

1 Introduction

Background

- 1.1 This Environmental Statement (ES) has been prepared by RES Limited (RES) to accompany a planning application that has been made to the Planning Inspectorate of Wales (PINS) for permission to construct, operate and decommission a wind farm known as Upper Ogmore Wind Farm, hereinafter referred to as ‘the Proposed Development’. The purpose of the ES is to aid PINS in the assessment of the likely significant environmental effects resulting from the Development and to establish the need for mitigation measures to reduce such effects.
- 1.2 The application site is located on privately owned agricultural land to the south of the A4107 in Bridgend County between Blaengwynfi, Nantymoel and Blaengarw. A small portion of the application site north of the A4107, relating to access, is located in Neath Port Talbot County. The Development is centred at E29150 N19450 and is shown in Figure 1.1: Site Location and Figure 1.2: Planning Application Boundary.
- 1.3 This chapter is supported by: Technical Appendix 1.1: Request for Scoping Direction
Technical Appendix 1.2: Scoping Direction from the Planning Inspectorate (PINS)
Technical Appendix 1.3: Scoping consultation summary table.

The Applicant

- 1.4 The application for planning permission is made by RES (‘the Applicant’).
- 1.5 RES is one of the world’s leading independent renewable energy project developers with operations across Europe, the Americas and Asia-Pacific. At the forefront of renewable energy development for over 30 years, RES has developed and/or built more than 17,000 MW of renewable energy capacity worldwide. In the UK alone, RES currently has more than 1,000 MW of projects either constructed, under construction or consented. RES is active in a range of renewable energy technologies including onshore and offshore wind, solar, as well as enabling technologies such as energy storage.
- 1.6 RES has been active in Wales since the early 1990s and has developed and/or constructed five onshore wind farms, including the recently completed 34MW Garreg Lwyd Hill Wind Farm in Powys.

EIA Process

Scope of Environmental Statement

- 1.7 The Environmental Impact Assessment (EIA) has assessed the environmental impacts associated with the construction, operation and decommissioning of the Proposed Development, which comprises seven three-bladed, horizontal axis wind

- turbines. Four turbines of the turbines (T3, T4, T5 and T7) are up to a maximum tip height of 149.9m, and three of the turbines (T1, T2 and T6) are up to a maximum tip height of 130m. The seven turbines will have a total installed capacity of approximately 25.2 MW. The Proposed Development would include an upgrade to an existing site entrance, new access tracks, crane hardstandings, control building and substation compound, electricity transformers, underground cabling, energy storage containers, drainage works and upgrades to a forestry track and associated tree felling. During construction there would be a number of temporary works including a construction compound with car parking, temporary crane hardstandings and welfare facilities. A full description of the Proposed Development is provided in Chapter 3: Proposed Development.
- 1.8 RES submitted a Request for a Scoping Direction to PINS in March 2018. A copy of the scoping report which accompanied this request is included in Appendix 1.1. A copy of the Scoping Direction issued by PINS in response is contained in **Appendix 1.2**. The Scoping Opinion has been fully addressed by each of the relevant individual chapter topics. Appendix 1.3 contains a summary table listing out the sections of this ES that address each element of the Scoping Direction.
- 1.9 An EIA has been undertaken in accordance with the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017, (the “EIA Regulations”), to identify and assess the likely environmental effects of the Proposed Development and establish an appropriate range of mitigation measures to reduce adverse impacts where possible. This ES contains the findings of the EIA.
- 1.10 EIA is a process by which information about the environmental impacts of a project is collected, evaluated and taken into account in its design, which will determine as to whether it should be granted planning permission. The applicant presents the information on the project and its likely environmental impacts in an ES. This enables decision-makers to consider these impacts when determining the related planning application. The EIA process has a number of key characteristics:
- It is systematic, comprising a sequence of tasks defined both by regulation and by practice;
 - It is analytical, requiring the application of specialist skills from the environmental sciences;
 - It is impartial, its objective being to inform the decision-maker rather than to promote the project;
 - It is consultative, with provision being made for obtaining information and feedback from statutory agencies and key stakeholders; and
 - It is iterative, allowing opportunities for environmental concerns to be addressed during the planning and design of a project.
- 1.11 This final point is particularly important with respect to the design of the Development where a number of design iterations have taken place in response to environmental factors identified during the EIA process (Chapter 2: Design Evolution and Alternatives).

