Chapter 13

Other Issues

SCOTTISHPOWER RENEWABLES

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Chapter 13

13 Other Issues

13.1 Introduction

1. This chapter considers the predicted likely significant environmental effects of the Proposed Development on the following aspects, which were scoped in to the assessment through the Environmental Impact Assessment (EIA) Scoping consultation:

- Forestry and Land Use;
- Aviation and radar;
- Carbon Balance;
- Telecommunications;
- Shadow flicker;
- Eskdalemuir Seismic Array; and
- Cumulative Effect Interactions.

13.2 Forestry and Land Use

13.2.1 Approach

2. An evaluation of the potential effects of the Proposed Development on the woodland resource is provided in **Appendix 13.1 Forestry**.

3. Forestry is not being regarded as a receptor for EIA purposes. Commercial forests are dynamic and their structure continually undergoes change due to normal felling and restocking by the landowner; natural events, such as windblow, pests or diseases; and external factors, such as a windfarm development.

4. The appendix therefore describes the plans as a result of the Proposed Development for felling, restocking and forest management practices; the process by which these were derived; and the changes to the physical structure of the forest that would occur. It further discusses the issue of forestry waste arising from the Proposed Development.

5. The appendix identifies areas of forest to be removed for the construction and operation of the Proposed Development and outlines the proposed management practices, while identifying the likely restocking proposals and future land management of the remaining forest.

13.2.2 Consultation

6. **Table 13.1** summarises consultation that has taken place during the EIA process.

Consultee	Summary of Consultation
Forestry and Land Scotland	Forestry and Land Scotland have been closely involved in the design evolution of the project. Their responses have been integrated into the infrastructure and forestry designs as they progressed.
Scottish Forestry	No response was received to the EIA Scoping consultation. Subsequent consultation on the forestry proposals has been initiated. No response has been received to date.

Table 13.1: Consultation Responses

13.2.3 Assessment of Effects

7. Approximately 82.23 hectares (ha) of advanced felling would be required for construction of the Proposed development, with some forestry subsequently being replanted.

8. The area of unplanted ground would increase and as a result there would be a net loss of woodland area of approximately 61.23ha, which would comprise a decrease of conifer woodland by 49.1ha and broadleaf woodland by 12.23ha (including ancient/native woodland).

9. In order to comply with the Scottish Government's Control of Woodland Removal Policy, compensation planting would be required to mitigate for the loss of woodland area. The Applicant is committed to providing appropriate compensatory planting. The extent, location and composition of such planting is to be agreed with Scottish Forestry, taking into account any revision to the felling and restocking plans prior to the commencement of operation.

10. Regarding the ancient/native woodland loss near the Site entrance from the A701, a conservative estimate of forestry loss has been made. The Applicant commits to undertaking an arboricultural survey at the detailed design stage to more accurately quantify the forestry loss in this area.

11. Forestry waste would be managed in line with Scottish Environment Protection Agency (SEPA) guidance document WST-G-027 ‘Management of Forestry Waste’ (SEPA, 2013). It is proposed that full consideration and further clarification on this issue would be included in a Forestry Waste Management Plan to form part of the Construction Environmental Management Plan (CEMP).

13.3 Aviation and Radar

13.3.1 Approach

12. Wind turbines are an issue for aviation Primary Surveillance Radars (PSRs), used for civilian and military air traffic control, as the characteristics of a moving wind turbine blade are similar to that of an aircraft. As a general rule, the PSR is unable to differentiate between wanted aircraft targets and clutter targets introduced by the presence of turbines.

13. The significance of any radar impact depends on airspace usage in the vicinity of the windfarm site and the nature of the Air Traffic Service provided in that airspace.

14. An evaluation of the potential effects of the Proposed Development on the aviation is provided in **Appendix 13.2 Aviation Impact Assessment**.

15. Aviation lighting proposals are detailed in **Chapter 4: Development Description**, with further detail provided in **Appendix 13.3 Indicative Aviation Lighting Landscape and Visual Impact Mitigation Plan**.

13.3.2 Consultation

16. **Table 13.2** summarises consultation that has taken place during the EIA process.

