

## 1 INTRODUCTION

### 1.1 Purpose of the EIA Report

This Environmental Impact Assessment Report (EIA Report) has been prepared to accompany the application made by Ladyfield Renewable Energy Park Ltd (the Applicant), for consent to install, operate and decommission Ladyfield Renewable Energy Park and associated infrastructure (the Development). The Development comprises up to 13 wind turbines (with a capacity of up to 58.5 MW), Battery Energy Storage System (BESS) (with a capacity of up to 41.4 MW) and associated infrastructure, with a combined generation capacity of up to 99.9 megawatts (MW). The Development Site covers an area of approximately 790 hectares (ha) and is located approximately 4.7 kilometres (km) north of Inveraray, and directly east of Tullich, both within Argyll and Bute Council Area (the Site). Based on the anticipated generating capacity, the Homes Powered Equivalent for the Development has been calculated as 47,464 homes<sup>12</sup>, based on the average GB domestic consumption.

As the Development exceeds 50 MW, the Applicant is seeking consent from the Scottish Ministers under Section 36 of the Electricity Act 1989 (as amended)<sup>3</sup>, and for planning permission to be deemed to be granted under Section 57(2) of the Town and Country Planning (Scotland) Act 1997<sup>4</sup> ('the Application').

Given that the Development requires a Section 36 application, an EIA is required to be undertaken in accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017<sup>5</sup>, referred to hereafter as 'the EIA Regulations'.

As required by the EIA Regulations, this EIA Report presents information on the likely significant environmental effects which may occur as a result of the Development. The EIA Report also informs the reader of the nature of the Development and the measures proposed to protect the environment during site preparation, construction, operation, and decommissioning.

This Chapter of the EIA Report is supported by the following figures provided in Volume 2a Figures:

- Figure 1.1 - Site Location; and
- Figure 1.2 - Site Boundary Plan.

### 1.2 Site Context

The Development is situated approximately 4.7 km north of Inveraray, centred on National Grid References (NGR) 210197, 715498. The Site covers an area of approximately 790 ha with the extent and location shown on Figure 1.1 as the Site boundary. The Site lies wholly within the administrative boundary of Argyll and Bute Council (the Council).

The elevation of the Site ranges from 470 metres (m) Above Ordnance Datum (AOD) in the east of the Site and falls to around 100 m AOD in the west of the Site. There are a number of notable hilltops and ridges within and surrounding the Site with the ridge Ceann Chreagan located in the south of the Site. Hills in the vicinity of the Site include Stuc Scardan (487 m AOD) directly east of the Site, and Tom an Fheidh (237 m AOD) directly north to the Site.

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<sup>1</sup> Based on RenewablesUK methodology available at: [https://www.renewableuk.com/page/UKWEDEExplained/Statistics-Explained.htm#:~:text=Homes%20Powered%20Equivalent%20\(p.a.\)&text=RenewableUK%20calculates%20homes%20power%20as,electricity%20consumption%20expressed%20in%20MWh](https://www.renewableuk.com/page/UKWEDEExplained/Statistics-Explained.htm#:~:text=Homes%20Powered%20Equivalent%20(p.a.)&text=RenewableUK%20calculates%20homes%20power%20as,electricity%20consumption%20expressed%20in%20MWh). (accessed 25/09/2023).

<sup>2</sup> The Homes Powered Equivalent using the average domestic consumption for Argyll and Bute would be 27,760 homes.

<sup>3</sup> Electricity Act 1989 [Online] Available at: <http://www.legislation.gov.uk/ukpga/1989/29/contents> (Accessed 22/08/2022)

<sup>4</sup> Town and Country Planning (Scotland) Act 1997 [Online] Available at: <http://www.legislation.gov.uk/ukpga/1997/8/section/57> (Accessed 22/08/2022)

<sup>5</sup> The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 [Online] Available at: <https://www.legislation.gov.uk/ssi/2017/101/contents/made> (Accessed 22/08/2022)

A number of watercourses traverse the Site, as well a number of small lochans within and surrounding the Site, including:

- River Aray, flowing north to south in the west of the Site;
- Allt Sheileachan in the north of the Site;
- Allt a' Mhadaidh in the centre of the Site;
- Lochan Mhadaidh in the east of the Site; and
- Lochan Sheileachan, found directly east of the northeast area of the Site.

