Additional Information Report

Volume 1: Main Report

August 2025

RAMBOLL

ESB Energy for generations

Volume 1: Main Report

5 Hydrology and Hydrogeology

6 Geology and Soils

7 Noise

1 Introduction

1.1 Background

1.1.1 In January 2025, ESB Asset Development UK Limited ('the Applicant') submitted an application for consent (including deemed planning permission) under Section 36 of the Electricity Act 1989 to Scottish Ministers to construct and operate a wind farm and associated infrastructure with a generation capacity of greater than 50 megawatts (MW), referred to as West Torrisdale Wind Farm, located approximately 4km southwest of Carradale, in Argyll and Bute, Scotland.

1.1.2 The application (ECU reference: ECU00002224) ('the application') comprised of up to 9 wind turbines with a maximum blade tip height of up to 149.9 metres (m), a Battery Energy Storage System (BESS) of up to 20 MW of energy storage, and associated infrastructure, with generation capacity of greater than 50 megawatts (MW) ('the Proposed Development'). The application was accompanied by an Environmental Impact Assessment (EIA) Report (hereafter referred to as 'the EIAR') which was prepared in accordance with The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended) (herein referred to as the 'EIA Regulations'). The EIAR was prepared to meet the requirements of Schedule 4 of the EIA Regulations and the Institute of Environmental Management and Assessment (IEMA) Quality Mark Criteria[1].

1.2 Purpose of this Additional Information

1.2.1 Regulation 19 of the EIA Regulations makes provision for the preparation of Additional Information (AI) where further work has been done to address additional information requested by the Scottish Ministers (which may also be done on behalf of statutory consultees).

1.2.2 This Additional Information Report (AI Report) has been prepared to address information requests from consultees during the statutory application consultation period. A summary of the consultation responses to application ECU00002224 and the Applicant's response is included within each technical chapter of this AI Report.

1.2.3 It is intended that this AI Report is read in conjunction with the EIAR, and together both documents ensure all relevant information is available to Scottish Ministers and consultees when considering the application.

1.2.4 Unless otherwise stated in this AI Report, the content of the EIAR remains valid.

1.2.5 On 13th February 2025, Highlands and Islands Airports Ltd (HIAL) submitted a holding objection concerning the potential impacts of the Proposed Development on the safeguarding criteria and operation of Campbeltown Airport. HIAL has requested an Aviation Impact Feasibility Study be undertaken, including an Instrument Fight Procedures (IFP) assessment. An IFP assessment has been commissioned and is expected to be available in early 2026 and therefore cannot be included in this AI Report.

[1] ISEP (2025) EIA Quality Mark. Available at: https://www.isepglobal.org/corporate-programmes/eia-quality-mark [Accessed 24/7/2025].

1.3 Other Planning Documents

1.3.1 An updated standalone Planning Statement is also submitted alongside this AI Report to detail energy policy and legislative framework updates particularly in relation to the Seventh Carbon Budget (2025), The Climate Change (Emission Reduction Targets) (Scotland) Act 2024 and The Climate Change Committee Report on Scotland's Carbon Budgets (2025).

1.4 The Additional Information Process and Presentation

1.1.1 This AI Report comprises three volumes:

- AI Volume 1: Main Report:
  - Chapter 1: Introduction;
  - Chapter 2: Seascape, Landscape and Visual;
  - Chapter 3: Ecology;
  - Chapter 4: Ornithology;
  - Chapter 5: Hydrology and Hydrogeology;
  - Chapter 6: Geology and Soils; and
  - Chapter 7: Noise.
- AI Volume 2a: Figures;
- AI Volume 2b: Visualisations; and
- AI Volume 3: Technical Appendices.

1.5 Statement of Competence

1.5.1 The information presented in this AI Report has been prepared by the same team of competent experts involved in the production of the EIAR. The information contained is considered to be substantive information for the purposes of the EIA Regulations. It will therefore be published and publicly advertised as additional information in terms of Regulation 20 of the EIA Regulations and as outlined below. This will open a further round of consultation on the application whereby comments will be sought from consultees and members of the public.

