1 Introduction

1.1 Introduction

1.1.1 Renewable Energy Systems Ltd (RES) (hereinafter referred to as 'the applicant') submitted an application to the Scottish Ministers under Section 36 of the Electricity Act 1989 (as amended) to construct and operate 19 wind turbines at 220 m in height (the 'original proposed development') in October 2023 (the 'original application'). The original proposed development is located north-east of the A697, approximately 8.5 km north-north-east of Lauder, within the administrative boundaries of the Scottish Borders Council.

1.1.2 The original application was accompanied by the Longcroft Wind Farm Environmental Impact Assessment Report (hereinafter referred to as 'EIA Report October 2023'), prepared under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (EIA Regulations).

1.1.3 A range of consultees were consulted on the original application by the Energy Consents Unit (ECU) on behalf of Scottish Ministers. Upon receipt of consultation responses, the applicant considered the matters raised and has undertaken further design and assessment work, where appropriate, which resulted in alterations to the original proposed development. The layout of the original proposed development has been re-designed reducing it from a 19-wind turbine development to a 12-wind turbine development (the 'revised proposed development'), with a subsequent reduction in the site boundary. The revised proposed development is located north-east of the A697, approximately 9.9km north-north-east of Lauder in the Scottish Borders. The site of the revised proposed development is within the administrative boundaries of the Scottish Borders Council.

1.1.4 In summary, wind turbines numbered T1-T4 and T17-T19 have been deleted. **AEI Chapter 3: Revised Proposed Development** of this report details the revised proposed development for which the applicant is now seeking consent. The location and site boundary of the revised proposed development are presented in **AEI Figures 1.1** and **1.2** respectively, whilst the revised proposed development is shown in **AEI Figure 1.3**.

1.1.5 At the time of submitting the original application in October 2023, the original proposed development was to be known as Longcroft Wind Farm. However, following the modifications to the original proposed development, the applicant now proposes that the revised proposed development shall be known as Glenburnie Wind Farm.

1.2 Purpose of this Additional Environmental Information

1.2.1 The EIA Regulations include provision for the preparation of additional information, where further work in relation to the likely significant effects of a revised proposed development has been undertaken.

1.2.2 This Additional Environmental Information (AEI) Report has been prepared to provide further information to the EIA Report October 2023 to address the proposed modifications to the original

proposed development since the original application was submitted. The AEI Report also addresses responses received from consultees during the consultation period.

1.2.3 The AEI Report is intended to be read alongside and complement the EIA Report October 2023, to ensure that all relevant environmental information is available for consideration by the determining authority. Unless otherwise stated within this AEI Report, the information contained in the EIA Report October 2023 remains valid.

1.2.4 In each technical chapter (**AEI Chapters 6** to **14**), details are provided, where relevant, of the consultation responses received during the application consultation period and how these have been addressed, if necessary. A full summary table of all consultation responses is provided in **AEI Technical Appendix 5.1**

1.2.5 The information contained in the AEI Report is considered to be substantive information for the purposes of the EIA Regulations. It will therefore be published as additional information in terms of Regulation 20 of the EIA Regulations and advertised as the same.

1.3 Need for Development

1.3.1 The revised proposed development would have an anticipated nominal capacity of 79.2 MW[1]. Based on a capacity factor of 46.4%, the revised proposed development is estimated to generate approximately 321[2] gigawatt-hours (GWh) annually). The revised proposed development will therefore supply renewable electricity equivalent to the approximate annual domestic needs of up to 97,243 average UK households[3]. Each unit of renewable electricity transmitted will displace a unit of conventionally generated electricity, therefore displacing carbon dioxide (CO_2) emissions. It is estimated that the revised proposed development will displace approximately 121,429 tonnes of CO_2 emissions per year, or 6,071,450 tonnes over the anticipated 50-year lifespan of the revised proposed development.

1.3.2 An updated carbon balance assessment has been undertaken for the revised proposed development using the Scottish Government Carbon Calculator tool (offline calculator version 2.14.1[4]) specifically designed for wind energy development. This is presented in AEI Technical Appendix 14.2 Carbon Balance Assessment.

