



Harestanes South Windfarm Extension

Environmental Impact Assessment Report

Addendum
June 2022

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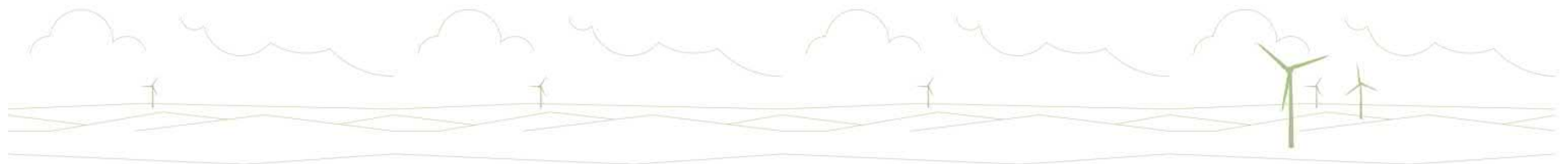
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Abbreviations

Abbreviation	Meaning
DGC	Dumfries and Galloway Council
ECU	Energy Consents Unit
EIA	Environmental Impact Assessment
LCT	Landscape Character Type
LVIA	Landscape and Visual Impact Assessment
km	Kilometres
m	Metres
EIA Report	Harestanes South Windfarm Extension Environmental Impact Assessment Report, December 2020
mAOD	Metres Above Ordnance Datum
MW	Megawatts
NPF	National Planning Framework
PWS	Private Water Supply(ies)
RSA	Regional Scenic Area
SEPA	Scottish Environment Protection Agency
Site	Area enclosed by the Application Boundary
SUW	Southern Upland Way
UK	United Kingdom
VOR	Valued Ornithological Receptor
ZTV	Zone of Theoretical Visibility

1 Introduction

1.1 Background

1. In December 2020, ScottishPower Renewables (UK) Limited, trading as ScottishPower Renewables (The Applicant) applied to the Scottish Government's Energy Consents Unit (ECU) under Section 36 of the Electricity Act 1989 (as amended), seeking consent and deemed planning permission to construct and operate an extension to the operational Harestanes Windfarm in Dumfries and Galloway (the Proposed Development). The Proposed Development comprised an eight turbine windfarm site with an installed capacity of approximately 45 megawatts (MW).
2. The following documents were included in the December 2020 submission:
 - copy of the public notice to be placed in newspapers;
 - application boundary figure;
 - Environmental Impact Assessment Report, comprising:
 - Non-technical Summary;
 - Volume 1 – Main Report;
 - Volume 2 – Figures;
 - Volume 3 – Visualisations;
 - Volume 4 – Technical Appendices.
 - Pre-Application Consultation Report;
 - Planning Statement; and
 - carbon calculator online tool.
3. Following submission of the application for consent, statutory consultation was undertaken by the ECU, which is still ongoing. As a result of the consultation a minor amendment to the design of the Proposed Development has been made to address a potential effect to a telecommunications link. In addition, minor changes have been made to information relating to watercourse crossings and peat stability following receipt of consultation responses.

1.2 Purpose of the Addendum

4. This Addendum has been produced to provide an update to the Harestanes South Windfarm Extension Environmental Impact Assessment Report (hereafter referred to as the EIA Report). It is not a stand-alone document and should be read in conjunction with the EIA Report. The purpose of the Addendum is to:
 - describe the minor revisions to the Proposed Development;
 - summarise changes to planning policy and guidance and the environmental and cumulative baseline since submission of the EIA Report;
 - review and revise the EIA in light of the changes to the Proposed Development, baseline conditions and cumulative situation; and
 - recommend mitigation for additional adverse effects identified if applicable.
5. Where information included within the EIA Report has been updated following consultation on the application, this information has been included within this Addendum and comprises:
 - description of the minor design change and assessment of it in terms of effect significance;
 - consultation with SEPA including minor updates to EIA Report Technical Appendix 6.4 Water Crossing Report (**Appendix A1**);
 - consultation with ECU (Ironsides Farrar) providing further clarification (**Appendix A2**); and

- cumulative landscape and visual impact assessment based on current cumulative windfarm position (**Appendix B**).

