



# Environmental Impact Assessment Report

## Lairdmannoch Energy Park

Technical Appendix 1-1: Response to IF Checking Report

Lairdmannoch Energy Park Limited

**wind2**

your project our expertise

## Glossary of Terms

| Term                                            | Definition                                                                                                                                                              |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The Applicant                                   | Lairdmannoch Energy Park Limited                                                                                                                                        |
| The Agent                                       | Atmos Consulting Limited                                                                                                                                                |
| Environmental Advisors and Planning Consultants | Atmos Consulting Limited                                                                                                                                                |
| Environmental Impact Assessment                 | Environmental Impact Assessment (EIA) is a means of carrying out, in a systematic way, an assessment of the likely significant environmental effects from a development |
| Environmental Impact Assessment Regulations     | The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (EIA Regulations)                                                                   |
| Environmental Impact Assessment Report          | A document reporting the findings of the EIA and produced in accordance with the EIA Regulations                                                                        |
| 2025 EIA Report                                 | Environmental Impact Assessment Report submitted with application ECU00004900 in May 2025                                                                               |
| The Proposed Development                        | Lairdmannoch Energy Park                                                                                                                                                |
| The Proposed Development Site                   | The full application boundary as per Figure 1-1                                                                                                                         |

## List of Abbreviations

| Abbreviation | Description                               |
|--------------|-------------------------------------------|
| AI           | Additional Information                    |
| ECU          | Energy Consents Unit                      |
| LiDAR        | Laser imaging, Detection and Ranging      |
| PLHRA        | Peat Landslide Hazard and Risk Assessment |
| SSSI         | Site of Special Scientific Interest       |
| TA           | Technical Appendix                        |

## 1.1 Introduction

- 1.1.1. In May 2025, Lairdmannoch Energy Park Limited ('the Applicant') submitted a planning application (Ref. No: ECU00004900) to the Energy Consents Unit (ECU) seeking consent under Section 36 of the Electricity Act 1989 (the 'Electricity Act') and deemed planning permission under Section 57 of the Town and Country Planning (Scotland) Act 1997 (the '1997 Act') for the construction and operation of an electricity generating station known as Lairdmannoch Energy Park (the 'Proposed Development').
- 1.1.2. The application included an Environmental Impact Assessment Report (2025 EIA Report), prepared in accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the 'EIA Regulations').
- 1.1.3. This Technical Appendix (TA) sets out the Applicant's response to the Stage 1 Checking Report (Doc. Ref. 63368) (the 'Checking Report') prepared by Ironside Farrar in relation to the Peat Landslide Hazard and Risk Assessment (PLHRA) Report submitted as TA 8-1 to the 2025 EIA Report.
- 1.1.4. **Figures 8.1.4 and 8.1.6** referred to within this TA correspond to the figures contained within **TA 8-1: PLHRA** in Volume 3 of the 2025 EIA Report. **Figure 8.1.6** has been updated in support of this TA and is therefore referred to herein as **AI Figure 8.1.6**.
- 1.1.5. This TA has been prepared by Dr Andy Mills, Director of Terrain at OWC who is an experienced Peatland Geomorphologist with over 25 years' experience mapping and interpreting peat geomorphology and peat landslides (slides, flows and bursts) in the UK and Ireland, including the specification and interpretation of ground investigations in peatlands.

