## **Appendix 3.1: Achany Extension S36C Scoping Report**

Please note: this appendix contains the text of the scoping report only. For a full list of downloadable figures and technical appendices, please visit the ECU website, where the full upload and the scoping opinion can be viewed together:

<u>Scottish Government - Energy Consents Unit - Application Details</u>



# Achany Extension Wind Farm Varied Development

**S36C Scoping Report** 





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# **Abbreviations**

AIR Additional Information Report

AQMA Air Quality Management Area

AIA Aviation Impact Assessment

BGS British Geological Survey

BT British Telecom

CO<sub>2</sub> Carbon Dioxide

CIEEM Chartered Institute for Ecology and Environmental Management

CAA Civil Aviation Authority

CEMP Construction Environment Management Plan

CTMP Construction Traffic Management Plan

CLVIA Cumulative Landscape and Visual Impact Assessment

DWPA Drinking Water Protected Area

ECoW Environmental Clerk of Works

ECU Energy Consents Unit

EHO Environmental Health Officer

EIAR Environmental Impact Assessment Report

GWP Global Warming Potential

GWDTE Groundwater Dependent Terrestrial Ecosystem

GI Ground Investigation

HMP Habitat Management Plan

HGV Heavy Goods Vehicle

HIAL Highlands and Islands Airport Limited

HES Historic Environment Scotland

IEF Important Ecological Feature

IOF Important Ornithological Feature

IEMA Institute of Environmental Management and Assessment

IFP Instrument Flight Procedures

IFR Instrument Flight Rules

JRC Joint Radio Company

LVIA Landscape and Visual Impact Assessment

LCT Landscape Character Type

LGV Light Goods Vehicle

MoD Ministry of Defence



MW Megawatt
NS NatureScot

NATS National Air Traffic Services Safeguarding

NESO National Energy System Operator

NHZ National Heritage Zone
NSA National Scenic Area

NVC National Vegetation Classification

NSR Noise-Sensitive Receptor

PMP Peat Management Plan

PPP Pollution Prevention Plan

PSR Primary Surveillance Radar

PWS Private Water Supply

RIAT Rapid Impact Assessment Tool
RBMP River Basin Management Plan
SSSI Site of Special Scientific Interest

SAC Special Area of Conservation

SLA Special Landscape Area

SEPA Scottish Environment Protection Agency

S36 Section 36

S36C Section 36C (Variation Application)

SSER SSE Renewables

SSENT SSE Networks Transmission

SMAC Surveillance Minimum Altitude Chart

TEC Transmission Entry Capacity

THC The Highland Council

VP Viewpoint

WLA Wild Land Area

WTG Wind Turbine Generator

WSI Written Scheme of Investigation

ZTV Zone of Theoretical Visibility



# **Terminology**

- The 'Consented Development' the 18-turbine Achany Extension Wind Farm consent granted by the Scottish Ministers in May 2023.
- The 'Proposed Varied Development' the variations to the Consented Development which will form the Variation Application as described herein.
- The 'Development Site' the site of the Consented Development and the same site for the Proposed Varied Development as defined by the red line boundary submitted for the planning application(s).
- The 'Applicant' the Applicant for the Proposed Varied Development is SSE Renewables Ltd; this is the same applicant that sought and was granted the Section 36 consent for the Consented Development.
- The '2021 EIAR' the Achany Extension Wind Farm Environmental Impact Assessment Report that accompanied the Section 36 application for the Consented Development.
- The '2022 AIR' the Achany Extension Wind Farm Additional Information Report that was submitted following requests for further information from consultees.



## 1. Introduction

#### 1.1. The Project

- 1.1.1. SSE Renewables Ltd (hereafter 'the Applicant') is preparing an application to vary Achany Extension Wind Farm (hereafter 'the Consented Development'), through application to the Scottish Minsters via the Energy Consents Unit (hereafter the "ECU") under Section 36C of the Electricity Act 1989.
- 1.1.2. The Consented Development provides for the construction and operation of a wind farm comprising 18 wind turbine generators (WTGs) with a tip height of up to 149.9m and a generating capacity greater than 50MW, for a period of 50 years. The Section 36 consent was granted under the Electricity Act 1989, on May 22<sup>nd</sup> 2023 (ECU Section 36 Ref: ECU00001930 and The Highland Council Planning Ref: 21/03695/S36), alongside the granting of deemed planning permission under section 57 (2) of the Town and Country Planning Act 1997.
- 1.1.3. The Consented Development lies immediately to the north west of the Applicant's operational Achany Wind Farm, which comprises 19 WTGs with an installed capacity of 38MW.
- 1.1.4. The Applicant had planned to commence construction of the Consented Development in September 2026, however, due to challenges affecting the onshore wind industry, the project in its current form despite refinement was not considered to be economically viable, and the project's future viability was evaluated.
- 1.1.5. After conducting a detailed project feasibility review, the Applicant is now proposing to increase the hub height of all 18 WTGs, increasing them to a new maximum tip height of up to 200m. This will require an increase to the areas of the hardstanding and foundation requirements for each WTG, and the addition of 8 new turning heads to the site access track design. The increase in hardstand areas has allowed some access track optimisation, leading to a reduction in overall track length. Due to changes in the specifications and availability of potential candidate turbines over time, the nominal maximum rotor diameter of the WTGs has changed from 136m in the 2021 EIAR to 138m currently. This has no impact to the design layout or maximum tip height but will be factored into all relevant analyses in the technical chapters of the comparative EIAR. No other changes to the consented design are proposed. The proposed changes are hereinafter referred to as the 'Proposed Varied Development.'
- 1.1.6. The Applicant is engaging with NESO (National Energy System Operator) and SSE Networks Transmission Ltd (SSENT) to refine the grid connection for the Consented Development and associated onsite grid equipment configuration. These adjustments will either lead to no change to the consented substation footprint, which will remain in the consented location, or potentially a small reduction. A new indicative substation layout will be submitted with the S36C application.



- 1.1.7. The application for the Proposed Varied Development is to be made under Section 36C of the Electricity Act 1989, and The Electricity Generating Stations (Applications for Variation of Consent) (Scotland) Regulations 2013, together with a direction under Section 57(2) of the Town and Country Planning (Scotland) Act 1997. The application will be prepared and submitted in accordance with the Energy Consents "Applications for Variation of Section 36 Consents Guidance"1.
- 1.1.8. In addition to seeking a variation to the Annex 1 Description of Development, the Application will request that conditions contained in Annex 2 of the current Section 36 Consent remain similar but are updated as appropriate to the Proposed Varied Development and its deemed planning permission.
- 1.1.9. In accordance with Regulation 3(1)(c) of the 2013 Regulations, the reasons for seeking a variation to the S36 consent are as follows:
  - The increase in tip height would substantially increase the energy yield from the Consented Development, thus improving the commercial viability of the project;
  - The addition of turning heads aids the movement of delivery vehicles, enabling safe and efficient construction of the windfarm; and
  - The Proposed Varied Development would make an even greater contribution to the
    achievement of legally binding UK and Scottish Government net-zero targets. This is
    due to generating renewable energy more efficiently through access to higher wind
    speeds, and due to the increased likelihood of the (more economically viable) project
    being completed, thus contributing to net-zero targets.
- 1.1.10. The aim of this report is to set out the scope of the new Environmental Impact Assessment Report (EIAR). The scope has been informed by the findings of the original 2021 EIAR conducted for the Consented Development. In accordance with Regulation 5(4) of the EIA Regulations, the EIAR will aim to avoid duplication of assessment by considering the results identified in the Achany Extension Wind Farm S36 Application (2021).
- 1.1.11. The site location and layout of the Proposed Varied Development, overlaid on the design of the Consented Development, is presented on **Figure 1.1**.

Achany Extension Wind Farm S36C Variation: Scoping Report

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<sup>&</sup>lt;sup>1</sup> "Guidance Note: Applications for variation of section 36 consents guidance", 20 May 2019, Energy and Climate Change Directorate. Web link accessed January 2025: Supporting documents - Energy consents: applications for variation of section 36 consents guidance - gov.scot



#### 1.2. Consenting History

- 1.2.1. The Consented Development was previously known as Glencassley Wind Farm. An application for consent was submitted in July 2012 to the then Energy Consents and Development Unit (ECU Reference no. EC00005263). The development consisted of 26 WTGs with a maximum tip height of 126.5m. The Highland Council (THC) raised no objection the proposal, however it was ultimately refused by Scottish Ministers in 2015, on the grounds of perceived impacts on the Assynt Coigach National Scenic Area (NSA) and on the Reay-Cassley Wild Land Area (WLA).
- 1.2.2. Despite this refusal, the Applicant decided to revisit a possible development for the site due to the location's strong potential for a wind farm development from its available wind resource, proximity to other existing wind developments, and the context of the Climate Emergency.
- 1.2.3. Following a scoping report submission in 2019, and a further refresh in 2020, a Section 36 application for the project was submitted in July 2021, under the revised name Achany Extension Wind Farm (ECU Reference no. EC00001930). The change in name reflected that the location of the turbines had moved approximately 2km closer to Achany wind farm than that previously proposed by the Glencassley application. Initially, the proposal was to install 20 WTGs, however two turbines were removed from consideration at the request of The Highland Council to remove its potential objection to the development on grounds of visual impact. The application was consented in May 2023.
- 1.2.4. During the consideration of the S36 application, an Additional Information Report (2022 AIR) was produced in response to requests by consultees. This document primarily informed how the reduction from 20 to 18 WTGs changed the predicted effects as outlined in the 2021 EIAR.
- 1.2.5. Post-consent, the Applicant worked to progress the project toward construction, however, due to a wide range of economic challenges for the onshore wind industry, it was determined that it would not be possible to progress the project in the consented form, and the project returned to the development stage to pursue a variation of the consent.

## 1.3. Scoping Report Objectives

- 1.3.1. This report is provided to the ECU under Regulation 12 of the EIA Regulations and is submitted to the Scottish Ministers as a formal request for a Scoping Opinion on the information to be provided within the EIAR accompanying the S36C application.
- 1.3.2. For a variation application relating to an EIA development, the Electricity Works (Environmental Impact Assessment) (Scotland) Amendment Regulations December 2017 require further assessment to consider the impacts of the variations rather than requiring the whole development to be assessed again. In considering the impacts of the variation, in accordance with Regulation 5(4), the EIAR will consider the results identified in the 2021 EIAR and the 2022 AIR.



- 1.3.3. The objectives of this Scoping Report are therefore to:
  - Define the Proposed Varied Development being considered (Chapter 2).
  - Describe the approach to the EIA in relation to the Proposed Varied Development and outline which features and impacts are to be scoped in or out of the EIA (Chapter 3).
  - For each predicted environmental effect, Chapters 4 15, the following information is provided:
    - a) Consented Development EIAR Baseline
      Summary of the predicted level of impacts in the 2021 EIAR.
    - b) Consultation & Existing Planning Conditions Summary of the consultation outcomes for the Consented Development application. Where relevant, this section also discusses how the planning conditions for the Consented Development have been addressed to date or will be considered for the Proposed Varied Development.
    - c) Issues scoped in/out

Summary (presented in table or text format) of the issues proposed to be scoped in and out of the Proposed Varied Development EIAR, including the description of the anticipated potential effects, rationale for scoping in or out of the assessment, and where relevant a commentary on the changes to potential significant environmental effects resulting from the Proposed Varied Development (compared with the Consented Development).

d) Assessment Methodology

Description of the proposed methodologies that will be used to assess potential changes to impacts compared to the Consented Development.

- e) Mitigation Measures
  - Approach to the identification of the mitigation measures that will be considered for the assessment of the residual effects.
- f) Summary and Conclusions
- g) **References** list of references used to compile the scoping chapter.

#### 1.4. Key Questions for Consultees

- 1.4.1. For each of the predicted effects associated with the Proposed Varied Development, responses to the following key questions are put to Consultees:
  - Are Consultees content with the proposed baseline?
  - Are Consultees content with the proposed approach to the evaluation and impact assessment methods?
  - Can Consultees provide details of any recent records or projects within or in the vicinity of the site, which may not yet be in the public domain, and which may be pertinent to the assessment of impacts relating to the Proposed Varied Development?
  - Are Consultees content with the effects that are proposed to be scoped out of the assessment?



### 1.5. Aims of the Scoping Report

- 1.5.1. The aims of the scoping exercise are to:
  - Confirm with Scottish Ministers that the proposed changes to the consented scheme are of a nature and scale that a S36C is the appropriate application route.
  - Seek agreement from Scottish Ministers and consultees on the likely significant effects associated with the Proposed Varied Development and confirm that all likely significant effects have been correctly 'scoped in' to the EIAR.
  - Seek agreement where non-significant effects have been excluded ('scoped out').
  - Invite comment on the proposed approach to baseline data collection, prediction of environmental effects and the assessment of significance.
  - Obtain a Scoping Opinion which ensures that the future EIAR is effective, proportionate and minimises the burden of information provision where it is appropriate and possible to do so.
- 1.5.2. Unless consultees specifically request otherwise, all scoping responses and any other pre-application consultation will be collated and presented as a Technical Appendix to the EIAR.



# 2. Proposed Variation

2.1.1. The Development Site boundary and turbine locations of the Consented Development and the Proposed Varied Development are identical. The proposed changes to the Consented Development are summarised in **Table 2.1** and presented on **Figure 1.1**: **Consented and Proposed Layout Comparison**.

**Table 2.1: S36C Proposed Variations** 

S36 Consent Annex 1 Description of Development	S36C Description of Development Amendments Proposed for the Proposed Varied Development Application
18 turbines each with a maximum blade tip height of up to 149.9m	18 turbines each with a maximum blade tip height of up to 200m.
Crane hardstandings for each turbine	The size of the hardstands has increased to reflect the requirements of a larger WTG.
An onsite substation	Transformer configuration is expected to change, requiring an updated indicative design drawing. Either no change to substation platform size, or a small reduction.
Access Tracks	Optimisation of onsite access tracks, including a reduction in total length.
No turning heads	Addition of eight turning heads to accommodate turbine supplier delivery requirements
Infra-red lighting solution	A new Aviation Lighting Solution needs to be agreed with consultees that reflects the requirement for increased tip height triggering the need for visible aviation lighting.



# 3. Approach to Assessment

#### 3.1. Baseline

- 3.1.1. As the Proposed Varied Development involves an increase in the tip height of turbines, with all other infrastructure remaining largely unchanged, the EIAR will focus primarily on any significant effects likely to arise during the operation of the Proposed Varied Development. Impacts during construction and decommissioning will likely remain as previously assessed in the 2021 EIAR and 2022 AIR.
- 3.1.2. Electronic copies of the Consented Development Environmental Impact Assessment Report (2021) and the Additional Information Report (2022) are available on the ECU portal (case ref ECU00001930) and the SSE Renewables website here: <a href="https://www.sserenewables.com/onshore-wind/in-development/achany-extension/">https://www.sserenewables.com/onshore-wind/in-development/achany-extension/</a>
- 3.1.3. Existing survey data will be utilised for the topics 'scoped in' to the EIAR as it is considered that all previous survey data collected remains valid. Baseline conditions will therefore be assumed to be as per the 2021 EIAR. This will allow a comparison of effects for the topics 'scoped in' to the EIAR between the Consented and Proposed Varied Development.
- 3.1.4. Where the track optimisations occur, and where the turning heads are to be constructed, any survey data gaps will be considered accordingly and updated surveys completed as required to inform the updated assessment. Use of and validity of existing data is explained further under each individual topic in this report.
- 3.1.5. The cumulative baseline scenario would be reviewed for each topic and updated where necessary.

## 3.2. Approach to Assessment

- 3.2.1. The Consented Development was subject to a rigorous design process that aimed to reduce potential effects on the environment as far as practicable. The layout revisions developed through the iterative EIA process considered the potential effects on sensitive habitats, peat, ground water dependent terrestrial ecosystems, protected species as well as potential landscape and visual effects before a final layout was determined. As such, many potentially significant environmental effects were avoided through the design process.
- 3.2.2. All sensitive receptors have been reviewed to take account of the proposed variations. For the topics "scoped in" to the EIAR, a comparative assessment will be undertaken between the Consented Development and the Proposed Varied Development. The comparative assessment would consider the potential for material change between the findings of the 2021 EIAR and the assessment of the Proposed Varied Development.



- 3.2.3. In line with standard practice, for the purpose of the EIA, other wind farm developments which are not already part of the baseline and are operational, consented or subject to a full and validated consents or planning application will be included in the consideration of potential cumulative effects (subject to a cut-off point to allow assessments to be undertaken).
- 3.2.4. To further prevent, reduce or offset potential effects, the mitigation measures specified within the 2021 EIAR will need to be reviewed, but it is assumed that these will remain largely in their current form for inclusion within the EIAR of the Proposed Varied Development.

#### 3.3. Varied Development Proposed EIA Scope

3.3.1. **Table 3.1** lists each chapter of the 2021 EIAR and 2022 AIR for the Consented Development and opinion and justification on whether it will be scoped in or out of the S36C Variation Application.

Table 3.1: Proposed EIA structure and S36C Scoping Justification

EIAR Chapter	Included in EIAR / Scoped In	Scoped Out
Chapter 1:	Describes context of S36C	
Introduction	application.	
Chapter 2: Design	Describes the Proposed Varied	
Iterations and	Development, including details on	
Proposed	design iterations and changes to	
Development	infrastructure of the Proposed Varied Development vs the	
	Consented Development.	
	Consented Development.	
Chapter 3: Approach	Describes comparative EIA	
to EIA	methodology.	
Chapter 4: Planning	Updates planning policy context.	
Policy		
Chapter 5: Landscape	Comparative LVIA to assess	
& Visual Impact	changes in impacts resulting from	
Assessment	increased tip height and changes to	
	aviation lighting requirements.	
	Assessment will include the effects	
	on landscape character and visual amenity and wild land for	
	construction and operation of the	
	Proposed Varied Development	
Chantar & Faciarii	Comparative EIA considering	Previously assessed Important
Chapter 6: Ecology	changes to impact on habitats	Ecological Features do not need an updated assessment.



EIAR Chapter	Included in EIAR / Scoped In	Scoped Out
	(focus on priority peatland) as a result of the proposed variations.	
Chapter 7: Ornithology	Change to turbine geometry requires updated collision risk model and comparative EIA.	All other ornithological issues.
Chapter 8: Hydrology & Hydrogeology		Hydrogeological and hydrological impacts of the Proposed Varied Development, including the potential effects on aquifers, surface waters, water dependant habitats, such as GWDTEs, and water supplies.
Chapter 9: Geology & Carbon Balance		Bedrock geology, superficial geology, peat, designated sites and UXO all considered to have no change to impact.
Chapter 10: Cultural Heritage & Archaeology	Assessment of effects on scheduled monuments, listed buildings and inventory historic battlefields within 10km of the site boundary. Cumulative assessment.	Direct (physical) effects, and assessment of effects on the setting of world heritage sites, inventory garden and designed landscapes and conservation areas
Chapter 11: Traffic & Transport		Changes to the scheme increases the number of total deliveries, but the increased construction programme evens out the number of weekly deliveries. Existing AIL and Swept Path analysis remains valid.
Chapter 12: Socio- Economic, Recreation & Tourism		Changes to the scheme will not result in any new adverse or negative changes to previous impact assessment.
Chapter 13: Noise & Vibration		No change to construction or operational impacts and no significant impacts previously assessed.
Chapter 14: Aviation & Radar	Revised aviation safety and lighting assessment required due to increase in tip height and	Radar impacts are not significant and can be further mitigated. Aircraft flying Instrument Flight Rules were



EIAR Chapter	Included in EIAR / Scoped In	Scoped Out
	requirement for visible lighting scheme.	previously assessed, and no update is needed.
Other Issues:		No changes as a result of the Varied
Forestry, Air Quality,		Development.
Shadow Flicker, Ice		
Throw,		
Telecommunications,		
TV & Radio Links,		
Climate Change,		
Population & Human		
Health, Risk of Major		
Accidents and/or		
Disasters		

- 3.3.2. The following EIAR chapter structure is proposed for those topics 'scoped in' to the EIAR:
  - a) Introduction.
  - b) Scope of assessment.
  - c) Consultations.
  - d) Assessment methodology.
  - e) Baseline.
  - f) Summary of effects predicted for the Consented Development & mitigation measures.
  - g) Revised assessment of effects for the Proposed Varied Development.
  - h) Revised mitigation measures for the Proposed Varied Development.
  - i) Comparison of the Proposed Varied Development effects with effects of Consented Development.
  - j) Conclusion.



