



Hollandmey Renewable Energy Development

EIA Report Non-Technical Summary

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Glossary

BESS	Battery Energy Storage System
CEMP	Construction Environmental Management Plan. Sets out the controls and processes that are to be adopted to mitigate environmental impacts throughout a project
CTMP	Construction Traffic Management Plan. Provides information regarding the management of all site traffic, with particular reference to environmental safeguards and mitigation required to address impacts identified in the EIA.
EIA	Environmental Impact Assessment
EIA Report	Environmental Impact Assessment Report
Electricity Act	The Electricity Act 1989
GWh	Gigawatt-hours. This is a measurement of electricity used over time, describing how fast the energy is used (gigawatts (GW)) and the length of time it is used (hours (h))
GVA	Gross value added. GVA measures the contribution to the economy of an individual producer, an industry, sector or region.
GWDTE	Groundwater Dependent Terrestrial Ecosystem
HGV	Heavy Goods Vehicle
HMP	Habitat Management Plan. Detail habitat protection, restoration and creation measures associated with the proposed Development.
ISA	Inner study area. A study area the extent of the Site used to search for potential archaeological receptors that might be subject to direct impacts from the proposed Development.
IUCN	International Union for Conservation of Nature
Local Development Plan	A plan that sets out a local authority's policies and proposals for land use in their area. For the Highland Council there is the Highland-wide Local Development Plan
LCT	Landscape Character Type. Areas of consistent and recognisable landscape character.
MW	Megawatts. This is a measurement of power, equivalent to 1 million watts. It is used to describe the amount of energy being used, or, in this case, generated in a specific moment
NGR	National Grid Reference
NTS	Non-Technical Summary
OWESG	Onshore Wind Energy Supplementary Guidance, 2017. Supplementary guidance that comprises part of the Highland-wide Local Development Plan
PMP	Pollution Management Plan. Addresses the requirement for excavation of peat and peaty soils during the construction process
PSRA	Peat Slide Risk Assessment. Addresses the potential risk of induced instability within peat.
SAC	A Special Area of Conservation (SAC) protects one or more special habitats and/or species – terrestrial or marine – listed in the Habitats Directive.
SPA	Special Protection Areas (SPAs) are selected to protect one or more rare, threatened or vulnerable bird species listed in Annex I of the Birds Directive, and regularly occurring migratory species.
SPP	Scottish Planning Policy. A statement of Scottish Government policy on how nationally important land use and planning matters should be addressed.
SPR	ScottishPower Renewables, the Applicant.
SSSI	Site of Special Scientific Interest is a statutory designation made by Scottish Natural Heritage under the Nature Conservation (Scotland) Act 2004.
SuDS	Sustainable Drainage Systems. Refer to drainage systems that manage surface water that factor in water quantity and quality, biodiversity and amenity
THC	The Highland Council, the local planning authority
WCA	Wildlife and Countryside Act 1981. The primary legislation which protects animals, plants and habitats in the UK.

Hollandmey Renewable Energy Development

Preface

1. This document is the Non-Technical Summary (NTS) of the Environmental Impact Assessment Report (EIA Report) and has been prepared to accompany the Section 36 consent application for the proposed Hollandmey Renewable Energy Development (RED) (hereafter, the proposed Development). The Site is approximately 8 km south west of John o' Groats and 16 km east of Thurso, situated within the north eastern part of the Caithness area of the Highlands (**Figure 1**). The proposed Development would be known as the Hollandmey Renewable Energy Development.
2. The EIA Report comprises the following:
 - Non-Technical Summary;
 - Volume 1: Written Statement;
 - Volume 2: Figures;
 - Volume 3: Landscape and Visual Impact Assessment Figures; and
 - Volume 4: Technical Appendices.
3. Hard copies of this NTS are available free of charge from:

RSK Environment Group Limited
65 Sussex Street
Glasgow
G41 1DX
Tel: 0141 418 0471 or Email: rbeck@rsk.co.uk
4. 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. 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.
5. A copy of the NTS will be made available for download from the ScottishPower Renewables corporate website at: https://www.scottishpowerrenewables.com/pages/hollandmey_renewable_energy_development.aspx.
6. ScottishPower Renewables has a duty to undertake statutory publication of the EIA Report in accordance with Part 5 of the 2017 EIA Regulations and the Electricity (Applications for Consent) Regulations 1990. Due to the ongoing Covid-19 situation and the provisions of the Coronavirus Act 2020, Government advice is that hard copies of the application and EIA Report should not be placed on public display. The application documents are being made available online via the Energy Consents Unit website as normal, and hard copies are being made available to specific statutory consultees
7. Comments in relation to the application for consent should be forwarded to the address below:

Energy Consents Unit
Scottish Government
4th Floor
5 Atlantic Quay
150 Broomielaw
Glasgow G2 8LU

Email: representations@gov.scot/Web: www.energyconsents.scot/Register.aspx

EIA Report Non-Technical Summary

1 Introduction

8. This Non-Technical Summary (NTS) summarises the Environmental Impact Assessment (EIA) Report for the proposed Hollandmey Renewable Energy Development. The EIA Report accompanies an application for consent under Section 36 of the 1989 Electricity Act and for a direction granting deemed planning permission.
1. Hollandmey Renewable Energy Development is referred to in this NTS and in the EIA Report as 'the proposed Development'. The proposed Development is a Renewable Energy Development that intends to make use of available renewable energy technologies to maximise and optimise the renewable energy potential of the Site. The Proposed Development would comprise 10 wind turbines up to 149.9 m in height, with an installed capacity of around 50 MW, and around 15 MW of ground mounted solar arrays producing a combined output of around 65 MW. The application also includes approximately 15 MW of battery storage (BESS). The proposed Development is described in further detail in **Chapter 3: Proposed Development** of the EIA Report.
9. The proposed Development is located within The Highland Council (THC) administrative area, approximately 8 km south west of John o' Groats and 16 km east of Thurso, centred on National Grid Reference (NGR) ND 29621 69892, as shown on **Figure 1**.
10. Environmental effects of the proposed Development have been considered as part of an iterative design process and included within the Environmental Impact Assessment (EIA). The results of the EIA are presented within the EIA Report and summarised in this NTS. 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.
11. Assessments as reported in this EIA Report have been informed by work undertaken as part of the EIA process. Further details on the Site history and selection are provided in **Section 4** of this NTS.
12. ScottishPower Renewables UK (hereafter the Applicant) 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 has committed to investing over £4 m every working day between 2018 to 2022 to make this happen and is committed to speeding up the transition to cleaner electric transport and improving air quality to deliver a better future, quicker for everyone.
13. The Applicant 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.
14. With over 40 operational windfarms, ScottishPower Renewables manages all its sites through its world leading Control Centre at Whitelee Windfarm, near Glasgow.

2 Legal and Policy Framework

2.1 Legislative Context

15. The proposed Development would have a capacity exceeding 50 megawatts (MW) and so an application under Section 36 of the Electricity Act is being made to the Scottish Government's Energy Consents Unit. Furthermore, the Applicant would also seek that a direction under Section 57(2) of the Town and Country Planning (Scotland) Act 1997 should be granted to provide deemed planning permission.
16. Schedule 9 of the Electricity Act imposes duties on the Applicant, as the Applicant and a licensed generator, to have regard for a range of factors in developing the proposals. These are: "...have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest." In addition, under Schedule 9, paragraph 3 (1)(b) the Applicant must "do what he reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects". Through the EIA process the Applicant has sought to develop a layout that takes account of the duties set out in Schedule 9 of the 1989 Act. Schedule 9 also sets out a requirement for the protection of fisheries by generating licence holders. Paragraph 3 (3) states that "in exercising any relevant functions each of the following, namely, a licence holder, a person authorised by an exemption to generate or supply electricity and the Secretary of State shall avoid, so far as possible, causing injuries to fisheries or to the stock of fish in any waters." The assessment of impacts on fish have been considered and are addressed in **Chapter 8: Ecology and Technical Appendix: 8.4 Fish Habitat Survey**.
17. Section 36 applications are also subject to the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the EIA Regulations). Environmental Impact Assessment
18. Potential environmental effects have been assessed to evaluate their significance. Mitigation is proposed where possible to prevent, reduce or offset significant potential effects.
19. In accordance with the EIA Regulations, the assessment has also considered 'cumulative effects'. By definition these are effects that result from incremental changes in combination with past and reasonably foreseeable developments or different types of impacts on a single receptor.