- 1.12 The EIA for the Proposed Development has been carried out in accordance with the latest regulations, guidance and advice on good practice, comprising:
Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017;
Environmental Impact Assessment: A guide to procedures (Department for Communities and Local Government, amended reprint 2001); and
Guidelines for Environmental Impact Assessment (Institute of Environmental Management and Assessment, 2004).
- 1.13 Individual technical assessments have been undertaken in accordance with a variety of legislation, guidance and best practice. Relevant details are contained within the Legislation and Policy Framework section where applicable to each technical chapter.

The Assessment Method

- 1.14 Appropriate methodologies have been used to assess the effects relating to each of the environmental topics that have been investigated as part of the EIA. These methodologies are based on recognised good practice and guidelines specific to each subject area, details of which are provided within each individual technical section.
- 1.15 The design team employed an iterative approach to the design of the Proposed Development where the design evolved throughout the EIA process as different constraints and potentially adverse impacts were identified and evaluated. This method is considered best practice as mitigation measures can concurrently be integrated into the design throughout the EIA process. This approach allowed the design team to alleviate or remove potentially adverse impacts and incorporate measures into the design to enhance positive impacts. The final evaluation of significance assesses the residual impacts assuming all mitigation measures are applied.
- 1.16 Each technical chapter assesses the impacts that could arise as a result of the Proposed Development. Impacts are assessed as being either adverse, beneficial, permanent, temporary or reversible. Significance is determined by assessing the magnitude and sensitivity of each likely impact.
- 1.17 The ES complies with current planning policy and will be submitted in conjunction with a planning application. This report is a formal ES as required by PINS under the Town and Country Planning (EIA) (Wales) Regulations. The ES is designed to provide information for the purpose of assessing the likely potential impact upon the environment.

Structure of the Environmental Statement

- 1.18 Regulation 17 of the EIA Regulations 2017 states that the following at least must be included within the ES:

- A description of the proposed development comprising information on the site, design, size and other relevant features of the development;
- A description of the likely significant effects of the proposed development on the environment;
- A description of any features of the proposed development, or measures envisaged in order to avoid, prevent or reduce and if possible, offset likely significant adverse effects on the environment;
- A description of the reasonable alternatives studied by the applicant, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the significant effects of the development on the environment;
- A non-technical summary of the information referred to above; and
- Any additional information specified in Schedule 4 relevant to the specific characteristics of the particular development or type of development and to the environmental features likely to be significantly affected.

1.19 Schedule 4 sets out the following on information for inclusion in ESs:

- A description of the development (location; physical characteristics including landuse requirements during construction and operation; main characteristics of the operational phase in particular production processes, e.g. energy demand, materials and natural resources used; estimate of expected residues and emissions and waste produced during construction and operation.
- A description of the reasonable alternatives (e.g. in terms of development design, technology, location size and scale) studies by the applicant which are relevant to the proposed development and its specific characteristics and an indication of the main reasons for selecting the chosen option.
- A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the development.
- A description of the factors likely to be significantly affected by the development: population, human health, biodiversity, land, soil, water, air, climate, material assets, cultural heritage and landscape.
- A description of the likely significant effects of the development on the environment resulting from: the construction and existence of the development; use of natural resources, the emission of pollutants, noise, vibration, light, heat, radiation, creation of nuisances, waste; risks to human health, cultural heritage or the environment; the cumulation of effects with other existing and/or approved projects; impact of the project on climate and the vulnerability of the project to climate change; technologies and substances used.
- The description of likely significant effects should cover direct, indirect, secondary, cumulative, transboundary, short-term medium-term and long-term, permanent and temporary, positive and negative effects of the development.

