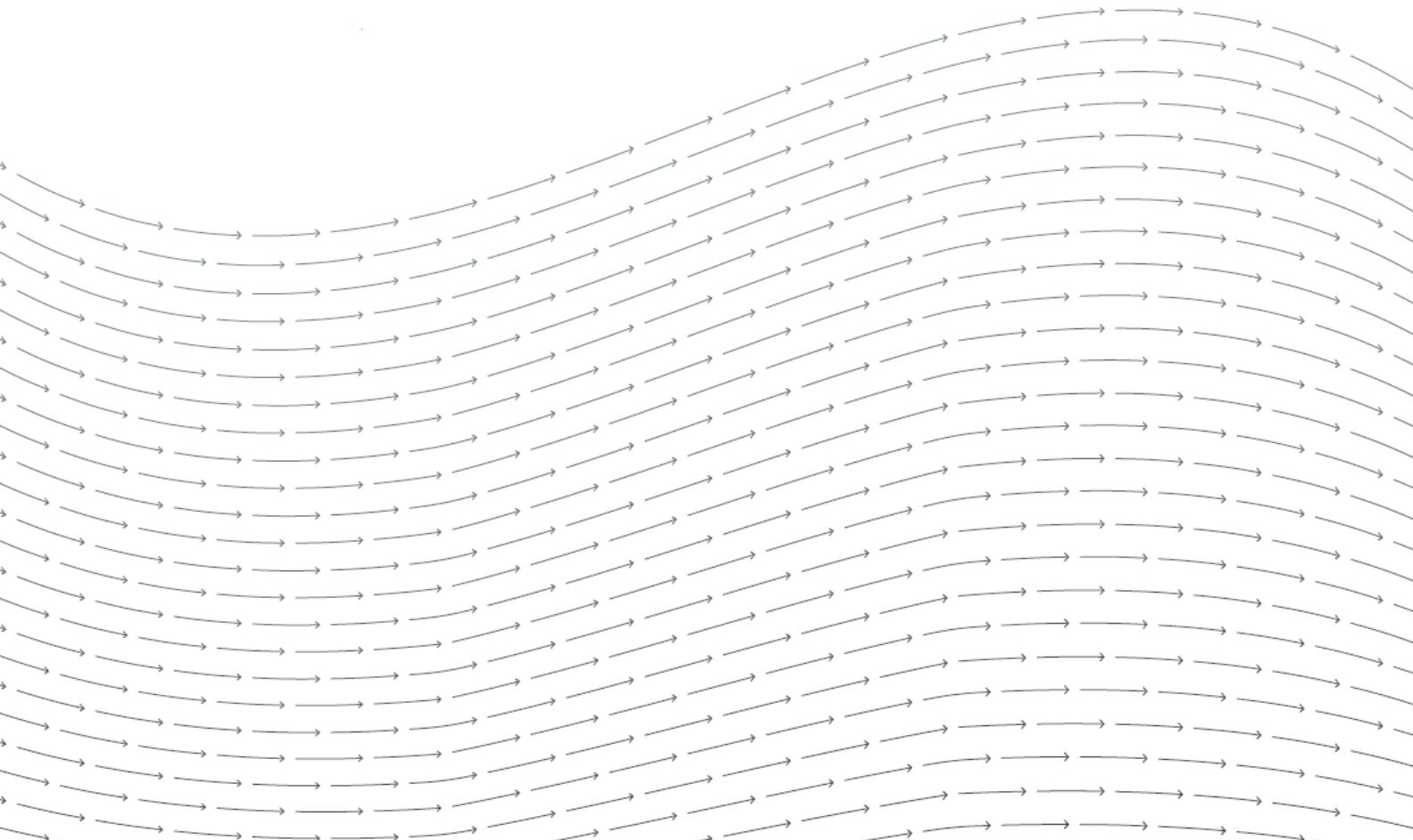


Allt Domhain Wind Farm

Environmental Impact Assessment Report Non-Technical Summary

June 2025



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1. INTRODUCTION

Overview

- 1.1 This Environmental Impact Assessment (EIA) Report has been prepared by Energyfarm Allt Domhain Ltd ('the Applicant') to accompany an application for consent to construct and operate Allt Domhain Wind Farm ('the proposed development'), consisting of nine wind turbines and associated infrastructure. The site is located approximately 6km east of Glenbarr. The site is within the administrative boundary of Argyll and Bute Council as shown in NTS Figure 1.
- 1.2 As the proposed development has a generating capacity in excess of 50 MW, consent is required from Scottish Ministers under Section 36 of the Electricity Act 1989 (hereafter referred to as 'the Act'), in consultation with relevant statutory consultees including Argyll and Bute Council. In addition, a request is being made by the Applicant that planning permission is deemed to be granted under Section 57(2) of the Town and Country Planning (Scotland) Act 1997, as amended.
- 1.3 The aim of this Non-Technical Summary (NTS) is to summarise the content and main findings of the EIA Report in a clear and concise manner to assist the public in understanding what the potential environmental effects of the proposed development are likely to be. The full EIA Report (Volumes 1 to 4) provides a more detailed description of the proposed development and the findings of the EIA process.

Energyfarm Allt Domhain Ltd and Energiekontor UK Ltd

- 1.4 The Applicant is Energyfarm Allt Domhain Ltd, a Special Purpose Vehicle (SPV) set up and owned by Energiekontor UK Holding Ltd, part of the Energiekontor Group, with the sole purpose of delivering the proposed development.
- 1.5 Energiekontor UK Holding Ltd is a holding company for projects operated by Energiekontor UK Ltd an experienced renewable energy development company, formed in 1999. It develops small to medium-sized onshore wind and solar farms throughout the United Kingdom. The company operates seven existing wind farms in the UK and has obtained planning consent for several further projects. Energiekontor also has several other wind and solar projects at various stages of the development process throughout the UK.
- 1.6 Energiekontor UK Ltd is part of the Energiekontor Group. The parent company, Energiekontor AG, was established in 1990 in Bremerhaven in Northern Germany. It has since grown to become one of the leading wind energy companies in Europe and is active in Germany, France, Portugal, the USA and the UK. The company has obtained consent and built over 170 onshore wind and solar farms in Europe, with a total nominal power of more than 1.5 gigawatts. The company constructed the first 'no-subsidy' wind farm in the UK, Withernwick II in East Riding, Yorkshire.

Contacts for Further Information and Consultation

- 1.7 A hard copy of the full EIA report will be available for viewing during opening hours at Campbeltown Library. The address is: Aqualibrium, Kinloch Road, Campbeltown, PA28 6EH.
- 1.8 Electronic Versions of the full EIA Report can be found on the Energy Consents Unit website by searching for 'Allt Domhain Wind Farm'. In addition, updates including a link to the case file are provided at the project web address: <https://www.energiekontor.co.uk/our-projects/alltdomhain>
- 1.9 Alternatively, the Project Manager can be contacted for copies. There is no charge for provision of electronic documents or hard copies of the Non-Technical Summary on request.
- 1.10 Full printed copies can also be requested. Due to the size and cost of printed documents, charges for these are as follows:
 - Volume 1 – Main Text: £50
 - Volume 2 – Figures: £300
 - Volume 3 – Visualisations: £500
 - Volume 4 – Technical Appendices: £150
- 1.11 Requests should be made to Craig Potter, Project Manager, Energiekontor UK Ltd, craig.potter@energiekontor.com
- 1.12 Any representations to the application may be submitted:
 - Via the Energy Consents Unit website at: www.energyconsents.scot/Register.aspx;
 - Via email to the Scottish Government Energy Consents Unit mailbox at representations@gov.scot; or
 - Via post to the Scottish Government, Energy Consents Unit, 4th Floor, 5 Atlantic Quay, 150 Broomielaw, Glasgow, G2 8LU.

2 EIA METHODOLOGY

2.1 EIA is a process that identifies the potential environmental impacts (both beneficial and adverse) of a proposed development and proposes mitigation to avoid, reduce and offset any potential significant adverse environmental impacts.

2.2 The main activities in the EIA process can be summarised as follows:

- Definition of the project to be assessed;
- Description of the 'baseline' environment (i.e. the conditions that are likely to prevail at the commencement of the project);
- Definition of the scope of the assessment;
- Scoping and consultation with interested parties;
- Optimisation of the proposed development based on the consultation process;
- Prediction of the likely impacts of the proposed development;
- Evaluation of these impacts in terms of their potential significance;
- Description of the nature and effectiveness of measures / design evolution which could be adopted in order to mitigate significant adverse impacts;
- Identification of residual impacts; and
- Submission of the EIA Report and publicity.

Approach to Technical Studies Undertaken

2.3 The EIA studies commenced at an early stage in the evolution of the application. At the outset, with the objective of avoiding or minimising potential environmental impacts, the findings of these environmental studies played an important role in the design evolution of the proposed development. These studies defined the environmental sensitivities and constraints associated with the proposed development, the Site, and its surroundings.

2.4 The technical EIA studies have been undertaken in accordance with relevant guidelines and procedures.

2.5 The majority of assessments involved consultations with statutory and non-statutory bodies, desk-based research, site inspections and surveys, impact prediction and input of mitigation to the design, where appropriate.

2.6 The content and conclusions of the EIA Report, which includes a clear, reasoned description of any potential adverse or beneficial impacts of the proposed development, are based on a comprehensive assessment undertaken with all information available at the time of writing.

3 PROJECT DESCRIPTION

- 3.1 The application is for nine turbines between 200 and 230m (four at 200m, five at 230m) on land approximately 6km east of Glenbarr, along with ancillary infrastructure detailed below. The heights of the turbines have been chosen to accommodate modern turbines which make the most of the good wind resource on site, but which have been designed in such a way to appear at a similar height in terms of turbine to ground level as Blary Hill Wind Farm (given Blary Hill is on higher ground).
- 3.2 The proposed development layout is contained within NTS Figure 2a.
- 3.3 The nearest trunk road is the A83 which the site boundary extends to and will be used to access the site. Turbines would be delivered to Campbeltown in sections and transported to site via specialised delivery vehicles.
- 3.4 The proposed development contains two access options: namely either using the existing Barr Glen road, coming through Major's Field and then entering the Blary Hill Wind Farm access and creating new track from there to the wind farm area. Alternatively, to avoid local disruption, an alternative access is proposed which would involve a new track and access junction to the A83 north of Glenbarr and a new bridge crossing of the Barr Water.
- 3.5 The main windfarm area of the site is situated on a hill side gradually sloping downwards from east to west. The south-eastern extent of the site reaches a maximum elevation of 360m above ordnance datum (AOD), with the summit of Cnoc Donn (405m AOD) just beyond the site boundary. The eastern boundary of the site meets the boundaries of the Beinn an Tuirc I and II to the east. The western extent of the main wind farm area slopes down to form a valley and meets the eastern extent of the Blary Hill Wind Farm boundary.
- 3.6 The site extends in a corridor fashion to the west around Blary Hill (272m AOD) and Blary Hill Wind Farm towards the Barr Water and Arnicle Farm.
- 3.7 The proposed development will consist of the following primary components:
- Up to 9 turbines;
 - Associated turbine compound areas including foundations and hardstanding areas for erecting cranes at each turbine location;
 - On-site tracks connecting each turbine;
 - Up to 18 new watercourse crossings and 5 upgraded watercourse crossings (dependent on access option);
 - On-site substation;
 - Underground cables linking the turbines to the substation, typically along internal tracks;
 - A crossing of the Barr Water, should the relevant access option be adopted;
 - A temporary construction compound including provision for onsite concrete batching; and