2.2 Renewable Energy Policy

20. The UK Government and the Scottish Government have both declared a 'climate emergency' and are committed to ensuring that an increased proportion of electricity is generated from renewable energy sources in order to meet carbon emission targets set in 2019.
21. The Climate Change Act¹ was passed by the Scottish Parliament in 2019 and its measures were brought into force in March 2020. It amends the previous Climate Change Act², and sets targets to reduce Scotland's emissions of all greenhouse gases to net-zero, which means that Scotland's net carbon emissions (the balance of carbon emissions released into the atmosphere and those removed from the atmosphere) will be zero, by 2045 at the latest, with interim targets for reductions of at least 56% by 2020, 75% by 2030, 90% by 2040. These are currently the most ambitious statutory targets in the world.
22. The figures for 2019 show that greenhouse gases fell to 51.5%³ against the baseline which is short of the 55% target.
23. In December 2017, the Scottish Government published the Scottish Energy Strategy. The Scottish Energy Strategy advises that for Scotland to meet climate change targets, the Scottish Government will set a new 2030 target for the equivalent of 50% of Scotland's heat, transport and electricity consumption to be supplied from renewable sources. The Scottish Energy

¹ The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019

² Climate Change (Scotland) Act 2009

³ Scottish Government, *Scottish Greenhouse Gas Emissions 2019*, Official Statistics publication (Scottish Government, June 2021)

Strategy also advises that onshore wind development is essential to Scotland's transformation to a fully decarbonised energy system by 2050 and brings opportunities which underpin the vision to grow a low carbon economy and build a fairer society.

24. On 16 December 2020, the Scottish Government published Securing a Green Recovery on a Path to Net Zero: Climate Change Plan 2018-2032 (CCP Update). This provides an update to Scotland's 2018-2032 Climate Change Plan (CCP) and sets out the Scottish Government's pathway to what they describe as new and ambitious targets set by the Climate Change Act 2019. The CCP Update clearly recognises the role of electricity generation going forwards and identifies how sectors can promote a green recovery from the COVID-19 pandemic.

2.3 National Planning Policy

25. Scottish Planning Policy (SPP) (June 2014) creates a presumption in favour of development that contributes to sustainable development. Paragraph 29 of the SPP advises that planning policies and decisions should support sustainable development and sets out a number of principles which should be taken into account.
26. Onshore wind is specifically considered in SPP starting at paragraph 161. SPP advises that Planning Authorities should identify areas likely to be most appropriate for onshore windfarms.
27. There is high level support for the promotion of RED throughout many parts of National Planning Framework 3 (NPF3), which recognises that planning will play a key role in delivering the Scottish Government commitments set out in low carbon Scotland. NPF3 advises that, whilst Scotland is making good progress in diversifying the energy generation capacity and lowering carbon emissions, more action is required by way of continuing to capitalise on the wind resource to ensure security of supply.
28. The National Planning Framework 4 (NPF4) is currently being prepared and will replace SPP and NPF3. In November 2020, the Scottish Government published their Position Statement on NPF4. There is a commitment in the Position Statement to actively facilitate decarbonised energy generation and distribution. There is reference to a radical shift being required in Scotland's Spatial plan and policies to hit the emissions targets for 2030, 2040 and 2045. This demonstrates the step change which has started and must continue in the weight to be attached to renewable energy policies in decision making processes. The document is not a statement of policy and is subject to consultation. Given this, the weight to be attached to the document is considered to be limited however it does show clearly the Scottish Government's train of thought.

2.4 Local Planning Policy

2.4.1 Development Plan

29. In the case of Section 36 Applications, the status of the Development Plan is not the same as in the determination of a planning application in terms of the Town and Country Planning (Scotland) Act 1997, meaning that that the proposed Development does not have to accord with the terms of the Development Plan. However, the Development Plan is nonetheless material to the determination of the application.
30. The Development Plan for the Site comprises the Highland-wide Local Development Plan (HwLDP) which was adopted in 2012, the Onshore Wind Energy Supplementary Guidance (OWESG), adopted in 2016 and the Caithness and Sutherland Local Development Plan (CaSPlan) adopted in 2018.

2.4.1.1 Highland-wide Local Development Plan

31. The HwLDP was adopted in April 2012 and it includes the OWESG adopted in November 2016 and an Addendum Supplementary Guidance 'Part 2b' adopted in December 2017.
32. The HwLDP Policy most relevant to the proposed development is Policy 67 – Renewable Energy Developments, which sets out THC's support in principle for renewable energy developments. The first part of Policy 67 states:

“Renewable energy development proposals should be well related to the source of the primary renewable resources that are needed for their operation. The Council will also consider:

- *The contribution of the proposed development towards meeting renewable energy generation targets;*
- *Any positive or negative effects it is likely to have on the local and national economy; and*

- *Will assess proposals against other policies of the development plan the Highland Renewable Energy Strategy and Planning Guidelines and have regard to any other material considerations, including proposals able to demonstrate significant benefits including by making effective use of existing and proposed infrastructure or facilities.”*

33. The ‘Highland Renewable Energy Strategy’ referred to in Policy 67, was removed as a material consideration in August 2016 by the Planning, Development and Infrastructure Committee.

34. The second part of Policy 67 ‘Renewable Energy Developments’ sets out a number of criteria that must be addressed by wind farm applications. The policy states:

“Subject to balancing with these considerations and taking into account any mitigation measures to be included, the Council will support proposals where it is satisfied that they are located, sited and designed such that they will not be significantly detrimental overall, either individually or cumulatively with other developments (see Glossary), having regard in particular to any significant effects on the following:

- *natural, built and cultural heritage features;*
- *species and habitats;*
- *visual impact and impact on the landscape character of the surrounding area (the design and location of the proposal should reflect the scale and character of the landscape and seek to minimise landscape and visual impact, subject to any other considerations);*
- *amenity at sensitive locations, including residential properties, work places and recognised visitor sites (in or outwith a settlement boundary);*
- *the safety and amenity of any regularly occupied buildings and the grounds that they occupy having regard to visual intrusion or the likely effect of noise generation and, in the case of wind energy proposals, ice throw in winter conditions, shadow flicker or shadow throw;*
- *ground water, surface water (including water supply), aquatic ecosystems and fisheries;*
- *the safe use of airport, defence or emergency service operations, including flight activity, navigation and surveillance systems and associated infrastructure, or on aircraft flight paths or MoD low-flying areas;*
- *other communications installations or the quality of radio or TV reception;*
- *the amenity of users of any Core Path or other established public access for walking, cycling or horse riding;*
- *tourism and recreation interests;*
- *land and water-based traffic and transport interests.”*

35. OWESG (which forms part of THC’s local development plan, classifies the Site as a mix of Group 3 ‘Areas with potential for wind farm development’ and Group 2 ‘Areas of significant protection. These classifications do not rule out windfarm development, noting that further consideration would be required to demonstrate that any significant effects can be sustainably overcome by siting, design or other mitigation.

2.4.1.2 Caithness and Sutherland Local Development Plan

36. The main elements of the CaSPlan are the Vision, the Strategy and Policies followed by details for the Caithness Settlements and the Sutherland Settlements. The strategy for employment contained in CaSPlan states that investment in renewable energy generation in North Highland is not only helping to meet Council and national climate change targets but it has also delivered economic benefits for the area.

37. There are no general policies within the CaSPlan which are considered to be of relevance to the proposed Development.

3 Site Selection, Alternatives and Design Strategy

3.1 Site Selection

38. The site selection process of the Applicant is designed to identify potential renewable energy sites that are financially and technically viable, environmentally acceptable, most likely to obtain planning approval, and make meaningful contributions to Scotland's targets for renewable energy generation.
39. The Applicant is committed to avoiding the development of renewable energy projects in areas where there would be an unacceptable effect on environmentally designated sites and where mitigation measures are unlikely to be successful. The Applicant is also committed to not considering sites where developments may have an unacceptable effect on landscape character or amenity of National Parks and National Scenic Areas, and special consideration is attributed to internationally and nationally important species and habitats in the wider area.
40. Site selection work by the Applicant is an ongoing process, whereby a list of candidate sites is maintained and updated as new opportunities are identified and candidate sites move into development. Candidate sites are identified initially through a desk-based exercise which includes the consideration of issues such as site capacity, distance from properties, exposure and topography, site access and proximity to a potential electricity grid connection point.
41. The proposed Development Site was short-listed due to a number of factors, including the following:
- initial desk-based assessments and wind monitoring onsite suggest that there is likely to be a good wind and solar resource and the Site is available for a renewable energy development;
 - the Site itself has open and expansive characteristics considered appropriate for renewable energy development;
 - the topography of the Site is suitable for the construction of a commercial scale renewable energy development;
 - the grid network in the north of Scotland has been identified by the Applicant as requiring balancing services that would be suited to a BESS which would complement the solar array and wind turbines;
 - the Site is located within group 2 and group 3 areas, under the OWESG, which are considered to have potential for a windfarm or a renewable energy development subject to careful siting, design and additional mitigation and consideration against other policy considerations.
 - there are several areas of flat/gently sloping south facing land that are suitable for a ground mounted solar array;
 - the Site has reasonably good access from the public road network for construction traffic and wind turbine deliveries, particularly for longer blades which allows consideration of larger turbines to make the best use of the expected wind resource;
 - there are no national or international nature designations within the area identified for development; and
 - the distances from the nearest residential properties are such that undue noise or visual impacts from on visual amenity can be avoided.

