

1 Introduction

1.1 Background

- 1.1.1 This Environmental Impact Assessment Report (EIAR) has been prepared to accompany the Application made to the Energy and Consents Unit (ECU), Scottish Government under Section 36C of the Electricity Act (Scotland) 1989 to amend the existing Section 36 consent to construct and operate a wind farm and ancillary infrastructure. Peel NRE Wind Farms (Yell) Limited (the Applicant) is seeking to amend the original consent which was received in November 2017 to:
- Extend the implementation period of the consent; and
 - Extend the operational life of the wind farm from 25 to 40 years.
- 1.1.2 There are no changes to the number of turbines or any of the other associated infrastructure previously approved.
- 1.1.3 The consent holder's primary reasons for seeking an extension to the implementation date are two-fold:
- **Grid Connection** – Shetland is not currently linked to the UK electricity transmission network. Ofgem published its decision to allow construction of a subsea high voltage direct current (HVDC) interconnector between Shetland and Mainland Scotland in July 2020 and construction commenced later that year. Once complete, this cable will permit the exportation of electricity generated through renewable energy projects (including Beaw Field Wind Farm) to the UK transmission network. While construction work is progressing well, the Shetland interconnector is not due to be energised until 2024; and
 - **Route to Market** – Peel NRE has submitted an application to the Contracts for Difference (CfD) Round 4 auction process, which is currently underway. This is the first opportunity to enter into a CfD auction following approval of the Shetland HVDC interconnector. Given the timescales involved for this key route to market, a longer period is therefore required for commencement of development. The auction result is in July. If Peel were unsuccessful the Government has confirmed annual auctions so there would be another opportunity to enter the auction.
- 1.1.4 This EIAR builds upon the findings of the original Environmental Statement (ES), produced by Wardell Armstrong in March 2016 and Further Environmental Information (FEI) submitted in June 2016. It identifies changes to the baseline conditions or assessment of effects relevant to decision making relating to the requests to extend the implementation period and operational life of the Consented Development.
- 1.1.5 The design and characteristics of the Consented Development will remain unchanged from those that are the subject of the original EIA and Section 36 consent. It will be known as the 'Beaw Field Wind Farm' and will comprise up to 17 turbines, ancillary access tracks, anemometry mast, substation, telecommunications mast, underground cabling from turbines to substation, temporary construction compound, lay down area, up to four borrow pits, a scheme of habitat enhancement and mitigation and improvements to the public roads adjacent to the wind farm within the Application Boundary. The terms telecommunications tower and radio communications tower have been used interchangeably throughout this EIAR, for clarity both terms relate to the same ancillary part of the Consented Development.

- 1.1.6 The installed capacity of the wind farm will be >50 MW. The export of electricity generated from Beaw Field Wind Farm is reliant on the construction of an interconnector between Shetland Mainland and the north coast of the Scottish mainland (Chapter 3: Project Description and Chapter 5: Design Evolution and Alternatives).
- 1.1.7 This chapter provides the context for the Consented Development and outlines the background information regarding the processes used to carry out the original and updated Environmental Impact Assessment (EIA), together with information about the Applicant and the consultant advisory teams. New text which relates to the Proposed Variation is underlined.
- 1.1.8 References to the Proposed Variation in this Statement refers to extending the implementation date of the permission to 30th of November 2024 and to extend the operational life of the wind farm from 25 to 40 years. References to the Consented Development refers to previously consented Beaw Field Wind Farm.

1.2 Application Boundary

- 1.2.1 The land within the Application Boundary (also referred to as the 'Site') is located in the southern half of the island of Yell within the Shetland Isles (Figure 1.1). The Site is located approximately 4 km northeast of Ulsta, 1 km northwest of Burravoe and 1 km south of Gossabrough (Figure 1.2).
- 1.2.2 The land within the Application Boundary is in the ownership of the Burravoe Estate. The predominant land use at the time of the original EIA is agricultural, used for summer grazing and winter moorland pastures. This remains the case at the time of the updated EIA (Chapter 2: Site Description).