# 4. Planning Policy

#### 4.1. Introduction

- 4.1.1. The EIAR accompanying the Proposed Varied Application will include a chapter which will identify the relevant energy and planning legislation and policy considerations relating to the Proposed Varied Development. A separate standalone Planning Statement will provide a robust assessment of the legislation and policies relative to the Proposed Varied Developments.
- 4.1.2. The EIAR Planning Policy Chapter and the accompanying Planning Statement for the Proposed Variation Application will include the following:
  - A description of the consenting framework for a Section 36C application including legislation, the variation process, administration and planning permission;
  - A description of the fundamental and most relevant UK, Scottish Government and International Climate Change and Energy Legislation and policies; and
  - A description of the Development Plan Policy Framework. It is important to note that for an application under the Electricity Act, the duty outlined in Section 25 of the Planning Act (to determine the application in accordance with the development plan unless material considerations suggest otherwise) does not apply. However, the development plan remains a material consideration.
- 4.1.3. The standalone Planning Statement will provide a full and robust assessment of the Proposed Varied Development's compliance with the referenced legislation and policies, and will demonstrate that the substantial increase to the energy yield from the Consented Development will make an even greater contribution to the achievement of legally binding UK and Scottish Government net-zero targets, thereby further enhancing the needs case as outlined in various national planning policy and guidance documents.

## 4.2. Climate Change, Energy Legislation and Policy

- 4.2.1. The EIAR Planning Policy Chapter and the accompanying Planning Statement will provide a commentary on the energy legislation and policy considered to be of most relevance to the Proposed Varied Development. This would not be an exhaustive list of policies and plans relevant to the subject area, only the most salient pieces of legislation and policies would be referenced.
- 4.2.2. The most relevant UK and Scottish Government Legislation, Policy statements and guidance on Climate Change and Energy are referenced within **Table 4.1**.



Table 4.1: Legislation and Policy

UK Legislation	Key Points
Climate Change Act 2008	The Legislation set legally binding targets for reducing greenhouse gas emissions. Emission Reduction Targets were aimed at reducing emissions by 80% by 2050 compared to 1990 levels. The Committee on Climate Change established.
The Climate Change Act 2008 (2050 Target Amendment) Order 2019	The 2008 Act was updated by the 2019 Amendment to increase the previous target of 80% reduction to net-zero by 2050.
Energy Act 2023	Support for UK commitment to Net Zero transition including acceleration of clean energy technology such as Carbon Capture and Hydrogen production.
Scottish Legislation	Key Points
The Climate Change (Scotland) Act 2009	Followed on from The Climate Change 2008 Act. Statutory targets for 80% reduction in Green House Gas (GHG) emissions by 2050 (compared to 1990 levels). The Scottish Committee on Climate Change was established and annual targets to be set to ensure consistent progress.
Climate Change (Emissions Reduction Targets) (Scotland) Act (2019)	The Act committed Scotland to achieving net zero greenhouse gas emissions by 2045, making it one of the most ambitious targets globally as well as interim targets including 75% reduction in emissions by 2030. Annual reporting introduced and emphasis on "Just Transition".
Climate Change (Emissions Reduction Targets) (Scotland) Act (2024)	The Act abandons the interim emissions reduction targets due to acknowledgement of 75% reduction by 2030 as "being out of reach". The system was replaced by five year carbon budgets which set the total of allowable GHGs for specific period up to achieving net zero by 2045.
UK Energy Policy	Key Points



Climate Change Committee (CCC) -Progress in Reducing Emissions – 2024 Progress Report to Parliament (published July 2024) The report provided a review of the UK's progress in reducing GHG. Overall, the report showed mixed progress in different sectors and certain gaps in government policies. The report also stated that the UK was at risk of missing up and coming carbon budgets unless urgent action was taken to accelerate emissions reductions.

"Clean Power 2030 Action Plan; A new era of clean electricity", UK Government, Dec 2024

The plan outlines the UK's strategy to transition to a clean electricity system by 2030. In summary, it aims to do this via reduction of reliance on fossil fuels, by speeding up the adoption of clean, homegrown energy sources, supporting clean energy projects, and supporting infrastructure development to build and reform the electricity network.

#### Scottish Energy Policy

#### Scottish Energy Policy

Onshore Wind Policy Statement (OWPS), Scottish Government, Dec 2022.

#### **Key Points**

OWPS sets out the goals of achieving 20GW of onshore wind capacity by 2030. The statement clearly sets out that onshore wind will be a critical technology to help deliver the 2030 (now abandoned) and 2045 climate change targets.

The OWPS states (in paragraph 3.6.2) that 'stronger weight' is now to be given to the contribution of a development to the climate emergency in the planning balance, as well as community benefits.

Critically, the OWPS does not just want developers to deliver onshore wind energy in isolation. Proposals need to maximise the economic, social and environmental benefits too, to help the just transition to a net zero society.

CCC – Progress in Reducing Emissions – 2023

The 2023 Report to the Scottish Parliament was published in March 2024.

One of the key messages of the report is that Scotland missed the 2021 annual target of a 51.1% reduction in GHG emissions which is the eighth target Scotland has missed within the last 12 years. Secondly, the report noted that the acceleration



	required in emissions reduction to meet the 2030 target is 'now beyond what is credible The report also noted that 'current overall policies and plans in Scotland fall far short of what is needed' to achieve the legal emissions reduction targets.
Draft Energy & Just Transition Plan (2023)	Focuses on ensuring a fair and equitable shift to net zero economy and sets out the vision for this sustainable and equitable energy transition. Aims to increase renewable electricity generation capacity by 20GW by 2030, nearly doubling the current levels.
Report to Parliament (to Scotland 2025) Serving Scotland – Programme for Government 2025-2026	Outlines the Scottish Government's priorities and legislative plans for the year. Published on the 6 <sup>th</sup> May 2025, two of the four key priorities are Growing the Economy and Tackling the Climate Emergency

4.2.3. The most relevant international legislation and policy statements on climate change and energy are referenced within **Table 4.2**.

Table 4.2: International Legislation and Policy – United Nations

United Nations	Key Points
The Paris Agreement 2015	The Paris Agreement is a legally binding international UN treaty on climate change, adopted in 2015 during the UN Climate Change Conference (COP21) in Paris. The Paris Agreement sets out the ambition of holding the increase of global average temperature to "well below 2°C" and pursuing efforts to limit temperature increase to 1.5°C. The agreement requires that all 195 parties of the UN prepare, communicate and maintain Nationally Determined Contributions (NDCs) which outline what they intend to achieve and must be updated every 5 years.
United Nations (UN) Emissions Gap Report 2024 – No more hot air please!	The report highlights the need for increased climate action. Report warns that current policies and NDCs insufficient and that the world is potentially on track for a



temperature rise of 2.6 to 3.1 degrees
Celsius by the end of the century. Emission
Reduction Targets to be aligned with the
Paris Agreement's 1.5°C goal, and global
emissions must be reduced by 42% by 2030
and 57% by 2035. The Nations must
implement ambitious Nationally Determined
Contributions (NDCs) and deliver rapid
emissions cuts through renewable energy,
energy efficiency, and reforestation

COP 29 - The 29th **United Nations Framework Convention on Climate Change**(UNFCCC) conference of the parties (COP29)
– Baku – November 2024

COP 29 reinforced the urgency of global collaboration to address the climate crisis.

#### 4.3. The Development Plan

- 4.3.1. As stated in paragraph 4.1.4, unlike planning applications determined under Section 25 of the Planning Act, the Development Plan does not have primacy under a Section 36C application. However, the Development Plan will still be a material consideration. The EIAR Planning Policy Chapter and the accompanying Planning Statement will describe the Development Plan Framework and reference the relevant polices. The accompanying Planning Statement will provide a full analysis of NPF4 and its impact since publication in 2023 and assess how the Proposed Varied Development complies with the policies and guidance contained within Development Plan.
- 4.3.2. The Statutory Development Plan relating to the Proposed Varied Development comprises the following:
  - National Planning Framework 4 (NPF4) 2023. The key NPF4 policy directly related to Renewable Energy is Policy 11. Other key policies include 1,3,4,5,6,7,13,14,20,22, 23.25. 26 & 29:
  - The Highland-wide Local Development Plan (HwLDP) (adopted April 2012). Key HwLDP policies will include Policies 57, 61 and 67. Other HwLDP policies that will be considered include policies 28, 29, 30, 31, 36, 51, 52, 54 55, 56, 58, 59, 60, 62, 63, 64, 65, 66b, 69,72 and 77; and
  - Inner Moray Firth Local Development Plan 2 (IMFLDP2) (Adopted July 2024. Key policies to include Policy 1, 2, 3, 9, 14.



# 5. Landscape & Visual Impact Assessment

## 5.1. Consented Development EIAR Baseline

- 5.1.1. The scope of the LVIA undertaken as part of the 2021 EIAR for a 20 turbine layout with a maximum tip height of 149.9m was agreed with both NatureScot and THC.
- 5.1.2. The 2022 AIR provided an assessment of how the landscape and visual effects arising from the 18 turbine Consented Development compared with those described for the 20 turbine 2021 EIAR Layout.
- 5.1.3. The following subsections summarise the findings of the LVIAs presented in the 2021 EIAR and 2022 AIR.

Landscape Character

- 5.1.4. The 2021 EIAR assessment of potential landscape effects considered Landscape Character Types (LCTs) identified by NatureScot within a 20km Detailed Study Area. Localised, significant landscape effects were identified within two LCTs as a result of the 2021 EIAR Layout. Localised Major Adverse and Moderate Adverse (significant) effects were identified within LCT135: Rounded Hills Caithness & Sutherland, where no existing wind turbines currently influence the landscape character. Effects in other parts of the LCT with theoretical visibility would range from Minor to Minor-Moderate (not significant) Some localised Moderate Adverse effects were anticipated within LCT 142: Strath Caithness & Sutherland and Minor-Moderate (not significant) effects were identified within LCT 134: Sweeping Moorland and Flows and LCT 139: Rugged Mountain Massif Caithness & Sutherland during construction and operation as a result of the introduction of the 2021 EIAR Layout within this LCT. Effects on other LCTs within the 2021 LVIA study area range from Negligible to Minor.
- 5.1.5. It was not considered that there would be any changes to effects on landscape character from the Consented Development in comparison to the 20 turbine layout assessed in the 2021 EIAR, since it would occupy a similar footprint and have a similar scale and appearance within the wider landscape.

Designated and Protected Landscapes

- 5.1.6. The 2021 assessment of potential landscape effects also considered designated and protected landscapes, including National Scenic Areas (NSAs), Wild Land Areas (WLAs) and Special Landscape Areas (SLAs) within the 40km Wider Study Area. The following designated and protected landscapes were included within the assessment:
  - Assynt Coigach NSA;
  - Dornoch Firth NSA;
  - WLA 34: Reay Cassley;
  - WLA 37: Foinaven Ben Hee;



- Ben Klibreck and Loch Choire SLA; and
- Fannichs, Beinn Dearg and Glencalvie SLA.
- 5.1.7. Significant landscape effects were identified only for WLA 34: Reay Cassley, where the introduction of the 2021 EIAR Layout within the south-eastern tip of the WLA would result in some direct Moderate Major Adverse (significant) effects within a localised area, immediately within the site boundary and up to around 2km of the 2021 EIAR Layout. An indirect, Moderate Adverse (significant) effect was anticipated to extend around 5-6km from the 2021 EIAR layout on the east side of Glen Cassley, and up to 8-10km from the 2021 EIAR layout to the west of Glen Cassley. Not significant, Minor Adverse effects were anticipated locally within other parts of WLA 34 and within the southern part of WLA 37: Foinaven Ben Hee. Minor Adverse effects were also identified within the Assynth Coigach NSA, Ben Klibreck and Loch Choire SLA. Effects on the Dornoch Firth NSA and Fannichs, Beinn Dearg and Glencalvie SLA were considered to be Negligible (not significant).
- 5.1.8. A number of other designated and protected landscapes within the study area were scoped out of the assessment as significant effects were considered unlikely.
- 5.1.9. It was not considered that there would be any changes to effects on landscape designations from the Consented Development in comparison to the 20 turbine layout assessed in the 2021 EIAR, since it would occupy a similar footprint and have a similar scale and appearance within the wider landscape.

Visual Amenity

5.1.10. The assessment of potential visual effects considered views from visual receptors at 21 representative Viewpoints (VPs), in residential areas within 20km of the 2021 EIAR layout, and on transport and recreational routes. Some significant visual effects were identified to views from six Viewpoints (VPs), five Residential Receptor Locations (RRLs) and four Routes (Rs). These were mainly focused around Achnairn and Shinness on the north-east side of Loch Shin, near the confluence of Glen Cassley with Strath Oykel and Kyle of Sutherland and in and around Glen Cassley to the west and north-west of the 2021 EIAR layout. Table 5.1 summarises these effects.

Table 5.1: Summary of Significant Effects Visual Identified in the 2021 EIAR

Receptor Type	Receptor	Effect Identified
Viewpoints (VPs):	VP6 Rosehall;	Moderate Adverse (significant)
	VP9 Achnairn caravan and camping site entrance;	Moderate Adverse (significant)
	VP11 Glencassley road to south of Castle;	Moderate Adverse (significant)
	VP12 Glencassley road by Langwell Hill;	Moderate Adverse (significant)
	VP14 A838 near West Shinness, and	Moderate Adverse (significant)
	VP21 Meall an Aonaich.	Moderate Adverse (significant)



Receptor Type	Receptor	Effect Identified
Residential	RRL7 Achnairn (upper);	Moderate Adverse (significant)
Receptor Locations (RRLs)	RRL8 Achnairn (lower);	Moderate Adverse (significant)
(RRES)	RRL9 Shinness Lodge and West Shinness;	Moderate Adverse (significant)
	RRL28 Ochtow and Inveroykel Lodge; and	Moderate Adverse (significant)
	RRL29 Rosehall village	Moderate Adverse (significant)
Routes (Rs)	R4: A838 Dalchork to Corrykinloch;	Moderate Adverse (significant)
	R9: U2117 Cassley Bridge – Duchally Road; and	Moderate Adverse (significant)
	R12: SU21.03: Allt an Tuir Burn Walk	Moderate Adverse (significant)
Routes (Rs)	R17: Scottish Hill Track 332 (3km between Loch Sail an Ruathair and Loch Carn nan Conbhairean)	Locally Moderate Adverse (Significant)

5.1.11. The 2022 AIR concluded that whilst the removal of T10 and T20 would slightly improve the composition of the view from some locations, this would not noticeably alter the appearance and perceptibility of the wind farm in the landscape at the distances involved, and would not result in changes to any of the visual effects identified within the 2021 EIAR.

Cumulative Landscape and Visual Effects (CLVIA)

- 5.1.12. A CLVIA was included in the 2021 EIAR assessment, following best practice guidance at the time, considering the addition of 2021 EIAR Layout in relation to the two cumulative baseline scenarios: operational and consented sites only; and with the addition of application and scoping sites. An initial appraisal of these sites in relation to the 2021 EIAR Layout suggested that the potential for significant cumulative effects would be most likely to occur in relation to the 2021 EIAR Layout seen in combination with sites within around 40km. Therefore, the assessment focused on sites within or partly within this area.
- 5.1.13. Under both cumulative baseline scenarios, localised significant cumulative landscape effects were identified for two of the LCTs: LCT 135: Rounded Hills Caithness & Sutherland; and LCT 142: Strath Caithness & Sutherland (localised to the Glen Cassley sub-area). These effects would occur across an area, broadly consistent with that identified for the 2021 EIAR Layout alone. This was largely due to the presence of the operational Rosehall and Achany Wind Farms which located to the south-east of the 2021 EIAR Layout site which would limit the degree of additional effect in the southerly and easterly landscape. A localised, Moderate (Significant effect) was anticipated for WLA 34: Reay Cassley to one of the four WLA Key Qualities, within localised areas to the east of Glen Cassley and across a few areas of the high plateau to the west of Glen Cassley. The cumulative landscape assessment identified no significant cumulative effects to any other statutory or locally designated landscapes, including the Assynt Coigach NSA and WLA 37. Fionaven Ben Hee.



- 5.1.14. Significant cumulative visual effects are anticipated to occur to a similar range of visual receptors as those where significant effects were identified for the 2021 EIAR Layout alone occurring to the north-east of Loch Shin, areas within and to the east and west of Glen Cassley, and a relatively localised area around the confluence of Glen Cassley, Strath Oykel and Kyle of Sutherland. Some significant cumulative visual effects were identified to views from six out of seventeen VPs, and three of nine Routes assessed.
- 5.1.15. A summary of the cumulative significant effects on individual visual receptors is outlined in **Table 5.2**.

Table 5.2: Summary of Significant Cumulative Visual Effects Identified in the 2021 EIAR

Receptor Type	Receptor	Effect Identified
Viewpoints	VP6 – Rosehall	Moderate (significant)
(VPs):	VP9 – Achnairn caravan and camping site entrance ,	Moderate (significant)
	VP11 – Glencassley road to south of Castle	Moderate (significant)
	VP12 - Glencassley road by Langwell Hill	Moderate (significant)
	VP14 – A838 near West Shinness	Moderate (significant)
	VP21 – Meall an Aonaich	Moderate (significant)
Residential	RRL7 – Achnairn (upper)	Moderate (significant)
Receptor Locations	RRL8 - Achnairn (lower)	Moderate (significant)
(RRLs)	RRL9 – Shinness Lodge and West Shinness	Moderate (significant)
	RRL28 - Ochtow and Inveroykel Lodge	Moderate (significant)
	RRL29 – Rosehall village	Moderate (significant)
Routes (Rs)	Route R4 – A838 Dalchork to Corrykinloch;	Moderate (significant)
	Route R9 - U2117 Cassley Bridge – Duchally Road	Moderate (significant)
	Route R12 – SU21.03: Allt an Tuir Burn Walk; and	Moderate (significant)
	Route R17 – Scottish Hill Track 332.	Locally Moderate (significant), overall Minor (not significant)

- 5.1.16. For both cumulative baseline scenarios, the 2021 EIAR CLVIA found that there would be few significant effects.
- 5.1.17. The 2022 AIR concluded that there would be no changes to cumulative effects reported in the 2021 EIAR. As the Consented Development would continue to have a similar presence within the view from all VPs, it was not considered that there would be any change to how this would be perceived within the cumulative baseline.