1.6 Copies of the Additional Information

1.6.1 This AI Report lodged in support of the application will be available for viewing on the Scottish Government portal at www.energyconsents.scot. An application website is available to view at https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00002224.

1.6.2 This AI Report will be advertised as follows:

- on the Applicant's website (https://www.esbenergy.co.uk/our-story-in-britain/about/our-story-in-britain/west-torrisdale-wind-farm);
- once in the Campbeltown Courier and Argyllshire Advertiser; and
- once in the Edinburgh Gazette.

1.6.3 This AI Report will be made available for viewing at:

- Blackbird Tearoom, Carradale, Campbeltown, PA28 6QG; and
- Carradale Village Hall, Carradale, Campbeltown, PA28 6SB.

1.7 Commenting on the Additional Information

1.7.1 Any representations in relation to this AI Report can be submitted via the Energy Consents Unit website at www.energyconsents.scot/Register.aspx; by email to The Scottish Government, Energy Consents Unit mailbox at representations@gov.scot or by post, to The Scottish Government, Energy Consents Unit, 4th Floor, 5 Atlantic Quay, 150 Broomielaw, Glasgow, G2 8LU, identifying the proposal and specifying the grounds of representation.

1.7.2 Written or emailed representations should be dated, clearly stating the name (in block capitals), full return email and postal address of those making representations. Only representations sent by email to representations@gov.scot will receive acknowledgement.

1.7.3 All representations should be received not later than the date falling 30 days from the date of the last published notice, although Ministers may consider representations received after this date. Any subsequent additional information which is submitted by the Applicant will be subject to further public notice in this manner, and representations to such information will be accepted as per this notice.

1.7.4 This AI Report is available in other formats if required. For details including costs contact: westtorrisdale@esb.ie.

2 Seascape, Landscape and Visual

2.1 Introduction

2.1.1 This Chapter of the Additional Information (AI) Report addresses key concerns and requirements communicated by consultees in respect of landscape and visual effects of the Proposed Development and provides relevant additional information and explanation. A summary of relevant consultee representations is provided in **Table 2.1**, below.

2.1.2 The additional information is addressed in the form of a number of key themes, comprising:

- An updated cumulative context that supersedes that considered in the EIA Report.
- The siting and design of the Proposed Development, including consideration of the Proposed Development in the context of an updated development pattern.
- Effects on the Special Qualities and Integrity of the North Arran National Scenic Area (NSA).
- Effects on the North Arran Wild Land Area (WLA).
- Effects on the East Kintyre Area of Panoramic Quality (APQ); and
- Effects on Residential Visual Amenity.

2.1.3 Where relevant, references are made to previously submitted information and documents, as well as new figures and visualisations.

2.1.4 This Chapter is supported by the following additional figures and technical appendices:

- **AI Volume 2a - Figures**:
  - **Figure 2.1: Updated Cumulative Context**; and
  - **Figure 2.2: Emergent Pattern of Development.**
- **AI Volume 2b - Visualisations**:
  - **Figures 2.3a** to **2.24d**: Visualisations which contain an updated cumulative context since the previous visualisations submitted in January of 2025.
  - **Figures 2.25a, 2.26a** and **2.27**: which contain Residential Visual Amenity Visualisations for Properties subject to significant visual effects.
- **AI Volume 3 - Technical Appendices**:
  - **Technical Appendix 2.1: North Arran National Scenic Area**.

2.2 Consultee Responses

2.2.1 **Table 2.1** summarises relevant post submission consultation responses and provides information on where and/or how they have been addressed within this assessment.