1.3 Planning process

- 1.3.1 This application will be determined by the Scottish Ministers in consultation with the Shetland Islands Council (SIC) in accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the current 'EIA Regulations'). The requirements of the EIA Regulations and relevant planning policies are considered in Chapter 4: Planning and Policy Background and Chapter 5: Design Evolution and Alternatives.
- 1.3.2 The EIAR is the written synthesis and analysis of the results of the updated EIA. It contains details of the Site's baseline environment, findings of the impact assessment and designs of mitigation measures together with a statement of the residual and cumulative effects upon the environment that result from the construction, operation and decommissioning of the Consented Development. The approach and methodology takes account of the EIA Regulations and guidance contained within Planning Circular 1/2017¹ together with PAN 1/2013².

1.4 The applicant

- 1.4.1 Peel Wind Farms (Yell) Ltd³ ('PWFY Ltd') is part of Peel Natural Resources and Energy Limited (PEEL NRE). Peel Wind Farms (Yell) Limited – changed its company name on 19th July 2019 to Peel L&P Wind Farms (Yell) Limited and then again on 20th November 2020 to Peel NRE Wind Farms (Yell) Limited. Peel NRE is at the forefront of delivering low carbon energy for the UK and has a balanced portfolio in generation and development including onshore wind and solar. Peel NRE is a part of the Peel Group, which is one of the UK's leading real estate, property, infrastructure and investment

companies. Peel has developed and operated several renewable energy projects that are currently in operation, being constructed or have received planning consent.

1.5 Government policy and justification for development of wind power

- 1.5.1 The Scottish Government is committed to developing renewable electricity generation^{4&5} from sources such as wind, hydro, marine, solar and bioenergy, to secure energy supply and reduce Green House Gas (GHG) emissions from fossil fuel power generation that contribute to climate change.
- 1.5.2 Renewable energy generation is supported by specific legislation⁶ and planning policy⁷ within which the Scottish Government has set ambitious targets that reinforce its commitment to the continued deployment of renewable energy. This includes a commitment to supply of the equivalent of 100%⁷ of Scotland's gross electricity consumption from renewable sources by 2020, with an interim target of 50% by 2015 (announced in October 2012), that recognises the extent of Scotland's important renewables resource. Currently, Scotland's progress towards this target is 44.4%⁸. More recently, in December 2014, The Scottish Government announced an updated renewable energy target of 30% of total Scottish energy consumption from renewables by 2020. To achieve this, individual targets have been established for renewable energy, heat and transport⁹.
- 1.5.3 As this project will be delivered post 2020 the relevant targets are set out in the Climate Change (Scotland) Act 2009 which creates the statutory framework for GHG reductions in Scotland by setting an interim 42% reduction target for 2020 and an 80% reduction target for 2050.
- 1.5.4 In order to help achieve the 2050 target the Scottish government has released a number of reports. The most recent of these is titled '*Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027. The Second Report on Proposals and Policies*'¹⁰ (RPP2). RPP2, under section 4 'Energy', includes the Scottish Government's ambitions for decarbonising Scotland's energy supply. This includes a commitment to using renewable electricity to help decarbonise the heat and transport sectors and importantly also outlines an interim target "*to achieve a carbon intensity of 50 gCO₂/kWh of electricity generation in Scotland.*"
- 1.5.5 Section 4.2.7 is of particular relevance to the Consented Development and states "*Our decarbonisation target is non-statutory, but will be used to guide our policy approach and will set the context for planning decisions under Section 36 of the Electricity Act 1989 going forward.*"
- 1.5.6 Subsequent to the 2009 Act referenced above, The Scottish Government introduced a new Climate Change (Emissions Reduction Targets) (Scotland) Bill to Parliament on 23rd May 2018. The Bill was subsequently passed in September 2019 and became an Act¹¹.
- 1.5.7 The Act raises the ambition of further reducing greenhouse gas emissions by amending the targets set out within the Climate Change (Scotland) Act 2009 and sets a legally binding net zero target of all greenhouse gases emissions by 2045. This target date is five years ahead of the current date set for the rest of the UK and aims to ensure Scotland contributes to the worldwide efforts to deliver on the Paris Agreement.
- 1.5.8 Setting a net-zero target by 2045 is an ambitious target and places Scotland at the forefront of efforts to combat climate change. Through this Act and other associated Government strategies and policies, the Scottish Government aims to provide certainty and credibility to businesses, industries and investors that are vital partners in Scotland's transition to a low carbon economy.