Consultee	Summary of Consultation
NERL Safeguarding	Based on their preliminary technical findings, NATS (En Route) plc (NERL) indicated in their response that they would object to the proposal. A NATS Technical and Operational Assessment issued on 2 July 2020 anticipates that two of the turbines will have an unacceptable technical impact on Lowther Hill radar
Defence Infrastructure Organisation (Ministry of Defence)	MOD stated that it may object to the proposal as the turbines would be detectable by the Deadwater Fell Air Traffic Control PSR used by the RAF Spadeadam. MOD also states that it must object due to the unacceptable impact the turbines would have on the Eskdalemuir Seismological Recording Station.
Glasgow Prestwick Airport (GPA)	GPA noted that the Proposed Development lies within range of its PSR and that they would require to object to the proposal should any turbines be visible to the radar
Glasgow Airport	No response
Civil Aviation Authority	No response
NatureScot	NatureScot stated that there is the potential for effects on the Talla - Hart Fell Wild Land Area, particularly from the night time aviation lighting required by the turbines

Table 13.2: Consultation Responses

13.3.3 Assessment of Effects

NERL

17. Initial modelling of the PSRs at Lowther Hill and Great Dun Fell shows that Turbine 7 may be in marginal Radar Line of Sight of Lowther Hill PSR. Probability of Detection analysis indicates that Turbines 5 and 7 have a high probability of being detected by Lowther Hill PSR. This confirms the findings of the NATS Technical and Operational Assessment.

Glasgow Prestwick Airport

18. Initial modelling of the PSRs at Glasgow Prestwick Airport shows that none of the proposed turbines are in Radar Line of Sight of these radars and are unlikely to be detected.

Ministry of Defence

19. Initial modelling of the MOD Air Traffic Control PSRs at Deadwater Fell and Berry Hill shows that all of the turbines are in Radar Line of Sight of Deadwater Fell PSR and are likely to be detected. Berry Hill PSR is unlikely to detect any of the Proposed Development turbines. Deadwater Fell PSR is used to control aircraft engaged in electronic warfare operations within the Spadeadam Range. The Range boundary, where Deadwater Fell PSR is used to control aircraft engaged in electronic warfare operations, is approximately 35km to the east of the Proposed Development. The distance from the Range boundary suggests that the Proposed Development is not in an operationally significant area in terms of required Deadwater Fell PSR coverage for Air Traffic Control purposes.

General

20. There are no significant areas for concern specifically in relation to airspace or airspace users. The Proposed Development Site lies below a volume of uncontrolled airspace predominantly used by General Aviation and military aircraft. This Class G airspace extends from the ground to Flight Level (FL) 85 (approximately 8,500ft Above Mean Sea Level (AMSL)) and falls outside the support provided by Lower Airspace Radar Service units. The site does fall within the Tactical Training Area within Low Flying Area 20T within which military aircraft perform low flying as low as 100ft Minimum Separation Distance. From FL85 upwards the airspace is Class A controlled airspace and aircraft are placed under a Radar Control Service provided by Scottish Control, located at Prestwick Centre. Within Class A airspace aircraft are required to be transponder equipped.

13.3.4 Mitigation and Conclusion

21. Where radar impacts result in an adverse impact on the Air Traffic Service provided, mitigation may be required. Mitigation options for NERL include applying small area blanking[1] of turbines T5 and T7. This is the simplest mitigation but could be combined with infill coverage[2] from another radar. Alternatively, Project RM[3] mitigation could be employed to mitigate the impact of turbines on Lowther Hill PSR. This would result in a minimum detection altitude of approximately 4,300ft overhead the turbines.

22. Potential infill mitigation could be provided by various PSRs which provide 3,000ft of additional PSR coverage below the base of NERL controlled airspace in the vicinity of the Proposed Development. This includes Cumbernauld PSR, which has a minimum coverage of 3,500ft AMSL over the Proposed Development. Glasgow PSR and Kincardine PSR have the required minimum coverage of 5,500ft AMSL over the Proposed Development. All these PSR are integrated into NERL's Multi-Radar Tracking infrastructure.