- Outline Habitat Management provisions as proposed within Technical Appendix 7.6 within Volume 4 of the EIA Report.
- 3.8 The proposed development would be time-limited to 35 years from the first date of commercial operation. The construction phase would last approximately eighteen months and decommissioning would last approximately six months.
- 3.9 Planning permission is sought to permit a period of ten years between the date of the decision notice and expiry of consent. This is to accommodate potential grid delays.
- 3.10 The proposed development would provide approximately 64.8 Megawatts (MW) of installed capacity based on a candidate turbine of up to 7.2MW (depending on the final turbine model chosen). It is estimated by the Applicant that this installed capacity could generate approximately 249,671 Megawatt hours (MWh) of renewable electricity each year which would be expected to power the equivalent of approximately 72,117 homes on average each year¹, or provide 1.38 million full battery charges for electric vehicles per year².
- 3.11 Turbines would be of tubular steel construction, finished in a typical off-white matt colour and comprise three blades. The final turbine choice would be made post-consent during the procurement phase.
- 3.12 The turbines would be interconnected using underground cables placed in trenches forming a power circuit within the site. The underground cables would be taken into the on-site substation where the electrical control equipment would interface with the local distribution network. The proposed grid connection would be to Carradale, approximately 5km to the north-east. The exact configuration and method of grid connection is a matter for the network operator, SSEN, and would be subject to a separate application and studies.
- 3.13 The proposed development will potentially require an onsite 90mx90m, 132kv substation compound to interface between the wind farm and the wider network. The substation would house the switchgear and control equipment needed for grid connection.
- 3.14 Habitat Management Proposals are included within the application. This includes provisions for the enhancement of peat and for the mitigation and enhancement of habitats for a range of bird species.

¹ Based on an average annual UK domestic electricity consumption figure of 3,462KWh as set out in the BEIS publication "Energy Consumption in the UK" July 2023

² Based on a large electric vehicle requiring 180kWh for a full charge.

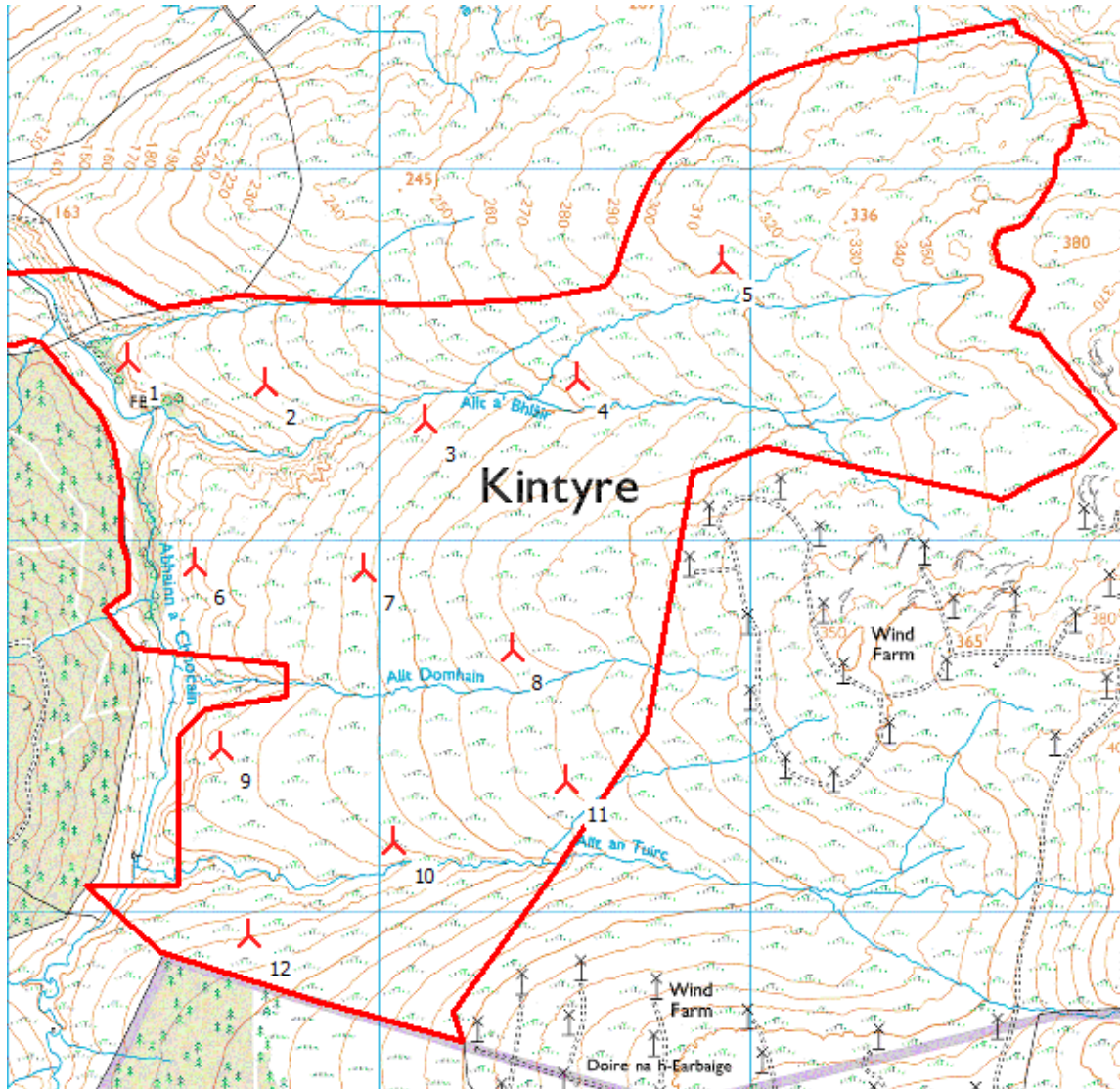
4 DESIGN EVOLUTION

Introduction

- 4.1 Design evolution is an important component of wind farm design. The overall design layout principle of the proposed development has been to achieve a coherent and compact design, which minimises direct and indirect adverse effects on the local and wider landscape, while balancing commercial considerations and maximising energy production.
- 4.2 The initial site selection process sought to identify areas of land where siting a wind farm would result in minimal environmental effects, be free from overriding technical constraints and be economically viable. A key reason for the identification of this site was its position on the spine of the Kintyre Peninsula and the landscape characteristics of the area, as a simple landform with forested, sparsely populated and remote hills, see NTS Figure 1 – site location.
- 4.3 A sieve mapping exercise sought to test the proposed site location against a range of constraints to development. The site was ultimately selected due to the presence of a number of factors deemed to be compatible with onshore wind development, including but not limited to:
- Potential energy capture: software modelling indicates that the Site offers a strong wind resource;
 - Environmental designations: the Site is sufficiently removed from any important statutory wildlife designations which could have the potential to constrain wind farm development;
 - Built Environment: the site is positioned between built and consented wind farms, important to enable a cohesive and in keeping design;
 - Transport infrastructure: the site is positioned close to a trunk road with two options available for transporting turbine components from highway to site;
 - Landscape: the site is sufficiently out with any nationally or locally designated landscapes. Further, the site benefits from topographical screening from coastal parts of the North Arran National Scenic Area (NSA).
- 4.4 The wind farm design process comprised of multiple design evolutions, with each layout iteration evolving as on-site surveys, consultation inputs and modelled visuals progressively informed the design rational. The design evolution process considered both the positioning of turbines and site infrastructure in addition to the orientation and routing of possible site access options.

Site Layout Design Evolution

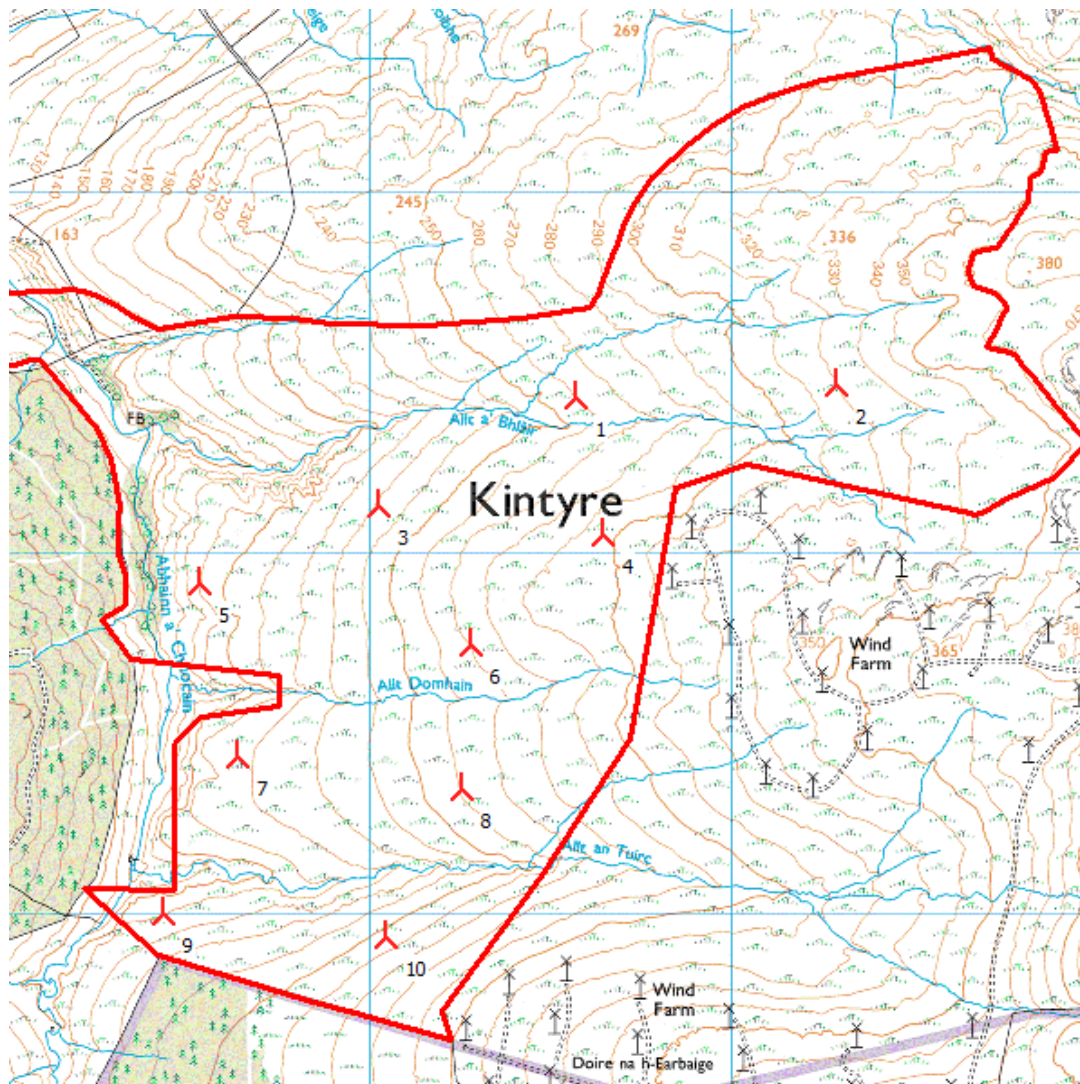
- 4.5 Early-stage design iterations consisted of 12 turbines comprising of mixed 200m and 230m tip heights. Preliminary layout design sought to maximise the sites energy production potential on land considered to be available for development. Design iterations were developed to consider the results of preliminary environmental assessments, topographical features and the surrounding built environment. In February 2021 a 12-turbine early-stage design was submitted as the basis for the scoping opinions sought from the Energy Consents Unit.