- 1.5.9 In April 2019 the Scottish Government declared a climate change emergency, which instigated a commitment to enforcing stronger climate change proposals and targets whilst delivering support to the transition to a low carbon economy. It is anticipated at this stage that this declaration will deliver revised approaches and shape future guidance for a range of policy decisions, affecting transport, oil and gas and renewable energy strategy. The Scottish Government within its climate emergency declaration also highlighted how the planning system has an important role to play in terms of supporting the Scottish Governments climate change goals.
- 1.5.10 On the 28th of October 2021 the Scottish Government published Onshore Wind – Policy Statement Refresh 2021: Consultative Draft. The draft document affirms the Scottish Government support for onshore wind farms and the important renewable energy resource they provide. The draft document seeks to ensure Scotland secures an additional 8-12 Gigawatts (GW) of installed onshore wind capacity by 2030, so as to maximise the many economic benefits wind development brings to the country, as well as how to tackle the barriers to deployment, and how to secure maximum economic benefit from these developments. The draft document clearly states that in order for net zero to be achieved a consistently higher rate of onshore wind, and other renewables capacity, will be required year on year.
- 1.5.11 This document is a consultative draft with views invited until the closure of the consultation period on 22nd January 2022. The finalised policy will incorporate changes based on the consultation received, though it is anticipated that it will still seek to drastically increase the amount of onshore wind capacity within Scotland.
- 1.5.12 It is important to note that none of the targets outlined above are fixed ceilings and in particular that legislation often requires frequent revisions of targets and more stringent emissions reductions over time.
- 1.5.13 The UK and Ireland are the windiest countries in Europe¹² with installed onshore wind generation capacity estimated at 2784.67MW¹³. UK supply from wind has followed an upward trend since 2000 with capacity levels increasing each year. In 2014, wind and solar combined supplied a record level of 36.1TWh¹⁴, of this 13.4TWh¹⁵ was generated from offshore wind and a further 3.9TWh was generated from solar¹⁶. The contribution from onshore wind, of 18.8TWh, represents the second largest contribution from renewable technologies, after that from bioenergies, and equates to 5.5% of the total electricity generated in the UK during 2014. The wind resource in Scotland is particularly important in a European context¹⁷, where the total developable renewable electrical generation capacity has been estimated at 200GW⁹
- 1.5.14 In 2020, the UK generated 75,610 gigawatt hours (GWh) of electricity from both offshore and onshore wind. Wind energy generation accounted for 24% of total electricity generation (including renewables and non-renewables) in 2020; with offshore wind accounting for 13% and onshore wind accounting for 11%. National Grid confirmed¹⁸ that 2020 was a record breaking year for renewable energy. The record for the highest ever level of wind generation was broken several times during the year – most recently on 18 December (17.2GW) – while 26 August saw wind contributing its highest ever share to the electricity mix (59.9%).
- 1.5.15 The Shetland Isles are one of the most consistently windy places in the British Isles¹⁹. The Burradale Wind Farm near Lerwick is one of the most productive wind farms in the world with an average capacity factor of 52% over its operational life¹⁵. Therefore, development of onshore wind at appropriate locations in Shetland has the ability to provide a significant contribution to Scottish, UK and EU renewable energy targets and the associated legally binding commitments.