23. The Glasgow Prestwick Airport Terma PSR has minimum coverage of 5,500ft AMSL over the Proposed Development so has potential as an infill radar to mitigate the impact on Lowther PSR. However, it is at the edge of range and the GPA Terma has not been integrated into NERL's Multi-Radar Tracking infrastructure.

24. If MOD requires mitigation, options include the windfarm filter which forms part of the STAR-NG being deployed at Deadwater Fell by end 2021 or an infill from Berry Hill PSR.

13.4 Eskdalemuir Seismic Array

25. The Eskdalemuir Seismic Array is one of 170 seismic stations across the globe used to monitor compliance with the Comprehensive Nuclear-Test-Ban Treaty. The UK is bound by the Test-Ban Treaty not to compromise the detection capabilities of the Eskdalemuir station, and it is the responsibility of the MOD to safeguard this station.

26. To safeguard the Array, a seismic noise "budget" of 0.336nm has been set. An exclusion zone of 10km has been created around the Array, with wind turbine developments in the 10-50km zone around the Array being subject to allocation of seismic budget. The closer a wind turbine is to the Array, the more significant its seismic impact and budget allocation.

27. At present, MOD has allocated all remaining seismic budget to developments in operation or in planning. This has prompted the Scottish Government to reconvene its Eskdalemuir Working Group to examine technical and policy options to release further budget, by revising the safeguarding algorithm in light of operational turbine seismic measurements and/or by extending the exclusion zone to 15km. The Scottish Government has commissioned studies by Xi Engineering in 2020 which support budget algorithm revision and extension of the exclusion zone. However, no change in approach has yet been agreed by the MOD.

28. The Applicant is a member of the Eskdalemuir Working Group and is working with government and industry representatives to seek to resolve this issue. With its closest turbine to the Array at over 26km, the Proposed Development has a significantly lower seismic footprint than developments closer to the Array. The Applicant is confident that the current work of the Eskdalemuir Working Group will release sufficient budget to allow the Proposed Development to be built. However, the Applicant is aware that the seismic noise budget for Eskdalemuir is finite and needs to be managed to maximise wind deployment opportunities within the 50km consultation zone in order to enable Scotland to meet its legislated Net Zero 2045 targets.

[1] A small area of the radar display in which all returns (or signals) are suppressed and therefore not visible
[2] using data from another radar unaffected by turbines to fill in blanked areas.
[3] A technical modification to the radar to mitigate turbine interference. Note it was announced last week that Lowther Hill radar is due to be replaced by a new radar by the end of 2021 after which Project RM will no longer be applicable.

13.5 Carbon Balance

13.5.1 Approach

29. The Scottish Government uses an assessment of the carbon impact of windfarm development to support the process of determining windfarm developments in Scotland. This is particularly relevant in peatland areas where there can be substantial carbon losses due to disturbance to peat, which can in part off-set the benefit of wind energy on carbon emissions.

30. The carbon balance assessment is a desktop assessment comparing the carbon losses of windfarm construction with the ongoing savings of green electricity production to estimate the reduction in carbon emissions expressed as a breakeven or "payback" timescale. It is based on the methodology within Calculating Carbon Savings from Wind Farms on Scottish Peatlands, Nayak et al 2008, with subsequent updates. The calculations contain expected values but also upper and lower bound values. Within the parameter set, there are several site-specific options and it is important the appropriate choices are made and can be justified within the supporting report.

31. **Appendix 13.4 Carbon Balance Assessment** presents details of the carbon balance calculation methodology and results using the Scottish Government on-line Carbon Calculator Tool for the purpose of carbon balance assessment in conjunction with the guidance provided in Scottish Government, SNH and SEPA's Peatland Survey - Guidance on Developments on Peatland – 2017 document.

32. The iterative conceptual design has sought to avoid deep peat and minimise peat disturbance, in order to achieve a more favourable carbon balance assessment.

13.5.2 Assessment of Effects

33. Outputs indicate the Proposed Development would pay back the carbon emissions associated with its construction, operation and decommissioning in 3.7 years applying the 'Grid Mix' replacement scenario. Assuming a maximum of 40 year windfarm life, this equates to an overall carbon saving of 11 times the carbon emitted. It should also be noted that the windfarm lifespan is likely to be considerably longer. Applying the more realistic 'Fossil Fuel Mix' replacement scenario would reduce the payback period to 2.1 years, equating to a carbon saving of 19 times the carbon emitted over 40 years.

