

1. Introduction

1.1 Background and Site Description

- 1.1.1 Bluebell Wind Farm Limited, the joint venture between Infinergy Limited and Loch Luichart Estate, (hereafter referred to as 'the Applicant'), is proposing a wind energy development, Lochluichart Wind Farm Extension II (hereafter referred to as 'the Proposed Development'), north-west of Dingwall in The Highland Council area. This Environmental Impact Assessment Report (hereafter referred to as the 'EIA Report') has been prepared in support of an application submitted to The Highland Council seeking consent to construct and operate the Proposed Development.
- 1.1.2 The Proposed Development site boundary lies approximately 18 km north-west of Dingwall and immediately due south of the A835. It comprises upland moorland located between Meall Mhic Iomhair to the south-west and Sidhearn nan Cearc to the east, and is south of Loch Glascarnoch. The elevation of the site ranges from 260 m to 500 m above ordnance datum (AOD). The site occupies an area of 5.9km² and the central grid reference for the site is 232984 (eastings) 868776 (northings). The site location and site boundary are shown on **Figure 1.1**.
- 1.1.3 The Proposed Development comprises upland habitats, comprising blanket bog, heathland and pockets of plantation woodland. Various waterbodies are present on site including Allt na Beinne Leithe Bige, which runs west to east through the site with a number of minor tributaries feeding into them. Allt Giubhais Mor runs north to south through the site, eventually feeding into Loch Glascarnoch. A single lochan, Loch Na Salach, is located in the South of the site.
- 1.1.4 The Proposed Development will be sited immediately north of the operational Lochluichart Wind Farm and Lochluichart Wind Farm Extension (hereafter referred to as 'the Operational Schemes'), and west of the operational Corriemoillie Wind Farm (hereafter referred to as 'Corriemoillie').
- 1.1.1 The Proposed Development comprises 9 wind turbines up to a maximum tip height of up to 133 m when vertical (up to 74 m hub height, 114 m rotor diameter), with an installed power capacity of up to 3.6 Mega Watts (MW). A number of ancillary development components are also proposed, including one temporary construction compound, two proposed borrow pits, permanent hard standings adjacent to the wind turbines for construction, access tracks, underground cables between turbines, an onsite substation, control building, battery storage facility and maintenance building with welfare facilities. The proposed site layout is shown in **Figure 3.1**.
- 1.1.2 The total installed capacity of the Proposed Development would therefore be up to approximately 32.4 MW. Based on a current typical capacity factor of 28%, the annual indicative total power output for the site would be around 75,653 MW hours per annum (MWh/p.a.), indicating the Proposed Development would generate enough electricity to power approximately 17,380 (Scottish Government source) average UK households (based on average annual electricity consumption per household of 4,353 kWh) and would displace around 34,966 tonnes of carbon dioxide annually, and 874,150 tonnes over the proposed 25 year lifetime of the

Proposed Development. The Proposed Development would contribute towards international and national targets for the generation of renewable energy and reduction in greenhouse gas emissions (further information is provided on this matter in Chapter 5: Climate Change).

- 1.1.3 The electricity produced at the site will be exported to the national grid. The grid connection will be progressed by the transmission licence holder (further information on this matter can be found in Chapter 3: Description of the Proposed Development).

1.2 Purpose of the Environmental Impact Assessment Report

- 1.2.1 The Applicant has undertaken an Environmental Impact Assessment (EIA) of the Proposed Development in accordance with The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017. The EIA process is reported in this EIA Report, which identifies the methodologies used to assess the environmental effects predicted to result from the construction, operation and decommissioning of the Proposed Development. Where appropriate, it also sets out mitigation measures designed to prevent, reduce and, if at all possible, offset potential significant adverse environmental impacts. An assessment of residual effects, those expected to remain following implementation of mitigation measures, is also presented.
- 1.2.2 The main findings and conclusions of this EIA Report are summarised in a Non-Technical Summary (NTS), as required by the EIA Regulations.

1.3 Structure of the Environmental Impact Assessment Report

- 1.3.1 The Environmental Impact Assessment Report ('EIA Report') is split into three volumes, with the NTS and Design and Access Statement forming a separate document. **Volume 1** of this EIA Report contains written statements informing each area of assessment considered throughout the EIA process.
- 1.3.2 **Volume 2** contains the figures that inform the EIA Report.
- 1.3.3 **Volume 3** contains supporting information and appendices for each of these technical chapters, and additional studies that have been prepared to inform the relevant assessments as reported in the EIA Report.

1.4 Assessment Team

- 1.4.1 The assessment was undertaken by the following technical consultancies:
- Infinergy Limited – Project Managed, Introduction, EIA Process, Description of Proposed Development, Telecoms & Aviation, Shadow Flicker and Safety & Infrastructure.
 - Arcus – Climate Change, Socio Economic, Traffic & Transport, Noise and Hydrology & Hydrogeology.
 - Savills – Planning Policy.
 - Optimised Environments –Landscape and Visual assessment.
 - Headland Archaeology – Cultural Heritage assessment.
 - Avian Ecology – Ornithology & Ecology assessment.

1.5 Availability of the Environmental Statement

1.5.1 The EIA Report and the supporting documentation are also available online; please visit the dedicated website at www.lxxwindfarm.co.uk, under News/Downloads. A copy of the NTS and a CD containing the full EIA Report are available free of charge (while stocks last), by contacting Infinergy Limited at info@lxxwindfarm.co.uk or in writing to **Freeport Infinergy Limited** (no stamp or further address detail necessary). If required, a hard copy of the entire EIA Report can be provided at a cost of £750 plus VAT.

1.5.2 Copies of the EIA Report will also be available to view during opening hours at the following locations:

- Garve Village Hall
Station Road
Garve
IV23 2PP
- Dingwall Service Point
The Highland Council
High Street
Ross House
Dingwall
IV15 9RY

1.6 Representations to the Applicant

1.6.1 Any representations to the application should be made directly to the Highland Council.

1.7 References

Renewable Electricity Output Calculator:

<http://www.gov.scot/Topics/Statistics/Browse/Business/Energy/onlinetools/ElecCalc> (Accessed 17/05/18)

DECC (2009). The UK Renewable Energy Strategy. Accessed 20/07/18. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/228866/7686.pdf.

The Scottish Government (2017). Energy in Scotland 2017. Accessed 20/07/18. <http://www.gov.scot/Resource/0052/00529523.pdf>

The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017. Accessed 20/07/2018. <http://www.legislation.gov.uk/ssi/2017/102/contents/made>.

BEIS (2017) Digest of UK Energy Statistics 2017. Accessed 20/07/18. <https://www.gov.uk/government/collections/digest-of-uk-energy-statistics-dukes>.