Chapter 1
Introduction

SCOTTISHPOWER RENEWABLES

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Chapter 1

1.1 Executive summary

1. The UK and Scottish governments have declared a climate emergency and set ambitious climate change targets with a net zero CO_2 target for 2045 in Scotland and an interim target of 70% reduction in emissions by 2030. ScottishPower Renewables (SPR) is helping to lead the fight against climate change by developing renewable energy projects, such as this fully integrated renewables scheme called Sheirdrim Renewable Energy Project (proposed Development).

2. SPR is part of the ScottishPower group of companies operating in the UK under the Iberdrola Group, one of the world's largest integrated utility companies and a world leader in wind energy. ScottishPower now only produces 100% green electricity – focusing on wind energy, smart grids and driving the change to a cleaner, electric future. The company is investing over £4m every working day in 2019 to make this happen and is committed to speeding up the transition to cleaner electric transport, improving air quality and over time, driving down bills to deliver a better future, quicker for everyone. With over 40 operational windfarms, SPR manages all its sites through its world leading Control Centre at Whitelee Windfarm, near Glasgow.

3. The proposed Development is located on the Kintyre Peninsula within Argyll and Bute and is situated 11 km south west of Tarbert within the Achaglass and Gartnagrenach estates. It would comprise 19 wind turbines and two ground mounted solar development areas with associated site infrastructure such as substation and access tracks. It would produce around 134 MW and between 360 - 380 GWh of electricity annually. A battery storage facility would also be installed with storage capacity of around 38 MW of energy.

4. SPR intends to submit an application for the proposed Development under Section 36 of the1989 Electricity Act. In support of the application, SPR has undertaken an Environmental Impact Assessment (EIA) and produced its findings in this EIA Report. The EIA Report informs readers of the nature of the proposed Development, likely significant environmental effects and measures proposed to protect the environment, during site preparation, construction, and the operation of the proposed Development.

5. This EIA Report has been prepared by SLR Consulting (SLR) with assistance from the following organisations:

   - Stephenson Halliday (Landscape & Visual);
   - Hoare Lea Acoustics (Noise);
   - Natural Research (Projects) Ltd. (Ornithology);
   - DGA Forestry (Forestry); and
   - Cyrrus Ltd (Aviation).

6. The EIA Report is being made available to local communities for their review and comment as part of the application process for consent.

1.2 Introduction

7. The UK and Scotland's current climate change ambitions are amongst the highest in Europe and they declared a climate emergency earlier this year. The UK government set a net zero CO_2 emissions target by 2050. In Scotland, a Climate Change Bill was passed in September 2019 which sets out a net zero target by 2045 and further interim targets of reductions in CO_2 emissions of 56% by 2020, 75% by 2030 and 90% by 2040. These targets are supported by the Scottish Energy Strategy's (Scottish Government 2017) target of 50% of all energy (including transport, heat and electricity) being supplied from renewables by 2030.

8. ScottishPower Renewables (UK) Ltd (SPR) is leading the UK in the operation and development of renewables and fully supports the fight against climate change and proposes to develop Sheirdrim Renewable Energy Development on Kintyre in Argyll and Bute. This would be a fully integrated renewable energy solution in direct response to meeting national and international climate change targets. Sheirdrim Renewable Energy 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 Argyll and Bute. As well as contributing to targets for renewable energy, the project would provide opportunities for community investment and create further employment opportunities in the local area.

9. Sheirdrim Renewable Energy Development is located within the Argyll and Bute Council (A&BC) administrative area and comprises 19 wind turbines, battery storage and ground mounted solar with associated infrastructure (the proposed Development) on land (the Site) within the Achaglass and Gartnagrenach estates located approximately 11 km south west of Tarbert, centred on NGR 181302, 657098, as shown on **Figure 1.1**. The application boundary covers the area shown on **Figure 1.2** and an aerial photograph of the Site is shown on **Figure 1.3**. showing the terrain and land use of the Site and the immediate surrounding area.