#### 5.2. Consultation & Existing Planning Conditions

- 5.2.1. NatureScot objected to the 2021 EIAR Layout on the basis of "unavoidable adverse effects on the Reay Cassley Wild Land Area, which is of national importance" and THC recommended removal of three turbines T9, T10 and T20 which they considered most problematic from a number of viewpoints.
- 5.2.2. Following the submission of the 2021 EIAR, and in response to consultation with THC which indicated that they would not object to the proposal if 2 of the turbines (T10 and T20) were removed, the Applicant submitted the AIR in April 2022.
- 5.2.3. NatureScot removed their objection in relation to WLA 34, following submission of the 2022 AIR advising that "as a consequence of the effects of another wind farm proposal (Sallachy Wind Farm) having received planning permission, the area within which the [Consented] Development would be sited "could not now be considered as qualifying as part of the WLA 34" and therefore the effects of the Consented Development on this area were "not considered to be to the degree that they would sustain an objection."
- 5.2.4. The feedback given on the Consented Development has been carefully considered and will be taken into account for the Proposed Varied Development.

#### 5.3. Study Area

- 5.3.1. A study area of 40km was used for the 2021 EIAR. This was considered to be the maximum distance within which any significant landscape or visual effects may be experienced for the Consented Development. A smaller study area of 20km (the detailed study area) was defined following initial review and site appraisal for a more targeted and fine-grained assessment.
- 5.3.2. It is anticipated that any significant effects for the Varied Development would still occur within the 40km study area and that the majority of significant effects would be most likely to occur within the detailed 20km study area, as the initial ZTV which has been run for the Varied Development indicates a limited increase in the extent of theoretical visibility compared to the Consented Development. It is therefore proposed that the same study areas are used for the Varied Development to allow for consistent comparison.

## 5.4. Issues scoped in / out

Landscape Assessment

5.4.1. The preliminary comparative ZTV (see **Figures 5.1-5.3**) indicates a small increase in theoretical visibility for the Varied Development across the study area as a whole in comparison with the Consented Development. There are however some localised areas which show an increased extent of theoretical visibility.



- 5.4.2. This assessment will consider the potential increase in landscape effects within LCT 135 and LCT 142 where localised significant effects were identified for the Consented Development, and within LCT 134, LCT 139 where localised Minor- Moderate (not significant) effects were previously identified. This will include assessment of the direct effect of potential physical change to landscape elements and experiential effects on the character of the Varied Development site and surrounding areas. The LVIA will include an update on any changes to the baseline context compared to the 2021 EIAR.
- 5.4.3. Some localised, direct significant effects were identified within WLA 34: Reay Cassley in the 2021 EIAR and 2022 AIR. No other significant effects to designated or protected landscapes were identified. **Table 5.3** sets out which designated and protected landscapes have been scoped in and out of the S36C LVIA and the reasoning behind this.

Table 5.3: Designated and protected landscapes to be included within assessment

Designated /	Effect identified	Inclusion in	clusion in Reasoning		
Protected Landscape		assessment			
Assynt - Coigach NSA	Minor (not significant)	Yes	The 2021 EIAR concluded that effects on the Assynt - Coigach NSA would be Minor (not significant). While the initial ZTV does not indicate a substantial increase in the extent of theoretical visibility, the turbines would become more prominent features in the landscape. The potential requirement for turbine lighting may result in some new effects, therefore due to the sensitivity of the NSA and potential increase of the visual effect, the NSA is proposed to be included in the assessment. For consistency with the 2021 EIAR this would be part of the landscape assessment however, the principles outlined in the new 2025 NatureScot Guidance would be taken into account <sup>2</sup> .		
Dornoch Firth NSA	Negligible (not significant)	No	A Negligible effect was identified for this NSA in the 2021 EIAR where turbines would affect only low lying coastal areas and surrounding hills in the western part of the area where they would be seen within the context of existing wind turbines. The initial ZTV for the Varied Development does not indicate a substantial increase in the extent of theoretical visibility, and due to the distance (approximately 20 km) the overall likelihood for significant effects is considered to be low even with the introduction of turbine lighting.		

Achany Extension Wind Farm S36C Variation: Scoping Report

<sup>&</sup>lt;sup>2</sup> https://www.nature.scot/doc/special-landscape-qualities-guidance-assessing-effects#special-landscape-qualities-slqs



Designated / Protected Landscape	Effect identified	Inclusion in assessment	Reasoning
Wild Land Area 34 (Reay – Cassley)	Range from Moderate - Major and Moderate (significant) in localised areas, to Minor (not significant) effects in some areas, elsewhere Negligible	Yes	The Proposed Development is within this WLA. Significant effects were identified within southeastern parts of the WLA in the 2021 EIAR. The preliminary ZTV of the Varied Development indicates some increase in the extent of theoretical visibility mostly around the east of Glen Cassley upper plateau. As there is potential for increased effects on the WLA due to the larger turbines, a revised WLA will be included in the assessment of the Varied Development The potential requirement for visible aviation lighting may additionally result in some new effects. Therefore, the WLA is proposed to be included in the night-time assessment of visible aviation lighting.
Wild Land Area 37 (Fionaven – Ben Hee)	Localised Minor (not significant)	Yes	Some localised Minor (not significant) indirect effects were identified within the 2021 EIAR from open and elevated parts of the WLA within 10-11km of the southern and south-western boundaries. The preliminary ZTV of the Varied Development indicates a small increase in the extent of theoretical visibility. Although it is unlikely to result in a very noticeable change in distant views, there is potential for increased effects due to visible aviation lighting. Therefore, the WLA is proposed to be included in the night-time assessment of visible aviation lighting.
Ben Klibreck and Loch Choire SLA	Minor (not significant)	Yes	A Minor (not significant) effect was identified for this SLA overall within the 2021 assessment. Elsewhere within this SLA effects were considered to be Negligible. While the initial ZTV for the Varied Development does not indicate a substantial increase in the extent of theoretical visibility, the turbines would become more prominent features in the landscape. The potential requirement for turbine lighting may result in some new effects. Therefore, the SLA is proposed to be included in the assessment.
Fannichs, Beinn Dearg and Glencalvie SLA	Negligible (not significant)	No	A Negligible effect was identified for this SLA in the 2021 assessment. The initial ZTV for the Varied Development does not indicate a substantial increase in the extent of theoretical



Designated / Protected Landscape	Effect identified	Inclusion in assessment	Reasoning
			visibility and the potential for significant effects overall is considered to be low.

#### Visual Assessment

- 5.4.4. The visual assessment will consider the potential for effects on visual amenity within the study area. The visual assessment for the 2021 EIAR included a series of 21 VPs which were selected in consultation with NatureScot and THC. It is proposed to include 12 out of these 21 VPs within the visual assessment for the Varied Development. This includes VPs for which significant effects or Minor-Moderate effects were previously identified, as well as other locations where initial ZTVs for the Varied Development and wirelines indicate potential for increased effects in comparison with the Consented Development.
- 5.4.5. The list of VPs proposed to be used in the assessment of the Varied Development are detailed in **Table 5.4** and illustrated on **Figure 5.1**.

**Table 5.4: Proposed Viewpoint List** 

VP	Name	OS Grid Reference	Effect rating during operation in 2021 LVIA	Inclusion in assessment
1	A836 above the Crask Inn	252294, 925050	Minor (not significant)	Yes
2	A836 bridge by Dalnessie entrance	257475, 913940	Minor to Moderate (not significant)	Yes
3	Saval	259173 908273	Minor (not significant)	No
4	Rhilochan	274824 906805	Negligible- (not significant)	No
5	Ben Hee	242655 933931	Minor (not significant)	Yes
6	Rosehall	247028 902032	Moderate (significant)	Yes
7	High Road	260226 904804	Minor (not significant)	No



VP	Name	OS Grid Reference	Effect rating during operation in 2021 LVIA	Inclusion in assessment
8	A836 - A838 Junction	257326 909947	Minor (not significant)	No
9	Achnairn caravan and camping site entrance	255793 912701	Moderate (significant)	Yes
10	Ben More Assynt	231833 920148	Minor to Moderate (not significant)	Yes
11	Glencassley road to south of Castle	244489 906224	Moderate (significant)	Yes
12	Glencassley road by Langwell Hill	240664 912269	Moderate (significant)	Yes
13	Ben Klibreck	258527 929902	Minor to Moderate (not significant)	Yes
14	A838 near West Shinness	252823 915428	Moderate (significant)	Yes
15	B9176, Struie Viewpoint	265267 985756	Negligible (not significant)	No
16	Minor road at Inveroykel forest access	247391 900319	Minor to Moderate (not significant)	Yes
17	A836 at Allt na Fearna	258238 901712	Negligible (not significant)	No
18	Carn Chuinneag	248364 983325	Minor (not significant)	No
19	Seana Bhràigh	228181 987872	Minor (not significant)	No
20	Cul Mòr	253103 828638	Negligible (not significant)	No



VP	Name	OS Grid Reference	Effect rating during operation in 2021 LVIA	Inclusion in assessment
21	Meall an Aonaich	233603 816417	Moderate (significant)	Yes

5.4.6. In addition to the VP based assessment, a more targeted assessment of potential visual receptors was undertaken for the 2021 EIAR, considering views from settlements and residential areas within the detailed study area and views from routes, including public roads, core paths and other established recreational routes. Some significant effects were identified in the 2021 EIAR to receptors within receptor groupings RRL7, RRL8, RRL9, RRL28, RRL29; R4, R9, R12, and locally within R17. A Minor-Moderate (not-significant) effect was anticipated for RRL4. Outside of this, most effects identified within the visual assessment ranged between Negligible and Minor. The assessment of the Varied Development will focus on those receptors where impacts of Minor-Moderate or higher were identified for the Consented Development, as this is considered to capture any potential visual receptors which may experience an increased significant effect on visual amenity as a result of the Varied Development.

#### Visualisations

5.4.7. The visual assessment will be supported by a series of photomontages and wireframes from the agreed VP locations. Visualisations from each of the selected VPs will be prepared in accordance with best practice guidance (SNH, 2017) using the baseline photography included in the 2021 EIAR and 2022 AIR assessments. In addition, a separate set of visualisations produced to meet THC's (2016a) standards will be provided.

#### Night-time Assessment

- 5.4.8. Visible aviation lighting was not required for the Consented Development turbines under Civil Aviation Authority (CAA) regulations. However, due to the increased height of the Varied Development turbines, further consultation with CAA will be undertaken by the Applicant to establish the requirements for turbine lighting.
- 5.4.9. An assessment of the impacts of visible aviation lighting on landscape and visual receptors will be carried out in line with best practice guidance for the Varied Development. Supporting figures and visualisations will include: ZTV illustrating the visibility of the lighting proposed, and two photomontages from viewpoints likely to be used at night; Rosehall (VP6) and the Achnairn caravan and camping site (VP9) are proposed, to be agreed with THC and NatureScot.

#### **Cumulative Assessment**



- 5.4.10. In line with NatureScot's guidance the assessment of cumulative effects of the Varied Development will consider other wind farms within a 60km radius including those which are operational, consented and those for which an application has been submitted but which are yet to be determined.
- 5.4.11. The S36C LVIA will include an update to the cumulative baseline assessed in 2021, including any changes in the status of the other wind farm developments within the study area. **Table 5.5** includes the cumulative sites which are proposed to be included within the cumulative assessment. This is based on the THC Wind Turbine dataset, which was updated in December 2024. We ask THC and the ECU to advise of any wind developments in the area which are not included in the list below and which would need to be considered as part of the CLVIA.

Table 5.5: Changes to the Cumulative Baseline since 2021 assessment

Site Name
Operational Sites
Achany Wind Farm
Beinn nan Oighrean Wind Farm
Beinn Tharsuinn Wind Farm
Coire na Cloiche Wind Farm
Corriemoillie Wind Farm
Creag Riabhach Wind Farm
Gordonbush Wind Farm
Gordonbush Extension Wind Farm
Kilbraur Wind Farm
Kilbraur Wind Farm Extension
Lairg Wind Farm
Novar Wind Farm
Novar Wind Farm Extension
Rosehall Wind Farm
Consented / Under Construction Sites



Site Name
Chleansaid Wind Farm
Creag Riabhach Wind Farm Extension
Kirkan Wind Farm
Lairg Wind Farm Extension
Lochluichart Wind Farm Extension II
Meall Buidhe Wind Farm
Sallachy Wind Farm
Strathrory Redesign Wind Farm
Strath Tirry Wind Farm
Application / Appeal Sites
Abhainn Dubh Wind Farm
Acheilidh Wind Farm
Garvary Wind Farm
Strath Oykel Wind Farm
Shinness Wind Farm

## 5.5. Assessment Methodology

- 5.5.1. The LVIA for the Varied Development will be undertaken in accordance with best practice guidance, Guidelines for Landscape and Visual Impact Assessment (Third Edition) (The Landscape Institute and Institute for Environmental Management and Assessment, 2013) (GLVIA3). This will separately address the potential effects of the Varied Development on the landscape resource and visual receptors within the agreed study area.
- 5.5.2. A ZTV will be used to inform the LVIA. For reference, the preliminary ZTV has been included in this Scoping Report (see **Figure 5.1**) This is based on the 18 turbine Varied Development, with turbines comprising 200m to tip.



- 5.5.3. The LVIA will evaluate the sensitivity to change, magnitude and significance of effect for all landscape and visual receptors during operation. The assessment of operational effects will assume the implementation of any mitigation measures proposed. The assessment will focus on those receptors where potential changes in effects would be most likely to result in additional or increased significant effects compared with those identified for the Consented Development.
- 5.5.4. Potential effects will be presented as ratings of Negligible, Minor, Moderate and Major, taking into account sensitivity and magnitude ratings and on the basis of professional judgement. Where appropriate, interim ratings will be allocated (e.g. Minor to Moderate or Moderate to Major). Effects identified as being at a level of Moderate or greater are considered significant in accordance with the EIA Regulations.

#### **5.6. Mitigation Measures**

- 5.6.1. An iterative design process was undertaken for the Consented Development to reduce potential significant effects on the landscape and visual resource where possible. Efforts to reduce potential effects in particular on WLA34 and views from the Assynt Coigach NSA and surrounding settlement areas, were central to the initial site selection and iteration of layouts. The Consented Layout was considered to be the optimum layout at the time to minimise landscape and visual effects, whilst balancing effects on other areas of environmental constraint and achieving the required technical performance. The redesign of the Varied Development has carefully considered the potential for increased effects on these areas as a result of the increased tip height.
- 5.6.2. Further mitigation will be considered for the Varied Development where possible in light of the height increase. The potential for mitigation measures relating to visible aviation lighting will be explored in consultation with the Civil Aviation Authority (CAA).

## 5.7. Summary and Conclusions

- 5.7.1. The LVIA for the Varied Development will separately address the potential effects on the landscape resource and visual receptors within the agreed study area, focusing on those landscape and visual receptors for which significant effects were previously identified for the Consented Development, or where there is considered to be potential for effects to increase to significant levels. This includes receptors for which a rating of Minor-Moderate was previously identified. The initial ZTV which has been run for the Varied Development does not indicate a substantial increase in the extent of theoretical visibility, although due to their increased height the turbines would appear more prominent within some areas.
- 5.7.2. For consistency it is proposed that the wider and detailed study areas of 40km and 20km used for the 2021 EIAR and 2022 AIR are used for the assessment of the Varied Development. These are considered to be the distances within which significant landscape or visual effects may be experienced.



- 5.7.3. The landscape assessment will focus on potential effects within LCT 135: Rounded Hills Caithness & Sutherland and Wild Land Area (WLA) 34 within which the Varied Development would be located. It will also consider potential effects to the LCT 142, LCT 134, LCT 139, Assynt Coigach NSA, WLA 37: Fionaven Ben Hee, Ben Klibreck and Loch Choire SLA.
- 5.7.4. Upon reviewing the findings of the 2021 EIAR and the 2022 AIR, 12 viewpoints have been identified for inclusion in the assessment of the Varied Development, for which visualisations will be prepared in accordance with best practice guidance to meet NatureScot and THC standards. Due to the increased height of the turbines which will necessitate visible aviation lighting, an assessment of the impacts of lighting on landscape and visual receptors will be carried out. This will be supported by night-time visualisations from two VPs; Rosehall (VP6) and the Achnairn caravan and camping site (VP9).
- 5.7.5. A CLVIA will be included within the assessment, which will include any updates to the cumulative baseline assessed in 2021.

### 5.8. References

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# 6. Ecology

# **6.1. Consented Development EIAR Baseline**

- 6.1.1. The 2021 EIAR Ecology Chapter considered the potential effects on the ecological features present at the Development Site associated with the construction, operation and decommissioning of the Consented Development. Both in-design mitigation and bespoke compensation and additional enhancement were proposed in the form of relevant best practice, evolution of the design of the Consented Development, and delivery of long-term management plans to provide compensation and enhancement to the ecological receptors identified.
- 6.1.2. The Consented Development is located approximately 1.5 km north-east of the River Cassley and 5 km south-west of the western shore of Loch Shin, near Lairg. The site is characterised by upland rocky hills and valleys, dominated by mire and heath habitats, and forms part of a sporting estate primarily used for fishing and deer-stalking. The area features distinct hill summits, two small lochs, and several watercourses.
- 6.1.3. No statutory designated nature conservation sites are located within the site boundary. However, several designated sites of ecological importance exist within 10 km, as summarised in **Table 6.1**.

**Table 6.1: Designated Nature Conservation Sites** 

Site Name	Qualifying Interest Features	Distance from Proposed Development
River Oykel SAC	Atlantic salmon, freshwater pearl mussel	3.5 km south
Caithness & Sutherland Peatlands SAC	Blanket bog, otter, marsh saxifrage	Borders eastern boundary
Caithness & Sutherland Peatlands Ramsar	Blanket bog, breeding birds	Borders eastern boundary
Strath an Loin SSSI	Blanket bog	2.5 km north-west
Grudie Peatlands SSSI	Blanket bog, breeding wader interest	Borders eastern boundary
Kyle of Sutherland Marshes SSSI	Floodplain fen, wet woodland	4 km south-west
Ben More Assynt SSSI	Caledonian igneous caves, upland assemblages	10 km north-west
Flow Country – UNESCO World Heritage Centre	Actively accumulating blanket bog ecosystem ecosystem	Within 10 km north of Loch Shin



- 6.1.4. The dominant habitats within the study area include wet dwarf shrub heath and blanket bog, as detailed in **Table 6.2**. These are typical of the upland environment of the site.
- 6.1.5. An Assessment of Groundwater Dependent Terrestrial Ecosystems (GWDTE) has determined that the NVC habitats present with GWDTE potential are not likely to be groundwater dependent.

Table 6.2: Habitat Types and Areas

Habitat Type	Area (ha)
Wet dwarf shrub heath	683.1
Blanket bog	520.31
Wet heath/blanket bog mosaic	370.56
Marsh/marshy grassland	170.4
Coniferous plantation woodland	60.73
Dry dwarf shrub heath - acid	31.35
Mixed plantation woodland	27.14
Acid grassland/marshy grassland mosaic	25.62
Not surveyed (access to 250m buffer beyond the site boundary partially restricted)	10.45
Hardstanding	9.65
Other habitat (borrow pit at existing Wind Farm)	3.1

6.1.6. Protected species surveys were completed for the Consented Development, the results of these are summarised in **Table 6.3**.

