1 Introduction

1. Introduction

1.1. Purpose of this Environmental Report

1.1.1. This Environmental Report has been prepared to accompany the application by Boralex Limited ('the Applicant') to construct and operate a Battery Energy Storage System (BESS) with a maximum output of up to 70 megawatts (MW) and an extension to the existing Limekiln Wind Farm Substation on land within the operational Limekiln Wind Farm, South of Reay in Caithness (hereafter referred to as the 'Site'). The project is known as Limekiln Battery Energy Storage System (BESS) (hereafter referred to as the 'Proposed Development').

1.1.2. As the Proposed Development exceeds 50 MW, the Applicant has submitted a planning application to Scottish Ministers, which will be determined under Section 36 of the Electricity Act 1989 ("the Electricity Act").

1.1.3. In April 2025, an EIA screening report was submitted to the Scottish Government's Energy Consents Unit to establish whether a formal EIA was required for the scheme. In May 2025, Scottish Ministers issued a formal EIA screening opinion which confirmed that an EIA was not required.

1.1.4. This Environmental Report has been prepared which covers a number of the topics that would have been included in an EIA Report. However, the assessment methodology differs from what is applicable for an EIA case, and importantly this report and the application is not subject to the EIA regulations.

1.2. The Applicant

1.2.1. Boralex has been providing renewable energy for over 30 years as a developer, builder, owner and operator of hydro, onshore wind, solar PV and battery storage. A leader in the Canadian market and France's largest independent producer of onshore wind power, the company is also active in the United States and the United Kingdom. In the UK, Boralex is working towards the delivery of a wind and battery storage asset portfolio of 1 GW by 2030, i.e. ready-to-build and operational. This ambition represents inward investment of approximately £1bn, mainly in Scotland.

1.2.2. Over the past five years, Boralex's total installed capacity has more than doubled to over 3 GW worldwide. The development portfolio comprises over 6 GW in wind, solar projects and storage projects. Boralex's shares are listed on the Toronto Stock Exchange under the ticker symbol BLX. Further information can be found at www.boralex.com.

1.3. Site Description

1.3.1. The Site is located within the footprint of Limekiln Wind Farm, south of Reay, Caithness within the administrative boundary of The Highland Council. The Site consists of a combination of wind farm infrastructure and commercial forestry.

1.3.2. The overall Site area is approximately 32 hectares (ha) with access taken from the A836, utilising the existing wind farm access tracks. The site is rural in nature with a small number of neighbouring residential properties. The nearest residential properties include Borlum House, Milton and Loanscorribest, which are approximately 1.5 km north of the Proposed Development.

1.3.3. The proposed BESS would be situated on the reinstated temporary construction compound which was used for Limekiln Wind Farm. Existing wind farm tracks would be utilised therefore no new access tracks would be required for the Proposed Development. There are no National, European and International designated sites for nature conservation within the Site boundary.

1.4. Overview of the Proposed Development

1.4.1. The main components of the Proposed Development are:

- Up to 90 battery storage containers approximately 6.0 m long, 2.5 m wide and 3.0 m high;
- Electrical substation extension and associated infrastructure;
- Power Conversion Units (PCS's)
- MV/LV PCS transformers
- Control and switchgear building;
- MV/LV auxiliary transformer;
- Underground cable connection to 132 kV substation extension;
- 132 kV Breaker, 132/33 kV transformer and 33 kV breaker at the substation extension;
- Spare parts containers;
- Office / welfare facilities;
- Fire suppression systems;
- Water storage tanks;

- Back-up generator;
- Palisade fencing typically 3 m high;
- CCTV cameras, motion activated lighting and fencing;
- Site access and internal access tracks;
- Biodiversity mitigation and enhancement;
- Drainage (including SuDS);
- Temporary construction compound; and
- Maintenance vehicle parking.

1.4.2. The battery storage units would be located within a compound measuring approximately 115 m by 80 m which would be formed of crushed rock laid on permeable membranes. There would also be a potential future augmentation area which would be formed from crushed rock measuring approximately 80 m by 50 m. A temporary construction compound would be required during the construction phase, which would be located within the potential future augmentation area.

1.4.3. The compound would be enclosed by 3 m high palisade fencing. The CCTV cameras would be installed on 4 m high columns; the cameras would be mounted on the 3 m high palisade security fencing at each corner and at strategic intervals along the compound perimeter.

1.4.4. The maximum height of any structure within the BESS compound would be approximately 4 m. Lighting would be provided on site including lighting to the 4 m CCTV columns and units within the facility. The lighting would be motion sensor activated. Fire detection and suppression systems would also be installed within the facility.

1.4.5. There would be a Sustainable Drainage Systems (SuDS) attenuation basin adjoining the compound, which would be located to the north of the BESS facility.

