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1 INTRODUCTION

1.1 Purpose of this EIA Report

- 1.1.1 This Environmental Impact Assessment Report (EIA Report) is submitted in support of a planning application made by GreenGridPower 3 Ltd (the Applicant) to North Lanarkshire Council (the Council). The application for Torrance Wind Farm Extension II (hereafter referred to as "the Proposed Development") requests planning permission to install and operate a wind farm comprising of up to four turbines with a combined generation capacity of up to 26.4 MW, and associated infrastructure, approximately 600 metres (m) north of the centre of Harthill, North Lanarkshire covering an area of approximately 106.2 hectares (ha), centred on National Grid Reference (NGR) 289988, 665071 (the Site).
- 1.1.2 The Proposed Development is an extension to the operational Torrance Farm Wind Park (North Lanarkshire Reference: 10/00973/FUL) and Torrance Extension (North Lanarkshire Reference: 12/00284/FUL).
- 1.1.3 Given that the generation capacity of the Proposed Development will be below 50 Megawatts (MW), the Applicant is seeking consent pursuant to the Town and Country Planning (Scotland) Act 1997 (as amended by the Planning etc. Scotland Act 2006)¹. This EIA Report sets out the findings of the Environmental Impact Assessment (EIA) undertaken for the Proposed Development, which has been carried out in accordance with the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (the EIA Regulations)².
- 1.1.4 In line with EIA Regulations, the Applicant recognises the Proposed Development is an 'EIA Development' following consideration of the characteristics of the Proposed Development itself, the location of the Site and the characteristics of potential impacts as outlined within Schedule 3 of the EIA Regulations.
- 1.1.5 This EIA Report describes the likely significant effects on the environment as a result of constructing, operating, and decommissioning the Proposed Development in line with the Town and Country Planning (Scotland) Act 1997.
- 1.1.6 This EIA Report incorporates technical assessments, the scope of which have been agreed via consultation with statutory consultees, to determine if significant environmental effects occur as a result of the Proposed Development. The EIA Report also informs the reader of the nature of the Proposed Development and the measures proposed to protect the environment during site preparation, construction, operation, and decommissioning.
- 1.1.7 This Chapter of the EIA Report is supported by the following figures provided in Volume 2: EIA Report Figures:
 - Figure 1.1: Site Location; and

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¹ UK Government (1997) Town and Country Planning (Scotland) Act 1997 [Online] Available at: <u>Town and Country Planning (Scotland) Act 1997 (legislation.gov.uk)</u> (Accessed 28/06/2022)

² UK Government (2017) Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (the EIA Regulations) [Online] Available at: <a href="https://doi.org/10.1001/jheart-10.

Figure 1.2: Site Layout Plan.

1.2 The Applicant

1.2.1 GreenGridPower3 Ltd is a subsidiary of Infinergy Ltd, a renewable energy company developing onshore wind farms throughout the United Kingdom. Infinergy, and therefore the Applicant by extension, has the expertise and experience needed to design, develop, build and operate wind energy developments. The Applicant is committed to helping meet the United Kingdom's renewable energy targets, whilst developing responsibly and putting the right sized wind farm in the right place. Infinergy is a member of trade organisations RenewableUK and Scottish Renewables. For more information please visit: http://www.infinergy.co.uk

1.3 Site Description

- 1.3.1 The Site is located on the edge of an area of distinctive upland moorland and more settled farmland which lies to the north of the M8 transport corridor, between Edinburgh and Glasgow.
- 1.3.2 The Proposed Development is situated in an area which is predominantly used for agricultural purposes, specifically sheep farming. The immediate locality of the Proposed Development is rural and commercial forestry, although there are a number of small towns within the local area including Blackridge and Harthill.
- 1.3.3 The land cover on the Site consists of improved and semi-improved grassland, with some areas of coniferous plantation. There are stretches of degraded hedgerow, hedgerow trees and post and wire fences demarcating field boundaries. The lower topography to the south and southeast of the Site is dominated by coniferous woodland with smaller areas of neutral grassland to the south-east near Netherton Farm.
- 1.3.4 The Site is adjacent to the original Torrance Wind Park and Torrance Extension, and occupies undulating farmland and a commercial forestry area in the south, rising between approximately 175 to 200 m Above Ordnance Datum (AOD). The existing on-site farming and forestry operations will continue throughout the construction and operation of the Proposed Development.
- 1.3.5 The Site is entirely within the North Lanarkshire Council (the Council) administrative area; however, the administrative boundary with West Lothian Council (WLC) is adjacent to the northern boundary of the Site.
- 1.3.6 The original Torrance Farm Wind Park was consented in 2011 and consists of three turbines up to 125 m to tip height with a combined generating capacity of 9 MW. Torrance Farm Wind Park became operational in 2013.
- 1.3.7 An application for a four-turbine extension (up to 12 MW) was submitted in March 2012, referred to as Torrance Extension. This consisted of turbines up to 125 m to tip height with a maximum rotor diameter of 101 m and ancillary infrastructure.
- 1.3.8 In May 2012, the scheme was revised to two turbines and subsequently consented in July 2012. Torrance Extension became operational in 2015.

