Renantis UK Limited

The Repowered and Extended Ben Aketil Wind Farm

Design and Access Statement

663617

MAY 2023

RSK GENERAL NOTES

Project No.: P/G/663617/09/04/05-1 (00)

Title: The Repowered and Extended Ben Aketil Wind Farm
Design and Access Statement

Client: Renantis UK Limited (formerly Falck Renewables Wind Limited)

Date: May 2023

Office: Glasgow

Status: Final

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1 INTRODUCTION

1.1 Background

1.1.1 Renantis UK Limited, formerly Falck Renewables Wind Limited, (hereafter 'the Applicant') is proposing to submit an application for consent under Section 36 of the Electricity Act 1989 for the Repowered and Extended Ben Aketil Wind Farm (the 'Proposed Development') on the Isle of Skye, Scotland.

1.1.2 Ben Aketil Wind Farm is an existing 27.6 MW wind farm which comprises 12 2.3 MW turbines with a hub height of 64 m and blade diameter of 71 m (i.e. 99.5 m to tip). Ten of the turbines were constructed in 2007, and another two were constructed in 2010. The first and second phase were given 26 and 23 years respectively from the first export of electricity to the grid which gives end dates of 18/10/33 and 01/11/33. In March 2021, a life extension was granted, extending the life of the operational wind farm to 2040.

1.1.3 The Applicant wishes to repower the existing wind farm and add an extension. The proposed Repowered and Extended Ben Aketil Wind Farm would have 9 turbines of up to 200 m to tip. Each turbine is likely to generate approximately 5.6 to 6.6 megawatts (MW) of electricity. The total installed capacity of the proposed turbines will be between 50.4 and 59.4 MW. A 20 MW battery energy storage system (BESS) will also be included as part of the Proposed Development.

1.2 The Applicant

1.2.1 The existing Ben Aketil Wind Farm is owned by Ben Aketil Wind Energy Limited (BAWEL), which is part of Renantis UK Limited.

1.2.2 The Applicant develops, designs, builds and manages power production plants from renewable sources, with an installed capacity of 1,420 MW in the United Kingdom, Italy, United States, Spain, France, Norway and Sweden, using wind power, solar power, waste to energy and biomass technologies. Renantis is a global player in the renewable energy technical advisory and asset management services business, through its wholly owned subsidiary Vector Renewables, providing asset management services to clients accounting for approximately 5,300 MW of installed capacity and with experience in more than 40 countries. The Group also provides highly specialized energy management and downstream services to both energy producers and consumers.

1.3 Purpose and Structure of the Report

1.3.1 RSK has been commissioned by the applicant to undertake the Environmental Impact Assessment (EIA) for the Proposed Development. This Design and Access Statement (DAS) has been prepared in support of the application for consent which is being submitted for the Proposed Development. The DAS should be reviewed in the context of the EIA Report (EIAR) and accompanying documents, and in particular **Volume 1 Chapter 2** which provides a description of the Site and the final layout of the Proposed Development.

1.4 Renewable energy policy: Summary

1.4.1 In recent years United Kingdom (UK) and Scottish Government policies have focussed increasingly on concerns about climate change. Each tier of Government has developed targets, policies and actions to achieve targets to deal with the climate crisis and generate more renewable energy and electricity.

1.4.2 The UK Government retains responsibility for the overall direction of energy policy, although some elements are devolved to the Scottish Government. The UK Government has published a series of policy documents setting out how targets can be achieved. Onshore wind generation, located in Scotland, is identified as an important technology to achieve the various goals set.

1.4.3 The Scottish Government has published a number of policy documents and has set its own targets. The most relevant policy, legislative documents and recent statements published by the Scottish Government include:

- Draft Energy Strategy and Just Transition Plan – delivering a fair and secure zero carbon energy system for Scotland (January 2023);
- Onshore Wind Policy Statement (December 2022);
- The Scottish Government's 'Programme for Government' (September 2022);
- The Climate Change (Emissions Reductions Targets) (Scotland) Act 2019 and the legally binding net zero target for 2045 and interim targets for 2030 and 2040;
- The Scottish Climate Change Plan Update (2020);
- The Scottish Government's declaration of a Climate Emergency (April 2019);
- Onshore Wind Policy Statement (December 2017);
- Scottish Energy Strategy (December 2017) and
- The Letter from Chief Planned to all Heads of Planning in relation to energy targets and SPP (November 2015).

1.4.4 The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 requires that *"The Scottish Ministers must ensure that the net Scottish emissions account for the net-zero emissions target year is at least 100% lower than the baseline (the target is known as the "net zero emissions target")".* The target year is 2045 and the Act also sets out challenging interim targets. It requires that:

"The Scottish Ministers must ensure that the net Scottish emissions account for the year-

(a) 2020 is at least 56% lower than the baseline.

(b) 2030 is at least 75% lower than the baseline, and

(c) 2040 is at least 90% lower than the baseline".

1.4.5 It is important to note that these targets are minimum targets, they are not maximums or aspirations. The targets legally bind the Scottish Ministers and have largely been legislated to set the framework for Scotland's response to the Climate Emergency.

1.4.6 The Proposed Development related to the generation of electricity from renewable energy sources and comes as a direct response to national planning and energy policy objectives. The Proposed Development would make a contribution to the attainment of emissions reduction, renewable energy and electricity targets at both the Scottish and UK levels. Detailed reference to the renewable energy policy framework is provided in the Planning Statement.

2 SITE LOCATION AND SETTING

2.1.1 The Proposed Development is located northwest of the highest point of Ben Aketil within the north-western part of the Isle of Skye in the Highland Council area. The Proposed Development red line boundary (the Site) is shown on **Figure 1**.

2.1.2 The Site is located approximately:

- 15 km west of Portree;
- 3.5 km south of Edinbane;
- 5 km east of Dunvegan;
- 1.5 km east of Roskhill;
- 1 km north of Feorlig; and
- 0.3 km north of Caroy.

2.1.3 The Site sits within broadly undulating upland moorland, gently sloping downwards from northeast to southwest. The elevations of the Site range from 20 m AOD near the crossing of the A863 over the Caroy River, to the peak of Ben Aketil at 266 m AOD (**Figure 1**). Ben Sca, which peaks at 283 m, is located approximately 1.1 km to the northeast of the Site.

2.1.4 The existing twelve turbines of the operational Ben Aketil Wind Farm are arranged in a single array, at elevations ranging from 90 m AOD to 200 m AOD – see **Photograph 2.1**, below.

Photograph 2.1: View of the operational Ben Aketil Wind Farm

2.1.5 Site access is currently gained via a track running southwards through forestry from the A850 in the north.

2.1.6 As well as being used for the generation of renewable energy, the Site is currently utilised by crofters, predominantly for sheep grazing. They generally access the site by 4x4 vehicle using the access track that extends northwards from the Upper Feorlig public road. Surrounding land uses include upland grazing, commercial forestry located immediately north, and the operational Edinbane Wind Farm lies approximately 2.3 km to the east.

