



# Breezy Hill Energy Project Additional Information

## Revised EIA Report – Non Technical Summary

### Brockwell Energy Limited

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Basis of Report

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## Acronyms and Abbreviations

Acronym / Abbreviation	Description
AIL	Abnormal Indivisible Load
ASNW	Ancient and Semi-Natural woodland
ATC	Air Traffic Control
AWI	Ancient Woodland Inventory
BEL	Brockwell Energy Limited
BESS	Battery Energy Storage System
BNG	Biodiversity Net Gain
CAS	Controlled Airspace
CEMP	Construction Environmental Management Plan
CoWRP	Control of Woodland Removal Policy
CTR	Control Zone
ECoW	Ecological Clerk of Works
EAC	East Ayrshire Council
EIA	Environmental Impact Assessment
FIR	Flight Information Region
FLS	Forestry and Land Scotland
GDL	Gardens and Designed Landscapes
GPA	Glasgow Prestwick Airport
HGV	Heavy Goods Vehicle
IEFs	Important Ecological Features
IFP	Instrument Flight Procedures
IOFs	Important Ornithological Features
LDP2	East Ayrshire Local Development Plan 2
LGV	Light Goods Vehicle
LLA	Local Landscape Areas
LNCS	Local Nature Conservation Sites
LVIA	Landscape and Visual Impact Assessment
MW	Megawatt
NATS	National Air Traffic Services
NKF	North Kyle Forest Estate
NTS	Non-Technical Summary
NWSS	Native Woodland Survey of Scotland
OBEMP	Outline Biodiversity Enhancement Management Plan
PLHRA	Peat Landslide and Hazard Risk Assessment



Acronym / Abbreviation	Description
PSR	Primary Surveillance Radar
PWS	Private Water Supplies
SSSI	Site of Special Scientific Interest
WFD	Water Framework Directive



## 1.0 Introduction

- 1.1.1 This document is the Non-Technical Summary of the Additional Information: Revised Environmental Impact Assessment (EIA) Report which has been submitted in support of an application to construct and operate the revised Breezy Hill Energy Project (the 'Proposed Development'). This document provides information about the Proposed Development in non-technical language. For further information including full technical details of each of the environmental assessments that have been undertaken, please refer to the Additional Information: Revised EIA Report.
- 1.1.2 Since the submission of the Section 36 application to the Scottish Ministers in May 2025, some minor changes have been made to the layout of the Proposed Development to minimise the forestry felling required. The revised layout is referred to throughout this document as the "Proposed Development". This document is being submitted to the Scottish Ministers as Additional Information, since it comprises a revision of the Breezy Hill Energy Project EIA Report to take account of the changes to the Proposed Development.
- 1.1.3 Further discussions were undertaken with landowners and close neighbours of the scheme subsequent to the submission of the May 2025 Application, with the result that turbines T2 and T13 have been relocated, although these turbines and their access tracks remain within the Application Site boundary. The relocation of T2 necessitated the rerouting of the access track leading to T1. The main driver for the decision to relocate T2 and T13 was to reduce forestry felling requirements, and has had the benefit of moving T2 off of an area of peat and onto underlying soils which have been confirmed through hand trials to not be peat, and of further enabling landowners and close neighbours to participate in the design and mitigation of the Proposed Development.
- 1.1.4 Breezy Hill Energy Limited (hereafter referred to as 'the Applicant') is applying to the Scottish Ministers for consent to construct and operate Breezy Hill Energy Project (hereafter referred to as the 'Proposed Development') in East Ayrshire, Scotland. The Proposed Development is located within the East Ayrshire Council administrative area and within the North Kyle Forest Estate (NKF) managed by Forestry and Land Scotland (FLS), approximately 13 km south-east of Ayr, 8.5 km south-west of Cumnock and 4.5 km north of Dalmellington. Refer to NTS Figure 1.1 for the Site location.
- 1.1.5 The Applicant, Breezy Hill Energy Limited, is a company owned by Brockwell Energy Limited (BEL) and based in Scotland, with headquarters in Edinburgh. BEL's main business areas are development, construction and operation of onshore wind, solar and battery energy storage systems. BEL is an experienced renewable energy developer who has successfully delivered over £900m of projects in the last six years, including the North Kyle Wind Farm directly adjacent to the Proposed Development. BEL has also developed other wind projects and two energy-from-waste facilities, one at Earl's Gate Energy Centre, Grangemouth and the other at Westfield, Fife.

## 2.0 Description of Development

- 2.1.1 The full description of the revised layout of the Proposed Development, including further details on the wind turbines, BESS, supporting infrastructure and environmental considerations, is provided in Volume 1, Chapter 2 of the Additional Information: Revised EIA Report.
- 2.1.2 The Proposed Development will have a maximum total capacity of 140 MW, comprised of the following:



- Up to 20 standalone, three bladed horizontal axis turbines up to 149.9 m tip height, each with a generating capacity of up to 5 MW, totalling up to 100 MW generating capacity; and
  - A battery energy storage system (BESS) of up to 40 MW capacity.
- 2.1.3 The development will produce enough renewable energy to power approximately 125,200 homes annually, contributing significantly to national renewable energy targets.
- 2.1.4 In addition to the turbines and BESS, the Proposed Development will include several permanent infrastructure components, such as transformers, turbine foundations, access tracks, crane hardstand areas, and a substation with control facilities. Temporary infrastructure for the construction phase includes a construction compound, crane pads, and a concrete batching plant. Key environmental features of the Site, such as watercourses and peatlands, have been considered to minimise potential impacts during construction. Refer to NTS Figure 1.2 for the proposed layout.
- 2.1.5 The wind turbines have been designed to include modern technology to meet air navigation requirements. Further measures, such as micrositing, will allow flexibility in precise turbine placement to respond to environmental sensitivities and ground conditions identified during construction.