3.2 Design Approach and Alternatives

42. The purpose of a renewable energy development is to harvest energy from a range of possible renewable sources such as wind and solar and convert this to electricity. The process of designing a development to combine wind and solar starts with wind turbine siting. Wind turbine siting seeks to minimise potential for adverse landscape and environmental effects whilst maximising the potential energy output. Landscape and visual effect and occurrence of peat covering a site are the principle influencing design aspects, but other factors such as ornithology, noise and ecological effects can also influence the layout and position of turbines. The same aspects are also important and influence the design and layout of the ground mounted solar array. The proposed solar array has been located away from the wind turbine array but close to the site entrance and accessible by an existing access track.

This combination of environmental, design and technical parameters has, through the iterative process of the environmental assessment, resulted in the proposed layout. It is considered that the proposed Development represents an optimum fit within the technical and environmental parameters of the project. A range of alternative layout options were refined through an iterative process of design. Early on in the design process, turbines at the greater height of 179 m were considered in detail with comparative visual appraisals made to determine what was considered to be the best balance, taking into account

other environmental, technical and commercial constraints. It was decided, as a result of this exercise, that 149.9 m tip height would be the preferred option.

43. Based on a preliminary design study, which focussed on potential noise limit constraints associated with nearby residential properties and potential visual impacts, and field work observations, a design concept for the proposed Development was generated which identified the preferred areas for wind turbines and the solar array within the Site.
44. The main design objectives were as follows:
- limit proximity, size and scale with respect to the closest residential receptors;
 - limit impacts on priority peatland and carbon areas;
 - respect other environmental constraints;
 - consideration of the form of the underlying landscape and its scale and provide balance alongside neighbouring windfarms;
 - create a layout which maximises the potential of the Site to generate and store renewable energy;
 - uses existing infrastructure (tracks and borrow pits on the Site) as far as practicably possible; and
 - minimises removal of plantation/tree cover.
45. The main landscape and visual design factors that were identified comprised the following:
- achieve separation between the RED and smaller scale seaboard landscapes;
 - demonstrate a reasonably balanced and logical layout minimising the increase in horizontal extent of wind energy when seen in views from Castle of Mey and Dunnet Head;
 - avoid impinging upon key views from Dunnet Head inland and key views to Dunnet Head from the surrounding area;
 - achieve a visual separation with the adjacent operational Lochend windfarm to minimise visual confusion between the different sized turbines;
 - achieve visual association with Stroupster Windfarms by designing in such a way so as to give the perception of a development of similar size and design set within a landscape of similar character;
 - provide sufficient separation from the smaller scale landscape of Coastal Crofts and Small Farms to avoid adverse scale comparisons;
 - provide reasonable degree of setback from the sensitive receptors; and
 - minimise effects on visual amenity for nearby settlements including Castletown, Dunnet, East Mey, Lyth and Bower, as well as the dispersed properties in proximity to the Site.
46. For the development of the proposed solar array, a similar approach to the wind turbine layout has been used. The principal criteria for solar arrays are flat terrain and ideally south-facing slopes. The proposed area for the solar array was chosen because:
- it is located on flat terrain;
 - it avoids peat deposits and the need for plantation removal;
 - is afforded significant screening from onsite vegetation/plantation;
 - it is a location that avoids and/or minimises potential impacts on known environmental resource;
 - would be affected by minimal shadowing from both vegetation and proposed turbines; and
 - lies in close proximity to the Site entrance and turbine related access track infrastructure.

4 Proposed Development

4.1 Description of the Proposed Development

47. The layout of the proposed Development is shown on **Figure 2**. It would comprise up to ten three-bladed horizontal axis wind turbines, up to 149.9 m tip height, with a combined rated output of around 50 MW and around 15 MW of ground mounted solar array producing a combined output of around 65 MW. The application also includes a BESS with around 15 MW capacity would also be installed to store energy.
48. The layout of the proposed Development includes:
- crane hardstandings;
 - transformer/switchgear housings located adjacent to turbines;
 - access tracks (existing, upgrade of existing or new as required);
 - watercourse crossings (upgrade of existing or new as required);
 - underground electrical cabling;
 - permanent anemometer mast;
 - up to two temporary Power Performance Masts (PPM);
 - a temporary windfarm construction compound area and a temporary solar construction compound area;
 - a substation compound;
 - closed-circuit television mast(s);
 - communication mast(s);
 - permanent control building;
 - up to three borrow pit search areas; and
 - health & safety and other directional site signage
49. As a result of any possible issues encountered during construction of the proposed Development (e.g., unsuitable ground conditions), it may be necessary to microsite elements of the proposed infrastructure (i.e., revise the location of infrastructure to a more suitable place). It is proposed that a 50 m micrositing tolerance from turbines and other infrastructure would be applied to the proposed Development and that within this distance any micrositing would be agreed in advance with specialist advisors such as ecologists or archaeologists.
2. The proposed Development would also require some forest restructuring works to enable construction and operation of the RED. An area of approximately 24.3 ha of forestry would require to be felled during the construction phase to accommodate the proposed turbines and associated infrastructure. A further 88.4 ha would be required to be felled as part of the Habitat Management Plan (HMP) proposals. Timber that is felled would be processed locally. The round timber is likely to be sent to Balcas, Invergordon for wood pellet and electricity production and all wood chip material would be sold to Balcas too. In the past about 5% of the timber has been sold to local firewood merchants in Caithness. There would be an approximate 24.3 ha net loss of stocked woodland area as a result of the proposed Development. In line with the Scottish Government's Control of Woodland Removal Policy, compensatory planting of an area equivalent to the net loss would be undertaken offsite.
50. There is no proposal to limit the lifetime of the proposed Development. Therefore, the EIA Report considers the effects of the operational phase of the proposed Development, without limitation to a defined period of time. Should consent be granted, it is anticipated that there would be a condition which would deal with the requirement to remove turbines if they become non-operational for a defined period of time.
51. The grid connection point for the proposed Development is subject to confirmation by the network operator/owner. The precise route of the grid connection has not yet been determined and the assessment of its effects are not identifiable because it has yet to be designed and applied for.
52. The grid connection may require consent under Section 37 of the Electricity Act 1989 which is the subject of a separate consenting process to this application. Scottish Hydro Electric Transmission plc who is the network owner in the area of the proposed Development would own the assets beyond the Site substation construction activities and site access.

4.2 Proposed Access

53. Technical studies have been undertaken to identify potential access routes to the proposed Development Site. This has enabled the identification of routes for the road transportation of abnormal loads such as wind turbine components (e.g., tower sections, nacelle and blades) using specialised heavy transport vehicles as well as Heavy Goods Vehicles (HGVs) and other vehicles.
54. It is proposed that the wind turbine components would be delivered to Wick Harbour. The turbine components would be moved under escort from there to Site along the A99, A9, A836, and from the A836 to Site along either U1633 East Lodge Road or Charleston Farm Road and then C1033 Everly-Crockster Toll Road. The application boundary has been extended from the Site to incorporate the potential route options from the A836 to Site. This is referred to as the Extended Area.
55. Other vehicles, including articulated lorry deliveries for construction materials and for the delivery of solar panels, would likely use the same access and the road network between Wick and the Site, which includes local settlements that could provide materials.

5 Scoping and Consultation

56. The purpose of scoping and pre-application consultation is to:

- ensure that statutory consultees and other bodies with a particular interest in the environment are informed of the proposal and provided with an opportunity to comment at an early stage in the EIA process;
- obtain baseline information regarding existing environmental site conditions;
- establish key environmental issues and identify potential effects to be considered during the EIA;
- identify those issues which are likely to require more detailed study and those which can be justifiably excluded from further assessment; and
- provide a means of confirming the most appropriate methods of assessment.

