

# 1 Introduction

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# 1. Introduction

## Executive Summary

This chapter provides an overview of the background to the Proposed Development, application details, details of the Applicant and the project team, as well as a summary of the structure and content of the Environmental Impact Assessment Report.

## 1.1 Introduction

1.1.1 WKN GmbH is proposing the development of Sallachy Wind Farm (hereafter referred to as the 'Proposed Development') located on land which forms part of Sallachy Estate 18.3 km north-west of Lairg in the Highlands. This Environmental Impact Assessment (EIA) Report has been prepared in support of an application submitted to The Highland Council under the Town and Country Planning Act (Scotland) 1997 (as amended), seeking consent and deemed planning permission to construct and operate the Proposed Development.

1.1.2 This chapter is supported by the following:

- Figure 1.1: Site Location Plan.
- Figure 1.2: Site Layout Plan.

## 1.2 The Applicant

1.2.1 WKN GmbH (hereafter referred to as 'the Applicant') is a regional enterprise operating at the international level and has been one of the leading project developers in Germany and in various for almost 30 years. The service spectrum ranges from site development to planning and financing as well as construction and operation to technical and commercial management, and thus covers all phases of the project planning and operation of wind farms.

1.2.2 Since July 2018, the Applicant has been a subsidiary of PNE AG. The PNE Group is a German wind power pioneer operating internationally and is one of the most experienced project developers of onshore and offshore wind farms. The brands PNE and WKN are united under the umbrella of the PNE Group and are jointly developing into an international provider of clean energy solutions.

## 1.3 Background and Site Description

### *Background*

1.3.1 Sallachy Wind Farm has been in development since 2008. The Applicant previously submitted a Section 36 application in 2011 to the Scottish Government's Energy Consents Unit for consent to construct and operate a wind farm at this site. The previously proposed development comprised twenty-two turbines with a total installed capacity up to 66 megawatts (MW). An addendum to the Sallachy Wind Farm Environmental Statement (2011, WKN AG) was submitted in 2012 to aid the decision process. However, in 2015 Scottish Ministers responded to the proposal with the decision to refuse consent for the application.

1.3.2 Following review of the Scottish Ministers decision, the Applicant considers that through reduction of the original proposed layout, it would be possible to reduce the landscape and visual impacts to an acceptable level.

- 1.3.3 Since 2015 the Applicant has continued consultations with THC and has undertaken revisions of the proposed layout to address the concerns raised during the application process and minimise impacts. Full details of the iterative design process are provided within Chapter 3.

### ***Site Description***

- 1.3.4 The Proposed Development application boundary (“the site”) is located in Sutherland approximately 18.3 km north-west of Lairg on the shores of Loch Shin. The central grid reference for the site is British National Grid (BNG) 240730, 921063 and it occupies an area of approximately 1,044 hectares (ha). The site location and boundary are shown within Figure 1.1.
- 1.3.5 The site sits within Sallachy Estate, which has two holiday cottages, one lodge and approximately 6,000 ha of Forestry Stewardship Council (FSC) certified woodland. The site itself comprises largely open moorland which slopes down to the south shore of Loch Shin and is intersected by several minor watercourses.
- 1.3.6 Access to the site is off the A838, along an existing access track which serves the Cassley Hydro Power scheme. The hydro power station sits on the edge of Loch Shin to the north-west of the main body of the site.
- 1.3.7 The site is located within the Reay – Cassley Wild Land Area and sits to the north of the Strath an Loin Site of Special Scientific Interest (SSSI), part of the Caithness and Sutherland Peatlands Special Protected Area (SPA), Special Area of Conservation (SAC) and Ramsar Site.

## **1.4 The Proposed Development**

- 1.4.1 The Proposed Development comprises 9 wind turbines of up to a maximum height of 149.9 m from ground to blade tip. The overall installed capacity of the Proposed Development will be up to 49.9 MW. A number of ancillary elements are also proposed:
- turbine foundations & crane hardstandings;
  - new and upgraded access tracks;
  - watercourse crossings;
  - a temporary construction compound;
  - a temporary borrow pit search area; and
  - underground electrical cabling.
- 1.4.2 The Proposed Development will connect to the national grid via an on-site substation, the proposed location of the substation compound is on the edge of Loch Shin near to the hydro power station. This proposed location is for indicative purposes only as the substation will be subject to a separate planning application.
- 1.4.3 The proposed site layout is shown on Figure 1.2 and full details of the Proposed Development are provided in Chapter 4.
- 1.4.4 The Proposed Development will be operational for 30 years, after which the development would be decommissioned and the land returned to previous use unless otherwise agreed with The Highland Council (THC).
- 1.4.5 The proposed locations of the turbines have been identified in order to enable the EIA to assess fully the Proposed Development for which permission is being sought. The BNG coordinates denoting where each of the turbines are proposed to be located are listed in Table 4.1 of Chapter 4.