1.3.3 As well as making a positive contribution towards action on climate change and renewable energy targets, the revised proposed development would provide opportunities for community investment and create further employment opportunities in the local area.

[1] Based on the installation of 12 wind turbines with an expected installed capacity of around 6.6 MW each.

[2] For example, using a 46.4% capacity factor, figures are derived as follows: 79.2MW x 8,760 hours/year x 0.464 (capacity factor) = 321,919 MWh

[3] Calculated using the most recent statistics from the Department of Energy Security and Net Zero (DESNZ) showing that mean domestic electricity consumption is 3,301kWh (as of December 2024).

[4] At the time of preparing the AEI, the online calculator version was unavailable due to a technical fault. The offline calculator version 2.14.1 has been used in the interim to inform the AEI and present the payback period for the revised proposed development in lieu of the online tool. The applicant will upload to the online version when it becomes available.

1.3.4 The applicant is at the forefront of the operation and development of renewables in the UK and fully supports the fight against climate change with this revised proposed development. This would be a fully integrated renewable energy solution in direct response to meeting national and international climate change targets. The revised proposed development would be able to regulate output and provide clean power to people's homes when they need it most and would represent a state-of-the-art development for the Scottish Borders. As well as contributing to targets for renewable energy, the proposed development would provide opportunities for community investment and create further economic benefits, including employment opportunities, in the local area.

1.3.5 Further information on the need for and benefits of the revised proposed development is provided in AEI Chapter 13: Socio-economics, Tourism and Recreation, and the Planning Statement Update which accompanies this AEI.

1.4 The Applicant

1.4.1 RES is the world's largest independent renewable energy company active in onshoreand offshore wind, solar, energy storage and transmission and distribution. At the forefront of the industry for over 40 years, RES has delivered more than 23GW of renewable energy projects across the globe and supports an operational asset portfolio of 10GW worldwide for a large client base. RES employs more than 2,500 people and is active in 14 countries working across onshore and offshore wind, solar, energy storage, green hydrogen and transmission and distribution.

1.4.2 From its Glasgow office RES has been developing, constructing and operating wind farms in Scotland since 1993. RES has developed and/or built 21 wind farms in Scotland with a total generation capacity of 597MW and has recently finished constructing Blary Hill Wind Farm in Argyll and Bute. The applicant has the necessary knowledge and experience in renewable energy to develop the proposed development.

1.5 Structure and Presentation of the AEI

1.5.1 All of EIA Report October 2023 has been reviewed to identify the need to update or replace content in the light of the amendments to the original proposed development. Where a chapter or assessment does not need updated, supplemented or replaced, this will be explained in the relevant AEI chapter as it is not the intention of this AEI Report to repeat information contained in the EIA Report October 2023 that remains valid. As a consequence, whilst the structure and chapter number of the AEI Report reflects that of the EIA Report October 2023, the format and level of content in the AEI chapters does vary.

1.5.2 Overall, each AEI chapter seeks to:

- Provide a revised assessment, where required, taking into account the amendments that have been made to the revised proposed development, and the updated cumulative wind farm situation; and
- Provide information, where required, to address consultation responses, or to supplement what was previously provided within the EIA Report October 2023.

- Provide, for completeness, a summary of changes to the significance of effects (if there are any) as presented in the EIA Report October 2023, in each AEI technical chapter.

1.5.3 Where Technical Appendices and Figures from the EIA Report October 2023 have been updated, the original numbering has been retained but are prefixed with *AEI*. Where new Technical Appendices and Figures have been added, their numbering follows on from those in the EIA Report October 2023 (and are prefixed with *AEI*). Technical Appendices and Figures from the EIA Report October 2023 that have not been updated as part of this AEI Report remain valid, and this is clearly stated in the introductory text for each AEI chapter.

1.5.4 This AEI comprises four volumes:

- Volume 1 Main Text
- Volume 2a Figures
- Volume 2b LVIA Figures and Visualisations
- Volume 3 Technical Appendices
- Volume 4 Non-Technical Summary

1.5.5 The Non-Technical Summary (NTS) has been amended and re-issued in full to ensure there is an up-to-date comprehensive summary of the EIA findings.