5.1 Scoping

57. In July 2020, Scoping Topic Information Sheets were issued directly to relevant consultees to seek their views on the scope and content of the EIA for the current proposals. This formed the basis for early consultation with a number of organisations, who were asked for relevant information, opinions on the proposed Development and views on the proposed assessment methodologies. The responses received have been taken on board and informed the EIA Report.

58. A direct scoping exercise was undertaken because a prior pre-application consultation exercise was completed in 2019 in relation to the potential for a RED at Hollandmey. The advice received as part of that process covered a lot of the information that would typically be contained in a formal scoping direction and was considered when preparing the Project Factsheet and EIA Topic Information Sheets provided to consultees. The EIA Topic Information Sheets were produced by technical specialists and outlined the proposed methodology and approach for assessing effects.

5.2 Consultation

59. The process of consultation is critical to the development of a comprehensive and balanced EIA Report. Views of the key statutory and non-statutory consultees serve to focus the environmental studies and to identify key specific issues which may require further investigation.

60. A comprehensive understanding of the requirements/views of consultees has been sought throughout the EIA process. This has informed the design of the proposed Development. Consultation comprised public consultation, undertaken in October 2020 and January/February 2021, and consultation with a range of statutory bodies, non-statutory bodies, community councils and landowners.

61. Public consultation is seen as a key element of the EIA process. Further information on this is contained in the **Pre-Application Consultation Report** that is provided alongside the application for consent.

6 EIA Assessments

6.1 Summary of Environmental Effects

62. This Section outlines the predicted environmental effects of the proposed Development. In summary, the EIA assessments show that through careful and iterative design of the proposed Development, through site-specific mitigation measures and the use of good practice methodologies during construction there would be **'No Significant'** environmental effects, with the exception of some **'Significant'** landscape effects.

63. The following **Sections (6.2 to 6.10)** provide a summary of the effects for each of the EIA assessments, starting with landscape and visual assessment where some **'Significant'** effects have been predicted.

6.2 Landscape and Visual Impact Assessment

64. The proposed Development is located within the large-scale modified landscape of Sweeping Moorland and Flows Landscape Character Type (LCT) (CT3) and has been sited and designed in response to this. The proposed Development is set back from the smaller scale landscapes of Coastal Crofts and Small farms LCT and from the coastal fringe. The proposed Development would be in a part of Sweeping Moorland and Flows LCT where wind energy has become an established component of the landscape with Lochend Windfarm and Stroupster Windfarm located nearby and in the same area of the LCT, meaning there would be limited additional areas affected by the proposed Development that do not already experience effects.

65. The operational effects of the proposed Development on landscape character would occur in the north-eastern part of Caithness. **'Significant'** effects would occur within the footprint of the proposed Development and within approximately 5 km of the outermost visible wind turbines. There would be **'Significant'** effects on a part of Sweeping Moorland and Flows LCT in which all wind turbines of the proposed Development would be located. There would also be **'Significant'** effects on a small part of Farmed Lowland Plains LCT which is a very extensive LCT to the north and west of the proposed Development. There would also be **'Significant'** effects on a small part of a unit of Coastal Crofts and Small Farms LCT. Beyond these limited areas, there would **'No Significant'** effects on the wider LCT and those in the wider study area.

66. There would **'No Significant'** effects on any designated landscape, which include Castle of Mey (Barrogill Castle) Garden and Designed Landscape (GDL), Dunnet Head Special Landscape Area (SLA) and Duncansby Head SLA.

67. The large-scale, open landscape of northeast Caithness and the sparse coverage of trees means there would be long distance views of the proposed Development. There would also be long distance views from the Orkney Islands. **'Significant'** effects on views and visual amenity would occur mainly to the north and west of the proposed Development and within a distance of approximately 5 km. These effects would occur at the western part of Upper Gills, parts of the village of Mey and parts of Barrock. There would also be visibility for residents of scattered properties and **'Significant'** effects are identified at 14 properties within a 2 km radius of the proposed Development. There would be views of the proposed Development from the scattered settlements to the north of the A836 between Dunnet and Gills although **'No Significant'** effects are not predicted on those settlements.

68. The proposed Development would be visible from Dunnet Head and from Duncansby Head both of which are visitor destinations with established viewing areas. **'No Significant'** effects are predicted on either or those viewing locations as the proposed Development, while visible, would not impinge upon key aspects of views from these locations or become a dominant focal point in such views.

69. Regarding transport routes, **'Significant'** effects are predicted on a short section of the A836, which is part of the route of the North Coast 500 (NC500). **'Significant'** effects are also predicted on the minor road between Barrock and Upper Gills and on the minor road between Upper Gills and Lyth. **'Significant'** effects are also predicted on the route of the Gills bay to St Margaret's Hope ferry where it passes within 5 km of the proposed Development.

70. The existing baseline that forms the basis of the landscape and visual assessment includes operational windfarms and windfarms under construction. In addition, cumulative effects with consented windfarms (Scenario 1) and including windfarms with submitted planning applications (Scenario 2) were assessed. Cumulative effects would arise in Scenario 1 and the degree of incremental cumulative change would be similar to the effects of the proposed Development assessed against the

existing baseline. Cumulative effects in Scenario 2 would increase slightly against those assessed for the addition of the proposed Development to the existing baseline.

71. The proposed Development would be new component in the landscape and visible across long distances. Its addition to the landscape and visibility may result in positive or negative reactions from people depending on their perceptions of renewable energy development and change to the landscape and views. The assessment is objective and systematic informed by industry guidance and practice. It takes a precautionary view that the effects of the proposed Development would be adverse. However, individuals may perceive the effects differently from the professional view of the assessors.
72. It should be noted that an effect may be locally significant or significant with respect to a small number of receptors but may not be significant when judged in a wider context. The conclusion that some effects that are significant must not be taken to imply that they should warrant refusal in any decision-making process.
73. Overall, it is considered that the large-scale, modified landscape of the Site and adjacent landscapes could accommodate a development of the scale proposed. The proposed Development would be set back from the smaller scale landscapes of Coastal Crofts and Small Farms LCT to the north and while there would be '**Significant**' effects on a small part of one unit of this LCT the underlying key characteristics and qualities of the LCT would endure. Visual effects are assessed as '**Significant**' within a limited area and relate primarily to short distance views, in which the amount of change resulting from the proposed Development would be large although not overwhelming in the context of the expansive nature of baseline views. The large-scale of the landscape at the Site and the wider area mean that the proposed Development is seen in the context of long views with a horizontal emphasis where adverse scale comparisons with landform are not an influencing factor on significance of effects.
74. The proposed Development would be introduced into an area where wind energy development is an established component of views. Lochend and Stroupster Windfarms are nearby, and the application site of Slickly Windfarm would be a short distance to the southeast. There would be sufficient separation between the proposed Development and Stroupster and Slickly Windfarms to avoid over-intensification of development.

6.3 Ecology and Biodiversity

75. An assessment of the potential impacts upon ecological (non-avian) features as a result of the proposed Development has been undertaken.
76. Baseline ecological conditions to inform the design and assessment of the proposed Development have been established through a desk study review of existing information and ecological field surveys, informed through consultation with NatureScot, species specialists and biological recording groups.
77. The Phillips Mains Mire Site of Special Scientific Interest (SSSI) is located within the Site. The Caithness and Sutherland Peatlands Special Area of Conservation (SAC) and Ramsar Site, and the Stroupster Peatlands SSSI are also located adjacent to the Site. No infrastructure is located within any designated site for nature conservation and no indirect effects upon any such site will occur.
3. Habitats within the Site predominantly comprise coniferous plantation woodland of '**Low**' ecological value with areas of marshy grassland, blanket and modified bog, intersected by a small number of watercourses and drainage ditches. The design has sought to minimise the requirement for habitat losses within the Site, including sensitive blanket bog communities that have been identified. The local roads within the application boundary are bordered by unimproved neutral grassland with areas of wet dwarf shrub heath, marshy grassland, blanket and modified bog, and swamp. Overall direct and indirect habitat losses as a result of the development is '**Not Significant**' and onsite habitat restoration measures will be undertaken in accordance with a Construction Environmental Management Plan (CEMP), see **Technical Appendix 3.1: Outline Construction Environmental Management Plan**. These habitat restoration measures are separate to the proposed HMP, which is explained in greater detail below.
78. Baseline studies have established that the Site is not considered to represent a Site of concern to bat collisions in accordance with current NatureScot guidance. Very low levels of bat activity were recorded onsite, with habitats considered to provide very limited roosting and foraging opportunities. The design has adopted mitigation requirements for bats in accordance with current NatureScot guidance, maintaining appropriate stand-off buffer zones between turbines and key bat

habitat features (woodland edges and watercourses). **'No Significant'** effects upon bat species are, therefore, predicted to occur as a result of the proposed Development.