2.1.7 The Site is relatively remote, with the closest residences being crofters' cottages located near, but outside of, the south-western red line boundary along a public road in Upper Feorlig.

3 DESIGN POLICIES

3.1 National Guidance

3.1.1 The most important national policy relating to the siting and design of the Proposed Development are the National Planning Framework 4 (NPF4), and The Onshore Wind Policy Statement 2022.

National Planning Framework 4

3.1.2 NPF4 has been subject to consultation and parliamentary scrutiny over the last year since it was first laid before Parliament in November 2021. The Revised Draft NPF4 was laid before Parliament on 8th November 2022, accompanied by an Explanatory Report setting out how the Scottish Government considered responses to the initial draft and explaining responses to scrutiny and consultation thereof. Revised Draft NPF4 was approved by the Scottish Parliament, without amendments, following a vote on 11th January 2023. NPF4 came into force at 9am on 13th February 2023.

3.1.3 Section 13, of the 2019 Act amends Section 24 of the 1997 Act regarding the meaning of the statutory Development Plan, such that for the purposes of the 1997 Act, the Development Plan for an area is taken to consist of the provisions of:

- The National Planning Framework;
- Any Strategic Development Plan; and
- Any local Development Plan (LDP).

3.1.4 NPF4 therefore now forms part of the statutory Development Plan and should be afforded substantial weight. A key provision of the 2019 Act is that in the event of any incompatibility between the provisions of NPF4 and a provision of a Local Development Plan (LDP), then whichever of them is the later in date will prevail. That will include where a LDP is silent on an issue that is now provided for in NPF4.

3.1.5 Additional information with regards to NPF4 and other relevant national policies are provided in **Chapter 5** of the EIAR, and the Planning Statement.

3.2 Locational Guidance

Onshore Wind Supplementary Guidance

3.2.1 The Highland Council adopted its Supplementary Guidance (OWESG) on wind energy in November 2016 and this forms part of the statutory Development Plan. Section 1 'Introduction' states:

"*The advice that follows provides a fuller interpretation of HwLDP policies as they relate to onshore wind energy development. The Council will balance these considerations with wider strategic and environmental and economic objectives including sustainable economic growth in the Highlands, and our contribution to renewable energy targets and tacking climate change….*"

3.2.2 Section 2 of the OWESG includes a Spatial Framework, however this follows the approach of Table 1 in the former Scottish Planning Policy (SPP) which has now been superseded by NPF4.

3.2.3 Section 4 of the OWESG sets out *"key development plan considerations"* and the topic headings broadly follow those as set out within policy 67 of the Highland-Wide Local Development Plan (HwLDP(. The topic headings, to which additional guidance is provided, broadly follow those as set out within HwLDP Policy 67 and are summarised as follows:

- Landscape and Visual Effects;
- Safety and Amenity at Sensitive Locations;
- Safety of Airport, Defence and Emergency Service Operations;
- Operational Efficiency of Other Communications;
- Operational Efficiency of Wind Energy Developments;
- The Natural and Historic Environment;
- The Water Environment;
- Peat;
- Trees and Woodland;
- Tourism and Recreation;
- Public Access;
- Traffic and Transport Interests;
- Electricity and Gas Infrastructure;
- Noise Assessment;
- Borrow Pits;
- Mitigation;
- Construction Environmental Management Plans;
- Restoration Bonds; and
- Repowering.

3.2.4 At paragraph 4.16, the OWESG sets out that "*the following criteria set out key landscape and visual aspects that the Council will use as a framework and focus for assessing proposals, including discussions with applicants".* The criteria together with the 'measures' for development are shown in Table 5.2 in **Chapter 5**, and are addressed in **Chapter 6** (Landscape and Visual Impact Assessment) of the EIAR, and also within the supporting Planning Statement

3.2.1 Paragraph 4.17 adds that the criteria do not set absolute requirements, but rather seek to ensure developers are aware of key potential constraints to development. Following paragraph 4.17 there is a list of 10 criteria, together with associated thresholds and measures for development. An appraisal of how the Development relates to the criteria in the OWESG is contained within the Planning Statement.

3.2.2 The OWESG includes Addendum Supplementary Guidance 'Part 2B' which was adopted in December 2017 and provides landscape sensitivity appraisals for 'Black Isle, Surrounding Hills and Moray Firth Coast Caithness'.

3.2.3 Paragraph 5.4 adds that Applicants will be expected to *"demonstrate how their proposals align with the conclusions of the assessments, and if they do not, will be expected to demonstrate why they are still appropriate developments".* Paragraph 5.6 however states that it provides *"general advice"* and 5.7 makes it clear that: *"finding the balance between the benefits of a particular scheme and the impacts it may present will be the subject of careful consideration on a case by case basis at the development management stage".*

3.3 Development Plan

3.3.1 The Development Plan is defined by the Town and Country Planning (Scotland) Act 1997, as amended, as being the local development plan, the planning's authority's resolution of adoption and any supplementary guidance issued in connection with the local development plan. The Development Plan for taken into consideration for the Proposed Development is the Highland-wide Local Development Plan, and its associated Supplementary Guidance.

3.3.2 **Chapter 5** of the EIAR sets the Proposed Development in the context of the relevant Development Plan policies. The Planning Statement provides an assessment of the Proposed Development against the Development Plan and material considerations relevant to the decision-making process.

3.4 The Highland-wide Council Local Development Plan (HwLDP)

3.4.1 The Highland Council Adopted the HwLDP on 5 April 2012 and was constituted as the local development plan in law. It sets out the overarching spatial planning policy for the whole of the Highland Council area, except the area covered by the Cairngorms National Park Local Plan.

3.4.2 The key HwLDP policy for the Proposed Development is Policy 67: Renewable Energy Developments, which 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; and*
- *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.

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.'*

4 DESIGN PRINCIPLES

4.1.1 This DAS discusses the key design issues and constraints relevant to the Proposed Development and the way they have been addressed in the layout and design. **Figure 2** shows the Site Environmental and Design Constraints in relation to the Proposed Development's Layout.

4.1.2 The overarching principles influencing the design of the Proposed Development included maximising the amount of renewable energy generation, while:

- Minimising the additional land take to construct the repowering and extension infrastructure as far as possible;
- Minimising the potential impacts on sensitive receptors, wherever possible;
- Minimising the number of watercourse crossings required as far as practicable;
- Applying the waste management hierarchy (e.g. through reuse of materials on Site rather than removal and disposal to landfill); and
- Identifying potential opportunities for environmental enhancement.

4.2 Wind Turbine Generator Scale

4.2.1 Taller turbines produce more electricity as with height both wind speed and yield increase. Bigger rotors also capture wind more efficiently and produce more electricity per turbine.