Table 2.1: Post Submission Consultation Responses

Consultee and Date	Consultee Response	Response
NatureScot, 24th February 2025, and 1st May 2025	Whilst NatureScot did not object to the Proposed Development, they requested that the assessment be updated to comply with the recently published Special Landscape Qualities - Guidance on assessing effects (published in January 2025) and that a total of	**National Scenic Area** A detailed assessment of effects in accord with NatureScot's requirements, including an assessment of effects on the special qualities and integrity of the NSA is provided in **Technical Appendix 2.1, AI Volume 3** and is accompanied by:

	9 additional viewpoints be considered in the assessment. Subsequently, in NatureScot's consultation response of the 1st May 2025 they outlined specific requirements for the NSA assessment that included: ▪ A description of characteristics that underpin the special landscape qualities (SLQ) of North Arran be provided. ▪ A description of likely effects that the Proposed Development would have on how receptors in different parts of North Arran perceive and experience SLQs. ▪ Sub-division of the NSA, with each area considered in turn. ▪ Effects are considered on the NSA as a whole. NatureScot's response (dated 1st May 2025) also requested that *"all visualisations should be amended to reflect current planning status as confirmed by the Local Authority. For example, Deucheran 2, Coalashee, Allt Domhain and High Dalrioch are at scoping stage (not application stage as indicated on the wirelines); Killean 2 is at application stage (not scoping stage) while Clachaig Glen 2 is consented (not scoping stage); Cnoc Buidhe was at scoping stage and is now at application stage."*	▪ **Figure 2.1.1: Tip Height ZTV – North Arran NSA, AI Volume 3,** ▪ **Figures 2.1.2a** to **2.1.10f, AI Volume 3**, which contains visualisations and cumulative wirelines for each of the NSA assessment viewpoints. **Cumulative Context** **Table 2.2** provides an updated cumulative context. **Figure 2.1, AI Volume 2a** comprises a plan showing the location and status of all the wind farms contained in **Table 2.2** and **Figures 2.3a** to **2.24d, AI Volume 2b** contains updated cumulative wirelines for all SLVIA viewpoints**.**
Argyll and Bute Council (ABC), 2nd April 2025	ABC, in their consultation response, state that: *"The RVAA provided has not followed the Landscape Institute Technical Guidance. Visualisations are required at Step 4 to aid judgement of properties which have been found to have significant effects, and these have not been provided within the RVAA figures, thus making the final conclusions of the RVAA assessment impossible to check or review."*	**Section 2.8** of this chapter addresses ABC's concerns regarding the RVAA provided in the EIAR and is accompanied by wireline images for the three properties considered likely to experience significant visual effects (**Figures 2.25a** to **2.27a, AI Volume 2b**).
East Kintyre Community Council (EKCC), 20th January 2025	EKCC objected to the Proposed Development and cited the following matters: ▪ The siting and design of the Proposed Development. ▪ Inconsistency with Argyll and Bute Council's Landscape Wind Energy Capacity Study (ABLWECS). ▪ Effects on the East Kintyre Area of Panoramic quality. ▪ Effects on the visual amenity and character of the east Kintyre area. ▪ Effects on the North Arran National Scenic Area (particularly at Machrie Moor).	These matters are addressed in the following sections of this chapter: ▪ **Section 2.4**: Siting and Design of the Proposed Development. ▪ **Section 2.7**: Effects on the East Kintyre (Coast) APQ. ▪ **Section 2.5**: Effects on the Special Qualities and Integrity of the North Arran National Scenic Area

2.3 Updated Cumulative Context

2.3.1 NatureScot, in their consultation response, dated 1st May 2025, requested that *"all visualisations should be amended to reflect current planning status as confirmed by the Local Authority. For example, Deucheran 2, Coalashee, Allt Domhain and High Dalrioch are at scoping stage (not application stage as indicated on the wirelines); Killean 2 is at application stage (not scoping stage) while Clachaig Glen 2 is consented (not scoping stage); Cnoc Buidhe was at scoping stage and is now at application stage."*

2.3.2 It should be noted, however, that the High Dalrioch scheme has been abandoned by SSE (the Developer), as confirmed on their website[1]. Additionally, Allt Domhain Wind Farm is now in planning and Coalashee Wind Farm has been withdrawn.

2.3.3 On 10th June 2025 a scoping report was submitted to the ECU for a variation to Tangy IV, however, this variation has not been included in the updated cumulative assessment, as the consented development provides a more certain basis against which to assess cumulative impacts.

