Introduction 1

1.1 Introduction

- Renewable Energy Systems Ltd (RES) (hereinafter referred to as 'the Applicant') is 1.1.1 applying for consent to Scottish Ministers under Section 36 of the Electricity Act 1989 (as amended), seeking consent and deemed planning permission under s57(2) of the Town and Country Planning (Scotland) Act 1997 to construct and operate the proposed Hill of Fare Wind Farm an electricity generating station of more than 50MW (hereinafter referred to as the 'Proposed Development'), at site centre British National Grid NJ 70063 02717 (Refer to Figure 1.1).
- 1.1.2 The application is supported by this Environmental Impact Assessment Report (EIAR) as required by The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the 'EIA Regulations'). This EIAR has been prepared to assess the likely significant environmental effects and the mitigation and enhancement measures included as part of the Proposed Development and accompanies the Section 36 Application submitted to the Scottish Ministers.
- 1.1.3 This Chapter of the EIAR provides an introduction to the Proposed Development and explains the need for the project, as well as providing an overview of the purpose of the EIAR, its structure and the technical experts who prepared it. It also identifies where hard copies of this EIAR can be viewed and obtained if required.
- 1.1.4 This EIAR has been prepared by ITPEnergised on behalf of the Applicant to accompany an application for consent to construct and operate the Proposed Development.

Need for the Development 1.2

- The UK and Scotland's current climate change ambitions are amongst the highest in 1.2.1 Europe. The Scottish Government declared a climate emergency in May 2019. At the end of March 2020, the Scottish Government brought into force the measures in the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 passed by the Scottish Parliament in September 2019.
- 1.2.2 The UK government set a target of net zero carbon dioxide (CO₂) emissions by 2050. In Scotland, the target date for net zero target is 2045 with interim targets of reductions in CO₂ emissions of 56% by 2020, 75% by 2030 and 90% by 2040. These

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- Scotland's National Planning Framework 4 (NPF4) identifies on page 103 that "a large 1.2.3 and rapid increase in electricity generation from renewable sources will be essential for Scotland to meet its net zero emissions targets" (Scottish Government, 2023). Onshore wind with generating capacity in excess of 50MW is classified by NPF4 as National Development and applies to the Proposed Development. The Need is clear; NPF4 states such development is "fundamental to achieving a net zero economy". National and local policy is presented in Chapter 5: Planning & Policy Context and assessed in respect of the Proposed Development in the Planning Statement.
- 1.2.4 The annual generation from the proposed turbines and battery energy storage system (BESS), based on an anticipated 38.59% capacity factor, is estimated at approximately 357¹ gigawatt-hours (GWh). The proposed turbines will therefore supply renewable electricity equivalent to the approximate annual domestic needs of approximately 101,000 average UK households². Each unit of renewable electricity transmitted will displace a unit of conventionally generated electricity, therefore displacing CO₂ emissions.
- 1.2.5 As well as making a positive contribution towards action on climate change and renewable energy targets, the Proposed Development would provide opportunities for community investment and create further employment opportunities in the local area.
- Further information on the need for and benefits of the Proposed Development are 1.2.6 provided in Chapter 13: Socio-economics, and the Planning Statement which accompanies the application.
- 1.2.7 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 Proposed Development. This would be a fully integrated renewable energy solution in direct response to meeting national and international climate change targets. The Proposed Development includes a battery energy storage system (BESS) and would be able to regulate output and provide clean power to people's homes when they need it most. 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 Calculated using a 3859% capacity factor, figures are derived as follows: 105.6 MW × 8,760 hours/year × 0.3859 (capacity factor) = 357GWh.

² Calculated by taking the predicted annual electricity generation (based on RES' predicted site generation capacity of 105.6MW), together with RES' predicted capacity factor of 38.59% (based on a 6.6MW candidate turbine at 180m & 200m tip heights - and dividing this by the

annual average electricity figures from the Department of Business, Energy and industrial Strategy (BEIS) showing that the annual UK average domestic household consumption is 3,509 kWh (December 2022). Final wind farm capacity will vary depending on the outcome of planning permission and the turbine selected.

The Proposed Development 1.3

- 1.3.1 The Proposed Development is located north of the A980 and approximately 6 km north of Banchory in Aberdeenshire. The site is within the administrative boundary of Aberdeenshire Council. Figure 1.1 presents a general context for the location of the site within Aberdeenshire and Figure 1.2 presents the extent of the site. Additionally, Figure 1.3 focusses on the proposed turbines themselves including co-ordinate locations.
- 1.3.2 There are three areas of Ancient Woodland designation on-site, although the turbines have been positioned outwith these areas. There are no other designated ecological or heritage areas within the Site.
- 1.3.3 The Proposed Development will comprise sixteen turbines, with heights to blade tip as follows:
 - eleven turbines up to 180 m in height to blade tip; and
 - five turbines up to 200 m in height to blade tip.
- 1.3.4 Each turbine will have a generating capacity of approximately 6.6 MW.
- The Proposed Development and associated infrastructure are presented in Figure 1.2 1.3.5 and described in detail in Chapter 2: Project Description.