**Table 6.3: Protected Species Information** 

Species/Feature	Survey Findings	Habitat Presence
Otter	<ul> <li>Widespread presence along watercourses identified in 2020 surveys.</li> </ul>	Utilise watercourses for foraging, commuting, and resting.
	<ul> <li>Three resting places (two couches and one holt) recorded.</li> </ul>	
	<ul> <li>Evidence of foraging and commuting between Loch Shin and River Cassley catchments.</li> </ul>	
Water Vole	<ul> <li>Active habitats identified along Allt an Rāsail watercourse.</li> </ul>	Suitable upland habitat found along
	<ul> <li>Evidence of burrows, runways, and latrines recorded.</li> </ul>	watercourses and tributaries.
	<ul> <li>Presence of seven discrete colonies identified in nearby Achany Wind Farm.</li> </ul>	



Species/Feature	Survey Findings	Habitat Presence	
Bats	<ul> <li>Foraging or commuting activity recorded for common pipistrelle, soprano pipistrelle, Myotis species, and brown long-eared bats.</li> </ul>	No potential roosting features identified within the site; activity	
	<ul> <li>Common pipistrelle was the most frequently encountered species, accounting for 70.77% of contacts.</li> </ul>	recorded across monitoring locations.	
Aquatic Species	- Single trout (parr) recorded at two locations within the Allt an Rāsail catchment.	Limited fish populations; habitat	
	<ul> <li>Overall habitat suitability for fish is low due to barriers and unsuitable conditions.</li> </ul>	unsuitable for freshwater pearl mussel.	

6.1.1. **Table 6.4** provides a summary of the residual effects, as determined by the 2021 EIAR of the Consented Development following implementation of appropriate mitigation and compensation measures.

Table 6.4: Summary of Residual Effects of the Consented Development

Important Ecological Feature	Predicted Effect	Significance	Mitigation	Significance of Residual Effect
Construction and Decom	missioning			
River Oykel SAC Atlantic salmon and freshwater pearl mussel	Indirect effects due to effects on host fish species (salmonids); and degradation of habitats due to pollution/siltation.	Not significant	No further mitigation beyond embedded mitigation.	Not significant
Caithness & Sutherland Peatlands SAC (Blanket bog and wet heath) Caithness & Sutherland Peatlands Ramsar (Blanket bog) Grudie Peatlands SSSI (Blanket bog)	Indirect disturbance and changes to composition of plant communities resulting from hydrological change	Not significant	No further mitigation beyond embedded mitigation.	Not significant
	Indirect disturbance/ displacement of local deer population during construction works, and resultant impacts to blanket bog communities	Not significant	No further mitigation beyond embedded mitigation.  As an additional site management procedure, a Deer Management Plan (DMP) has been prepared. This provides detailed measures on the management of deer numbers to help minimise damage of the blanket bog habitat both on and off- site from trampling and grazing.	Not significant



Important Ecological Feature	Predicted Effect	Significance	Mitigation	Significance of Residual Effect
Blanket bog	Direct loss and temporary damage to terrestrial habitats	Significant	The layout of the wind turbines and other infrastructure has been designed to ensure that areas of blanket bog vegetation, and in particular, the most sensitive areas have been avoided as far as possible. This process has been informed by NVC survey data, Peatland Condition Assessment and Vegetation Survey with preference for development avoiding blanket bog or in areas broadly categorized as modified/drained or actively eroding, and upon areas of shallower peat.	Not significant
			The implementation of the proposed habitat management proposals which are detailed in the oHMP, would compensate for the loss of blanket bog and would be likely to contribute a net positive balance to the blanket bog resource within and around the site.	
			A Deer Management Plan (DMP) has been prepared. The management plan provides detailed measures on the management of deer numbers to help minimise damage of the blanket bog habitat both on and off- site from trampling and grazing.	
	Indirect disturbance and changes to composition of plant communities resulting from hydrological change	Not significant	No further mitigation beyond embedded mitigation	Not significant
Otter	Habitat loss	Not significant	No further mitigation beyond embedded mitigation	Not significant



Important Ecological Feature	Predicted Effect	Significance	Mitigation	Significance of Residual Effect
	Disturbance and displacement	Not significant	No further mitigation beyond embedded mitigation	Not significant
	Temporary severance to commuting routes	Not significant	No further mitigation beyond embedded mitigation	Not significant
	Injury and direct mortality to individual otters	Not significant	No further mitigation beyond embedded mitigation	Not significant
	Reduction in habitat quality as a result of pollution incidents	Not significant	No further mitigation beyond embedded mitigation	Not significant
Water vole	Habitat loss	Not significant	No further mitigation beyond embedded mitigation	Not significant
	Injury and direct mortality	Not significant	No further mitigation beyond embedded mitigation	Not significant
	Severance/ habitat fragmentation	Not significant	No further mitigation beyond embedded mitigation	Not significant
	Reduction in habitat quality as a result of pollution incidents	Not significant	No further mitigation beyond embedded mitigation	Not significant
Commuting and foraging bats: All species	Disturbance and/ or displacement of commuting and foraging	Not significant	No further mitigation beyond embedded mitigation as detailed in Table 8.11 of the 2021 EIAR.	Not significant



Important Ecological Feature	Predicted Effect	Significance	Mitigation	Significance of Residual Effect
Commuting and foraging bats: Common pipistrelle	bats	Not significant	No further mitigation beyond embedded mitigation	Not significant
Commuting and foraging bats: Soprano pipistrelle	-	Not significant	No further mitigation beyond embedded mitigation	Not significant
Operation				
Commuting and foraging bats: All species	Direct effect in the form of injury/ mortality from collision with turbines during the operational phase.	Not significant	No further mitigation beyond embedded mitigation	Not significant
Commuting and foraging bats: Common pipistrelle		Not significant	No further mitigation beyond embedded mitigation	Not significant
Commuting and foraging bats: Soprano pipistrelle		Not significant	No further mitigation beyond embedded mitigation	Not significant

6.1.2. As shown in the above table, with the implementation of appropriate mitigation no significant effects to Important Ecological Features (IEFs) were identified.

# 6.2. Consultation & Existing Planning Conditions

6.2.1. The Applicant consulted with a range of third parties during the consenting process. **Table 6.5** provides a summary of these consultation responses.

Table 6.5: Summary of Consultation completed for the Consented Development

Issue Raised
Responses [2019 Scoping Opinion] – October 2019
Fisheries
Advice provided by Marine Scotland Science (MSS) and Kyle & Sutherland District Salmon Fishery Board (KSDSFB) in relation to guidelines on survey / monitoring programme should be taken on board.
Peat
Peat depth and vegetation surveys along with a peat management plan will be required to be part of the EIAR along with a Peatslide Hazard and Risk Assessment.
Management Plans
The Company should take on board The Highland Council's (THC) comments regarding Habitat Management Plan, Deer Management Plans (if any are present within the Site) and Biodiversity Action Plan.

Kyle & Sutherland District Salmon Fishery Board (KSDSFB)

### Fisheries

KSDSFB would expect any environmental assessment to include:

- Fish habitat data in any potentially affected watercourse both within and out with the physical boundary of the Proposed Development;
- Fish presence, distribution and abundance data in all potentially affected watercourses;
- Macro-invertebrate data in all potentially affected watercourses;
- Freshwater pearl mussel (FWPM) abundance and distribution data in all potentially affected watercourses;
- Hydrology data, including artificial drainage watercourses;
- Water quality data (i.e. turbidity, pH, dissolved organic carbon, acidneutralising capacity, etc.) in all potentially affected watercourses; and
- · Peat slide risk assessment.



Consultee and Date	Issue Raised
	Fish Surveys and Pearl Mussel KSDSFB notes that the Applicant highlights data obtained from targeted fish surveys undertaken as part of a previous application in the scoping report. KSDSFB suggests that such information is likely to be outdated, and new surveys should be undertaken. KSDSFB believes that investigations into the status of pearl mussel populations within the Cassley catchment have been carried out subsequent to the original application and suggest that SNH (now NatureScot) be contacted to obtain any relevant information available from such surveys.
Marine Scotland	River Oykel SAC
Science	The Proposed Development is drained by watercourses within the River Cassley which forms part of the River Oykel Special Area of Conservation (SAC); salmon is a qualifying feature for this designation status. Both salmon and trout are listed as priority species for conservation in the Scottish Biodiversity List and should be considered.
	<ul> <li>Water Quality and Fish</li> <li>MSS advise that the Applicant carries out the following in the EIA:</li> <li>Consult the MSS generic scoping guidelines;</li> <li>Site characterisation surveys of the water quality and fish populations within the watercourses which could potentially be impacted as a result of the Proposed Development. Surveys should follow MSS guidelines on survey / monitoring programmes. The results from the surveys should be presented in the EIAR along with a detailed description of proposed mitigation measures and monitoring programmes; and</li> <li>Consider the potential cumulative impacts on water quality and fish populations associated with adjacent (operational and consented) wind farms and hydro schemes, particularly in the selection of control sites in the monitoring programmes.</li> </ul>
NatureScot	Hydrology and Hydrogeology  The River Oykel SAC is a very sensitive receptor, and is hydrologically connected through multiple watercourses throughout the wind farm site.  Therefore, it will be important to show how effective pollution (including silt) control measures will be to ensure that good water quality conditions can be maintained during construction in all weather conditions. Impacts to this protected area should be assessed against the site's Conservation Objectives.
	EIA Scope In context of the new development boundary, it may be possible to scope out Strath an Loin SSSI, which is 2 km to the north. This protected area is important for its bog habitat only and at this distance it is unlikely to be adversely affected (this does not include hirde or otters which may still be linked to the Caithness.)

(this does not include birds or otters which may still be linked to the Caithness and Sutherland Peatlands SPA or SAC). Should this proposal change, this may

need to be re-evaluated.



#### **Consultee and Date**

#### **Issue Raised**

### Terrestrial Ecology

The proposal abuts Grudie Peatlands SSSI, which is protected for its nationally important bog habitat and breeding populations of upland birds, including: golden plover, dunlin and greenshank. Impacts on all these features should be assessed within the EIAR.

### Policy & Legislation

Within the 2012 application for this development, all habitats recorded were considered of local importance. SPP (2014) indicates that this may no longer be the case.

### Peat and Carbon Rich Soils

Carbon rich and peat soils, together with peatland habitats, extend over large areas of this site, including the area currently proposed for development. NS therefore advise that SSE needs to demonstrate through the EIAR and draft Construction Method Statement that a wind farm can be built on this site without significant loss and damage to these nationally important interests.

#### EIA Scope, Peat and Carbon Rich Soils

The EIAR should consider both on-site and off-site impacts, particularly any potential effects on the adjacent Caithness and Sutherland Peatlands SAC and the downstream River Oykel SAC. This should include consideration of areas of hydrological and peat mass connectivity between the development area and protected areas. A revised Peat Landslide Hazard and Risk Assessment should also consider any potential risks and impacts to both SAC sites and how these can be mitigated.

### EIA Scope, Ecology

NS would welcome the inclusion of an outline Habitat Management Plan within the EIAR, which could include measures to compensate for direct and / or indirect loss of peatland habitat and function.

### Otters

NS acknowledge that a full protected species survey will be undertaken to facilitate a thorough and accurate assessment for the EIAR. Impacts to otters and their resting places should be assessed in context to the Caithness and Sutherland Peatlands SAC in the first instance.

### EIA Scope, Ecology

NS recommend that a Deer Assessment is included within the EIAR. This will help show whether there will be any effect (e.g. on bog protected areas) from the local deer population during construction works, etc.

### **RSPB**

Habitat and Protected Species Survey

RSPB would want to see updated habitat and protected species surveys as these were last undertaken in 2011.



# **Consultee and Date Issue Raised** EIA Scope RSPB note there is a significant amount of land identified within the Site, out with the development area, which may be used for habitat management. RSPB would welcome positive management of land for wildlife, provided the mitigation hierarchy has been followed in the design of any proposal. RSPB request that a detailed Habitat Management Plan (HMP) is prepared as part of the EIA and submitted with any application. In the 2012 application, RSPB commended proposed drain blocking to improve habitat in the long- term which could help reverse the unfavourable status of golden plover on the SPA. **SEPA** Pre-application Advice SEPA would welcome the opportunity to provide early advice on the proposed layout and peat management and groundwater dependent terrestrial ecosystem (GWDTE) sections of the EIAR before they are formally submitted. Pre-application Advice If the 2012 habitat survey information is provided, SEPA would be happy to provide advice on whether it is considered still fit for purpose and the specific scope of any further assessment in relation to GWDTE. The Highland Council Baseline Ecology Surveys The EIAR should provide a baseline survey of the bird and animals (mammals, reptiles, amphibians etc.) and the habitats present on the Site. Habitat enhancement and mitigation measures should be detailed, particularly in respect to blanket bog in the context of both biodiversity conservation and risk of peat slide. The EIAR should address whether or not the Proposed Development could assist or impede delivery of elements of relevant Biodiversity Action Plans. Baseline Ecology Surveys The EIAR should provide a baseline survey of plants (and fungi) and trees present on the Site. Designated ecological sites The EIAR should address the likely impacts on the nature conservation interest of all designated sites in the vicinity of the Site and provide proposals for any mitigation to reduce any impacts to not significant. Wild Deer If wild deer are present or use the Site, an assessment of the potential impact on deer will be required. Aquatic Interests The EIAR should address the aquatic interests within local watercourses or downstream, that may be impacted by the Proposed Development. The EIAR

should evidence consultation input from local fishery boards where relevant.



Consultee and Date	Issue Raised
	GWDTE The EIAR should include an assessment on Ground Water Dependent Terrestrial Ecosystems.
Additional Consultation	on Responses
NatureScot	Advice on scope of bat surveys
8 June 2020	The Bat Appraisal Report identified; Leisler's, Noctule and Nathusuis' pipistrelle to be at 'high risk' from wind turbine development.  However, the 2019 guidance also identifies both soprano and common pipistrelle to be at high risk. Both of these species are known to occur in Sutherland.
	Although NatureScot recognise that the development area is an open moorland site, it does in fact support several linear features, such as; the wooded ravine (adjacent to the boundary) supporting the Allt Bad an t-Sagair Burn (NC4410). In addition, there is the Allt an Rasail Burn (NC4608) which lies at the edge of the Site.  Glencassley Castle lies about 2km to the west of the development, which is likely to be attractive to bats. Therefore, taking into account the above factors,
	NatureScot recommend that the potential risk level should be re-assessed.  NatureScot provide clarification that full-spectrum detectors should be used, as outlined within Best Practice Guidelines (Jan, 2019 – as above). The above mentioned water-courses would be suitable to sample, in addition to turbine locations, as per the Appraisal Report.
	As a result of the current COVID-19 restrictions, NatureScot are content that the Spring survey period runs slightly late (i.e. into June), but recommend around a one month gap before the onset of the Summer period is surveyed.
Nature Scot	Engagement on scope of bat surveys and detector locations
2 July 2020	Advice provided by NatureScot to ensure coverage of linear features.
Scoping Consultation	Responses [2020 Scoping Refresh] – February 2021
NatureScot	Protected Areas The Proposed Development abuts a component part of the Caithness & Sutherland Peatlands Special Protection Area (SPA), Ramsar Site and Special Area of Conservation (SAC) protected for its upland birds, peatland habitats and otter. In addition, this proposal is hydrologically connected to the River Oykel SAC protected for its Atlantic salmon and freshwater pearl mussel.



Consultee and Date	Issue Raised
	Protected Areas  The layout of the Proposed Development shows turbines in very close proximity to the Caithness & Sutherland Peatlands SAC (Grudie Peatlands SSSI) and close to watercourses which eventually flow into the River Oykel SAC. A Peat Slide Risk Assessment should be undertaken to inform the potential impacts upon all of these Protected Areas, and mitigation identified to reduce risk (e.g. turbine relocation or removal). Other assessments will also be required, as outlined in our previous scoping response.
SEPA	Consultation Prior to the formal submission of the application SEPA strongly encourage the Applicant to engage in further consultation. As a minimum, the following three layout plans showing all permanent and temporary works should be provided:  50 m buffers to watercourses; NVC survey results; and  all peat probing results (showing the location of individual peat probes, colour coded for depth).  SEPA would also provide advice on any Groundwater Dependent Terrestrial Ecosystem (GWDTE) assessment or other work on peat such as the Peat Management Plan (PMP).  Survey Work SEPA note that Phase 1 habitats and NVC surveys and Stage 1 peat probing have been undertaken and that Phase 2 peat probing is underway to refine the layout. It is stated that these will be submitted to SEPA during further preapplication discussions. We encourage these to be submitted as soon as possible to help inform the best environmental option for the site layout.
SEPA 20 May 2021	NVC Survey In regards to the NVC survey, it is difficult to review as many of the colours are very similar looking without having them labelled on the map. For example, there are four colours of green on the map which are almost identical and difficult to differentiate.
The Highland Council 05 February 2021	Designated Ecological Sites  The EIAR should address the likely impacts on the nature conservation interest of all designated sites in the vicinity of the Site and provide proposals for any mitigation to reduce any impacts to not significant.
	Wild Deer If wild deer are present or use the Site, an assessment of the potential impact on deer will be required.  Aquatic Interests The EIAR should address the aquatic interests within local watercourses or downstream, that may be impacted by the Proposed Development. The EIAR should evidence consultation input from local fishery boards where relevant.



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Consultee and Date	Issue Raised

**GWDTE** 

The EIAR should include an assessment on Ground Water Dependent Terrestrial Ecosystems.

### **Pre-Application Advice**

### NatureScot 12 April 2021

### **NVC Mapping**

The NVC mapping provided is very helpful, but it is unfortunately constrained by similar colours representing very different habitats, for example

M15c, U5b:M6c, H10a:U5:M6c M17b, M15d

M18, U4a, M19

NatureScot recommend that a version which combines shading with labelling is considered essential for inclusion within the final Environmental Impact Assessment Report (EIAR).

#### Peatland Condition Assessment Plan

The Peatland Condition Assessment Plan is potentially very useful, but a clear methodology (for example, was it mapped remotely or on the ground) should be presented with condition category definitions, including information on habitat hybrids/mosaics.

### Habitat Infrastructure/Peatland Importance Table

It would be helpful to gauge the assessment of potential impacts, if the attached Peatland Importance Table could be completed and included within the EIAR. NatureScot anticipate that this table should make the assessment of 'wider-countryside' peatland habitat much easier to gauge.

Caithness & Sutherland Peatlands Special Area of Conservation (SAC)
Potential impacts to peatland habitats within/connected to the Caithness &
Sutherland Peatlands Special Area of Conservation (SAC) should be assessed against the Conservation Objectives for this Protected Area, see;
<a href="https://www.nature.scot/professional-advice/protected-areas-and-species/protected-areas/international-advice/protected-areas-intes/protection-european-sites">https://www.nature.scot/professional-advice/protected-areas-and-species/protected-areas/international-advice/protected-areas-intes/protection-european-sites</a>.