1.3 Availability of the EIA Report

6. In accordance with The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 Regulation 18, copies of the Addendum will be available for inspection by the public, notice of which will be published in the Edinburgh Gazette, and in a relevant newspaper in the locality of the Proposed Development.
7. Electronic copies of the Addendum can be accessed at <http://www.energyconsents.scot/>.
8. Copies of the Addendum may be obtained from the Applicant using the contact details below at a charge of £350 per hard copy and free on DVD/CD or USB memory stick. The price of a hard copy reflects the cost of producing all of the Landscape and Visual photographs at the recommended size.

Harestanes South Windfarm Extension Project Team
ScottishPower Renewables
9th Floor ScottishPower House
320 St Vincent Street
Glasgow
G2 5AD

Email: harestanessouthwindfarm@scottishpower.com

Website: https://www.scottishpowerrenewables.com/pages/harestanes_south_windfarm_extension.aspx

1.4 Representations to the Application

9. Any representations to the application should be made directly to the Scottish Government via the Energy Consents Unit website at www.energyconsents.scot/Register.aspx or by email to the Scottish Government, Energy Consents Unit mailbox at representations@gov.scot.
10. Representations can also be sent by post to:

Scottish Government
Energy Consents Unit
4th Floor
5 Atlantic Quay
150 Broomielaw
Glasgow
G2 8LU

2 Assessment Methodology and Consultation

2.1 Introduction

- This section describes the relevant changes to planning policy and guidance, environmental baseline, and cumulative situation which have occurred since the application submission in December 2020, or in terms of the cumulative situation, since the cumulative cut-off date of 21 August 2020. It summarises consultee responses to the application where they have made a minor change to the EIA Report and describes the approach to the assessment of likely significant environmental effects resulting from the Proposed Development design change.

2.2 Changes to Legislation, Planning Policy and Guidance

- A desk-based review of current relevant legislation, planning policy and assessment guidance has been undertaken to identify any updates since the original submission. The following documents have been updated, however the content does not materially change the assessment approach for this Addendum.
- The Draft Fourth National Planning Framework (Draft NPF4) was laid before Parliament on 10 November 2021. The Draft NPF4 details the Scottish Government's long-term plan for Scotland up to 2045. The following draft policies are applicable to the Proposed Development:
 - Draft NPF4 Policy 2: Climate emergency, requires that significant weight should be given to the Global Climate Emergency when considering all development proposals. The aim of this policy is to ensure the planning system responds to the climate emergency.
 - Draft NPF4 Policy 19: Green Energy supports opportunities for new renewable energy development including 'in principle' support for enabling works such as transmission and distribution infrastructure and energy storage such as battery storage.
 - Draft NPF4 Policy 19: Green Energy adds that "*areas identified for wind farms should be suitable for use in perpetuity*" providing that wind farms are sited and designed to ensure impacts are minimised and protects an acceptable level of amenity for adjacent communities. This policy seeks to ensure that sites in Scotland support continued expansion of low-carbon and net-zero energy technologies as a key contributor to net zero emissions by 2045.
- No changes to other guidance relevant to the assessment within this Addendum have been identified.

2.3 Changes to Baseline and Cumulative Situation

- A desk-based review of baseline conditions has been undertaken. At the point of writing, no changes have been identified to the environmental baseline that would be relevant to this Addendum.
- A review of the cumulative situation has identified two additional windfarm developments for inclusion within this Addendum as follows; this scope has been agreed with Dumfries and Galloway Council (DGC) and the ECU:
 - Scoop Hill Community Windfarm approximately 10.5 km to the north east of the Proposed Development; and
 - Daer Windfarm approximately 10 km to the north of the Proposed Development.

- Due to the distance of these two new cumulative developments from the Proposed Development, they are only considered to be relevant for the landscape and visual assessment topic.