### **3.0 Site Selection and Design Process**

- 3.1.1 The full explanation of the Site selection and design process for the Proposed Development, including constraints analysis and design iterations, is provided in Volume 1, Chapter 3 of the Additional Information: Revised EIA Report.
- 3.1.2 The Proposed Development followed a rigorous site selection and design process to ensure the optimal location while minimising environmental impacts. Part of the site selection and design process was to identify environmental designations and potential sensitive receptors. Key environmental issues and constraints for consideration in the site selection and design process were established through a combination of desk-based research, extensive field survey and consultation (through the EIA Scoping process and additional consultation with key consultees).
- 3.1.3 The design process was iterative, incorporating feedback from environmental studies, consultations with statutory bodies, and public input. This process led to a series of design iterations, evolving from an initial layout of 26 turbines to the final proposal of 20 turbines in May 2025, and subsequently to the revised layout of the Proposed Development in the Additional Information: Revised EIA Report primarily to reduce forestry felling requirements. Key environmental and technical constraints, such as the protection of archaeological sites, sensitive habitats, and peatland, were addressed during each design phase. Turbines were strategically relocated to avoid significant impacts on, for example, ecological and heritage receptors.
- 3.1.4 The design process also explored alternative turbine heights, layouts, and access routes, ensuring that the Proposed Development would meet technical and environmental standards while maximising energy production. Environmental considerations included reducing the visibility of turbines from key viewpoints, avoiding areas close to watercourses, and minimising disruption to sensitive ecological areas. The final layout balances energy production with environmental stewardship, reducing potential impacts on the landscape and local communities.



## 4.0 Approach to EIA

- 4.1.1 The full explanation of the EIA process for the Proposed Development, including statutory guidance and stakeholder engagement, is provided in Volume 1, Chapter 4 of the Additional Information: Revised EIA Report.
- 4.1.2 The EIA process for the Proposed Development has informed decision-making by identifying the potential significant environmental effects of the Proposed Development. The EIA has been conducted in accordance with the requirements of the EIA Regulations and relevant best practice guidance.
- 4.1.3 The purpose of the EIA process is to assess the likely environmental impacts and identify appropriate mitigation measures to avoid, reduce, or offset any significant adverse effects. The assessment has been carried out as part of an iterative design process, which allowed the findings of the EIA to inform the design of the Proposed Development and ensure that environmental considerations were integrated at every stage.
- 4.1.4 Reporting of the EIA follows a structured format, including this Non-Technical Summary, the main Additional Information: Revised EIA Report text, technical appendices, and accompanying figures. It covers all aspects of the environment that may be affected by the Proposed Development, including but not limited to ecology, hydrology, landscape and visual impacts, traffic, and cultural heritage.
- 4.1.5 The EIA process has been conducted with input from statutory consultees, other interested organisations, and the public. The Applicant engaged with these stakeholders throughout the EIA Scoping and consultation phases to ensure that key environmental issues were identified and addressed in the Additional Information: Revised EIA Report.
- 4.1.6 The overall aim of the EIA is to provide Scottish Ministers with the necessary information to make an informed consenting decision about the Proposed Development, ensuring that environmental impacts are appropriately considered alongside the benefits of renewable energy generation.

## 5.0 Legislative and Policy Framework

- 5.1.1 The Proposed Development must conform to a range of statutory frameworks and policies at both the national and local levels. These frameworks set out the regulatory requirements and policy objectives for the project, particularly concerning renewable energy, environmental protection, and planning procedures.
- 5.1.2 The Applicant is seeking consent under Section 36 of the Electricity Act 1989, which applies to onshore renewable energy developments with a capacity exceeding 50 MW. The Town and Country Planning (Scotland) Act 1997 also applies, and deemed planning permission is also sought.
- 5.1.3 In line with national commitments to combat climate change, the Proposed Development supports Scotland's ambition to reach net-zero carbon emissions by 2045. This is outlined in key policy documents such as the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 and the Onshore Wind Policy Statement 2022, both of which highlight the need for large-scale renewable energy developments to reduce greenhouse gas emissions.
- 5.1.4 National Planning Framework 4 (NPF4), effective from 13 February 2023, embeds climate change mitigation and sustainability at the heart of Scotland's planning system, supporting the goal of net-zero emissions by 2045. It emphasises the importance of renewable energy developments, such as large-scale wind farms, in achieving these targets and highlights the need for a rapid transition to renewable energy infrastructure.





- 5.1.5 At the local level, the East Ayrshire Local Development Plan 2 (LDP2) provides detailed policies specific to wind energy proposals. The Proposed Development has been designed to meet these requirements, ensuring considerations such as landscape impact, biodiversity, and socio-economic benefits are adequately addressed. The project is aligned with both the national and local strategies to increase renewable energy production while minimising environmental impacts.