Allt Domhain Wind Farm Scoping Design – 12 turbines with mixed tip heights of 200m and 230m

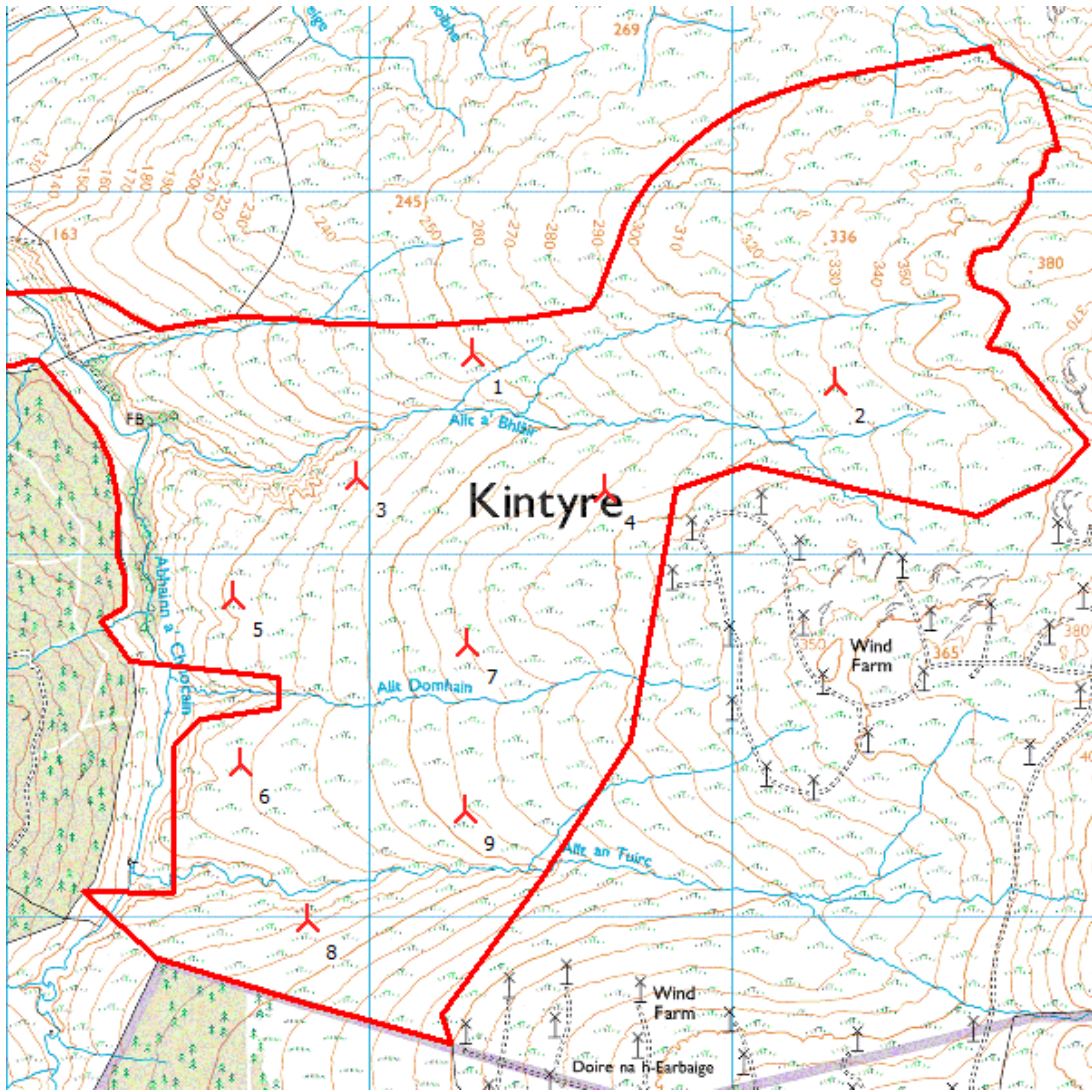
- 4.6 Following the feedback received during the scoping process, the continued progression of site survey works, and visual modelling assessment interim design iterations were assessed, consisting of 9 and 10 turbine layouts. Such layouts removed and stepped back turbines from the north, northeastern, and northwestern regions of the site facilitating an increased separation distance between turbines and residential properties and reducing visual impacts from key local viewpoints and landscape designations, notably the North

Arran National Scenic Area. The site layout was additionally continually assessed in the cumulative landscape with turbines repositioned to align with this.



Allt Domhain Wind Farm Interim Design – 10 turbines with mixed tip heights of 200m and 230m

- 4.7 The design evolution process culminated in a 9-turbine final design iteration that maintained a mixed tip height approach of 200m and 230m tip heights, as detailed in NTS Figure 2a. The final site layout design is deemed to satisfy all design requirements and achieve a cohesive development, appropriate for the landscape it is positioned in whilst still maximising the available wind resource.



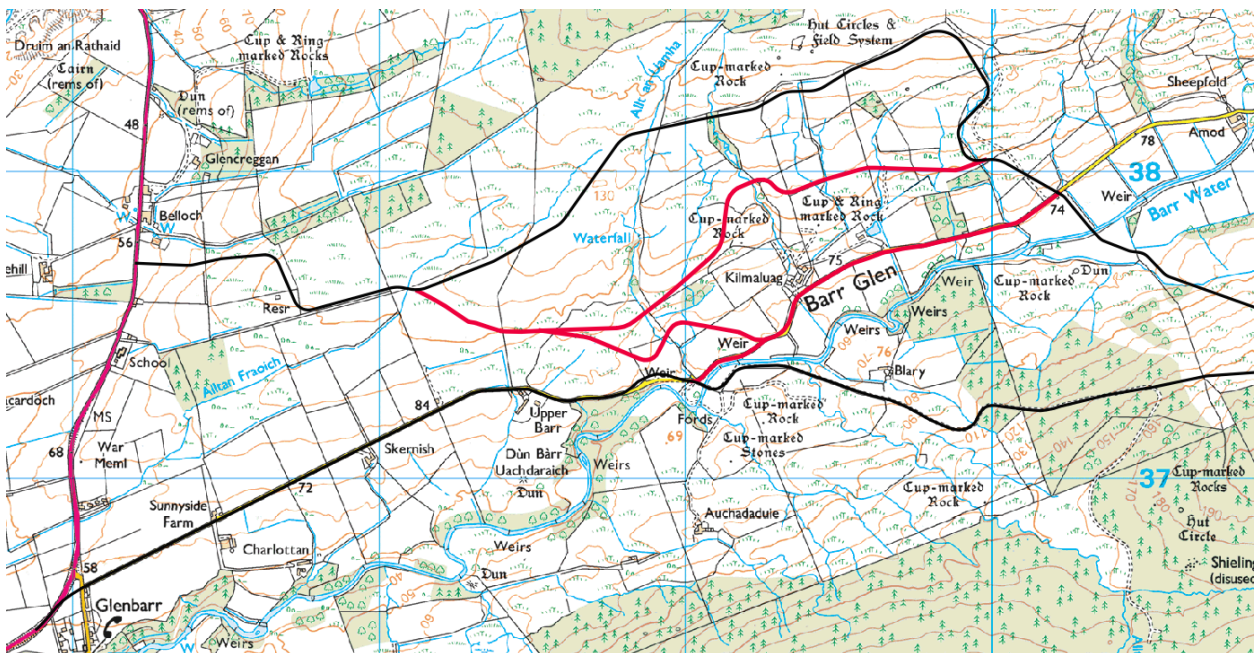
Allt Domhain Wind Farm final design – 9 turbines with mixed tip heights of 200m and 230m

Site Access Design Evolution

- 4.8 Construction traffic and the turbine delivery route has been noted and raised throughout the design and pre application consultation process as a key concern surrounding the proposed development. Consequently, the routing and orientation of proposed access routes has been subject to an extensive evolution as multiple variations of site access tracks have been assessed and proposed for consultation and input. The site access design requirements evolved to consider two key factors, minimising disturbance to local residents of Glenbarr village and the Barr Glen whilst maximising existing highway infrastructure.
- 4.9 A range of routing options through the Glenbarr village and along the Barr Glen Road to the site were assessed, utilising varying extents of the highway before travelling eastwards on new and existing track to meet the main windfarm site area. Technical and topographical constraints have limited the extent of travel up the Barr Glen. In addition, concerns over disruption to local residents prompted a review of access options and an

endeavour to propose a bypass route option around the Glenbarr village and Barr Glen residents.

- 4.10 Various bypass route options have been assessed to route construction and operational maintenance traffic on new site access tracks around residents of the Barr Glen area. Multiple track routings have been assessed, connecting with existing highway at varying points and taking varying new track lines up the glen. The final bypass design routes site access tracks on a high line up the glen, maximising setback distances from residents whilst considering the results of extensive survey works to identify a track route that imposes minimal environmental impact.



Allt Domhain Wind Farm access route options between the A83 and the main windfarm site. Access routes shown in black are proposed within this application. Access routes shown in red have been assessed and disregarded

- 4.11 This application proposes two site access routes, however, only one route be realised, should the proposed development receive consent it is proposed that this decision by subject to a planning condition. The two proposed routes prioritise different key considerations and have been refined through an extensive access design process. The two route options have been designed to facilitate the delivery of turbine components with swept path assessments undertaken to assess the extent and location of any required upgrades.
- 4.12 The proposed access routes are detailed in full in NTS Figure 2b.

5 RENEWABLE ENERGY AND PLANNING POLICY

Introduction

- 5.1 National and local planning policies, guidance and other material considerations are considered to be relevant in underpinning the EIA Report for the proposed development.
- 5.2 To maintain impartiality, the EIA Report does not assess whether the proposed development would comply with the identified policies. A Planning Statement, separate from the EIA Report, assesses the compliance of the proposed development with the Development Plan and other material considerations is provided.
- 5.3 The review of the relevant policy and material considerations adopts the following structure:
- The Development Plan
 - Argyll and Bute Local Development Plan 2 2024(LDP); and
 - National Planning Framework 4 (NPF4).
 - Other Material Considerations
 - Scottish and UK Renewable energy and climate change legislation and policy; and
 - Argyll and Bute Wind Landscape Capacity Study (ABLWECS)

The Development Plan

- 5.4 The Local Development Plan 2 sets out a settlement strategy and spatial framework for how Argyll & Bute Council envision the development of Argyll and Bute.
- 5.5 Formally adopted in February 2023, NPF4 now forms part of the Development Plan alongside the LDP and is the clearest expression of national policy which all Local Development Plans must adhere to.
- 5.6 Both documents provide clear policy support for renewables and specifically onshore wind energy as a principle, in order to reach Scotland's Net Zero obligations by 2045 as set out in law. Their policies underpin the EIA Report and influence all aspects of development, from design to habitat enhancement.
- 5.7 The Scottish Government is clear and unequivocal about the requirement for new onshore wind generation through legislation and policy.