1.5.16 In their decision to consent the Beaw Field Wind Farm, the Scottish Ministers determined that:

“Having taken account of all relevant information, consider that the proposal is supported by national policies which promote the principle of onshore wind farms, and that the location is appropriate. The Scottish Ministers have considered fully and carefully the environmental information and conclude that the development will have some significant effects on localised areas of three Landscape Character Areas in the local landscape and that it will also have a significant adverse effect on cultural heritage by impacting upon Gossabrough Broch. The significant landscape and visual effects noted above will occur in a localised area, with properties closest to the wind farm having predominant views out to sea, not towards the wind farm. The significant adverse effect noted above on Gossabrough Broch does not give rise to impacts of a national issue. Scottish Ministers conclude that the development is supported by the Scottish Planning Policy and are satisfied that any adverse environmental effects can be mitigated by conditions or that their impacts (which include the adverse landscape and visual impacts and adverse cultural heritage impacts noted above) would be limited and outweighed by the benefits of renewable energy generation and contribution to electricity grid decarbonisation required by the Scottish Government’s policies to tackle climate change.”

1.5.17 It is clear that the Scottish Ministers determined that the benefits of the consented wind farm outweighed the adverse environmental effects identified.

1.6 Benefits of wind power

1.6.1 Wind power has significant benefits over conventional fossil fuel electricity generation. These benefits have been summarised in Table 1.1.

Table 1.1: Benefits of wind power

Benefit	Description
Clean	Wind turbines do not produce harmful by products during generation.
Competitive	Wind power can help reduce the cost of electricity bills. With no direct fuel costs and improved technology, the cost of wind electricity is lower than natural gas, coal and nuclear.
Reliable	In Scotland, wind turbines operate with an average capacity factor of 30%. In the case of Beaw Field, this is predicted to be 50% ²⁰ .
Pay back in energy terms	At this location and scale, the energy consumed in the wind turbine’s construction, transportation and operation is paid back in 1.1 years ²¹ .
Recyclable	After the operational lifetime of an onshore wind turbine (between 20-30 years), it can be <u>removed</u> , and the land restored. 80% of a modern turbine is recyclable ²² .
Time required to operation	The average lead time to commission a wind farm in Europe is 4-5 years ²³ , significantly less than other large scale low-carbon technologies such as nuclear and large scale hydro.
Independence	Wind power is displacing the UK’s dependency on fossil fuel importation from any one supplier, country, or technology.

Table 1.1: Benefits of wind power

<i>Benefit</i>	<i>Description</i>
Emissions	Generation of electricity using wind turbines produces no gaseous emissions and does not contribute directly to local air pollution. In contrast, burning fossil fuels produces pollutants including nitrogen oxides (NO _x) and sulphur dioxide (SO ₂).
Reduction in GHG emissions over the lifetime of the wind farm	The energy balance can be expressed in terms of energy payback time or carbon payback time. This is the time taken to generate the quantity of energy (and subsequently CO ₂ emitted) during the manufacturing and construction process. It is generally accepted that this calculation shows that wind power has a much shorter payback time (the time of operation required for a wind turbine to pay for itself in energy terms) than other non-renewable generators. Further guidance considers the impacts of wind farms during construction and operation on soil stability and long-term GHG emissions ²⁴ . It is predicted that the Consented Development would lead to an overall reduction in GHG emissions of approximately 3,602,653 tCO ₂ e, <u>with the variation leading to an overall reduction in CHG emissions of approximately 4,030,270 tCO₂e</u> over its proposed 40 year life, by replacing the equivalent amount of fossil fuel-derived electricity, which results in a predicted GHG emissions payback time of <u>1.8</u> years (Chapter 14: Carbon Balance).
Use of a freely available resource	New technology improvements have reduced the difference between the costs of wind power and other forms of power production. Wind is an abundant resource and remains one of the cheapest of the UK's renewable energy resources. Scotland in particular has a significant wind resource.
Source of employment	Given the recent investment in renewable energy and wind power, particularly in Scotland, the sector is recognised as a source of jobs that contributes both locally and nationally (Chapter 6: Socio-Economic, Recreation and Tourism).

