Galileo 05 Limited

Lynemore Wind Farm

Non-technical summary · 663991 (00) · April 2025

GALILEO EMPOWER

RSK

CONTENTS

INTRODUCTION

Background to the Non-Technical Summary and proposed development

This is the Non-Technical Summary (NTS) of the Environmental Impact Assessment Report (EIAR) for the proposed Lynemore Wind Farm (hereafter 'the Proposed Development').

The NTS describes the Proposed Development in non-technical language, identifying the likely effects it may have on people and the receiving environment. It also describes the mitigation measures proposed by Galileo 05 Limited (hereafter the 'Applicant') to avoid or reduce any of the potential adverse effects that have been identified, including how environmental issues will be managed during and after construction. The EIA Report presents the complete findings of the EIA and is the main document accompanying the application for consent.

Introduction to the proposal

Developer

Galileo 05 Limited is a wholly-owned subsidiary of Galileo Empower UK Ltd, which is the UK arm of Galileo Empower, a joint venture between Empower Renewables and Galileo Green Energy. Known in the UK as Galileo, it was founded in early 2020 and is currently progressing an ambitious development pipeline across Europe including the UK, Ireland, Sweden, Finland and Germany. Within the UK, Galileo has offices in Edinburgh and Cardiff from where its development activities are based.

The Proposed Development

The Proposed Development is located within the Lynemore Estate, in the administrative area of The Highland Council Local Authority (hereafter the 'THC'), off the A9 at Moy, approximately 10 km south of Inverness and 6 km northwest of Tomatin, as indicated by **Figure 1**.

The proposal is for up to 14 wind turbines, with a maximum tip height of 200 m. The individual turbine generating capacity is anticipated to be around 7 MW, with the total installed capacity for the Proposed Development in excess of 50 MW. The application also includes approximately 50 MW of battery energy storage (BESS). Ancillary infrastructure will also be constructed, such as:

- a site entrance and new and upgraded access tracks
- a substation and control building
- two construction compounds and laydown area
- hardstanding areas at the base of each turbine
- telecommunications equipment
- one borrow pit search area
- buried cabling.

The proposals also include plans that seek to deliver habitat enhancement within the Proposed Development site through the enhancement of degraded peatland and heath habitat.

The Proposed Development seeks permission to operate for 50 years, after which the wind farm would be decommissioned, and the turbines dismantled and removed, unless permission is sought to extend the operational lifespan.

The construction of the Proposed Development is anticipated to take approximately 24 months from mobilisation to completion.

Movement of construction vehicles and heavy goods vehicles (HGVs) will be required, moving to, from and around the Proposed Development site to deliver the turbine components, works machinery and materials. Following the construction phase, temporary construction compounds will be reinstated.

The entrance to the Site for vehicles delivering both construction materials and turbine components, such as tower sections and blades, would be from the A9 to the north, using existing site tracks as far as possible.

Internal tracks would comprise upgraded, new and floating tracks and potential excavation and disruption of surrounding peatland would be minimised as far as possible.

Tracks used by construction vehicles will be retained for use by maintenance vehicles throughout the lifetime of the Proposed Development. The track would be unpaved (stone surface), of 6 m running width, with a 1 m shoulder verge to either side. The track may be wider for short sections, such as passing places, laydown areas and sharp bends. The infrastructure layout of the Proposed Development can be seen in **Figure 3**.

The Proposed Development is predicted to deliver total emissions savings of 49,629.38 tonnes of carbon dioxide (CO_2) equivalent (CO_2e) per year and 2,481,469 CO_2e over its 50-year operational lifetime. The Proposed Development is anticipated to provide enough electricity to power the equivalent of over 70,000 households in Scotland each year.

RenewableUK, Statistics Explained. Using average domestic household consumption in UK of 3,239kWh. Accessible at: **https://www.renewableuk.com/page/UKWEDExplained**

The project team

The Applicant appointed RSK Environment Ltd (RSK), an experienced environmental consultancy, as the lead consultant to manage the EIA and related assessments that will accompany an application for planning consent to the Scottish Government's Energy Consents Unit (ECU). RSK was supported by:

- RSK ENVIRONMENT – provided EIA co-ordination, shadow flicker modelling assessment and socio-economic assessment
- WSP – provided specialist landscape and visual modelling and assessment
- AVIAN ECOLOGY – provided specialist ecology and ornithology surveys, modelling and assessments
- FLUID ENVIRONMENTAL CONSULTING – provided specialist geology, hydrogeology, hydrology and peat assessments
- HEADLAND ARCHAEOLOGY – provided archaeological and cultural heritage assessments
- SCP TRANSPORT – provided specialist traffic and transport assessments
- HOARE LEA – provided specialist noise modelling and assessment
- SCURRAH ASSOCIATES – provided specialist forestry assessment
- AVIATICA – provided specialist aviation, radar and telecommunication assessments
- STEPHENSON HALLIDAY – provided specialist planning assessment
- PELL FRISCHMANN – provided specialist civil engineering assessment
- NATURE POSITIVE – provided specialist climate change and carbon assessments.

STOCK IMAGE

PLANNING PROCESS

Consents and authorisations

The Applicant is seeking to secure approval for the Proposed Development by an application under Section 36 of the Electricity Act 1989 to the Scottish Ministers.

Environmental Impact Assessment

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (hereafter 'the EIA regulations') applies where consent is being sought for developments under Section 36 of the Electricity Act 1989. In accordance with this, an EIA has been undertaken to identify the likely significant effects the Proposed Development could have on the receiving environment. The purpose of the EIA is to ensure that any effects on the environment are fully understood and are taken into account during the design, consenting and authorisation process. The methods and findings of the EIA are outlined within this NTS.