## **6.0 Environmental Impact Assessment**

### **6.1 Overview**

- 6.1.1 The Proposed Development has been carefully designed to integrate environmental, technical, and community considerations. Through public consultations and environmental assessments, the design was refined to reduce potential impacts on local views, cultural heritage, and landscape. A focus on minimising disruption to the environment while contributing to Scotland's renewable energy goals has shaped the project's evolution. The turbines are strategically placed to balance energy generation with the protection of the surrounding area.
- 6.1.2 Ecological studies have identified several species and habitats of interest within the project area, including blanket bog, wet modified bog, badgers, bats, and bird populations. To mitigate the impacts on these species, an Outline Biodiversity Enhancement Management Plan (OBEMP) has been developed, which includes habitat restoration and conservation efforts. Peatland management is also a key consideration, with a Peat Management Plan being included in the submission to ensure the protection and restoration of these carbon-rich soils.
- 6.1.3 Transport and access have been thoroughly assessed, particularly in terms of managing the delivery of large turbine components. A dedicated Construction Traffic Management Plan will ensure minimal disruption to local road networks and communities. While some tree felling will be necessary to make way for infrastructure, compensatory planting schemes will be implemented to offset any forestry losses, ensuring no net reduction in woodland areas in line with Scottish Forestry regulations.
- 6.1.4 Additionally, aviation and radar impacts have been evaluated, and mitigation measures have been put in place to prevent interference with both civilian and military radar systems. Agreement is being sought to provide the required minimum of 300 m separation between the highest obstacle (turbine) and aircraft operating within the affected area.
- 6.1.5 The overall development is aligned with Scotland's climate change objectives, delivering renewable energy while implementing strategies to mitigate its environmental impact.

### **6.2 Landscape and Visual Amenity**

- 6.2.1 The Landscape and Visual Impact Assessment (LVIA) identifies the likely significant effects arising from the Proposed Development on landscape character and visual amenity. It has been informed by field visits carried out on separate occasions at different times of the year.
- 6.2.2 The existing landscape and visual baseline have been documented and the assessment has been supported by figures (presented in Volume 3 of the Additional Information: Revised EIA Report) and visualisations produced to NatureScot's specifications (presented in Volume 4 of the Additional Information: Revised EIA Report). The visualisations show representative views during daylight hours and views during dark sky hours from a select number of viewpoint locations.



- 6.2.3 The Site occupies an area of commercial coniferous plantation woodland which is in various stages of growth, including some recent replanting. The Site is crossed by numerous watercourses including Water of Coyle, Shield Burn, Drumbowie Burn and Hawford Burn.
- 6.2.4 North Kyle Wind Farm is located to the east of the Site, which, at the time of site visits was under construction but is now operational. Therefore, the North Kyle Wind Farm now forms part of the landscape and visual baseline against which the effects of the Proposed Development have been assessed. The Proposed Development is not located in or near to any international or national landscape designations. There are a number of Local Landscape Areas (LLA) and Regional Scenic Areas within the 35 km study area. Doon Valley LLA lies approximately 1.35 km to the south of the Site at its closest point and extends up to 15 km to the east and up to 25 km to the south.
- 6.2.5 There are no Gardens and Designed Landscapes (GDL) covering the Site, however, there are a number within the 35 km study area. Craigengillan GDL lies approximately 4.5 km to the south at its closest point.
- 6.2.6 In terms of effects on landscape character, during construction the Proposed Development would result in localised temporary significant effects to the 'Foothills with Forest & Opencast Mining' landscape character type.
- 6.2.7 During the operational phase, the Proposed Development would result significant effects to limited parts of the 'Foothills with Forest & Opencast Mining', 'East Ayrshire Lowlands', and 'South Ayrshire Lowlands' landscape character types.
- 6.2.8 All effects on landscape character during the construction, operation and decommissioning phases are either contained within the Site or its immediate vicinity and as such would be localised.
- 6.2.9 In terms of effects on residential properties within 2 km of the proposed turbines, some would experience a significant visual effect, but none would experience an overbearing or overwhelming effect.
- 6.2.10 In terms of effects on visual amenity, it is recognised that there will be some additional temporary visual effects during the construction of the Proposed Development over and above those assessed for the operational phase. The vast majority of effects when considering the construction phase will be experienced within the local environs of the Site.
- 6.2.11 During operation, significant visual effects would be experienced from Rankinston, from Sinclairston and from Craigs Road.
- 6.2.12 Significant visual effects would be experienced from the settlements of Rankinston, Hayhill and Sinclairston. Significant visual effects would also be experienced from core paths D4 and D10, which are located to the south of Rankinston, and from Core Paths D19, C7, C8 and C9, which connect Drongan and Ochiltree. Significant visual effects would be experienced from sections of the B7046 and B730.
- 6.2.13 Visual effects of decommissioning the Proposed Development at the end of its operational life will be very similar in nature to those experienced during the construction, except in reverse.
- 6.2.14 The LVIA has considered landscape and visual effects within the LLA. The visual receptors that are considered to be not significant are views from Dalmellington, Auchenroy Hill, Patna, Bellsbank, most of the Core Paths south of Rankinston, and roads A713, B742 and B7034. Not significant effects are identified upon the 'Foothills with Forest & Opencast Mining' landscape character type where it is within the LLA. Other landscape character types within the LLA are also identified as having no



significant effects, including 'Uplands River Valley', 'Foothills with Forest west of Doon Valley', and 'Lowland River Valley'.