2.4 Consultation

- Consultation on the application for consent is still ongoing and to date responses have been received from the majority of consultees; none of which have an impact on the design of the Proposed Development with the exception of one. Telecommunications operator Airwave Motorola Solutions highlighted the need to move Turbine 06 approximately 64 m further from the telecommunication link which they operate in order to minimise the potential for adverse effects on their operations. The Applicant has undertaken further consultation with Airwaves Motorola Solutions and identified a revised position for the turbine which is acceptable to them (as described in **Section 3** of this Addendum), and it is that which is the main subject of this Addendum.
- The Applicant has also taken the opportunity to include our responses to Scottish Environment Protection Agency (SEPA) and the ECU/Ironside Farrar within this Addendum as the content makes minor changes to the information presented within the EIA Report. Their responses to the application and the Applicant's subsequent responses are provided in **Appendix A**. Clarifications have been provided to other consultees as required however they do not alter the content of the EIA Report and are therefore not reported here.
- Table 2.1** summarises the consultee responses which have been addressed within this Addendum.

Consultee	Response / Subject	Action
Airwave Motorola Solutions	Turbine T2 (since renamed as Turbine 06) will have an impact on the operational zones of the Airwave MW radio link.	Turbine 06 relocated to remove the potential for effects as described in Section 3 of this Addendum. The revised position has been agreed with Airwave Motorola Solutions.
SEPA	Watercourse Crossing Report to be updated to demonstrate regulatory compliance Clarification on future use of Private Water Supply (PWS) at Glenkiln required.	EIA Report Technical Appendix 6.4 Water Crossing Report has been updated. Confirmation provided that there are no plans to use Glenkiln PWS which is owned by the Applicant. See Appendix A1.
ECU via Ironside Farrar	Recommendations provided in relation to a review of the EIA Report Technical Appendix 6.1 Peat Stability Assessment.	A letter response with accompanying figures has been issued which provided further clarification. See Appendix A2.

Table 2.1: Consultee Responses Considered within the Addendum

2.5 Assessment Methodology

- A comparative assessment approach has been taken, which is considered to be proportionate to the scale of the design change. For each assessment chapter within the EIA Report a comparative assessment has been undertaken comparing the findings of the EIA Report assessment with the revised turbine location and assessing whether there is any material change to the potential for likely significant effects.
- The assessment methodology remains unchanged to that set out in the EIA Report Chapter 2 - EIA Process and Methodology and the subsequent assessment chapters; however it does take into consideration any identified change to the baseline condition, cumulative situation, assessment guidance and planning policy which has occurred in the interim.
- As stated in the EIA Report, the area encompassed by the Application Boundary is referred to as 'the Site'.

3 Changes to the Proposed Development

- 24. The original description of the Proposed Development is as detailed in Chapter 4 – Development Description of the EIA Report.
- 25. The change to the Proposed Development comprises a revision to the location of Turbine 06 approximately 64 m to the north west of its original position, see **Figures A1 Revised Site Layout Plan** and **A2 Design Iteration of Turbine 06**. The original and revised wind turbine coordinates are shown in **Table 3.1**.

