Chapter 15 Other Issues

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List of Abbreviations

Abbreviation	Description
CEMP	Construction Environmental Management Plan
ECU	Energy Consents Unit
EIA	Environmental Impact Assessment
JRC	Joint Radio Company
LCA	Land Capability for Agriculture
MW	Microwave
Ofcom	The Office of Communication
PMP	Peat Management Plan
THC	The Highland Council
UHF	Ultra High Frequency

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15. Other Issues

15.1 Executive Summary

15.1.1 This chapter considers the potential effects of the Proposed Development on land use and telecommunication infrastructure within the site.

15.1.2 Site surveys have confirmed the land within the site boundary is used mainly for grouse moorland with some sheep grazing.

15.1.3 Construction and operation of the Proposed Development is anticipated to have a no significant effect on agricultural land and grouse moorland land use within Scotland as a whole or the long-term land use of the site.

15.1.4 Assessment of effects to television reception has been scoped out within the **Scoping Report** (refer to **Appendix 4.1**).

15.1.5 The telecommunications assessment, as informed by current guidelines and legislation, has been undertaken through consultation with the appropriate consultees, namely:

- Airwave Solutions;
- Arqiva;
- Atkins;
- BT;
- EE;
- Joint Radio Company (JRC);
- Spectrum Licensing; and
- Vodafone.

15.1.6 The consultation process identified two Microwave (MW) Radio links located within the site boundary operated by Airwave Solutions. The links are located as shown on **Figure 15.2**.

15.1.7 No effects on telecommunications from the construction, operation or decommissioning of the Proposed Development were identified, following a detailed design review to produce the layout presented in this EIA Report that did not interfere with the links.

15.1.8 As the Proposed Development will not impact any telecommunication links, the Proposed Development will not have any cumulative effects on telecommunication links with other developments.

15.2 Land Use

Assessment Methods and Significance Criteria

15.2.1 The land use assessment is confined to the land within the site boundary.

15.2.2 The desk study for the land use assessment was based on the relevant OS mapping and the *Macaulay Institute Land Capability for Agriculture* (LCA) map (Scotland's Soils, 2017).

15.2.3 Site surveys have confirmed the land within the site boundary is used mainly for grouse moorland with some sheep grazing.

15.2.4 Professional judgement was used to determine whether the construction and operation of the Proposed Development would impact the use of the site area for grouse moorland and sheep grazing.

15.2.5 The criteria used to make judgement on importance / sensitivity of the receptor(s) and magnitude are presented below.

15.2.6 The sensitivity of receptors is based on the capacity of receptors to tolerate change and whether or not increased risk would be acceptable within the scope of the prevailing legislation and guidelines. The degree of change that is considered to be acceptable is dependent on the susceptibility of the receptor to the change the Proposed Development would potentially have. **Table 15-1** displays the Sensitivity for Land Use Receptors.

Table 15-1: Sensitivity for Land Use Receptors

Sensitivity of Receptor	Definition
High	Farms in which the operation of the enterprise is dependent on the spatial relationship of land to key infrastructure, and where there is a requirement for frequent and regular access between the two, or dependent on the existence of the infrastructure itself, e.g. dairying, irrigated arable cropping and field-scale horticulture, and intensive livestock or horticultural production.
Medium	Farms in which there is a degree of flexibility in the normal course of operations, e.g. combinable arable farms and grazing livestock farms (other than dairying).
Low	Off-lying areas of land that are not contiguous with the main farm holding
Negligible	Off-lying areas of agricultural land used for non-commercial purposes.

15.2.7 The magnitude of effect factors considered, relate to the scale of change (effect) that might take place. In determining the magnitude of potential effect, the value of the assets affected are first defined. The criteria for assessing the magnitude of change are set out in **Table 15-2** below.

Table 15-2: Magnitude of Impact

Magnitude	Land Use and Tenure	Agriculture and Soils
High	Permanent (>10 years) / irreversible changes, over the whole receptor, affecting usability, risk, value over a wide area, or certain to affect regulatory compliance.	A permanent loss of over 20 ha of the best most versatile (BMV) agricultural land or more than 60% of total regional resource. Full recovery would take more than 10 years.
Medium	Moderate permanent or long-term (5-10 years) reversible changes, over the majority of the receptor, affecting usability, risk, value over the local area, possibly affecting regulatory compliance; Existing land use would not be able to continue on less than 5ha of land; or Noticeable changes to the existing land use although it may continue.	A medium to long term loss of more than 20ha of the BMV agricultural land (Grades 1, 2, 3a) or more than 60% of total regional resource; Permanent loss of more than 10ha of grade 3b ALC or more than 10% of total regional resource; Full recovery of land would take 5 to 10 years; or More than 20ha of soil is temporarily unsuitable for agriculture.
Low	Temporary change affecting usability, risk or value over the medium-term (<5 years); or Temporary change affecting usability within the site boundary; measurable permanent change with minimal effect usability, risk or value; no effect on regulatory compliance.	A short-term loss of more than 20ha, or permanent loss of more than 10ha of ALC Grade 4 land or more than 10% of total regional resource; Full recovery of land is expected within 5 years; or Less than 20ha of soil is temporarily unsuitable for agriculture.