Consultation

Consultation has been integral to the design and development of the Proposed Development, as well as being key for the identification of existing environmental constraints and sensitivities, and the identification and assessment of the likely environmental effects of the Proposed Development.

Extensive consultation has been undertaken with key stakeholders. Consultation took place in the following ways:

- informal stakeholder liaison, including meetings and correspondence by letters and email
- scoping, which involved the submission of a formal EIA Scoping request to the ECU, and engagement with statutory and non-statutory consultees
- community engagement, including two in-person public consultation events hosted within the local communities and a dedicated project website
- an additional consultation event
- a newsletter
- attendance at community council meetings.

Full details of the community engagement process are included in the Pre-Application Consultation Report (PAC) which is included as a supporting document to the application.

Alternatives

As part of the design development, consideration has been given to a number of alternatives regarding layout, design and operational aspects.

Alternatives explored for the Proposed Development included a variety of potential turbine locations and a number of access route options to and between development infrastructure.

The proposed design and infrastructure layout was adapted and altered in response to environmental constraints identified throughout the EIA process and from consultation feedback.

During the EIA process, the Proposed Development went through four principal design iterations of the layout, which have been developed at different stages in the project design process. The main considerations that were taken into account during the design development included access, cultural heritage, peat, and landscape and visual effects.

The final design layout can be seen in **Figure 3**.

Climate change and Net Zero targets

The science behind the climate emergency is well established and demonstrates the need to phase out fossil fuels in order to avoid negative economic, environmental and social effects. International European and United Kingdom (UK) commitments to reducing CO_2 and tackling the climate crisis have been made by all major economies. In response to these issues, the UK has made significant, legally binding commitments to increase the use of renewable energy. The Highland Council has set a Route Map to Net Zero with key interim targets to reduce emissions by at least 75% by 2030 and at least 90% by 2040. The Proposed Development relates directly to those commitments.

The Scottish Government published the Onshore Wind Policy Statement (OWPS) in December 2022. The OWPS states that onshore wind is a cheap and reliable source of zero carbon electricity. The Statement is the culmination of an extensive consultative process with industry, statutory consultees and the public.

The Onshore Wind Sector Deal (September 2023) sets out commitments from the Scottish Government and the onshore wind industry to deliver 20 GW of onshore wind in Scotland by 2030, delivering maximum benefit to Scotland. The Proposed Development will contribute to this target by providing renewable electricity generation in Scotland and providing an opportunity to reduce CO_2 emissions from our electricity use.

The Renewable Energy and Planning Policy Chapter provides the legal, renewable energy and planning policy context considered relevant to the Proposed Development. It sets out the climate change legislation at an international, national and local level, relevant UK and Scottish Government energy policy, the Development Plan and relevant Scottish planning guidance. Legislation, planning policy and guidance specific to each technical discipline are considered in the technical chapters relating to their discipline.

A more detailed analysis of the policies is provided in the Planning Statement; which is a standalone document and does not form part of the EIA Report.

Existing environment

The Site is the area within the red line boundary shown on **Figure 1** and is located within the Lynemore Estate on the hills 2 km west of the A9 at Moy within the Highland Council area.

The Site is located approximately:

- 10 km south of Inverness
- 6 km northwest of Tomatin
- 4 km east of Farr
- 2 km west of the A9 at Moy
- 2 km northeast of Farr and Glen Kyllachy Wind Farms.

The Site is mostly open moorland, managed primarily for stalking and grouse shooting. The named hill of Carn na h-Easgainn (616 m) is located within the southern edge of the site boundary. Areas of open deciduous woodland and commercial plantation lie to the north of the Site. The Farr/Glen Kyllachy Wind Farm complex lies approximately 2 km to the southwest of the Site.

The Site predominantly drains to the north-east through four main watercourses and their associated tributaries, which ultimately discharge into Loch Moy either directly or via its tributary, Allt Creag Bheithin. From Loch Moy, water flows into the Funtack Burn, which joins the River Findhorn approximately 3.7 km east of the Site near Milton of Moy. A smaller portion of the Site, located in the western area, drains north-west into Allt na Fuar-ghlaic, which eventually flows into the River Nairn, situated around 4.7 km north-west of the Site. The Site is therefore located within two primary catchments: the River Findhorn catchment to the east and the River Nairn catchment to the north-west.