Other Material Considerations

- 5.8 Within the EIA Report, this section discusses the most relevant material policy considerations at the time of writing. This includes national planning policy in Scotland, the latest developments in Scottish and UK Government policy, and other local material considerations.

6 LANDSCAPE AND VISUAL

Introduction

- 6.1 The Landscape and Visual Impact Assessment (LVIA) has been undertaken in accordance with best practice guidance by chartered landscape architects at WSP. The assessment process has encompassed periods for the construction, operation, and decommissioning of the proposed development, the latter of which entails the reversal of most of the landscape and visual effects. Although the operation period of the proposed development is for the duration of 35 years (described in the assessment as 'long-term' and reversible) it has been assessed in the same manner as permanent development.
- 6.2 The proposed development is located on the central upland 'spine' of the Kintyre peninsula between the existing Blary Hill and Beinn an Tuirc I wind farms, approximately 5.3km east of the A83 and 6.15km east of the settlement of Glenbarr. The Site is located within the *Upland Forest Moor Mosaic* landscape character type (LCT) as classified in the Argyll and Bute Landscape Wind Energy Capacity Study, August 2017 (ABLWECS).

Mitigation

- 6.3 The design of the proposed development has evolved from an iterative design and assessment process that has been guided by ABLWECS and NatureScot's *Siting and Designing Windfarms in the Landscape*. The advice in the ABLWECS and the scoping opinion has led to design refinements that have responded to the local landscape character, scale and form, to provide an improved 'landscape fit'. The proposed development has evolved from the scoping stage, through the design process which has involved a number of iterations. This has led to a reduction in the horizontal and vertical scale of the proposed development and a reduction in turbine numbers from 12 to 9 and reducing the horizontal extent of the proposed development.
- 6.4 All of the mitigation related to landscape, visual and cumulative effects is 'built-in' or embedded into the design of the proposed development and no additional mitigation or enhancement is proposed. This includes the Lighting Strategy for the aviation warning lights and works related to the site infrastructure and the proposed access road to integrate these features into their landscape setting, post construction.
- 6.5 A key consideration for the proposed development was the landscape character and expansive scale and simplicity of the host *Upland Forest Moor Mosaic* LCT which has a reduced susceptibility to very large turbines in comparison to other smaller scale and complex landscape character types. The visual composition and layout design was guided by the following general design principles:
- The avoidance of overlapping or 'stacked' turbines through careful placement, where possible in order to form a well-spaced group or array when viewed from the receiving landscape including key design viewpoints;
 - The avoidance of outlying turbines which appear separate or stand apart within the landscape in order to reduce the lateral spread of the proposed development;

- The selection of an appropriate turbine height which respect the scale of the receiving landscape and achieves a balanced composition when viewed from the surrounding landscape whilst recognising that current wind turbine technology has progressed with larger turbines required for greater energy efficiency; and
- The development of a layout which relates well to other existing and proposed wind farms within the local area, as well as being coherent in isolation.

6.6 Whilst it may not be possible for the general design principles to be fully achieved (for example it is not possible to avoid all turbine overlap), the establishment of these general principles as part of the design process is important in order to demonstrate appropriate mitigation. Notably, the design process evolved through a number of stages or interim layouts and collectively the following landscape mitigation was achieved:

- The initial 12 turbine layout was established by taking account of a 1.5km buffer from the nearest inhabited residential properties with the site location being removed from any landscape designations;
- The layout has 'pulled back' some of the turbines from the northwest and east where they would be more visible from Barr Glen, the east coast of Kintyre and the Isle of Arran, particularly western coastal locations. Visibility from the A83 (Kintyre 66 Tourist Route) is also limited as a result of this pull back. This has also resulted in the location of the turbines being on the central upland spine of the Kintyre peninsula;
- Three turbines were removed from the original layout and the turbine height was selected in response to the landscape scale, character and 'fit' with other wind farm development, with the turbine height of five turbines set at 230m and the remaining four turbines at 200m to blade tip;
- Special attention was paid to the extent of visibility of the turbines from the west coast of Arran which has minimised hub visibility and reduced the presence of aviation warning lights;
- Special attention was also paid to the visual composition of the turbines and the cumulative appearance of the proposed development alongside Blary Hill and Beinn an Tuirc wind farms. It is to be noted that subject to its extension, Beinn an Tuirc I is likely to be decommissioned in the same year as the start of the construction phase of the proposed development, thereby reducing the cumulative effect; and
- Design consideration was also given to the cumulative design of the neighbouring wind farms including Blary Hill and Beinn an Tuirc which create one 'wind farm group' or cluster.

Residual Landscape Effects

6.7 The proposed development is not located within any designated landscapes or WLAs and there would be no significant effects on the special landscape qualities of the North Arran NSA or any of the locally designated LLAs in Argyll.

6.8 However, significant effects resulting from large-scale wind farm development are unavoidable and the proposed development would have a significant (and cumulative) effect on part of the 'host' *Upland Forest Moor Mosaic* landscape, affecting a local area within approximately 2 – 3km of the proposed turbines mainly to the north, northwest and northeast. There would be no significant effects to the west, southwest, east, south and

southeast due to the presence of the existing Blary Hill and Beinn an Tuirc I, II and III wind farms which already have an influence on this part of the LCT. This level of effect, and geographical extent, is not unusual for wind farm development.

- 6.9 There would be no significant effects on any of the surrounding LCTs.

Residual Visual Effects

- 6.10 The viewpoint analysis indicates that significant visual effects are likely to affect limited locations within approximately 6.3km distance from the proposed development (subject to a clear view of the proposed turbines, landform and vegetation screening), as indicated by viewpoints 1-4 inclusively. The greatest magnitude of change is visible at Viewpoint 1 (High) and Viewpoints 2-3 (High-Medium) (all other viewpoints are assessed as of Medium-Low or less). It may be noted that the visual composition of the proposed development presents as a simple and cohesive wind farm set within a large-scale landscape where there is a strong visual rationale for its location on the 'central spine' of the Kintyre peninsula, adjacent to an existing cluster of wind farm development comprising Beinn an Tuirc I / II and Blary Hill, with Beinn an Tuirc III and Auchadaduie located slightly further afield. The effects on viewpoints 1-4 would also be cumulative. There would be no significant visual effects from the east (including the Isle of Arran), northeast, southeast, south and southwest of the proposed development. This also includes no significant effects from the Isles of Gigha, Jura and Islay further to the northwest.
- 6.11 There would be significant effects on the views from the northern and eastern edges of the settlement at Glenbarr. A Residential Visual Amenity Assessment (RVAA) has been conducted for those properties within approximately 3km of the proposed development. The results of the RVAA are reported in Technical Appendix 6.3 and confirm that although the views from five of the six properties would be significant, none of the properties would breach the residential visual amenity threshold.
- 6.12 Significant visual effects would be limited to sections of two transport routes:
- Up to approximately 1km of the A83 (also Kintyre 66 Tourist Route) between Glenbarr War Memorial and the junction south of Glenbarr; and
 - Up to approximately 3.2km of the Barr Glen unclassified road for eastbound users (and temporary significant effects as a result of the southern route option).
- 6.13 There would be significant visual effects from parts of the following two recreational routes:
- Kintyre Way (overlapped with Core Path C094b); and
 - Core Path C304 (southern section of the route for around 0.4km).
- 6.14 There would be significant visual effects on one recreational and tourist destination at Glenbarr War Memorial, although the primary views westwards out to sea would be unaffected by the proposed development.
- 6.15 None of the remaining visual receptors would be significantly affected by the proposed development.

- 6.16 The Lighting Strategy for the aviation warning lights would result in no significant night-time effects.

7 ECOLOGY

Introduction

- 7.1 This chapter assesses the likely ecological effects of the construction, operation and decommissioning of the proposed development on ecological receptors. A full assessment of effects is provided in Chapter 7: Ecology of the EIA Report.

Baseline

- 7.2 Baseline conditions for the proposed development were established through a desk-based assessment and field surveys, including:
- Desk-based assessment to identify designated sites and protected/notable species;
 - Field surveys for habitats and vegetative communities; and
 - Field surveys for protected and notable terrestrial and aquatic species.
- 7.3 Only one designated site was located within a 2km of the proposed development, the Bellochantuy Bay Local Nature Conservation Site (LNCS) which is situated approximately 1.5km from the Site. A request to the Argyll Biological Records Centre for records of protected and notable species within 2km of the Site (all species) and 10km of the site (bat species only) returned one record of western hedgehog from 2021 and one record of fabricus' nomad bee from 2023.
- 7.4 Habitat mapping surveys (UK Habitat Classification (UKHab) and National Vegetation Community (NVC)) were undertaken between 2022 and 2025 within the proposed development site plus buffer of up to 200m.
- 7.5 The broad habitats present within the Access Track Site included:
- Arable and cropland;
 - Blanket bog and purple moor grass and rush pastures;
 - Grasslands (acid, neutral, modified);
 - Upland heathland;
 - Hedgerows and scrub;
 - Woodlands, including Western acidic oak woodland; and
 - Developed and urban habitats.
- 7.6 The broad habitats present within the Main Wind Farm Site included:
- Blanket bog and purple moor grass and rush pastures;
 - Grasslands (acid, neutral, modified);
 - Upland heathland; and
 - Woodlands, including Western acidic oak woodland.

- 7.7 Potential groundwater fed terrestrial ecosystems (GWDTEs) were identified within the Access Track Site and Main Wind Farm Site, but an assessment of hydrological conditions concluded that these were unlikely to be groundwater dependent.
- 7.8 Protected species surveys were undertaken between 2023 and 2025. These surveys found:
- Otters are using watercourses within the Site, mainly in the bigger watercourses (Barr Water, Abhainn a' Chnocain).
 - Pine marten are using the Main Wind Farm Site, but no field signs were observed in the Access Track Site.
 - Suitable habitat for red squirrel was observed in woodlands within the Main Wind Farm and Access Track Sites and foraging signs (e.g., stripped pine cones) indicative of squirrels were observed.
 - Suitable foraging and refuge habitat for reptiles was observed and common lizard and adders were observed.
 - Field signs for water vole was recorded in the Main Wind Farm and Access Track Sites.
 - No field signs for badgers were recorded, but suitable habitat was present through the site, particularly the Access Track Site.
 - Suitable foraging and commuting habitat for bats was recorded throughout the Main Wind Farm and Access Track Sites. Static detectors were deployed within the Main Wind Farm Site and recorded overall low activity at most detector locations, but high activity was recorded at one static located close to Abhainn a' Chnocain.
 - Brown trout were widely distributed in the Main Wind Farm Site and Access Track Site. Atlantic salmon were present in Abhainn a' Chnocain and the Barr Water downstream of natural obstacles to migration.