- 6.2.15 The primary mitigation adopted in relation to the Proposed Development is embedded within the design of the Proposed Development and relates to the consideration that was given to avoiding and minimising landscape and visual effects during the evolution of the layout of the Proposed Development. This is sometimes referred to as 'mitigation by design'.
- 6.2.16 Regarding cumulative effects, Additional significant cumulative effects are predicted to occur upon the 'Foothills with Forest & Opencast Mining' landscape character area as a result of the Proposed Development combined with consented and in planning schemes, noting that the landscape is already influenced by operational wind farm development. Some other nearby landscape character areas would also experience additional significant cumulative effects, noting that the Proposed Development will not be the greatest contributing factor to the level of effect.
- 6.2.17 Despite the proximity of the Proposed Development along with other consented and in planning schemes to the settlement of Rankinston, no additional cumulative effects are predicted from Rankinston or most other visual receptors. However, some additional significant cumulative visual effects occur from core paths, other settlements and roads in proximity to the Proposed Development and the consented Knockkippen and Knockshinnoch and the in-planning Scienteuch schemes, noting that the greatest level of effects will result from the introduction of these schemes and not the Proposed Development.
- 6.2.18 Consideration has also been given to the overall totality of the cumulative landscape and visual effects when the Proposed Development is considered alongside the other operational and proposed developments. Collectively, the operational and proposed developments would serve to result in wind energy being seen as a noticeable feature in many views in the landscape of the wider study area to the east and south-west of the Site. The addition of the Proposed Development would serve to reinforce this pattern, albeit extending the significant landscape character effects and the significant effects upon some nearby settlements.
- 6.2.19 Localised significant effects on landscape character and visual amenity are inevitable as a result of commercial wind energy development anywhere in the UK. Whilst the LVIA identified some significant landscape and visual effects it is considered that the landscape has the capacity to accommodate the effects identified.
- 6.2.20 Wind turbines give rise to a wide spectrum of opinions, ranging from strongly adverse to strongly positive, with most opinions lying somewhere between these two positions. Some people view wind turbines as incongruous or industrial structures whilst others view them as aesthetically pleasing, elegant structures and a positive response to climate change. In the case of the Proposed Development the turbines and associated development may be viewed by some as a symbol of continued progress by society towards a low carbon future.
- 6.2.21 However, in considering the effects of the Proposed Development, a precautionary approach has been adopted, and it is therefore assumed that the effects identified will be adverse in nature even though it is recognised that for some people the impacts could be perceived to be beneficial.

## 6.3 Ecology

- 6.3.1 The full assessment of potential effects on flora and fauna is provided in Volume 1, Chapter 6 of the Additional Information: Revised EIA Report.



- 6.3.2 Chapter 6 of the Additional Information: Revised EIA Report considers the potential for significant effects upon Important Ecological Features (IEFs) associated with the construction, operation and decommissioning of the Proposed Development.
- 6.3.3 Baseline conditions to inform the design and assessment of the Proposed Development have been established through desk study, ecological field surveys in accordance with industry standard guidance, and consultation with nature conservation bodies and specialist species recording groups.
- 6.3.4 There are no sites designated for ecological features within the Site; there are three sites designated for ecological features located within 5 km of the Site; Barlosh Moss Site of Special Scientific Interest (SSSI) is located approximately 3.4 km (at the closest point) to the north of the Site and Dalmellington Moss SSSI and Bogton Loch SSSI are located approximately 4.1 km and 4.7 km (at the closest point) to the south of the Site respectively.
- 6.3.5 There are 21 non-statutory sites (Local Nature Conservation Sites; LNCS) located within 5 km of the Site; the closest is Benquhat Hill LNCS which lies approximately adjacent to the southern boundary of the Site and Rankinston scrub and Water of Coyle LNCS located approximately 0.8 km (at its closest point) to the west of the Site (NTS Figure 6.1).
- 6.3.6 Baseline studies have established that the Site is dominated by coniferous plantation woodland. The main habitats of interest are blanket bog and wet modified bog; they are limited in extent and present mainly in the north of the Site. Furthermore, the Site and adjacent habitats are used by badger, otter, pine marten, red squirrel, water vole, common lizard, brown trout and up to eight species of bat. A potential feature that could be used by hibernating reptiles was also recorded.
- 6.3.7 No construction effects on foraging and commuting bats are anticipated as works would mainly take place during daylight hours during the season when bats are active (April to October, inclusive), therefore any disturbance to foraging and commuting bats of any species is unlikely to occur or would likely be negligible in magnitude and is therefore scoped out. Operational and cumulative effects arising from collision mortality for low collision risk bat species are also scoped out of the assessment (as per NatureScot et al., 2021).
- 6.3.8 Embedded mitigation, good practice measures, and pre-construction checks (as directed by an appointed suitably qualified Ecological Clerk of Works (ECow)) will enable the protection of protected habitats and species during construction works associated with the Proposed Development.
- 6.3.9 The most tangible effect during the construction phase of the Proposed Development will be direct habitat loss due to the construction of new infrastructure. Effects upon blanket bog and wet modified bog are assessed. No significant effects are predicted.
- 6.3.10 No significant effects are predicted with respect to protected species during the construction or operation phase of the proposed Development.
- 6.3.11 In addition to habitat reinstatement following the cessation of construction works, the Proposed Development also provides a clear opportunity to deliver long-term beneficial habitat enhancement measures for habitats and species, away from operational infrastructure, including forest to bog restoration, broadleaved woodland planting (riparian and larger areas) and scrub planting.
- 6.3.12 Residual effects upon any important ecological features are predicted to be not significant as a result of the Proposed Development alone, or in combination, with any other wind farm development.



- 6.3.13 A programme of post-construction bat monitoring will be implemented for a minimum of three years as well as undertaking fish monitoring. Bat monitoring would comply with a detailed Bat Mitigation and Monitoring Plan (BMMP) or similar, which would also include that if the annual monitoring concludes that the mitigation is not enough then amendments to the curtailment/further mitigation would be proposed.