4.2.2 The wind turbines selected for the Proposed Development would each have the capacity to generate approximately 5.6 to 6.6 MW based on wind turbine technology which is currently available and would have a maximum height of 200 m to blade tip. This would maximise the contribution that the proposed Development could make towards the Scottish Government 's net zero targets and associated renewable energy targets.

4.2.3 The necessity for taller turbines is recognised by paragraphs 5.3.6 and 5.3.7 of the Scottish Government Onshore Wind Policy Statement (2022), which acknowledge that: *'Repowering options include dismantling existing turbines and installing new ones, potentially larger in scale, while re-using existing infrastructure (e.g., access roads, connection to a local electricity network). In these cases, the proposal is for a new wind farm, and can often extend the footprint of the existing wind farm into previously undeveloped areas'. 'Repowering using taller, more powerful turbines, requires significantly fewer turbines to generate more power…'.*

4.2.4 The turbines of the Proposed Development would be noticeably larger than exists at present in the area but would be less so with consented developments. Where there is a noticeable difference in height, this is likely to be perceived as part of the evolution of wind energy development throughout Scotland and would not cause a notable increase in adverse impacts.

4.2.5 Furthermore, the supply of smaller wind turbines across Europe is already reducing, due to lack of demand as manufacturers are recognising the world market is shifting to larger machines and development work is focussing on larger turbines to secure higher yields. The onshore wind industry is experiencing a significant reduction in supply of smaller wind turbines and therefore it is unlikely that a range of smaller turbines (e.g. 150 m) would be available at competitive prices by the time the proposed Development would be constructed.

4.2.6 The final selection of the turbine tip height of up to 200 m was considered to represent the best balance in terms of energy yield, landscape fit and the scale of the turbine that is currently capable of being transported to the Site.

4.3 Wind Analysis

4.3.1 Wind analysis and efficiency modelling has been carried out by Renantis to identify the areas of the Site most likely to produce the highest yields and therefore the best generational output.

4.3.2 For turbines to work as effectively as possible, they must be suitably spaced relative to the predominant wind direction. If they are too close together in this direction, the wake effects from the wind turbines located on the upwind edge of the array would create turbulent air for the next row and so on though the array, reducing the overall energy output. Instead, when turbines are located too far apart the opportunity to optimise capacity is reduced.

4.3.3 There is no industry standard for spacing, only manufacturer recommendations and rules of thumb. Six times rotor diameter on the predominant wind direction against three times rotor diameter cross wind (6D x 3D) is a common starting point. This is understood to provide a reasonable compromise between turbine proximity and site capacity without unduly compromising turbine operation. The proposed Development may, however, employ turbines which are not yet on the market. Therefore, a more flexible methodology utilising wind yield modelling was used to find the right balance of turbine efficiency and productivity over a wide variety of potential rotor diameters.

4.4 Temporary Construction Compounds, Substation Compounds, and Battery Energy Storage System (BESS)

4.4.1 Areas have been identified for the construction of temporary Construction Compounds, Substation Compounds, and a BESS. These locations have been informed by the environmental and engineering constraints particular to the requirements of these compounds and BESS technology, as well as a consideration of the existing topography of the Site, the existing network of wind farm tracks and hardstands, and the physical interrelationship of the BESS with the other elements of the Proposed Development. Each location is shown on **Figure 3.**

4.4.2 For the identification strategy of these areas, the key design and siting considerations were; the proximity of the BESS to other Proposed Development infrastructure, such as the access track, and substations; a position outwith the topple distance of proposed turbines; and sufficient distance to environmental receptors (e.g. 50 m outwith watercourses, areas of deep peat >1m).

4.5 Environmental Considerations

Landscape Character and Visual Amenity

4.5.1 Siting and Designing Windfarms in the Landscape Version 3 (NatureScot, 2017) provides a framework for the consideration of key design issues including wind turbine size, layout composition, relating windfarm design to landscape character, forestry and designing for

multiple wind farms. There are further criteria for consideration with THC Onshore Wind Energy Supplementary Guidance (2016).

4.5.2 In addition to the standard good design principles set out within the NS and THC documents noted above, some of the key design principles established during design development from a landscape and visual perspective may be summarised as follows:

- design fit with local topography and nearby wind farms;
- minimise effects on views from local settlements including Dunvegan, peninsulas to the east and west, and key roads (A850 and A863) and ferry routes;
- avoid significant impacts upon any nationally valued landscapes and minimise impacts on regionally or locally valued landscapes; and
- minimise impacts on key views.

4.5.3 With these principles the design responded to these:

- Maintain design continuity with original Ben Aketil – As the turbine size and separation increases, the repowering has kept to the existing footprint, replacing the existing 12 turbines with 5. The extension has created a second line parallel thereby retaining the design integrity.
- Created two parallel gently curving arcs will reflect existing topography and be read as a cohesive array. Work well with adjacent cumulative sites such as Ben Sca and Edinbane which use similar design patterns;
- With regard to the optional phased construction phase, the extension is located on lower ground and maintains design continuity with the existing turbines to minimise any temporary adverse impacts when the two are seen together.
- The areas of highest ground on the site would remain free of turbines.
- Composition is legible and stacking of turbines has been minimised from the A850 to the north, A863 to the west and surrounding summits like Macleod's Table, The Storr or Beinn Edra.

Ecology and Ornithology

Ecology

4.5.4 The following field surveys have been undertaken to provide detailed information pertaining to the presence and distribution of ecological features within the Site and surrounding area, which may be affected by the Proposed Development:

- Phase 1 habitat survey;
- National Vegetation Classification (NVC) Survey;
- Terrestrial mammal surveys;
- Bat activity surveys;
- Bat preliminary roost assessment survey; and
- Fish habitat survey.

4.5.5 All ecology surveys have been undertaken within the most recently available two-year survey window prior to submission, and by competent and qualified ecologists in accordance with industry standard guidance. Methods are summarised in **Chapter 7** of the EIAR, with further details in **Technical Appendices 7.1** to **7.4**.

Ornithology

4.5.6 Existing ornithological information obtained through desk study and detailing the presence, distribution and flight activity of ornithological species within the Site and surrounding area is extensive, and is reviewed in **Technical Appendix 8.1**.

4.5.7 The following additional ornithological field surveys have, however, been completed to update the existing baseline data and inform the design and assessment of the Proposed Development, in accordance with NatureScot guidance (SNH, 2017):

- Vantage Point (VP) Flight Activity Surveys (March 2021 – April 2022);
- Moorland Breeding Bird Surveys (MBBS) (2021 and 2022); and
- Breeding Schedule 1 Raptor and Owl Searches (2021 and 2022).

4.5.8 All ornithology surveys have been undertaken in accordance with NatureScot guidance (SNH, 2017) and species-specific guidance referenced in **Chapter 8** of the EIAR, and have been completed by experienced and professional ornithologists.

4.5.9 Detailed survey methodologies, target species for survey and recording and survey areas are presented within **Technical Appendix 8.1** and illustrated in **Figures 8.3a** to **8.4** of the EIAR.