Construction Effects

- 7.9 Potential effects to habitats and protected/notable species during the construction phase of the proposed development were considered.
- 7.10 Total permanent direct habitat loss as a result of the proposed development is approximately 12.02 hectares (ha), equating to approximately 1.80% of all habitats within the Site. Temporary effects to habitats equates to 19.85ha or 2.97% of the total habitats present, whilst ongoing indirect effects from the footprint of the development to habitats was calculated as 0.55ha or 0.08% of the site. A moderate adverse (significant) effect on peatland habitats was identified, but effects on other habitats were not significant (minor adverse or negligible).
- 7.11 Several impacts to protected species were identified including:
- Temporary and permanent habitat loss and fragmentation;
 - Habitat degradation due to pollution events;
 - Disturbance; and
 - Injury and/or mortality.

7.12 No significant effects were identified for any of the protected species scoped into the assessment, when embedded mitigation measures were taken into account.

7.13 No cumulative impacts during construction were identified.

Operation Effects

7.14 The following operational impacts were identified for habitats and protected species:

- Habitat degradation due to pollution events;
- Disturbance;
- Injury and/or mortality; and
- Habitat fragmentation.

7.15 All effects during the operation of the proposed development were considered to be minor adverse or negligible and not significant.

7.16 The cumulative impact assessment found that the proposed development is likely to impact bats through habitat fragmentation and increased risk of injury and/or mortality when considered in combination with several adjacent operational wind farms. A moderate adverse (significant) effect was identified.

Mitigation

7.17 Embedded mitigation measures were considered in the impact assessment and included:

- The design of the proposed development avoided sensitive features (e.g., deep peat, watercourses).
- Works will be timed to avoid sensitive periods for relevant species.
- Standard pollution prevention measures will be in place during all construction works.
- After an Access Track Option is identified, further surveys will be undertaken to determine presence/absence of bat roosts.
- Pre-constructions surveys for protected species will be undertaken before construction to update the baseline and inform the need for any licencing.
- A Construction Environment Management Plan, including Pollution Prevention Plan and Peat Management Plan, will be in place during all construction works.
- An Environmental Clerk of Works will be present throughout the duration of the construction phase of the proposed development.

7.18 Additional measures to mitigate against the significant effects to peatland habitats and bats (cumulative effect) include:

- Restoration of 313ha of peatland habitats will be undertaken to offset the impacts of the proposed development on peatlands; and
- Feathering and operational monitoring (i.e., carcass searching) will be undertaken to mitigate against cumulative impacts on bats during operation of the proposed development.

Residual Effects

- 7.19 After the additional mitigation measures were considered, the residual effect to peatland habitats was concluded to be minor beneficial and all other residual effects were concluded to be minor adverse or negligible.

8 ORNITHOLOGY

Introduction

- 8.1 Chapter 8 of the EIA Report provides an assessment of the potential effects on the important ornithological features associated with the construction, operation and decommissioning of the proposed Allt Domhain Wind Farm development.

Baseline

- 8.2 A desk study and field surveys were conducted to provide the baseline conditions from which the impact assessment is based. These included:
- 8.3 Habitats supporting breeding, passage or wintering birds that are a qualifying interest of any designated site of conservation interest for birds within 20 km of the proposed development; and/or
- 8.4 Daily or seasonal periods of sensitivity for breeding, passage or wintering birds that are a qualifying interest of any designated site of conservation interest for birds within 20 km of the project.

Designated Sites and Desk Study Area

- 8.5 Three internationally designated sites of ornithological interest are present within 20 km of the Site: the Kintyre Goose Roost SPA and Ramsar site, the Sound of Gigha SPA and Arran Moors SPA. Further details of all three sites are presented below.
- 8.6 There are no nationally designated sites of ornithological interest within 2 km of the Site.

Kintyre Goose Roosts SPA and Ramsar Site

- 8.7 The Kintyre Goose Roosts SPA and Ramsar site covers 409.2 hectares (ha) and 309.25 ha respectively. They comprise of a series of five hill lochs, Loch Garasdale, Loch an Fhraoich, Loch Lussa, Tangy Loch & Black Loch; and an area of grassland and heath at Rhunahaorine Point on the Kintyre peninsula. The boundaries of Rhunahaorine Point SSSI, Tangy Loch SSSI and Kintyre Goose Lochs SSSI are all within the SPA. The Kintyre Goose Roosts Ramsar site is also completely within the boundary of Kintyre Goose Roosts SPA.
- 8.8 Greenland White Fronted Geese (GWFG) roost on the various lochs included in the SPA and on the grassland and heath at Rhunahaorine Point. These roosts all held internationally or nationally important numbers during the mid-1990s (when the site was designated). The geese use several other roosts on Kintyre but their use is more sporadic and the geese are not present in nationally important numbers. There are two main populations of GWFG, one which feeds on improved agricultural land around Rhunahaorine Point with significant roosts on Rhunahaorine Point, Loch an Fhraoich and

Loch Garasdale; and another which feeds on improved agricultural land in the Laggan area with significant roosts on Loch Lussa, Tangy Loch and Black Loch (SNH 1998³).

- 8.9 The Kintyre Goose Roost SPA and Ramsar site, which is made up of several lochs, and is designated for its non-breeding population of GWFG, is located approximately 4.20 km from the nearest part of the Site boundary.

The Sound of Gigha SPA

- 8.10 The Sound of Gigha SPA, designated for coastal/marine non-breeding waterbirds and located approximately 6 km to the west is not considered to have any connectivity with the Site and therefore is not considered further. This is because the Site does not have suitable breeding or foraging habitat to support the wintering, marine SPA qualifying bird species.

The Arran Moors SPA

- 8.11 The Arran Moors SPA located 14.86 km east of the Site is designated for breeding hen harrier. NatureScot Guidance (2016) states hen harrier have a core foraging distance of 2 km with a maximum range of 10 km during the breeding season. Consequently, hen harrier is not considered to have any connectivity with the Site and therefore is not considered further.

Sites of Special Scientific Interest

- 8.12 These are designated under national legislation (rather than European) to protect different biological and geological features of interest. Each site and important ornithological feature are detailed in Table 8 of the Ornithological Technical Appendix 8.1.
- 8.13 In general, the bird assemblage recorded in the years 2018-2020 and 2023-2025 was consistent throughout. The ornithological survey programme was developed based on the particular ornithological sensitivities which are anticipated to occur at the site.

Baseline Bird Populations Within the Vicinity of the Site included;

- Curlew;
- Greylag Goose;
- Red Throated Diver;
- Whooper Swan;
- Merlin;
- Barn Owl;
- Snipe;
- Greenland White Fronted Goose; and
- Other Passerine Species.

³ <https://www.nature.scot/sites/default/files/special-protection-area/8518/spa-citation.pdf>

Construction Effects

Disturbance

- 8.14 The assessment was undertaken under the assumption that a Bird Protection Plan (BPP), will be devised in consultation with NatureScot, this would be in place prior to the onset of construction activities. The BPP would describe survey methods for the identification of sites used by protected birds and will detail protocols for the prevention, or minimisation, of disturbance to birds as a result of activities associated with the Site.

Habitat Loss (Direct and Indirect Due to Displacement) During Operation

- 8.15 As set out in Chapter 7: Ecology, the construction of turbine bases, access tracks and other associated infrastructure will result in a direct loss of approximately 12.02 hectares of habitat. Most of the habitat lost will be acid grassland and bog. Full details are provided in Chapter 7: Ecology.

Operation Effects

- 8.16 VP surveys allowed for the collection of flight path data for target species which may fly or forage over the Site. In terms of these species, levels of flight activity by golden plover, golden eagle, white-tailed eagle, hen harrier, black grouse, osprey and curlew recorded within the airspace where turbines are proposed warranted collision risk modelling (CRM). Levels of flight activity for other species of medium or high value were considered insufficient to warrant detailed CRM. Full details of all CRM for golden plover, golden eagle, white-tailed eagle, hen harrier, black grouse, osprey and curlew are set out in Technical Appendix 8.2 using the accepted avoidance rates recommended by NatureScot (2018).

Mitigation

- 8.17 Proposed mitigation measures include implementation of a Breeding Bird Protection Plan (BPP).
- 8.18 Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to kill or injure any bird, or to damage or destroy nests and eggs. Breeding species listed on Schedule 1 of the WCA are afforded additional protection from disturbance.
- 8.19 Embedded mitigation with relevance to ornithological receptors, includes the implementation of a BPP to protect breeding and roosting birds in accordance with relevant legislation.
- 8.20 To ensure that mitigation measures are reactive to changing conditions on the Site and compliance with legislation protecting breeding birds, the BPP would be overseen by a suitably experienced and licensed Ecological Clerk of Works (ECoW), who would attend the Site regularly to make or oversee observations of birds present in and around areas where works are planned, and identify any potential constraints to works and/or reactive mitigation needs.

Cumulative and Residual Effects

- 8.21 The potential cumulative effects of the proposed development and other wind farm projects on populations of raptor species were considered to be unchanged.
- 8.22 The ornithology assessment concludes that, following the implementation of mitigation, no significant residual effects are predicted. The full assessment of effects is provided in Chapter 8 of the EIA Report.

9 GEOLOGY, HYDROLOGY AND PEAT

Introduction

- 9.1 The Geology, Hydrology and Peat Chapter describes the baseline conditions at the Proposed Development and the assessment methodology that has been followed to identify any likely significant effects to these receptors, whilst considering any mitigation measures that may be required to reduce and minimise any adverse effects.
- 9.2 A combination of desk study and field survey work has been undertaken to identify and characterise geological, hydrological and hydrogeological receptors which may be subject to impacts from construction and operation of the proposed development.

Baseline

- 9.3 The main windfarm development area and the eastern extent of the main access track route are shown to be underlain by metamorphic bedrock of the Beinn Bheula Schist Formation. Central parts of the routes of the two access track options are shown to be underlain metamorphic bedrock of the Green Beds Formation, with bands of the Glen Sluan Schist Formation and the Loch Tay Limestone Formation also noted. The eastern extent of both access track routes are underlain by metamorphic bedrock of the Ben Lui Schist Formation.
- 9.4 A geological fault running from north-east to south west and roughly following the valley of the Barr Water is noted to cross through the central area of the site. It is noted that the proposed route of the northern bypass access track will cross this fault line in an area situated immediately to the north of the Barr Water
- 9.5 Bedrock across the majority of the site is overlain by Till. A localised area of Glaciofluvial Sheet Deposits are situated in the north of the site. Localised areas of Alluvium and River Terrace Deposits are shown to be present in the vicinity of the Barr Water in central and south-western parts of the site. Localised areas in the far north eastern part of the main windfarm development area and in the central part of the site are shown to have little or no superficial material. Reference to the SNH Carbon and Peatlands Map 2016, indicates that the majority of the main windfarm development area is covered by Class 1 peat, with areas of Class 2 peat noted in western and north eastern extents of the windfarm area. Peat deposits are not mapped along the majority of both access routes with localised areas of Class 4 peat noted to be present in central parts of the proposed northern bypass route and at the eastern extent of the main access track.
- 9.6 Detailed peat surveys undertaken in July 2020 (Phase 1a), September 2024 (Phase 1b), October 2024 (Phase 1c and Phase 2a/2b), February 2025 (Phase 2c/1d) and March 2025 (Phase 2d) identified variable thicknesses of peat across the site, with areas of deep peat (>1.0m) limited to north eastern, eastern and southern areas of the site.
- 9.7 The condition of peat deposits encountered during these surveys were considered to be highly degraded, primarily due to the presence of artificial drainage within the main

windfarm development area and high levels of grazing by sheep. Accordingly it does not exhibit Class 1 criteria.