1.7 Environmental impact assessment regulations

- 1.7.1 The requirement for EIA is prescribed by European law under Council Directive 2011/92/EU, as amended by 2014/52/EU. This has been enacted in Scottish law by the EIA Regulations.
- 1.7.2 Schedule 1 of the EIA Regulations lists those developments for which EIA is mandatory, whilst Schedule 2 describes projects for which the need for EIA is judged by the Scottish Ministers on an individual basis through a screening process. The Development is a Schedule 2 development: “(1) a *generating station*.” Therefore, a formal EIA is required to accompany the application.

1.8 The project team

- 1.8.1 The team advising PWFY Ltd on the delivery of the original EIA for the Consented Development was managed by Wardell Armstrong, a multi-disciplinary environmental and engineering consultancy, which specialises in EIA including onshore wind development. Specialist consultants were appointed to provide additional technical skills required for the EIA; these are shown in Table 1.2.

Table 1.2 The project team

Role	Author
Introduction	Wardell Armstrong
Site Description	Wardell Armstrong
Project Description	Wardell Armstrong
Planning and Policy Background	Savills
Design Evolution and Alternatives	Wardell Armstrong
Socio-economic, Tourism and Recreational Assessment	Keddie Associates
Landscape and Visual Impact Assessment	Axis
Residential Visual Amenity Assessment	Axis
Cultural Heritage	AOC Archaeology
Ornithology	Alba Ecology
Ecology	Alba Ecology
Soils and Peat	Blairbeg Associates & Wardell Armstrong
Geology	Wardell Armstrong
Carbon Balance	Wardell Armstrong
Hydrology and Hydrogeology	Wardell Armstrong
Noise	<u>TNEI Services Limited (TNEI)</u>
Air and Climate Emissions	Wardell Armstrong
Highways and Transportation	White Young Green
Shadow Flicker	Wardell Armstrong
Telecommunications	Wardell Armstrong
Aviation	Cyrus & Wardell Armstrong
Residual and Summary of Effects	Wardell Armstrong
Report to Inform a Habitat Regulations Appraisal	Alba Ecology

1.8.2 The update to the EIA that is reported in this EIAR has been carried out by TNEI a separate, independent specialist energy consultancy with a long track record of assessing wind energy

developments. The update has been undertaken by Ryan Llewellyn (MRTPI) and Jason McGray (CEnv, MIEMA) who each have over 10 years of experience in onshore wind farm EIA and consenting.

1.9 Definitions used throughout the ES

Defining terms and significance criteria for the environmental impact assessment

- 1.9.1 The terms *impact* and *effect* are often used interchangeably but, within the context of the environmental studies considered in this ES, these terms have specific meanings.
- 1.9.2 *Impact* is used with reference to changes in a particular aspect of the environment (e.g. air or water) which can be considered attributable to the Site. Where possible the degree of change is quantified.
- 1.9.3 *Effect* relates to the implication of changes to the baseline conditions which have been established for a particular receptor. The assessment of the significance of these changes to the baseline is based on the magnitude of the impact and the sensitivity of the receptor to that change.
- 1.9.4 Thus, *impacts* are a measurement of the change to aspects of the environment from the baseline condition as a consequence of the Site. The *effect* is how significant the change will be taking into consideration the sensitivity of the receptor.
- 1.9.5 Table 1.3 provides definitions of terms used within this EIAR to ensure clarity and consistency when describing parts of the Consented Development or areas within the Site.