4. Baseline studies have also established the use of the Site by otter and water vole *Arvicola amphibius*, with the presence of common reptile and amphibian species also recorded. No evidence of badger *Meles meles*, red squirrel *Sciurus vulgaris*, wildcat *Felis silvestris* or pine marten *Martes martes* within the Site or locally has been established. Watercourses within and intersecting the Site are also established to be of **'Low'** importance for fish.

79. Due to the relatively small scale of the proposed Development and the minimisation of requirements for watercourse crossings, potentially significant effects upon the aquatic environment, otter and water vole have been avoided. Good practice measures, including pre-construction surveys and the appointment of a suitable qualified Ecological Clerk of Works, will also ensure the protection of protected species during the construction and operational phases of the proposed Development.

80. **'No Significant'** residual effects upon any important ecological feature are, therefore, predicted to occur.

5. The proposed Development provides opportunity to deliver notable habitat improvements within the Site. A draft HMP (see **Technical Appendix 8.6: Draft Habitat Management Plan**), for subsequent agreement with The Highland Council (THC) and NatureScot has been prepared, which details measures to reinstate blanket bog communities from areas of the Site which have been affected by historical land use (e.g., forestry and land drainage). An area of 88.43 ha of forestry surrounding the Philip Mains SSSI has been identified with the aim of restoring the area to bog habitat. This would have ecological benefits in relation to habitats and species and would complement the nature of the surrounding flow area and support the SSSI features. The Applicant has conducted similar restoration measures successfully on other windfarm projects to restore bog habitats. This would also reduce runoff from the Site which could benefit the Clachan Burn which can experience periods of flooding.

6.4 Ornithology

81. An ornithological assessment has established the bird species and populations present on the Site and evaluated their Nature Conservation Importance. The ways in which birds might be affected (directly or indirectly) by the construction and operation of the proposed Development are explained and an assessment is made with regards the significance of these effects.

82. Desk-based studies and field surveys between 2017 and 2021 were carried out in and around the proposed Development over respective 'study areas' to establish baseline conditions and the species and populations present.

6. It was possible to 'scope out' the effects on a number of species of **'High'** Nature Conservation Importance by virtue of their ecology, absence, distance from the proposed Development, small numbers, low levels of activity and the nature and location of this activity.

7. Four bird species were included in the assessment; greylag goose, golden plover, curlew and hen harrier. Three species; greylag goose, golden plover and hen harrier were considered of **'High'** Nature Conservation Importance due to their listing on one or more of the following: Annex I (Birds Directive), Schedule 1 (Wildlife and Countryside Act 1981 as amended by the Nature Conservation (Scotland) Act 2004 (WCA)) or a qualifying interest of the Caithness and Sutherland Peatlands Special Protection Area (SPA) or the Caithness Lochs SPA. One species; curlew, was considered of **'Moderate'** Nature Conservation Importance due to its inclusion as a Red-listed Bird of Conservation Concern and is also listed on the International Union for Conservation of Nature (IUCN) 'Red list – 'Near Threatened' (IUCN, 2019).

8. Habitat loss arising from the construction of tracks, borrow pits and turbine bases is **'Unlikely'** to result in adverse impacts upon any bird species. Any impacts are **'Likely'** to be **'Negligible'** and **'Not-Significant'**. Population reductions due to habitat loss, displacement and/or collision mortality are also **'Likely'** to be minimal. Any impacts are **'Likely'** to be **'Negligible'** and **'Not-Significant'** for all bird species.

9. The contribution of adverse effects accrued by the proposed Development to regional populations would be undetectable and so cumulative effects of the proposed Development with existing and planned windfarm developments in the region are judged as being **'Unlikely'** to have a **'Significant'** effect on existing bird populations. Overall, it is concluded that construction

and operation of the proposed Development would not have a **'Significant'** effect on birds under the terms of the EIA Regulations.

83. Information is presented to allow the Scottish Ministers to conduct an assessment of potential effects of the proposed Development on the integrity of the Caithness and Sutherland Peatlands SPA and the Caithness Lochs SPA. This information demonstrates that the proposed Development would not have an adverse effect on the integrity of either SPA.

6.5 Hydrology, Hydrogeology, Geology and Soils

84. The proposed Development has been assessed in relation to the potential impacts on hydrology, hydrogeology, geology and soils during the construction and operational phases.

85. Information on the study area was compiled using data gathered within a desk study and verified by an extensive programme of fieldwork. The assessment was undertaken through consideration of the sensitivity of receptors identified during the baseline study, the potential magnitude of effect and the likelihood of that effect occurring and taking into consideration any mitigation measures incorporated as part of the design of the proposed Development.

86. A detailed programme of peat depth and condition surveying has been completed and the results used to inform the site design. A Peat Slide Risk Assessment and Peat Management Plan have been produced for the proposed Development, which show that areas of deep peat can be avoided and peat resources, including a Site of Special Scientific Interest for peatland, can be safeguarded.

87. The Site lies out with any floodplain areas and no private water supplies or drinking water protected areas have been identified near the Site. Designated sites that are near, or have a hydrological connection to, the Site have been assessed individually and appropriate mitigation measures set out where linkages have been identified.

88. Sustainable Drainage Systems (SuDS) have been proposed to ensure that the rate of runoff from the Site post-development is no greater than that prior to development and would not therefore increase flood risk downstream. The proposed SuDS allow the quality of water to be managed at source, prior to any discharge, thereby helping to prevent any reduction in water quality downstream of the Site.

89. Potentially groundwater-dependent terrestrial ecosystems have been identified within the proposed Development and assessed on a case-by-case basis to determine their level of groundwater dependency and potential impacts from development. Location-specific mitigation measures are provided to manage potential impacts arising from construction where it has not been possible to avoid these areas.

90. Mitigation measures have been identified for all potential impacts, either through the Site design process or in accordance with good practice guidance.

91. It has been shown, as a consequence of the Site design and embedded mitigation, that **'No Significant'** effects on hydrology, hydrogeology, geology and soils would arise as a result of the proposed Development.

6.6 Archaeology and Cultural Heritage

92. The archaeology and cultural heritage assessment has assessed the direct impacts from the construction of the proposed Development and the indirect impact upon heritage assets from its operation within their setting. The assessment follows relevant planning policy and guidance documents of Historic Environment Scotland (HES) and the Chartered Institute for Archaeologists (CIfA). Historic Environment Scotland (HES) and the Highland Council (THC) were also consulted to agree the assessment methodology and to identify specific assets of concern. To inform the assessment, a baseline and targeted walk over survey was undertaken to assess direct impacts on all heritage assets within the Site.

93. Indirect Setting impacts upon heritage assets have been assessed for those designated as being of regional or national importance within 5 km of the proposed turbines and selected heritage assets of national importance within 5 km to 10 km where a change to the landscape in long-distance views from or to the asset has the potential to impact upon the contribution to an asset's cultural significance made by its setting.

94. There would be one **'Non-Significant'** direct impact on a farmstead by the proposed Development and a programme of archaeological work will be agreed, if consented is granted, with THC. A baseline study, incorporating data from land within

the application boundary. Site, was compiled in order to predict the potential for direct impacts from the proposed Development upon unknown heritage assets. It is considered that there is one area of increased potential for previously unrecorded heritage assets to survive within the Site inner study area, in the area immediately surrounding the broch (MHG640) there is medium potential for associated assets to survive as subsurface remains. The potential for direct impacts upon unknown heritage assets is considered '**Unlikely**'. Any effect resulting from such an impact is '**Unlikely**' to be of greater than '**Minor**' significance.

95. Following analysis of the terrain study area to identify assets where there would be no intervisibility with the proposed Development, and where no key view of the heritage asset includes the proposed Development, the EIA report has assessed indirect setting impacts: upon one Inventory Garden and Designed Landscape, four scheduled monuments, three Category A listed buildings of national importance and three Category B listed buildings of regional importance. '**No Significant**' effects are expected from the operation of the proposed Development. An adverse impact of '**Negligible**' magnitude resulting in an effect of '**Negligible**' significance on the Castle of Mey (Inventory Garden and Designed Landscape and Category A Listed Building) is predicted, which is '**Not Significant**'.