1.5.6 A Planning Statement Update has been prepared to support this AEI Report and should be read in conjunction with the AEI Report, and with the Planning Statement submitted with the original application.

1.6 AEI Report Project Team

1.6.1 The preparation of the AEI Report has been led by SLR with input from specialist technical and environmental consultants. **AEI Table 1.1** outlines the relevant expertise and qualifications of the specialists who have assisted with the preparation of this AEI Report.

AEI Table 1.1 AEI Report Project Team

Technical Discipline	Consultant	Qualifications	Experience	Address
Landscape & Visual Impact Assessment	Alister Kratt Head of Infrastructure & Energy, LDA Design	Fellow of the Landscape Institute; BA (Hons) Landscape Architecture	Alister brings over 30 years of experience in private consultancy and is widely recognised as an expert in infrastructure design and planning. As the Head of Infrastructure & Energy at LDA Design and a Fellow of the Landscape Institute, Alister is a leading figure in masterplanning, spatial planning, Environmental Impact Assessments (EIA), and landscape architecture.	Worton Rectory Park, Oxford, OX29 4SX

Technical Discipline	Consultant	Qualifications	Experience	Address
			Alister specialises in integrated processes and orchestration for large, complex multidisciplinary projects and infrastructure development. He has served as an expert witness on landscape, master planning, and design for numerous projects. Additionally, he has led several peer reviews and authored best practice guidance. As an experienced expert witness, Alister has participated in over 20 public inquiries, hearings, or examinations, collaborating with senior counsel. He has provided evidence on master planning, design issues, protected landscapes, and landscape assessments for major development and infrastructure projects.	
	Nicholas Atkinson LDA Design	Charted Member of the Landscape Institute; MSc (Hons) Landscape Architecture; BA (Hons) Geography	Nicholas is a Chartered Landscape Architect with over 13 years' experience in the assessment of development proposals in relation to landscape and visual matters. He has undertaken numerous assessments for a variety of developments and stages, including renewable energy and solar schemes, ranging from Nationally significant infrastructure Projects (NSIPs) to small scale, detailed design projects.	
Cultural Heritage & Archeaology Assessment	Beth Gray SLR	MA (Hons), ACIFA	Beth is a Principal Heritage Consultant and has more than 9 years' experience assessing renewable energy projects and specifically their potential effects on cultural significance of heritage	The Tun, 4 Jackson's Entry, Edinburgh, EH8 8PJ

Technical Discipline	Consultant	Qualifications	Experience	Address
			assets. She is based in Edinburgh and has worked throughout Scotland, including sites in similar settings to the revised proposed development. She is supported be a senior team with experience in expert witness testimony for renewables projects.	
Terrestrial Ecology Assessment	Richard Arnold SLR	MCIEEM CEnv MRes BSc (Hons)	Richard has over 26 years of experience as a professional ecological consultant. This experience includes work on some of the largest development projects in the UK and Ireland, as well as some work in the Middle East. Richard has worked on development projects in most sectors, including pipelines, cable routes, railways, roads, urban regeneration, ports, power stations and renewable energy projects, such as windfarms, and at all stages of the development process, from design to completed development.	Summit House, 12 Red Lion Square, London, WC1R 4QH
	Rowan Smith SLR	MSc BSc (Hons)	Rowan is a Senior Consultant with over 6 years' professional experience in both ecological consultancy and research sectors. She has a broad environmental science background and expertise in both terrestrial and aquatic ecology. Her experience includes undertaking and contributing to EIA/EcIA and HRA assessments for a range of energy generation projects including pumped storage hydro schemes, windfarms and solar.	The Tun, 4 Jackson's Entry, Edinburgh, EH8 8PJ