## 1.2 Response to the IF Checking Report

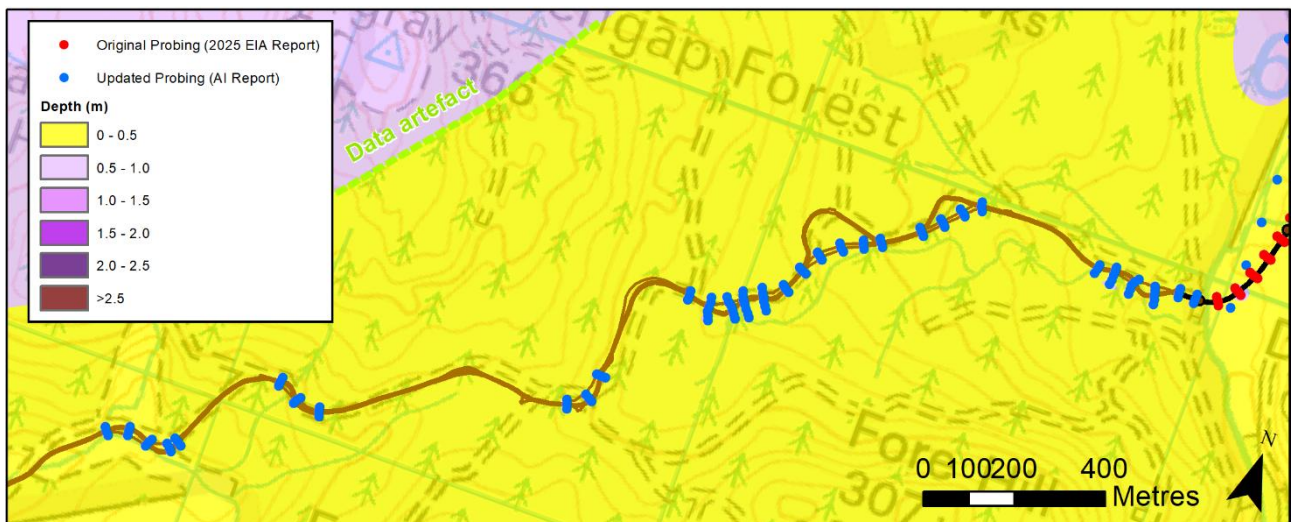
- 1.2.1. The Checking Report findings have been reviewed and each point raised in the Report that requires a response from the Applicant (Section 4.3 of the Report) have been addressed. Requirements are highlighted in italics, followed by our response.
  - 1. *The geomorphological map does not present all linear drainage features and water courses, as shown in Figure 8.1.4, nor does it include any major slope breaks, areas of peat, gullies, cuttings, or drainage. The mapping is therefore required to be updated with this additional information to meet the requirements of the ECUBPG.*
- 1.2.2. **Figure 8.1.6** (Geomorphology and Land Use) does not show drains and watercourses from **Figure 8.1.4** due to the potential for cartographic clutter by superimposing drains on the polygon symbology on the former figure although it should be clear from the latter that the drains and watercourses have been mapped, and that they are included in the assessment of likelihood and in the consequence assessment.
- 1.2.3. Nevertheless, the identified features have been added to an update of the map, along with morphological linework indicating major slope breaks (see **AI Figure 8.1.6**).
- 1.2.4. Note that much of the Site is characterised by elongate north-south aligned bedrock ridges which introduce numerous closely spaced convex and concave breaks of slope, however these landforms / slope arrangements are not associated with peat instability in the published literature and therefore these breaks have not been mapped.
- 1.2.5. A review of LiDAR data for the Site does not indicate peat cuttings, nor any major gullies or other drainage features other than those shown already on **AI Figure 8.1.6**, and so none are mapped.

2. *The report on the site walkover does not note if any evidence of peat landslides was observed on the ground, nor if any incipient instability features were observed. Comment is requested on these features of the walkover to aid in the assessment.*

1.2.6. No evidence of past peat landslides was observed on the ground, nor on LiDAR data prior to the site visit, and there was no evidence of cracks, tears, compression ridges, bulging, blocky debris or scars associated with instability. It is acknowledge that this should have been clearly stated in the report.

3. *No probing appears to have taken place along the main access track. While superficial and peatland mapping indicate that no peat is present, a justification is requested on why probing has not taken place and whether it requires to be included within the PLHRA or EIRA to ensure the report is suitably robust.*

1.2.7. Peat depth data has been collected for the proposed main access track where it departs from upgrade to existing track (noting the existing track and its disturbance zone are likely to accommodate the required changes for the new track). Probing for the 2025 EIA Report is shown in red and additional probing undertaken for the AI Report is shown in blue. The probing data shows peat to be absent in this area bar one probe location – this area is too small to be a credible landslide source zone.



1.2.8. Additional probing has also been undertaken where the access track has been realigned at GR NX 64649 59957 (see figure below). This probing has not changed the overall representation of peat as being absent along the track alignment.



4. Several areas of moderate likelihood are noted upslope of the development. Please provide a comment on whether these areas have been considered for potential runout impacting on the infrastructure, for example by instability migrating back up the slope from development infrastructure/removal of the toe of slopes etc.