- 9.8 The main windfarm development area is drained by three named watercourses. Allt a' Bhlairst is situated in the north, Allt Domhain is situated in the centre and Allt an Tuirc is located in the south. These drain in a westerly direction towards Abhainn a' Chnocain, which flows in a northerly direction and discharges into the Barr Water approximately 500m north of the site. The Barr Water flows away from the main windfarm development area in a westerly direction and passes through the central part of the development area. Alltan Fraoich and Allt an Uamha are noted to be located in the western part of the development area along with a number of other unnamed tributaries of the Barr Water.
- 9.9 Four new water crossings will be required in the main windfarm development area, where new access tracks will be required to traverse on-site watercourses. A total of eight new water crossings will require to be constructed and five existing watercourse crossing will require to be upgraded for the proposed Blary Hill access route, while a total of eighteen new water crossings (including a bridge structure across the Barr Water) will require to be constructed for the proposed northern bypass access route.
- 9.10 Extensive design iteration works have been undertaken to avoid siting turbines or other infrastructure on deep peat wherever possible. This has resulted in areas of deep peat being avoided in the siting of the majority of the proposed turbine locations and the majority of access track sections. Some localised track lengths are noted to be sited on deep peat particularly in eastern and southern parts of the site and will be floated as a result. Care has been taken to avoid the deepest areas of peat in these areas.
- 9.11 A peat slide risk assessment has identified low risks at all turbine and other infrastructure locations.

Construction Effects

- 9.12 Potential construction effects arising from the proposed development (in the absence of mitigation) include the following:
- Risk of pollution of watercourses from increased sediment runoff arising from excavations, exposed ground and / or the formation of temporary stockpiles. Additionally, pollutants such as oils, fuel and cement may be spilt and carried into watercourses via surface drainage.
 - Changes to the groundwater flow regime as a result of excavation works required to be undertaken as part of the proposed development.
 - The removal of peat to facilitate construction of the proposed development.
 - Construction works may destabilise peat deposits and lead to slope failure, which could result in pollution / sedimentation of downslope watercourses.
 - Construction works undertaken in proximity to watercourses may impact upon their banking either directly via damage to bankside material or indirectly via loosening

of soil structure, which may result in impacts to water quality via erosion and or collapse.

- Unless appropriately sited and managed, there is potential for direct discharge of untreated foul sewage from welfare facilities from site compounds during construction.

Operation Effects

9.13 Potential operational effects arising from the proposed development (in the absence of mitigation) include the following:

- Access tracks, crane hardstandings and unrestored areas may result in an increased rate of surface water run-off. This may increase downstream flood risk and potentially result in soil erosion and silt-laden run-off, which may pollute watercourses.
- If the design of the new and upgraded watercourse crossings and bridge (if required) do not ensure continuous water flow, there may potentially be an adverse effect on their geomorphology.

Decommissioning Effects

9.14 Potential effects of decommissioning the proposed development are similar to those encountered in the construction phase, however, generally with less magnitude as the level of site activity is lower.

Mitigation

- 9.15 Proposed mitigation measures to avoid or reduce potential impacts, include developing and implementing a Construction Environmental Management Plan (CEMP), construction of floating roads if required to be constructed in areas of deep peat, undertaking pre-construction site investigations to assist with detailed water crossing design, inform micro-siting and assist with avoiding sensitive receptors where possible, surface water quality monitoring and implementing a Peat Management Plan and a Habitat Management Plan to restore peatland habitat.
- 9.16 Outline drainage design provisions, including detailed flood risk assessment and water crossing / bridge designs will be developed to ensure appropriate controlled of run-off, and continuous surface water flows. Detailed designs will be agreed with SEPA and Argyll and Bute Council in advance of construction.

Residual Effects

9.17 Following implementation of committed mitigation measures, the significance of residual effects on geology, hydrology and peat is considered to be not significant. No cumulative effects are predicted.

10 CULTURAL HERITAGE

Introduction

- 10.1 Chapter 10 considers the potential effects of the proposed development on Cultural Heritage.

Baseline

- 10.2 The assessment has identified ten potential receptors for significant effects via changes to the setting of heritage assets (ten Scheduled Monuments within a Study Area of 10km from the proposed turbine positions) in addition to a high potential for archaeological remains of prehistoric, early medieval and post-medieval date within the Site.

Construction Effects

- 10.3 The construction of Site infrastructure including access tracks, has potential to disturb or remove previously recorded and unrecorded archaeological remains within the Site in the absence of mitigation. Prior surveys have recorded evidence for this, with prior surveys having recorded evidence for shielings and farmsteads close to proposed turbine positions and wind farm infrastructure.

Operation Effects

- 10.4 While the proposed development would introduce a new, visible and clearly modern visual component to views of and from the receptors assessed, none of the associated effects are considered to be more than minor adverse and no significant effects are anticipated through change to setting. Potential cumulative effects have been identified on a scheduled monument at Skeroblin Hill (SM3108) in association with a separate potential wind farm development currently in the pre-application (Scoping), application and consented stages. It is not anticipated that these cumulative effects would be any more significant on the settings of these monuments.

Mitigation

- 10.5 Potential effects on archaeological features identified within the Site would be mitigated, in the first instance, by explicit avoidance, where feasible, of the identified features within the Site by proposed access infrastructure (tracks, borrow pits, laydown areas, compounds). Effects on features identified within the Site during the construction phase could be effectively mitigated by an agreed programme of archaeological works prepared in consultation with Argyll and Bute Council and subject to condition. The programme methodology would be set out in a written scheme of investigation (WSI) and could incorporate pre-deforestation survey and an archaeological watching brief.

Residual Effects

- 10.2 Following the implementation of mitigation measures through design and the implementation of a programme of archaeological works referenced above, no residual effects are anticipated.

11 NOISE

Introduction

- 11.1 A noise assessment was undertaken to determine the potential significant noise effects from the construction and operational phases of the proposed development.

Baseline

- 11.2 Baseline background noise monitoring was undertaken for the neighbouring operational Blary Hill Wind Farm at properties proximate to the proposed development. Therefore, the background noise levels presented within the noise assessment for Blary Hill Wind Farm were also used to set the Total ETSU-R-97 Noise Limits for the proposed development.

Construction Effects

- 11.3 The construction noise assessment has been undertaken using guidance contained in BS5228: Part 1 2009+A1:2014 (BS5228). The prediction of construction noise levels was undertaken using the calculation methodology presented in ISO9613:1996 (International Standards Organisation, 1996), together with published noise data for appropriate construction plant.
- 11.4 Predictions of noise at the nearby receptors from construction activities indicate that there would be no significant effects at the nearby noise sensitive receptors. No specific noise mitigation measures are required beyond good practice during construction.

Operation Effects

- 11.5 The operational noise assessment has been undertaken in accordance with ETSU-R-97 'The Assessment and Rating of Noise from Wind Farms' and the Institute of Acoustics (IOA) Good Practice Guidance (GPG).
- 11.6 Predictions of wind turbine noise from the proposed development have been made in accordance with good practice using a candidate wind turbine, the Vestas V162 7.2 MW with serrated trailing edge blades.
- 11.7 The results show that the predicted wind turbine noise levels from the proposed development operating on its own meet the Site Specific Noise Limits under all conditions at NALs during the daytime and night-time period, should NALs 1-3 be considered financially involved. As such there would be **no significant effects**.
- 11.8 If NALs 1-3 are not financially involved with the proposed development, then exceedances of up to 2.4 dB at NAL1, 2.2 dB at NAL2, and 2.3 dB at NAL3, within the windspeed range 6 to 8 ms⁻¹ are predicted during the daytime period. As such there would be **significant effects prior to any mitigation**.

Mitigation

- 11.9 The assessment assumes a targeted use of mode management for a limited range of wind speeds and directions for daytime periods to demonstrate that the noise limits can be adhered to. Depending on the final turbine selected for the Site, blade type and confirmation of final warranted levels from the chosen manufacturer, mode management may or may not be required. It is anticipated that noise limits would be secured by an appropriately worded planning condition.

Residual Effects

- 11.10 Predicted wind farm construction noise levels are below the assessment criteria at all receptors, for all phases of construction. Due to the low background noise levels at some locations, elements of construction noise may be audible at the closest residential receptor for certain periods during the construction phases. There would be **no significant residual effects from construction noise**.
- 11.11 The results of the noise assessment show that, subject to the adoption of mitigation measures in the form of low noise mode operation should NALs 1-3 be considered non-financially involved, the predicted cumulative wind turbine noise levels would meet the Total ETSU-R-97 Noise Limit, and predicted noise levels from the Proposed development would meet the Site Specific Noise Limits, under all conditions and at all locations for both daytime and night-time periods. Accordingly, there would be **no significant residual noise effects**.

12 TRANSPORT AND ACCESS

Introduction

12.1 Access for the proposed development will be taken via one of the options detailed below, both of which will facilitate construction traffic, Abnormal Indivisible Load (AIL) deliveries and ongoing operational access to the proposed development:

- Access Option 1 - From the A83 (T) via Barr Glen Road (C20) through to the Blary Hill Wind Farm access junction; and
- Access Option 2 - From the A83 (T) via a newly constructed junction and access track to the north of Glenbarr Primary School, by-passing Barr Glen Road (C20) in its entirety, tying into the main Site access junction to the west of Arnicle.

Baseline

12.2 Strategic access for the proposed development will be taken from the A83 (T) to the west, either via the existing road network (Barr Glen Road (C20)) or via a new access junction located to the north of Glenbarr Primary School.

12.3 AILs associated with the wind turbines will be delivered from the Port of Entry (PoE) at Campbeltown Harbour and travel through to the Site using Hall Street and A83 (T) or Hall Street, A83 (T) and Barr Glen Road (C20) depending on which access option is progressed. AIL loads may also make use of the Macc Base facility to store turbine components if necessary.

12.4 The study area comprises the following road links:

- A83 (T) between Campbeltown and Tarbert;
- Barr Glen Road (C20); and
- Hall Street, Campbeltown.

Construction Effects

12.5 The proposed development would lead to a temporary increase in traffic volumes on the study road network during the construction phase. Traffic volumes would decrease considerably outside the peak period of construction.

12.6 The peak of construction activity is expected to occur in month six for the proposed development, regardless of which access option is progressed.

12.7 In the scenario whereby Access Option 1 is progressed, there will be a total of 6,268 vehicle movements, which equates to 286 vehicle movements per day, comprising 250 two-way HGV movements and 36 two-way car / LGV movements. This would equate to approximately 24 two-way total vehicles movements or 20 two-way HGV movements per hour, across a typical 12-hour day, assuming a flat traffic profile i.e. vehicles distributed evenly across the day.