34. Based on the expected values input to the caclulator, outputs indicate that approximately 35% of the carbon losses are from turbine life cycle, 28% of the carbon losses are from the felling of forestry, 31% of the carbon losses are due to the requirement for balancing capacity ('back-up generation' assumed to be predominantly from conventional fossil fuel sources), and 5% due to losses of soil organic matter. Additionally, in compiling carbon data, a conservative approach has been taken; therefore, little allowance has been made for CO_2 gains due to onsite improvements.

13.5.3 Conclusion

35. Although it is possible that some combination of changes could have an impact greater than the sum of their individual effects on payback, the sensitivity analysis embedded within the carbon calculator demonstrates that, even using conservative values for all of the factors contributing to the overall estimation of carbon payback, the carbon savings of the Proposed Development would still be substantially greater than the attributable carbon emissions.

13.6 Telecommunications

13.6.1 Approach

36. Wind turbines, as with any large structure, can potentially interfere with electromagnetic signals; through reflection, shielding or emissions. This can affect fixed radio communications links operated by telecommunication operators.

- Reflections - Wind turbines are large structures, consisting of a static tower, a nacelle and rotating blades. Radio signals may be reflected from these components, as they are reflected from other structures and terrain. In the case of a wind turbine these effects are sometimes noticeable, due to turbine size, the motion of the blades and the combined effects from multiple turbines;
- Shielding - Radio signals can be blocked by terrain and structures. Wind turbine towers can block radio signals. In practice signals are not blocked entirely but are only weakened due to diffraction affects. This affect can be termed shielding, shadowing or blocking; and
- Emissions - Most electrical equipment emits radio signals at a range of frequencies. Most equipment is designed to appropriate standards which limit such emissions to negligible levels. Wind turbines are designed to such standards and emissions are consequently negligible.

37. Only Electromagnetic Interference (EMI) and telecommunications links which travel across the Site and close to the wind turbine locations would be affected by the Proposed Development and therefore the study area comprises the wind turbine locations and the Site.

38. TV interference is now considered to be low risk due to analogue TV signals no longer being in use and so this aspect has been scoped out of the assessment.

13.6.2 Consultation

39. Telecommunications operators were consulted and where links were found to be located in, or in close proximity to, the study area further details of the links were requested so they could be taken into consideration in the design of the windfarm.

40. Ofcom's Spectrum Information System (SIS) online portal was also checked for transmitters and fixed links within the search area. The portal showed one transmitter (Pumro Fell) and two links crossing the site. Therefore, the owner's of these links were also consulted to obtain further information regarding the links.

Consultee	Summary of Consultation	Applicant Response
BT	No Concerns. Project indicated should not cause interference to BT's current and presently planned radio network.	No further action required.
JRC	No Concerns. This proposal cleared with respect to radio link infrastructure operated by: Scottish Power and Scotia Gas Networks.	No further action required.
Ofcom Spectrum	Two fixed links across site, owned by Vodafone and Airwaves solutions.	Contacted Vodafone and Airwaves Solutions for further consultation.
Vodafone	Not yet received response.	
Airwaves solutions	Consultation in progress.	
Arqiva	No Concerns. No objections to this development were raised.	No further action required.
Atkins	No Concerns. The Project proposal received no objections in relation to UKF Radio Scanning Telemetry communications.	No further action required.

Table 13.3: Consultation Responses

13.6.3 Assessment of Effects

41. Once the details of the transmitter and links across the site were obtained, appropriate buffer zones could be calculated to avoid interference to the telecommunication links. The electromagnetic field along a link path can be considered to consist of three-dimensional elliptical zones, known as Fresnel zones. The radius of a Fresnel zone at any point along the path is determined by the link's overall length and operating frequency. Typically, a buffer zone equivalent to the link's second Fresnel zone is advised to minimise the risk of interference.

