1. Introduction

1.1 Background

- 1.1.1 Breezy Hill Energy Limited (hereafter referred to as 'the Applicant') is applying to the Scottish Ministers for consent to construct and operate Breezy Hill Wind Farm (hereafter referred to as the 'Proposed Development') in East Ayrshire, Scotland.
- 1.1.2 The total generating capacity of the Proposed Development will be greater than 50 MW, therefore the Applicant is submitting an application to the Scottish Ministers via the Scottish Government Energy Consents Unit (ECU) under Section 36 of the Electricity Act 1989 and deemed planning permission under the terms of the Town and Country Planning (Scotland) Act 1997, at site centre British National Grid (BNaG) 248092, 612583 (the 'Site').

1.2 The Applicant

1.2.1 The Applicant is Breezy Hill Energy Limited, a company owned by Brockwell Energy Limited (BEL) and based in Scotland, with headquarters in Edinburgh. BEL's main business areas are development, construction and operation of onshore wind, solar and battery energy storage systems. BEL is an experienced renewable energy developer who has successfully delivered over £900m of projects in the last six years, including the North Kyle Energy Project in East Ayrshire, which is located directly adjacent to the Proposed Development. BEL has also developed other wind projects and two energy-from-waste facilities, one at Earl's Gate Energy Centre, Grangemouth and the other at Westfield, Fife.

1.3 Site and Proposed Development Description

Site Description

- 1.3.1 The Proposed Development is located within the East Ayrshire Council administrative area and within the North Kyle Forest Estate (NKF) managed by Forestry and Land Scotland (FLS), approximately 13 km south-east of Ayr, 8.5 km south-west of Cumnock and 4.5 km north of Dalmellington. The location of the Proposed Development is shown on **Figure 1.1**.
- 1.3.2 The Site comprises an area of 1,012 hectares (ha) and is situated within the NKF, which spans around 4,000 hectares. The NKF primarily features Sitka spruce. The Proposed Development is set within moorland, with most of the Site being under commercial forestry. Much of the Site is underlain by an abandoned coal mine, with the result that there is some residual mining infrastructure remaining on the surface, such as the Coyle Water and the access track.

Overview of Proposed Development

1.3.3 The Proposed Development will comprise up to 20 turbines resulting in an overall generating capacity of approximately 100 MW – enough to power around 125,200 homes annually with clean, low-cost electricity. A 40 MW battery energy storage system (BESS) will also be included, meaning the Proposed Development will have



a maximum total capacity of 140 MW. The Proposed Development would contribute towards international and national targets for the generation of renewable energy and reduction in greenhouse gas emissions. The Proposed Development is described in detail in Chapter 2: Proposed Development.

- 1.3.4 In addition to the turbines and BESS, the Proposed Development will include the following ancillary infrastructure:
 - Turbine foundations;
 - Crane hardstands;
 - A site entrance;
 - Internal and private access road network;
 - Watercourse crossings;
 - On-site borrow pit(s) depending on the suitability of site-won materials to provide aggregate for the construction of the development;
 - Transformers and underground cables;
 - Onsite substation / switchgear building;
 - A substation construction compound; and
 - Three construction compounds.
- 1.3.5 The details of the proposed wind turbine locations can be found in **Chapter 2: Proposed Development**. The locations are shown on **Figure 1.2**.
- 1.3.6 The electricity produced will be exported to the electricity network at transmission level. The expected point of connection to the wider electricity network is discussed in **Chapter 2: Proposed Development**.

1.4 Purpose of the EIA Report

- 1.4.1 ITPEnergised (which is now part of SLR Consulting) was appointed by the Applicant to undertake an Environmental Impact Assessment (EIA) of the Proposed Development in accordance with The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ('the EIA Regulations'). The EIA process is the systematic process of identifying, predicting, and evaluating the environmental impacts of a proposed development. Where appropriate, it also sets out mitigation measures designed to prevent, reduce and, if at all reasonably possible, offset potential significant adverse environmental effects. An assessment of residual effects, those expected to remain following implementation of mitigation measures, is also presented.
- 1.4.2 The main findings and conclusions of this EIA Report are summarised in a Non-Technical Summary (NTS), as required by the EIA Regulations. The NTS, provided in Volume 4 of the EIA Report, summarises the key findings of the EIA in easily accessible, non-technical language, ensuring everyone with an interest in the project can understand and access information on its predicted environmental effects.