## 6.4 Ornithology

- 6.4.1 The ornithology assessment considers the potential for significant effects upon Important Ornithological Features (IOFs) associated with the construction, operation and decommissioning of the Proposed Development.
- 6.4.2 Baseline conditions to inform the design and assessment of the Proposed Development have been established through a desk study and ornithological field surveys in accordance with industry standard guidance and consultation with nature conservation bodies and specialist species recording groups.
- 6.4.3 Baseline studies established that the ornithology study area is used by breeding goshawk, peregrine falcon and osprey, and lekking black grouse. Breeding wader activity is limited to ringed plover (associated with the former opencast mine bare ground). The waterbody at Gibson's Hill (on the eastern edge of the Site, known locally as Coyle Water), was identified to be used by various gull species (for loafing/roosting and breeding for some species), however the Site and immediate area was not identified as being suitable for foraging gulls.
- 6.4.4 Embedded mitigation in the form of pre-construction checks and a Bird Disturbance Management Plan (as directed by an appointed suitably qualified Ecological Clerk of Works) will enable the protection of birds during construction works associated with the Proposed Development.
- 6.4.5 In addition to habitat reinstatement following the cessation of construction works, the Proposed Development also provides an opportunity to deliver long-term beneficial habitat enhancement measures for bird species, in particular black grouse.
- 6.4.6 Impacts during construction, operation and decommissioning are predicted as being negligible for all species, with the possible exception of collision risk to osprey.
- 6.4.7 Residual effects upon all IOFs are however predicted to be *Not Significant* as a result of the Proposed Development alone, or cumulatively with any other wind farm development.
- 6.4.8 The Site does not form part of any statutory designated site for nature conservation and no likely significant effects are predicted on any Special Protection Area within a Habitats Regulations Appraisal context, or on any Site of Special Scientific Interest in an Environmental Impact Assessment context.

## 6.5 Geology, Hydrology, Hydrogeology and Peat

- 6.5.1 A combination of desk study and field survey work was undertaken to identify and characterise the geological, hydrological and hydrogeological receptors which could be subject to impacts from construction, operation and decommissioning of the Proposed Development.
- 6.5.2 The Site is located within the catchments of the Water of Coyle and the Burnock Water, with both watercourses classified in accordance with the EU Water Framework Directive (WFD) to be of 'Poor' overall status in 2023.
- 6.5.3 The bedrock beneath the Proposed Development is largely Carboniferous sedimentary rocks of the Scottish Lower Coal Measures Formation and Scottish Middle Coal Measures Formation of the Scottish Coal Measures Groups. Intrusions of the Midland





Valley Carboniferous to Early Permian Alkaline Basic Sill Suite underlie the south-west and centre of the Site. In the north of the Site there is a small north-west to south-east trending fault. There is no faulting mapped in the south of the Site. Superficial deposits primarily comprise peat deposits which are typically lower permeability. The peatland identified is predominantly Class 5 and Class 4, with no areas of Class 1 present within the Proposed Development, according to NatureScot's Carbon and Peatlands Map, 2016.

- 6.5.4 Detailed peat depth surveys found extensive deposits of peat across the Site, which have, where possible, been avoided through design iterations. The peat depth probing found an average depth across the Site of 1.0 m, with 60.2% of probe depths <1.0 m, which is not classified as deep peat. Additional investigation of the underlying soils was undertaken at the revised location of T2 and its access track by hand pits, confirming the absence of peat at this location. The relocation of T2, T13 and the access track to T1 will reduce the loss of peat by approximately 1,226 m<sup>3</sup>.
- 6.5.5 A Peat Landslide and Hazard Risk Assessment (PLHRA) has identified that there is negligible to low likelihood of a peat landslide at the proposed turbine locations and associated infrastructure.
- 6.5.6 Potential construction and operational effects include changes to surface water quality and flow, potential impacts to hydrologically connected receptors (Private Water Supplies (PWS)), and excavation and removal of peat.
- 6.5.7 The mitigation measures to address these effects will be included within a Construction Environmental Management Plan (CEMP), including surface water management and pollution prevention measures (e.g. Pollution Prevention Plan), prior to the commencement of construction activities. A summary of mitigation measures can be found in Chapter 15: Schedule of Mitigation. These mitigation measures are considered to be robust and implementable and will reduce the potential impacts on peat, watercourses and groundwater.
- 6.5.8 The significance of residual effects on geology, peat, hydrology and hydrogeology receptors following the implementation of these mitigation measures ranges from minor adverse (*Not Significant*) to negligible adverse (*Not Significant*).

## 6.6 Forestry

- 6.6.1 This chapter presents the findings of the assessment of the likely significant construction and operational effects of the Breezy Hill Energy Project (the Proposed Development) on forestry. This includes an assessment for any sites identified within both the NatureScot published Ancient Woodland Inventory (AWI) which identifies Ancient and Semi-Natural woodland (ASNW) sites and the Forestry Commission Scotland published Native Woodland Survey of Scotland (NWSS) database. For this Proposed Development there is one small area of designated woodland within the Site boundary which will not be impacted due to sensitive scheme design.
- 6.6.2 Effects on forestry are likely to occur as a result of the felling of trees within:
- the required infrastructure footprint for turbines, cabling and substation/control building;
  - additional areas of forest clearance required for construction works including stone quarries, construction compounds and access tracks during construction;
  - additional felling required to achieve the required wind capture for the operation of the individual turbines; and
  - management felling out with the areas defined above to mitigate the risk of subsequent windblow (i.e. the uprooting of trees by the wind) to the newly



created forest edges. This would be delivered by the additional felling of adjacent trees extending to an existing windfarm edge.