#### Deer

NatureScot are led to believe that deer densities on this estate have been very high in the recent past. It will therefore be important for SSE to consider the potential impact of deer on any post- construction peatland habitat management. This will be in addition to an assessment for any potential deer displacement effects on neighbouring peatland Protected Areas during construction.

#### Habitat Management Plan

NatureScot did not note any suggestion that there may be an Outline Habitat Management Plan (HMP) to assist with this development.

NatureScot strongly recommend that a HMP is considered to support this wind farm proposal, on the basis that there is likely to be construction impacts on peatland, combined with the importance Scottish Government places on restoring degraded peatland carbon stores, see; https://www.gov.scot/news/peatland-restoration-fund-



Consultee and Date	Issue Raised
	tackles-global-climate-crisis/.

Gate Check Response 2021		
NatureScot	Ecological Survey – Existing wind farm access track	
	NatureScot recommend that the existing access track to Achany Wind Farm, where a new borrow-pit and construction compound are proposed, should receive an appropriate level of ecological / ornithological survey work, to inform potential impacts of construction access. In this regard, it would be more effective to clear and establish these work locations ahead of the bird breeding season (e.g. 15 March - for hen harrier) to help reduce the risk that the development programme is impeded by Protected Species.	

- 6.2.2. As shown in **Table 6.5**, substantial consultation was undertaken for the Consented Development to ensure that all relevant receptors were appropriately considered in compliance with the requirements of relevant guidance.
- 6.2.3. Following consultation, and completion of required surveys and modelling, an assessment was carried out of potential effects on the ecological features present at the Development Site associated with the construction, operation and decommissioning of the Consented Development. This was presented in the 2021 EIAR Ecology Chapter, along with appropriate mitigation and compensation measures.
- 6.2.4. No further consultation has been completed with statutory authorities for the Proposed Varied Development to date.
- 6.2.5. A summary of the planning conditions related to ecological issues for the Consented Development is provided below in **Table 6.6**. These conditions correspond to the consultation responses summarised in **Table 6.5** and the mitigation measures proposed in **Table 6.4** to reduce effects to IEFs. Key concerns regarding the Consented Development included peatland habitats on site, the loss of these habitats, and the high deer population in proximity to the Consented Development which could complicate the implementation of any peatland restoration scheme. Additionally, deer could disperse to neighbouring designated sites and affect the sensitive qualifying habitats present there, and water quality issues that might affect the wider catchment and the aquatic receptors present. The planning commitments will be adhered to for the Varied Development.

Table 6.6: Consented Development's Planning Conditions relevant to Ecology

Planning Condition/Document	Reason
13. Ecological Clerk of Works (ECoW)	To secure effective monitoring of and compliance with the environmental mitigation and management measures associated with



Planning Condition/Document	Reason
	the Development during the decommissioning, restoration, and aftercare phases.
14. Construction and Environmental Management Plan (CEMP)	To ensure that all construction operations are carried out in a manner that minimises their impact on road safety, amenity, and the environment, and that the mitigation measures contained in the Environmental Impact Assessment Report are fully implemented to avoid significant effects on Caithness and Sutherland Peatland Special Area of Conservation and the Caithness & Sutherland Peatlands Special Protection Area.
18. Finalised Peat Management Plan (PMP)	To ensure that a plan is in place to deal with the storage and reuse of peat within the application site, including peat stability and slide risks.
19. Habitat Management Plan (HMP)	In the interests of protecting ecological features and to ensure that the development secures positive effects for biodiversity.
20. Water Quality and Fish Monitoring Plan	To ensure no deterioration of water quality and to protect fish populations within and downstream of the development area.
21. Bat Species Protection Plan (BSPP)	In the interests of nature conservation.
23. Deer Management Plan (DMP)	To protect ecological interests of the Caithness and Sutherland Peatlands Special Area of Conservation.
32. Species Specific Surveys and Protection Plans	In the interests of nature conservation.

# 6.3. Issues scoped in / out

6.3.1. Considering the detailed information provided in the above sections of this document in relation to assessment and consultation carried out for the Consented Development, and the modest design changes made for the Varied Development, only habitat loss and change have been scoped into the assessment for the Varied Development. The potential loss and disturbance to habitats due to the increased size of infrastructure will be considered. The measures outlined in the Habitat Management Plan for the Consented Development will be reviewed in line with the updated assessment, and refinements will be considered in light of the potential change in habitat loss and disturbance, as well as updated policy, specifically NPF4.



6.3.2. As the only changes related to the Varied Development concern the modest increase in size of infrastructure and no significant effects were identified for the Consented Development to other Important Ecological Features (IEFs), it is considered that the assessment of effects on other previously identified IEFs will not change. With the implementation of the robust mitigation proposed in the 2021 EIAR and included in the Planning Conditions of the 2023 consent, these effects do not need to be considered in this 2025 assessment and are therefore scoped out from further consideration.

# 6.4. Assessment Methodology

6.4.1. The assessment of effects would follow that used in the 2021 EIAR and follow the Chartered Institute for Ecology and Environmental Management (CIEEM) Guidance for Ecological Impact Assessment (CIEEM, 2024).

# 6.5. Mitigation Measures

6.5.1. It is considered that all mitigation measures committed to in the 2021 EIAR will be implemented for the Varied Development. No additional mitigation measures have been identified in relation to Important Ecological Features.

# 6.6. Summary and Conclusions

- 6.6.1. This EIA Scoping Report Chapter outlines the ecological baseline and potential impacts associated with the Consented Development and with the Varied Development. The 2021 EIAR Ecology Chapter assessed the ecological features at the Development Site, proposing mitigation and enhancement measures to address potential effects during construction, operation, and decommissioning. The site, located near Lairg, Scotland, is characterised by upland habitats, including mire and heath, with no statutory designated nature conservation sites within the boundary but several within 10 km. Key habitats include wet dwarf shrub heath and blanket bog, with protected species surveys indicating the presence of otters, water voles, and various bat species. Consultation with statutory authorities highlighted the need for comprehensive ecological assessments and management plans, particularly concerning peatland habitats and local deer populations.
- 6.6.2. The 2021 EIAR concludes that with the implementation of appropriate mitigation measures, no significant effects on Important Ecological Features (IEFs) are anticipated for the Consented Development. The planning conditions established for the Consented Development will ensure compliance with ecological commitments, addressing concerns related to peatland habitats and deer management. For the Varied Development, only habitat loss and change due to increased infrastructure size will be assessed, with existing mitigation measures from the 2021 EIAR remaining applicable. The assessment methodology will adhere to established guidelines, ensuring a thorough evaluation of ecological impacts.



# 6.7. References

CIEEM (2024). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management.



# 7. Ornithology

# 7.1. Consented Development EIAR Baseline

- 7.1.1. The 2021 EIAR Ornithology Chapter considered the potential effects on the ornithological features present at the Development Site, and wider survey area, associated with the construction, operation and decommissioning of the Consented Development. Both indesign mitigation and bespoke enhancement was proposed in the form of relevant best practice, the evolution of the design of the Consented Development, in addition to delivery of long-term management plans.
- 7.1.2. There are no statutory or non-statutory natural heritage designations within the Proposed Development's boundary. The Caithness and Sutherland Peatlands Special Protection Area (SPA) adjoins the Site to the north-east, as does the SPA's underlying Ramsar Site and the Grudie Peatlands Site of Special Scientific Interest (SSSI). The SPA is designated for a range of breeding birds. The Ramsar site is designated for its blanket bog, and breeding bird assemblage, and the SSSI features of interest are blanket bog and three upland breeding waders (dunlin, golden plover and greenshank).
- 7.1.3. The nearest other international sites designated for birds are: the Strath Carnaig and Strath Fleet Moors SPA, approximately 15km to the east; Inverpolly, Loch Urigill and nearby Lochs SPA, approximately 11km to the west; and Lairg and Strath Brora Lochs SPA, approximately 11km to the east. The latter two SPAs were scoped out of the assessment as no significant effects on their associated populations were predicted alone, or in combination with other plans and projects. The potential effects of the Proposed Development were therefore assessed on the Caithness and Sutherland Peatlands SPA, underlying Ramsar Site and the Grudie Peatlands SSSI.
- 7.1.4. There are no lochans or other waterbodies within the Proposed Development and these were relatively limited in the wider area or separated by substantial altitudinal differences. As a result, breeding red-throated and black-throated divers were absent from the site and survey buffer; no flights of either species were recorded over the survey period. During the survey period, SPA/Ramsar qualifying duck species were present in only very limited numbers. No indications of greylag goose breeding activity were recorded. No breeding raptors were recorded on or in proximity to the Proposed Development.
- 7.1.5. Moorland breeding bird surveys identified a characteristic assemblage of species present, including dunlin, golden plover and greenshank (qualifying species of the Caithness and Sutherland Peatlands SPA/Ramsar and Grudie Peatlands SSSI).
- 7.1.6. In terms of flight activity, comprehensive surveys conducted over the 2019 and 2020 breeding seasons revealed golden eagle activity, including over and to the northeast and northwest of the site, the distribution of which was taken into account during the turbine layout iterations. Flight activity of other raptors was limited, including SPA qualifying species hen harrier and merlin.



- 7.1.7. Flight activity over the 2019/2020 non-breeding season was limited, as is typical for the northern Highlands over this period, with limited flight activity recorded over the site for any species, including migrating geese or swans. Flight activity was also limited during the 2018/2019 non-breeding season, albeit flight activity surveys covered the northern part of the site only (as the Proposed Development area shifted to the south-east from April 2019, as part of the design iteration process).
- 7.1.8. Using the combination of desk study data and survey results, the assessment of the Consented Development's effects on Important Ornithological Features (IOF) was completed. The assessment also identified the likely significance of effect on the IOFs of the Caithness and Sutherland Peatlands Ramsar site and ornithological features of its underlying Strath Grudie Peatlands SSSI. The assessment work on IOF's and on these designated sites addressed the likely significance of effects predicted to result from the Consented Development both alone, and in combination with other plans and projects.
- 7.1.9. The assessment concluded that there would be no significant effects on IOFs from the Proposed Development alone, or cumulatively. Effects that were identified as non-significant were displacement to breeding waders, specifically curlew, dunlin, golden plover and greenshank and infrequent collision risk for golden eagle and greenshank.
- 7.1.10. The in-combination effects on the Caithness and Sutherland Peatlands SPA/Ramsar site have been considered, and there are no adverse effects on site integrity, either alone or in combination with other plans and projects.
- 7.1.11. The implementation of the proposed HMP would provide an additional benefit of increased habitat suitability for breeding waders, including SPA qualifying species dunlin, golden plover and greenshank (species that are also features of the Grudie Peatlands SSSI).
- 7.1.12. The 2021 EIAR concluded that beyond reasonable scientific doubt that there will be no likely significant effects on any designated site, and therefore no adverse impact on site integrity, either alone or in combination with other plans or projects. There will also be no residual significant effects, in terms of the EIA Regulations, on bird populations from cumulative effects on the regional populations of the Natural Heritage Zone (NHZ).

# 7.2. Consultation & Existing Planning Conditions

7.2.1. Along with describing consultations and planning conditions for the Consented Development, this section also discusses how the Consented Development planning conditions have been addressed to date or will be taken into account for the Varied Development.

Table 7.1: Consultation Outcomes for the Consented Development Application

Consultee and Date Issue Raised

Scoping Consultation Responses [2019 Scoping Opinion] – October 2019, refreshed comments added in 2020



Consultee and Date	Issue Raised	
Scottish Ministers	Ornithology  The Company should take note of RSPB Scotland advice in respect of "scoped in effects" to be assessed for the purposes of the EIAR. It is also recommended by the Scottish Ministers that decisions on bird surveys – species, methodology, viewsheds and duration: site specific and cumulative – should be made following discussion between the Company, NatureScot and RSPB Scotland	
	Habitat Management Plans The Company should take on board The Highland Council's comments regarding Habitat Management Plan.	
Nature Scot	Caithness and Sutherland Peatlands SPA and Ramsar Site  As this proposal abuts this protected area, there is a high risk that this development could impact on a range of upland birds connected to the SPA (within and outwith the site), such as; divers, golden plover and greenshank, etc. Issues such as; displacement, disturbance and collision risk should be assessed	
	for all stages of the development. We note that part of the development is not visible, as indicated in the vantage point (VP) and view-shed map (in proximity to VP's 3 & 5). We therefore assume that turbines are not proposed in this location as impacts to SPA birds will not have been adequately assessed. Clarification of the turbine layout would help to determine whether bird survey coverage is going to be considered sufficient. As divers use some of the lochs close to the proposal, VP survey work should be undertaken at a time of day which will maximise flight data to gauge what level of impact, if any, that this proposal might have. If divers are found to be breeding on these lochs then focal diver observations may be required. Assessments should be carried out in context to the Conservation Objectives of this SPA.	
	The Proposed Development abuts a component part of the Caithness and Sutherland Peatlands SPA and Ramsar Site, protected for its upland birds.	
	SSSI's  The proposal abuts Grudie Peatlands SSSI, which is protected for its nationally important bog habitat and breeding populations of upland birds, including: golden plover, dunlin and greenshank. Impacts on all these features should be assessed within the EIAR	
RSPB	Survey Method  We note that ornithological field surveys have already started and will continue until August 2019, with a possibility of extension until August 2020. Since the original surveys are over five years old, we advocate that new surveys should continue until August 2020 to allow two new years of data collection as per NatureScot guidance. In addition to the surveys already underway, targeted surveys for golden eagle within 6km of the site and red-throated and blackthroated divers on all lochs and bog pools within 1km. Additional work to cover cryptic species such as wood sandpiper should also be included. Current VPs do not adequately cover the proposed access tracks and it is not clear from the Scoping Report that the new access track is included in the survey boundaries. In addition, we note from Figure 6 (Vantage Point Locations) that VPs 3, 4 and 5 are inside the site boundary. This is contrary to 3.8.4 of NatureScot guidance. Justifying the positions of the VPs should be provided within the EIAR to demonstrate that the survey data are adequate, robust and accurate.	



Consultee and Date	Issue Raised	
	Scoped in Effects  All direct and indirect impacts on birds and habitats should be scoped into the assessment. These include displacement, disturbance and collision' risk for birds. It would be advisable to include disturbance resulting from operational turbines as well as personnel and maintenance in the assessment.  White-tailed eagle  Breeding data within 6km should be requested from HRSG	
	Post-construction, Mitigation and Habitat Management Plan The EIAR should include plans for post-construction monitoring, collision mortality and monitoring for priority species such as breeding raptors and waders. We note that there is a significant amount of land identified within the site, out with the development area, which may be used for habitat management. We would welcome positive management of land for wildlife, provided the mitigation hierarchy has been followed in the design of any proposal. We request that a detailed Habitat Management Plan (HMP) is prepared as part of the EIA and submitted with any application. In the 2012 application, we recommend proposed drain blocking to improve habitat in the long-term which could help reverse the unfavourable status of golden plover on the SPA.	
	Vantage Point Coverage Figure 6 in the 2019 Scoping Report and new Figure 3 show that vantage points 3, 5 and 7 do not cover the full 500m envelope around the proposed turbine locations, and they are within close proximity to some turbine locations – this will need to be justified in the EIAR.	
	Cumulative Assessment  Due to the increasing number of wind developments in this area of the Highlands and adjacent to the Caithness and Sutherland Peatlands SPA, a robust cumulative assessment on the SPA and NHZ populations of impacted bird species should be undertaken with regards to collision risk, displacement and barrier effects. The assessment should include other proposed, consented and operational developments and the various grid connection projects associated with these wind developments.	
The Highland Council	Protected Bird Species  The presence of protected species such as Schedule 1 Birds or European Protected Species must be included and considered as part of the planning application process, not as an issue which can be considered at a later stage. Any consent given without due consideration to these species may breach European Directives with the possibility of consequential delays or the project being halted by the EC. Please refer to the comments of NatureScot in this respect Collision Risk  An assessment of the impacts to birds through collision, disturbance and displacement from foraging / breeding / roosting habitat will be required for both the proposed development site and cumulatively with other proposals. The EIAR	

the proposed development site and cumulatively with other proposals. The EIAR should be clear on the survey methods and any deviations from guidance on

ornithology matters.



7.2.2. Following an appropriate assessment the Scottish Ministers concluded, taking account advice from NatureScot, and in view of the conservation objectives of the Caithness and Sutherland Peatlands SPA, that the mitigation measures proposed in the 2021 EIAR to provide a Bird Protection & Mitigation Plan, in consultation with NatureScot, in addition to carrying out preconstruction bird surveys, demonstrate that the proposed Development will not, either alone or in combination with other developments, adversely affect the integrity of the site. The Scottish Ministers imposed planning conditions to secure the above mitigation.

# 7.3. Issues scoped in / out

- 7.3.1. As the only changes related to the Varied Development concern the modest increase in size of infrastructure, and no significant effects were identified for the Consented Development to other Important Ornithological Features (IOFs), it is considered that the assessment of effects on previously identified IOFs will not change. However, calculations for collision risk will change with the alteration of turbine height and geometry. This is considered unlikely to change the predicted effects identified for the Consented Development, but the change should still be assessed, and so a new collision risk analysis for the Proposed Varied Development is 'scoped in.'
- 7.3.2. Considering the information provided in the above sections of this document, the changes made for the Varied Development, and the robust mitigation proposed in the 2021 EIAR and included in the Planning Conditions of the 2023 consent, only collision risk has been 'scoped in' to the assessment for the Varied Development. All other ornithological issues have been 'scoped out.'

# 7.4. Assessment Methodology

- 7.4.1. We have considered and refer to Nature Scot (2024) 'Guidance on dealing with proposals for the variation of section 36 wind farm consents:'
  - "Focus on the natural heritage interest affected by the proposed change. For example, an application to increase turbine dimensions (but not change the development footprint) would not affect previous assessments of habitat loss or peat slide risk but may have implications for the previous assessment of landscape and visual impacts, or the assessment of collision risk to birds. We should not seek to revisit those environmental issues that are unrelated to the proposed variation." and,
  - "For birds, in the majority of cases where the number and location of turbines are not changing, all that will be needed is a re-working of the collision risk model, rather than new survey work. Revised collision risk calculations should be presented in the EIAR and, where appropriate, in-combination with other wind farm developments."

Implications for increased tip height

7.4.2. In line with guidance provided by NatureScot regarding changes to turbine (tip heights), the ornithology section of the section 36C submission is proposed to present updated collision modelling using the baseline flight activity gathered and presented in the 2021 EIAR.



- 7.4.3. On a project alone basis, the Applicant would look to remodel the collision risk for IOFs, inputting new turbine parameters into the model and produce a document showing differences, if any, between the original and the updated design.
- 7.4.4. The S36C submission will also provide a review of any potential changes to the cumulative collision risk assessment (to that provided in the original assessment) that may arise. NHZ populations will also be considered.

Implications for breeding bird community

- 7.4.5. Given the limited change in infrastructure footprint, no differing impacts are envisaged for the wider ornithological community at the site, for the Varied Development in comparison to the Consented Development.
- 7.4.6. Re-assessment for breeding birds is therefore 'scoped out.'

# 7.5. Mitigation Measures

7.5.1. It is considered that all mitigation measures committed to in the 2021 EIAR will be carried forward and implemented for the Varied Development. No additional mitigation measures have been identified in relation to Important Ornithological Features.

# 7.6. Summary and Conclusions

7.6.1. It is concluded that updated supplementary ornithological desk modelling work will be undertaken to update collision risk modelling outputs.

