layout proposed in the ES (2014) (e.g. altering and refining the site layout to reduce watercourse crossings or avoid areas of deep peat, sensitive species and/or habitats). The 16 turbine development layout in the ES (2014) was considered to represent the optimised layout taking account of reducing potential environmental effects, alongside technical and cost requirements. Mitigation by design is incorporated into the proposed development as described in Chapter 5 (Description of the Development).

2.2.15 Where complete avoidance of potential effects was not feasible during refinement of the site design, additional mitigation measures are identified in the relevant chapters to reduce or offset effects. These additional mitigation measures are summarised in Chapter 18 (Schedule of Mitigation). Where appropriate, monitoring measures are also proposed to provide a mechanism to ensure that the proposed mitigation measures perform as required.

Residual Effects and Statement of Significance

2.2.16 The significance of effects as reported in this EIA Report take account of all proposed mitigation (these are therefore termed 'residual effects'). In general, the residual effect has been described as Negligible, Minor, Moderate or Major and Significant or Not Significant. Each chapter of the EIA Report sets out the methodology used to combine the sensitivity of receptor and the predicted magnitude of change to arrive at a residual effect. Where possible, the assessment of residual effects are based on accepted criteria and relevant guidance, and augmented by professional judgement. The criteria for distinguishing between Significant and Not Significant effects are included within each chapter of the EIA Report.

2.2.17 The EIA Regulations require consideration of the 'likely significant effects'. However, the EIA Regulations do not provide a definition of what constitutes a significant environmental effect. This is because the significance of effects can only be determined on a development by development, site by site basis according to the environmental parameter under consideration, and the context in which the relevant assessment is made. During preparation of this EIA Report, effects were considered to be 'significant' in accordance with the EIA Regulations where the assessment results indicated Moderate or higher residual effect. A 'Statement of Significance' is provided at the end of each chapter to clearly identify those effects considered to be significant.

2.2.18 Unless otherwise stated, reported effects are considered to be adverse. However, it should be noted that some effects, such as change to the landscape and visual environment, may be subjectively viewed as either positive or adverse. Where any effects can be interpreted, this is highlighted and an explanation provided.

Cumulative Effects

2.2.19 In accordance with the EIA Regulations, the assessment has considered 'cumulative effects'. These are effects that result from incremental changes caused by past, present or reasonably foreseeable actions together with the proposed development. For the cumulative assessment, two types of effect have been considered:

- The combined effect of individual effects, for example noise, airborne dust or traffic on a single receptor; and
- The combined effects of several developments that may on an individual basis be insignificant but that cumulatively may have a significant effect.

2.2.20 The identification and assessment of cumulative effects in respect of the landscape and visual impact assessment (LVIA) in Chapter 8 (Landscape and Visual) considers other built or consented wind farms and wind farms subject to an application with a likelihood of intervisibility. The projects considered for this LVIA were identified in consultation with SNH and Argyll and Bute Council (ABC).

Assumptions and Limitations

2.2.21 A number of assumptions have been made during preparation of the EIA Report, which are set out below. Assumptions specific to certain environmental aspects are discussed in the relevant chapters of the EIA Report.

- The principal land uses adjacent to the site remain as they are at the time of the application submission. At the time of writing there are no known planning applications on land adjacent to the site.
- Information provided by third parties, including publicly available information and database is correct at the time of its provision.

2.2.22 The assessment has been subject to the following limitations:

- baseline conditions have been assumed to be accurate at the time of the physical surveys but, owing 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 information on other developments.

2.2.23 Notwithstanding these limitations, the information presented within the EIA Report is considered to meet the requirements of the EIA Regulations and is sufficient to accompany an application for consent under section 36 of the Electricity Act 1989.

2.3 EIA Report Structure

2.3.1 This EIA Report comprises a number of volumes as detailed below.

Volume 1: Non-Technical Summary

2.3.2 The Non-Technical Summary (NTS) summarises in non-technical language the findings of the EIA as reported in the EIA Report: Written Statement.

Volume 2: Written Statement

2.3.3 The written statement (this document) contains two parts:

- Part 1 (EIA Report Chapters 1-7) describes the project and the legal and policy framework within which the application will be determined. This includes details of how the project was selected and how the design and layout has evolved through the environmental assessment to reflect and mitigate potential effects.
- Part 2 (EIA Report Chapters 8-18) contains the individual assessments undertaken for the identified environmental issues, with Chapter 18 (Schedule of Mitigation) providing a summary of all proposed mitigation. The complete assessment of the likely significant effects of the proposed development is contained within this document, and is supported by technical appendices.

Volume 3: Part A – Figures

2.3.4 Volume3, part A includes A3 size figures for all chapters.

Volume 3: Part B – Visual Representations

2.3.5 Volume3, part B includes the Visual Representations to support the landscape and visual assessment, and the assessment of indirect (setting) effects on cultural heritage assets. The visual representations are elongated figures printed at 297 mm x 890 mm.

Volume 4: Technical Appendices

2.3.6 Volume 4 provides supporting raw data, survey information, result tables, as well as standard methodologies or terminology required to support the assessment made in Volume 2: Written Statement.

Supporting Documents

2.3.7 The following documents are not part of the EIA Report, but have been provided as supporting documents to the Section 36 application.

Planning Statement

2.3.8 A Planning Statement has been prepared which considers the wind farm proposals in the context of adopted and emerging planning policies and other material considerations, identifying areas of policy support and/or conflict, and concluding with recommendations about the overall acceptability of the proposals in relation to the planning context.

Pre-Application Consultation Report (PACR)

2.3.9 A PACR has been prepared to summarise the consultation activities undertaken prior to submission of the application. This is not a formal requirement of a Section 36 application. Notwithstanding, the applicant has opted to submit a PACR to provide additional information.

Design and Access Statement (DAS)

2.3.10 A DAS has been prepared to summarise the design evolution and consideration of alternatives undertaken prior to submission of the application. This is not a formal requirement of a Section 36

application. Notwithstanding, the applicant has opted to submit a DAS to provide additional information.

2.4 References

BACTEC International Ltd. (2012). Explosive Ordnance Threat Assessment in respect of The Kintyre Peninsula, Scotland for SSE Renewables Developments (UK) Ltd. Ref 3848TA, 26 March 2012.

ETSU R 97. The Assessment and Rating of Noise from Windfarms, Final ETSU R 97 Report for the Department of Trade & Industry. UK Noise Working Group, 1997.

The Electricity Act 1989, c29

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