Technical Discipline	Consultant	Qualifications	Experience	Address
Ornithology Assessment	Steve Percival Ecology Consulting	BSc (Hons) Biological Sciences PhD Zoology Member of the Chartered Institute for Ecology and Environmental Management (CIEEM), the British Ecological Society and the British Ornithologists' Union.	Steve has been involved in over 400 renewable energy projects, including carrying out ecological assessments, preparation of ecological material for Environmental Statements and EIA Reports and giving evidence at public inquiries, in the UK and internationally.	Swallow Ridge Barn, Old Cassop, Durham, DH6 4QB
Hydrology, Hydrogeology & Geology Assessment	David Nisbet SLR	BSc (Hons) Geology and Fellow of the Geological Society (FGS)	David is an Associate Director in the Land Quality & Remediation team with over 10 years' experience in environmental consultancy. David has led geology and peat assessments on many renewable and electrical transmission projects across the UK and Ireland, including PLHRA, peat management, engineering geological assessment and carbon balance calculations.	24 St. Vincent Place, Glasgow, G1 2EU
Transport & Traffic Assessment	Gordon Buchan Pell Frischman	BSc (Hons), MSc, CMILT, FCIHT	Gordon has over 25 years' experience of undertaking the transport assessments associated with new developments and has worked on renewable energy and energy distribution projects across the UK, Ireland and Northern Europe.	5th Floor, 85 Strand, London, WC2R 0DW
Acoustic Assessment	Mike Craven RES	BSc Audio Technology	Mike is a Senior Acoustic Specialist with over 20 years' experience of undertaking accoustic assessments for	Third Floor, STV, Pacific Quay, Glasgow, G51 1PQ

Technical Discipline	Consultant	Qualifications	Experience	Address
		MIOA, Member of the Institute of Acoustics	renewable energy proejcts across the UK.	
Socio-economic, Recreation & Tourism Assessment	Ben Wyper SLR	BSc (Hons), MSc	Ben is a Senior EIA Consultant at SLR for the past four years and undertakes many of SLR's Socio-Economic Impact Assessments on both onshore and offshore windfarms, quantifying the projects' impacts on the local economy, land use, access to recreation and tourism.	24 St. Vincent Place, Glasgow, G1 2EU
	Steve Lucas Development Economics	BSc (Hons), MSc	Steve is an economist with nearly 30 years' experience of working in the UK whose expertise lies in business development, economic regeneration, and project appraisal. He has undertaken over 50 Green Book compliant economic appraisals and cost benefit analyses of major infrastructure and development projects over the past seven years, representing total public sector investment of well over £15 billion.	Development Economics, Yale House, The Green, Rossett, LL12 0DS
Shadow Flicker & Telecommunications	Stefonas Kolydas RES	BSc (Hons) Physics, MSc Renewable Energy Engineering MSc Environmental Physics	8+ years of experience in energy yield assessments and 4+ years of perience in wind farm development technical work.	Third Floor, STV, Pacific Quay, Glasgow, G51 1PQ
Aviation Assessment	Sam Johnson RES	MMath Mathematics	Over 20 years' experience working in radar, including over 15 years working	Third Floor, STV, Pacific Quay, Glasgow, G51 1PQ

Technical Discipline	Consultant	Qualifications	Experience	Address
			specifically with aviation and radar in the wind industry.	

1.7 Publicity of the AEI Report

1.7.1 Printed copies of the NTS and AEI Report (including figures and appendices) may be obtained from:

RES Ltd,
Third Floor STV,
120 Govan Road,
Glasgow,
G51 1PQ

1.7.2 Email: carey.green@res-group.com

1.7.3 Hard copies of the AEI NTS and AEI Report, together with the EIA Report October 2023, will be available for viewing in the following locations:

- Lauder Library, Mid Row, Lauder, TD2 6SZ
- Oxton War Memorial Hall, Station Road, Oxton, TD2 6PL

1.7.4 The NTS is available free of charge, and a limited number of hard copies of the AEI Report is available for £1,500 per copy. The price of the hard copy reflects the costs of producing the landscape and visual visualisations.

1.7.5 Alternatively, a DVD or USB memory stick containing PDF files of the AEI Report are available for £15 per CD / USB memory stick. These PDF files can also be downloaded for free from the Glenburnie Wind Farm project website page at:

www.glenburnie-windfarm.co.uk

1.8 Representations to the Application

1.8.1 Any representations to the application should be made directly to the Scottish Government at:

Energy Consents Unit
5 Atlantic Quay
150 Broomielaw
Glasgow
G2 8LU

1.8.2 Email: representations@gov.scot Online: http://www.energyconsents.scot/