### 7.7. References

Energy Consents Unit website (accessed May 7/8<sup>th</sup> 2025): <u>Scottish Government - Energy Consents Unit - Application Details</u>



# 8. Hydrology and Hydrogeology

### 8.1. Consented Development EIAR Baseline

8.1.1. The Hydrology chapter of the EIAR 2021 assessed the Consented Development's position within the River Cassley hydrological catchment, which forms part of the River Oykel Special Area of Conservation (SAC). The assessment found that, subject to implementation of appropriate mitigation measures, managed through the Construction Environment Management Plan (CEMP), Pollution Prevention Plan (PPP), and adherence to regulatory guidance, there would be **no significant effects** on the hydrology and hydrogeology of the site associated with construction, operation or decommissioning.

Surface Hydrology

- 8.1.2. The Consented Development is located within the River Cassley catchment. The site is located above the base of the river valley, through which the River Cassley runs in a southerly direction. There are numerous unnamed watercourses, ephemeral streams and artificial drains, with the artificial drains being located closest to T20, which has since been removed from the development design.
- 8.1.3. A site survey of the ephemeral streams and artificial drainage assets identified was conducted in November 2020. These features were found to be predominantly areas of saturated ground formed by surface water runoff accumulation and were not observed to support distinctly aquatic habitats or hydromorphological characteristics. As a result, they are not considered representative of formal watercourses and are therefore deemed less sensitive.

Water Quality

- 8.1.4. The River Cassley is part of the River Oykel SAC. The site also borders the Caithness and Sutherland SAC and Grudie Peatlands SSSI.
- 8.1.5. The River Cassley (Dornoch Firth to Glenmuick, ID 20110) is classified within the SEPA River Basin Management Plan (RBMP) as being in 'Good' overall condition. Other watercourses within the site are not classified within the RBMP. As all watercourses within the site feed into the River Oykel SAC and the River Cassley is classified as being in 'Good' overall condition, all surface watercourses are considered to be of High Sensitivity.
- 8.1.6. There are no Drinking Water Protected Areas (DWPA) within or in hydrological connectivity to the Proposed Varied Development.
- 8.1.7. No Private Water Supplies (PWS) are located within 250m of the Site. Infrastructure is proposed near watercourses within the upper catchment area of the Badintagairt PWS. This has been used to inform the sensitivity of watercourses in the study area.



#### **Groundwater Bodies**

8.1.8. The site is underlain by a low productivity aquifer. Due to the groundwater body's limited hydrological potential and productivity, as well as the low permeability nature of the superficial geology, the groundwater body is considered to be of Low Sensitivity.

Groundwater Dependent Terrestrial Ecosystems (GWDTE)

- 8.1.9. The Hydrology chapter of the 2021 EIAR determined that all of the potential GWDTE areas were not likely to be groundwater dependent. With the likelihood of groundwater dependency across the site assessed to be Low, all potential GWDTE areas identified through National Vegetation Classification (NVC) surveying were assessed to be of Low Sensitivity with regards to disruption of groundwater supply.
- 8.1.10. SEPA's guidance on assessing the impacts of developments on GWDTEs (updated in August 2024) confirms that SEPA will not comment on GWDTE if the potential impacts are assessed as low or unimportant. It was judged that, since there have been no GWDTE with dependency on groundwater supply identified, the area is not sensitive.
- 8.1.11. The AIR 2022 confirmed that the removal of two turbines would not have any increased impact on the Hydrology analysis.

# 8.2. Consultation & Existing Planning Conditions

- 8.2.1. During consultation, Scottish Water noted there are no Scottish Water drinking water catchments or water abstraction sources, which are designated as Drinking Water Protection Areas (DWPA) under the Water Framework Directive, in the area of the proposed activity. Post-submission, Scottish Water confirmed that they had no objection to the Consented Development.
- 8.2.2. SEPA submitted a holding objection relating to implementation of changes to the layout to minimise impact to deep peat and carbon. These changes had been agreed with SEPA just prior to submission of the 2021 EIAR, and the submission documents were then updated to reflect the requested changes, causing SEPA to withdraw the objection subject to appropriate conditioning.
- 8.2.3. Hydrology-related conditions about micro-siting allowances (#11), a finalised CEMP (#14), a finalised PMP (#18), a finalised HMP (#19), and water quality and fish monitoring (#20) were imposed on the deemed planning permission alongside the section 36 consent.



### 8.3. Issues scoped in / out

- 8.3.1. The infrastructure changes proposed for the Proposed Varied Development are situated out with watercourse buffers with no change to construction methodology or embedded mitigation. If the varied infrastructure were to overlap the 50m watercourse buffers, construction optimisation and micro-siting will be employed to mitigate, and SEPA's standard guidance would be observed.
- 8.3.2. As no construction is proposed within 250m of a PWS there will be no requirement for a separate detailed risk assessment for PWS abstractions.
- 8.3.3. Given the above, it is proposed that effects on all hydrological and hydrogeological receptors are 'scoped out.'

### 8.4. References

Guidance on Assessing the Impacts of Developments on Groundwater Dependent Terrestrial Ecosystems (guidance-on-assessing-the-impacts-of-developments-on-groundwater-dependent-terrestrial-ecosystems.docx)



# 9. Geology & Carbon Balance

### 9.1. Consented Development EIAR Baseline

9.1.1. The Baseline Conditions in relation to Geology and Carbon Balance from the 2021 EIAR for the Consented Development are summarised below.

**Bedrock Geology** 

- 9.1.2. British Geological Survey (BGS) Onshore 1:50,000 scale mapping indicates that the bedrock underlying the majority of the Development Site comprises Altnaharra Psammite Formation, a Psammitic rock formed by low grade metamorphism. Leucogranite igneous plutons and Lewisianoid Gneiss Complex are shown to outcrop in the south-east of the Developable Site along the access track and therefore may be encountered beneath the Psammite. Volume 3 Figure 11.2 of the 2021 EIAR, shows the Bedrock Geology underlying the Development Site.
- 9.1.3. BGS 1:50,000 scale mapping indicates there to be minor faulting running parallel to the Glen Cassley River, within the river valleys eastern side slopes. A significant fault has been recorded along the bed of Allt Bad an t-Sagairt, a minor tributary to the Glen Cassley River, situated to the north of the Developable Site. No fault line directly underlies the Development Site, however faults within the region are identified as thrust faults with barbs on hanging wall side. The faults also commonly share an easterly downthrow direction.

Superficial Geology

9.1.4. BGS 1:50,000 scale mapping indicates that where present, peat superficial deposits underlie most of the Development Site and access. Glacial Till is present, with Alluvium deposits comprising of clay, silt, sand and gravel, associated with onsite watercourses. Where superficial deposits are not mapped, bedrock geology is anticipated close to the surface. Volume 3 - Figure 11.1 of the 2021 EIAR, shows the Bedrock Geology underlying the Development Site.

Peat

- 9.1.5. Four phases of peat probing were carried out as part of the 2021 EIAR, the results of which are shown in **Figure 9.1.1.** Of the probes recorded, approximately 54 % of probe depths are <0.5 m, therefore not classed as peat.
- 9.1.6. As part of the Consented Development EIAR Volume 4 Technical Appendix 11.2 Peat Slide Risk Assessment, a Peat Landslide Hazard and Risk Assessment (PLHRA) was undertaken to determine the baseline peat stability conditions. The outcome of this concluded the risk of peat instability occurring to be Negligible to Low across the Development Site.



9.1.7. As part of the Consented Development EIA an Outline Peat Management Plan (PMP) was prepared. The PMP stated a total excavation volume during construction of 244,307 m³ with a re-use volume of 244,463 m³, demonstrating a -157 m³ deficit and that all excavated peat can be re-used within the Consented Development. This showed a good balance between extraction and re-use of peat within the Consented Development.

**Peat Condition** 

9.1.8. A peat condition class survey was undertaken to confirm peat conditions across the Development Site as part of the 2021 EIAR. The results of the survey show most of the Development Site to be classified as modified peat condition, with localised areas of near natural, actively eroding and drained peatland. The Consented Development typically avoided areas classified as near natural peatland, taking other onsite constraints into consideration. Details of peat condition within the Development Site were provided in Volume 4 – Technical Appendix 8.10, Outline Habitat Management Plan.

**Designated Sites** 

- 9.1.9. There are no designated areas of protection located within the Development Site, including Geological Conservation Review (GCR) sites.
- 9.1.10. Within 5 km of the Development Site the Caithness and Sutherlands Peatlands, designated as a Special Protection Area (SPA), Special Area of Conservation (SAC), RAMSAR and Sites of Special Scientific Interest (SSSI), borders the north-east of the Development Site. The River Oykel, designated as a SAC is located approximately 1 km west of the Development Site.

Unexploded Ordinance

9.1.11. The Zetica website was reviewed for potential Unexploded Ordnance (UXO) and indicated that the Development Site is within a low bomb risk area.

Summary of Predicted Level of Impact

- 9.1.12. The 2021 EIAR assessed the impact of the Consented Development on geological receptors, including peat, superficial deposits and solid geology. A carbon balance calculation was also undertaken.
- 9.1.13. The impacts to receptors during the construction, operation and decommissioning phases of the Consented Development were predicted to be negligible to minor and therefore, not significant, with the implementation of relevant guidance and best practice measures.
- 9.1.14. Additional mitigation measure beyond embedded mitigation, guidance and best practice measure were not required for the Consented Development as potential effects were not significant.



9.1.15. Intrusive ground investigation was recommended post consent to refine the understanding of the ground conditions at the Site and support design of the wind farm infrastructure and allow updating of the Outline Peat Management Plan to a more detailed Stage 2 Finalised Peat Management Plan.

# 9.2. Consultation & Existing Planning Conditions

9.2.1. Further to the submission of the Consented Development EIAR, consultation responses have been received from NatureScot, SEPA and Ironside Farrar Ltd. **Table 9.1** details the consultation outcomes for the Consented Development application.

**Table 9.1 Consultation Outcomes for the Consented Development** 

Consultee	Summary of key Issues	Action
SEPA 3 September 2021	Submitted a holding objection requesting determination be deferred until additional information was provided.  Requested T08 and T19 are relocated to minimise impacts on deep peat.  Request the following conditions be applied:  All tracks on peat greater than 1 m are to be floated  Requirement for a finalised Peat Management Plan to demonstrate how micrositing and other measures such as floating tracks have been used to further minimise peat and good quality peat habitat disturbance.  Micrositing of up to 50 m (or as you see reasonable), but not onto peat deeper than currently shown for the relevant infrastructure.	A response was issued on 21 October 2021 to address the SEPA conditions.  Clarity was provided to support the micro siting of T08 within 50 m allowance, turning of T08 and T19 hardstanding and that all tracks on peat over 1.0 m will be floated.  SEPA responded to the clarifications on 29 October 2021 satisfied with changes and withdrew objection.
SEPA 19 May 2022	Acknowledged the additional information relates to the removal of two turbines (Turbine 10 and Turbine 20), and associated infrastructure and a reduction in track length and that no additional adverse effects from the removal of these turbines have been identified. SEPA hold no objection to these changes provided the conditions we requested in the letter dated 3 September 2021 (Ref 2240) is applied with any grant of consent.	No further action.



Consultee	Summary of key Issues	Action
Ironside Farrar. ECU Advisor on PLHRA. 16 February 2022	The PLHRA required resubmission with significant shortcoming throughout the PLHRA and reworking of the PLHRA report was required to support a robust assessment; areas for attention will be advised in the review findings and outline guidance offered to support the developer in preparing a satisfactory PLHRA.	A response was issued on 31 March 2022 to address the response from Ironside Farrar.  This response comprised an update to the Technical Appendix 11.2 -PLHRA which included, geomorphological mapping (Appendix A) peat risk data (Appendix B), and a risk assessment (Appendix C).
	Recommendations that required a response:  Existing wind farms are noted within the immediate vicinity of the proposed development. Information gained from the construction phases of these windfarms could usefully be included within the assessment where relevant.  Please include a geomorphological map in the assessment.  Please update the likelihood assessment so that all potential likelihood factors for the site are considered.  Please undertake a Consequence assessment for the site.	As the assessment of the likelihood of peat instability undertaken for the Consented Development has been calculated across the entire Development Site. All areas of infrastructure are sited within areas of negligible or low likelihood of a peat slide occurring. Where the areas of negligible or low likelihood of a peat landslide occurring have been identified, a detailed impact assessment was not considered necessary given that the model shows that it is unlikely that a peat slide will occur.
	Following on from the above, a full risk assessment should be undertaken, and the results provided in a resubmitted PLHRA report.	

### **Planning Conditions**

- 9.2.2. In relation to Geology and Soils the following details from the Planning Conditions provided in the Decision Notice for the Consented Development are relevant to this assessment:
  - The decision notice for the Consented Development confirmed a micro-siting allowance of 50m for wind turbines and other infrastructure.
  - The decision notice for the Consented Development stated that no micro-siting was to take place into areas of deeper peat.
  - A Finalised Peat Management Plan was to be submitted for the Consented Development detailing how micrositing and other measures have been used to minimise peat disturbance.



 A Borrow Pit Scheme of Works is to be submitted following site survey and ground investigations detailing how the working and restoration of each borrow pit will be undertaken.

### 9.3. Issues scoped in / out

9.3.1. **Table 9.2** outlines the potential effects to be scoped into further assessment of the Varied Development.

Table 9.2: Receptors Scoped Out of Varied Development Assessment

Receptor	Scoped In/Out	Justification
Bedrock Geology	Scoped Out	No designated sites relating to bedrock geology are located within the Development Site.
Superficial Geology	Scoped Out	No designated sites relating to superficial geology are located within the Development Site.
Peat	Scoped Out	The Consented Development EIA predicted impacts to peat and peat stability risks as not significant and this is considered applicable for the Varied Development due to the limited changes from the Consented to the Varied Development infrastructure which will be within micro-siting allowances of 50m. Further details are provided below in Section 9.4.
Designated Sites	Scoped Out	There are no designated sites located within the study area, the Developable Site.
UXO	Scoped Out	The Development Site is classed as having a low UXO risk.

- 9.3.2. Due to the very limited changes associated with the Varied Development the peat depth surveys provide adequate coverage across the Development Site.
- 9.3.3. Due to the limited infrastructure changes from the Consented Development and the Varied Development, the PLHRA undertaken as part of the Consented Development EIAR Volume 4 Technical Appendix 11.2 Peat Slide Risk Assessment, remains valid and concluded the risk of peat instability occurring to be Negligible to Low across the Development Site. The recommendations within Section 9.2 should be adopted and updated as necessary following the ground investigation and detailed design.
- 9.3.4. The majority of the changes to the layout are all within the 50m micrositing allowance and the final locations of microsited infrastructure will be based on further ground investigation and detailed design to ensure avoidance of any areas of deeper peat as set out within the planning consent for the Consented Development.



9.3.5. The information from the ground investigation and detailed design will be used within a Final Peat Management Plan as detailed within the planning consent for the Consented Development detailing the updated volumes of peat excavated and re-used on-site (including restoration as detailed within the Habitat Management Plan) ensuring protection of peat and carbon rich soils in accordance with the requirements of NPF4 Policy 5.

### 9.4. Carbon Calculator

- 9.4.1. An updated assessment of the carbon impact of the Varied Development has been carried out using the spreadsheet version of the Scottish Government Windfarm Carbon Assessment Tool v2.14.1. This will be included with the S36C submission.
- 9.4.2. The previous online SEPA Carbon Calculator Tool (Reference UIRC-LUK8-7CN3v5) utilised for the Consented Development is currently unavailable. It should be noted that the spreadsheet tool is an older version of the online tool and is not a directly comparable with the online tool. The summarised results for the Varied Development are as follows:
- 9.4.3. The net emissions of carbon dioxide from the Varied Development are expected to be 154,647 tonnes of CO<sub>2</sub>e, compared to the Consented Development which predicted 149,708 tonnes of CO<sub>2</sub>e. As such, the Varied Development has a payback time of 4.2 years compared to the 4.1 years indicated for the Consented Development. The difference in payback time is associated with the use of the spreadsheet tool and is not associated with the minor infrastructure layout changes associated with the Varied Development.

# 9.5. Mitigation Measures

9.5.1. Based on the minor changes between the Consented Development and the Varied Development significant effects are considered to be unchanged from the 2021 EIAR for the Varied Development based on the embedded mitigation outlined in Chapter 11 of the Consented Development EIAR and the adherence to the planning consent requirements on Peat Management Plan for the Consented Development.

# 9.6. Summary and Conclusions

- 9.6.1. The impacts to receptors during the construction, operations and decommissioning phase of the Consented Development was predicted to be minor to negligible and therefore, not significant, with the implementation of guidance and best practice measures. Additional mitigation measure beyond embedded mitigation, guidance and best practice measure were not required for the Consented Development as potential effects were not significant.
- 9.6.2. The updated Carbon Balance Assessment for the Consented Development is consistent with the Varied Development and both indicating payback with a reasonable timeframe. This will be submitted with the S36C application.



### 9.7. References

British Geological Survey: Lairg, Scotland Sheet 102E, Solid and Drift Geology, 1:50k Provisional Series.

British Geological Survey: GeoIndex map viewer, available online at: <a href="https://mapapps2.bgs.ac.uk/geoindex/home.html?ga=2.80554071.1504150446.17277877">https://mapapps2.bgs.ac.uk/geoindex/home.html?ga=2.80554071.1504150446.17277877</a> Accessed on: 25 April 2025.

Mining Remediation Authority: Map Viewer, available online at: <a href="https://datamine-cauk.hub.arcgis.com/">https://datamine-cauk.hub.arcgis.com/</a>. Accessed on: 25 April 2025.

HES Scotland's Historic Land Use Map (HLA Map), available online at: <a href="https://hlamap.org.uk/">https://hlamap.org.uk/</a>. Accessed on: 25 April 2025.

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Scottish Government. Scotland's soil map viewer, available online at: <a href="https://map.environment.gov.scot/Soil maps/?layer=1">https://map.environment.gov.scot/Soil maps/?layer=1</a>

Zetica UXO: Unexploded Bombs Website, available online at: <a href="https://zeticauxo.com/">https://zeticauxo.com/</a>.



# 10. Cultural Heritage & Archaeology

### 10.1. Consented Development EIAR Baseline

- 10.1.1. The assessment of effects on cultural heritage was presented in Chapter 12 of the 2021 EIAR and in Chapter 8 of the 2022 AIR.
- 10.1.2. Six non-designated heritage assets were identified within the Site: a possible shieling hut (Asset 47), a stalker's path (Asset 49), two field boundaries (or fence lines) (Assets 51 and 52) and two possible walker's or marker cairns (Assets 56 and 59). These assets are primarily post-medieval or modern in date and relate to management of the estate.
- 10.1.3. Direct residual effects of negligible significance were predicted on two assets: the fragmentary remains of former field boundaries (or fence lines) (Assets 51 and 52).
- 10.1.4. The 2021 EIAR identified forty-six designated heritage assets within 10 km of the site boundary:
  - 31 Scheduled Monuments (18 with predicted visibility of the Proposed Development);
  - One Category A Listed Building (with predicted visibility of the Proposed Development);
  - Seven Category B Listed Buildings (three with predicted visibility of the Proposed Development);
  - Six Category C Listed Buildings (one with predicted visibility of the Proposed Development); and
  - One Inventory Historic Battlefield (with some predicted visibility of the Proposed Development).
- 10.1.5. There were no Inventory Garden and Designed Landscapes, Conservation Areas or World Heritage Sites within 10km of the site boundary.
- 10.1.6. A moderate significant residual effect was predicted on the setting of one Scheduled Monument: Croich Dail Langwell, Broch (SM 1852).
- 10.1.7. Minor significant residual effects were predicted on the setting of four Scheduled Monuments and one Category B Listed Building.
- 10.1.8. Negligible significant residual effects were predicted on the setting of 13 Scheduled Monuments, one Category A Listed Building, two Category B Listed Buildings, two Category C Listed Buildings and one Inventory Historic Battlefield.
- 10.1.9. Cumulative effects of minor significance were predicted on four scheduled monuments: Lairg Muir North Chambered Cairn (SM 817), Balcharn Chambered Cairn (SM 1768), Altbreck Broch (SM 1829) and Loch Dola, Hut circles and clearance cairns (SM 1878).