10. The maximum height of wind turbines would be up to 149.9 m to the tip of the blade in an upright position, except for three which would be no taller than 135 m. It is expected that each wind turbine would have a rated capacity of around 6 megawatts (MW) giving a total installed capacity of around 114 MW. The wind turbines would produce around 340 - 360 GWh of electricity annually. The proposed solar development would also generate around 20 MW giving a total energy output for the proposed Development of around 134 MW or 360 - 380 GWh of electricity annually. This equates to the annual power consumed by approximately 99,200 average UK households[1] (which is more than the 41,630 homes in Argyll and Bute (based on National Records of Scotland 2018). Battery storage would also be installed on the Site and would have a storage capacity of around 38 MW to store energy and so provide flexible balance of energy and the delivery of the full potential of renewable energy to meet the demands of the national grid. The proposed Development is described in further detail in **Chapter 3 Proposed Development**.

11. It is the intention of SPR to submit an application under Section 36 of the Electricity Act 1989 for the development of Sheirdrim Renewable Energy Development. The proposed Development will constitute a Schedule 2 development as provided for by the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the EIA Regulations).

12. SLR Consulting Ltd (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.

1.3 Key terms

13. To ensure clarity in the EIA, the following terms are used:

   - Proposed Development: The proposed Sheirdrim Renewable Energy Development, as assessed and reported in this EIA Report, comprises 19 wind turbines, 16 up to 149.9 m in height to blade tip and 3 up to 135 m in height to blade tip, with an installed capacity of around 114 MW, together with associated infrastructure. The proposed Development will also include a solar development with a maximum capacity of around 20 MW and battery storage with a capacity of around 38 MW;
   - Site: The area within the application boundary within which the proposed Development lies;
   - Study area: The Site plus any additional area over which desk based or field assessments have been extended. The study area varies depending on the nature of the potential effects for each environmental parameter as informed by professional guidance and best practice regarding

[1] Calculated using the most recent statistics from the Department of Business, Energy and Industrial Strategy (BEIS) showing that annual UK average domestic household consumption is 3,800 kWh (BEIS, 2019).

EIA. The study area is, therefore, explained within the approach and method section of the relevant Chapters (**Chapters 7 to 15**).

1.4 Purpose of the EIA Report

14. This EIA Report has been prepared in accordance with The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the EIA Regulations).

15. The proposed Development is *"a generating station, the construction of which (or the operation of which) will require a Section 36 consent but which is not Schedule 1 development"*. In this regard, the proposed Development is of a type falling within Schedule 2 of the EIA Regulations and, therefore, requires to be screened as to whether it constitutes EIA development as envisaged by Regulation 8 of the EIA Regulations. Additionally, as the proposed Development is partially located within a commercial forestry plantation and would require some felling of trees, the assessment also considers the Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017.

16. It was acknowledged at an early stage in the consideration of the proposed Development that given the nature, location and characteristics of the intended proposed Development that an EIA would be required. It was, therefore, not considered necessary to seek a Screening Opinion and this EIA Report is submitted voluntarily in accordance with Section 3.3.3 of the Scottish Government Energy Consents EIA Guidance (Scottish Government, 2000). However, a Scoping Opinion was requested under Section 8 of the EIA regulations following the submission of a Scoping Report in April 2019. A Scoping Opinion was received from the ECU in June 2019 and this EIA Report has been prepared in accordance with that Scoping Opinion. Further details on the Scoping Report and ECU scoping opinion is provided in **Chapter 6 Scoping and Consultation**.

17. This EIA Report is presented to the ECU in the determination of the application for consent under Section 36 of the 1989 Act and for deemed planning permission in terms of Section 57 of the Town and Country Planning (Scotland) Act 1997, as amended, for the proposed Development. This EIA Report presents the findings of the EIA process by describing the proposed Development, the current conditions at the Site and the likely impacts which may result from the proposed Development. Where appropriate, mitigation is proposed, and any residual impacts are reported. 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.

1.5 The Applicant

18. Sheirdrim Renewable Energy Development is being proposed by ScottishPower Renewables (UK) Ltd (SPR).

19. ScottishPower Renewables is part of the ScottishPower group of companies operating in the UK under the Iberdrola Group, one of the world's largest integrated utility companies and a world leader in wind energy. ScottishPower now only produces 100 % green electricity – focusing on wind energy, smart grids and driving the change to a cleaner, electric future. The company is investing over £4m every working day in 2019 to make this happen and is committed to speeding up the transition to cleaner electric transport, improving air quality and over time, driving down bills to deliver a better future, quicker for everyone.