96. The proposed Development would be '**No Significant**' effects on archaeology and cultural heritage.

6.7 Access, Traffic and Transport

97. An assessment of the changes to access, traffic and transport as a result of the proposed Development has been undertaken. It sets out the assessment methodology adopted, existing conditions in the study area, proposed best practice methods and predicted effects prior to, and following, the application of mitigation measures to reduce potentially adverse effects on the road infrastructure, road users and local communities. The assessment has been informed by scoping responses received from, and discussions undertaken with, THC and Transport Scotland.

98. The primary access to the Site would be provided via an existing opening from the C1033 Everly-Crockster Toll Road, which forms a crossroad junction with the West Lodge Road. The access would require to be upgraded to allow for access by construction traffic and abnormal load transporters from the west.

99. For the delivery of construction materials, two different delivery scenarios have been assessed. First, an unlikely, worst-case scenario whereby all construction materials (e.g., concrete for foundations and aggregate for access tracks) are delivered to the Site. The second, and more likely scenario, is for access track aggregate other than the running surface to be sourced from onsite borrow pits, thereby reducing the total number of heavy goods vehicle (HGV) movements. Both scenarios result in increases in HGV movements on the A836, A882, A9(T), C1085 and C1033 but the more likely, second scenario at a lower rate compared with the worst case.

100. The delivery of the wind turbines would be from Wick Harbour and use the A99, A9(T), A836, and from the A836 to site along either U1633 East Lodge Road or Charleston Farm Road and then C1033 Everly-Crockster Toll Road. The vehicles would be regarded as abnormal loads and be around 5 m in width. Some upgrades may be needed to the roads used to enable the safe delivery of the wind turbine parts in agreement with Transport Scotland and The Highland Council (THC).

101. Some of the roads used for HGV and delivery of the wind turbines, including the A836, A9 (T) and A99, form part of the North Coast 500 route, a 516 mile scenic route around the north coast of Scotland.

102. The proposed Development also includes an improved site entrance which is designed to safely allow the delivery of wind turbines and construction materials.

103. With the worst-case, and unlikely scenario of all construction materials coming by road, the maximum vehicular traffic associated with the construction of the proposed Development, would be between a 2% and 6% along the principal road network (A9, A882 and A836) and between 75% and 189% on minor roads (C1033 Everly-Crockster Toll Road, U1633 East Lodge Road and Charleston Farm Road), which have low existing baseline flows, increase on baseline traffic flows along the access routes. This assessment has found that '**No Significant**' effects are predicted from this maximum increase in traffic with respect to driver delay, noise and vibration, road safety and community severance. However, the increase could be '**Significant**' without mitigation for vulnerable road users, such as pedestrians and cyclists, and due to dust and dirt brought on to the public highway. These potential impacts would be controlled by best practice measures which are outlined in a Construction Traffic Management Plan, found at **Technical Appendix 12.1: Draft Construction Traffic Management Plan**. Consequently, '**No Significant**' effects are predicted to occur as a result of the access, traffic and transport impacts.

6.8 Noise

104. Noise would be emitted by equipment and vehicles used during construction and operation of the proposed Development. The level of noise emitted by the proposed Development and the distance from noise sources are the main factors determining levels of noise at nearby properties.
105. Construction noise has been assessed by a desk-based study of a potential construction programme and by assuming the proposed Development is constructed using standard and common methods. Noise levels have been calculated for properties closest to the areas of work and compared with guideline and baseline values. Construction noise, by its very nature, tends to be temporary and highly variable and, therefore, much less likely to cause adverse effects. Various mitigation methods have been suggested to reduce the effects of construction noise, the most important of these being suggested restrictions of hours of working. It is concluded that noise generated through construction activities would have a **'Minor'** effect.
106. The noise generated by the BESS and the substation at the nearest residential locations was considered **'Negligible'** and **'Not Significant'** given the separation distances involved.
107. Operational wind turbines emit noise from the rotating blades as they pass through the air. The amount of noise emitted tends to vary depending on the wind speed. When there is little wind, the turbine rotors would turn slowly and produce lower noise levels than during high winds when the turbine reaches its maximum output and maximum rotational speed. Background noise levels at nearby properties will also change with wind speed, increasing in level as wind speeds rise due to wind in trees and around buildings.
108. Noise levels from operation of the proposed Development have been predicted for those locations around the Site most likely to be affected by noise. Existing survey data for adjacent windfarms have been referenced to establish existing baseline noise levels at these properties. Noise limits have been derived from data about the existing noise environment following the method stipulated in national planning guidance.
109. Predicted noise levels take full account of the potential combined effect of the noise from the proposed Development along with the operational Lochend Windfarm, the operational Stroupster Windfarm and the proposed Slickly Windfarm.
110. Other more distant windfarms were not considered, as they do not make an acoustically relevant contribution to cumulative noise levels. Predicted operational noise levels have been compared to the limit values to demonstrate that turbines of the type and size which would be installed can operate within the limits derived.
111. It is concluded, therefore, that operational noise levels from the proposed Development would be within levels deemed, by national guidance, to be acceptable for developments of this nature, on an individual and cumulative basis, therefore **'Not Significant'**.

6.9 Socio-Economics, Recreation and Tourism

112. An assessment of the potential socio-economic effects of the proposed Development and the likely significance of these on tourism, recreation, land use economic output, employment generation and other indirect effects has been undertaken.
113. The proposed Development would offer opportunities for provision of goods and services from the local area as well as direct and indirect employment during construction and operation. It is predicted that the total development and construction expenditure would be £82.9 million and there would be a peak workforce during the construction phase of 75 people. The assessment found that based on this total expenditure the proposed Development would generate 14.6 job years (number of years of full time employment) and £0.9 million Gross Value Added (GVA)⁴ in Caithness and Sutherland, 119.4 job years and £7.2 million GVA in the Highlands and 299.8 job years and £18.2 million GVA in Scotland.
114. During the operational phase the proposed Development would generate approximately 4.3 job years and £0.3 million GVA in Caithness and Sutherland, 14.4 job years and £0.9 million GVA in the Highlands, and 27.3 job years and £1.6 million GVA in Scotland. Although this application is for 'consent in perpetuity', during the operational phase (over a nominal 40-year life)

⁴ Gross value added (GVA) measures the contribution to an economy of an individual producer, industry, sector or region.

the proposed Development would contribute lifetime GVA of some £24.8 million to the local economy through direct, indirect and multiplier effects, and over £40 million to the economy of Scotland as a whole.

115. Information from other projects developed by the Applicant indicates that a wide selection of supply chain businesses could expect to benefit from the investment in the local and Scottish economy, including haulage, aggregates supply, forestry services, building services, fencing, and security. The Applicant is committed to employing good practice measures regarding maximising local procurement and would adopt established good practice measures such as 'Meet the Developer/Contractor Days'.
116. In terms of the tourism and visitor economy, numerous published studies have been reviewed that indicate the presence of the proposed Development would have '**No Significant**' effect on people visiting the area. This is supported by the fact that tourism in the Highlands has increased in recent years during a period of growth in windfarm development in the Highlands. Therefore, for both construction and operational phases, the socio-economic effects at the level of the Highlands are considered '**Beneficial**'.
117. Regarding recreation and tourism assets, '**No Significant**' effects are expected during construction of the proposed Development, subject to appropriate good practice management of construction traffic effects along the access roads (A99, A9(T), A836, Charleston Farm Road, C1033 Everly-Crockster Toll Road, and the U1633 East Lodge Road) to the Site and within the Site. '**Beneficial**' effects may be experienced by some businesses, such as accommodation businesses and shops that supply goods and services to construction workers.
118. There would also be benefits associated with the payment of community benefits into a community-led fund. It is expected that any proposed income streams could provide a long-term revenue that could be used to support community projects in Caithness. A range of options would be available to the local communities who would have flexibility to choose how the money is spent and to prioritise it on things that matter most to them. To date, the Applicant has voluntarily awarded over £1.36 million in community benefit funding to communities in the Highlands from its Beinn Tharsuinn Windfarm, supporting initiatives such as improving broadband provision, environmental improvements, youth activities, educational programmes, local heritage projects, community transport, and emergency and first aid resources. The Applicant also owns the recently constructed Halsary Windfarm, and it is predicted that the combined community benefit funds from Halsary and Beinn Tharsuinn Windfarms would be £3.4 million over their lifespans. Community benefit has the potential to create long-term positive effects on access to resources, improvement to local amenities and quality of life of local residents as well as economic benefits.
119. Additionally, there would be benefits to the public sector from the payment of non-domestic rates (a tax on non-domestic property). The annual contribution resulting from the proposed Development is estimated to be up to £0.7 m. This would help support local authority services across Scotland.
120. Overall, the proposed Development is expected to have '**Non-Significant**' positive employment and economic effects, and '**No Significant**' adverse effect on land use, tourism and recreation.