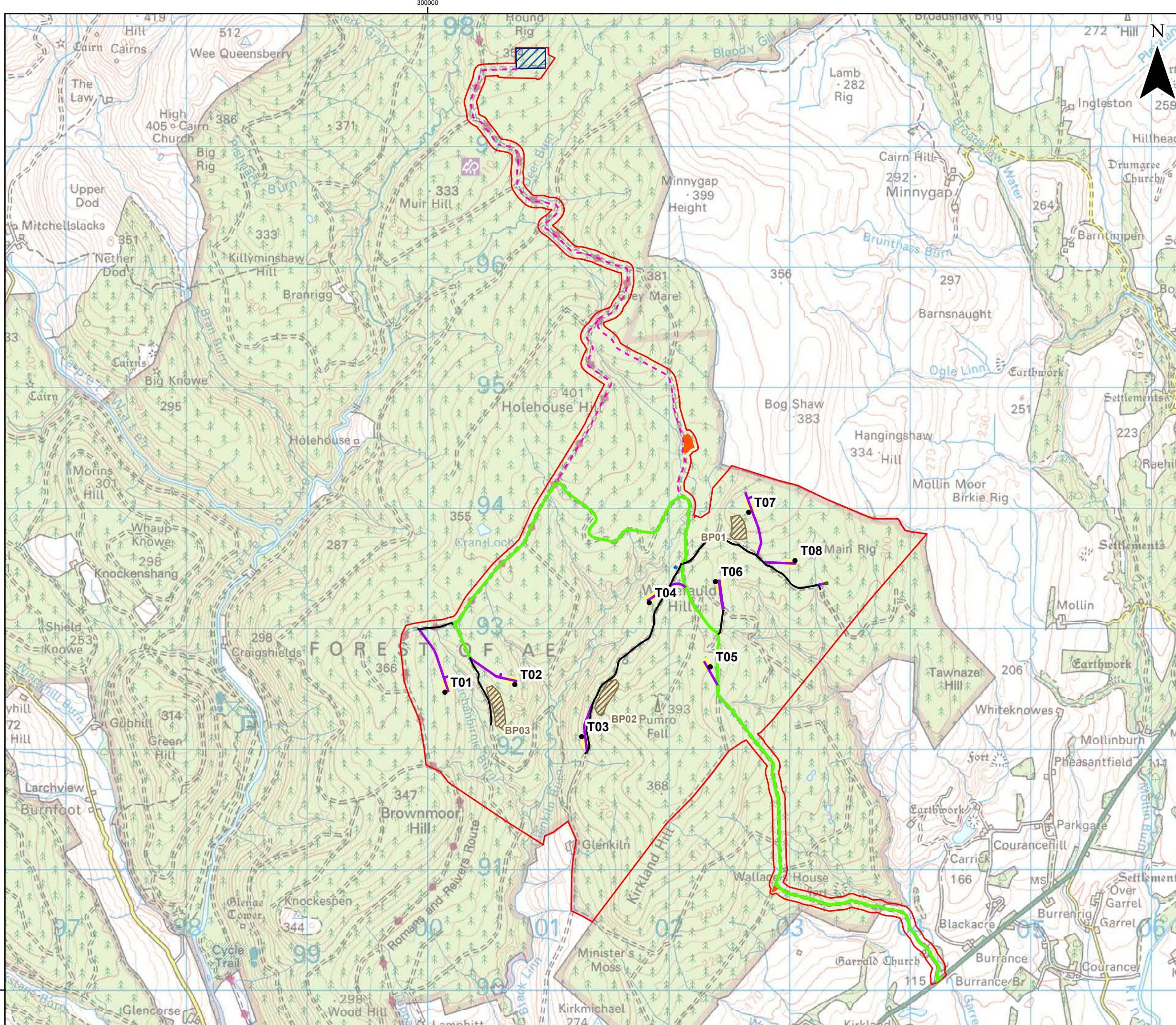
Turbine ID	Original Position Turbine 06		Revised Position Turbine 06	
	Easting	Northing	Easting	Northing
06	302440	593352	302390	593393

Table 3.1: Grid Co-ordinates of Turbine 06 (British National Grid)

- 26. As a result of the change in turbine position, the track which accesses Turbine 06 has been realigned resulting in an increase in length of 58 m. **Table 3.2** shows the changes in values with respect to infrastructure parameters.

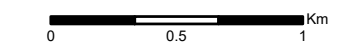
Type	Description	Original Design Length (m)	Revised Design Length (m)	Percentage difference
New cut track length	Spurs to individual turbines	3140 (Table 4.2 EIA Report)	3198	1.8% increase

Table 3.2: Change in Values of Infrastructure Parameters



- Legend**
- Application Boundary
 - Proposed Crane Pad
 - Proposed Control Building
 - Proposed Met Mast
 - Proposed Borrow Pit Search Area
 - Operational Harestanes Access – To be Upgraded
 - Proposed New Access Track
 - Existing Forestry Track - To be Upgraded
 - Cable Route
 - Existing Construction Compound / Hardstanding
 - Existing Substation