20. ScottishPower Renewables is at the forefront of the development of the renewables industry through pioneering ideas, forward thinking and outstanding innovation. Its ambitious growth plans include expansion of its existing onshore wind portfolio, investment in new large-scale solar deployment and innovative grid storage systems including batteries. The company is also delivering the Iberdrola Group's offshore windfarms in the Southern North Sea off East Anglia as part of an international pipeline of projects across Europe and the USA.

21. With over 40 operational windfarms, SPR manages all its sites through its world leading Control Centre at Whitelee Windfarm, near Glasgow.

1.6 EIA project team and competency

22. The EIA team is led by SLR Consulting (SLR) with assistance from specialist consultants. SLR is a large multi-disciplinary environmental and advisory consultancy. Within the energy sector, SLR provides a wide range of planning, environmental and technical services relating to the design and development of windfarms and other renewable energy developments. The company undertakes all aspects of development support, from initial concept design, through planning and permitting to supporting detailed design, construction management and closure stages with a focus on environmental assessment and management.

23. SLR is a holder of the Institute of Environmental Management and Assessment (IEMA) EIA Quality Mark. The IEMA Quality Mark is awarded to companies that have achieved the required standards in EIA following regular independent review of EIA work by IEMA. 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.

24. Further information on SLR Consulting Limited can be found on its corporate website at www.slrconsulting.com.

25. For this project, SLR is responsible for co-ordinating the production of the EIA Report and preparing the following technical discipline assessments:

- Planning and renewable energy policy;
- Access, Traffic and Transport;
- Archaeology and Cultural Heritage;
- Ecology;
- Hydrology, Hydrogeology, Geology and Soils; and
- Socio-Economics, Recreation and Tourism.

26. SLR is supported by a number of technical specialists from other organisations:

- Stephenson Halliday (Landscape & Visual);
- Hoare Lea Acoustics (Noise);
- Natural Research (Projects) Ltd. (Ornithology);
- DGA Forestry (Forestry); and
- Cyrrus Ltd (Aviation).

27. SPR confirm that the specialist organisations, including SLR, that have carried out the EIA and produced the EIA Report have the skills and relevant competency, expertise and qualifications to undertake EIA for the proposed Development. **Table 1.1** demonstrates the relevant competency for each technical discipline covered in this EIA Report.

Discipline	Specialist Assessor	Qualifications	Years of Experience
Renewable Energy and Planning Policy	Alison Sidgwick, SLR	BSoc Sc (Hons), MURP, RTPI	20 years
Landscape and Visual Amenity	Ken Halliday, Stephenson Halliday	BSc Mphil, CMLI	32 years
	Kelly Anderson, Stephenson Halliday	BLA, CMLI	24 years
Ornithology	Blair Urquhart, NRP Ltd	BSc (Hons)	26 years
Ecology	Duncan Watson, SLR	BSc, MSc, CEnv, MCIEEM	18 years
	Andrea Wilcockson, SLR	BSc (Hons), MSc, PhD, MCIEEM, CEnv	20 years
	Nicola Faulks, SLR	BSc (Hons), PCert, MSc, CEcol, MCIEEM	14 years
Soils, Geology and the Water Environment	Gordon Robb, SLR	BSc (Hons), MSc, MBA, C.WEM, FCIWEM	27 years

Discipline	Specialist Assessor	Qualifications	Years of Experience
	Colin Duncan, SLR	BSc (Hons), MSc	37 years
	Adrian Cowe, SLR	BSc (Hons), MSc	6 years
Cultural Heritage and Archaeology	Tim Malim, SLR	BA FSA MCIfA	38 years
	Andy Bates, SLR	BSc MSc ACIfA	21 years
Noise	Matthew Cand, Hoare Lea Acoustics	Dipl Eng, PhD, MIOA	12 years
	Mark Jiggins, Hoare Lea Acoustics	MSc MIOA	21 years
Access, Traffic and Transport	Joanna Read, SLR	BSc, MSC, CMIHT	16 years
	David Price	BEng, HNC	30 years
Aviation	Simon McPherson, Cyrrus	BEng	25 years
	John Van Hoogstraten	MBCI, CBCP, SIIRSM	30 years
Socio-Economics, Recreation and Land Use	Anne Dugdale, SLR	BSc (Hons), MA, MRTPI	35 years
	Clare Anthony, SLR	BSc	3 years
	Steve Lucas, Development Economics.	MA	27 years
Forestry	Sandy Anderson, DGA Forestry	BSc (Hons), MBA	18 years
	James Anderson, DGA Forestry	BArch, PhD Forestry	7 years
Shadow Flicker	Scott Pritchard, SLR	SVQ, NC, HNC	24 years
Carbon Emissions	Colin Duncan, SLR	BSc (Hons), MSc	37 years
Telecommunications	Alison Sidgwick, SLR	BSoc Sc (Hons), MURP, RTPI	20 years
GIS	Scott Pritchard, SLR	SVQ, NC, HNC	24 years
	Jonathan Salter, SLR	BSc (Hons)	6 years