As well as Allt Sheileachan and Allt a' Mhadaidh, there are also numerous unnamed tributaries draining into the River Aray, flowing from the east of the Site to the west.

The predominant land use within the Site consists of private forestry plantation used for commercial purposes with areas of upland moorland also present in the south and east of the Site.

No public roads are located within the Site. Nearby major roads include the A819 directly to the West of the Site and the A83 to the south. The B840 also joins the A819 approximately 4.9 km to the north of the Site.

The path C201 – Dun Na Cuaiche is the nearest Core Path to the Site and is located approximately 2.7 km to the south.

As noted above, the nearest settlement is Inveraray, approximately 4.7 km to the south. While there are a number of dispersed residential properties surrounding the Site, there are no residential properties within the Site and no properties within 1 km of the proposed turbine locations. The closest residential property to the proposed turbine locations is Ladyfield Farm, which lies 1.1 km northwest of the nearest turbine (Turbine 11).

### 1.3 Application Details

The main components of the Development are as follows:

- Up to 13 three-bladed horizontal axis wind turbines with a maximum height of 180 m, rotor diameters up to 136 m and hub heights up to 112 m, and associated foundations and hardstanding areas;
- Access tracks of 5.5 m width, linking the turbine locations, will total approximately 13.7 km and consists of localised upgrades to 4 km of existing forestry track and 9.7 km of new track, including watercourse crossings;
- Network of underground cabling, laid where possible alongside the access tracks;
- A substation, control building and BESS located within a compound measuring approximately 65 m x 135 m, which will also include any external electrical infrastructure and vehicle parking. This compound will also accommodate the BESS;
- Two Temporary construction compounds;
- One extension to an existing borrow pit for aggregate extraction;
- The Site will be accessed via two access points off the A819. A new access junction is proposed at NGR 209101, 716517, to be constructed in the north of the Site, with a new crossing installed over the River Aray. Secondly, an existing access junction at NGR 208923, 713010 would be upgraded and the existing crossing over the River Aray would be removed and a new bridge installed; and
- Felling of approximately 79.3 ha of forestry (replanting on-site and compensatory planting will be required).

The layout of the Development has evolved via the iterative EIA Process (see Chapter 3 Site Selection and Design) with details of the final layout provided in Chapter 2 - Development Description.

The purpose of the Development is to generate electricity from a renewable source of energy, storing excess electricity generated within a BESS with the added benefit of storing excess

electricity and supporting the local grid network. The combination of renewable energy and battery storage will help offset the need for power generation from the combustion of fossil fuels. Consequently, the electricity that will be produced results in a saving in emissions of Carbon Dioxide (CO<sub>2</sub>) with associated environmental benefits, which is discussed in Chapter 16 - Climate Change and Carbon Balance.

The Applicant has secured a viable and local grid connection to export the electricity generated by the Development. As outlined in Chapter 2: Development Description, the grid connection does not form part of this application and is subject to a future application subject to the Development receiving planning consent. However, the grid route is considered proportionately in this EIA report.

## 1.4 The Applicant

The Applicant is Ladyfield Renewable Energy Park Ltd, a wholly owned subsidiary of Ridge Clean Energy Ltd (RCE), a well-funded, UK-based clean energy company whose team have developed, constructed and operated clean energy projects in the UK since 2003.

Working in partnership with landowners and local communities, RCE's team identifies and develops new projects to supply clean energy to UK homes, businesses, and other power consumers. The RCE team have a wealth of experience with community engagement support and have created a range of local initiatives in small towns and villages that focus on improving community value. Our work was instrumental in helping Inspire Inveraray raise money to purchase and restore the Inveraray Pier.

## 1.5 Project Team

This EIA Report has been compiled by Environmental Resources Management Ltd (ERM), on behalf of the Applicant, supported by sub-consultants on certain specialist assessment chapters. The full project team is listed in Table 1.1.