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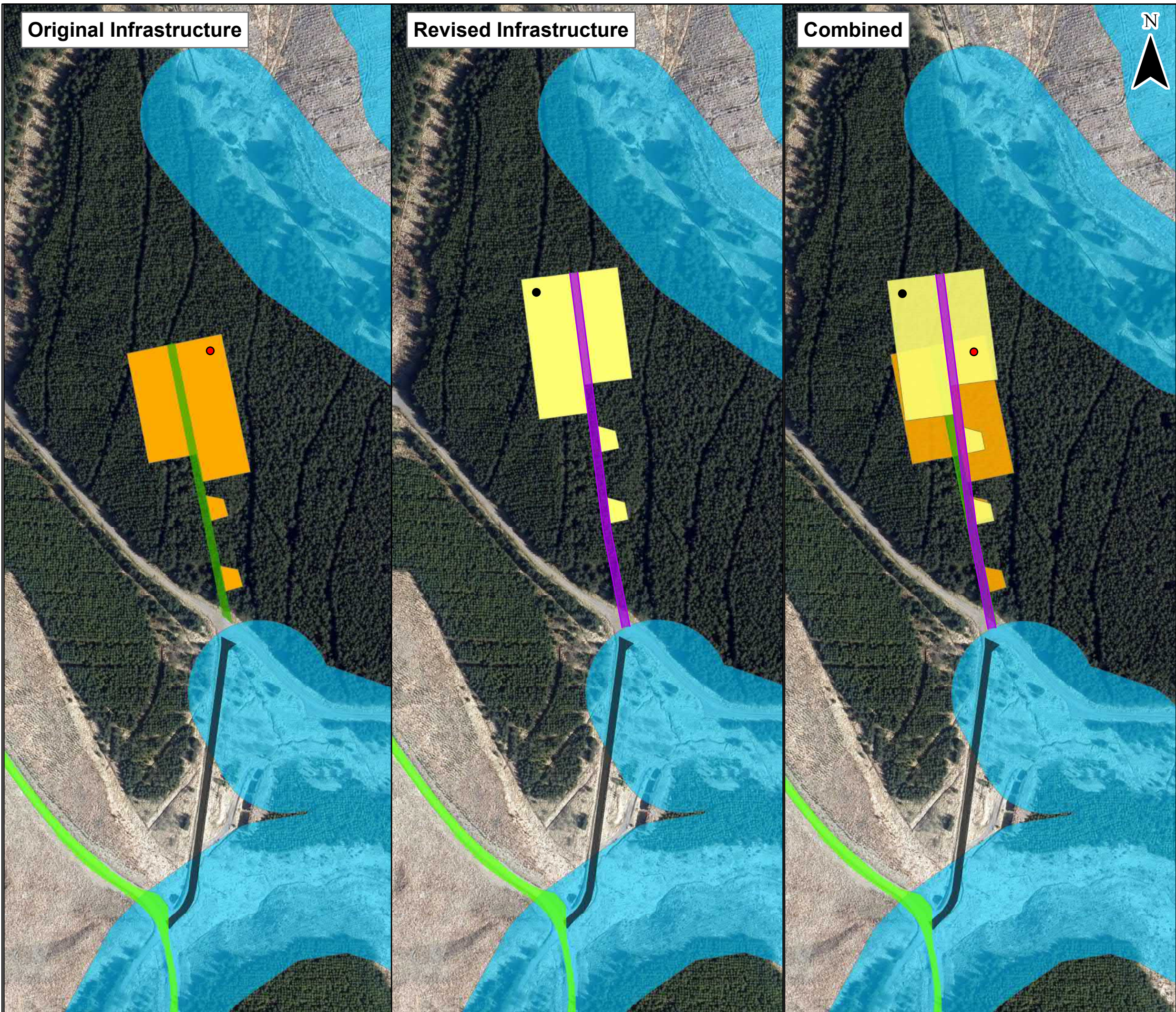


Rev	Date	By	Comment
B	24/06/2022	IM	Second Issue.
A	27/01/2022	RH	First Issue.