1.4.6. The proposed Substation Extension would sit immediately adjacent to the operational Limekiln Wind Farm Substation, wrapping around its northern edge. The tallest elements in the Substation Extension would be approximately 7.5 m tall, which is consistent with the operational Substation infrastructure.

1.4.7. The Substation Extension would be connected to the BESS facility by way of an underground cable running alongside the Core Path CA11.03.

1.5. Need for the Development

1.5.1. The UK's energy network is undergoing a significant transition, comprising a reduced reliance on fossil fuel power plants as they reach the end of their operational lifecycles and an

increasing reliance on renewable energy sources. National and international legislation and policies are in place and set an ambitious target to reduce Scotland's emissions of all greenhouse gases to net zero by 2045.

1.5.2. Battery projects located in areas where there is a large amount of renewable energy generators, play a vital role in decarbonising the energy sector whilst maintaining reliable energy security for consumers. Our current national grid has located key generation assets (coal, gas, nuclear) and transmission cables to serve areas of high energy demand with commensurate supply. In contrast, renewable generation is located to maximise optimal weather conditions such as high wind locations in northern Scotland or in the North Sea.

1.5.3. As a result, we cannot get the power where we need it or maximise the use of our own renewable electricity generation. National Grid Electricity System Operator ('NGESO') currently pays renewable generators to turn off supply in Scotland, to prevent an overload of the system, and simultaneously instructs fast response generators (normally gas power plants) in areas of high consumption to switch on to balance supply and demand.

1.5.4. In relation to energy security, the Proposed Development also has the potential to supply the grid with voltage support services during low voltage periods or blackouts by supplying the network with quickly dischargeable energy. As with periods of low renewable energy supply, these scenarios have typically been managed by reliance on dispatchable fossil fuel energy generators (typically gas peaking plants).

1.5.5. The operation of batteries such as the Proposed Development offer a sustainable alternative to carbon-intensive energy sources to supply and maintain the grid, which reduces the energy network's reliance on fossil fuels and ultimately contributes to achieving the UK and Scottish Governments' greenhouse gas emissions targets, whilst enabling enhanced energy security and reduced energy costs for consumers.

1.6. Structure of the Environment Report

1.6.1. The Environmental Report comprises three parts:

- Volume 1 – Written Statement;
- Volume 2 – Figures and Visualisations; and
- Volume 3 – Technical Appendices

1.6.2. The chapters of the report are organised as follows:

- **Chapter 1:** Introduction – provides background information about the applicant and an overview of the proposed Limekiln Battery Energy Storage System;
- **Chapter 2:** Site Description – provides a general description of the Application Site itself and its local environment. Further detail on the Site can also be found in the baseline sections of each topic chapter;

- **Chapter 3:** Description of the Proposed Development – provides details of each element of the Proposed Development and information on how the project will be constructed and operated;
- **Chapters 4** – **14**: Technical Chapters – each of these chapters provides a description of the baseline environmental receptors, a description of the proposed mitigation and enhancement measures and an account of the predicted residual effects;

1.7. The Environmental Consultancy Team

1.7.1. **Table 1.5** below sets out the chapters in this report and the consultancy responsible for each topic.

Table 1.5 Environmental Topics and Contributors

Chapter	Assessment Topic	Contributor
1	Introduction	Pegasus Group
2	Site Description	Pegasus Group
3	Description of the Proposed Development	Pegasus Group
4	Forestry	McKay Forestry
5	Landscape and Visual Appraisal	SLR Consulting Limited
6	Ecology	Avian Ecology Ltd
7	Ornithology	Natural Research Projects Limited (NRP)
8	Cultural Heritage Desk Based Assessment	Headland Archaeology
9	Geology and Peat	SLR Consulting Limited
10	Hydrology and Hydrogeology	SLR Consulting Limited
11	Noise	The Northern Energy Initiative (TNEI)
12	Transport Statement & Construction Traffic Management Plan	Pell Frischmann
13	Socioeconomics	BiGGAR Economics
14	Outline Battery Safety Management Plan (oBSMP)	Abbott Risk Consulting Limited (ARC)

1.8. Obtaining Further Information

1.8.1. The Environmental Report and accompanying documentation are available online; please visit the project website for the Limekiln Battery Energy Storage System at www.limekilnwindfarm.co.uk. A copy of the report and all the application documents can also be obtained on a memory stick, free of charge, while stocks last.

1.8.2. A paper copy of the Environmental Report may be obtained at a cost of £200 + P&P. Please email the applicant at info@limekilnwindfarm.co.uk or write to Freepost Boralex Limited (no further details or stamps required) to request a copy or alternatively call our freephone number on 0800 980 4299.