For each topic, the detailed assessment of likely significant effects has been undertaken by organisations with relevant specialist skills, drawing on their qualifications, experience of working on other development projects, good practice in EIA and on relevant published information. Profiles of the project team are provided in Technical Appendix A1.1.

**Table 1.1: EIA Project Team and Responsibilities**

EIA Chapter Number	Title	Organisation Responsible
1	Introduction	ERM
2	Development Description	ERM
3	Site Selection and Design	ERM
4	Planning Policy	ERM
5	EIA Methodology	ERM
6	Landscape and Visual Impact Assessment (LVIA)	OPEN
7	Ornithology	MacArthur Green
8	Ecology	MacArthur Green
9	Archaeology and Cultural Heritage	Wessex Archaeology

EIA Chapter Number	Title	Organisation Responsible
10	Hydrology and Hydrogeology	ERM
11	Geology and Peat	ERM
12	Noise	ERM
13	Traffic and Transport	ERM
14	Forestry	DGA Forestry LLP
15	Land Use, Socio-Economics, Tourism & Recreation	ERM
16	Climate Change and Carbon Balance	ERM
17	Other Issues: Shadow Flicker, Aviation, Telecommunications, Television Reception & Utilities	ERM
18	Intra-Project Cumulative Effects	ERM
19	Schedule of Mitigation	ERM

## 1.6 Structure of the EIA Report

The EIA Report contains the findings of the assessment of likely significant environmental effects of the Development and comprises of the following volumes:

- Volume 1 – EIA Report Text;
- Volume 2 – EIA Report Figures;
  - Volume 2a – Figures excluding LVIA;
  - Volume 2b – LVIA Figures;
  - Volume 2c – LVIA Visualisations;
- Volume 3 – EIA Report Technical Appendices; and
- Volume 4 – EIA Report Non-Technical Summary (NTS).

An outline of Volume 1 of the EIA Report which is split into 18 separate chapters is presented below:

- Chapter 1 - Introduction – Provides background information about the Applicant and an overview of the Development;
- Chapter 2 - Development Description – Provides a detailed description of the Development including details of the construction, operational and decommissioning arrangements;
- Chapter 3 - Site Selection and Design – Provides details of the site selection exercise and alternative layouts that were considered within the design evolution process;
- Chapter 4 – Planning Policy – Identifies the key policy documents of relevance to the Development which would be considered throughout the preparation of the EIA Report, including key planning guidance and other material planning considerations.
- Chapter 5 - EIA Methodology – Provides an overview of the EIA process 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 5 – 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, and their own technical industry guidance.

This will include a description of any proposed mitigation or enhancement measures and a statement of predicted residual impacts; and

- Chapter 19 - Schedule of Mitigation: Provides a tabular summary of all residual effects and proposed mitigation.

### **1.7 Additional Documents**

A Planning Statement (PS) has been prepared by David Bell Planning Ltd to accompany the Application. The PS sets out an assessment of the Development in the context of national planning policies and the local development plan, as well as energy policy and emerging planning policies. It also considers the potential benefits and harm which may arise and concludes as to the overall acceptability of the Development in relation to the planning context. This does not form part of the EIA Report.

A Design and Access Statement (DAS) has been prepared by ERM to accompany the Application. The DAS provides information on the principles and approach that have guided the design process for the Development, and demonstrates how the Site, and its surroundings have been fully appraised to ensure that the final design solution achieves a balance across a range of factors which are required to be addressed. It describes the starting point for the design of the Development, the various factors that have driven the design process, and subsequent iterations to the layout that were made in response to the environmental and technical considerations identified during the EIA Scoping process and in the preparation of the EIA Report. This does not form part of the EIA Report.

A Pre-Application Consultation (PAC) Report has been prepared by the Applicant to accompany the Application. The PAC Report provides an overview of the pre-application engagement and consultation activities that have been, and continue to be, undertaken by the Applicant for the Proposed Development. This does not form part of the EIA Report.