- 1.4.6 While the location of the infrastructure described above has been determined through an iterative environmental based design process, there is the potential for these exact locations to be altered through micro-siting allowances prior to construction. A micro-siting allowance of up to 50 m in all directions is being sought in respect of each turbine and its associated infrastructure in order to address any potential difficulties which may arise in the event that preconstruction surveys identify unsuitable ground conditions or environmental constraints that could be avoided. It is proposed that the micro-siting of all infrastructure will be subject to an appropriately worded planning condition.
- 1.4.7 The total power output of the Proposed Development would be up to 49.9 MW. This is an indicative capacity; actual installed capacity may be less, but no greater than this, dependent on turbine model selection. Based on the Department for Business, Energy and Industrial Strategy (BEIS) capacity factor for new wind farms in Scotland (BEIS, 2020), the annual indicative total power output for the site would be around 116,362<sup>1</sup> MW hours (MWh) per annum, indicating that the Proposed Development would generate enough electricity to power the equivalent of approximately 32,522<sup>2</sup> average UK households (based on average annual electricity consumption per household in the UK (BEIS, 2020) of 3,578 kWh). The Proposed Development would contribute towards international and national targets for the generation of renewable energy and reduction in greenhouse gas emissions.
- 1.4.8 The Scottish Government's Carbon Calculator determines the volume of carbon released during the construction of a wind farm, through the manufacturing of the infrastructure, disturbance to peat and felling of woodland. This calculator has determined that the average "pay-back period" for the Proposed Development would be approximately 2.2 years<sup>3</sup>, following which the Proposed Development would be carbon saving.

### ***Need for Development***

- 1.4.9 The science behind climate change is well established and points strongly towards a need to reduce our reliance on fossil fuels in order to avoid negative economic, environmental and social effects. International and European commitments to reducing CO<sub>2</sub> and tackling climate change have been made by all major economies. In response to these issues the UK and Scottish Governments have made significant, legally binding commitments to increase the use of renewable energy. The Climate Change (Emissions Reduction Targets) (Scotland) Act (2019) set a target date of 2045 for reaching net-zero emissions (Scottish Government, 2019) and THC have declared a climate and ecological emergency (THC, 2019). The Proposed Development relates directly to both the need for the development and the legal requirement to meet those emissions commitments.

## **1.5 Purpose of the EIA Report**

- 1.5.1 ITP Energised (ITPE) was appointed by the Applicant to undertake an Environmental Impact Assessment (EIA) of the Proposed Development in accordance with The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (Scottish Government, 2017) (referred to as "the EIA Regulations"). The EIA process is the systematic process of identifying, predicting and evaluating the environmental impacts of a proposed development. The EIA process is reported in this EIA Report, which identifies the methodologies used to assess the environmental effects predicted to result from the construction, operation and decommissioning of the Proposed Development. Where appropriate, it also sets out mitigation measures designed to prevent, reduce

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<sup>1</sup> This has been calculated by multiplying the indicative installed capacity (49.9 MW) by the number of hours in a year (8760) by BEIS's long-term average load factor for onshore wind (26.62%).

<sup>2</sup> This has been calculated by dividing the annual power output (116,362 MWh<sup>1</sup>) by the UK average domestic household consumption (3,578 MWh).

<sup>3</sup> This is calculated by comparing the net loss of carbon from the site due to wind farm development, with the carbon savings achieved by the wind farm while displacing electricity generated from fossil fuel sources (Scottish Government, 2008).

and, if possible, offset potential significant adverse environmental impacts. An assessment of residual effects, those expected to remain following implementation of mitigation measures, is also presented.