- 6.6.3 Details of the felling proposals are presented in Section 9.6.6 of Chapter 9 of the Additional Information: Revised EIA Report and NTS Figure 9.3. An overview of the areas proposed to be felled for the Proposed Development is set out in Chapter 9. For this chapter it should be noted that the terms forestry and woodland are deemed to be interchangeable.
- 6.6.4 As discussed previously, the main driver for the revision of the Proposed Development was to reduce forestry felling requirements. Overall, the relocation of T2 and T13 out of forestry areas has reduced the required felling as follows:
- Reduction of 4.5 ha of infrastructure felling; and
  - Reduction of 21.3 ha of management felling.
- 6.6.5 As required under the Scottish Government Control of Woodland Removal Policy (CoWRP), any tree crops permanently removed for infrastructure construction will be replanted on a like-for-like area basis (i.e. 99.6 ha) either within the Site or at a suitable substitute location. The location of that substitute site has yet to be identified and would be subject to detailed agreement with Scottish Forestry and the relevant landowners to include location, design, planting timescale and appropriate post-planting monitoring and maintenance schedules in advance of construction commencing for the Proposed Development.
- 6.6.6 Where tree felling to mitigate against the risk of windblow (management felling) is deemed appropriate, these measures can only be undertaken with the agreement of the affected landowners and with the associated felling permission granted by Scottish Forestry. This would require the landowner to fully address the replanting of such areas of felling out with the long term tree clearance areas detailed within Figure 9.3. It is the intention of the applicant to encourage the landowners to follow this good practice in terms of redesign of their current Long Term Forest Plans (for the private landowner) and Land Management Plan (for FLS) which, in turn, would aim to follow UK Forestry Standard for the implementation of the works required. This management felling is therefore considered temporary and is not included in the assessment of the long term loss of forest resource. A detailed explanation of the justification for this is provided in Sections 9.3.2.-9.3.5 of Chapter 9 of the Additional Information: Revised EIA Report.
- 6.6.7 There will be no net loss of forestry resource as a result of the construction of the Proposed Development, due to the like-for-like compensatory planting that will be implemented. There will also be no cumulative effects due to the implementation of compensatory planting which is implemented as standard for all wind farms in the surrounding area.

## 6.7 Cultural Heritage

- 6.7.1 The cultural heritage assessment found that there are 15 Scheduled Monuments, ten category A Listed Buildings, and three Inventoried Gardens and Designed Landscapes. There are nine Category A Listed Buildings and two Conservation Areas within 5 km of the proposed turbine locations, Within 10 km of the proposed turbine locations.
- 6.7.2 Within 1 km of the site boundary, there are five Listed Buildings: three Category B and two Category C. In addition, there are two Scheduled Monuments and one Inventory Garden and Designed Landscape within 1 km of the Site boundary.



- 6.7.3 On the 6 assets where direct impacts have not been able to be avoided by design, during the construction phase, mitigation is suggested. These suggestions are in line with NPF4 Policy 7 and Policy HE3 of the East Ayrshire Local Development Plan 2. The mitigation includes Archaeological monitoring and recording and Site procedure toolbox talk/programme of awareness.
- 6.7.4 The setting assessment has found that the Proposed Development would result in an effect of Minor significance upon the setting of two cultural heritage assets. Craigengillan Inventoried Garden and Designed Landscape (GDL000111) and The Temple (LB96). There would be a minor distraction in aspects of their setting that would impact the ability to understand, appreciate, and experience their cultural significance. However, all other aspects of the assets' setting would remain unimpacted. No mitigation for setting effects is necessary.
- 6.7.5 There is some potential for the survival of hitherto unrecorded sub-surface cultural heritage remains within the Site. East Ayrshire Council may require mitigation for this potential, which could take the form of an archaeological watching brief during the construction phase of the Proposed Development.
- 6.7.6 Following the implementation of any mitigation for direct effects, no residual effects upon the cultural heritage resource within the Proposed Development are anticipated.
- 6.7.7 Overall, the anticipated effects of the revised Proposed Development on Cultural Heritage assets remains *Not Significant* in EIA terms.

## 6.8 Traffic and Transport

- 6.8.1 The Proposed Development will lead to increased traffic volumes on roads in the vicinity of the Site during the construction phase. These will be of a temporary timescale and transitory in nature.
- 6.8.2 The peak of construction activity is expected to occur in month eight when there will be a total of around 7,066 vehicle movements (i.e. trips to and from the Site), which equates to 322 vehicle movements per day, comprising 250 two-way Heavy Goods Vehicle (HGV) movements and 72 two-way car / Light Goods Vehicle (LGV) movements.
- 6.8.3 It should however be noted that the Proposed Development's trip generation assumes that 100% of all aggregate materials would be imported to the Site from nearby quarries and should therefore be considered a significant over estimate of the number of HGV movements that will travel to and from the Site during the peak month of activity. As previously advised, the borrow pit assessment undertaken has confirmed that the volume of material suitable to be used on-site is in excess of the volume of material required. The use of aggregate materials won from the on-site borrow pits would result in significantly fewer delivery vehicles travelling to and from the Site.. Should that be the case there would be a total of 104 vehicle movements per day, comprising 32 two-way HGV movements and 72 two-way car / LGV movements.
- 6.8.4 A review of the theoretical road capacity was undertaken for the study area which showed that with the addition of construction traffic associated with the Proposed Development, there was significant spare capacity within the road network.
- 6.8.5 A sensitivity review was undertaken to inform the planning authorities of possible issues with other relevant schemes in the area, whose construction traffic would impact the study area, should they be constructed concurrently. The review found that there would be more than sufficient spare road capacity to accommodate all schemes being constructed at the same time. It is proposed that any effects of all the sites being constructed at the same time would be mitigated through the use of an overarching





Traffic Management and Monitoring Plan, which can be co-ordinated with East Ayrshire Council (EAC).