The Applicant 1.4

- RES is the world's largest independent renewable energy company active in onshore and 1.4.1 offshore wind, solar, energy storage, green hydrogen, 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 12 GW worldwide for a large client base. RES employs more than 2,500 people and is active in 14 countries.
- 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 twenty-one wind farms in Scotland with a total generation capacity of 597 MW. The Applicant has the necessary knowledge and experience in renewable energy to develop the Proposed Development. The Applicant's details are provided in **Table 1.1**.

Table 1.1: Applicant Details

Applicant

Renewable Energy Systems Ltd

Structure of the EIAR 1.5

- 1.5.1 The EIAR has been prepared in accordance with the EIA Regulations and follows the structure presented below. Each 'technical' chapter (Chapters 6 to 15) considers the baseline environment, the likely significant effects for each phase of the Proposed Development and cumulative impacts.
- The EIAR is presented in four volumes as follows: 1.5.2
 - Volume 1: EIAR.

1.5.3 The EIAR written text is structured as follows:

- Chapter 1: Introduction;
- Chapter 2: Project Description;
- Chapter 3: Design Evolution and Alternatives;
- Chapter 4: Approach to the EIA;
- Chapter 5: Planning & Policy Context •
- Chapter 6: Landscape & Visual Impact Assessment;
- Chapter 7: Cultural Heritage Assessment;
- Chapter 8: Ecology Assessment; •
- Chapter 9: Ornithology Assessment;
- •
- Chapter 11: Access, Traffic & Transport Assessment; •
- Chapter 12: Acoustics Assessment;
- Chapter 13: Socio-economics; •
- Chapter 14: Aviation & Other Issues,
- Chapter 15: Schedule of Mitigation and Residual Effects.

The rest of the EIAR is structured as follows: 1.5.4

- Volume 2: Figures;
- Heritage Visualisations; and
- Volume 4: Technical Appendices.

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Chapter 10: Geology, Hydrology & Hydrogeological Assessment;

Volume 3: Landscape and Visual Impact Assessment & Cultural

- 1.5.5 The technical appendices that are referred to in each Chapter of the EIAR are compiled separately in Volume 4. They are numbered sequentially for each Chapter in which they are principally referred to.
- 1.5.6 The NTS is a standalone document and provides a non-technical overview of the EIAR and is intended for review by the general public. It includes a description of the Proposed Development and a summary of the predicted environmental impacts.

EIA Project Team 1.6

The EIA was undertaken by ITPEnergised environmental teams supported by external 1.6.1 consultants. Table 1.2 outlines the full EIA team and their experience.

Table 1.2: EIA Team Details

Consultant	Input to the EIA	Company	Experience			
Gavin Spowage	EIA Project Director	ITPEnergised	Over 18 years' experience in environmental consulting.			
				Ian Bullard	Traffic Lead	
			PIEMA certified.			
Bronwyn Fisher	EIA Project Manager	ITPEnergised	BSc Conservation Ecology			
			Over 10 years' experience in environmental consulting.		Acoustics Lead	
Mark Kummerer	Socio-economics	MKA Economics Ltd	MA Economics / BA (Hons) Economics	Peter Brooks	Acoustics Leau	
			Over 25 years' experience as an economic consultant.		Aviation Lead	
David Gooch	Chartered Landscape Architect	Pegasus Group	Chartered Member of the Landscape Institute with over 20 years' experience and has worked on numerous Landscape and Visual Impact Assessment (LVIA) Chapters for Wind Energy Development in Scotland.	Sam Johnson	Aviation Lead	
Beth Gray	Cultural Heritage Lead	SLR	Over six years' experience as an archaeological consultant.			
			Associate of Chartered Institute of Archaeologists (ACIFA)	David Bell	Planning Lead	
Richard King	Ecology Lead	ITPEnergised	Over 13 years' experience in environmental consulting			
			Full member of CIEEM (MCIEEM)			
Rafe Dewar	Ornithology Lead	MacArthur Green	BSc. (hons) Zoology; MSc. Environmental Sustainability.	Stefanos Kolydas	Telecommunications and Shadow Flicker	+
			18 years ecology consultancy experience, leading on			