Table 1.3 Definitions and terminology used throughout the EIAR

<i>Term</i>	<i>Description</i>
Application Boundary	The area within the Application Boundary is 1,158 ha, within which the individual components of the Consented Development defined in Section 1.1 will be constructed.
Study Area	<p>The Study Area was identified within the <u>original</u> Scoping Opinion Request submitted in June 2015, which is defined by the Application Boundary (Figure 1.2). The baseline studies for the EIA were undertaken to take account of the Study Area defined in the Scoping Report.</p> <p>It should be noted that certain chapters define additional or alternative <u>Study Areas</u> (or search areas) if required by the relevant published guidance. Where this is the case, each technical chapter defines the extents of its <u>Study Area</u> where it varies to that in the Scoping Opinion request.</p>
The Site	Reference to the land within the Application Boundary as finalised during the EIA process has been defined as “the Site”.

Table 1.3 Definitions and terminology used throughout the EIAR

Term	Description
The Consented Development	<p>As per the description of the development on the accompanying planning application form. The design details of the Consented Development incorporate all aspects of the development including:</p> <ul style="list-style-type: none"> • Up to seventeen turbines with a combined installed capacity of greater than 50 MW and a maximum tip height of 145 m. • Temporary construction compound and lay down areas. • Water crossings required for the access tracks. • Borrow pits. • Ecological enhancement measures. • One permanent anemometry mast and associated access track. • One microwave communications tower. • Sub-station control building, compound and external electrical installation including transformers and filters. <p>See Chapter 3: Project Description for a comprehensive description.</p>

1.10 Structure of the Environmental Impact Assessment Report (EIAR)

- 1.10.1 The EIA Regulations stipulate various requirements for matters to be included in an EIAR²⁵ identifies the requirements of Schedule 4, Part 1 of the Regulations and identifies where this information is provided within this ES, see Table 1.4.

Table 1.4 The electricity works (Environmental Impact Assessment) (Scotland) Regulations 2017 - Part 1

Requirements	Location within this ES
<p>Description of the Consented Development, including in particular:</p> <ul style="list-style-type: none"> • A description of the physical characteristics of the whole development and the land use requirements during the construction and operational phases; • A description of the main characteristics of the production processes, for instance nature and quantity of the materials used; and • An estimate by type and quantity of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the development. 	Chapters 2 and 3
Consideration of alternatives and design evolution of the Development	Chapter 5

Table 1.4 The electricity works (Environmental Impact Assessment) (Scotland) Regulations 2017 - Part 1

<i>Requirements</i>	<i>Location within this ES</i>
<p>A description of the potential significant effects of the Consented Development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development, resulting from:</p> <ul style="list-style-type: none"> • The existence of the development; • The use of natural resources; and • The emission of pollutants, the creation of nuisances and the elimination of waste, and the description by the applicant or appellants of the forecasting methods used to assess the effects on the environment. 	Chapters 6 – 21
<p>A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment and suggested planning conditions.</p>	Chapters 6 – 21
<p>A non-technical summary of the information provided under paragraphs 1 to 4 of this Part.</p>	Preface to the ES and separately bound
<p>An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant or appellants in compiling the required information.</p>	Chapter 7 - 22 (where appropriate)
<p>Summary of residual effects of the Consented Development.</p>	Chapter 22

Environmental Impact Assessment procedure

- 1.10.2 EIA is the process by which information regarding the likely positive and negative environmental effects of a development and the potential for reducing, avoiding or offsetting any adverse effects ('mitigation') is collected and assessed and in this case has been used to inform the design and layout of the wind farm development.
- 1.10.3 The EIA has been informed by a Scoping Opinion issued by the then ECDU in 2015 (Appendix 1.1), together with specific stakeholder discussions during the preparation of the original ES and community consultations undertaken by The Applicant.
- 1.10.4 The following approach has been undertaken with regard to the EIA:
- An initial feasibility study determining the viability of a wind farm at the Site known as Beaw Field Wind Farm (the Consented Development);
 - A request for and receipt of a Scoping Opinion from the ECDU;
 - Consultation with statutory bodies to determine key environmental issues;
 - Desk-based and field studies to evaluate the current baseline conditions and specific constraints to the Consented Development;
 - The development of a turbine layout based on constraints and feedback from consultees and landowners;