- 6.8.6 With the implementation of appropriate mitigation, no significant residual effects are anticipated in respect of traffic and transport issues. The residual effects are all assessed to be minor and will occur during the construction phase only, they are temporary and reversible.
- 6.8.7 Traffic levels during the operation phase of Proposed Development will be up to 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 are likely be left in situ and others broken up on-site.
- 6.8.8 The movement of Abnormal Indivisible Load (AIL) traffic will require small scale and temporary remedial works at a number of locations along the identified delivery route.

## 6.9 Noise

- 6.9.1 The noise impact assessment considers the significance of the impacts on noise sensitive receptors from the construction, operation and decommissioning of the Proposed Development. In this case, noise sensitive receptors are inhabitable dwellings in the vicinity.
- 6.9.2 Construction noise impacts have been assessed against the guidance criteria set out in the relevant British Standard, which sets example criteria for construction activities that continue for more than one month. The assessment concluded that noise from construction would meet the relevant noise limits and that noise will be controlled during the construction phase via the Construction Environmental Management Plan (CEMP) which will set out measures to minimise noise impacts. The construction noise impact assessment concluded that noise during the construction phase of the development is considered to be not significant in EIA terms, although there will be aspects of construction that will be audible at noise sensitive properties.
- 6.9.3 Noise during the operational phase of the development has been assessed by comparing predicted operational noise levels for the Proposed Development against site specific noise limits derived from those calculated in line with national guidance known as ETSU-R-97. The ETSU-R-97 noise limits apply to noise from all wind farm developments in the vicinity. The assessment of the Proposed Development confirms that operational noise levels would be within the limits permitted by ETSU-R-97 and operational noise impacts would therefore be *Not Significant*.
- 6.9.4 Noise during the decommissioning phase of the development is assessed against the same criteria as the construction phase. It is anticipated that noise levels during the decommissioning phase will be lower than those arising during the construction phase, and therefore as the relevant construction noise limits are predicted to be met and the impact is not significant, decommissioning noise levels will also be not significant. Nevertheless, noise during the decommissioning phase of the development will be assessed and addressed in line with the relevant requirements that prevail at the time.

## 6.10 Aviation and Radar

- 6.10.1 As assessment of the potential effects of the Proposed Development on aviation during the construction, operational, and decommissioning phases has been undertaken.
- 6.10.2 The Proposed Development is located within the UK Flight Information Region (FIR). The UK Civil Aviation Authority is the airspace regulator for the UK FIR. The Proposed Development sits within Class D Controlled Airspace (CAS), the Glasgow Prestwick



Airport (GPA) Control Zone (CTR), and underneath Class C CAS. GPA Air Traffic Control (ATC) provides radar services in and around its CTR; additionally, National Air Traffic Services (NATS) has a licence obligation to provide radar data and services in the surrounding volume of airspace.

- 6.10.3 Consultation with GPA with regard to their Instrument Flight Procedures (IFP) is continuing with a view to reaching agreement on mitigation to maintain safe separation for aircraft flying. Agreement is being sought to provide the required minimum of 300 m separation between the highest obstacle (turbine) and aircraft operating within the affected area.
- 6.10.4 NATS has defined mitigation solutions which will be subject to commercial agreement between the Applicant and NATS and will be implemented by radar optimisation of the affected Proposed Development Area of the Lowther Hill Primary Surveillance Radar (PSR) which will remove all wind turbine radar returns.
- 6.10.5 GPA has a defined mitigation solution which will be subject to commercial agreement between the Applicant and GPA and will be implemented by radar and processor optimisation for the affected Proposed Development Area of the GPA PSR.
- 6.10.6 Consultation with regard to a potential theoretical, mathematical effect to Very High Frequency communications in the near volume of the Proposed Development is anticipated. This is a technical item and at this point therefore theoretical in nature.
- 6.10.7 The Applicant is currently engaging with the relevant aviation consultees to agree mitigation to address the anticipated aviation impacts.

## 6.11 Other Issues

### Shadow Flicker

- 6.11.1 For assessing the impact of shadow flicker, analysis was performed on all properties within ten rotor diameters of any turbine. Calculations were undertaken for predicted shadow hours at each of the receptors for two scenarios: a theoretical (worst-case) and a realistic scenario.
- 6.11.2 The realistic scenario model does indicate potential for shadow flicker to occur for at least short periods at all receptors. The realistic duration of shadow flicker calculated is indicated to be well below significant levels at all receptors when using the 30 hours per year or 30 mins per day significance criteria. However, as requested by EAC, any impact on receptors is considered *Significant* and will need to be mitigated as a result.
- 6.11.3 It is important to stress the theoretical and conservative nature of the model, and the absence of any consideration of screening in the model. For these reasons it is unlikely the number of hours predicted in the 'realistic' scenario would actually occur at the sensitive receptors. In reality, the expected total shadow hours will be less than modelled. Notwithstanding these points and the financial involvement of two receptors (Rankinston and Ravenscroft), the Applicant is committed to provide a Shadow Flicker Mitigation Protocol to be activated, should any concerns in relation to shadow flicker effects be raised, or shadow flicker subsequently be found to be causing nuisance in certain atmospheric conditions.
- 6.11.4 Mitigation measures could include the provision of local screening to reduce or block shadow flicker affecting a receptor. Should screening provision not be possible, the most effective mitigation measure to mitigate shadow flicker is by selective automatic turbine shutdown during the times of year when shadow flicker is predicted, if the weather conditions are correct. The relevant technology which will allow for the automatic shutdown of the turbine will be fitted to the Proposed Development turbines and details included within the 'Wind Farm Shadow Flicker Protocol'.