4.5.10 The Proposed Development has been subject to a number of design iterations and evolution in response to constraints identified as part of the baseline studies, intended to reduce environmental effects associated with ecology and ornithology features.

Hydrology and Hydrogeology

4.5.11 In accordance with SEPA and NatureScot guidelines, and good industry practice, a 50 m buffer zone has been applied around all watercourses on the Site for the proposed wind turbines and ancillary infrastructure. This reduces the risk of runoff, loose sediment and potential pollutants entering watercourses. Watercourse crossings have been minimised as far as practicable; and where possible, existing crossings would be used.

4.5.12 The hydrology and hydrogeology effects of the proposed Development are addressed further in **Chapter 9** of the EIAR.

Peat Depth

4.5.13 Phase 1 and phase 2 peat depth and condition surveys were undertaken. The phase 1 survey, undertaken in June 2022, involved taking peat depth measurements with a hand-held probe on a 100 m grid across the Site to identify areas of peat and natural variation in the peat substrate across the area.

4.5.14 Phase 2 surveys were undertaken in August and November 2022 and involved peat probing at 50 m points along all proposed new access tracks, offset probing every 50 m either side of existing access tracks proposed for upgrading and crosshair probing at 25 m at proposed turbine locations. Additional peat probing was undertaken in areas proposed for additional infrastructure such as turbine hardstandings, substation and construction compounds, BESS and borrow pits

4.5.15 The collated peat depth data were used in the design workshops to support the iterative design process. The placement of infrastructure in areas of deep peat (greater than 1 meter in depth) was avoided through the design process. Where incursion into deeper

peat has been required, floating road construction is proposed where ground conditions are suitable. Floating track sections are shown on **Figure 3**.

Archaeology and Cultural Heritage

4.5.16 Archaeology and cultural heritage constraints were identified at an early stage of the design process, and hard and soft buffers were established around them based on their relative importance/sensitivity, so that they could be avoided during the design process.

4.5.17 The buffers and interpretation of heritage assets importance/sensitivity were further assessed during the course of the design and EIA process, in particular informed by archaeological site visits undertaken to establish the quality of the preservation of the remains within the Site.

4.5.18 Through the EIA Scoping process and subsequently, the Cultural Heritage EIA team engaged with key heritage consultees such as Historic Environment Scotland to agree a basis for the assessment. Key messages arising from the consultations undertaken were fed back to the design team so that amendments could be made to address the feedback were possible.

Noise

4.5.19 Operational noise predictions have been carried out for the Proposed Development. The level of noise at receptor locations is dependent on the wind speed and directions, with audibility being dependent on the level of masking sounds at the receptor location.

4.5.20 The results of the operational noise predictions indicate that predicted operational noise levels for the existing development and each of the scenarios of the Proposed Development are below 35 dB L_{A90}. Predicted operational noise levels are therefore below the simplified noise limit agreed with THC, which applies to it acting in isolation and, in addition, are below the day and night-time noise limits which were applied to the originally consented Ben Aketil Wind Farm.

4.5.21 The operational noise impact of the repowering and extension scheme, results in lower predicted noise levels at residential receptor locations than is currently generated by the existing Ben Aketil Wind Farm. Therefore, the Proposed Development could be considered beneficial in relation to the existing wind farm as the predicted noise levels are lower than from the existing turbines.

Aviation

4.5.22 Aviation impacts are highly dependent on the location of the wind farm and on the positions of the individual turbines. In some cases, there are no significant consequences, and no mitigation is required, whilst in other cases the turbine specification or layout must be designed to accommodate local infrastructure. Mitigation is often available and appropriate to manage impacts.

4.5.1 Scoping responses have identified two potential aviation effects requiring management. These are the predicted impacts to the NATS Tiree En-route radar and the requirement for aviation obstacle lighting. There are no other impacts anticipated as a result of the Proposed Development.

4.5.2 The Applicant is engaged in dialogue with NATS, to explore mitigation options, with a view to contracting acceptable mitigation. This would allow NATS to recommend approval

of the application, conditional upon the implementation of a radar mitigation scheme. Mitigation has been agreed with NATS for the adjacent wind farm on Ben Sca with the application of this same mitigation over an increased geographical area, being likely to accommodate a number of the proposed turbines.

4.5.3 With regards to the proposed aviation lighting, CAA informally agreed that a cardinal lighting scheme would be acceptable. Therefore, only turbines T1, T5, T6 and T9 would be lit – the lighting design is discussed in more detail in **Chapter 14** of the EIAR.

Other Issues

Telecommunications

4.5.4 Through the design iteration process, all wind turbines comprising the final layout of the Proposed Development have been sited outwith the identified links and their safeguarding exclusion zones. Therefore, no impacts are predicted on any telecommunication assets displayed on **Figure 16.1** of the EIAR from the Proposed Development.

Shadow Flicker

4.5.5 In line with THC guidelines on shadow flicker assessments, a multiplier of the equivalent of 11 rotor diameters from each proposed wind turbine has been established as the shadow flicker study area during the preliminary assessment and design review.

4.5.6 Whilst examining the established study area in relation to potential shadow flicker receptors within the vicinity of the Site, it has been identified that no residential dwellings fall within the shadow flicker study area. This is confirmed by **Figure 16.2** of the EIAR which illustrates the shadow flicker study area in relation to residential dwellings within the vicinity of the Proposed Development.

5 CONSULTATION AND SCOPING

5.1 Consultation

Pre-Application Consultation

5.1.1 Consultation was undertaken as part of the EIA process to seek a comprehensive understanding of the requirements and views of consultees to obtain environmental information, to obtain input to the design of the Proposed Development, to discuss and agree the scope of individual environmental assessments and the adopted methods of assessment, and to develop appropriate environmental mitigation measures.

5.1.2 Consultation comprised public consultation in the form of online and in-person Public Information Events (PIEs) undertaken in September 2022 and January 2023, and consultation with a range of statutory and non-statutory bodies, including community councils.

5.1.3 Important information was collected during the consultation process and helped to inform the final design iteration. Additional information on the consultation process can be found in the **Pre-Application Consultation Report**, submitted as part of the Section 36 application.

Scoping

5.1.4 An EIA Scoping Report was submitted to the Energy Consents Unit (ECU) in July 2022 to accompany a request for the Scottish Ministers to adopt a Scoping Opinion under Regulation 15 of the EIA Regulations 2017.

5.1.5 The ECU issued its Scoping Opinion on 13 October 2022. Copies of the EIA Scoping Report and ECU's Scoping Opinion are available on the ECU website[1]. Following receipt of the Scoping Request, the ECU undertook consultation with statutory and non-statutory consultees and other environmental bodies with knowledge of the Proposed Development site and surrounding areas. Scoping responses were received from:

- Arqiva;
- British Telecommunications (BT);
- Crown Estate Scotland;
- Defence Infrastructure Organisation (DIO);
- Historic Environment Scotland (HES);
- Joint Radio Company (JRC);
- MBNL;
- Ministry of Defence (MoD);
- Mountaineering Scotland;
- NATS Safeguarding;
- NatureScot;
- Nuclear Safety Directorate;

[1] ECU (2022). https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00004552&T=0. Search for "The Repowered and Extended Ben Aketil Wind Farm", ECU reference: ECU00004552.