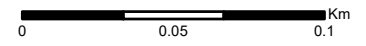
**Harestanes South
Windfarm Extension**
Figure A1: Site Layout Plan

Drg No	HARESTANES_WSP_I_226
Rev	A
Date	6/24/2022
Scale	1:30,000 @ A3



- Legend**
- Original Turbine Location
 - Original Crane Pad
 - Original New Access Track
 - Revised Turbine Location
 - Revised Crane Pad
 - Revised New Access Track
 - Existing Forestry Track - To be Upgraded
 - Operational Harestanes Access - To be Upgraded
 - Watercourse Buffer (50 m)

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Rev	Date	By	Comment
B	24/06/2022	IM	Second Issue.
A	01/02/2022	RH	First Issue.



Harestanes South Windfarm Extension
Figure A2: Design Iteration of Turbine 06

Drg No	HARESTANES_WSP_I_227
Rev	A
Date	6/24/2022
Scale	1:2,500 @ A3

4 Comparative Environmental Impact Assessment

27. **Table 4.1** presents the comparative assessment for all the topics considered within the EIA Report.

EIA Report chapter	Key conclusions of the EIA Report	Change to baseline condition, guidance or planning policy	Comparative assessment based on the revised position of Turbine 06	Statement of Significance compared to EIA Report
Chapter 5 - Landscape and Visual Impact Assessment	<p>The LVIA identified that significant effects on landscape character would be contained within approximately 5 km and visual effects would be contained within approximately 8 km to the south and south east of the Site only.</p> <p>The small number of proposed turbines appear positioned as a natural extension to the operational Harestanes Windfarm within the large scale, broad gently undulating foothills. They are set back behind the perimeter foothills, and while the large scale of the turbines cannot be screened entirely, they would largely appear grounded within the forested landscape, separate to the upland fringe and settled dales below. It is considered that as a viable extension to the operational Harestanes Windfarm it has limited the effects on the sensitive landscapes to the north west, north and north east, limited effects on recreational users of the Forest of Ae and would have limited significant effects on residents and travellers on the key transport routes within the Study Area.</p>	Cumulative baseline – see Section 2.3 above and Appendix B	<p>The relocation of Turbine 06 would have no bearing on the landscape and visual effects assessed within the EIA Report. The revised position for Turbine 06 would still remain within the centre of the proposed turbine layout at a similar elevation. It would not increase the horizontal extent of turbines visible from any location or increase the prominence of turbines in the view. Viewpoint wirelines accompanying Appendix B of this addendum have been updated to include the revised position of Turbine 06. These illustrate, in comparison to the EIA Report wireline figures, that there is not a discernible difference from the revised position of Turbine 06 over its original position.</p> <p>A Cumulative Landscape and Visual Impact Assessment is presented in Appendix B. The assessment has concluded that the potential for significant cumulative effects of the Proposed Development on landscape and visual receptors in addition to or in combination with Daer Windfarm are unlikely due to the upland landscape that separates the sites and limits wider visibility of them both together.</p> <p>Significant cumulative effects from the Proposed Development in addition to or in combination with the Scoop Hill Community Windfarm were identified for the Middle Dale – Annandale Landscape Character Type (LCT) to the south and south east of the Proposed Development, and visual receptors within this area, notably local residents and users of the Annandale Way. This is moderated by the treed nature of the landscape, and the Proposed Development’s location within the context of the operational windfarms, noting the main cumulative effects would arise from the much larger and prominent Scoop Hill Community Windfarm.</p> <p>Sequential cumulative effects from the Proposed Development and Scoop Hill Community Windfarm, and to a lesser extent Daer Windfarm, would be limited to walking or driving within the Annandale area where the characteristic treed nature of the area does not preclude views. The Proposed Development would be mostly seen in the context of the operational windfarms when moving through this area, with Scoop Hill Community Windfarm a more noticeable and continuous presence in sequential views due to its size and location.</p>	<p>No change in Significance of Effects in relation to the revised turbine position.</p> <p>Additional cumulative significant landscape and visual effects with Scoop Hill Community Windfarm within a limited area to the south east of the Site.</p>
Chapter 6 - Hydrology, Hydrogeology, Geology and Soils	No likely significant effects were concluded.	No change	<p>The change to the Proposed Development results in no change to the outcomes of the Hydrology, Hydrogeology, Geology and Soils assessment.</p> <p>The relocation of Turbine 06 and hardstanding remain outwith 50 m of the watercourse to the east. Peat depths are similar to the previous location, consistently measuring less than 1.0 m.</p>	No change in Significance of Effects
Chapter 7 - Ecology and Biodiversity	No likely significant effects were concluded.	No change	The change in the Proposed Development does not alter the conclusions of the ecology and biodiversity assessment relating to fauna and all	No change in Significance of Effects