Magnitude	Land Use and Tenure	Agriculture and Soils
Negligible	Minor permanent or temporary change, undiscernible over the medium to short-term, with no effect on usability, risk or value.	No material change to the soil resource has been identified. Small area <1,000 m^2 is permanently lost from agriculture.

15.2.8 Following the identification of receptor sensitivity and magnitude of the effect, it is possible to determine the significance of the impact.

15.2.9 The matrix which will be used as a tool to aid this assessment is presented in **Table 15-3**. The assessment of impact is qualitative and relies on expert judgement and desk-based studies to establish the existing land use within the study area to determine the aforementioned sensitivity of the receptor and the magnitude of effect scales. The matrix should be viewed as a framework to aid understanding of how a judgement has been reached, rather than as a prescriptive tool.

Table 15-3: Effect of Significance Matrix

		Sensitivity			
		High	**Medium**	**Low**	**Negligible**
Magnitude	**High**	Major	Major	Moderate	Minor
	Medium	Major	Moderate	Minor	Negligible
	Low	Moderate	Minor	Minor	Negligible
	Negligible	Minor	Negligible	Negligible	Negligible

15.2.10 An effect of moderate or major is considered significant under the EIA Regulations.

Baseline Conditions

15.2.11 The land within site boundary is used primarily for grouse moorland with some sheep grazing. **Table 15-2** provides a breakdown of the classification of the land under the Land Capability Classification for Agriculture. This breakdown detailed on **Figure 15.1**.

Table 1515-2: Land Classification

LCA Classes		Approximate Site Area (ha)	Approximate Site Area (%)
1	Land capable of producing a very wide range of crops	0	0
2	Land capable of producing a wide range of crops	0	0
3.1	Land capable of producing a moderate range of crops, high yields	0	0
3.2	Land capable of producing a moderate range of crops, high yields	0	0
4.1	Land capable of producing a narrow range of crops, suited to rotations	0	0
4.2	Land capable of producing a narrow range of crops, primarily grassland	9	0.62

LCA Classes		Approximate Site Area (ha)	Approximate Site Area (%)
5.1	Land capable of use as improved grassland, few maintenance problems and high yield	0	0
5.2	Land capable of use as improved grassland, physical limitations can cause maintenance problems	284	19.45
5.3	Land capable of use as improved grassland, but deterioration can be rapid due to a range of factors	31	2.12
6.1	Land capable of only rough grazing, high value	0	0
6.2	Land capable of only rough grazing, moderate value	136	1.71
6.3	Land capable of only rough grazing, low value	1,000	68.49
7	Land is of very limited agricultural value and use is restricted to very poor rough grazing	0	0
	Total	**1,460**	**100**

15.2.12 Over 70% of the land within the site boundary is consider as rough grazing land which has severe limitations for improvements and has limited agricultural value. Given that THC has 1,392,546 ha of rough grazing land (REF) the Proposed Development site only accounts for only 0.08% of rough grazing land in THC.

Potential Effects

Construction

15.2.13 During construction, the Applicant will minimise land used for construction purposes to minimise damage to land and will ensure that working corridors are clearly identified so vehicles and personnel do not stray outwith them.

15.2.14 It is not anticipated that any excavated material will leave the site. Further detail on site restoration will be provided within the CEMP (refer to **Appendix 3.1**).

15.2.15 Excavated peat material will wherever possible be restored to its final destination rather than in temporary stockpiles. However, there may, in some circumstances, be a time-delay between these actions. During the interim period, peat will be stored on-site. It is important both for the peat itself and for the surrounding environment that the peat is not allowed to substantially erode or become dry while it is stored. Procedures to control the hydrology of stored peat will be covered by the CEMP and the outline Peat Management Plan (**Appendix 9.4).**

15.2.16 The site is currently used primarily as grouse moorland and it is assumed that it will not be available for this activity during the construction phase. Based on the degree of land taken as a percentage of land suitable for grouse moorland in Scotland (0.15%[1]), the loss of grouse moorland due to the Proposed Development during the construction phase is considered to be of low magnitude on receptors of low sensitivity and will therefore have **no significant effect** on grouse moorland in Scotland as whole.