- Further refinement of the Consented Development and turbine layout, having regard for the physical and environmental constraints of the Site after completion of restoration and aftercare management and to take account of consultation responses;
- Outline impact assessment and identify key features;
- Detailed impact assessment of environmental aspects that were identified in the Scoping Opinion and public and stakeholder consultation and as a consequence of the baseline studies; and
- Design of mitigation measures where required.

1.10.5 The baseline conditions of each environmental receptor have been established and defined and their implications for the Consented Development considered. This information provides the base from which the assessment and identification of the effects of the Consented Development on the environmental receptors have been made.

1.10.6 For each environmental receptor an assessment has been made of the nature, magnitude and therefore significance of the identified effects of construction, operation and decommissioning of the Consented Development. Mitigation measures have been proposed to avoid or reduce effects to acceptable levels and/or provide enhancement to offset potential effects. These measures have been taken into account when considering the level and significance of any residual effects.

1.10.7 Following submission of the original Environmental Statement, a number of questions and points raised by consultees were addresses through submission of Further Environmental Information (FEI) in June 2016. That submission is included at Appendix 1.2.

1.10.8 Throughout this EIAR, updates have been made where relevant, considering any changes to the baseline environment and taking into account the fact that the infrastructure of the Consented Development is not changing. Changes to Legislation and Policy have also been reflected in this EIAR.

Site activities and identification of potential impacts

1.10.9 The nature of the assessment and the methodology adopted to define significance is specified for each environmental aspect but fits within a general framework.

1.10.10 Where quantitative techniques can be used, the approach adopted has been to model the natural environment and calculate the magnitude of the potential effect as a consequence of the Site activities.

1.10.11 For a number of environmental aspects, qualitative techniques were used to define the magnitude of the potential effect. For example: the use of photomontage in Chapter 7: Landscape and Visual Impact Assessment (LVIA). This assessment relies on previous experience and knowledge about the consequences of a given action and expert judgement is critical to the evaluation of significance.

1.10.12 These qualitative predictions are subject to a degree of uncertainty which is explained within each Chapter together with any assumptions on what they are based.

Forestry

1.10.13 The Consented Development would not lead to the removal of forest or woodland and will not have a significant secondary effect on forestry and woodland in the locality, therefore this element has been scoped out of the Environmental Impact Assessment. This position was highlighted in the Scoping

Report (paragraph 7.1.5), and the subsequent Scoping Opinion confirmed that Scottish Ministers were satisfied with this approach.

Mitigation measures and residual impacts

- 1.10.14 In general, adverse effects rated as significant should be mitigated in order to reduce the level of the residual impact. Monitoring measures must also be defined to assess the efficacy of the mitigation. However, under certain circumstances, significant residual effects which cannot be mitigated may be acceptable, particularly if they are outweighed by the overall benefits of the Consented Development.
- 1.10.15 The potential effects with mitigation imposed have then been reassessed to derive residual effects as a result of the Consented Development. The residual effect is determined as a result of the impact together with a risk analysis based on the monitoring programme required to audit the impact. In some of the technical assessment's mitigation has been applied as integral to the site design and operational requirements. Where this is the case, the approach to mitigation has been defined prior to predicting potential effects.