## **Telecommunications**

- 6.11.5 Potential telecommunications constraints were identified using publicly available information. Ofcom, responsible for licensing two-way radio transmitters, maintains a register of most fixed links and were consulted to establish baseline conditions.
- 6.11.6 Not all telecommunications links and frequencies are published. Consequently, telecommunications and broadcasting network operators were consulted to determine whether any broadcasting or telecommunications infrastructure was present within or near the Site.
- 6.11.7 No concerns were raised from consultee telecommunications and broadcasting network operators during consultation for the original Breezy Hill Energy Project and the Additional Information revised layout.
- 6.11.8 Digital television signals, being more adept at handling signal reflections than analogue signals, do not experience ghosting. Considering the robust nature of digital television reception in the area and the strength of the digital signal, the risk of interference with domestic television reception due to a wind energy development at this location is deemed low. Any complaints with respect to television and radio interference would be investigated appropriately and resolved by a suitable qualified person.
- 6.11.9 Broadcast radio (FM, AM, and DAB digital radio) transmits on lower frequencies compared to terrestrial television signals. Lower frequency signals generally navigate obstructions more easily, and diffraction effects are more pronounced at lower frequencies, both factors mitigating the impact of new structures on broadcast radio.

## **7.0 Benefits of the Proposed Development**

- 7.1.1 The Proposed Development is expected to contribute significantly to renewable energy generation in the region, with up to 20 turbines resulting in an overall generating capacity of approximately 100 MW – enough to power around 125,200 homes annually with clean, low-cost electricity. The Proposed Development is expected to save over 2.2 million tonnes of CO<sub>2</sub> over the project lifespan compared to equivalent generation from fossil fuels. This would support national and regional renewable energy targets and contribute to the UK's net-zero ambitions.
- 7.1.2 The development is expected to bring economic benefits, particularly during the construction phase, when jobs and opportunities for local suppliers and businesses will be created. The operational phase will also provide long-term employment opportunities related to the maintenance and management of the Site.
- 7.1.3 The project includes an Outline Biodiversity Enhancement and Management Plan (OBEMP), which will result in the restoration and enhancement of the local environment a commitment of 10% Biodiversity Net Gain (BNG), but an aspiration for up to 25% BNG. This will promote biodiversity and enhance local habitats, offering long-term environmental benefits.
- 7.1.4 The Proposed Development will generate further benefits through community involvement, including contributions to local initiatives and community funds, providing long-term social and environmental enhancements to the surrounding areas.

## **8.0 Availability of the Additional Information: Revised EIA Report**

- 8.1.1 The full Additional Information: Revised EIA Report for the Breezy Hill Energy Project is available for public review. It provides detailed assessments of the environmental effects of the Proposed Development, covering all the topics summarised in this NTS.



- 8.1.2 The Additional Information: Revised EIA Report can be accessed at Dalmellington Community Centre, 38 Ayr Road, Dalmellington, East Ayrshire, KA6 7SJ during regular business hours and at East Ayrshire Council, The Johnnie Walker Bond, 15 Strand Street, Kilmarnock, KA1 1HU by appointment only, in coordination with East Ayrshire Council. A digital version is available for download on the Breezy Hill Energy Project website (<https://www.brockwellenergy.com/projects/breezy-hill-energy/>) or from the Energy Consents Unit website (<https://www.energyconsents.scot/>).
- 8.1.3 Printed copies of this NTS are available free of charge. Printed versions of the full Additional Information: Revised EIA Report can be purchased for £1,500, or a USB version is available for £15. These can be requested by emailing the project team at [enquiries@brockwellenergy.co.uk](mailto:enquiries@brockwellenergy.co.uk).
- 8.1.4 Members of the public are invited to provide feedback during the consultation period. Comments and concerns can be submitted by email ([Econsents\\_Admin@gov.scot](mailto:Econsents_Admin@gov.scot)) to the Scottish Government's Energy Consents Unit or through the online Energy Consents Portal.

## 9.0 Conclusion

- 9.1.1 The Breezy Hill Energy Project represents a key contribution to Scotland's renewable energy targets, delivering approximately 100 MW of clean energy to power around 125,200 homes annually, and is expected to save over 4.9 million tonnes of CO<sub>2</sub> over the project lifespan compared to equivalent generation from fossil fuels. By aligning with both national and local climate policies, the project supports the UK's commitment to net-zero emissions and Scotland's 2045 carbon reduction goals.
- 9.1.2 The project has undergone a rigorous design process, incorporating feedback from statutory consultees, environmental studies, and public consultations. This iterative approach has ensured that potential impacts on local wildlife, habitats, and cultural heritage have been carefully assessed and mitigated. Measures such as the Biodiversity Enhancement and Management Plan and Peat Management Plan illustrate the commitment to environmental protection while maximising renewable energy production.
- 9.1.3 The relocation of T2 and T13 has reduced the required forestry infrastructure felling by 4.5 ha and management felling by 21.3 ha. It has the ancillary benefits of moving T2 off of peat and reducing the loss of peat by around 1,226 m<sup>3</sup>. It involves neighbouring landowners in the scheme, enabling them to participate in the design and mitigation of the Proposed Development.
- 9.1.4 Public engagement has been an integral part of the development, allowing for local concerns to be addressed and for the project to offer tangible community benefits. These include the creation of jobs, opportunities for local businesses, and local biological enhancement.
- 9.1.5 Overall, the revised Breezy Hill Energy Project demonstrates a sustainable and balanced approach to renewable energy development. It offers long-term environmental and socio-economic benefits while minimising impacts on the local landscape and ecosystems. This responsible project design ensures that Breezy Hill contributes positively to both the local community and the wider fight against climate change.



## NON-TECHNICAL SUMMARY FIGURES