15.2.17 Only 0.62 % of land within the site is classified as being capable of supporting mixed agriculture and it is located in the south-west of the site, away from Proposed Development infrastructure and construction activities. The majority of the land (68.49%) is classified as capable of low value rough grazing and not classified as agricultural land. The sensitivity is therefore judged as low. It is considered that no agricultural land will be lost as result of the construction of the

[1] Total suitable land in Scotland for grouse moorland is 964,000 ha (Defra, 2007).

Proposed Development. No discernible change to the receptor condition will therefore result in **no significant effect** on agricultural land in Scotland.

Operation

15.2.18 None of the Proposed Development infrastructure will be sited within the small area of the site that is classified as being capable of supporting mixed agriculture and sheep grazing will remain during the operational phase. No change in receptor condition is anticipated so **no significant effects** are predicted. There will therefore be **no significant effect** on agricultural land in the context of the Proposed Development or on the wider agricultural land in Scotland.

15.2.19 It is assumed that the site will not be available for use as grouse moorland during the operational phase of the Proposed Development. Therefore, there will be a permanent loss of 1,460 ha of grouse moorland due to the Proposed Development. However, as percentage of land suitable for grouse moorland in Scotland (0.15%), the loss of grouse moorland during the operational phase is considered **negligible** in the context of wider grouse moorland in Scotland as a whole.

Mitigation

15.2.20 The land not required for siting of the infrastructure of the Proposed Development will be reinstated as agricultural grazing.

Residual Effects

15.2.21 The residual effects for agricultural and grouse moorland land use are anticipated to be **negligible**. The loss of temporary land during construction and permanent land during operation is not considered to have an effect on the agricultural land or grouse moorland of Scotland, and therefore **no significant effects** are anticipated.

Summary

15.2.22 Construction and operation of the Proposed Development is anticipated to have a **no significant effect** on agricultural land and grouse moorland land use within Scotland as a whole or the long-term land use of the site.

15.3 Telecommunications

15.3.1 Wind turbines, like any other large structure, have the potential to interfere with electromagnetic signals, which are used in a variety of communications, through signal blocking and signal reflections. Relevant infrastructure given consideration in this chapter includes telecommunication links and microwave links.

15.3.2 The Office of Communications (Ofcom) is the regulator for the UK communications industries and, under the *Wireless Telegraphy Act 2006*, is responsible for dealing with any complaints regarding interference to television, radio or telecommunications. Operators of electromagnetic links will ascribe a safeguarding buffer zone around their transmitters and line of sight pathways to ensure that they remain unobstructed. Consequently, individual telecommunication providers/operators have been consulted as part of this assessment.

15.3.3 Assessment of effects to television reception has been scoped out within the **Scoping Report** (refer to **Appendix 4.1**). This is because the strength of the digital signal in the area, and the inherently resilient nature of digital television broadcasting, mean that there is a low risk of interference with domestic television reception from a wind energy development at this location.

15.3.4 Any impact on aviation and radar is covered separately in **Chapter 14**.

15.3.5 This assessment has assessed the design as described in **Chapter 3**. For the purpose of this assessment, it has been assumed that the Proposed Development turbines will not exceed 185 m to blade tip. In addition, the candidate turbine that has been used to inform the assessment has a hub height of 110 m and rotor diameter of 75 m. It is recognised that turbine

selection will be subject to commercial tendering and availability and the specific parameters of hub height and rotor diameter may therefore vary; it is however unlikely that a change to the hub height or rotor diameter from that assessed would result in a material change in the findings of the assessment.

Legislation, Policy and Guidelines

15.3.6 The assessment has been informed by relevant legislation, policy and guidelines, details of which are provided below:

- *Wireless Telegraphy Act* (UK Government, 2006);
- *The Highland-wide Local Development Plan* (The Highland Council (THC), 2012);
- *The Highland-wide Development Plan. Onshore Wind Energy Supplementary Guidance* (THC, 2016;
- *Planning Advice Note: PAN 62 Radio Telecommunications* (Scottish Government, 2001); and
- *Tall Structures and their Impact on Broadcast and Other Wireless Services* (Ofcom, 2009).

15.3.7 The potential impacts as a result of the Proposed Development have been assessed with reference to the above documents.

Consultation

15.3.8 Consultation was undertaken with THC, through the request for an **Scoping Opinion** from the Energy Consents Unit (ECU)(refer to **Appendix 4.2**), and other relevant stakeholders (refer to **Appendix 4.4**), to identify any fixed wireless links or scanning telemetry links in the area, and a summary of their responses are set out in **Table 15-3** below.