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- 1.3.9 The original Torrance Farm Wind Park and Torrance Extension, consisting of five turbines, are hereafter referred to as the "Existing Wind Farm".
- 1.3.10 In addition to wind turbines, there are a number of telecommunications masts and pylons located within the landscape surrounding the Site.

1.4 Overview of the Proposed Development

- 1.4.1 The main components of the Proposed Development are:
 - Four wind turbines with a maximum blade tip height of 200 m, together with associated turbine foundations, wind turbine hard-standings and crane pads;
 - A series of on-site access tracks connecting each of the turbine locations;
 - A network of underground cables linking the turbines to an on-site electricity substation and control/maintenance building;
 - A Temporary Construction Compound for use during the construction phase;
 - A Construction Compound and Substation; and
 - Proposed new recreational paths for pedestrians and cyclists, which are planned to be constructed within the forestry on the Site, and extend to the north of the Site to connect to Core Path / National Cycle Route 75.
- 1.4.2 The layout of the Proposed Development is described in detail in Chapter 3 and is shown in Figure 3.1. Table 3.1 provides a grid reference for each turbine location.
- 1.4.3 The EIA has been based on the maximum parameters with a wind turbine tip height of 200 m. The candidate turbine that has been used within the assessment envelope is the Siemens Gamesa SG170. Based on this candidate turbine, the Proposed Development would have a total estimated installed generation capacity of 26.4 MW.
- 1.4.4 The Proposed Development is not, however, tied to a particular turbine type, as the turbine market is dynamic, with technology changes, predicted performance and availability driving turbine selection. The final turbine choice will depend on technical and commercial considerations at the time of procurement, although the final turbines would not exceed the proposed maximum parameter tip height of 200 m.
- 1.4.5 The layout of the Proposed Development has evolved via the iterative EIA Process with details of the final layout provided in Chapter 3.
- 1.4.6 The purpose of the Proposed Development is to generate electricity from a renewable source of energy, offsetting 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 (CO₂) with associated environmental benefits, which is discussed in Chapter 16.

1.5 Structure of the EIA Report

- 1.5.1 The EIA Report comprises:
 - Non-Technical Summary (NTS);
 - Volume 1 Written Statement;
 - Volume 2 Figures;
 - Volume 3 Landscape and Visual and Cultural Heritage Visualisations;

- Volume 4 Appendices; and
- Volume 5 Confidential Appendices
- 1.5.2 The chapters of Volume 1 of the EIA Report are organised as follows:
 - **Chapter 1 Introduction:** Provides background information about the Applicant and an overview of the Proposed Development.
 - Chapter 2 Site Selection and Design: Provides a general description of the Site itself and its environs. Further detail on the Site can also be found in the baseline sections of each specialist topic chapter (i.e., Chapters 6-17).
 - Chapter 3 Description of the Proposed Development: Provides details of each element of the Proposed Development and information on how the Proposed Development will be constructed and operated.
 - Chapter 4 EIA Methodology, Scoping and Consultation:
 Describes the overall approach to the EIA, including a general
 explanation of how impacts have been evaluated, together with a table
 setting out the Scoping Opinion responses and a brief account of other
 public and technical pre-application consultation that has been carried
 out.
 - **Chapter 5 Policy Context:** Provides an overview of UK and Scottish policy on renewable energy generation. It also presents an overview of national, regional, and local planning policy which applies to the Proposed Development.
 - Chapters 6 -17: The specialist EIA topic chapters. Each of these chapters provide a description of the baseline environmental receptors, an outline of the potential impacts of the Proposed Development, a description of any proposed mitigation and enhancement measures, and an account of the predicted residual impacts. The specialist chapters are as follows:
 - Chapter 6 Landscape and Visual Impact Assessment (LVIA);
 - Chapter 7 Noise;
 - Chapter 8 Forestry;
 - Chapter 9 Traffic and Transport;
 - Chapter 10 Ecology;
 - Chapter 11 Ornithology;
 - Chapter 12 Cultural Heritage;
 - Chapter 13 Geology, Soils and Peat;
 - Chapter 14 Hydrology and Hydrogeology;
 - Chapter 15 Socio-economics, Tourism and Recreation;
 - Chapter 16 Climate Change and Carbon Balance; and
 - Chapter 17 Other Issues.