- 1.2.9. Areas of Moderate likelihood are commonly calculated within our methodology, which, in keeping with good EIA practice, is considered precautionary. Runout from undisturbed areas outside the footprint of infrastructure is not typically assessed since to do so would potentially require hundreds of potential source zones on a typical site and instability to this extent is not generally credible.
- 1.2.10. Propagation of a shear surface upslope towards an isolated area of Moderate likelihood from an area of infrastructure would require instability to occur within the infrastructure footprint in the first instance, and this is already modelled in terms of infrastructure overlap with Moderate areas.
5. A review and a sense-check of the likelihood [sic]/consequence scoring and the calculated risk to development infrastructure that crosses peat on sloped areas (see Section 3.3 of the Checking Report).
- 1.2.11. The Applicant notes the comments in Section 3.3 of the Checking Report.
- 1.2.12. While it is noted that the comment that peat depth and slope angle; "...are generally considered to have the most significant influence on peat slides" (Checking Report pg. 6), the Applicant does not agree that these factors in isolation are adequate to identify relative likelihood across a site.
- 1.2.13. If this were the case, certain combinations of slope and peat depth would always be the most likely to experience instability, regardless of inter-site variability. Furthermore, as noted in Section 4.3.2 of the PLHRA, it is not necessarily the case that; "...the steeper a slope, the more likely it is to fail" (see bog bursts as a good example of this).
- 1.2.14. This is one of the weaknesses of the limit equilibrium approach and why the Applicant prefers to adopt the likelihood approach, which also takes into land use, artificial drainage, substrate geology, slope curvature, etc.
- 1.2.15. In respect of the risks associated with infrastructure, it is acknowledged that a key risk is to site personnel, however, given the potentially high consequence / severity of an incident, under a likelihood x consequence approach, risks will always be Medium. This requires site specific mitigation at the points where infrastructure overlaps Moderate likelihood areas. This is considered in Section 6 of the PLHRA as follows:

- Section 6.2 of the PLHRA states that prior to construction, site investigation and laboratory analysis should be undertaken to confirm strength parameters of peat soils in areas where infrastructure overlaps with Moderate likelihood.
- Section 6.2 also states that construction works should be supported by a Geotechnical Risk Register that details how ground risks should be minimised and managed.
- Section 6.3 provides numerous recommendations, the majority of which have a dual function in minimising the likelihood of adverse environmental impacts but also protecting workforces and the infrastructure they are constructing.

1.2.16. The Applicant therefore regards the PLHRA to provide sufficient controls for risks to personnel and infrastructure.

*6. The SSSI located 600m west and northwest of the site has not been considered as part of the risk assessment. The risk assessment should be updated to include the potential impact of the development on the SSSI.*

1.2.17. The Laughenghie and Airie Hills Site of Special Scientific Interest (SSSI) is located 600 m to the west of the western site boundary at its closest point and separated from it by a major area of forest. It is not credible that landslide runout would travel 600 m through forest over gently undulating terrain to impact the SSSI, nor do any watercourses run directly west to the SSSI.

1.2.18. The next nearest part of the SSSI is c. 1.5 km away to the northwest, and again, it is not considered credible that landslide runout, even were it to be sourced at the Site boundary (which is not predicted) would travel this distance. Furthermore, there are no watercourses linking the western part of the site with the SSSI.

1.2.19. Therefore, taken together, the Applicant assesses that there are no potential risks to the SSSI from peat landslides that might occur within the Site, whether in association with construction, or if naturally occurring.

# Appendices



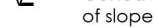
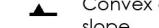
## Appendix A. Figure 8-1-6 Geomorphology and Land Use

# Lairdmannoch Energy Park

## wind2

AI Figure 8-1-6  
Geomorphology and Land Use

### Key

|                                                                                       |                                   |                                                                                       |                                 |
|---------------------------------------------------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
|    | Site Boundary                     |    | Thin peat/soil over bedrock     |
|    | Turbines                          |    | Patchy peat / soil over bedrock |
|    | Watercourse Crossings             |    | Planar peat basins              |
|    | Security fence                    |    | Linear drainage                 |
|    | Access track - cut                |    | Planar (peat / soil)            |
|    | Access track - floating           |    | Flush                           |
|    | Access track - upgraded / widened |    | Drainage pathway                |
|    | Access track - solar              |    | River valley                    |
|    | Auxiliary crane area              |    | Water body                      |
|    | Blade storage                     |   | Planar hillside                 |
|    | Borrow Pit                        |  | Forestry                        |
|   | Construction compound             |  | Undulating hillside             |
|  | Crane hardstanding                |  | Made ground                     |
|  | Substation and BESS               |  | Drains                          |
|  | Tower storage                     |  | Watercourses                    |
|  | Turbine foundation                |  | Concave change of slope         |
|  | Solar panel                       |  | Convex change of slope          |
|  | Power Station                     |                                                                                       |                                 |
|  | Switching and Breaking Station    |                                                                                       |                                 |
|  | Earthworks - fill                 |                                                                                       |                                 |
|  | Earthworks - cut                  |                                                                                       |                                 |

**OWC**  
An ABL Group Company

**atmos**  
CONSULTING

0 500 1,000 2,000  
Metres



Scale @ A3:  
1:13,500



© Crown copyright 2026. All rights reserved.  
Ordnance survey licence number 100031673.

Date of edit: 07/07/2026  
Drawn by: ST  
Turbine layout: Rev11  
Checked by: AM  
Approved by: AM