

# Chapter 1: Introduction

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# 1 Introduction

## 1.1 Introduction

- 1.1.1 Carn Fearna Wind Farm Limited (the Applicant) proposes to install and operate up to nine wind turbines with associated ancillary infrastructure (the Carn Fearna Wind Farm hereafter referred to as the Proposed Development) on land (the site) approximately 1.5km north-east of the village of Garve in Ross-shire, as shown on Figure 1.1. The site application boundary is shown on Figure 1.2. The wind farm site is centred on OSGB<sup>1</sup> National Grid Reference (NGR) E-242260, N-862627 and covers an area of approximately 1,003 hectares (ha) in total within the Highland Council (THC) area (within the Garve and District and Strathpeffer Community Council areas). The characteristics of the site are described in Chapter 2.
- 1.1.2 There would also be an off-site turning circle located at Inchbae Lodge to allow Indivisible Abnormal Load (AIL) Vehicles to turn round and approach the site from the north. The off-site turning circle is centred on NGR 239892, 869390 and covers an area of approximately 2ha. This forms part of the Section 36 application and would be located approximately 5km to the north of the site as shown on Figure 3.2.
- 1.1.3 The Proposed Development is being developed by Carn Fearna Wind Farm Limited, a wholly owned subsidiary of Statkraft UK Limited.
- 1.1.4 A team of consultants, led by SLR Consulting Limited (SLR), has been appointed to undertake an Environmental Impact Assessment (EIA), to determine and evaluate the potential effects of the Proposed Development. The results are presented in this EIA Report.
- 1.1.5 For the purposes of the EIA, the height of the proposed turbines have been assessed as up to 200 m to blade tip in an upright position for five of the turbines (T1, T2, T3, T4 and T8), and up to 180 m for the remaining four turbines (T5, T6, T7 and T9), as detailed on Figure 3.1. Currently the candidate turbine is the V162, however a competitive procurement process would be undertaken prior to construction, should consent be forthcoming, to select the final turbine that would be installed on-site. It is currently expected that each wind turbine would be rated at approximately 7.2 MW giving a total installed capacity of approximately 64.8MW (noting this capacity is indicative and subject to final turbine model selection as noted below). This equates to annual generation from the proposed wind turbines, based on an anticipated 31.7% capacity factor, which is estimated at approximately 189.9 gigawatt-hours (GWh)<sup>2</sup>. The proposed wind turbines will therefore supply renewable electricity equivalent to the approximate annual domestic needs of up to 56,642 average UK households<sup>3</sup>. Each unit of renewable electricity transmitted will displace a unit of conventionally generated electricity, therefore displacing carbon dioxide (CO<sub>2</sub>) emissions. It is estimated that the proposed wind turbines will displace approximately 82,986<sup>4</sup> tonnes of CO<sub>2</sub> emissions per year, or 4,149,315 tonnes over the anticipated 50-year lifespan of the Proposed Development., which would be a significant contribution to Scottish and UK Government renewable energy targets.
- 1.1.6 However, it is likely that wind turbines with a rating greater than 7.2 MW could be available at the time of procurement and construction given rapidly evolving onshore wind technology and the installed capacity of the Proposed Development would be confirmed once the final turbine is selected.
- 1.1.7 As the Proposed Development would have a generating capacity in excess of 50MW, Carn Fearna Wind Farm Limited is submitting an application under Section 36 of the Electricity Act 1989 to the Scottish Government Energy Consents Unit (ECU). As part of this process, deemed planning permission under the Town and Country Planning (Scotland) Act 1997 is also sought. Therefore, THC serving as the lead statutory consultee will be consulted and have the opportunity to submit a representation on the Proposed Development.
- 1.1.8 The Proposed Development would connect to the existing Corriemoillie substation, located approximately 5.5km to the west of the site. The precise route of connection has not yet been determined by the transmission network operator. The Applicant's understanding is that the grid connection would require

<sup>1</sup> Ordnance Survey of Great Britain

<sup>2</sup> For example, using a 31.7% capacity factor, figures are derived as follows: 64.8 MW × 8,760 hours/year × 0.317 (capacity factor) = 189,941MWh.

<sup>3</sup> Calculated using the most recent statistics from the Department of Energy Security and Net Zero (DESNZ) showing that mean domestic electricity consumption is 3,239kWh (as of January 2024).