Table 1.1: EIA team competencies

1.7 Structure of the EIA Report

26. 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: Environmental Impact Assessment Report (EIA Report).

27. The EIA Report written text is structured as follows:

- Chapter 1: Introduction;
- Chapter 2: Site Description and Design Evolution;
- Chapter 3: Proposed Development;
- Chapter 4: Renewable Energy and Planning Policy;
- Chapter 5: Environmental Impact Assessment;
- Chapter 6: Scoping and Consultation;
- Chapter 7: Landscape and Visual Impact Assessment;
- Chapter 8: Ecology;
- Chapter 9: Ornithology;
- Chapter 10: Hydrology, Hydrogeology, Geology and Soils;
- Chapter 11: Cultural Heritage and Archaeology;
- Chapter 12: Access, Traffic and Transport;
- Chapter 13: Noise;
- Chapter 14: Socio-economics, Recreation and Tourism;
- Chapter 15: Other Issues; and
- Chapter 16: Schedule of Commitments.

- Volume 3: EIA Report Figures; and

- Volume 4: EIA Report Technical Appendices (including Forestry).

28. The technical appendices that are referred to in each Chapter of the EIA Report are compiled separately in Volume 4. They are numbered sequentially for each Chapter in which they are principally referred to.

1.8 Publicity of the EIA Report

1.8.1 Statutory requirements

29. The EIA Report will be publicised in accordance with Part 5 of the 2017 Regulations and the Electricity (Applications for Consent) Regulations 1990 (as amended).

30. A notice will be published as follows:

- on the project website;
- in the Edinburgh Gazette;
- in The Herald;
- in the Argyllshire Advertiser;
- in the Campbeltown Courier, and
- in the Oban Times.

31. The last three notices all cover the area in which the proposed Development would be located.

1.8.2 Voluntary publicity

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

- West Kintyre Community Council;
- East Kintyre Community Council;
- Tarbert & Skipness Community Council
- South Knapdale Community Council
- Arran Community Council;
- Gigha Community Council;

33. A hard copy of the EIA Report can be viewed at the following locations:

- Whitehouse Community Hall, Whitehouse, PA29 6XR;
- Argyll and Bute Council, 1A Manse Brae, Lochgilphead, PA31 8RD; and
- Scottish Government Library, Victoria Quay, Edinburgh, EH6 6QQ.

34. A copy of the NTS will be made available for download from the SPR corporate website at:

https://www.scottishpowerrenewables.com/pages/sheirdrim_renewable_energy_development.aspx

35. Hard copies of the NTS are available free of charge from:

SLR Consulting Limited
Floor 2, 4/5 Lochside View, Edinburgh Park, Edinburgh, EH12 9DH
Tel: 0131 335 6830

36. Hard copies of the EIA Report may be purchased by arrangement from the above address for £1,000 per copy, or £15 per DVD/USB. Specific sections of the EIA Report are also available on request at appropriate cost. The price of the hard copy reflects the cost of producing all of the Landscape and Visual photographs at the recommended size. As such, a DVD/USB version is recommended.

1.9 References

Scottish Government (2000). Scottish Government Guidance on The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000. Available at: http://www.gov.scot/Topics/Business-Industry/Energy/Infrastructure/Energy-Consents/Guidance/EIA-Guidance

Scottish Government (2018). Climate Change Plan - the third report on policies and proposals 2018 2032, February 2018.

Scottish Government (2017). *Scottish Energy Strategy: The Future of Energy in Scotland*.

The Electricity Act 1989.

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.

Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017.

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