6.10 Other Issues

121. A number of other issues associated with the proposed Development have been considered, including infrastructure, forestry, telecommunications and TV, aviation, carbon balance, shadow flicker, population and human health, risks of disasters and waste management. The findings of these studies are summarised here.
122. There are no overhead power lines on the Site; however, there is a buried distribution cable that connects to Lochend Windfarm to the south of the Site, and permission has also been granted, but construction has not begun, for a buried 132 kV cable to the north of the Site. Potential impacts on these assets have been mitigated by design. A desktop utility survey was undertaken, and no other utilities were identified on the Site.
123. The proposed Development lies within existing commercial forestry plantation which is privately owned. 24.3 ha of forestry crop would be required to be permanently felled to accommodate the construction and operation of the proposed Development. Where applicable the proposed Development infrastructure will be 'keyholed' into the crops. A keyhole radius of around 100 m would be adopted around each turbine location within woodland for construction, operation and environmental mitigation. In order to comply with the criteria of the Scottish Government's Control of Woodland Removal Policy (CWR), 24.3 ha of off-site compensation planting will be required. An additional 88.4 ha of permanent felling would be

required as part of the HMP proposals to restore a 168 ha area of peatland habitat. In accordance with Annex C of the CWR, no compensatory planting would be required for the felling associated with the peatland habitat restoration.

124. **'No Significant'** disruption to telecommunications and television reception is anticipated as a result of the proposed Development, and **'No Significant'** effects on aviation safety have been identified.
125. Shadow flicker is an effect whereby a moving structure, in this case a wind turbine rotor and blades, intermittently obstructs the sun's rays causing a strobing effect. This can be a nuisance if it occurs regularly at a private residence under specific conditions. A shadow flicker assessment concluded that no shadow flicker effects requiring mitigation would occur at any dwelling as a result of the proposed Development.
126. A carbon assessment has been undertaken to estimate the potential savings in carbon dioxide (CO₂) emissions by the proposed Development replacing other electricity sources. The wind turbines element of the proposed Development has a payback time of approximately 3.1 years and displacement of around 52,626 tonnes of CO₂ per year over a fossil fuel mix of electricity. The solar array element of the proposed Development has a payback time of approximately 8.1 years and displacement of around 38,688 tonnes of CO₂ per year over a fossil fuel mix of electricity. The proposed Development is predicted to deliver total GHG emissions savings of 2,862,673 tonnes of CO₂, assuming a 40 year lifespan for the purposes of the carbon calculator. This would positively contribute to meeting Scotland's targets for reducing greenhouse gas emissions. The payback will be further reduced by the proposed addition of the solar array, although not included within the Carbon Calculator (which was solely devised for the Scottish Government to monitor onshore wind energy).
127. As the nearest property is within 50 m from the existing Site entrance, effects associated with dust or vehicle emissions are possible, but these potential effects would be managed through good practice construction measures which would form part of the CEMP. Therefore, the potential for adverse effects on local air quality during construction is considered to be **'Minor'**, temporary and **'Not Significant'**. During operation, the proposed Development would contribute to a **'Beneficial'** effect on local and global air quality, by avoiding emissions due to the generation of electricity by burning fossil fuels.
128. The potential for adverse effects on human health during construction and operation, such as noise, pollution and amenity issues have been assessed in **Chapters 7 to 14** of the EIA Report and are considered to be **'Minor'** and **'Not Significant'** once the proposed mitigation is in place.
129. The vulnerability of the proposed Development to major accidents and natural disasters, such as flooding, sea level rise, or earthquakes, is considered to be **'Low'** due to its geographical location. In addition, the nature of the proposal and remoteness of the Site means there would be **'Negligible'** risks on the surrounding environment.
130. Waste and environmental management would be controlled through a CEMP (see **Technical Appendix 3.1: Outline Construction Environmental Management Plan**), site-specific waste management plan and the mitigation proposed in **Chapter 16: Schedule of Commitments** of the EIA Report.

7 Environmental Management

131. Environmental constraints and considerations have been taken into account in the Site layout and the design of the proposed Development to avoid and minimise the potential for significant effects. Further measures to prevent or reduce any remaining significant environmental effects are described within each technical subject area of the EIA Report (**Chapters 7 to 15**). These measures and commitments are set out in **Chapter 16: Summary of Commitments** of the EIA Report. Furthermore, the environmental mitigation and commitments would be formalised within a CEMP. An outline CEMP can be found in **Technical Appendix 3.1: Construction Environmental Management Plan** to the EIA Report.
132. The Applicant and the Principal Contractor would oversee operations and ensure that mitigation measures are implemented, and activities carried out in such a manner as to minimise or prevent effects on the environment. The Principal Contractor would be supported by specialists, such as an Ecological Clerk of Works to ensure that mitigation measures are implemented effectively.

8 Benefits of the Proposed Development

133. The proposed Development would deliver the following key benefits:

Renewable Energy Generation and Carbon Dioxide Emissions

- Production of around 125 to 150 GWh of electricity annually;
- BESS to store energy from the development or excess electricity from the national grid, providing stability to the electricity supply network, meeting energy demands and providing improved energy security; and
- Savings in CO₂ emissions due to the replacement of other electricity sources over the lifetime of the proposed Development and displacement of carbon-emitting generation after 3.1 years of operation.

Community and Environmental Benefits

- The opportunity for community benefit, providing a long-term, flexible revenue which could be used to support community projects;
- Habitat Management Plan which would restore 168 ha of modified and drained blanket peat bog using methods successfully used by ScottishPower Renewables on windfarm developments resulting in a likely net gain in biodiversity; and
- Financial contribution to the local electric vehicle charging network.

Construction Employment and Economic Benefits

- Opportunities for suppliers of a wide range of goods and services within Caithness, the Highlands and Scotland as a whole;
- Benefits to local and regional businesses, such as accommodation businesses and shops, that supply goods and services to construction workers;
- Total direct construction spend estimated at £82.9 m which would result in an approximately £18.2 m contribution to Scottish economy; and
- Support, in net terms, for approximately 14.6 job years of wider employment benefiting the Caithness and Sutherland, 119.4 job years of wider employment benefiting the Highlands, and 299.8 job years of wider employment benefiting Scotland as a whole.

Operational Employment and Economic Benefits

- £64 m contribution to the Scottish economy during the operational phase through direct, indirect and multiplier effects, with around £12 m contribution to the Caithness and Sutherland economy and £36 m to the Highlands economy;
- Support annually, in net terms, for approximately 4.3 job years of wider employment benefiting the Caithness and Sutherland, 14.4 job years of wider employment benefiting the Highlands, and 27.3 job years of wider employment benefiting Scotland as a whole; and
- Up to £30 m in non-domestic rates over its operational life time

9 References

Caithness and Sutherland Local Development Plan: The Highland Council: 2018

Energy Statistics for Scotland: Q4 2020 Figures: Scottish Government: 2021.

