

Glenvernoch Wind Farm

Additional Information Volume I: Main Text

April 2025

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1 INTRODUCTION

Background

- 1.1 This Additional Information (AI) is submitted in support of an application for consent under Section 36 of the Electricity Act 1989 (ECU00004892) by Energiekontor UK Ltd ("the Applicant") to the Energy Consents Unit (ECU) for thirteen wind turbines and associated infrastructure ("the Proposed Development") on land at Glenvernoch ("the Site"). The application was accompanied by an Environmental Impact Assessment Report ("the EIAR") as required under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ("the EIA Regulations").
- 1.2 Regulation 19 of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 directs that, in order to ensure the completeness and quality of the EIA report, the Scottish Ministers must (having regard in particular to current knowledge and methods of assessment) seek from the developer supplementary information about any matter mentioned in schedule 4 which in the opinion of the Scottish Ministers is directly relevant to reaching a reasoned conclusion on the significant effects of the development on the environment.
- 1.3 It has been agreed with the ECU that supplementary information should be provided by the Applicant on issues raised by SEPA in its consultation response dated 14 January 2025. This AI provides that response which serves to clarify or reinforce the information provided as part of the EIAR. SEPA's consultation response which requests further information, verification and clarification on the matters is included at Appendix 1.1.

Request for additional information

- 1.4 In respect of Regulation 19, the Scottish Ministers have requested the following additional information:
- SEPA - Holding objection - SEPA requested further information regarding peat management and potential impact on peat, and a bespoke risk assessment for groundwater dependent terrestrial ecosystems. The Applicant's response is provided at Section 2 of this AI.

Structure of the FEI

- 1.5 In addition to the formal request for additional information - confirmation, clarification and comments on a number of other matters has been provided in response to issues raised by consultees through the consultation process. These additional matters do not constitute Additional Information but further discussion (where necessary) is provided in the main text of the FEI.
- 1.6 This FEI is structured as follows:
- Section 2 provides supplementary information that forms the Applicant's response to the SEPA holding objection; and

- Section 3 provides supplementary information on other matters which have been raised by consultees.

Contact for Further Information

1.7 For additional copies, a charge of £15 will be made for a full electronic copy of this Additional Information on CD or memory stick. Costs for paper copies are as follows:

- Volume I – Written Text £50
- Volume II – Figures and Visualisations £500
- Volume II – Appendices £50

1.8 Requests for copies should be made to:

George Oldroyd

E: George.Oldroyd@energiekontor.com

1.9 Hard copies of this AI will be available for public inspection at the following locations:

- Newton Stewart Library, Church Street, Newton Stewart, DG8 6ER
- Dumfries and Galloway Council Headquarters, 109-115 English Street, Dumfries, DG1 2DD

2 HYDROLOGY, GEOLOGY AND HYDROGEOLOGY

Introduction

- 2.1 This chapter addresses the issues raised by SEPA in relation to hydrology, geology and hydrogeology matters.
- 2.2 SEPA's consultation response is included in full at Appendix 1.1. A detailed response to the points raised is included at Appendix 2.1. This section summarises the key issues.
- 2.3 SEPA's principal issues relate to:
- Peat management and potential impact on peat; and
 - Groundwater dependent terrestrial ecosystems