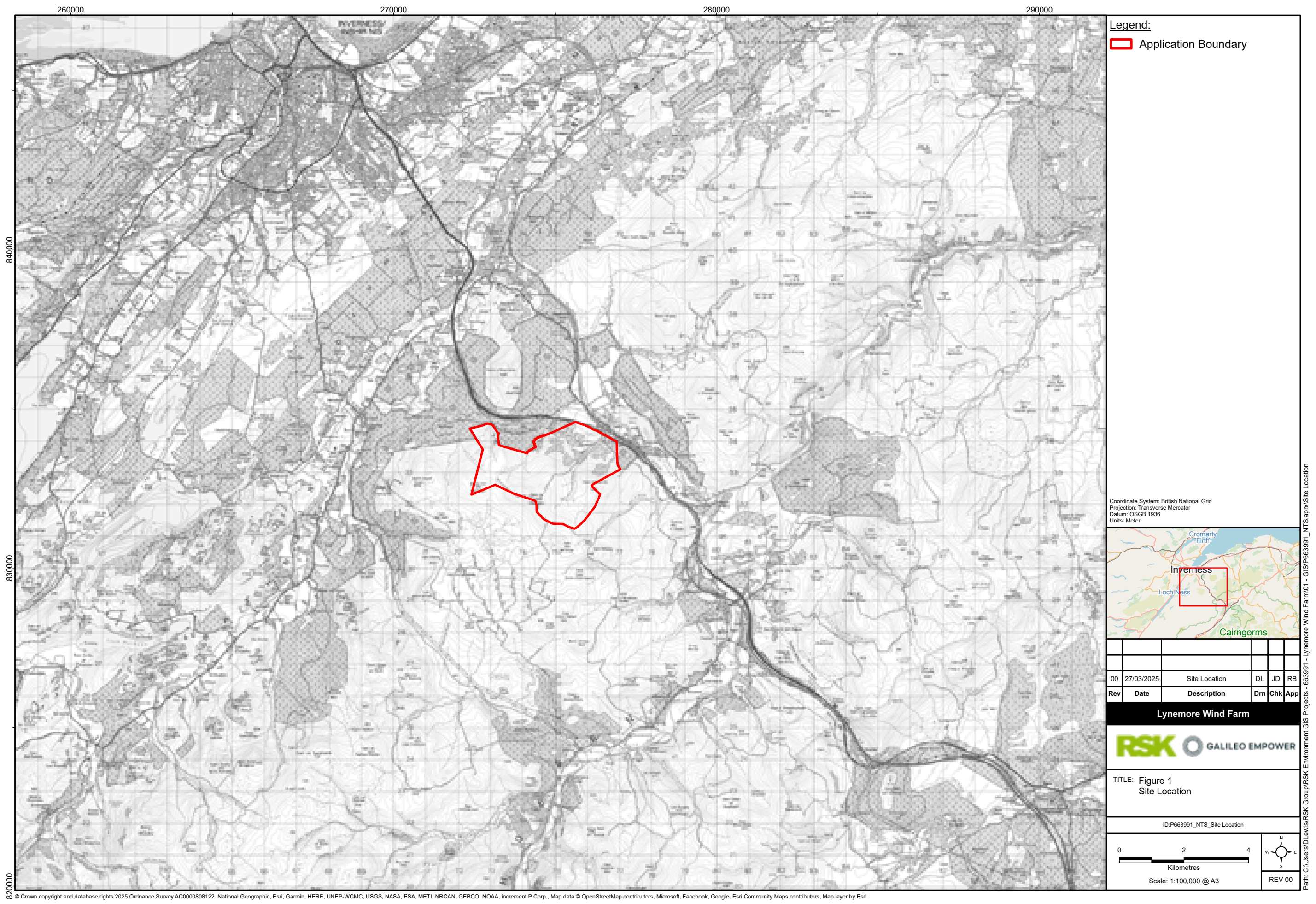

Figure 1: Site location plan

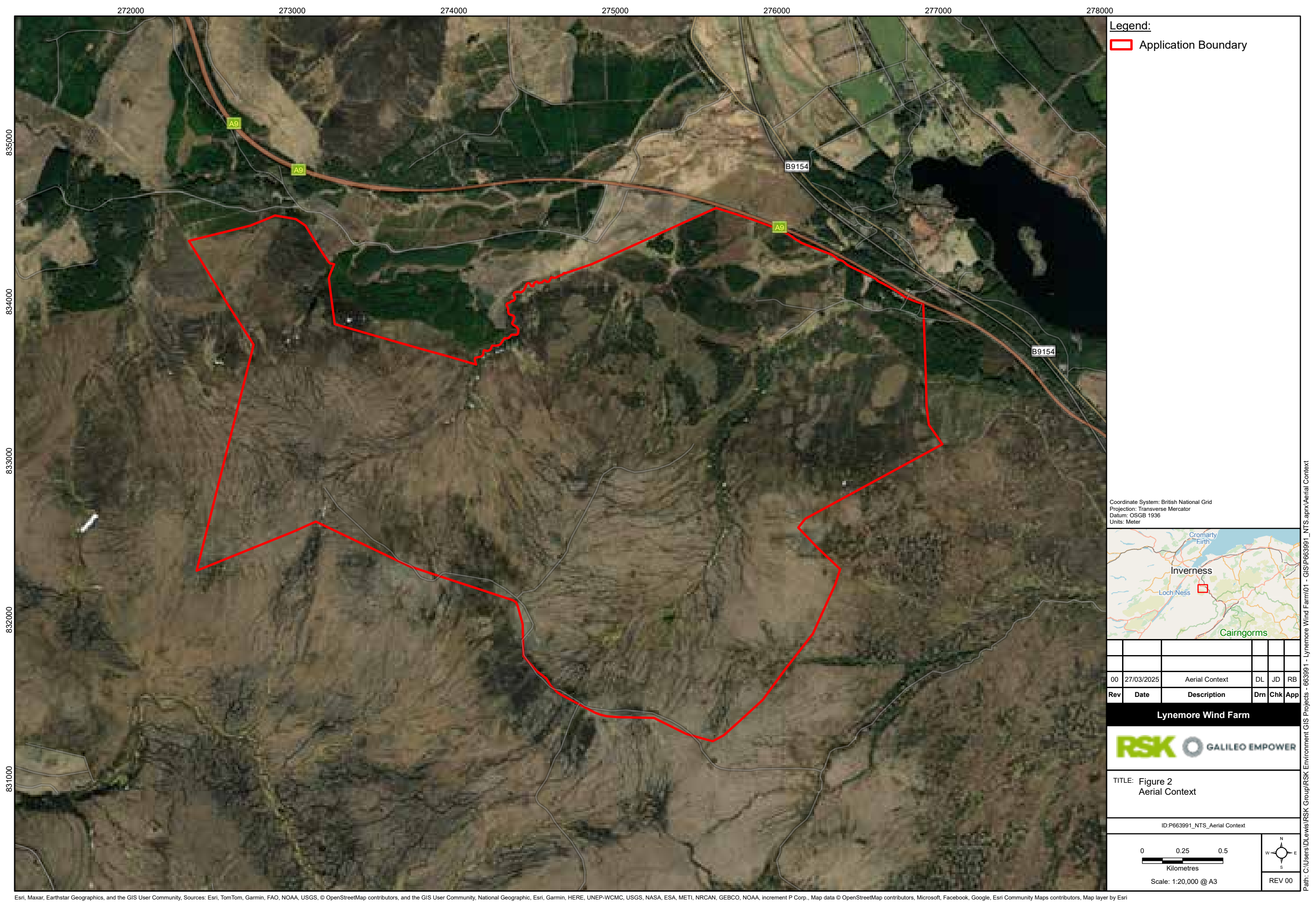

Figure 2: Aerial context plan

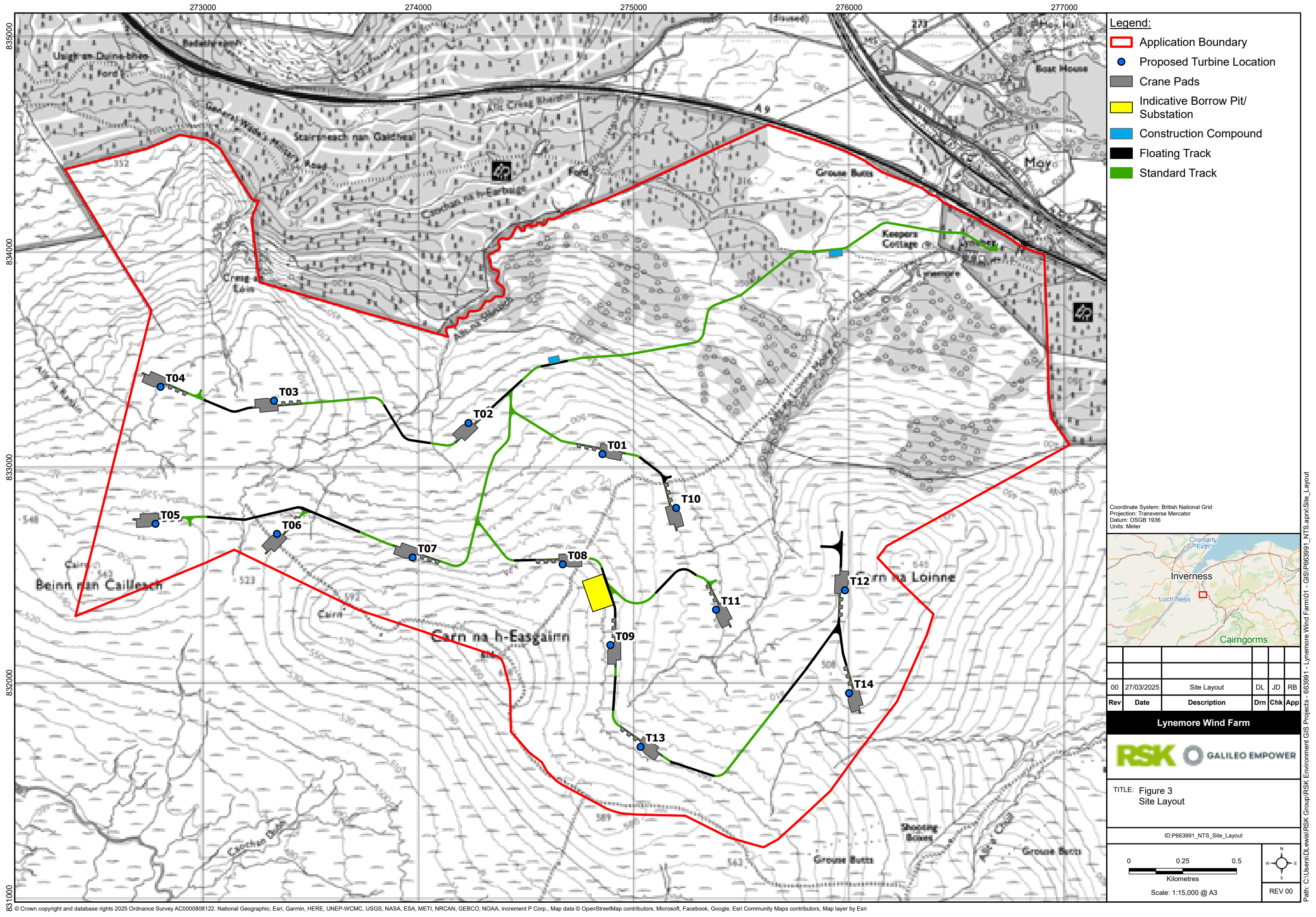

Figure 3: Site layout plan

Types of impact considered

Direct impacts may occur when some aspect of a development physically impinges upon a valued resource; for instance, the proposed construction of a house may result in loss of ecological habitat or an archaeological site.

Indirect impacts could occur in either time or location, from the source; for instance, construction works on a slope could result in heavy rainfall washing exposed soil into a nearby watercourse, which could damage aquatic life.

Cumulative impacts are defined as:

- impacts that result from changes caused by a proposed development, together with other past, present or future developments
- impact interactions that may arise from a combination of separate impacts on one or a small number of receptors, due to the same proposed development.

Information on possible future developments was gathered through the research of relevant planning documentation. The possibility of cumulative impacts arising has been considered in each of the technical chapters of the EIA Report.

Approach to the EIA

An EIA is a systematic process to identify, predict and evaluate the environmental effects of proposed developments.

The requirements of the EIA were informed by a Scoping process which considered the potential for environmental effects to occur as a result of the Proposed Development, given the nature of the receiving environment.

The Scoping exercise involved a review of available documentation, consultation with statutory and non-statutory organisations, and desk-based and site-based surveys.