- RSPB Scotland;
- Scottish Water;
- SEPA;
- Skye and Lochalsh Rivers Trust;
- Telefonica (O_2 & Virgin Media);
- The Highland Council;
- The Highlands and Islands Airports;
- Transport Scotland;
- Virgin Media; and
- Vodafone.

Information received through the scoping process and through direct consultation of key consultees was taken into consideration during the carrying out of the EIA.

6 DESIGN EVOLUTION AND FINAL DESIGN

6.1 Proposed Development Objectives

6.1.1 The main aim of the Proposed Development is two-fold: (1) to enable the Ben Aketil Wind Farm to continue generating renewable energy beyond the operational life of the existing turbines on the site, and (2) to increase the capacity of the wind farm to generate renewable energy. The overarching objectives of the Proposed Development are to:

- replace the existing turbines at Ben Aketil Wind Farm, which will soon be nearing the end of their operational life, with new, more efficient turbines;
- extend the wind farm to increase electricity generation capacity;
- potentially continue generating electricity throughout the construction period; and
- minimise where practicable additional disturbance or environmental impacts by reusing existing infrastructure on the Site.

6.1.2 Design objectives of the Proposed Development included the minimisation of potentially significant environmental impacts through primary mitigation during design, while also taking into consideration technical and economic aspects. The main objective of the reiterative design process was to attain an outcome that is feasible for the applicant, acceptable to the consultees and will benefit the local community while minimising potential environmental impacts as far as practicable.

6.2 Design Evolution

The design of the Proposed Development was an iterative one, informed by the EIA process. Baseline information obtained through desktop studies and field surveys was fed back into the design at various stages. This led to key decisions being made resulting in primary mitigation of as many of the potential environmental impacts of the Proposed Development as possible.

6.2.1 The design of the Proposed Development has evolved from the initial layout presented in the Scoping Report, dated July 2022, through eight iterations, as presented on **Figures 4** and **5.**

6.3 Iterations of Design

Layout A (Current operational layout)

6.3.1 The current operational layout of the Ben Aketil Wind Farm consists of 12 turbines in a single array, connected by a single wind farm access track, as shown on **Figure 4**. Access to the operational site is gained via the existing northern access track leading southwards from the A850. Turbine 11 is equipped with an aviation light. The current wind farm consent requires the highest elevation turbines, Turbine 11, to be fitted with a maximum 25 candela omni-directional red aviation lighting at the highest practical point.

Layout B (scoping layout)

6.3.2 Layout B was presented at scoping stage and consisted of 10 turbines, the existing northern access track and a proposed new southern access track. The turbines were

distributed in two arrays similar in geometry to the original single 12-turbine array, although located lower down the slope. The design principles and objectives of the wind turbine arrays will be described in detail in **Chapter 6** of the EIAR.

6.3.3 The turbines were spaced in such a manner as to ensure technical compliance with the candidate turbine manufacturer's specifications. The minimum required spacing between the turbines is referred to as the separation ellipses.

6.3.4 The orientation of the crane pads (hardstandings) were initially designed to best suit transport and access requirements.

6.3.5 The existing crofter's track is represented on **Figure 3** as a brown dashed line extending from the A863 in the south, along the track providing access to the houses in Upper Feorlig, and into the Site. From there, the crofter's track runs in an approximate north-south direction before turning eastwards and then north-eastwards towards the existing wind farm track between the operational wind turbines near the northern Site boundary line. The crofter's track did not form part of the initial layout.

6.3.6 The southern access track was routed to make use of an existing access point and short, informal access track before following a gradual incline to reach the access track between the two southernmost proposed new turbines.

6.3.7 In short, the design of Layout B was based primarily on technical requirements relating to turbine specifications, access requirements, topography and the arrangement of, and access to, the existing wind farm infrastructure.

Layout C

6.3.8 Following the feedback given by stakeholders and community consultation events and the completion of detailed site-specific surveys, including a phase 1 peat depth survey, Phase 1 habitat survey, national vegetation classification (NVC) survey, protected species and bird surveys, as well as desk-based studies, the site layout was revised.

6.3.9 The location and sensitivity of all identified environmental receptors were mapped and appropriate buffers around them were agreed between the technical specialists and project engineers. The following design principles and buffers were applied during this design iteration:

- Potential groundwater dependent terrestrial ecosystems (GWDTEs) – 250 m avoidance buffer applied to excavations deeper than 1 m, 100 m from excavations less than 1 deep;
- Habitats identified as Annex 1 habitat of high conservation concern were treated as constraints of high sensitivity with a 10 m avoidance buffer applied to each of these units;
- Bat roost features and bat stand-off buffers along watercourses and from the trees to the north of the Site boundary. The bat stand-off buffer applied along watercourses was 71 m, and from the trees was 105 m (based on a likely maximum height of the plantation trees of 30 m);
- Buffers were applied for ornithological constraints;
- Hydrology avoidance buffer of 50 m applied to watercourses except at watercourse crossings;
- Watercourse crossings were orientated at 90° to the watercourse;
- 100 m avoidance buffer from deep peat (deeper than 2.5 m);

- 500 m minimum (1 km optimal) avoidance buffer from scheduled monuments;
- 30 m avoidance buffer from non-designated heritage assets;
- 220 m (maximum tip height plus 10% - topple distance) avoidance buffer from core paths, rights of way, existing overhead lines and the proposed Skye Reinforcement overhead line;
- For telecommunications, a buffer of up to 100 m + rotor radius clearance with a minimal avoidance buffer of the Fresnel Zone plus 25 m; and
- Oversail buffers along Site boundaries of 85 m.

6.3.10 The application of these constraints to the site layout resulted in the removal of Turbine 6 in order to avoid impacts on telecommunications assets.

6.3.11 Eight of the remaining nine turbines were moved slightly from their original locations to account for key environmental constraints while still meeting the turbine separation distance requirements. Turbine 8 (T8) was highly constrained and could not be moved significantly without encroaching into deep peat or a watercourse avoidance buffer.

6.3.12 Crane pads were orientated for ease of access for turbine component delivery vehicles from the access track and to account for topography.

6.3.13 The southern access track was adjusted to account for the removal of a turbine. The curved section of the existing wind farm access track which allows vehicles to safely traverse a steep slope was adjusted to allow for track geometry required for the HGV indivisible abnormal loads.

6.3.14 Two potential borrow pit search areas were identified, one of which was a circular search area 1 km radius along the southern access track.

6.3.15 The red line boundary was extended to include the northern access track, as it was determined that in order to accommodate the HGVs required to transport the larger turbine components to site the existing track structure would need to be upgraded in some places.