1.11 Habitats Regulations Appraisal (HRA)

- 1.11.1 As part of the HRA process, Appropriate Assessment (AA) is required for any development not connected to the management of sites defined under Natura 2000²⁶ (the Directives have been enacted through relevant UK legislation²⁷) that is likely to have a significant effect on the designated site, whether in isolation or in-combination with other plans or projects.
- 1.11.2 The HRA process is separate from the EIA process and provides a methodology for identifying whether development is compatible with the overall management objective of the Natura 2000 site, in this case The Otterswick and Graveland Special Protection Area (SPA) and the more recent East Mainland Coast, Shetland SPA and Bluemull and Colgrave Sounds SPA. Having considered the potential impacts of the Consented Development on the SPAs, it can be concluded that there will be **no likely significant effects** on the designated sites. Therefore, there is no need for an Appropriate Assessment (a Habitats Regulations Assessment). However, Chapter 11 provides enough information for the competent authority to undertake an Appropriate Assessment should this be deemed necessary.

1.12 Summary

- 1.12.1 This EIAR updates the assessment of the likely environmental effects (both positive and negative) associated with the Consented Development of Beaw Field Wind Farm, which comprises up to seventeen turbines with a maximum height to blade tip of 145 m. The update to the EIA is to inform decision making for a Section 36C application to extend the implementation period and operational life of the consented development. The installed capacity of the Consented Development will be greater than 50 MW. The Consented Development includes all of the associated infrastructure required to construct, operate and decommission the wind farm.
- 1.12.2 The original ES and this EIAR have been prepared by independent and professionally qualified consultants and specialists in order to ensure that the findings provide the level of detail and accuracy to enable an informed decision to be taken by the relevant authorities in respect of the Consented Development defined in the planning application.



1.12.3 The Beaw Field Wind Farm EIAR can be inspected during normal opening hours at the following locations:

Shetland Islands Council
8, North Ness Business Park
Lerwick
Shetland
ZE1 0LZ

Burravoe Public Hall
Burravoe
Yell
Shetland Isles
ZE2 9BA

Scottish Government Library
GD Bridge
Victoria Quay
Edinburgh
EH6 6QQ

1.12.4 Further copies of the NTS are available free of charge from:

Joe Chambers
Development Manager at Peel Wind Farms (Yell) Ltd

1.12.5 Venus
1 Old Park Lane,
Trafford City,
Manchester
M41 7HA

1.12.6 Alternatively, the NTS can be requested in electronic format from info@tneigroup.com

1.12.7 Copies of this EIAR may be obtained from the registered offices of Peel Wind Farms (Yell) Limited at the above address. Hard copies (including the NTS) will be charged at cost, not exceeding £1,500. Digital copies (on CD or USB) are available free of charge. Alternatively, the full ES can be accessed on Shetland Islands Council website, at the following link:

<https://pa.shetland.gov.uk/online-applications/>

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- 1 Planning Circular 1 2017: Environmental Impact Assessment Regulations. Available at: <https://www.gov.scot/publications/planning-circular-1-2017-environmental-impact-assessment-regulations-2017/>
 - 2 Planning Advice Notice (PAN) 1 / 2013 Environmental Impact Assessment, The Scottish Government, 2013
 - 3 Peel NRE (Online) www.peellandp.co.uk
 - 4 Electricity Generation Policy Statement, the Scottish Government, 2012.
 - 5 2020 Route map for Renewable Energy in Scotland, The Scottish Government, 2013.
 - 6 The Scottish Government, 2009. Climate Change (Scotland) Act 2009. <http://www.gov.scot/Topics/Environment/climatechange/legislation>
 - 7 The Scottish Government, 2010. Scottish Planning Policy. <http://www.gov.scot/Resource/Doc/300760/0093908.pdf>
 - 8 The Scottish Government, 2015. Energy in Scotland. <http://www.gov.scot/Resource/0046/00469235.pdf>
 - 9 The Scottish Government, 2015. Energy in Scotland – Get the facts. <http://www.scotland.gov.uk/Topics/Business-Industry/Energy/Facts>
 - 10 The Scottish Government, 2013. Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013- 2027. The Second Report on Proposals and Policies. <http://www.gov.scot/Publications/2013/06/6387>
 - 11 Climate Change (Emissions Reduction Targets) (Scotland) Bill
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