- 1.4.3 This EIA Report, including the NTS, accompany the application for Section 36 consent, being submitted to the ECU.
- 1.4.4 The EIA Report is split into five volumes, as set out below:
 - Volume 1 is the main EIA Report (this document);
 - Volume 2 contains the figures that inform the EIA Report;
 - Volume 3 contains supporting information and technical appendices for each of the technical chapters, and additional studies that have been prepared to inform the relevant assessments as reported in the EIA Report;
 - Volume 4 is the NTS; and
 - Volume 5 contains confidential information.
- 1.4.5 Volume 1 (this document) is structured as follows:
 - **Chapter 1** provides an introduction to the EIA Report and its authors;
 - **Chapter 2** provides a description of the existing Site, details of the Proposed Development, the construction, operation and maintenance processes, decommissioning process, need for the development and carbon considerations;
 - **Chapter 3** provides a description of the design principles, design evolution and alternatives that were considered;
 - Chapter 4 describes the methodology of the EIA process including the scope of the process, justification for topics scoped out of the EIA, and details of the Public Consultation process;
 - Chapter 5 assesses the effects on landscape and visual amenity;
 - Chapter 6 assesses the effects on ecology;
 - Chapter 7 assesses the effects on ornithology;
 - **Chapter 8** assesses the effects on geology, hydrology, hydrogeology and peat;
 - Chapter 9 assesses the effects on forestry;
 - Chapter 10 assesses the effects on cultural heritage;
 - Chapter 11 assesses the effects of traffic and transport;
 - Chapter 12 assesses the effects of noise;
 - Chapter 13 reports on the effects on aviation and radar;
 - **Chapter 14** reports on other issues including telecommunications and shadow flicker; and
 - Chapter 15 is the Schedule of Commitments.

1.5 Assessment Team

1.5.1 The assessment was undertaken by SLR Consulting's environmental teams supported by external consultants. **Table 1.1** outlines the full EIA team and their experience.



Table 1.1: EIA F	Project Team
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Consultant	Input to EIA	Company	Experience
Gavin Spowage	EIA Project Director	SLR	BSc (Hons) Environmental and Management Sciences, MSc Environmental Management, PIEMA. 20 years' experience in environmental consultancy.
Donnette Briggs	EIA Project Manager		BSc Natural Sciences, BSc Honours (Botany), MSc Environmental Management. 16 years' experience in environmental consultancy.
Gregory Walton	EIA Assistant Project Manager		BSc (Hons) Environmental Sciences, MSc Environmental Management. 2.5 years' experience in environmental consultancy.
David Bell	Planning	David Bell Planning	BSc (Hons) Town & Country Planning, Diploma Urban Design, MCIHT, MRTPI. 31 years' experience in planning and development.
Jordan Stirrat	Engineering & Design Support	Pell Frischmann	Engineer with over 6 years of experience primarily working within the area of renewables and infrastructure design throughout Scotland and the wider UK market.
Scott McGarva			Civil engineer and Project Manager with over 20 years' work experience working on onshore renewable energy schemes within the UK and Ireland from pre-planning through to on-site delivery.
Dale Turner	Landscape and Visual Impact Assessment	Pegasus	Senior Director - MSc in Environmental Impact Assessment, is an affiliate member of the Institute of Environmental Management and Assessment and has over 15 years' experience in undertaking and overseeing LVIA for energy developments, including wind energy developments.
Tom Heaton			Associate Landscape Architect with experience in LVIA across energy developments, including wind developments. BA (Hons), PGDip Landscape Architecture, CMLI. 13 years' experience in environmental consultancy.
Drew Oliver	Ecology	MacArthur Green	Principal Ecologist with 16 years ecological experience in consultancy. Drew leads of ecological impact assessments for onshore renewables project and has extensive experience in undertaking HRA and leading Biodiversity Enhancement Management Plans (BEMP).
			BSc (Hons) Aquaculture, MSc Aquaculture and PhD Aquaculture. Chartered Environmentalist (CEnv), Full member of Chartered Institute of Ecological and Environmental Management (MCIEEM), Full member of Institute of Fisheries Management (MIFM).
Sarah Sanders	Ornithology	MacArthur Green	Principal Ornithologist with 12 years ornithology consultancy experience, leading on ornithological impact assessments for onshore renewables developments, HRAs and input into Habitat Management Plans. Member of the Chartered