Highland-wide Local Development Plan: The Highland Council: 2012

Onshore Wind Energy Supplementary Guidance: The Highland Council: 2018

Scottish Energy Strategy: The Future of Energy in Scotland: Scottish Government: 2017

Scottish Government's Control of Woodland Removal Policy: Scottish Government: 2019

Scottish Planning Policy: Scottish Government: 2014

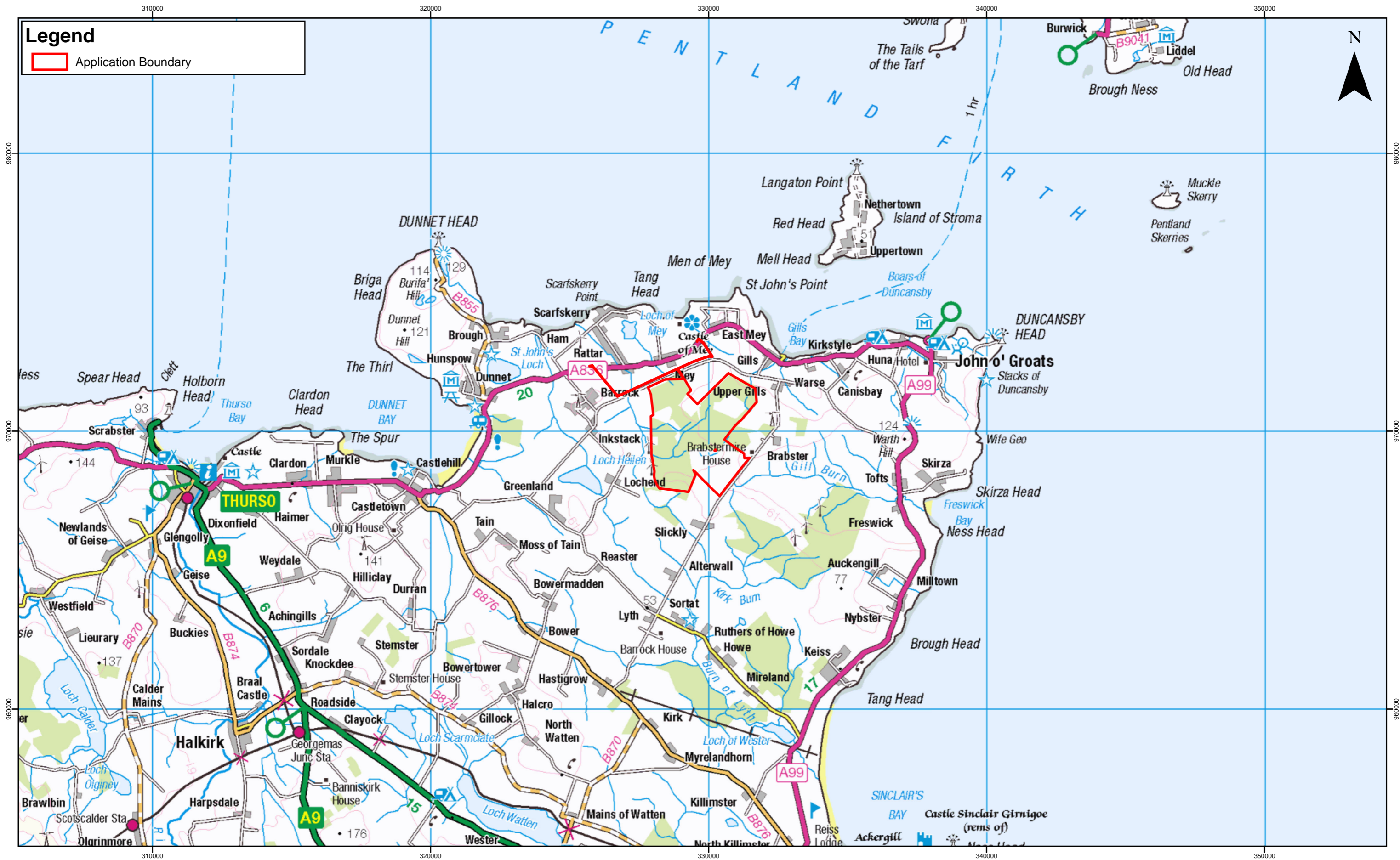
The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019

The Electricity Act 1989.

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

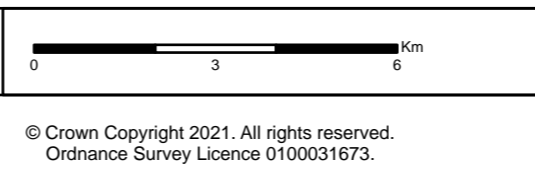
2020 Routemap for Renewable Energy in Scotland: Scottish Government: 2011

FIGURES



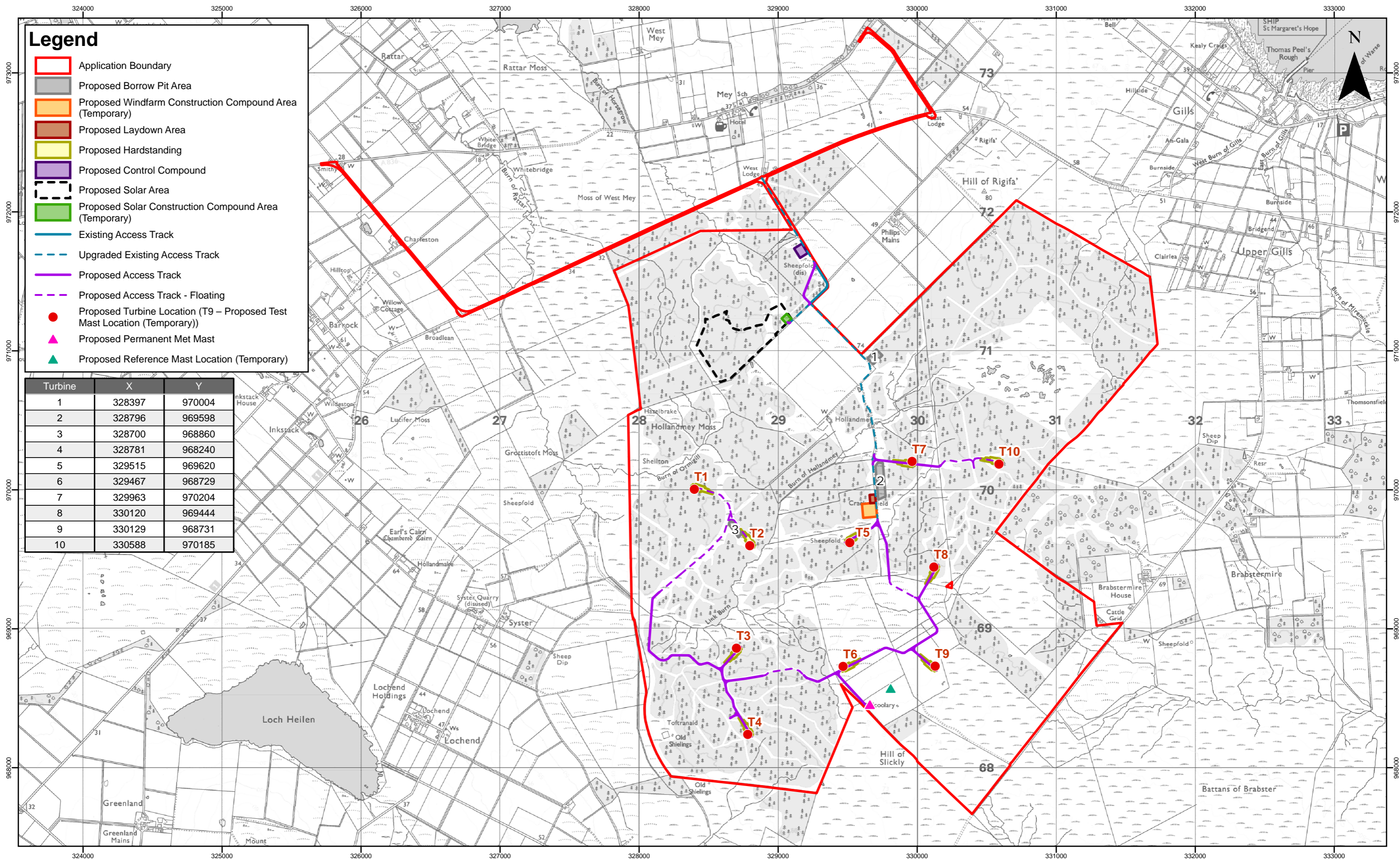
Rev	Date	By	Comment
D	20/10/2021	DL	Site boundary updated.
C	16/08/2021	DL	Revised Title
B	29/06/2021	DL	Site boundary updated.

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Scale @ A3



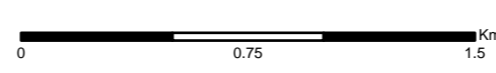
Hollandmey Renewable Energy Development Figure 1: Site Location Plan

Drg No	HMY_C_074	
Rev	D	Datum: OSGB36
Date	20/10/2021	Projection: TM
Figure	1	



Rev	Date	By	Comment
M	20/10/2021	DL	Legend Updated
L	06/10/2021	DL	Red Line Boundary Updated
K	30/09/2021	DL	Infrastructure Updated

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Scale @ A3



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Hollandmey Renewable Energy Development Figure 2: Proposed Site Layout

Drg No	HMY_C_053	
Rev	M	Datum: OSGB36
Date	20/10/2021	Projection: TM
Figure	2	

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