Peat Management and Potential Impact on peat

Catotelmic Peat

- 2.4 SEPA's consultation response states at paragraph 1.1 that the re-use of catotelmic peat on access tracks is not supported (especially amorphous catotelmic peat on access tracks, as suggested in Table 5-5 of EIAR Vol III Appendix 12.2: Stage 1 Soils and Peat Management Plan, SPMP). SEPA state that this type of peat is not suitable for many applications and should not be placed at the surface where it will oxidise and degrade. SEPA require confirmation that the re-use of catotelmic peat on access tracks (or elsewhere on the surface) will not take place.
- 2.5 The Applicant's response to this is to state that the calculations provided for potential re-use of catotelmic peat on access tracks has taken into account two important factors:
- Underlying peat in the area of re-use must be at minimum of 1.0 m, in order for the re-use of catotelmic peat to be able to tie-in with existing in-situ peat; and
 - Re-used peat will be placed sequentially; amorphous catotelmic material at base, fibrous catotelmic material, then acrotelmic peat / turves providing 0.5 m depth of surface dressing.
- 2.6 Table 5-5 of the SPMP identifies that, applying the factors above, there is the potential capacity for 3,249 m³ fibrous catotelmic peat and 1,939 m³ amorphous catotelmic peat to be re-used in verge zones adjacent to access tracks.
- 2.7 To clarify, with reference to Table 5-5, the only amorphous catotelmic peat anticipated to be excavated from the Proposed Development arises from 'Temporary working and laydown areas at crane pads' (excavation volume of 492 m³). Any amorphous catotelmic peat excavated from such locations shall be appropriately identified and stored separately, then reinstated sequentially with layering of peat material to replicate natural stratification, with any amorphous material placed as a base layer, with a capping layer above of at least 0.5m.

- 2.8 Although potential for re-use of amorphous catotelmic material was noted in the Table 5-5 calculations, there is no planned re-use of this material for access tracks as part of the Proposed Development. The potential capacity identified for amorphous catotelmic material re-use at track locations (1,939 m³) offers additional opportunity for re-use of less sensitive peat sub-categories (acrotelmic / fibrous catotelmic) or top soil, from track excavations or other nearby locations.
- 2.9 Fibrous catotelmic peat is planned for re-use on access track verges, seeking to re-use on excavations local to the track, this will be in areas where peat depths indicate the presence of existing catotelmic peat and will be capped with a 0.5 m surface layer of acrotelmic peat.

Peat Re-use in depressions and hollows

- 2.10 Paragraph 1.2 of the SEPA consultation response sets out that more information is required to justify the plans for peat re-use in depressions and hollows. SEPA request that the Applicant explains what the target habitats are and how this method of re-use will be ecologically beneficial, or how it will maintain the peat in its current condition.
- 2.11 The Applicant's response to this is to direct SEPA to Section 4.3 of the SPMP which includes best practice information on additional peat re-use in depressions and hollows, as a potential additional opportunity. The best practice principles are summarised as follows:
- Carefully evaluate potential re-use sites, for their suitability, and agree that these sites are appropriate with the landowners and relevant consultees. This should include checking the ecological status of receiving sites by a suitably qualified ecologist;
 - Undertake necessary vegetation clearance and rework mineral soil to provide optimum conditions prior to peat re-use;
 - Reinstatement profiles should reflect the existing topography and not create topographic highs. Peat re-use should be minimised, not to exceed 1.5 m in height;
 - Minimise transport distances and ensure that suitable machinery (low pressure excavators) and access methods (bog matting) are adopted;
 - Careful handling of surface turves to be used after peat placement. Undertake re-use and revegetation work as soon as possible or order to minimise the effects of erosion;
 - Where required, consider exclusion of livestock from areas of peat re-use, to minimise impacts on revegetation; and
 - As far as reasonably practicable, re-use should be carried out concurrently with construction rather than at its conclusion.
- 2.12 The Applicant recognises the SPMP does not prescribe the use of this method or estimate volumetric values at the Proposed Development. Should this be determined as a viable activity at this Site at any point in the design process, the objective would typically be to improve specific locations in Peatland Code1 terms from 'drained' to 'modified' or 'modified' to 'near natural' conditions, ensuring hydrological connectivity to maintain high

levels of soil moisture. Potential locations would be subject to ecological survey to confirm viability of potential methods to achieve improved condition (and avoid loss of valuable features). Successful infilling of hollows may include careful stripping of existing vegetation to a depth of 0.5m and replacing this above infill material on the new surface. Incoming peat would be sequentially built-up by sub-categories, as described in paragraphs 2.4-2.9 above. Seeding zones with appropriate sphagnum species may also aid realisation of target objectives.

- 2.13 Any use of depressions and hollows for peat re-use will be detailed in the Stage 2 SPMP post-consent.