42. The final layout has incorporated these constraints and hence avoids interference with telecommunications links.

13.6.4 Conclusion

43. Due to the layout taking the onsite transmitter and links into account appropriately; it is concluded that the Proposed Development would have no effect on any telecommunications links.

13.7 Shadow Flicker

13.7.1 Approach

44. The term “Shadow Flicker” refers to the flickering effect caused when rotating wind turbine blades periodically cast shadows over nearby properties. Shadow flicker can only occur inside a property and under a certain set of conditions including bright sunshine, the wind turbines are operational and that the sun is in a particular location to cast a shadow from the wind turbines across a property.

45. The Scottish Government’s ‘Onshore wind turbines: planning advice’ and industry standard guidelines states that shadow flicker is unlikely to be of a significant impact at distances greater than ten rotor diameters from a turbine. For this application the candidate turbine has a rotor diameter in the region of 150m therefore the study area which will be assessed for potential shadow flicker impact will be an area around each of the wind turbine locations of 1.5km.

46. A search within the study area for potential shadow flicker receptors has been undertaken. Shadow flicker only occurs within buildings where the shadow appears through a narrow window opening, according to the Scottish Government’s Onshore wind turbines: planning advice. Therefore, only buildings with windows (including commercial and residential) were considered as potential shadow flicker receptors.

47. Based on the scoping layout there were potential shadow flicker receptors within the study area. However, through the design process the turbines which may have caused a shadow flicker impact have been removed. Therefore, the study area has been reduced and now does not contain any potential receptors. This is shown in **Figure 13.1 Shadow Flicker** which shows the shadow flicker study area.

13.7.2 Consultation

48. The methodology for the assessment was consulted on as part of the scoping process. No responses containing specific comments on the shadow flicker process were received and therefore it is assumed that this assessment methodology was acceptable to the consultees.

13.7.3 Assessment of Effects

49. Due to the lack of presence of potential shadow flicker receptors the assessment shows there will be no shadow flicker impact.

13.7.4 Conclusion

50. Since in the final layout all turbines are further than 1.5 km (ten times rotor diameter) away from shadow flicker receptors then there is no impact from shadow flicker caused by the Proposed Development. This is due to the embedded mitigation in the turbine layout design.

13.8 Cumulative Effect Interactions

51. Cumulative effect interactions are the combined or synergistic effects caused by the combination of a number of effects on a particular receptor, which may collectively cause a more significant effect than individually.

52. The approach to the assessment of effect interactions considers the changes in baseline conditions at common sensitive receptors (i.e. those receptors that have been assessed by more than one technical topic) due to the Proposed Development.

53. An overall assessment of the cumulative effects on identified common receptors has been made using professional judgement and the technical information provided in Chapters 5-12. **Tables 13.4** and **13.5** present the residual effects of the individual topics on common receptors to identify where there are effects from more than one topic on a common receptor. The potential for effect interactions is then discussed in the text following the table.

54. The assessment is based on residual effects only (considered to be effects of minor or greater significance, i.e. excluding negligible effects). Only residual effects with the potential for effect interactions are considered, for example, where there are common receptors amongst individual environmental issues. Furthermore, where topics consider the impacts of other environmental topics inherent in their chapters, the assessment of effect interactions has not been duplicated in this chapter. Based on the above, the following environmental topics are therefore excluded from **Tables 13.4** and **13.5**:

- Ornithology;
- Cultural Heritage and Archaeology;
- Hydrology, Hydrologeology, Geology and soils; and
- Ecology and Biodiversity.

13.8.1 Assessment of Effect Interactions

55. Potential effect interactions during the construction and operation phase have been identified for the following receptors groups:

- Residential receptors;
- Recreational receptors and tourists; and
- Road users.