Table 15-3: Summary of Consultation Responses

Consultee	Consultation Response	Applicant Action
THC (Scoping Opinion) (24 March 2021)	The EIA Report needs to recognise community assets that are currently in operation for example TV, radio, telecommunication links… in this regard the applicant, when submitting a future application, will need to demonstrate what interests they have identified and the outcomes of any consultation with relevant authorities… through the provision of written evidence of concluded discussions / agreed outcomes.	Consultation with relevant authorities has been undertaken and details provided in this table.
Airwaves (4 May 2021)	The Proposed Development may have an impact on any of the Airwave's point to point microwave radio links and an interference analysis report is required.	Details were provided to Airwaves to allow the completion of the report.
Airwaves (19 July 2021)	The interference analysis report demonstrated that the layout would cause obstruction to the Airwave radio links. Recommendations were made to reposition T02, T05, T12 and T17.	The turbine layout has been revised to locate turbines outwith the Airwave radio links recommended buffer.
Atkins (22 February 2021)	No Objection.	No further action is required.
BT	No Objection – no links present within the infringement areas.	No further action is required.

Consultee	Consultation Response	Applicant Action
(12 February 2021)		
EE (08 February 2021)	No Objection - there will be no infringement issues with our MW network.	No further action is required.
JRC (05 February 2021)	No Objection - this proposal *cleared* with respect to radio link infrastructure.	No further action is required.
Ofcom (02 February 2021)	Spectrum Licencing no longer replies to consultation on telecommunications.	No further action is required.
Vodafone (12 February 2021)	No Objection.	No further action is required.

Assessment Methods and Significance Criteria

15.3.9 This section describes the methods by which the key baseline conditions were identified and also how the potential effects, posed by the Proposed Development, on the baseline was assessed.

15.3.10 Interference with mobile phone networks and other wireless data networks can occur through the interference of microwave and Ultra High Frequency (UHF) band fixed links. These networks are operated by or on behalf of the mobile service providers, the utility companies, the emergency services and occasionally by small private networks.

15.3.11 The impact assessment has been conducted through consultation with the operators of these networks to identify potential impacts and residual impacts, and then go on to determine appropriate mitigation measures.

Baseline Conditions

15.3.12 The baseline was established through consultation as detailed in previously. This process identified two links located within the site operated by Airwave Solutions, who provide telecommunication links for the emergency services.

15.3.13 The link locations are shown on **Figure 15.2**.

Potential Effects

15.3.14 Airwave Solutions ran an interference analysis on Layout E (refer to **Chapter 2**) which demonstrated interference to their link. Consequently, a detailed design review was undertaken to produce the layout presented in this EIA Report that did not interfere with the links (refer to **Chapter 3** and **Figure 1.2**). This was through the implementation of suitable buffers between the turbines and the links.

15.3.15 As there are no impacts anticipated upon the links, no mitigation is required.

Cumulative Effects

15.3.16 As the Proposed Development will not impact any telecommunication links individually, the Proposed Development will not have any cumulative effects on telecommunication links with other developments.

Summary

15.3.17 This section has considered the potential effects of the Proposed Development on existing and planned telecommunications infrastructure.

15.3.18 The telecommunications assessment, as informed by current guidelines and legislation, has been undertaken through consultation with the appropriate consultees, namely:

- Airwave Solutions;
- Arqiva;
- Atkins;
- BT;
- EE;
- Joint Radio Company (JRC);
- Spectrum Licensing; and
- Vodafone.

15.3.19 The consultation process identified two MW Radio links located within the site boundary operated by Airwave Solutions. The links are located as shown on **Figure 15.2**.

15.3.20 No effects on telecommunications from the construction, operation or decommissioning of the Proposed Development were identified.

15.3.21 As the Proposed Development will not impact any telecommunication links, the Proposed Development will not have any cumulative effects on telecommunication links with other developments.

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Table 15-4: Summary of Effects

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/Adverse		Significance	Beneficial/Adverse
Construction and Decommission					
Land Use	Not Significant	Adverse	The Applicant will liaise with the landowner to ensure that livestock do not access the construction site. The land not required for siting of the infrastructure of the Proposed Development will be reinstated as agricultural grazing.	Not Significant	Adverse
Telecommunications links	Negligible	Neutral	NA	Negligible	Neutral
Operation					
Land Use	Negligible	Neutral	N/A	Negligible	Neutral
Telecommunications links	Negligible	Neutral	N/A	Negligible	Neutral
Cumulative Effects					
Land Use	Negligible	Neutral	N/A	Negligible	Neutral
Telecommunications links	Negligible	Neutral	N/A	Negligible	Neutral

15.4 References

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