- 12.8 In the scenario whereby Access Option 2 is progressed, there will be a total of 6,836 vehicle movements, which equates to 312 vehicle movements per day, comprising 276 two-way HGV movements and 36 two-way car / LGV movements. This would equate to approximately 26 two-way total vehicles movements or 23 two-way HGV movements per hour, across a typical 12-hour day, assuming a flat traffic profile i.e. vehicles distributed evenly across the day.
- 12.9 No road capacity issues are expected on any of the roads within the study area due to the additional construction traffic movements associated with the proposed development as background traffic movements are low.
- 12.10 The assessment of significance suggests that the following would experience overall significant effects in accordance with the EIA Regulations, prior to the application of mitigation measures:

Access Option 1

- Barr Glen Road (C20) Users;
- Residents of Campbeltown;
- Residents along the Barr Glen Road (C20); and
- Residents in Glenbarr.

Access Option 2

- Residents of Campbeltown; and
- Residents in Glenbarr.

Operational Effects

- 12.11 Traffic levels during the operational phase of proposed development would be approximately two vehicles per week for maintenance purposes. Traffic levels during the decommissioning of the proposed development are expected to be lower than during the construction phase as some elements could be left in situ and others broken up on Site.

Decommissioning Effects

- 12.12 The traffic effects during the decommissioning phase can only be fully assessed closer to that period, 35 years on from the completion of the site. As elements of the development are likely to remain in-situ (such as cable trenches, access tracks, etc), the traffic flows associated with the decommissioning works will be lower than those associated with the construction phase. The construction phase therefore represents a worst case assessment and as such, no further assessment of the decommissioning phase has been considered at this point in time and has been scoped out of the assessment.

Mitigation

- 12.13 A number of mitigation measures have been proposed, that can be secured by appropriately worded planning conditions. These include a Construction Traffic

Management Plan, AIL Transport Management Plan and an Onsite Access Management Plan. In addition, should Access Option 1 be progressed additional mitigation measures have been proposed to minimise as far as practicable the impacts at this location.

- 12.14 The movement of AIL traffic would require small scale and temporary remedial works at a number of locations along identified delivery route which is presented in Technical Appendix 12.1.
- 12.15 AIL mitigation works can be designed to be temporary in nature to enable restoration to their original condition (if required by the Council and Transport Scotland).

Overall Effects

- 12.16 The construction period is transitory in nature and all impacts would be short lived and temporary. No significant residual effects are predicted during construction.
- 12.17 The assessment confirms the effects would be minor in nature and they would be not significant. The traffic effects are transitory in nature. No long-lasting detrimental transport or access issues are associated with the construction phase of the proposed development.

13 SOCIO-ECONOMICS

Introduction

- 13.1 The Socio-economic chapter considers the potential effects of the proposed development on Socio-economics, Recreation and Tourism.
- 13.2 It includes Legislation, Policy and Guidance that have informed the assessment, as there is no formal guidance for socio-economic assessments. The Consultation included responses from Argyll and Bute Council, Community Councils in the surrounding area, and the Energy Consents Unit.
- 13.3 The Chapter discusses the methods used to assess Socio-economic, Recreational, and Tourism receptors, and limitations.

Construction Effects

- 13.4 The proposed wind farm (9 turbines, 64.8MW) is estimated to cost between £65-115 million, depending on the cost model used.
- 13.5 Around £40 million is expected to be spent on-site construction, with £7.8 million likely to be spent locally in Argyll and Bute. While less costly and complex than construction, decommissioning will still generate local economic activity, particularly for smaller contractors.
- 13.6 Construction could directly support around 56 full-time equivalent (FTE) jobs in the local area. Including indirect and induced effects (e.g. supply chain, local spending), the project could support approximately 139 FTE jobs in total during construction.
- 13.7 Whilst the overall economic effect is considered minor and not significant at the Council level.

Operation Effects

- 13.8 The wind farm is expected to cost between £1.5-6 million per year to operate, depending on the cost model used. Over its 35-year lifespan, this equates to £53 - £210 million in total;
- 13.9 Around 42% of operations and maintenance costs are expected to be spent locally, equating to approximately £630,000 per year or £22 million over the project's lifetime.
- 13.10 The operational phase could support around 5 full-time equivalent (FTE) jobs annually in the local area. The development is not anticipated to displace existing jobs or negatively impact tourism or recreation.
- 13.11 The effect on the local economy and employment is considered minor and not significant, though still beneficial.

Mitigation

- 13.12 There are no mitigation measures specific to socio-economic effects. However, chapters; 6: Landscape and Visual, 11: Noise, and 12: Transport and Access detail respective measures that will contribute to mitigating the impacts on socio-economic receptors.

Residual Effects

- 13.13 The proposed wind farm development is expected to bring minor but positive economic and employment benefits, though these are not significant under Environmental Impact Assessment (EIA) criteria. While there will be some adverse visual and landscape impacts, and minor to moderate effects on tourism and recreation, these too are not considered significant in EIA terms. When combined with nearby wind farms, the cumulative economic impact remains minor and beneficial, but still not significant.

14 OTHER ISSUES

Introduction

- 14.1 This chapter considers potential effects and features which have been scoped out of full assessment but raise pertinent points for the proposed development or link to other areas of assessment.
- 14.2 Specifically, the purpose of this chapter is to summarise the relevant subject matters to provide context to other areas of assessment. Topics addressed within this chapter include summaries of:
- Aviation, including consultation and potential impacts upon civilian and military airspace and operations;
 - Aviation lighting, which includes a summary of the approach taken and layout agreed with the Civil Aviation Authority (CAA);
 - Results of the carbon calculator exercise to understand and report on the carbon payback of the proposed development; and
 - Shadow flicker, to demonstrate that significant effects on residential receptors are not likely to occur, or where they might, that mitigation is possible.

Aviation and Aviation Lighting

- 14.3 The Applicant commissioned WPAC to produce an aviation lighting and mitigation report and agree a lighting scheme that meets all requirements of the Civil Aviation Authority (CAA) and Defence Infrastructure Organisation (DIO) as well as Highlands and Islands Airports Limited (the operators of Campbeltown and Islay Airports). The CAA approved an obstacle lighting plan for the proposed development, the design of which is detailed in full in Technical Appendix 14.1.
- 14.4 To fulfil all MoD requirements, all nine turbines will be fitted with Infra-Red lights (at hub height) and four turbines will be fitted with ANO compliant medium intensity visible red lights. The infra-red lights are invisible to the naked eye and do not have any impact of the surrounding environment.
- 14.5 Four of the proposed nine turbines will be fitted with visible red aviation lights to fulfil the CAA's requirements, which state that turbines T1, T2, T5 and T8 must be lit with medium intensity steady red (2000 candela) lights.
- 14.6 The aviation lighting scheme will include a range of built in mitigation measures, as detailed in Chapter 14 of the EIA report and associated figures. Such mitigation will reduce the perceived intensity of aviation lighting from ground level. The EIA includes evidence of how light will be contained using directional intensity, and reducing the intensity to 10% of potential brightness for large durations of time where visibility is good.

Carbon Calculator

- 14.7 The results described in the following section use the Scottish Government's Carbon Calculator ⁴ for wind farms on peat to estimate the benefit of displacing conventionally generated electricity in the grid relative to the predicted direct and indirect emissions of carbon resulting from the construction and operation of the proposed development. This includes losses of stored carbon from affected peatland. The Carbon Calculator also provides an estimate of the carbon payback time for the proposed development.
- 14.8 The results of the Carbon Calculator for the proposed development show that it is estimated to produce annual carbon savings in the region of 136,726 tonnes of carbon dioxide equivalent (CO₂e) per year, and lifetime savings of over 4.7 million tonnes of CO₂e. These savings come about through the displacement of grid electricity, based on the current average grid mix.
- 14.9 The estimated payback time (against grid mix) of the proposed development, using the Scottish Government's Carbon Calculator, is estimated at 1.3 years, with a minimum/maximum range of 0.4 to 1.6 years.

Shadow Flicker Effects

- 14.10 There is no standard guidance for assessing shadow flicker in Scotland and therefore the industry along with planning and environmental health professionals in local authorities have, over many years, gathered an understanding of the parameters that are required in order to determine whether or not shadow flicker would be acceptable.
- 14.11 The Scottish Government's Onshore Wind Turbines: Planning Advice (2014)⁵ recommends that a separation distance of 10 times the rotor diameter between turbines and residential properties will mean that shadow flicker should not be a problem.
- 14.12 An assessment of the area surrounding the proposed development using GIS mapping software combined with both aerial imagery and Ordnance Survey mapping shows that there are no properties within a 1.62km (10 times the rotor diameter of the candidate turbine) buffer of the proposed turbines, accordingly, there are no predicted shadow flicker effects.

Matters Scoped Out

- 14.13 Air Quality was proposed to be scoped out of any assessment during the Scoping Consultation and this approach was subsequently approved by the ECU. This is because no adverse air quality impacts are anticipated from the operation of the proposed

⁴ The Scottish Government. Carbon calculator: technical guidance. Gov.scot. Published 2018. Accessed December 22, 2021. <https://www.gov.scot/publications/carbon-calculator-technical-guidance/>

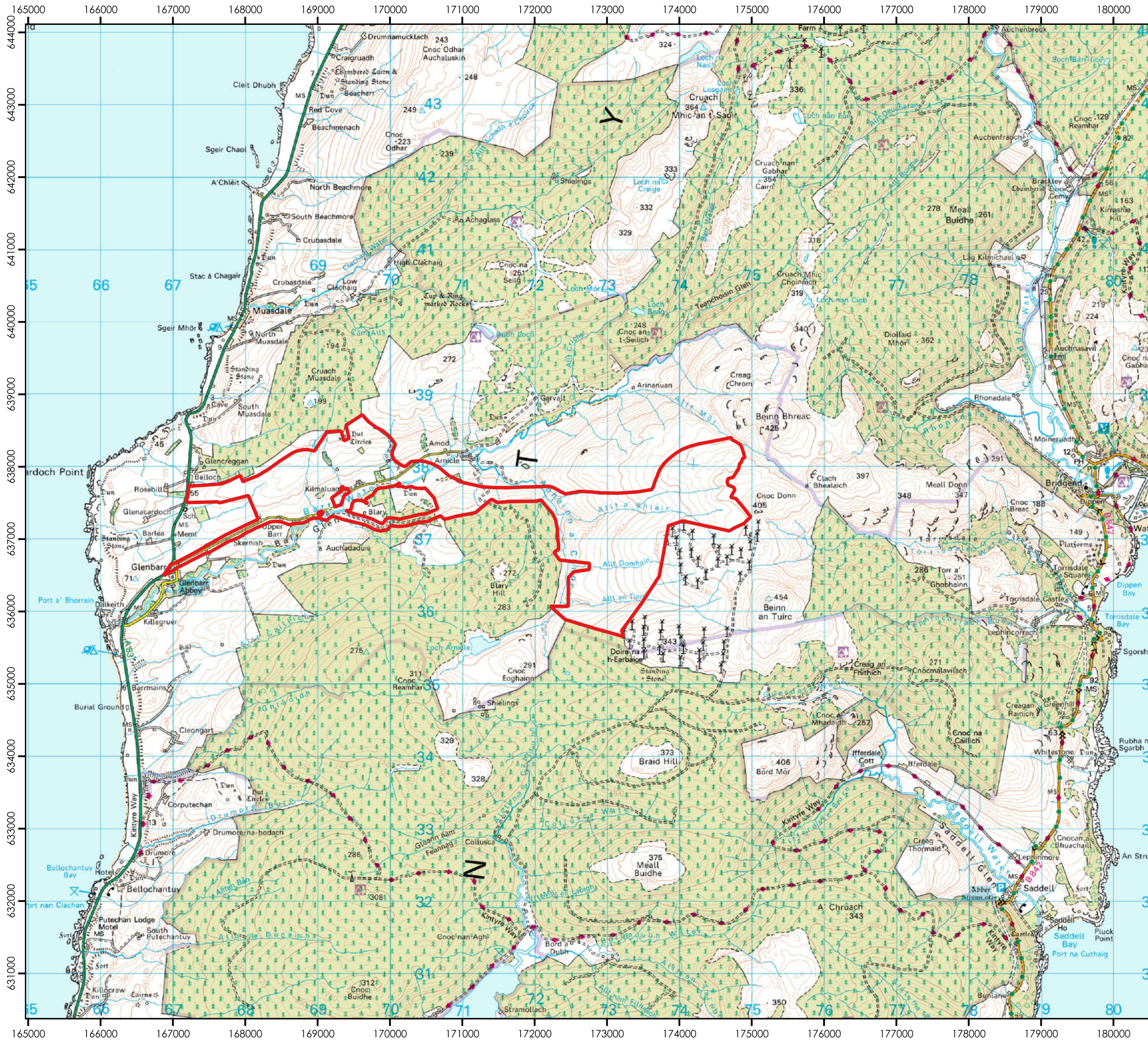
⁵ The Scottish Government. Onshore wind turbines: planning advice. Gov.scot. Published May 28, 2014. Accessed December 21, 2021. <https://www.gov.scot/publications/onshore-wind-turbines-planning-advice/>