2.3.4 The majority of these changes were previously captured in the cumulative plan in Figure 4.8, Volume 3a of the EIAR and in wirelines in the visualisations in Figures 4.9a to 4.30e, Volume 3b of the EIAR. The cumulative wirelines in **Figures 2.3a** to **2.24d, AI Volume 2b** comprise a final updated cumulative context reflecting known changes at the date of this additional information. **Table 2.2**, below, sets out the finalised list of cumulative developments utilised in the preparation of the additional information and **Figure 2.1, AI Volume 2a** shows the location of each development.

2.3.5 Having reviewed the cumulative changes identified since the EIAR, no material alterations to the cumulative effects predicted in the EIAR are expected.

Table 2.2: Cumulative Context (at 19th July 2025)

Wind Farm Name	Status	Maximum Blade Tip Height (m)	No. of Turbines
Airigh Wind Farm	Consented	149.5	14
Allt Dearg Community Wind Farm	Operational	81	12
Allt Domhain Wind Farm	In-planning	230	9
Auchadaduie Wind Farm	Operational	100	3
Beinn an Tuirc Wind Farm	Operational	63.5	45
Beinn an Tuirc Wind Farm Extension ('Phase 2')	Operational	100	19
Beinn an Tuirc Wind Farm Phase 3	Operational	125	14
Breackerie Wind Farm	In-planning	200	13
Blary Hill Wind Farm	Operational	110	14
Clachaig Glen Wind Farm S36c Variation	Consented	200	12
Cnoc Breacam Wind Farm	In-scoping	149.9	18
Cnoc Buidhe Wind Energy Hub	In-planning	200	29

[1] https://www.sserenewables.com/onshore-wind/in-development/high-dalrioch/

Table 2.2: Cumulative Context (at 19th July 2025)			
Wind Farm Name	**Status**	**Maximum Blade Tip Height (m)**	**No. of Turbines**
Cour Wind Farm	Operational	111.25	10
Deucheran Hill Wind Farm	Operational	93	9
Deucheran Hill 2 Wind Farm	In-scoping	220	23
Eascairt Wind Farm	Consented	100	13
Freasdail Wind Farm	Operational	100	11
High Constellation Wind Farm	Consented	149.9	10
Islay Community Wind Turbine	Operational	61	1
Isle of Gigha Wind Farm	Operational	45	3
Isle of Gigha Wind Farm Extension	Operational	53.5	1
Killean Wind Farm (Killean 2)	In-planning	180	9
Rowan Wind Farm (formerly Kilberry Wind Farm)	Consented	200	13
Srondoire Community Wind Farm	Operational	100	3
Tangy Wind Farm 4[2]	Consented	149.9	16

2.4 Siting and Design of the Proposed Development

Location and Design

2.4.1 A key facet of the mitigation of the type of development proposed is location and design.

2.4.2 Argyll and Bute Council (ABC) in their response of 2nd April 2025 states that the Proposed Development:

"Does not comply with guidance provided in (Argyll and Bute Landscape Wind Energy Capacity Study) ABLWECS, particularly on the height of the proposed turbines and the need to also avoid introducing significant areas of new visibility and intrusion into the sensitive Carradale/Saddell area on the east coast of Kintyre."

2.4.3 However, it is important to note that NatureScot, in their online guidance in respect of sensitivity studies (2022)[3], states that such sensitivity assessments are primarily intended to steer development towards better locations and inform proposals. NatureScot caution that:

"They should never be used in isolation to determine the acceptability of a development type in landscape terms. They do not replace the need for individual LVIAs and/or Environmental Assessments for individual proposals."

2.4.4 Importantly, NatureScot go on to clarify that:

"A finding of 'high' sensitivity does not necessarily mean that there is no ability to accommodate development and 'low' sensitivity does not necessarily mean that there is definitely potential for development. Sensitivity studies are an additional piece of information

[2] For the purpose of the AI, Tangy I to III turbines are assumed removed to provide for erection of Tangy IV array.

[3] Available at https://www.nature.scot/sites/default/files/2022-05/Landscape%20Sensitivity%20Assessment%20Guidance%20%28Methodology%29.pdf (last accessed July 2025).

for some development types: for wind farms, for example, they sit alongside NatureScot (then SNH) guidance on Spatial Planning for Onshore wind farms."

