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Introduction

- 1.1 A noise assessment has been carried out for each of the three previous Ben Sca Wind Farm design layouts:
- the consented Ben Sca Wind Farm presented in **Chapter 13** of the EIA Report that accompanied application 20/00013/FUL (2020 EIA Report);
 - the consented Ben Sca Wind Farm Extension presented in **Appendix E** of EIA Report that accompanied application 21/05767/FUL (2021 EIA Report); and
 - the application layout of the Ben Sca Redesign Wind Farm presented in **Chapter 9** and **Technical Appendix 9.3** of the EIA Report that accompanied application 24/01404/FUL (2024 EIA Report).
- 1.2 All the information contained in the EIA Reports and Technical Appendices remains valid for this SEI Report in terms of existing site conditions, assessment methodology and significance of effects unless otherwise stated.
- 1.3 Planning consent was granted by The Highland Council (THC) for the Ben Sca Wind Farm and the Ben Sca Wind Farm Extension (together referred to as the consented development), which included conditioned noise limits at nearby noise sensitive receptors (NSRs).
- 1.4 The purpose of this SEI Technical Appendix is to detail the design alterations, changes in the cumulative wind turbine situation and the influence these have had on nearby NSRs.
- 1.5 All of the earlier noise assessments reported that no significant effects were anticipated for any receptors in relation to construction noise, operational noise and cumulative operational noise. The revised layout of the Proposed Development is considered to improve upon the application design in terms of impacts of noise immissions on NSRs.
- 1.6 This SEI Chapter has been undertaken by Bow Acoustics, the same author of the previous noise assessments for consented development and Ben Sca Redesign Wind Farm.

Consultee Responses to EIA Report

- 1.7 **Table 1** provides a summary of the issues raised in relation to the application, with SEI responses and appropriate SEI documentation references, for further information.

Table 1: Consultee Responses

Consultee	Summary of Key Issues	Responses to Comments
The Highland Council – Environmental Health	No objection - standard wind farm conditions restricting the noise levels to the agreed limits apply.	Noted

Design Amendments

- 1.8 The following amendment to the design has been considered with respect to noise:

- Removal of turbine 1 (T1)¹ and associated foundation and crane hardstanding.

Revised Figures

- 1.9 **Figure 13.1** of the EIA Report illustrated the turbine layout for the Proposed Development, which has been revised as part of the SEI process. Therefore, **EIA Figure 9.3.1** has been updated to reflect the removal of T1 and is presented as **SEI Figure 9.3.1**.

Assessment of Design Amendment Effects

- 1.10 The Proposed Development would not introduce any amendment to the methods employed to construct the wind farm that would materially change the construction noise assessments previously undertaken. Therefore, an additional construction noise assessment has not been undertaken.
- 1.11 Operational noise limits have already been determined for the Proposed Development which account for existing levels of background noise. These limits are the logarithmic sum of the consented noise limits for Ben Sca² and Ben Sca Extension³, as summarised in the 2024 EIA Report and in **Table 2**, which apply 24 hours a day, 7 days a week.
- 1.12 **Table 2** shows the site-specific noise limits as summarised in the 2024 EIA Report, the updated predicted wind turbine noise levels (L_{A90}) due to the operation of the revised layout of the Proposed Development and the exceedance level. **Table 2** is an update of **Table 5** found in **Technical Appendix 9.3** of the 2024 EIA Report. Note that the values in **Table 2** are rounded to the nearest whole number, and that the calculations have been carried out to one decimal place.

Table 2: Site Specific Assessment – Applicable 24-hours per Day

NSR ID	Detail	Noise Level, dB L_{A90} , Standardised Integer Wind Speed, m/s								
		4	5	6	7	8	9	10	11	12
NSR1	Site specific noise limit	30	31	32	34	34	34	34	34	34
	Proposed Development wind turbine immission	22	27	31	32	32	32	32	32	32
	Margin	-9	-4	-1	-2	-2	-3	-3	-3	-3
NSR2	Site specific noise limit	30	30	31	32	32	32	32	32	32
	Proposed Development wind turbine immission	20	25	30	30	30	30	30	30	30
	Margin	-10	-5	-2	-1	-2	-2	-2	-2	-2
NSR3	Site specific noise limit	30	30	31	31	31	31	31	31	31
	Proposed Development wind turbine immission	20	25	29	30	30	30	30	30	30

¹ Turbine numbering from the application has been retained to avoid any confusion

² 20/00013/FUL Planning Condition 29

³ 21/05767 Planning Condition 25

NSR ID	Detail	Noise Level, dB L _{A90} , Standardised Integer Wind Speed, m/s								
		4	5	6	7	8	9	10	11	12
	Margin	-10	-5	-1	-1	-1	-1	-1	-1	-1

1.13 The NSR locations are provided in **Table 3**.

Table 3: Noise Sensitive Receptors

NSR ID	Name	Easting	Northing
NSR1	Upperghlen	131978	851178
NSR2	Coishletter Woodlands	133696	851068
NSR3	Blackhill	134519	850404

1.14 It can be seen in **Table 2** that wind turbine noise levels from the revised layout of the Proposed Development remain below the site-specific noise limit. The revised layout therefore improves upon the application layout in terms of impacts of noise immissions on NSRs.

Cumulative Development Update

Cumulative Effects

- 1.15 The cumulative effects which would result should the Proposed Development be constructed alongside the proposed Balmeanach Wind Farm, are discussed in full in **Volume 5** of this SEI Report.
- 1.16 As set out in the 2024 EIA Report, the Proposed Development would operate within the combined consented noise limits of the two consented developments it would replace: Ben Sca Wind Farm and Ben Sca Wind Farm Extension. Therefore, the Proposed Development will not alter the impacts previously assessed. Any alterations in the cumulative situation since the planning consents is the responsibility of the subsequent applicants to include in their cumulative noise impact assessment. Therefore, a cumulative noise assessment is not required.
- 1.17 The above approach to scope out a cumulative noise assessment was discussed and agreed during consultation with THC Environmental Health Officer (EHO) as part of the 2024 EIA Report, on the basis that the combined consented noise limit is not exceeded and compliance does not rely upon the turbines operating in noise reduced modes.

Summary of Changes to the Significance of Effects

- 1.18 The residual effects of the revised layout of the Proposed Development are sustained as previously reported, with no significant adverse effects predicted for nearby NSRs.

Conclusions

- 1.19 The revised layout of the Proposed Development reduces noise operational impacts at nearby NSRs from those reported in the EIA Report (the application layout) and also result in no significant adverse effects. The revised layout therefore improves upon the application layout in terms of impacts of noise immissions on NSRs.