development given the rural nature of the site and the distance from sources of air pollution.

- 14.14 Ice throw was also proposed to be scoped out of any assessment and was approved by the ECU. This is because if there is significant ice build-up on turbine blades, it can be detected by the machines' own sensors and operation curtailed until it melts. As an added precaution, warning signage may be placed around the site to make the public aware of any risks.

15 SUMMARY

- 15.1 This NTS has summarised the impacts and resultant effects from the proposed development.
- 15.2 The proposed development has been designed following full baseline surveys and a range of technical and stakeholder inputs, including from the public. Design has aimed to minimise effects where possible.
- 15.3 There are some significant visual effects predicted as a result of the development, which would be consistent with a scheme of this size.
- 15.4 The number of significant effects is not unusual for a wind farm development of the scale and height proposed. The overall design layout principle of the proposed development has been to achieve a coherent and compact design, which minimises direct and indirect adverse effects on the local and wider landscape, while balancing commercial considerations and maximising energy production.
- 15.5 With the use of mitigation as described and as contained in detail within the EIA Report, it is not considered likely that significant effects would occur in relation to any other environmental discipline. It is expected by the applicant that such mitigation would be secured by condition.



Allt Domhain Wind Farm

ENERGYFARM ALLT DOMHAIN LTD

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**Non-Technical Summary
Figure 1: Site Location**

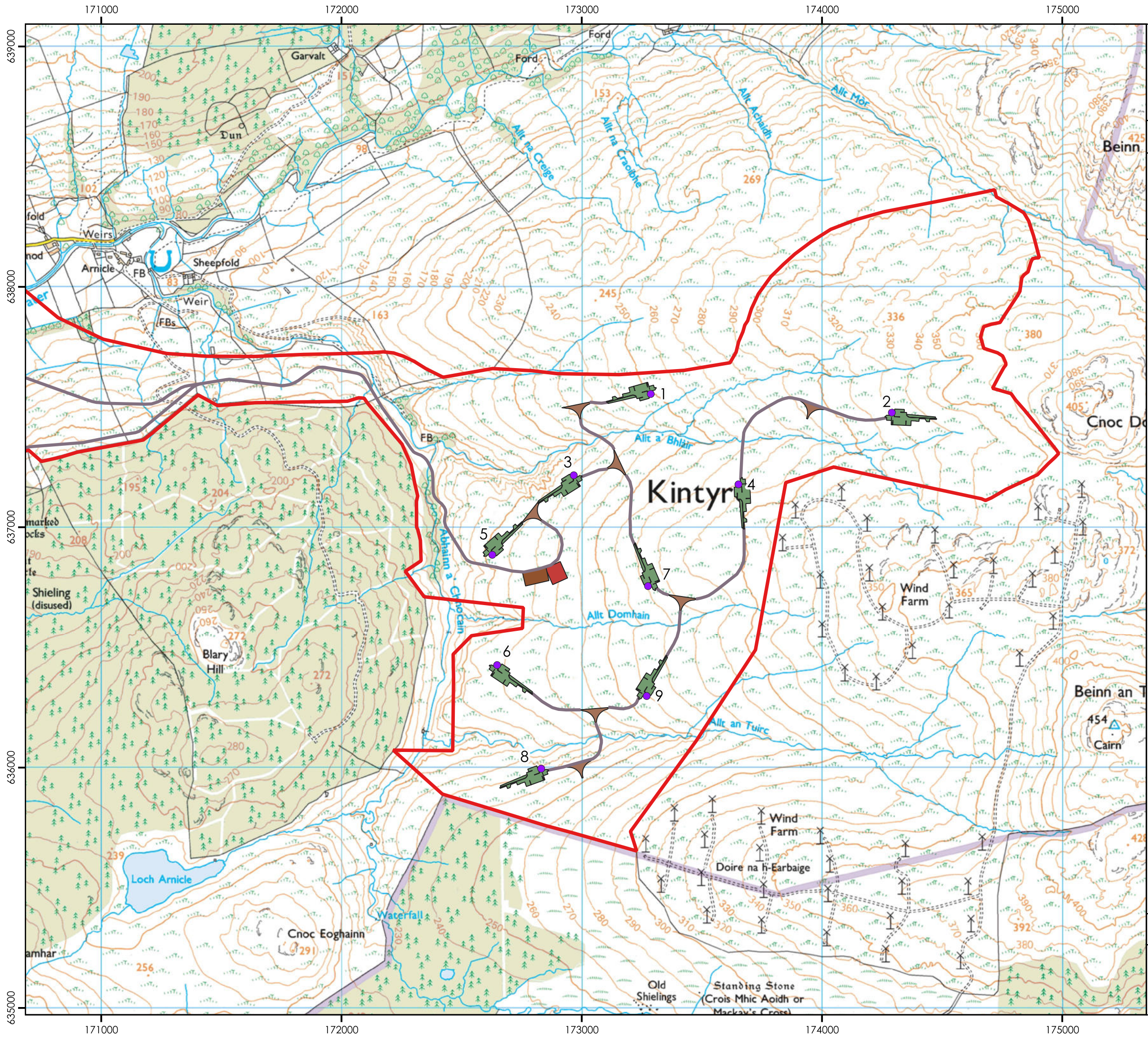
Key:

 Allt Domhain Site Boundary

0 1 2 km



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**Non-Technical Summary
Figure 2a: Site Layout**

Key:

- Allt Domhain Site Boundary
- Turbine Layout
- Construction Compound
- Crane Pad
- Substation compound
- Turning Head
- New Track

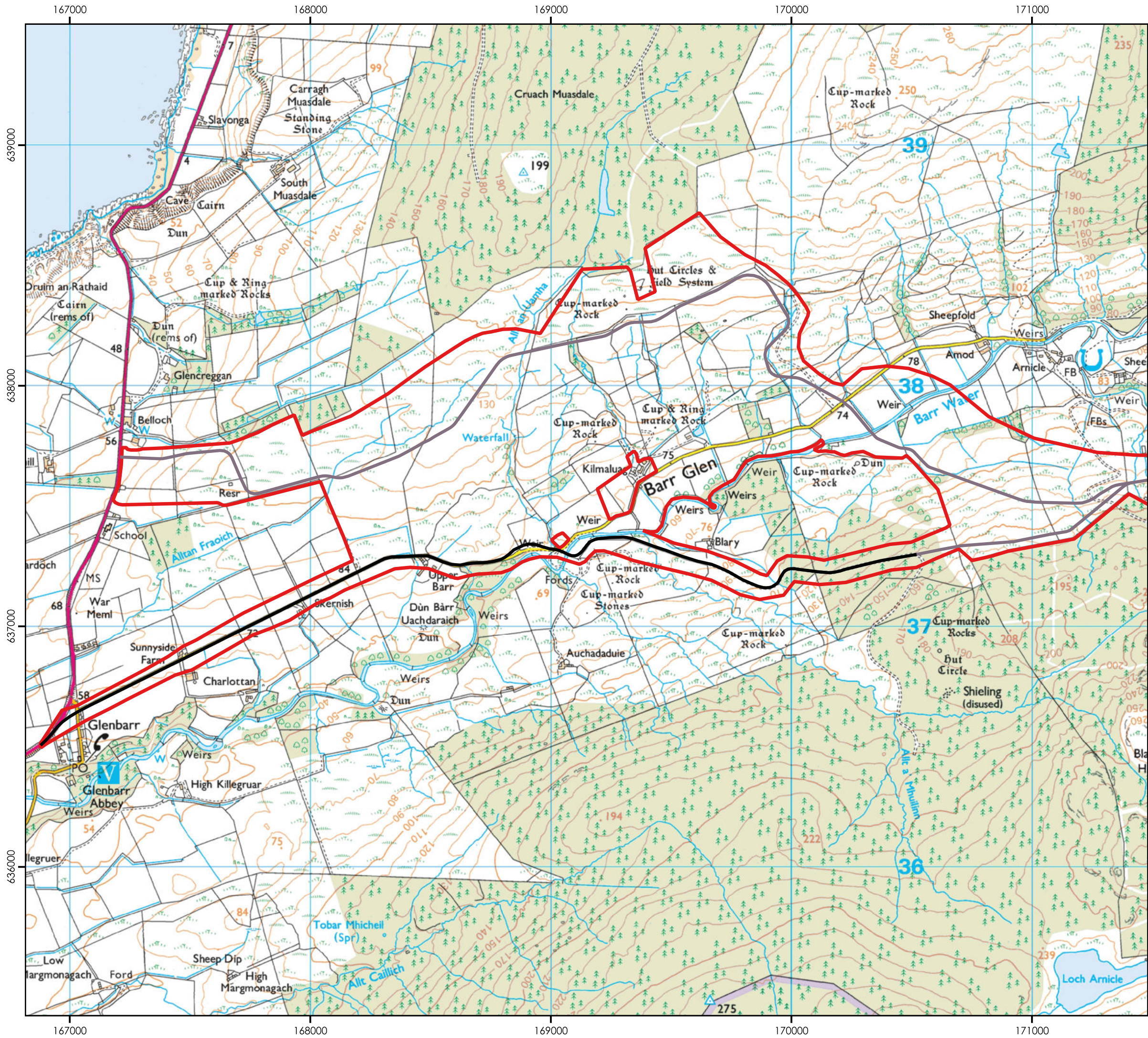
0 0.25 0.5 km



Drawn by: OLCA Scale: 1:15,000 @ A3

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Non-Technical Summary Figure 2b: Site Layout (access)

Key:

-  Allt Domhain Site Boundary
-  New Track
-  Existing / Upgraded Track

0 0.25 0.5 km



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