EIA Report chapter	Key conclusions of the EIA Report	Change to baseline condition, guidance or planning policy	Comparative assessment based on the revised position of Turbine 06	Statement of Significance compared to EIA Report
			mitigation is still deemed to be effective. The change does not affect the assessment relating to habitats, since the previous location of Turbine 06 and the associated track infrastructure was also located on habitat that was not assessed to be a Valued Ecological Receptor. Therefore this change to the Proposed Development makes no material difference to the ecology and biodiversity assessment.	
Chapter 8 - Ornithology	No likely significant effects were concluded.	No change	Goshawk (<i>Accipiter gentilis</i>) was the only Valued Ornithological Receptor (VOR) taken forward to impact assessment stage. The revised layout would result in Turbine 06 moving approximately 50 m closer to a recorded goshawk nest site. However, the relocated position of Turbine 06 is still over 1 km from the nest site and the change in proximity does not increase the Windfarm Polygon ¹ or the number of goshawk flights which were considered in the original collision risk modelling. The revised location of Turbine 06 also does not reduce distance from any other VORs which were previously scoped out of the impact assessment. The revised location of Turbine 06 does not alter the conclusions of the ornithology assessment and all relevant prescribed mitigation is still deemed to be appropriate. The change to the Proposed Development makes no material difference to the ornithology assessment.	No change in Significance of Effects
Chapter 9 - Noise	No likely significant effects were concluded.	No change	The change to the Proposed Development makes no material difference to the noise assessment.	No change in Significance of Effects
Chapter 10 - Archaeology and Cultural Heritage	No likely significant effects were concluded.	No change	The change to the Proposed Development makes no material difference to the archaeology and cultural heritage assessment.	No change in Significance of Effects
Chapter 11 - Access, Traffic and Transport	No likely significant effects were concluded.	No change	The change to the Proposed Development by way of the relocation of the turbine does not change the overall conclusions of the access, traffic and transport assessment. It is noted that the design change results in a 1.8% increase to the total new cut track length (58 m) which will lead to a very small increase in vehicle movements, however, this is considered negligible and does not result in any material change to the conclusions of the assessment.	No change in Significance of Effects
Chapter 12 - Socio-economics, Tourism and Recreation	No likely significant effects were concluded.	No change	The change to the Proposed Development makes no material difference to the socio-economics, tourism and recreation assessment.	No change in Significance of Effects
Chapter 13 - Other Issues				
Forestry and Land Use	Approximately 82.23 hectares (ha) of advanced felling would be required for construction of the Proposed Development and, following replanting, the net forestry loss would be 61.23 ha. The Applicant is committed to providing appropriate compensatory planting. The plantation forestry block within which Turbine 06 is located is proposed to be felled in its entirety and replanted with the exception of the new infrastructure and appropriate buffers.	No change	There is no change to the amount of felling required as no additional forestry blocks are impacted. The revised layout would result in a very small increase in the area of permanent forestry loss of less than 0.2 ha, which is due to the minor increase in track length of 58 m. This will be accounted for in the final compensatory planting calculations and commitment. The turbine relocation makes no material difference to the forestry assessment.	No change in Significance of Effects
Aviation and Radar	Potential adverse radar impacts were identified which are likely to require mitigation solutions. Consultation with the impacted operators to agree appropriate mitigation will be undertaken.	No change	The turbine relocation makes no material difference to the conclusions of the aviation and radar assessment.	No change in Significance of Effects
Carbon Balance	No likely significant effects were concluded.	No change	The change to the Proposed Development does not change the overall conclusions of the carbon balance assessment. Whilst Turbine 06 and hardstanding are proposed to be relocated to locations of similar peat	No change in Significance of Effects