- 10.1.10. Following revision of the proposed development in 2022 and removal of two Turbines (T10 and T20), examination of the revised Zone of Theoretical Visibility (ZTV) for the Consented Development indicated that two Scheduled Monuments were located outside the revised ZTV. No turbines would be visible from these monuments and there would be no effect on the setting of these assets from the Consented Development.
- 10.1.11. It was assessed that although the revised layout of the Consented Development would result in a reduction of the number of turbines visible from the other designated heritage assets (Scheduled Monuments, Listed Buildings and Inventory Historic Battlefields) within 10 km of the Consented Development the reduction would not be such that it would reduce the magnitude of impact or level of effect predicted in Chapter 12 of the 2021 EIAR.
- 10.1.12. It was assessed that the cumulative effects identified in Chapter 12 of the 2021 EIA remained valid when considering the proposed removal of Turbines T10 and T20 and there would be no change in the levels of cumulative effect from the Consented Development.

### 10.2. Consultation & Existing Planning Conditions

10.2.1. Following submission of the original application, consultation responses, as detailed in **Table 10.1** below, were received from Historic Environment Scotland (HES), and the ECU.

Table 10.1: Relevant Consultation Responses Received Following Submission Application

Consultee	Response		
Historic Environment Scotland (Planning Application response letter dated 9 September 2021)	Advised that the Proposed Development did not raise historic environment issues of national significance and that they did not object to the Proposed Development.  Advised that, although they did not object to the proposals, should the design change, consideration should be given to further reductions of the adverse impact on the character of the landscape in outward views from Dail Langwell Broch (SM 1852). The setting impact could be reduced by relocating or deleting the following turbines:		
	<ul> <li>T2, the turbine that appears significantly higher on the skyline than the other turbines when viewed from the broch, and</li> <li>T8, the turbine footed on the western side of the ridge, which would also remove encroachment of the development into the valley surrounding the broch.</li> </ul>		
Historic Environment Scotland (Additional Information response dated 16 May 2022)	Advised that they had no comments to make on the additional information.		
Historic Environment Scotland	Advised that they did not originally object to the wind farm proposals as they considered that the proposal's impacts on their		



(Further Comments dated 12	historic environment interests were not of a level that would raise		
January 2023)	issues of national interest.		
	Advised that the provisions of Policy 11 on Energy did not change their previous view on the proposals.		
Energy Consents Unit (ECU)	Noted that Historic Environment Scotland (HES) does not object to		
(Decision Notice dated 22 May	the proposals.		
2023)	Advised that, although HES recognises that there will be significant impacts upon the setting of the Iron Age Dail Langwell broch, they consider that the significance of this impact did not raise issues of national interest.		

- 10.2.2. The ECU Decision Notice (22 May 2023) set out planning conditions attached to the planning permission for the Consented Development. Annex 2 Part 2, Condition 24: Programme of Archaeological Works set out those relevant to the Cultural Heritage:
  - No development shall commence unless and until a programme of archaeological works to be carried out during construction of the Development has been submitted to, and approved in writing by, the Planning Authority.
  - The programme of archaeological works shall include measures to be taken to
    protect and preserve any features of archaeological interest in situ and the recording
    and recovery of archaeological features which cannot be protected or preserved.
  - The approved programme of archaeological works (as amended from time to time with written agreement from the Planning Authority) shall be implemented in full.

## 10.3. Issues scoped in / out

- 10.3.1. There are no proposed changes to the Varied Development site boundary, turbine positions or the majority of the design layout from that assessed for the Consented Development. There has been a small amount of optimisation of access track locations, resulting in an overall reduction in track length. This will not change the impact on any heritage asset within the site boundary. Therefore, direct (physical) effects on cultural heritage resulting from the Varied Development will be 'scoped out.'
- 10.3.2. The Varied Development will increase in turbine tip height from 149.9 m to up to 200 m, and this could result in an increase in effects on the setting of cultural heritage assets, particularly those that are in close proximity to the Proposed Development. Assessment of the effect of the Varied Development on the setting of Scheduled Monuments, Listed Buildings and Inventory Historic Battlefields within 10km of the site boundary (viewable in Figures 10.1 and 10.2) will therefore be 'scoped in.'



- 10.3.3. Assessment of the effect of the Proposed Development on the setting of World Heritage Sites, Inventory Garden and Designed Landscapes and Conservation Areas will be 'scoped out.' The only asset with these designations within 10km of the Proposed Development is the Flow Country UNESCO site. The Flow Country is designated as the most outstanding example of actively accumulating blanket bog ecosystem. This designated site will therefore be considered in the ecology section and will not be considered for effects on cultural heritage.
- 10.3.4. Assessment of the effect of the Proposed Development on the settings of designated heritage assets more than 10km from the site boundary will be 'scoped out.' None have been identified beyond that distance, through initial analysis, as having settings sensitive to changes arising from the Proposed Development.
- 10.3.5. Assessment of the cumulative effects on the setting of heritage assets during operation of the Proposed Development in combination with other development in the surrounding area will be scoped in.

### 10.4. Assessment Methodology

- 10.4.1. The cultural heritage assessment will be carried out in accordance with the following guidance with reference to relevant legislation and policy:
  - SNH and HES Environmental Impact Assessment Handbook (SNH & HES, 2018);
  - Standard and Guidance for Historic Environment Desk-Based Assessment, Chartered Institute for Archaeologists (CIfA, 2014, updated 2020);
  - Principles of Cultural Heritage Impact Assessment in the UK (IEMA 2020);
  - Designation Policy and Selection Guidance (HES, 2019);
  - Managing Change in the Historic Environment: Setting (HES, 2016, updated 2020);
  - Planning Advice Note 1/2013: Environmental Impact Assessment (PAN 1/2013);
     and
  - Planning Advice Note 2/2011: Planning and Archaeology (PAN 2/2011).
- 10.4.2. In order to establish whether the proposed revised turbine increase in tip height (149.5m to up to 200m) is likely to result in any effects on the setting of cultural heritage in the 10km Outer Study Area, the following assessment will be undertaken:
  - A review of the blade tip height Zone of Theoretical Visibility (ZTV) for the proposed increase tip height (Figure 10.1 and 10.2); with heritage assets overlain to establish which assets will now have visibility due to the tip height increase.
  - Any heritage assets not previously within the ZTV will be identified and assessed to determine the likely predicted effects on setting.
  - Updated wireline and photomontage showing the predicted visibility of the Varied Development from Scheduled Monument, Croich Dail Langwell, Broch (SM 1852).



- 10.4.3. Site visits to key heritage assets in the Outer Study Area will be carried out, where necessary and in as far as access is possible, to assess the current baseline conditions and sensitivity of the setting of the assets and to assess the predicted effect of the proposed revised turbine increase in tip height on their settings.
- 10.4.4. The assessment will consider the value/sensitivity of the heritage assets, their settings, and the magnitudes of the predicted impacts.

### 10.5. Mitigation Measures

- 10.5.1. Mitigation of direct impacts will follow the planning condition set out in Annex 2 (Section 24: Programme of Archaeological Works) of the Decision Letter (22 May 2023) for the 2023 Consented Application and Chapter 12, Section 12.8 of the 2021 EIAR.
- 10.5.2. The Proposed Varied Development has been designed as far as possible to avoid direct effects on the identified heritage assets within the site boundary. No development will commence until a Written Scheme of Investigation (WSI) has been submitted to and approved by The Highland Council (THC).
- 10.5.3. As set out in Section 12.8: Mitigation of the 2021 EIAR for the Consented Development, the proposed Wind Farm has been subject to an iterative design process whereby environmental (including setting effects) and technical constraints has been given due consideration. The design has considered the presence and setting of Dail Langwell Brochs (SM 1852) and sought to reduce impacts upon the setting of the Scheduled Monument, particularly by limiting the number of turbines that can be seen from within the glen and by moving towers south towards the existing Achany Wind Fam. Removal of two Turbines (T10 and T20), as set out in the 2022 AIR for the Consented Development, would further reduce the number of turbines visible from the Scheduled Monument.
- 10.5.4. Residual effects will be assessed taking into account the effectiveness of proposed mitigation measures.

## **10.6. Summary and Conclusions**

- 10.6.1. Six non-designated heritage assets have been identified within the site boundary. These assets are primarily post-medieval or modern in date and relate to management of the estate. Direct residual effects of negligible significance have been predicted on two of the assets, two former field boundaries, identified within the site boundary from construction of the Consented Development.
- 10.6.2. There are no proposed changes to the Varied Development site boundary or locations of proposed infrastructure from that assessed in the 2022 AIR for the Consented Development, barring a small number of access track optimisations, and consequently there are no additional predicted direct (physical) effects on cultural heritage assets from the Varied Development.



- 10.6.3. Within 10km of the Varied Development site boundary there are 29 Scheduled Monuments, 14 Listed Buildings and one Inventory Historic Battlefield. There are no Inventory Garden and Designed Landscapes, Conservation Areas or World Heritage Sites within 10km of the site boundary (Figures 10.1 and 10.2) which have designations relating to cultural heritage. The only example is the Flow Country UNESCO site as discussed in 10.3.3. It is proposed that the Varied Development will increase in turbine tip height (up to 200m), and this could result in an increase in any effects on the setting of cultural heritage assets within the surrounding landscape.
- 10.6.4. Cultural heritage issues proposed to be scoped into and out of the Varied Development EIA and the assessment methodology are presented for approval. A further scope of desk-based assessment and site visits will be carried out to fully inform the EIA.
- 10.6.5. Based on the findings of the Consented Development 2021 EIA and 2022 AIR assessments and the current understanding of the Varied Development, the designated heritage asset that is most likely to receive a significant adverse impact on its setting is Croich Dail Langwell, Broch (SM 1852). The potential effect of the Varied Development on the setting of Croich Dail Langwell, Broch will be assessed in detail within the EIA.

#### 10.7. References

Chartered Institute for Archaeologists (2014, updated 2020] 'Standard and guidance for historic environment desk-based assessment', London, Chartered Institute for Archaeologists,
available at: https://www.archaeologists.net/sites/default/files/CIfAS%26GDBA 4.pdf

Historic Environment Scotland (2016, updated 2020) 'Managing Change in the Historic Environment – Setting', Edinburgh (<a href="https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=80b7c0a0-584b-4625-b1fd-a60b009c2549">https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=80b7c0a0-584b-4625-b1fd-a60b009c2549</a>)

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# 11. Traffic & Transport

### 11.1. Consented Development EIAR Baseline

- 11.1.1. The preferred access route for all turbine abnormal loads is to originate from either the ports of Nigg or Invergordon, via the A9 to The Mound and then the A839, passing through Lairg, A836 and then the A839 to the Site Entrance.
- 11.1.2. The Traffic and Transportation Chapter of the Consented Development's EIAR assessed any effects on the public road network associated with delivery of the Consented Development. When including the implementation of the Construction Traffic Management Plan (CTMP), alongside proposed mitigation measures and discussion with stakeholders, the environmental effect was considered **not significant**.
- 11.1.3. The assessment of the 2021 EIAR concluded that, during the peak deliveries period (months 7-8), the maximum weekday average for traffic flows would reach up to 93 Heavy Goods Vehicles (HGV) per day and 52 car/minibus/Light Goods Vehicles (LGV) per day. HGV traffic volumes on the A836 and A949, as well as total traffic volumes on the A839, were likely to increase by more than 30%, however the environmental effect is considered to be not significant based on implementation of mitigation measures.
- 11.1.4. The Consented Development assumed the three other committed developments in the area, Lairg II, Creag Rhiabhach and Braemore Wind Farm, would enter construction at the same time in order to create a worst-case scenario for traffic and transportation. This worst case would create a significant temporary impact, in which HGV traffic would increase by over 80% on the A836, A949 and A839, with total traffic volumes likely to increase by over 30% on the A836 and A839. However, again, implementation of additional mitigation measures was judged to reduce this so that there would be **no significant residual cumulative effects.**
- 11.1.5. The AIR 2022 noted the removal of turbines T10 and T20 would result in a slight decrease in construction phase traffic, with no material change from the assessment of the original EIAR.

# 11.2. Consultation & Existing Planning Conditions

- 11.2.1. Transport Scotland, as advisors to the Scottish Government on potential traffic and transport impacts, did not object to the Consented Development subject to there being conditions relating to a Construction Traffic Management Plan (CTMP), the final abnormal load route and for traffic management requirements including signage to be undertaken by a quality assured traffic management consultant.
- 11.2.2. THC also did not object to the Consented Development subject to conditions around the CTMP, a Road Mitigation Schedule of Works and transport report, and written consent of the Council, as the road authority, around future traffic management works including ongoing turbine maintenance during operation.



11.2.3. Two planning conditions were secured to ensure mitigations would be implemented during the construction phase. The subsequent S36C application will set out how the Applicant proposes to modify those conditions (if at all) to address any additional impacts resulting from the Proposed Varied Development.

### 11.3. Issues scoped in / out

- 11.3.1. It is proposed that no further assessment of Traffic and Transport effects is required within the EIAR for the Section 36C application and therefore this is 'scoped out.'
- 11.3.2. The Varied Development would utilise the same delivery routes, access points, and general construction approach as the Consented Development. The original EIAR concluded that construction traffic would not give rise to significant environmental effects, with increases in traffic volumes being only slightly above key thresholds on the strategic road network and appropriate mitigation secured through the CTMP.
- 11.3.3. The increased turbine tip height will require more tower sections per turbine rising from approximately three sections up to five sections per tower depending on turbine selected. As a result, there will be a net maximum increase of approximately 34 abnormal indivisible load (AIL) movements compared to the Consented Development. These additional movements will use the same delivery routes as the Consented Development.
- 11.3.4. The additional AIL movements would not increase the daily rate of turbine deliveries but are expected instead to modestly extend the turbine delivery programme. The nature of the local and strategic road network is such that no additional receptors would be affected and no changes to the conclusions of the previous assessments are anticipated. The previously identified mitigation and route management measures will remain effective.
- 11.3.5. In terms of general construction traffic, the original assessment identified an average of 93 HGV and 52 LGV movements per day during peak construction. While the proposed turbines and supporting infrastructure (e.g. hardstands) will be marginally larger, efforts to optimise deliveries (such as sourcing aggregate on site) are expected to broadly offset any potential increases in construction traffic. As such, overall vehicle numbers are anticipated to remain in line with the original EIAR assumptions.
- 11.3.6. It is acknowledged that precise traffic numbers are difficult to forecast at this stage, given that construction methodologies are subject to refinement through contractor engagement. Nonetheless, the conservative assumptions adopted in the original EIAR remain appropriate and robust for the purpose of assessing likely significant effects.
- 11.3.7. A revised CTMP will be submitted alongside the application to reflect the updated turbine specification and delivery programme, but no changes are proposed to the delivery routes or access strategy. On this basis, and considering that the anticipated change in construction and AIL traffic does not materially alter the nature or significance of effects previously assessed, it is considered that further detailed assessment of traffic and transport is not required for the Proposed Varied Development's EIA.



# 12. Socio-Economic, Recreation & Tourism

### 12.1. Consented Development EIAR Baseline

- 12.1.1. The Socio-Economic, Recreation and Tourism chapter of the Consented Development's EIAR found that the site area has "low recreational and tourism value, other than some game shooting activity and fishing throughout the estates." It was found that the potential effects of construction or operation of the Consented Development would be **not significant**.
- 12.1.2. The original chapter estimated the project investment to be approximately £80 million, with the total value of contracts that could be secured in the Highlands at £9.6 million and in Scotland businesses could secure contracts worth £28.8 million. Further, the Consented Development could support an additional 204.7 job years in Scotland including 74.6 in the Highlands during the construction phase. The Varied Development commits to maintaining these numbers as a minimum but expects the final value of contracts to be higher due to inflation of supply chain costs, and the number of job years to slightly increase due to the increase in abnormal loads deliveries.
- 12.1.3. The AIR 2022 noted that the reduction of turbines from 20 to 18, increased the construction value from £80 million to £96 million. This change is an improvement, but did not affect the significance of effects predicted in the EIAR 2021.

### 12.2. Consultation & Existing Planning Conditions

- 12.2.1. The Scottish Ministers considered the net economic impact of the Consented Development as a main determining issue when determining the consent. Further, public representations in support of the Consented Development also cited socio-economic benefit in their reasonings.
- 12.2.2. No planning conditions were attached to the consent.

## 12.3. Issues scoped in / out

12.3.1. The Proposed Varied Development would not introduce significant changes to the socio-economics, tourism, and recreation baseline established for the Consented Development. The site area remains the same and contracts required will not meaningfully change but for the potential of a higher value due to some increased resource requirements and supply chain cost inflation. Therefore, it is proposed to 'scope out' a Socio-economic, Recreation and Tourism chapter of the EIAR for the Varied Development.



# 13. Noise & Vibration

### 13.1. Consented Development EIAR Baseline

13.1.1. The Noise and Vibration chapter of the Consented Development's EIAR found that, subject to appropriate mitigation measures, no significant effects are likely to occur between any part of the Consented Development and any nearby Noise-Sensitive Receptors (NSRs).

Construction Noise and Vibration

- 13.1.2. Construction noise was not assessed as part of the noise and vibration chapter of the Consented Development's EIAR. The report judged that, because the nearest NSR was approximately 1.7km from the closest turbine, and 1.5km from the closest piece of site infrastructure, these distances were beyond a reasonable prospect of causing any negative impact to the NSRs.
- 13.1.3. Similarly, the nature of the works and the distances involved meant that assessment of construction vibration was also judged to be unnecessary as the risk of significant effects relating to ground-borne vibration were very low.

Operational Noise and Vibration

- 13.1.4. The operational assessment was undertaken in accordance with the recommendations of ETSU-R-97, the method of assessing wind turbine noise recommended by Government guidance and following the current best practice methods described in the Good Practice Guidance, as endorsed by the Scottish Government.
- 13.1.5. The operational noise assessment concluded that the Consented Development complies with the requirements of ETSU-R-97 at all NSR locations and is therefore **not significant** in terms of the EIA Regulations.

**Decommissioning Noise and Vibration** 

- 13.1.6. As the decommissioning process would likely be of a similar though shorter nature to that of construction, it was judged that no further assessment was necessary.
- 13.1.7. The AIR 2022 noted that the reduced turbine number, from 20 to 18, reduced the overall noise associated with the development, and the predicted cumulative noise remained below total ETSU-R-97 limits.