1.5.3 The findings of the assessment described in this volume of the EIA Report are brought together in a NTS (summary of the findings in non-technical language) presented as a separate document.

1.6 The Environmental Impact Assessment Team

- 1.6.1 This EIA Report has been compiled by Arcus Consultancy Services Limited (Arcus) on behalf of the Applicant, supported by sub-consultants on certain specialist assessment chapters (primarily forestry, aviation and telecommunications). For each topic, the detailed assessment of likely significant effects has been undertaken by individuals with relevant specialist skills, drawing on their qualifications, experience of working on other development projects, good practice in EIA and on relevant published information. Table 1.1 lists the organisations that have been involved in each topic in this EIA Report.
- 1.6.2 A Registered EIA Practitioner, as certified by the Institute of Environmental Management and Assessment (IEMA), has reviewed the EIA Report in full. Qualifications and experience of the individual(s) who undertook each assessment is included at the start of each technical chapter.

Table 1.1: Environmental Impact Assessment Team

Chapter Number	Title	Organisation Responsible
1	Introduction	Arcus
2	Site Selection and Design	Arcus
3	Description of the Proposed Development	Arcus
4	EIA Methodology, Scoping and Consultation	Arcus
5	Policy Context	Arcus
6	Landscape and Visual Impact Assessment (LVIA)	Arcus
7	Noise	Arcus
8	Forestry	Neil McKay
9	Traffic and Transport	Arcus
10	Ecology	Arcus
11	Ornithology	Arcus
12	Cultural Heritage	Arcus
13	Geology, Soils and Peat	Arcus Wardell-Armstrong for Coal Mining Risk Assessment

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Chapter Number	Title	Organisation Responsible
14	Hydrology and Hydrogeology	Arcus
15	Socio-economics, Tourism and Recreation	Arcus
16	Climate Change and Carbon Balance	Arcus
17	Other Issues, (includes Shadow Flicker, Telecommunications & Utilities, Aviation, Health & Safety)	Arcus PagerPower leading on telecommunications and aviation consultation.

1.7 Additional Documents

- 1.7.1 A Planning, Design and Access Statement (PDAS) has been prepared to accompany the Application. The PDAS sets out an assessment of the Proposed Development in the context of the Local Development Plan (LDP) as well as national planning, 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 Proposed Development in relation to the planning context. This does not form part of the EIA Report.
- 1.7.2 In addition, a Pre-Application Consultation (PAC) Report will accompany the Application which will be submitted online via e-Planning.

1.8 Obtaining Further Information

- 1.8.1 The EIA Report and accompanying documentation are available online; please visit the dedicated project website: www.torrancewindfarmextension2.co.uk (Homepage Torrance Wind Farm Extension 2.)
- 1.8.2 Copies of the NTS or USB stick comprising the entire EIA Report in Adobe .pdf format may be obtained free of charge while stocks last. Similarly, paper copies of the EIA Report may be obtained at a cost of £750 + P&P. Please email the Applicant at info@torrancewindfarmextension2.co.uk or write to **Freepost Infinergy Ltd** (no further details or stamps required) to request a copy. Alternatively, please call on the dedicated Freephone number: 0800 980 4299.
- 1.8.3 Hard copies of the application and EIA Report will also be made available for public viewing at:
 - Harthill Community Centre, Main Street, Harthill, ML7 5QE.
 - Craig Inn Community Centre, Main Street, Blackridge, EH48 3SP