Floating Access Tracks

- 2.14 Paragraph 1.3 of the SEPA consultation response requests a firm commitment from the Applicant that new tracks will be floated in locations where there is overlap with Class 1 and Class 2 peatland, or justification where this is not possible.
- 2.15 The Applicant can confirm that where access tracks at the Proposed Development overlap with Class 1 or Class 2 peat as identified in the SPMP, there is a firm commitment that these tracks will be constructed using floated track techniques, to reduce excavation and better enable sub-surface hydrological connectivity below these linear features.

Groundwater Dependent Terrestrial Ecosystems (GWDTE)

- 2.16 Paragraph 2.1 of the SEPA consultation response notes that the majority of the GWDTE on site are considered ombrotrophic or surface-water fed, which suggests that there are some GWDTEs on the application site. If there are GWDTEs on site, SEPA request that a bespoke risk assessment should be provided, demonstrating hydrological pathways and flow routes in relation to them and the proposed infrastructure.
- 2.17 In response to this, the Applicant would highlight that potential GWDTE communities that could be dependent on groundwater were reviewed in EIAR Chapter 12, paragraphs 12.109 to 12.112 in relation to their topographical, hydrological and hydrogeological context. Following this review, it was considered that surface water and hill runoff are likely to be the dominant soil water sources and therefore the groundwater dependency of all of these habitats is considered Low. Thus, all potential GWDTE are considered to be ombrotrophic features and not reliant on groundwater supply.
- 2.18 There are two National Vegetation Classification (NVC) communities at the Proposed Development that are considered in SEPA LUPS-31 (2017) to potentially have a high dependence on groundwater, as noted in Chapter 12; M6 and M23. These are discussed below and also displayed on EIAR Vol II Figure 12.4 - GWDTE:
- NVC M6 (*Carex echinate* – *Sphagnum fallax/denticulatum* mire) is confined to the riparian corridors of site watercourses, indicating a likely local dependence upon surface water input.
 - This plant community is generally associated with surface ponding locations, such as depressions and on floodplain.

- Where track infrastructure crosses these watercourses, appropriate crossing structures will be installed as proposed in the Schedule of Watercourse Crossings in order to maintain local hydro-connectivity.
- NVC M23 (*Juncus effusus/acutiflorus* – *Galium palustre* rush-pasture) is present at the north of the site, with crane pads and sections of access track in these habitats in the vicinity of turbines T1, T10 and T13.
 - This plant community often occurs on poorly-drained slopes, including flush zones.
 - Where ground investigations indicate suitable conditions, crane pad drainage shall encourage infiltration to groundwater to maintain pre-construction groundwater conditions locally.

2.19 Should pre-construction ground investigations indicate cut track corridors with localised spring emergence or potential interaction with shallow groundwater level or flowpaths, that could interrupt or block supply to or within M6 or M23 communities, the Applicant commits to installing sub-surface drainage to maintain local hydro-connectivity (floating tracks will provide this connectivity inherently).

3 OTHER MATTERS

Introduction

- 3.1 This chapter addresses other matters raised by statutory consultees that the Applicant would like to take this opportunity to respond to. However, the Applicant's response and associated material is being submitted for clarification and illustrative purposes only and is not considered to be Additional Information within the context of Regulation 19 of the EIA Regulations.