Consultant	Input to EIA	Company	Experience
			Institute of Ecology and Environmental Management (CIEEM), BSc (hons) Zoology.
David Nisbet	Geology, Hydrology, Hydrogeology, Peat and Carbon Balance	SLR	BSc (Hons) Earth Science, Associate Director, head of geology, hydrology and peat service with over 12 years' experience within a consultancy setting. David has led geology and peat assessments on many renewable and electrical transmission projects across the United Kingdom and Ireland, including PLHRA, peat management, engineering geological assessment and carbon balance calculations.
Joanna Cassidy			BSc (Hons) Geology, Senior Hydrologist with six years' experience within a consultancy setting. Joanna has experience in hydrology, hydrogeology and geology assessments for renewable and transmission developments. This includes EIA assessment and accompanying GWDTE and PWS Risk Assessments.
Norman O'Neill	Forestry	RTS Forestry	BSc For, MIC For, MIC Env. Senior forestry consultant with 20years experience in supporting utility projects including windfarms and overhead lines
Veronica Llorente			BSc (Hons) in Forestry Engineering, University of Valladolid 2010 Associate Member of the Institute of Chartered Foresters
			9.5 Years Forestry management and consultancy experience
Christine Rennie	Cultural Heritage	GUARD Archaeology	MA Archaeology and Classical Civilisation PG Dip Geophysical Survey with Aerial Photograph in Archaeology
			22 years' experience in archaeology, 14 of which are in consultancy.
Stephen Cochrane	Access, Traffic and Transport	Pell Frischmann	BSc (Hons) Construction and Project Management.
			HND, Civil Engineering.
			Chartered Member of the Chartered Institute of Logistics and Transport (CMILT).
			Member of the Chartered Institution of Highways and Transportation (MCIHT)
			Over 22 years' experience in the traffic and transportation industry and over 17 years' experience in the production of EIA transport Chapters (and associated studies) for onshore wind farms and other energy generation and distribution projects in Scotland and the UK.
Gordon Buchan			BEng (Hons) Civil & Transportation Engineering, MSc Transport Engineering, CMILT, MCIHT 26 years' experience as a transport consultant.



Consultant	Input to EIA	Company	Experience
Rob Shepherd	Noise	Hayes McKenzie	MEng Acoustical Engineering, Member of the Institute of Acoustics. Director and acoustic consultant with 20 years' experience of acoustic consultancy.
			Rob has worked on over 350 wind farm sites including carrying out environmental noise impact assessments, operational compliance measurements and assessments, complaint investigation, and wind turbine sound power level testing.
Ed Guy			BSc Acoustics with Music, and Associate Member of the Institute of Acoustics. Assistant Consultant and Equipment Manager.
			Ed assists with all areas of consultancy, including the measurement, prediction, and assessment of wind turbine noise. He also manages Hayes McKenzie's noise measurement equipment and other devices.
Richie Hinchcliffe	Aviation and Radar	Osprey CSL	35 years as an RAF Air Traffic Controller. Over 10 years with RAF Command positions.
			Dip. Leadership and Management. Over 10 years' experience in aviation Safety & Engineering Consultancy (Principal Consultant).
Stew Heald			25 years as an RAF Air Traffic Engineer (Radar, Communication & Navigation aids). Over 10 years with RAF Technical Command positions.
			TEC I/II/III Aerospace studies – Avionics Electrical and Electronic principals. Over 10 years' experience in aviation Safety & Engineering Consultancy (Senior Consultant).
Foz Binning			25 years flying in the RAF & 6 years in defence technical research. Over 10 years with the MOD and Civil Aviation Authority (CAA) as an airspace regulator & policy maker.
			BSc (Hons) Aeronautical Engineering & MBA. Over 10 years' experience in aviation Safety & Engineering Consultancy (Principal Consultant).

1.6 Availability of the EIA Report

1.6.1 Printed copies of the NTS and EIA Report are available by request from:

Brockwell Energy Limited.

The Eagle Building, Third Floor,

19 Rose Street,

Edinburgh,

EH2 2PR

Email: breezyhill@brockwellenergy.co.uk

Online: https://www.brockwellenergy.com/projects/breezy-hill-energy/



Hard copies of the NTS are available free of charge, and hard copies of the EIA Report will be charged at $\pounds1,500.00$ per copy. The price of the hard copy reflects the cost of producing the Landscape and Visual visualisations.

1.6.2 A printed copy of the EIA Report is available to view during normal opening hours at:

Dalmellington Community Centre,

38 Ayr Road

Dalmellington

East Ayrshire

KA6 7SJ

- 1.6.3 Electronic copies of the EIA Report, including all figures, appendices and accompanying documents are available to view and download on the project website https://www.brockwellenergy.com/projects/breezy-hill-energy/ and can also be accessed at https://www.energyconsents.scot/.
- 1.6.4 Alternatively, a USB copy can be made available on request at a charge of £15 by emailing breezyhill@brockwellenergy.co.uk.

1.7 Representation to the Application

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



1.8 References

Scottish Government (2017). The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017. Available at:

https://www.legislation.gov.uk/ssi/2017/101/regulation/18/made.

UK Government Department of Business, Enterprise and Industrial Strategy (BEIS) (2022). Subnational Electricity and Gas Consumption Statistics, Regional and Local Authority, Great Britain, 2021. Available at: https://www.gov.uk/government/statistics/subnational-electricity-and-gas-consumption-summary-report-2021.

UK Government (1989). Electricity Act 1989. Available at: https://www.legislation.gov.uk/ukpga/1989/29/contents.

UK Government (1997). Town and Country Planning (Scotland) Act 1997. Available at: https://www.legislation.gov.uk/ukpga/1997/8/contents