- Description of the forecasting methods or evidence used to include details of difficulties encountered and the main uncertainties involved
 - Description of measures envisaged to avoid, prevent, reduce or, if possible offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements. The description should explain the extent to which significant effects are avoided, prevented, reduced or offset.
 - Description of the expected significant adverse effects of the development of the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned.
 - A non-technical summary of the above information
 - A reference list detailing the sources used for the descriptions and assessments included in the ES.
- 1.20 This ES has been prepared in accordance with the EIA Regulations described above. The ES comprises the following volumes:
- Volume 1: Non-technical Summary (NTS) of the ES
 - Volume 2: Main Text
 - Volume 3: Figures (the illustrations that accompany the ES)
 - Volume 4: Technical Appendices (technical information relating to the environmental topics such as detailed methodologies, baseline data information and data analysis).
- 1.21 Volume 2 is organised as follows:
- Chapter 1: Introduction
 - Chapter 2: Design Evolution and Alternatives
 - Chapter 3: Proposed Development
 - Chapter 4: Planning and Policy Context
 - Chapter 5: Landscape and Visual
 - Chapter 6: Ecology and biodiversity
 - Chapter 7: Cultural Heritage
 - Chapter 8: Geology, Hydrogeology and Hydrology
 - Chapter 9: Traffic and Transport
 - Chapter 10: Acoustic
 - Chapter 11: Shadow Flicker
 - Chapter 12: Socioeconomic, Public Access, Land Use
 - Chapter 13: Summary of Effects.
- 1.22 Human Health is covered under Chapters 10 & 11 and Climate Change is covered within Chapter 12. A summary of effects is described in Chapter 13.
- 1.23 Chapters 1, 2, 3, 8, 9, 10, 11 and 13 have been authored by RES using their in-house professionally qualified expertise in respect of these topics. The Environmental Statement has been compiled by RES, primarily by Chris Jackson (Senior Development Project Manager and Fiona Stevens (Lead Development Project

Manager). Chris Jackson is a Chartered Engineer with more than 30 years' experience planning and developing energy projects and Fiona Stevens is a Practitioner of the Institute of Environmental Management & Assessment (PIEMA) with over 11 years' experience of assessing, planning and developing renewable energy projects. The remaining chapters have been authored by external consultants, each with relevant qualifications and significant experience in their fields.

1.24 In general, for each environmental topic, the following format has been adopted with regard to the presentation of information:

- Introduction
- Scope of Assessment
- Legislation and Policy Framework
- Consultation
- Assessment Methodology
- Baseline Assessment
- Assessment of residual impacts
- Design Evolution and Mitigation Measures
- Residual Impacts
- Cumulative Impacts
- Summary and Conclusions
- References.

1.25 A number of individual disciplines have adopted variations from this format as a result of specific assessment methodologies and appropriate reporting structure.

Planning Application

1.26 The Proposed Development falls under Schedule 2 of the EIA Regulations as an '*installation for the harnessing of wind power for energy production (wind farm)*'. For Schedule 2 projects, an EIA is needed if significant environmental effects are likely to arise from the implementation of the Project. It has therefore been concluded that an EIA should be carried out and that an ES should be submitted in support of the planning application.

1.27 In its May 2018 Scoping Direction, PINS confirmed that an EIA should be carried out and that the application should be submitted to PINS, for determination by the Welsh Ministers, as a Development of National Significance (DNS).

Commenting on the ES

1.28 An electronic version of the reports supporting the application, including the ES, are available to download free of charge from www.upperogmore-windfarm.co.uk.

1.29 Paper copies of the full ES are available to purchase at a cost of £200. Copies of the full ES are available on CD free of charge. Paper copies of the non-technical summary are available free of charge.

- 1.30 Requests for documents should be made in writing, including payment if purchase of the full ES is required, to RES Ltd, Cedar House, Greenwood Close, Cardiff Gate Business Park, Cardiff, CF23 8RD or to chris.jackson@res-group.com.
- 1.31 Any comments on the application may be submitted to the above addresses.

List of Figures, Appendices & References

Figures

Figure 1.1: Site Location

Figure 1.2: Planning Application Boundary

Appendices

Technical Appendix 1.1: Request for Scoping Direction

Technical Appendix 1.2: Scoping Direction from the Planning Inspectorate of Wales (PINS)

Technical Appendix 1.3: Scoping consultation summary table.

References

Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017.

Environmental Impact Assessment: A guide to procedures (Department for Communities and Local Government, amended reprint 2001).

Guidelines for Environmental Impact Assessment (Institute of Environmental Management and Assessment, 2004).