<https://assets.publishing.service.gov.uk/media/65b12dfff2718c000dfb1c9b/subnational-electricity-and-gas-consumption-summary-report-2022.pdf>

<sup>4</sup> Using DESNZ's all non-renewable fuels" emissions statistic of 437 tonnes of carbon dioxide per GWh of electricity supplied in the Digest of UK Energy Statistics (July 2024)

[https://assets.publishing.service.gov.uk/media/66a7da1bce1fd0da7b592f0a/DUKES\\_2024\\_Chapter\\_5.pdf](https://assets.publishing.service.gov.uk/media/66a7da1bce1fd0da7b592f0a/DUKES_2024_Chapter_5.pdf)

consent under Section 37 of the Electricity Act 1989, which will be a separate application. The Section 37 application would be progressed by the transmission network operator.

## 1.2 Planning History

- 1.2.1 Planning permission (13/04791/FUL) was refused by Scottish Ministers in September 2014 for the proposed 14 turbine Carn Gorm Wind Farm on the same site.

## 1.3 Purpose of the EIA Report

- 1.3.1 The EIA has been undertaken in accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the EIA Regulations).
- 1.3.2 Where a development falls within one of the descriptions in Schedule 2 of the EIA Regulations 2017 and is considered likely to have significant effects on the environment then an EIA is required to be submitted with the application for consent. The Proposed Development falls within Schedule 2 as “a generating station, the construction of which (or operation of which) will require a section 36 consent but which is not a Schedule 1 development.”
- 1.3.3 Schedule 3 of the EIA Regulations 2017 lists the 'selection criteria' which must be taken into account by Scottish Ministers in determining whether a Schedule 2 development is an EIA development. These selection criteria relate to the nature, scale and location of the Proposed Development and consequently whether the project is likely to have to have significant effects on the environment.
- 1.3.4 For those developments listed under Schedule 2, the requirement for an EIA can be determined via a screening request made to Scottish Ministers. In this case, a screening request to Scottish Ministers was not sought as it was acknowledged at an early stage in the consideration of the site that given the nature, location and characteristics of the intended Proposed Development that an EIA would be required.
- 1.3.5 Regulation 3 of the EIA Regulations prohibits the Scottish Ministers from granting Section 36 consent for EIA development unless they have first taken the environmental information provided in the EIA Report into consideration.
- 1.3.6 This EIA Report presents the findings of the EIA process by describing the Proposed Development, the current conditions at the site, consideration of reasonable alternatives, design evolution, predicted future change in absence of the project and the likely impacts which may result from the Proposed Development. Where appropriate, mitigation and enhancement measures are proposed and any residual impacts are reported including where positive effects on biodiversity can be achieved in line with National Planning Framework 4 (NPF4).
- 1.3.7 This EIA Report is presented to the Scottish Government Energy Consents Unit (ECU) in the determination of the application for consent under Section 36 of the Electricity Act 1989. Deemed planning permission in terms of Section 57 of the Town and Country Planning (Scotland) Act 1997, as amended, for the Proposed Development, is also being sought.

## 1.4 The Applicant

- 1.4.1 The Applicant, Carn Fearna Wind Farm Limited, is a wholly owned subsidiary of Statkraft UK Limited (Statkraft).
- 1.4.2 Statkraft is a leading company in hydropower internationally and Europe's largest generator of renewable energy. The Group produces hydropower, wind power, and solar power and supplies district heating generating 62 TWh of renewable power. Statkraft is a global company in energy market operations and has over 6,000 employees in over 20 countries.
- 1.4.3 Statkraft is at the heart of the UK's energy transition. Since 2006, Statkraft has gone from strength to strength in the UK, building experience across wind, solar, hydro, storage, grid stability, EV charging, green hydrogen and a thriving markets business. Statkraft has invested over £1.3 billion into the UK's renewable energy infrastructure and facilitated over 4 GW of new-build renewable energy generation through Power Purchase Agreements (PPA). Statkraft develops, constructs, owns and operates renewable facilities across the UK and employs over 500 people in offices across Scotland, England and Wales.
- 1.4.4 Further information about Statkraft can be found at [www.statkraft.co.uk](http://www.statkraft.co.uk)

## 1.5 EIA Project Team and Competency

- 1.5.1 This EIA has been led by SLR with input from other specialist technical and environmental consultants.
- 1.5.2 SLR is one of the UK's fastest growing multi-disciplinary environmental consultancies. Within the energy sector, SLR provides a wide range of planning, environmental and technical services relating to the design and development of wind farms and other renewable energy projects. The company becomes involved in

all aspects of facility development, from initial concept design, through planning and permitting to the detailed design, construction management and closure stages.