The Scoping process concluded that the following aspects would require further assessment, in the form of an EIA, due to their potential to cause environmental effects:

- Landscape and visual impact
- Ecology
- Ornithology
- Hydrogeology, geology, hydrology and peat
- Archaeology and cultural heritage
- Traffic and transport
- Noise and vibration
- Socio-economics, land use, tourism and recreation
- Aviation and radar
- Electrocommunications
- Shadow flicker
- Forestry
- Climate.

The main stages of Lynemore Wind Farm EIA

The main stages of the EIA that were followed are illustrated below. It should be noted that, for the Proposed Development, different technical assessments adopt this same broad approach but vary in the detail of how they are applied, such as study areas, established guidance or assessment criteria.

Any significant residual effects that the EIA identifies as arising from the Proposed Development are key to understanding the outcome of the EIA process because these are given the greatest weight by decision makers and stakeholders when considering an application for consent.

Project data gathering

Data to describe the construction and operation of the development, including identification of the project activities, materials to be used, discharges and emissions that are likely to occur.

Environmental data gathering

Collection of available information on the existing environment within a suitable area of search.

Identification of environmental sensitivities

Identification of receptors and their environmental sensitivity, which could be affected by the proposed development. Consultation with regulatory authorities to discuss aspects associated with the proposed project activities.

Site survey work

Surveys of the existing environmental conditions to fill gaps in data, to ensure sufficient and adequate data are available and form a suitable baseline for the determination of impacts.

Environmental impact assessment

Detailed assessment of the identified potential impacts associated with project activities.

Evaluation of significance

Evaluation of significance, including qualitative and, where possible, quantitative estimation of magnitude and severity of effects.

Mitigation measures

Identification of measures to be applied to eliminate, minimise or manage the potential significant environmental effects.
Presentation of the findings of the EIA in a systematic way, including determining the significance of the residual effect on the environment, schedule of environmental commitments and monitoring requirements.

Landscape and visual identity

The Landscape and Visual Impact Assessment (LVIA) and the design of the Proposed Development have taken account of relevant legislation, national and local planning requirements in relation to wind farm development.

There would be no significant effects on any nationally important landscape planning designations including the Cairngorms National Park and Cairngorms Dark Sky Park, National Scenic Areas or Wild Land Areas. Further, there would be no significant effects on any locally important landscape planning designations, including the two closest Special Landscape Areas of Drynachan, Lochindorb and Dava Moors and Loch Ness and Duntelchaig in the Highlands.

The Lynemore Wind Farm is located within the undesignated Rolling Uplands landscape character, which is noted by The Highland Council's 'Onshore Wind Energy Supplementary Guidance' (OWESG), November 2016, as an area with lower sensitivity to large-scale wind farms that may have some scope for further large-scale development. This landscape and part of the adjacent Strathnairn Farmed Strath would be significantly affected. Although significant landscape effects are to be expected, the extent of these is not unusual for wind farm development and the large-scale and simple characteristics of the host landscape make it most able to accommodate larger turbines.

There would be significant visual effects on the views experienced by people within a localised area including road and rail users (on parts of the A9, B9154, B861 and Inverness to Perth rail line) and residents viewing from elevated areas near Balnafoich in Strathnairn and Leachkin in Inverness. The views from some recreational routes would be significantly affected, including part of General Wade's Road heritage path and Sustrans National Cycle Route 7 near Tomatin and some Core Paths. There would be no significant effects on views from Munros or Corbetts. There would be cumulative and significant effects on the views from three other walked hill summits (Carn a' Choire Mhoir, Carn nan Tri-tighearnan and Carn na Lair). The Proposed Development would be viewed in the context of existing wind farm development, set within wide panoramic views.

There are no residential properties within 1 km and none would be significantly affected in terms of their residential visual amenity.

The Lighting Strategy for the aviation warning lights would provide mitigation to minimise night-time effects.

The Proposed Development includes native riparian woodland planting that would provide multiple benefits in line with Scotland's Strategic Framework for Biodiversity (2023) objectives. From a landscape perspective, the woodland planting would strengthen and enhance the local landscape by screening views of the proposed turbines, as well as providing visual enhancement along the A9 corridor closest to the site boundary.

Ecology and biodiversity

An assessment has been undertaken to determine potential impacts of the Proposed Development on protected and notable species and sites protected for their ecological interests (collectively 'ecological features').

The assessment has been informed by a suite of baseline surveys, comprising Phase 1 habitat survey, NVC surveys, terrestrial mammal surveys for red squirrel, badger, pine marten, wildcat, otter and water vole, bat roost survey, bat activity survey, and fish habitat survey. A desk study was also undertaken, comprising a data request to the Highland Biological Recording Group and a review of publicly available sources.

Potential impacts on ecological features have been identified for all phases of the Proposed Development: construction, operation and decommissioning. Based on the data gathered, ecological receptors determined as sensitive to potential impacts of the Proposed Development have been identified as 'Important Ecological Features' and scoped in for a full assessment. Features taken forwards for full assessment comprised semi-natural broadleaved woodland, blanket bog, dry dwarf shrub heath, flush and spring, unimproved acid grassland and bats. For features not taken forward for full assessment, measures are proposed to ensure best practice and legislative compliance.

Potential impacts relevant to these species have been assessed for the Proposed Development on its own and cumulatively with other wind farm projects. The approach to identifying Important Ecological Features, how the assessments were undertaken and definitions of the terminology used are set out in the chapter.

In the absence of mitigation, impacts to blanket bog habitats are assessed as moderate adverse and significant, and as such mitigation is proposed. Impacts on all other Important Ecological Features are assessed as negligible to minor adverse. Mitigation proposed includes habitat improvement measures included in an Outline Habitat Management and Enhancement Plan, with a focus of Peatland restoration. Following mitigation, impacts on all Important Ecological Features have been assessed as negligible or minor adverse and not significant.

Ornithology

An assessment has been undertaken to determine potential impacts of the Proposed Development on bird species and sites protected for their bird interests (collectively 'ornithological features').