¹ The Windfarm Polygon is the area enclosed by the outermost turbine rotors; this area (plus a buffer of 500 m) is used to identify flights by target species for inclusion in collision risk modelling.

EIA Report chapter	Key conclusions of the EIA Report	Change to baseline condition, guidance or planning policy	Comparative assessment based on the revised position of Turbine 06	Statement of Significance compared to EIA Report
			depth (<1.0 m), it is noted that this results in a 1.8% increase to the total new cut track length. However, this is considered negligible and does not result in any change to the estimated carbon payback period of the windfarm.	
Telecommunications	No likely significant effects were identified based on consultations concluded at the time of application submission. However consultation was still ongoing with Airwaves Motorola Solutions which subsequently identified the potential for a likely significant effect to the position of Turbine 06.	No change	The re-location of Turbine 06 has removed the potential for likely significant effects on the Airwaves Motorola Solutions telecommunications link.	Change from the potential for likely significant effect to 'Not Significant'
Shadow Flicker	No likely significant effects were concluded.	No change	The change to the Proposed Development makes no material difference to the shadow flicker assessment.	No change in Significance of Effects
Eskdalemuir Seismic Array	The Ministry of Defence has allocated all remaining seismic budget to developments currently in operation or in planning; there is none currently available for proposed developments. Discussions are ongoing with the Scottish Government and the Ministry of Defence to re-evaluate the seismic noise budget and its allocation.	No change	The change to the Proposed Development makes no material difference to the Eskdalemuir seismic budget or its deployment.	No change in Significance of Effects
Cumulative Effect Interactions	No likely significant effects were concluded.	No change	The change to the Proposed Development makes no material difference to the assessment of cumulative effect interactions.	No change in Significance of Effects

Table 4.1: Comparative Environmental Impact Assessment

5 Conclusion

28. This Addendum presents the assessment of likely significant effects as a result of a design change to the location of Turbine 06. In relation to this design change, there is no material change to the conclusions of the EIA Report in relation to significance of effects.
29. Since submission of the application in December 2020, two new windfarms applications have been submitted to the ECU which are now in planning, Scoop Hill Community Windfarm and Daer Windfarm. A cumulative Landscape and Visual Impact Assessment has been undertaken in relation to these two schemes. This assessment has concluded that there are additional cumulative significant landscape and visual effects in combination with Scoop Hill Community Windfarm within a limited area to the south east of the Site, more detail is available in **Appendix B**.

6 References

Scottish Government (2017). The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017. Available online at: <http://www.legislation.gov.uk/ssi/2017/101/contents/made>.

Scottish Government (2021). Scotland 2045 - Fourth National Planning Framework - draft: consultation. Available online at: <https://www.gov.scot/publications/scotland-2045-fourth-national-planning-framework-draft/documents/>

ScottishPower Renewables (2020). Harestanes South Windfarm Extension Environmental Impact Assessment Report. ScottishPower Renewables, Glasgow

UK Government (1989). Electricity Act 1989 (as amended). Available online at: <https://www.legislation.gov.uk/ukpga/1989/29/introduction?view=extent>.

Appendices

Appendix A: Consultation with SEPA and ECU (Ironside Farrar)

Appendix A1: Consultation with SEPA

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Appendix B: Cumulative Landscape and Visual Impact Assessment

Harestanes South Windfarm Extension Project Team

ScottishPower Renewables
9th Floor ScottishPower Headquarters
320 St Vincent Street
Glasgow
G2 5AD

HarestanesSouthWindfarm@scottishpower.com