6.3.16 Suitable locations for a proposed BESS and a substation compound were identified to the southwest of T3.

6.3.17 Four construction compound locations were identified, one at each entrance, one near the extension turbines and one near the repowering turbines and BESS.

6.3.18 A suitable location was identified for the wind anemometer mast.

Layout D

6.3.19 A design review of Layout C was held between key environmental technical specialists, the applicant and the design engineer. Each of the turbines, the access tracks and other ancillary infrastructure was examined against the technical and environmental constraints to ensure that the infrastructure had avoided sensitive constraints as far as possible.

6.3.20 During the review workshop, the locations of the tracks and the orientation of the crane pads were altered particularly to avoid deep peat. This was achieved for most of the crane pads except for the crane pad of T8:

- Two options were identified for the orientation of the crane pad for T8 – one which was located in deeper peat, and one which encroached within a 50 m watercourse avoidance buffer (see **Figure 2.4** below).

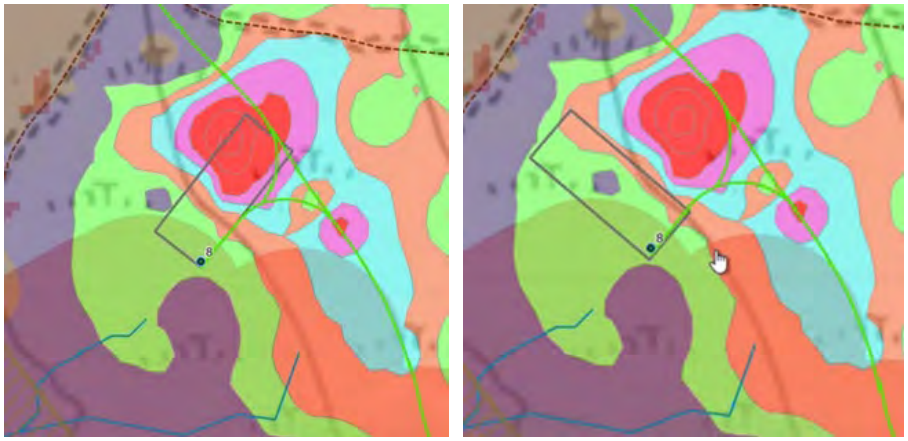

Figure 2.4: Crane pad orientation options for T8

- Following brief consultation with SEPA, the choice was made to avoid the deep peat and encroach within the 50 m watercourse avoidance buffer since the topography sloped gently towards the watercourse and mitigation measures to prevent pollution from entering the watercourse during construction could be implemented. Potential consequences of locating the crane pad within deep peat would likely be more significant than those of locating the crane pad slightly within the watercourse avoidance buffer.

6.3.21 Parts of the access tracks between the turbines of Layout C were located over / within area of deeper peat. Where practicable, for Layout D the track was rerouted to avoid deeper areas of peat. Rather than being a straight line from the existing access track to T5, the track has instead been shaped to avoid deeper pockets of peat as far as practicable. However, the deep peat was still not entirely avoidable, and so the location of the track was modified slightly to follow the topography is such a manner as to potentially allow the use of floating track in this area.

6.3.22 The circular borrow pit search area was narrowed down substantially and altered in shape to enable maximum search area outside of sensitive environmental receptors and associated avoidance buffers.

6.3.23 The result at the end of the design review workshop was a modified layout which avoided the most sensitive environmental receptors but which still required further refinement, as follows:

- the shapes of some of the tracks needed to be modified to account for the geometric requirements for the HGVs delivering wind turbine components and other plant such as cranes;
- the location of the borrow pit search area opposite a construction compound at the northern entrance would not meet health and safety standards and needed to be reconsidered;
- T5, T8 and T9 required turning points for HGVs to be included in their design; and
- the orientation of T4's crane pad required reconsideration due to its partial location within an area of deep peat.

Layout E (southern access track)

6.3.24 Consultation responses from SEPA during scoping and the pre-application meeting held with the Highland Council (see Chapter 3 for more details on consultation to date)

indicated that it would be preferable to re-use the existing infrastructure within the site, even if this required some modifications to the existing infrastructure, to try to reduce the additional surface area that would be impacted compared to the initial proposed layout (Layout B). Since a large portion of the Site is covered in Class 1 and 2 peatland, SEPA suggested conducting a quantitative analysis of the peat volumes that would need to be excavated and managed for each of three potential access options:

- The northern access track;
- The crofters track; and
- The southern access track.

6.3.25 The applicant considered this seriously and consulted some Upper Feorlig home owners on its potential use but it was not welcomed. This was due to the fact the track turns into the metalled single tracked Upper Feorlig road to south of the red line boundary of the Site where there are a number of residences. However, a fourth option was identified that would make use of the same Site entrance as the southern access track, but as soon as possible within the red line boundary area, the access track would change course to follow the crofters track as far as practicable. This would require sections of the existing track to be widened in places but would likely require less peat to be excavated overall than if the southern access track were to be selected. The fourth option is a hybrid between the southern and crofters' tracks and, following additional phase 2 peat probing, has been selected as the preferred access route. There are some areas where the hybrid track deviates slightly from the crofters track; this is to take account of the required track geometry and also to avoid situations such as being within 50 m of a watercourse.

6.3.26 While the change to the Southern Access Track would reduce the volume of peat that would require excavation and management, the borrow pit search area in the south of the Site was no longer near the access track, which would likely result in borrow pit access difficulties.

Layout F (construction compounds)

6.3.27 This layout is very similar to Layout E but instead of having one larger construction compound at the northern access track entrance to the Site, the applicant opted for the use of four smaller compounds located on the existing hardstanding areas of the existing turbines. This will enable the construction materials and plant for the decommissioning of the existing turbines and construction of the repowering turbines to be located in close proximity to the repowering turbine locations (T1 to 5) and will also enable the location of the construction compounds away from the northern borrow pit search area. The location of the four construction compounds on existing hardstanding areas is in line with the design principle of minimising additional surface disturbance.

Layout G (borrow pit refinement)

6.3.28 In Layout F, the southern borrow pit search area was relocated to be closer to the Southern Access Track, and its area was refined, in order to reduce the amount of ground-breaking and disturbance associated with it. In addition, the junctions of the northern access track with the A850 and the southern track with the A863 were modified to take the formation of a bell mouth to facilitate access for turbine component deliveries.

Layout H (proposed site layout)

6.3.29 The location of the southern borrow pit in Layout G was close to the proposed Skye-Fort Augustus reinforcement overhead line. The Applicant selected to relocate the borrow pit within the site to remove the risks of locating a borrow pit close to an overhead line. The borrow pit was located further northwards in the only alternative location with suitable topography and peat depths, which also complied with other environmental constraint avoidance buffers, e.g. 50 m away from a watercourse.

6.3.30 Following a borrow pit assessment, the shape of the smaller, northern borrow pit was altered to include an arced face, for practical reasons.