- 1.5.3 SLR is a registered Environmental Impact Assessor, Member of the Institute of Environmental Management and Assessment (IEMA) and holder of the IEMA EIA Quality Mark. The company has significant experience in the preparation of planning applications and undertaking EIA for a wide variety of projects, including renewable energy, minerals, waste and infrastructure developments.
- 1.5.4 Further information on SLR Consulting Limited can be found on its corporate website at [www.slrconsulting.com](http://www.slrconsulting.com).
- 1.5.5 For this project, SLR is responsible for the following technical disciplines:
- Geology, Hydrogeology, Hydrology and, Peat and Carbon
  - Archaeology and Cultural Heritage
  - Site Access, Traffic, and Transport
  - Socio-economics, Tourism, Recreation and Land Use
  - Other environmental issues (e.g. shadow flicker, carbon and telecommunications)
  - Geographic Information Systems (GIS)
- 1.5.6 Other technical and environmental work has been undertaken by the following consultancies with output coordinated by SLR:
- David Bell Planning
  - Avian Ecology
  - Bow Acoustics
  - DGA Forestry
  - Optimised Environments (OPEN), now part of SLR
- 1.5.7 SLR confirms that the technical experts that have carried out the EIA and produced the EIA Report have the skills, relevant competency, expertise and qualifications to undertake the EIA for the Proposed Development. Table 1.1 demonstrates the relevant competency for each technical discipline covered in this EIA Report.

**Table 1.1 – Technical Disciplines and Competencies**

Discipline	Specialist Assessor	Qualifications	Years of Experience
EIA Management	SLR Gareth Hughes Jack Hughes	BA (Hons), MSc BA (Hons), MSc	17+ 2+
Climate Change, Energy and Planning Policy	David Bell Planning David Bell	BSc (Hons) DipUD MCIHT MRTPI	30+
Landscape and Visual Amenity	OPEN (part of SLR) James Welch Anna Webster	BA Hons L Arch, FLI BA Hons Land Arch	40+ 34+
Ecology & Ornithology	Avian Ecology Catrin Scott (Ecology) Dr Colin Bonnington (Ecology and Ornithology) Thomas Goater (& Ornithology)	MRes BSc (Hons) ACIEEM DPhil MSc BSc (Hons) FBNA FLS MRSB MCIEEM MSc BSc (Hons) MCIEEM	6 12+ 17+
Geology, Hydrogeology, Hydrology and Peat and Carbon	SLR Gordon Robb Katy Rainford Alan Huntridge Ruari Watson	BSc MSc MBA C.WEM FCIWEM BSc (Hons) FGS MCIWEM BSc (Hons) MSc BSc (Hons)	30+ 7 15+ 10+
Archaeology and Cultural Heritage and	SLR Beth Gray Gwyneth McCullough	MA (Hons) ACIfA BSc (Hons)	8 3
Site Access, Traffic and Transport	SLR Iain Lamb	B.Eng (Hons)	25+
Noise	Bow Acoustics		

Discipline	Specialist Assessor	Qualifications	Years of Experience
	Richard Carter	CEng, BEng (Hons), MIOA	15+
Socio-economics and Land Use	SLR/Development Economics Steve Lucas Ben Wyper Emma Quinn	BSc, MSc BSc (Hons), MSc BSc (Hons), MSc	30+ 4 6+
Aviation	Wind Power Aviation Consultants John Taylor	Commander, ATC, Royal Navy, Expert Witness at PLI	30+
Shadow Flicker	SLR Tim Doggett	BSc, MSc	15+
GIS	SLR Ayham Rezk Rita Direito	PhD, MA, MSc, DipHE BSc (Hons), MSc	13+ 2+
Telecommunications	Statkraft Andrew Yates Shannon Aitchison	BSc (Hons) BSc (Hons), MSc	17+ 3+

## 1.6 Structure of the EIA Report

1.6.1 The EIA Report is presented in four volumes as follows:

- Volume 1: Non-Technical Summary (NTS)

The NTS provides a non-technical overview of the EIA Report and is intended for review by the general public. It includes a description of the Proposed Development and a summary of the predicted environmental effects.
- Volume 2: EIA Report:
  - Chapter 1: Introduction
  - Chapter 2: Site Description and Design Evolution
  - Chapter 3: Description of the Development
  - Chapter 4: Policy Framework
  - Chapter 5: Environmental Impact Assessment
  - Chapter 6: Scoping and Consultation
  - Chapter 7: Landscape and Visual
  - Chapter 8: Ecology
  - Chapter 9: Ornithology
  - Chapter 10: Geology, Hydrology, Hydrogeology and Peat
  - Chapter 11: Archaeology and Cultural Heritage
  - Chapter 12: Noise and Vibration
  - Chapter 13: Site Access, Traffic and Transport
  - Chapter 14: Socio-economics, Tourism, Recreation and Land Use
  - Chapter 15: Aviation
  - Chapter 16: Other Environmental Considerations
  - Chapter 17: Schedule of Commitments
- Volume 3: EIA Report Figures:

The EIA Report Figures are separated out into four sub-volumes as follows:

  - Volume 3a: Figures to support Chapters 1-16 of the EIA.
  - Volume 3b: Figures 7.16 – 7.48 Visualisations for Viewpoint 1 – Viewpoint 33 (following NatureScot standards).
  - Volume 3c: Figures 7.49 – 7.81 Visualisations for Viewpoint 1 – Viewpoint 33 (following The Highland Council standards). Volume 4a-b: EIA Report Technical Appendices.
  - Volume 3d: Figures 11.3 – 11.12, Cultural Heritage Visualisations.
  - Volume 4a-b: The technical appendices that are referred to in each Chapter of the EIA Report are compiled separately in Volume 4a-b. They are numbered sequentially for each of the Chapters in which they are principally referred to.

1.6.2 A list of abbreviations and a glossary of terms used in the EIA Report is provided in Appendix 1.1.

## 1.7 Publicity of the EIA Report

1.7.1 The EIA Report will be published in accordance with Part 5 of the EIA Regulations and Part 4 of the Electricity (Applications for Consent) Regulations 1990 (as amended).

1.7.2 A notice will be published as follows:

- on the project website <https://projects.statkraft.co.uk/Carn-Fearna/>

- once in the Edinburgh Gazette;
- once in the Scotsman
- in the Ross-shire Journal for two consecutive weeks; and
- in the Press & Journal for two consecutive weeks.

1.7.3 In addition to the statutory requirements for publicising the EIA Report, the Applicant has advised the following local Community Councils of the EIA Report being available:

- Beaully Community Council;
- Canon Bridge Community Council;
- Cromarty Community Council;
- Contin Community Council;
- Dingwall Community Council;
- Ferintosh Community Council;
- Garve & District Community Council;
- Kilmorack Community Council;
- Kiltarn Community Council;
- Marybank, Scatwell and Strathconon Community Council;
- Maryburgh Community Council;
- Muir of Ord Community Council;
- Resolis Community Council; and
- Strathpeffer Community Council.

1.7.4 Hard copies of the EIA Report can be viewed at the following locations during their opening hours:

Location	Opening Hours	Address
Strathpeffer Community Centre	Monday: 0900-1600 Tuesday: 0900-1600 Wednesday: 0900-1600 Thursday: Closed Friday : Closed	Strathpeffer Community Centre, School Road, Strathpeffer, Ross-shire IV14 9AG
Garve Village Hall	Monday-Saturday: 0800-2200* Sunday: 0900-2200*  <i>*Please note that viewing at this location is available by appointment only. Viewing can be arranged by emailing <a href="mailto:garvehall@gmail.com">garvehall@gmail.com</a></i>	Garve Village Hall Station Road Garve Ross-Shire IV23 2PR

1.7.5 A copy of the EIA Report Volumes will be made available for download from the project website at:

- <https://projects.statkraft.co.uk/Carn-Fearna/>

1.7.6 Paper copies of the NTS are available free of charge from:

Statkraft UK Limited  
The Garment Factory  
10 Montrose Street  
Glasgow  
G1 1RE

1.7.7 Paper copies of the EIA Report may be purchased by arrangement from the above address for £1,500 per copy, or £15 per USB memory stick copy. The price of the paper copy reflects the cost of producing the



Landscape and Visual photographs at the recommended size. As such, a USB memory stick version is recommended.

## 1.8 References

- HM Government (1989). *The Electricity Act 1989*. Available at: <https://www.legislation.gov.uk/ukpga/1989/29/contents>. Accessed on 17 February 2025.
- HM Government (1990). *The Electricity (Applications for Consent) Regulations 1990*. Available at: <https://www.legislation.gov.uk/uksi/1990/455/made>. Accessed on 17 February 2025.
- Scottish Executive (1997). *Town and Country Planning (Scotland) Act 1997 (as amended)*. Available at: <https://www.legislation.gov.uk/ukpga/1997/8/contents>. Accessed on 17 February 2025.
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- Statkraft (2024). *Carn Fearna Wind Farm Project Website*. Available at: <https://projects.statkraft.co.uk/Carn-Fearna>. Accessed on 17 February 2025.