Topic	Common Receptor Type		
	Residential Receptors	Recreational Receptors and Tourists	Road Users
Landscape and Visual	Not applicable	Not applicable [Note: the overall amenity is discussed under socio-economics	Not applicable
Noise and Vibration	Not applicable	Not applicable	Not applicable
Traffic and Transport	Not applicable	Not applicable	Slight adverse effects relating to road capacity, severance, driver delay, pedestrian delay, pedestrian amenity, fear and intimidation and Accidents and safety. Predominantly along the A701
Socio-Economics	Not applicable	Minor adverse effect to users of the recreational routes, including Core Path 39 (Ae Forest Large Circular), Roman and Reivers Long Distance Route, Regional Cycle Route 10 and Locharbriggs-Beattock local cycle route. This takes into account route diversions and general amenity including visual and noise effects.	Not applicable

Table 13.4 Summary of residual effects per common receptor: Construction effects

Topic	Common Receptor Type		
	Residential Receptors	Recreational Receptors and Tourists	Road Users
Landscape and Visual	Moderate-Minor Adverse effects to residential receptors in Parkgate, Kirkland and Burrance; Auchencairn, Riddingwood and Amisfield. Moderate Adverse effects to residential receptors in Annandale: Nethermill, Templand, Johnstonebridge, and Torthorwald. within approximately 8km; effects reducing to Moderate-Minor Adverse beyond.	Moderate-Minor Adverse effects on users of the Romans and Reivers long distance route; core paths within the Forest of Ae; and regional cycle route 10. Moderate adverse effect on users of the Raehills to Lochmaben sections of the Annandale Way; elsewhere minor adverse to negligible effects.	Moderate-Minor Adverse effect on views from the A701.
Noise and Vibration	Minor at Mollin Farm, Courrancehill, Barntimpin, Auld Laundry Cottage, Mollin Farm, Holmwood, Courancehill, Burrancehill Cottage, Burrancebrae, Kirkland Cottage, Lamphitt, Wood Farm, Woodside, Glenview and Gubhill Farm.	Not applicable	Not applicable
Traffic and Transport	Not applicable	Not applicable	Not applicable
Socio-Economics	Not applicable	Minor beneficial effects should the recreational enhancements be realised.	Not applicable

Table 13.5: Summary of residual effects per common receptor: Operation Effects

13.8.2 Construction Phase Cumulative Effects

60. No cumulative effects have been identified above those already considered as part of the main assessments.

13.8.3 Operational Phase Cumulative Effects

Residential Receptors

61. Minor adverse noise effects have been predicted to varying degrees and at certain wind speeds for properties in close proximity to the Site to the west, south and east; all the noise levels were comfortably below the threshold for a significant effect; none of them were marginal. Visual impacts have also been identified for some of the same property groups, with the visual effects predicted to be moderate to minor and not significant. There is the potential for cumulative effects for these properties due to noise and visual effects in combination.

Recreational Receptors and Tourism

62. No adverse operational cumulative interactions have been identified for recreational receptors and tourists.

Road Users

63. No operational cumulative interactions have been identified for road users.

13.9 Summary

64. This chapter considers the effects of the Proposed Development on forestry and land use, aviation and radar, carbon balance, telecommunications, shadow flicker, Eskdalemuir Seismic Array, and cumulative effect interactions. Following the implementation of mitigation, it is considered that there would be no likely significant environmental effect as result of the Proposed Development.

13.10 References

Forestry Commission Scotland (2009). The Scottish Government's Policy on Control of Woodland Removal. Edinburgh.

Parsons Brinckerhoff Consultants on behalf of DECC (2010). Update of UK Shadow Flicker Evidence Base

Scottish Government (2014). Onshore wind turbines: planning advice. Available at: https://www.gov.scot/publications/onshore-wind-turbines-planning-advice/

Scottish Government, SNH and SEPA (2017). Guidance on developments on peatland: peatland survey [on-line version only. Available at: https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2018/12/peatland-survey-guidance/documents/peatland-survey-guidance-2017/peatland-survey-guidance2017/govscot%3Adocument/Guidance%2Bon%2Bdevelopments%2Bon%2Bpeatland%2B-%2Bpeatland%2Bsurvey%2B-%2B2017.pdf

Scottish Government (2018). Carbon calculator for wind farms on Scottish peatland: factsheet [online]. Available at: https://www.gov.scot/publications/carbon-calculator-for-wind-farms-on-scottish-peatlands-factsheet/. Accessed 6th March 2020.

SEPA (2013): Guidance Note WST-G-027 "Management of Forestry Waste". Available at: https://www.sepa.org.uk/media/28957/forestry_waste_guidance_note.pdf

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