- 1.5.2 The main findings and conclusions of the EIA are summarised in a Non-Technical Summary (NTS), as required by the EIA Regulations. The NTS provides a stand-alone document which summarises the key findings of the EIA in easily accessible, non-technical language, ensuring everyone with an interest in the Proposed Development can understand and access information on its predicted environmental effects.
- 1.5.3 This EIA Report and the NTS accompany the application for consent, being submitted to The Highland Council.

## **1.6 Structure of the EIA Report**

1.6.1 The EIA Report is split into five volumes, with the NTS forming a separate document. Volume 1 of the EIA Report (this document) is structured as follows:

- Chapter 1 Introduction: provides an introduction to the Proposed Development, the Applicant and the EIA;
- Chapter 2 EIA Process & Methodology: sets out 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 3 Site Selection & Design: provides a description of the design iteration process, detailing how the Proposed Development evolved through the course of the assessment process and the elimination of alternative development options;
- Chapter 4 Project Description: provides a description of the existing site, details of the Proposed Development, the construction, operation and maintenance processes, decommissioning process, and need for the development;
- Chapter 5 Energy & Planning Policy: discusses the planning policy and context of the Proposed Development;
- Chapter 6 Landscape & Visual Impact: assesses the potential and residual effects on landscape and visual amenity;
- Chapter 7 Ecology: assesses the potential and residual effects on ecology;
- Chapter 8 Ornithology: assesses the potential and residual effects on ornithology;
- Chapter 9 Noise: assesses the potential and residual effects on noise sensitive receptors;
- Chapter 10 Archaeology & Cultural Heritage: assesses the potential and residual effects archaeological and cultural heritage;
- Chapter 11 Traffic & Transport: assesses the potential and residual effects on traffic and transport;
- Chapter 12 Hydrology, Hydrogeology, Geology & Soils: assesses the potential and residual effects on geology, peat, hydrology and hydrogeology;
- Chapter 13 Socio-Economics, Recreation & Tourism: assesses the potential and residual effects on socio-economic factors, recreation and tourism;
- Chapter 14 Other Issues: assesses the potential and residual effects on other issues not assessed in the previous chapters, including aviation and radar, and telecommunications.

- Chapter 15 Schedule of Environmental Commitments: provides a summary of all the mitigation measures presented in the EIA Report; and
  - Chapter 16 Summary of Residual Effects: provides summary tables of all predicted residual effects.
- 1.6.2 Volume 2 contains the figures that inform the EIA Report (with the exception of the Landscape and Visual Assessment Visualisations).
- 1.6.3 Volume 3 contains the Landscape and Visual assessment visualisations which are in accordance with NatureScot guidance.
- 1.6.4 Volume 4 contains the Landscape and Visual assessment visualisations which are in accordance with The Highland Council guidance.
- 1.6.5 Volume 5 contains supporting information and appendices for each of the technical chapters.
- 1.6.6 Additional non-EIA supporting documents which form part of the application submission include the following:
- Planning Statement: provides an assessment of the Proposed Development against the relevant legislative and policy considerations;
  - Pre-Application Consultation (PAC) Report: provides a summary of the public consultation undertaken in relation to the Proposed Development; and
  - Design and Access Statement: provides a description of the design principles and concepts that have been considered when designing the Proposed Development.

## 1.7 EIA Project Team

- 1.7.1 The assessment was undertaken by the ITPE environmental team supported by external consultants, who the Applicant confirms are of appropriate levels of competency and expertise. As required by Regulation 5 (5) of the EIA Regulations, Table 1.1 below provides details of the relevant expertise and qualifications of the project team.

**Table 1.1 - EIA Team**

| Person                            | Role  | Expertise   | Qualifications   |
|-----------------------------------|---|---|--|
| Jenny Hazzard<br>ITPE             | EIA Project Director, and Hydrology, Hydrogeology, Geology & Soils Lead | 20 years of experience in the environmental consultancy industry. | BSc (Hons) Geological Engineering, MSc Engineering Geology, PIEMA. |
| Sarah Tullie<br>ITPE              | EIA Project Manager, and Telecommunications Assessment                  | 2 years' experience in environmental planning.                    | BSc (Hons), MSc Environmental Management.                          |
| David Bell<br>David Bell Planning | Planning & Consenting Lead  | 30 years' experience in planning and development.                 | BSc (Hons), Dip UD, MCIHT, MRTPI.                                  |
| James Welch<br>OPEN               | Landscape & Visual Lead   | 33 years' experience.   | BA (Hons) FLI  |