## 13.2. Consultation & Existing Planning Conditions

13.2.1. The Environmental Health Officer (EHO) at THC had no objection to the project subject to a standard noise condition.



13.2.2. The existing S36 consent includes a condition (#34) which limits operational noise levels at the nearest noise-sensitive receptors to no more than 35 dB, L<sub>A90,10min</sub> at standardised 10m height wind speeds of up to 10 ms<sup>-1</sup>.

### 13.3. Issues scoped in / out

- 13.3.1. The Varied Development would result in an increase in overall turbine tip height. The turbine's maximum noise output is not expected to change as a result of this increased tip height. As such, the Varied Development's noise and vibration impact does not require new assessment, and the project will be able to maintain compliance with condition 34 of the Consented Development's consent notice.
- 13.3.2. Noise and vibration from both Construction and Decommissioning are also not expected to increase for the Varied Development in comparison with the Consented Development. This is because both the construction process, and the transport and plant vehicles the project intends to use, are not expected to substantially change.
- 13.3.3. Given the above evidence and reasoning, it is proposed to 'scope out' a Noise chapter of the EIAR for the Varied Development.



# 14. Aviation & Radar

### 14.1. Consented Development EIAR Baseline

- 14.1.1. The Aviation Impact Assessment (AIA) undertaken for The Achany Extension Wind Farm S36 Application (2021) identified and recorded the potential significant effects that the Consented Development may have on aviation and radar in the surrounding area. The potential cumulative effects from the addition of the Consented Development to other wind farms were also considered.
- 14.1.2. The AIA found that there would be a moderate and significant impact on military low flying during both construction and operation, reduced to **not significant** following implementation of an infrared lighting scheme as a mitigation measure. There were **no other significant impacts** otherwise.
- 14.1.3. There were **no significant residual effects** from construction or operation on any receptors.
- 14.1.4. The nearest on-field radar is located at Inverness Airport, 61.1km from the Consented Development. No significant effects on Inverness Airport Primary Surveillance Radar (PSR) was predicted.
- 14.1.5. The AIA found that there would be no cumulative effects on receptors by the addition of the Consented Development to other existing wind farms in the region
- 14.1.6. The AIA proposed that an appropriate infrared lighting scheme agreed with the MOD be conditioned post-consent. This was accepted and implemented prior to the project pause for variation.
- 14.1.7. The AIR 2022 noted that removal of two turbines reduced the overall potential for effect compared to the EIAR 2021.

## 14.2. Consultation & Existing Planning Conditions

- 14.2.1. The Defence Infrastructure Organisation of the Ministry of Defence (MoD) did not object based on the inclusion of a condition requiring the submission of an aviation lighting scheme with appropriate notification.
- 14.2.2. The National Air Traffic Services Safeguarding (NATS) did not object to the original S36 application, noting that the proposal does not conflict with its safeguarding criteria.
- 14.2.3. The Civil Aviation Authority (CAA) did not submit a consultation response to the original S36 application.



### 14.3. Issues scoped in / out

- 14.3.1. The turbine hub height increase by up to 50m brings the total tip height of the turbines to greater than 150m, above which the UK Civil Aviation Authority (CAA) considers visible lighting as necessary to meet air safety requirements.
- 14.3.2. As a result of this, as well as the new tip height having a general potential for changed impact significances, it is proposed to 'scope in' the Aviation chapter of the new EIAR, necessitating a new AIA for the Varied Development.

Aircraft Flying IFR - scoped out

- 14.3.3. Aircraft flying Instrument Flight Rules (IFR) were assessed at a high-level in the original AIA by considering the Inverness Airport Surveillance Minimum Altitude Chart (SMAC) and published Instrument Flight Procedures (IFP).
- 14.3.4. The AMA provides the minimum obstacle clearance above all obstacles in the area so that aircraft can maintain appropriate vertical clearances from obstacles when flying under IFR. The Proposed Varied Development will not become the dominant obstacle in the area and the AMA will be unaffected.
- 14.3.5. Therefore, the Applicant proposes that further assessment of aircraft flying IFR be 'scoped out' of the EIAR for the Varied Development.

Radar - scoped out

- 14.3.6. An initial radar assessment has been undertaken using the RIAT (Rapid Impact Assessment Tool) assessment software which identifies radar constraints. The assessment confirmed that RAF Lossiemouth is located within 150km of the site boundary. The 200m tip height assessment identified that only 1.8% of turbine T09 is in direct radar line of sight to Lossiemouth. No other turbines were directly visible to the radar.
- 14.3.7. All of the turbines are located between 44 and 46 nautical miles from the airfield at RAF Lossiemouth. The Applicant will engage with the MoD to confirm their acceptance, but this distance is not expected to be an issue.
- 14.3.8. The Proposed Varied Development is also within range of Inverness Airport, but the RIAT assessment found that the site is completely hidden from radar view.
- 14.3.9. The Applicant recognises that the RIAT tool was not designed nor intended to replace direct engagement with aviation stakeholders to understand their views on potential impacts. The Applicant will consult directly with the Ministry of Defence and will provide evidence of the conclusions and agreements reached within the S36C application.



14.3.10. Given radar visibility is likely limited to one turbine, the Applicant is confident that mitigation is technically feasible and can be achieved through direct stakeholder engagement. Therefore, the Applicant proposes that further radar assessment be 'scoped out' of the EIAR for the Varied Development.

Turbine Lighting – scoped in

- 14.3.11. As previously noted, an infrared lighting scheme was previously proposed for the Consented Development.
- 14.3.12. Article 222 of the UK Air Navigation Order 2016 requires medium intensity (2000 candela) steady red aviation warning lights to be mounted as close as possible to the top of all structures at or above 150m above ground level. This lighting would be required to be visible at night. The tip height increase means that the Varied Development will be required to abide by this requirement, where the Consented Development was not.
- 14.3.13. The Applicant is therefore committed to implementing a lighting scheme that complies with CAA requirements while also minimising potential landscape and visual impacts. The Applicant is proposing to conduct an Aviation Lighting Assessment to ascertain the exact aviation lighting requirements for the Proposed Varied Development. The Applicant will then seek approval from the CAA for the proposal that is taken forward and the result of this will be summarised within the S36C application.

AIA Topics to be scoped out

14.3.14. **Table 14.1** shows the possible effects that were scoped out of the original AIA. These will remain scoped out as the agreed reasoning of each remains applicable in the case of the Varied Development:

**Table 14.1: Previously Scoped Out Aviation Effects** 

Installation / Feature	Potential Effect	Reason for Scoping Out
Meteorological radar	Meteorological radar, used for monitoring and predicting precipitation levels, can be affected by WTGs reflecting and/or blocking the radar signal.	Meteorological radar installations are typically safeguarded against wind developments within 20km. There are no meteorological radar in the vicinity of the Proposed Development that would require assessment.
Instrument Flight Procedures (IFPs)	The published procedures at Inverness Airport have been considered at a high level as it is the closest licensed aerodrome.	A detailed assessment is not required because the distance between the Proposed Development and the assessed procedures



		exceeded all relevant clearance minima.
Surveillance Minimum Altitude Chart (SMAC)	The minimum sector altitude for an aircraft is influenced by the elevation of nearby obstacles. It is necessary to consider the effect of tall structures on SMACs to ensure aircraft can maintain appropriate vertical clearances when receiving ATC services from an airport.	The proposed development is significantly outside the 15 nautical mile standard lateral limits of a SMAC and therefore pilots in this airspace will not be receiving instruction from radar derived ATC services.
Area Minimum Altitude (AMA)	The AMA provides the minimum obstacle clearance above all obstacles in the area so that a pilot flying under IFR can ensure sufficient vertical separation.	The proposed development has a maximum altitude of 1,900ft, which is 2,800ft below the AMA. The AMA is therefore not impacted by the proposed development.
Navigational Aids	WTGs can block or reflect the signals emitted from a navigational aid, impacting its effectiveness.	Navigational aid installations are typically safeguarded against wind developments within 30km. There are no navigational aids in the vicinity of the Proposed Development that would require assessment.
En-Route Radar	En-Route radar throughout the UK are operated and safeguarded by NATS, formerly National Air Traffic Services. WTGs can block or, more importantly, reflect radar signals. This can cause radar clutter and/or bearing errors along with other issues under particular circumstances.	En-route radar installations are typically safeguarded against wind developments within 100km. No en-route radar has been identified that would require assessment.
Obstacle Limitation Surfaces (OLS)	An OLS is an imaginary surface that is defined in three dimensions at a licensed aerodrome. Multiple OLSs are defined for safety purposes. Infringement of an OLS can signify a potential collision risk.	The closest aerodrome to the Proposed Development is Dornoch Airstrip, which is located 36km away. Consultation with HIAL has indicated that the Proposed Development will not infringe on the Wick and Inverness Airport OLS.



### 14.4. Assessment Methodology

- 14.4.1. The new AIA will assess the variation's effect on on-airfield radar, military low flying and physical obstruction. The assessment will be carried out through desk-based surveys, as no field survey techniques are necessary in this case.
- 14.4.2. Desk-based study will include assessments of existing public and available private databases, cumulative information pertaining to existing developments nearby, and relevant aviation charts.

### 14.5. Mitigation Measures

- 14.5.1. An appropriate Aviation Lighting Scheme will be agreed before implementation in consultation with the CAA and MoD. This will need to satisfy the lighting need while also taking into account the night impact that aviation lighting has on the area.
- 14.5.2. The Applicant recognises that mitigation may (subject to MoD confirmation) be required for turbine T09, which is slightly within radar line of site from RAF Lossiemouth. If so, a radar blanking or similar infill solution is often used for developments with similar impacts and the Applicant is committed to engaging with Highlands and Islands Airport Limited (HIAL) to agree a suitable mitigation strategy, if required.
- 14.5.3. The Applicant remains committed to providing suitable notice and information about the development to appropriate agencies, such as the Defence Geographic Centre, so that all appropriate aviation charts etc. can be amended to notify airspace users of the new obstacle.

## 14.6. Summary and Conclusions

14.6.1. It is proposed that Aviation as a standalone chapter is therefore 'scoped in' to detailed assessment within the EIAR for the Section 36C application. Any potential effects of turbine lighting will be addressed through the Landscape and Visual Impact Assessment chapter of the EIA.



# 15. Other Issues

### 15.1. Forestry

15.1.1. There are no areas of commercial forestry within the site itself, although the existing Achany Wind Farm access track passes through commercial forest and there are small extents occurring along the floor of Glen Cassley. No significant effect on commercial forestry was anticipated as a result of the Consented Development, and the Varied development will not bring any change to the potential impacts. Therefore, we propose to 'scope out' forestry.

### 15.2. Air Quality

- 15.2.1. The local air quality at this site is expected to be good due to the rural location, with few pollution sources. There are no Air Quality Management Areas (AQMA) in the area surrounding the Consented Development, with the nearest AQMA being in Inverness city centre approximately 80km south-east of the Consented Development.
- 15.2.2. The main pollution source of the Varied Development is likely to be limited to construction works including construction activities and the exhaust emissions from fixed and mobile construction plant and construction vehicles.
- 15.2.3. An operational wind farm produces no notable atmospheric emissions. The operation of the wind farm would therefore have no discernible adverse effects on local or national air quality.
- 15.2.4. Further, relevant mitigation measures for air quality and pollution control will be captured within the site-specific CEMP, which was required as condition 14 of the Consented Development, and the Applicant expects to remain a condition of the Varied Development.
- 15.2.5. Given these reasons, it is proposed to 'scope out' air quality from the EIAR, taking into account our commitment to capture relevant mitigation measures for air quality and pollution control within the site-specific CEMP.

#### 15.3. Shadow Flicker

15.3.1. Shadow flicker can arise from the moving shadow of the turbine rotor blade passing over a narrow opening such as the window of a nearby residence. The likelihood and duration of shadow flicker depends upon the positioning of the sun, turbine and window locations, turbine orientation, time of day, time of year and weather conditions.



- 15.3.2. Shadow flicker effects may occur within ten rotor diameters and up to 130 degrees either side of north, relative to a turbine. The rotor diameter to be used with the Consented Development was 136m, meaning any occupied property within 1.5km of any turbine within the site would require a shadow flicker assessment to be undertaken. However, the closest occupied property is Glencassley Castle, located 1.7km from the nearest turbine.
- 15.3.3. Further desktop study has confirmed that the increase in nominal rotor diameter to 138m does not alter the above analysis, and so it is proposed to 'scope out' Shadow Flicker Analysis from the EIAR.

#### 15.4. Ice Throw

- 15.4.1. During icing conditions there are two types of risks associated with ice collecting on turbines:
  - Fragments being thrown off from the operating turbine due to aerodynamic and centrifugal forces; or
  - Ice falling from the turbine when blades are stationary.
- 15.4.2. Given the remote location of the Varied Development, the potential for ice throw to affect members of the public is likely to be extremely low. This low risk is further reduced by the turbines being fitted with vibration sensors which detect any imbalance that might be caused by icing, leading to the affected turbines being shut down automatically.
- 15.4.3. Additionally, public notices would be placed at access points alerting members of the public and staff accessing the site of the possible risk of ice throw under certain weather conditions.
- 15.4.4. With the implementation of these measures, the risk of ice throw affecting members of the public or operational staff would be very low and not significant. Therefore, we propose to 'scope out' ice throw assessment from the EIAR.

### 15.5. Telecommunications, TV & Radio Links

- 15.5.1. Wind Farms can cause television, radio and microwave interference by blocking and / or causing part of the signal to be delayed.
- 15.5.2. A previous assessment was undertaken for the 2012 Glencassley application to determine the potential effect on telecommunications, TV and radio interference. The assessment concluded that the wind farm was not anticipated to have any potentially significant effects. Further desktop analysis was carried out in 2021, resulting in findings consistent with the 2012 assessment.



- 15.5.3. Both British Telecoms (BT) and the Joint Radio Company (JRC) responded to the most recent scoping refresh (2020), with neither raising concerns about the Consented Development in relation to television, radio and microwave links in the area.
- 15.5.4. Given the previous assessment and scoping responses, the Applicant proposes to 'scope out' further analysis of Telecommunications, TV and Radio Links from the EIAR, but is open to any further response from the relevant stakeholders.

### 15.6. Climate Change

- 15.6.1. In the context of the EIA process, climate change is considered both in relation to the contribution of the Proposed Development to increasing or decreasing gaseous emissions with Global Warming Potential (GWP), and in relation to climate change adaptation.
- 15.6.2. Emissions associated with the Varied Development would include temporary and short-term emissions of exhaust gases from vehicles and construction plant, and the potential for released of carbon dioxide (CO<sub>2</sub>) as a result of dewatering and exposing peat and peat soils during construction. Neither source is considered to be significant in terms of GWP.
- 15.6.3. Lifetime CO<sub>2</sub> emissions of the Varied Development include emissions through manufacturing, transportation, erection, operation, dismantling and removal of turbines. Estimates for such emissions are included in the carbon balance calculation that has been undertaken as part of the Geology and Carbon Balance chapter and will be included with the S36C submission.
- 15.6.4. Climate Adaptation will be discussed where relevant in the main chapters of the EIAR.
- 15.6.5. Considering the above, it is proposed to 'scope out' a specific climate change section of the EIAR, with recognition that the topic will be discussed and addressed in other chapters as appropriate.

### 15.7. Population & Human Health

- 15.7.1. Potential effects on population and human health as a result of the Consented Development was judged as **not significant**.
- 15.7.2. The key relevant impact that was assessed for the Consented Development was noise, with the assessment returning **no significant effects.**
- 15.7.3. Given that the noise impact will not change with the Varied Development, the Population and Human Health impacts also should not change. Therefore, it is proposed to 'scope out' a Population and Human Health section.



### 15.8. Risk of Major Accidents and / or Disasters

- 15.8.1. Given the rural context of the development, the key risks of accidents and / or disasters are:
  - Severe weather events, including high winds, high rainfall leading to flooding, or extreme cold leading to heavy snow and ice loading;
  - Fire;
  - Traffic related accidents; and
  - Mass movement associated with ground instability.
- 15.8.2. The EIAR for the Consented Development addressed each risk and confirmed the implementation of various mitigation measures for addressing them, with that implementation leading to **no significant effects** being anticipated. The Varied Development maintains the same risks as before and will apply the same mitigation measures with some updates to account for the hub height increase. With those mitigation measures included, we propose to 'scope out' a Risk of Major Accidents and / or Disasters section of the EIAR.



# 16. Consultation Process

- 16.1.1. Prior to submission of a formal application, two community consultation events will be held by the Applicant in a convenient location in proximity to the site. These events will allow members of the community to discuss the proposal for the Varied Development further and allow the Applicant to incorporate comments into the wider application. Details of the events will be confirmed in due course, however any comments or suggestions regarding a suitable venue or format will be considered at this stage.
- 16.1.2. A Pre-Application Consultation (PAC) report will present further details on the consultation process carried out by the applicant, whilst outlining efforts taken.
- 16.1.3. In forming its scoping opinion, the ECU will seek the views of various organisations with an interest in the Varied Development, inviting comments on the proposed scope of, and approach to, the EIAR proposed herein. Comments are requested with regard to the following:
  - we seek agreement that the proposed changes to the Consented layout are of a nature and scale that a S36C variation would be a feasible application route;
  - we seek agreement on the likely significant effects associated with the Varied Development;
  - we seek agreement and confirmation that all likely significant effects have been correctly included in the proposed scope for the EIAR ('scoped in');
  - we seek agreement and confirmation where non-significant effects have been excluded ('scoped out'); and
  - we invite comment on the proposed approach to the baseline data collection, prediction of environmental effects and the assessment of significance.



# **Figures**

Figure 1.1: Consented and Proposed Layout Comparison

Figure 5.1: Proposed Viewpoints with Comparative ZTV

Figure 5.2: Designated and Protected Landscapes with Comparative ZTV

Figure 5.3: Landscape Character Types with Comparative ZTV

Figure 5.4: Visual Receptors with Comparative ZTV

Figure 5.5a: VP5 Ben Hee – Location Plan

Figure 5.5b: VP5 Ben Hee – Baseline Photo and Wireline (Consented Development)

Figure 5.5c: VP5 Ben Hee – Baseline Photo and Wireline (Varied Development)

Figure 5.6a: VP6 Rosehall – Location Plan

Figure 5.6b: VP6 Rosehall – Baseline Photo and Wireline (Consented Development)

Figure 5.6c: VP6 Rosehall – Baseline Photo and Wireline (Varied Development)

Figure 5.7a: VP9 Achmairn caravan and camping site entrance – Location Plan

Figure 5.7b: VP9 Achmairn caravan and camping site entrance – Baseline Photo and Wireline (Consented Development)

Figure 5.7c: VP9 Achmairn caravan and camping site entrance – Baseline Photo and Wireline (Varied Development)

Figure 5.8a: VP21 Meall an Aonaich - Location Plan

Figure 5.8b: VP21 Meall an Aonaich – Baseline Photo and Wireline (Consented Development)

Figure 5.8c: VP21 Meall an Aonaich – Baseline Photo and Wireline (Varied Development)

Figure 9.1.1: Peat Depth Plan

Figure 10.1: Cultural Heritage: Outer Study Area and 180m Tip Height ZTV

Figure 10.2: Cultural Heritage: Outer Study Area and 200m Tip Height ZTV