6.3.31 The final Site layout which is to be put forward for consent is based on Layout G. Opportunities to reduce impacts on locally deep areas of peat by the adoption of floating track techniques were identified, and the turbines were re-numbered 1 to 9 in sequence. An enlarged version of the Proposed Development layout is presented on **Figure 2.3** of the EIAR**.**

6.4 Alternative Construction Phasing Options

6.4.1 The applicant is considering two alternative construction phasing options, as follows:

- Scenario 1 proposes that the construction of the extension turbines and the construction of the repowering turbines is undertaken at the same time.
- Scenario 2 proposes that the four extension turbines are constructed first, followed by the decommissioning of the existing, operational Ben Aketil Wind Farm, followed by construction of the five repowering turbines.

6.4.2 It is estimated that construction would take the following approximate times to complete:

- Scenario 1: 18 months;
- Scenario 2: Construction of the four extension turbines (approximately 1 year), followed by decommissioning and removal of the existing wind turbines and associated infrastructure (approximately 1 year), followed in turn by construction of the five repowering turbines (approximately 1 year) – total of 3 years. There would be a delay between the completion of construction of the first four turbines and the start of construction of the second five turbines of no more than 5 years.

6.4.3 The main advantage of scenario 1 is a shorter construction phase which may contribute to the mitigation of some of the anticipated impacts on some environmental aspects such as ecology, ornithology and hydrology. The main advantages of scenario 2 are the continued, uninterrupted contribution of renewable energy to the national grid and continued, uninterrupted community benefits.

6.4.4 The EIAR assesses both scenarios. The final decision as to which option would be selected would be taken after consent.

7 PROPOSED DEVELOPMENT

7.1.1 The Proposed Development infrastructure would include:

- decommissioning and removal of the twelve existing turbines and related infrastructure including hardstandings and the existing operational control building;
- erection of nine new turbines of approximately 5.6 to 6.6 MW each, with a maximum tip height of 200 m, a rotor diameter of approximately 140 m to 155 m and hub height of approximately 122.5 m;
- hardstanding areas at the base of each turbine.
- approximately 9 km of new track, of which 1.5 km will consist of floating track;
- approximately 2.3 km of upgraded track;
- two substations and associated compounds including parking and welfare facilities;
- an energy storage facility;
- up to six construction compounds;
- two potential borrow pits, to provide suitable rock for access tracks, turbine bases and hard standings; and
- underground cabling linking the turbines with the substations.

Wind Turbines

7.1.2 Consent is being sought for the installation and operation of 9 turbines, with a maximum blade tip height of 200 m and maximum rotor diameter of 155 m. The detailed design specification for each foundation would depend on the type of turbine procured, and the specific ground conditions at the location of each turbine. Each turbine has an expected capacity of 5.6 – 6.6 MW; however, it should be noted that a turbine with a different capacity could be used depending on availability at the time the Proposed Development is constructed. Proposed turbine locations with easting and northing grid references are identified in **Table 7.1**. The proposed turbine locations are shown on **Figure 3**.

Table 7.1: Proposed turbine locations

Turbine	Easting	Northing
1	130451	848831
2	131024	848443
3	131745	848078
4	132269	847589
5	132826	847171
6	132005	846528
7	131443	847020
8	130999	847503

Turbine	Easting	Northing
9	130253	847705

7.1.3 The proposed turbine locations and ancillary infrastructure would be subject to a maximum micrositing tolerance of 50 m in any direction. In those places where environmental features may be potentially affected by the micrositing, tolerance would be constrained to less than 50 m, and such changes would be managed in consultation with an appropriately qualified and experienced environmental manager during the construction phase. The micrositing constraints relevant to the Proposed Development are set out within each of the technical sections of this EIAR. Any relocation of the turbines from the Proposed Development layout outwith the micrositing tolerance would be agreed with the Highland Council and would be in accordance with the mitigation set out in this EIAR.

7.1.4 A summary of the proposed environmental commitments is provided in **Chapter 17: Schedule of Environmental Commitments**.

8 ACCESS

8.1 Access Route

8.1.1 Two alternatives were considered to gain access to the Site. Prior to the design of the Proposed Development, a study was undertaken to identify potential options to gain access to the Site. The options were identified bearing in mind the requirement to transport materials to site, in particular the turbine components which will require transport via abnormal load heavy goods vehicles (HGVs).

8.1.2 Both options included the transport of materials from the port at Kyle of Lochalsh to the east of the Isle of Skye on the mainland. Both routes share the A87 to Sligachan then split up, with one route providing access to the Site from the A850 in the north (using the existing northern access track), and the other route providing access to the Site from the A863 in the south.

8.1.3 Following consideration of both alternatives, it was decided that both options would be used – see paragraph 2.6.60 and **Chapter 11: Traffic and Transport** for more detail.

8.1.4 Should the proposed Development be granted consent, a detailed Construction Traffic Management Plan and Abnormal Load Assessment would be prepared which would identify the requirements for any road modifications, vegetation or tree trimming required along the access route.

8.2 Internal Access Tracks

8.2.1 The Proposed Development infrastructure would include approximately 9 km of new track, of which 1.5 km will consist of floating track, and approximately 2.3 km of upgraded track.

8.2.2 Tracks would have a minimum 4.5 m running width, wider on bends and at junctions. Where it is not possible to avoid areas of deepest peat, floating track construction would be used. It is anticipated that there would be approximately 1.5 km of floating track, where consistent peat depths 1 m or greater are identified along suitable topography with less than 5% slope gradient (transversely or diagonally).

8.3 Public Access

Recreational Access – walking, cycling, and horse riding

8.3.1 Within the boundary of the Site, there are no core paths. However, there is an informal wider access network path through the Site and the crofters track which comprises the Southern Access, which are both used recreationally. The path uses the existing access track and then extends through the Site, towards the existing Ben Aketil turbines, exiting the Site to the North, towards Edinbane.

8.3.2 There could be temporary direct impacts affecting accessibility on the recreational routes within the Site and surrounding area listed in paragraph during the construction stage. However, since project commission, the largest section of the informal access network that links to the existing wind farm (crofters track) will be upgraded, and access for recreational use will continue to be facilitated in accordance with the Land Reform Act.

Subsequently, the existing recreational access network will be enhanced once the construction phase is completed, and regularly monitored and maintained during the operational life of the project.

8.3.3 In accordance with the Construction (Design and Management) Regulations 2015, notices would be placed in prominent locations around the Site to outline areas of restricted access. Measures for ensuring public safety during construction would be secured by the Construction Environmental Management Plan (CEMP), and periods of exclusion would be kept to the minimum necessary for safe working. The CEMP would set out measures to ensure that recreational users are informed of the construction work and directed into safe areas where there would be no conflict with plant and machinery.

Vehicular access

8.3.4 Vehicular access would be maintained to individuals directly involved in the maintenance of the Proposed Development.