Dumfries and Galloway Council

Viewpoints and Visualisations

- 3.2 In an email to the Energy Consents Unit on 19 November 2024, the Case Officer at Dumfries and Galloway Council raised issues with a few aspects of the viewpoints and visualisations that accompanied the Section 36 application (EIAR Volume II).
- 3.3 The issues raised were:
- *"VP3 (Sheet D) – Wireline images of turbines and montage turbines do not correspond in terms of hub heights above ground level.*
 - *Various VPs – potential turbine visibility not portrayed with adequate clarity (despite clear weather when photography was taken) – worst case scenario is not illustrated/effects are underrepresented. The information will not be useable when we present to the committee in due course because it will not be possible to see the potential effects of the turbines. The montages with pale turbines should be re-drafted with clearer visibility of the turbines on them.*
 - *Viewpoint location maps – too small to read. There appears to be no map or set of maps from which the precise viewpoint locations can be accurately interpreted. Please ask for a set of viewpoint maps on OS Landranger at 1:50000 or similar."*
- 3.4 In response to the Case Officer's queries, the Applicant provided an addendum package to Dumfries and Galloway Council on 10 February 2025. This package included individual location plans for each viewpoint, a standalone adjusted wireline model for Viewpoint 3: A714 junction with minor road to Glentroll, and an amended set of photomontages (for illustrative purposes only and as per the Council's request) where amendments were made to the proposed turbines for each viewpoint; either lightening/whitening them or increasing the shadowing effect to create further contrast against the skyline/landform.
- 3.5 With regard to the standalone wireline model of VP3, the turbines and montage turbines now correspond in terms of hub heights above ground level, but the proposed turbines have not been adjusted, so remain as per the original submission version.
- 3.6 The addendum package that was provided to Dumfries and Galloway Council on 10 February 2025 is included at Figures 3.1 to 3.20 and Viewpoints 1 to 20.

Battery Energy Storage System

- 3.7 In an email to the Applicant on 24 February 2025, the Case Officer at Dumfries and Galloway Council requested clarification regarding the proposed Battery Energy Storage System (BESS) that has been submitted as part of the Proposed Development.
- 3.8 The Case Officer noted there are no elevations, no topographical survey, no levels information and no drawings of associated structures, such as transformers, cabins, and enclosures for the BESS element of the Proposed Development. The Case Officer also suggested that the BESS element should be appraised and presented in some detail in the EIAR for the application.
- 3.9 The Case Officer further noted that the BESS appears to re-use the site compound for the facility, but is not able to understand what potential landscape, visual and other impacts would be associated with this element as it is not depicted in the LVIA and there is no ZTV mapping relating to the proposed BESS.
- 3.10 In a response to the Case Officer on 25 February 2025, the Applicant highlighted that when submitting the Scoping Request in August 2023, the Applicant did not propose to include an assessment on the BESS element of the application as part of the EIA, as the BESS facility is unlikely to raise significant impacts. When the Scoping Opinion was received, there was no requirement in that report or by any consultees to include the BESS facility as part of the EIA.
- 3.11 Potential environmental effects from the BESS facility could arise in two ways: direct effects (for example hydrological or ecological effects at the BESS location) and indirect impacts (for example landscape and visual effects, or effects on the setting of a cultural heritage asset). In respect of direct effects, any effects are already established by the construction compound, upon which the BESS element would be located, and so are already accounted for in the EIA (i.e. any peat disturbance, habitat loss etc). In respect of indirect effects, the facility is a fairly small component of a wind farm development, as per Figure 3.13 of the EIA Report. The equipment is the size of standard shipping containers (i.e. approx. 2.5m high) and so it is not considered that the ZTV would extend very far from the BESS element. In addition, given the low height of proposed infrastructure, there is also the potential for natural screening to be used around both the battery and 132kV substation compounds to mitigate indirect effects.
- 3.12 At the request of the Case Officer, the Applicant provided a BESS elevation drawing, which for completeness can be found at Figure 3.21.

4 SUMMARY

- 4.1 This Additional Information (AI) is submitted in support of an application for consent under Section 36 of the Electricity Act 1989 (ECU00004892) by Energiekontor UK Ltd ("the Applicant") to the Energy Consents Unit (ECU) for thirteen wind turbines and associated infrastructure ("the Proposed Development") on land at Glenvernoch ("the Site"). The application was accompanied by an Environmental Impact Assessment Report ("the EIAR") as required under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.
- 4.2 This AI provides a response to issues raised by SEPA in its consultation response which serves to clarify or reinforce the information provided as part of the EIAR.
- 4.3 Other matters considered in this AI relate to issues raised by Dumfries and Galloway Council as a part of its consideration of the application.