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Company	Experience
company	ornithological and ecological impact assessments for onshore and offshore renewables development, HRAs, and Habitat Management Plans. Member of the Chartered
Envirocentre	Institute of Ecology and Environmental Management BSc (Hons) Geoscience MSc Water Resources Engineering
	MCIWEM C.WEM Chartered Water and Environmental Manager
	Over 12 years' experience in consulting.
Sweco UK Limited	Over 20 years' experience in transport consulting.
	Member of Chartered Institution of Highways and Transportation (CIHT)
RES	13 years experience working in acoustics.
	Corporate member of the Institute of Acoustics (MIOA).
RES	MMath in Mathematics.
	Over 20 years' experience in the radar industry with over 15 years specifically in the area of wind farms.
	Member of the Renewable UK Aviation Working Group and is Chair of Aviation Investment Fund Company Limited (AIFCL).
David Bell Planning	BSc (Hons) Dip UD MCIHT MRTPI
	Chartered Town Planner with over 30 years' experience of planning and development practice in the private sector.
RES	MSc in Renewable Energy Engineering.

Input to the EIA

Geology &

Hydrology Lead

Consultant

Martin Nichols

Consultant	Input to the EIA	Company	Experience
			Over eight years' experience in the renewable energy industry.
Gavin Shirley	Forestry	RES	MSc in Urban and Regional Planning.
			Over 12 years' experience in the renewable energy industry.

Publicity of the EIAR 1.7

- The EIAR will be publicised in accordance with Part 5 of the EIA Regulations and the 1.7.1 Electricity (Applications for Consent) Regulations 1990 (as amended). In accordance with Section 18 of the EIA Regulations, copies of the EIAR will be made available for inspection by the public, notice of which will be published on the application website, in the Scotsman, the Edinburgh Gazette and in a relevant newspaper within the locality of the Proposed Development, likely to be the Deeside Piper.
- 1.7.2 The following Community Councils (CC) will be separately notified of the publicity of the EIAR:
 - 1. Cluny, Midmar and Monymusk CC;
 - 2. Torphins CC;
 - 3. Inchmarlo, Brathens and Glassel CC;
 - 4. Banchory CC;
 - 5. Crathes, Drumoak and Durris CC;
 - 6. Echt and Skene CC; and
 - 7.0Mid Deeside CC.
- Printed copies of the NTS and EIAR (including figures and appendices) may be obtained 1.7.3 from:

RES Ltd,

Third Floor STV,

120 Govan Road.

Glasgow,

G51 1PQ

Email: carey.green@res-group.com

Hard copies of the NTS and EIAR will be available for viewing in the following locations: 1.7.4

Banchory Library	Alf
Bridge Street	Alf
Banchory	Gr
AB31 5SU	Alf
	ΔB

- 1.7.5 Hard copies of the NTS are available free of charge. Hard copies of the EIAR are available for £1,500 per set. The price of the hard copy reflects the costs of producing the Landscape and Visual visualisations in particular.
- 1.7.6 Alternatively, a USB memory stick containing PDF files of the EIAR are available for £15 each. These PDF files can also be downloaded for free from the Hill of Fare Wind Farm project website page at www.hilloffare-windfarm.co.uk

Representations to the Application 1.8

Any representations to the application should be made directly to the Scottish 1.8.1 Government at: **Energy Consents Unit**

5 Atlantic Quay 150 Broomielaw Glasgow G2 8LU

Email: representations@gov.scot

References 1.9

Aberdeenshire Council (2023). Local Development Plan. Available at: https://online.aberdeenshire.gov.uk/ldpmedia/LDP2021/AberdeenshireLocalDevelo pmentPlan2023IntroductionAndPolicies.pdf Department for Business, Energy and Industrial Strategy (BEIS) (2021). Renewable *electricity capacity and generation*. Available at: https://www.gov.uk/government/statistics/energy-trends-section-6-renewables Scottish Government (2017). The future of energy in Scotland: Scottish Energy Strategy. Available at: https://www.gov.scot/publications/scottish-energy-strategy-future-energyscotland-9781788515276/ Scottish Government (2019). The Climate Change (Emissions Reduction Targets) Scotland) Act 2019. Available at: Available at: https://www.legislation.gov.uk/asp/2019/15/enacted

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Online: http://www.energyconsents.scot/

Scottish Government (2023), National Planning Framework 4. Available at: <u>https://www.gov.scot/publications/national-planning-framework-4/</u> UK Government (1989). *The Electricity Act 1989*. Available at: <u>https://www.legislation.gov.uk/ukpga/1989/29/contents</u>