Turbine Access

8.3.5 Once the Proposed Development is operational, members of the public would be able to walk up to the base of the wind turbines, but it is not proposed that there would be public access into the towers due to health and safety concerns. Access to the towers would be restricted to employees of, and contractors appointed by, the Applicant. Changes to access arrangements within the Site will be detailed in an Access Management Plan prepared in advance of construction commencing. These will include an arrangement for communicating changes in access to relevant stakeholders.

9 REFERENCES

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The Repowered and Extended Ben Aketil Wind Farm, Volume 1 : Environmental Impact Assessment Report

The Repowered and Extended Ben Aketil Wind Farm, Planning Statement

FIGURES

120000

130000

140000

850000

840000

Legend:

The Site

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

Rev	Date	Description	Drn	Chk	App
00	19/05/2023	Site Location	DL	DB	DB

Ben Aketil Wind Farm

TITLE: Figure 1:
Site Location

ID:P663617_DAS_663617_SiteLocation_A3_L

0 1.5 3
Kilometres

Scale: 1:75,000 @ A3

REV 00

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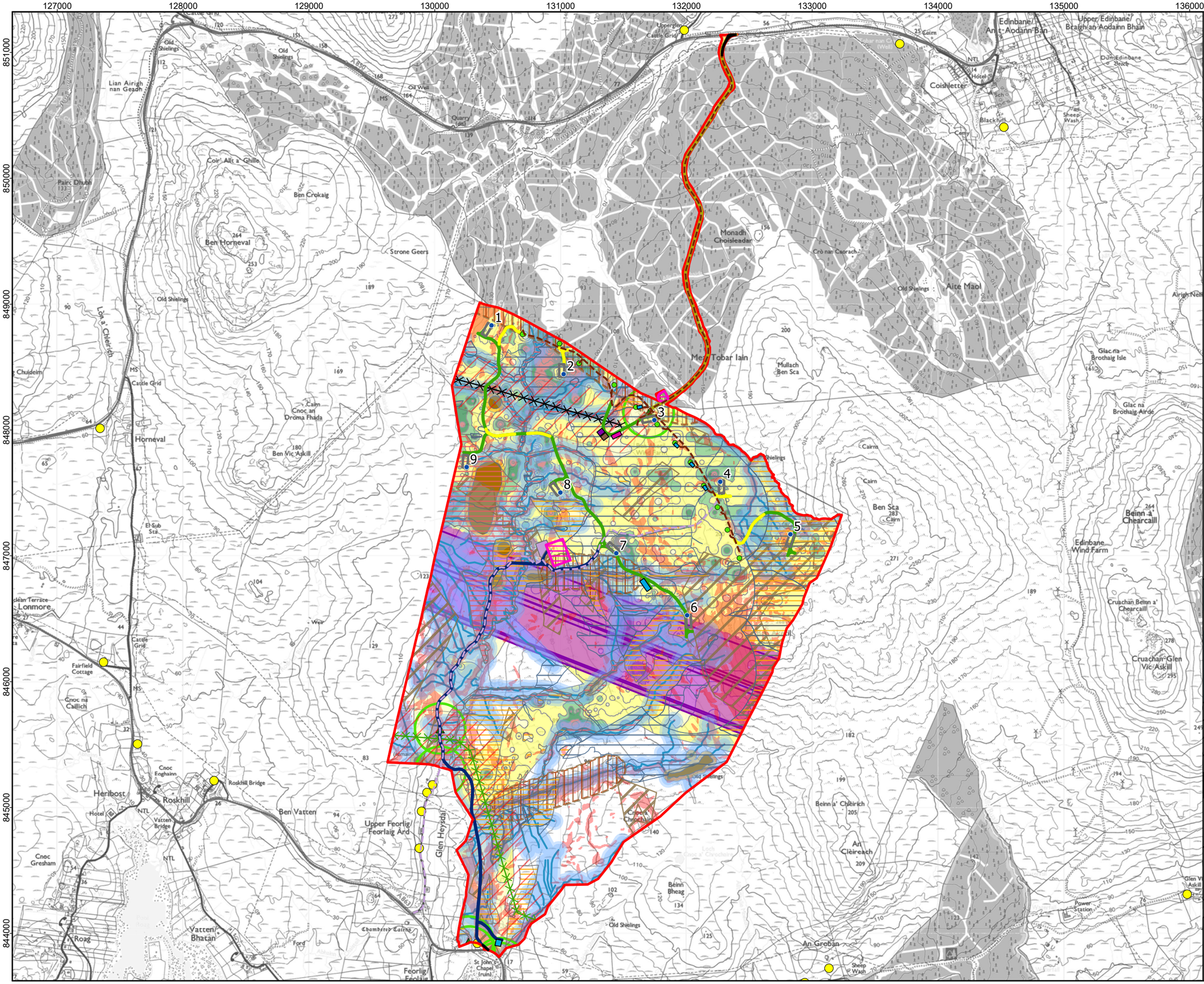
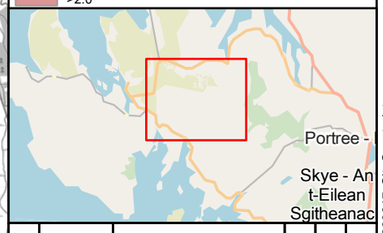


Legend:

- The Site
- Proposed New Turbine Locations
- Existing Turbine Layout
- Hardstanding
- Construction Compound
- Substation and Compound Area (Extension)
- Substation and Compound Area (Repower)
- Borrow Pit
- Storage Bund
- Battery storage
- Existing Access Track
- Existing Crofters' Track
- Bell mouth junction modification
- Floating Access Track
- Wind Farm Access Track
- Northern Access Track
- Southern Access Track
- Surface Water
- Surface Water
- Surface Water 50m Buffer
- Surface Water 71m Buffer (Bats)
- Telecommunications Link
- Telecommunications Link 100m Buffer
- Greater than 15% Gradient
- Highly suitable golden eagle habitat (Open GET6+)
- Potential bat roost features 200m Buffer
- Potential bat roost features
- NVC: M6 M9 M10, M17, M2
- High GWDTE
- Moderate GWDTE
- Bat Stand-off Buffer (200 m turbines – 105m buffer)
- Bat Stand-off Buffer (200 m turbines – 112.5m buffer)
- Existing OHL
- Preffered OHL Alignment
- OHL 220m Buffer
- THC Non-designated HER on-site constraints
- THC Non-designated HER 30m Buffer
- Residential Dwelling

Peat Depth

- 0 - 0.5
- 0.5 - 1.0
- 1.0 - 1.5
- 1.5- 2.0
- >2.0



Rev	Date	Description	Drn	Chk	App
00	15/05/2023	First Draft	DL	SA	DB

Ben Aketil Wind Farm

RSK Renantis Folck Renewables

TITLE: Figure 2:
Site Constraints

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Kilometres

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N W E S

REV 00

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