A suite of baseline ornithology surveys has been undertaken over two years to inform the impact assessment, comprising vantage point flight activity surveys, moorland breeding bird surveys, breeding Schedule 1 raptor searches and black grouse searches. Surveys were undertaken during the period September 2022 to August 2024. In addition, a desk study has gathered existing ornithological records from the vicinity of the Site and has also established if there are any designated areas with qualifying ornithological features that could be impacted by the Proposed Development.

Potential impacts on ornithological features have been identified for all phases of the Proposed Development: construction, operation and decommissioning. Based on the data gathered, bird species determined as being sensitive to the potential impacts of the Proposed Development have been identified as 'Important Ornithological Features' (IOFs) and have received full assessment. These comprised wader and raptor species, namely golden plover, dunlin, curlew, golden eagle, red kite, white-tailed eagle and short-eared owl. Potential impacts relevant to these species have been assessed for the Proposed Development on its own and cumulatively with other wind farm projects. The approach to identifying IOFs, how the assessments were undertaken, and definitions of the terminology used, are set out in the ornithology chapter.

Impacts on all IOFs have been assessed as being negligible or small adverse in magnitude. A conclusion of no significant effects has been made. No additional mitigation has been proposed, however habitat improvement measures included in an Outline Habitat Management and Enhancement Plan (OHEMP) will provide benefits to breeding waders.

One designated area was identified for further assessment, with investigation carried out into potential impacts on non-breeding greylag geese associated with the Inner Moray Firth Special Protection Area (SPA) and Ramsar Site (Wetland of International Importance). The impact assessment concluded negligible impacts and no significant effect. Information to inform a Habitats Regulations Appraisal for the Inner Moray Firth SPA and Ramsar Site (greylag geese only) is also included. The information provided concludes there would be no likely significant effect on the designated areas as a result of the Proposed Development on its own or in-combination with other projects.

Hydrology, geology, hydrogeology and peat

An assessment has been undertaken to determine potential significant effects on important hydrological, hydrogeological, geological and peat features associated with the Proposed Development.

The assessment is based upon comprehensive baseline data, comprising desk study information, hydrological field surveys, peat depth surveys, peat landslide hazard risk assessment surveys, outline peat management plan, watercourse crossing assessment, groundwater dependent terrestrial ecosystem assessment and private water supply assessment. The assessment of important and legally protected soil and water features is based on standard Environmental Impact Assessment (EIA) guidance.

The Proposed Development Site supports the following sensitive receptors: modified peat, watercourses, water bodies, potentially groundwater dependent terrestrial ecosystems (GWDTE), shallow and deep groundwater, and Loch Moy. Overall, the effects from the Proposed Development to the water and soil environment are assessed to be minor (not significant). The Proposed Development has been designed to minimise impacts on peat resource, alongside the need to take into account other environmental effects and technical design constraints, but it has not been possible to avoid peat altogether. Construction techniques to reduce peat excavation, such as the use of floating tracks, are proposed where engineering requirements allow.

Standard good practice measures to be adopted will include the production of a Drainage Management Plan, a water quality monitoring plan, appointment of an Environmental Clerk of Works (ECoW) and Geotechnical Engineer to oversee the implementation of the ecological and hydrological best practice, and the implementation of the Peat Management Plan, including appropriate reuse of peat onsite to reinstate temporary infrastructure and concurrent translocation of peat for the restoration to bog. Additional specific good practice mitigation includes micrositing where possible and following further detailed ground investigations and subsequent detailed infrastructure specification and design post consent.

Following the application of the proposed standard good practice measures and embedded mitigation, no significant adverse direct and/or indirect effects on soil or water features as a result of the Proposed Development are anticipated.

Archeology and cultural heritage

The archaeology and cultural heritage assessment considers potential direct/indirect physical impacts related to construction and operation of the Proposed Development on the fabric of heritage assets and impacts on the setting of heritage assets within the Application Boundary and wider area that could affect their cultural significance.

A desk-based baseline assessment was undertaken to identify known heritage assets and the potential for currently unrecorded heritage assets to be present within the Application Boundary, as well as assets in the wider landscape which may be impacted by the Proposed Development through changes to their setting. A final list of assets was agreed with Historic Environment Scotland (HES) and taken forward for assessment as part of the EIA.

Direct construction impacts upon known heritage assets would be limited to potential impacts upon a non-designated heritage asset (MHG23810), which comprises a section of General Wade's Military Road that passes through the Application Boundary. The proposed Site access would utilise a very small part of the heritage asset measuring c.230 m in length, along which a construction compound would also be established. There is potential for a direct impact during construction upon one heritage asset as a result of micrositing or accidental impact: HA2 – a modern memorial cairn (asset of low importance) identified during survey for this assessment - is located 35 m south of the cutting for the proposed Turbine 12 crane pad.

Areas containing the deepest peat have been avoided by the Proposed Development layout and no indirect physical impacts are therefore identified.

A programme of archaeological monitoring, protection by fencing, fieldwork, recording, and reporting is likely to be required, to be specified in a Written Scheme of Investigation (WSI). The scope and nature of additional mitigation will be outlined in a WSI and agreed with THC in advance of construction, a matter which the Applicant agrees can be secured as a condition of consent.

Following implementation of the proposed programme of archaeological mitigation of construction phase impacts there would be no residual physical effects on cultural heritage.

A 'Stage 1' Setting Assessment found the potential for effects through changes within their setting on the cultural significance of one Scheduled Monument; one Scheduled Monument and an associated Category B Listed Building; one Inventory Garden and Designed Landscape and an associated Category A Listed Building; and, one Inventory Battlefield and an associated Scheduled Monument and Conservation Area. These four locations were assessed in detail and the assessment was supported by photomontage and wireline visualisations. No significant effects were identified.