| Person                              | Role                                      | Expertise   | Qualifications                    |
|-------------------------------------|---|---|-----------------------------------|
| Peter Cosgrove<br>Alba Ecology      | Ornithology Lead                          | 25 years' experience.   | BSc (Hons), PhD, FCIEEM           |
| Kate Massey<br>Alba Ecology         | Ecology Lead                              | 15 years' experience.   | BSc (Hons), MSc, PhD, MCIEEM      |
| Simon Waddell<br>ITPE               | Noise Co-Lead                             | 10 years' experience.   | BSc, MIOA, PGDip                  |
| Gregor Massie<br>ITPE               | Noise Co-Lead                             | 3 years' experience.  | MSc BEng                          |
| George Mudie<br>CFA                 | Archaeology & Cultural Heritage Lead      | Over 20 years' experience.  | MA Hons, MCIfA, FSA Scotland.     |
| Gordon Buchan<br>Pell Frischmann    | Traffic & Transport Lead                  | 24 years' experience.   | BEng (Hons), MSc, MCILT, MCIHT    |
| Graeme Blackett<br>BiGGAR Economics | Socio-Economic, Tourism & Recreation Lead | Over 30 years' experience.  | BA (Hons) Economics, MIED, MEDAS. |
| John Taylor<br>WPAC                 | Aviation & Radar Lead                     | 33 years as Royal Navy Air Traffic Controller and Fighter Controller. 14 years advisory experience. | -                                 |

## 1.8 Availability of the EIA Report

- 1.8.1 Electronic copies of the EIA Report can be accessed at <https://sallachywindfarm.co.uk/> or via THC planning portal at <https://wam.highland.gov.uk/wam/>.
- 1.8.2 Hard copies of the NTS are available for free from the Applicant. Hard copies of the EIA Report or its component parts are available on request from the Applicant for the cost of printing and distribution. In addition, all documents are available on request (as a PDF for screen viewing only) on a USB for the cost of production and distribution.
- 1.8.3 Due to the COVID-19 pandemic, and in line with The Town and Country Planning (Miscellaneous Temporary Modifications) (Coronavirus) (Scotland) Regulations 2020 (Scottish Government, 2020) no physical copies of the EIA Report are available for viewing at any council or community locations at the time of submission.

## 1.9 Representations to the Application

- 1.9.1 Any representations to the application should be made directly to The Highland Council at the following email: [eplanning@highland.gov.uk](mailto:eplanning@highland.gov.uk)

## 1.10 References

- BEIS (2020). Annual Digest of UK Energy Statistics (2020). Available at:  
<https://www.gov.uk/government/collections/digest-of-uk-energy-statistics-dukes>
- Scottish Government (1997). The Town and Country Planning Act (Scotland) 1997 (as amended).  
Available at: <http://www.legislation.gov.uk/ukpga/1997/8/contents>
- Scottish Government (2008). Calculating carbon savings from wind farms on Scottish peat lands: A New Approach. Appendix 2: Calculating Potential Carbon Losses & Savings from Wind Farms on Scottish Peatlands: a total life cycle perspective. Available at:  
<https://www.gov.scot/publications/calculating-carbon-savings-wind-farms-scottish-peat-lands-new-approach/pages/13/>
- Scottish Government (2017). The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017. Available at:  
<https://www.legislation.gov.uk/ssi/2017/102/contents/made>
- Scottish government (2019). Climate Change (Emissions Reduction Targets) (Scotland) Act (2019).  
Available at: <http://www.legislation.gov.uk/asp/2019/15/enacted>
- Scottish Government (2020). The Town and Country Planning (Miscellaneous Temporary Modifications) (Coronavirus) (Scotland) Regulations 2020. Available at:  
<https://www.legislation.gov.uk/ssi/2020/124/introduction/made>
- THC (2019). Highland Council Committee Meeting; Item 22: Climate Change Update. Available at:  
[https://www.highland.gov.uk/meetings/meeting/4140/highland\\_council](https://www.highland.gov.uk/meetings/meeting/4140/highland_council)
- WKN AG (2011). Sallachy Wind Farm Environmental Statement.