A cumulative assessment also found there would be no significant operational effects with cumulative wind farms.

No significant residual effects have been identified.

LYNEMORE WIND FARM · NON-TECHNICAL SUMMARY

Traffic and transport

The potential effects of the Proposed Development during construction on the road network and its users were assessed, following industry good practice and focusing upon changes in traffic flows along specific sections of roads along which general, heavy goods vehicles (HGV) and Abnormal Indivisible Loads (AILs) would pass.

The Proposed Development would lead to a temporary increase in traffic volumes on the A9, A95, A96, B9154 and B9152 during the delivery of turbine components and other construction materials onsite, particularly during the peak period of construction which is predicted to occur in months 12-14 of the 24-month construction programme.

A range of mitigation measures are proposed, including the implementation of a Construction Traffic Management Plan and an Abnormal Load Transport Management Plan. The Applicant would establish a Community Liaison Forum, in collaboration with the Council and local Community Councils. The forum would allow the community to be kept up to date with project progress and allow communication on the provision of transport-related mitigation and publicise the timings of turbine component deliveries. The Community Liaison Forum would be maintained until construction is complete and the Proposed Development is operational.

The proposed mitigation would reduce the effects form abnormal loads and general construction traffic on the study network to not significant, the effects would be temporary and reversible.

Noise and vibration

The noise and vibration chapter has considered the potential noise and vibration effects from construction, operation, and decommissioning of the Proposed Development. Construction traffic noise has also been considered. During the operation, the main source of noise will be from operation of the proposed wind turbines.

The baseline conditions were determined from historical baseline data and a new survey was undertaken at one location to provide representative baseline of the noise-sensitive locations surrounding the Site. The baseline data was used as the basis of assessing operational noise levels. The construction and decommissioning noise assessment assumes that noise-sensitive receptors are all in a rural area, with relatively low baseline noise levels.

Assessment of potential effects of noise and vibration has been undertaken for all construction phases of the Proposed Development. The assessment has generally identified effects of minor significance for most construction activities and moderate impact for new site track construction without mitigation. Mitigation measure have been outlined in the noise and vibration chapter that reduces the impact to minor magnitude, which is not significant in EIA terms.

Construction vibration effects are associated with minor impacts and construction traffic noise is associated with negligible effects, which are not significant.

Operational noise effects from the Proposed Development are considered to be not significant in EIA terms.

No cumulative effects are anticipated for the Proposed Development, as such the effects are negligible in EIA terms.

Where the additional mitigation measures outlined in the chapter are employed, residual effects from noise and vibration associated with the construction, operation and decommissioning of the Proposed Development can be reduced to minor at most and not significant for all effects.

It is therefore concluded that the effects of the Proposed Development can be suitably controlled such that adverse effects are not significant in EIA terms.

Socioeconomics, land use, tourism and recreation

An assessment of the potential socio-economic effects of the Proposed Development and the likely significance of these on tourism, recreation, land use economic output, employment generation and other indirect effects was undertaken. The assessment of the Proposed Development's socioeconomic impact found that:

- During the construction phase it is estimated that the Proposed Development could generate up to £34.3 million GVA and 533.4 job years across Scotland, with approximately £10.9 million and 183.1 job years' worth of this total directly benefiting the Highlands and £1.9 million GVA and 31.1 job years in Inner Moray Firth.
- Over the course of the operational phase and 50-year lifetime of the Proposed Development, it is estimated that the operation and maintenance costs (inclusive of community benefit funding and non-domestic rates) could generate up to £122.5 million GVA and 1722.4 job years for Scotland, of which £88.0 million GVA and 1212.1 job years directly benefit the Highlands economy and £32.3 million GVA and 442.4 job years for Inner Moray Firth.

Community benefit funding and non-domestic rates were estimated based on the 98 MW capacity of the wind turbines. Approximately £24.5 million in community benefit funding and £46.5 million in non-domestic rates would also be provided over the operational lifetime of the Proposed Development.

The Socio-economic effects of the Proposed Development are considered to be considered beneficial, and not significant. Furthermore, the proposed development is not expected to have any significant effects on recreation and tourism in EIA terms. Furthermore, The Proposed Development have no significant effects on recreation and tourism, which are not significant.

Other issues

Telecommunications and electromagnetic interference

Radio waves and microwaves are used in a variety of communications. Structures such as wind turbines have potential to interfere with their reception. As part of the EIA process, consultation was undertaken with bodies that are responsible for managing and maintaining telecommunications networks. No impacts on any telecommunications assets were identified.

Review of the Ofcom Spectrum Information Portal determined that there are no microwave fixed links within 1000 m of any proposed turbine position in the Proposed Development. Consultations with the Joint Radio Company (JRC), Atkins and Arqiva confirmed that there are no UHF scanning telemetry or television re-broadcast links with the potential to be affected by the Proposed Development. Therefore, telecommunications have been scoped out of assessment.

Aviation

Wind turbines have the potential to cause a variety of adverse effects on aviation interests. They can cause issues for the radars used by civilian and military air traffic controller because the characteristics of moving turbine blades are similar to those of aircraft, leading to spurious returns, or clutter on radar displays. This can affect the safe provision of air traffic services. Wind turbines can also present a physical obstruction for aviation activities such as military low flying.

A review of aviation interests and operations in the vicinity of the Proposed Development was undertaken. This showed that the Site is located within a military low flying area. Radar line of sight modelling showed that all of the proposed turbines would be within line of sight of the Inverness Airport and Terma Scanter

The wind turbine layout has been designed to ensure there is no direct line of sight from the Primary Surveillance Radar (PSR) at RAF Lossiemouth, minimizing any potential interference.

To address potential radar interference, Inverness Airport has installed a Terma Scanter 4002 radar to mitigate the effects of wind farms on its Thales STAR 2000 radar system. It is expected that this system will also mitigate any impact from the proposed development. A planning condition will be agreed upon to ensure radar mitigation measures are approved and in place before the wind farm becomes operational.

Shadow flicker

Shadow flicker occurs when the sun passes behind the blades of a wind turbine and casts a moving shadow on nearby buildings. The effect can occur under certain combinations of geographical positioning, the time of day and time of year (i.e., when the sun is low on the horizon). Shadow flicker is caused when rotating wind turbine blades cause brightness levels to vary periodically, with the shadow created by the blades flickering on and off. The effect of shadow flicker is an issue inside buildings, where the flicker appears through windows, creating a nuisance for residents of the receptor. Shadow flicker can cause annoyance if it occurs for a significant time period.

When modelled using a worst case scenario, it was found that properties with potential for shadow flicker would not receive shadow flicker effects for more than the reference limit of 30 minutes per day and/or 30 hours per year. Therefore, no significant effects are predicted.

Population and human health

The 2017 EIA Regulations state that an assessment of population and human health should be considered during the EIA process. At Scoping stage, it was proposed that this requirement be covered through the findings of other assessments undertaken as part of the EIA process and so no dedicated EIA chapter will be produced. Particular aspects of population and human health are therefore addressed in the Noise, Landscape and Visual, Traffic and Transport, Aviation and Radar and Other Issues chapters of the EIA Report, as well as in Chapter 2: Proposed Development.

No significant effects are predicted.

Risks of major accidents and disasters (including climate change)

The risk of major accidents or disasters at the Proposed Development is considered extremely low due to its location and design. Safety risks are minimised through a Design Risk Assessment process, following construction regulations. Additionally, a Peat Landslide Hazard Risk Assessment has been conducted as part of the Environmental Impact Assessment Report.

Once operational, the Site will undergo regular maintenance to ensure safety and compliance. The main potential risk would be extreme weather conditions, but the turbines are equipped with braking mechanisms to prevent operation in unsafe wind speeds. The Site's landscape also reduces the risk of flooding, and the development itself will not contribute to flooding elsewhere.

Given these factors, as assessment of major accidents and disasters has not been required at part of the EIA.

Forestry

None of the proposed turbines are within areas of forestry but the proposed access route and construction compound pass through Forestry Land Scotland (FLS) and Lynemore Estate woodland. The access track will pass through woodland recorded on the Ancient Woodland Inventory and Long-Established Woodland of Plantation Origin.

The Study Area was assessed by desk top study and field survey to determine the extent and quality of woodland on site. It would be necessary to fell 4.29 hectares (ha) of woodland to accommodate the Proposed Development. 2.46 ha would be utilised for the construction of permanent infrastructure and 1.83 ha would be restocked. Residual effects would be negligible following compensatory planting of 2.46 ha to offset the effects of permanent woodland removal. The Outline Habitat Enhancement and Management Plan indicates 218 ha of peatland restoration and the removal of regenerating tree saplings and seedlings from sensitive peat areas. In the peat restoration area, regenerated broadleaves would be retained with pockets of lower value habitat; for example, in acid or marshy grassland to provide wider biodiversity benefit.

Climate change mitigation

In addition to the value that wind farms provide in terms of the renewable electricity they generate; they also provide an important mechanism for the reduction of carbon dioxide (CO_2) and other greenhouse gases into the atmosphere.

Operational wind farms achieve emissions savings by reducing the consumption of fossil fuel generated electricity. However, during their manufacture, construction and decommissioning, wind farms can result in the emission of greenhouse gases, particularly in such instances as where natural carbon stores such as forestry and/or peat are present and potentially impacted by the development.

The Scottish Government has prepared a carbon assessment tool for wind farms to help ensure such cases are avoided, and this assessment tool has been applied to the Proposed Development.

The Proposed Development has been carefully designed to minimise disturbance of areas of peat and requirement for tree felling required to make way for turbines and infrastructure delivery and construction. As such, the carbon calculator confirms that the largest source of carbon emissions associated with the Proposed Development will stem from the manufacture, construction and decommissioning of turbines (320,191 tonnes CO_2e), with total emissions, due to the Proposed Development estimated at 272,663 tonnes of CO_2e,

Once operating, the Proposed Development is predicted to save around 55,083 tonnes CO_2e per annum. Construction phase carbon emissions will be offset within 2.8 years. A total carbon saving of around 2,481,469 tonnes of CO_2e is predicted over the lifetime of the wind farm (50 years), which is considered to be a significant positive effect.

STOCK IMAGE

STOCK IMAGE

WHAT HAPPENS NEXT

The Scottish Government Energy Consents Unit will consider the findings of the EIA, of which this NTS forms a part, together with other documents submitted as part of the Section 36 application for the Proposed Development. Once the application has been submitted comments can be made to the Energy Consents Unit – see details below.

If Scottish Ministers were to grant consent for the Proposed Development, then it is envisaged that construction of the Proposed Development could begin in 2029, becoming operational around 2031.

Contact details

Representations, expressions of support or opposition, and opinions on the Proposed Development should be sent to:

representations_mailbox@gov.scot

or by post to:

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

identifying the application and case reference number (ECU00005105) and specifying the ground for representation.

Further information

Further information on the Proposed Development can be found on the project website at:

https://lynemorewindfarm.co.uk/

Hard copies of the EIA Report are subject to a charge of £2,000 and are available on written request from:

FAO: Robert Beck
RSK Environment Ltd
65 Sussex Street
Glasgow
G41 1DX

Hard copies of the non-technical summary are available free of charge.

A digital version of the EIA Report can be downloaded free from the ECU portal, or from: https://lynemorewindfarm.co.uk or provided on USB stick by written request as above.