2.4.5 It is also the case that the ABLWECS is significantly out of date and does not reflect the current cumulative context. Consequently, the SLVIA contained in Chapter 4, Volume 2 of the EIAR and the additional information in this chapter of the AI Report are considered to provide a more reliable representation of the current cumulative context and should therefore be afforded the appropriate weight.

2.4.6 In relation to ABC's concern regarding the issue of additional areas of visibility of wind energy development, it is impracticable to avoid localised examples of increased visibility or increased wind farm influence, such as those identified in respect of the Proposed Development. It is also the case that localised significant effects (i.e. of limited geographical extent, affect a modest proportion of character areas, and/or affect limited number of receptors) are to be considered acceptable for the type of development proposed, as acknowledged in Policy 11 of National Planning Framework (NPF) 4[4]. This is illustrated in the case of the Achany Extension Wind Farm Section 36 decision, the Scottish Ministers' (page 14 of the decision) referred to the conclusions of the LVIA in that case, which was that the development would result in:

"A limited number of localised significant effects on landscape character and visual amenity affecting relatively localised parts of the landscape and visual resource up to 10 km and locally to 12.5 km from the proposed development."

2.4.7 The site selection and iterative design process is described in Chapter 3, Volume 2 of the EIAR and the design priorities adopted in respect of minimising landscape and visual effects are set out in Table 3.1, Chapter 3 and Sections 4.5, Chapter 4, Volume 2 of the EIAR. The design process took influence from NatureScot's 2017 guidance on siting and designing wind farms in the landscape (Version 3a)[5] and the ABLWECS[6].

2.4.8 Concerns raised by East Kintyre Community Council (EKCC) in respect of the Proposed Development's siting and design are considered an overstatement of the effects reported in the EIAR. Specifically, EKCC state that the Proposed Development is *"unlike all the others to date in that:*

- *The windfarm doesn't sit in the hidden flanks of the internal valleys of the Kintyre spine but rather on the eastern slopes of the highest hill which overlooks the majority of the East Kintyre APQ and scheduled sites.*
- *That the developer's own ZTV's clearly show that the whole windfarm will be visible and dominate the view from the Carradale[7] APQ, completely changing its character. Yet they make no recognition of the APQ or its impact.*
- *That the developer's own ZTV's clearly show that the whole windfarm will be visible and dominate the view from the 3 Scheduled Monuments in and around Carradale (namely Airds Castle, Port Righ Strip earthworks & Carradale Fort), completely destroying not just a wonderful sense of history, but also the sense of isolation as visitors take in the sea/landscapes that literally surround them.*

[4] NPF4. URL: https://www.gov.scot/publications/national-planning-framework-4/ (last accessed July 2025).

[5] Available at https://www.nature.scot/doc/siting-and-designing-wind-farms-landscape-version-3a (last accessed July 2025).

[6] Available at https://www.argyll-bute.gov.uk/planning-and-building/planning-policy/landscape-wind-energy-capacity-study (last accessed July 2025).

[7] It is assumed that the correct name for the APQ is the East Kintyre APQ rather than Carradale APQ.

- *That the developer's own ZTV's clearly show that the windfarm will be visible and dominate the view from the Scheduled Monument and Listed Building at Saddell, again destroying the sense of history and landscape.*
- *That the developer's own ZTV's clearly show that the whole windfarm will be visible dominate the view from Carradale golf course.*
- *And whilst it isn't within East Kintyre, we note that the developer's own ZTV's clearly show that the whole windfarm will be visible & dominate the view from the Scheduled Monuments at Machrie Moor, completely destroying not just the sense of timelessness that these historic Standing Stone rings imbue, but also the sense of isolation that surrounds them."*

2.4.9 Matters pertaining to effects on the setting of scheduled monuments listed in EKCC bullet point 3, above, are addressed in Chapter 5, Volume 2 of the EIAR.

2.4.10 In respect of the EKCC's first point, **Figure 2.2, AI Volume 2a** shows few valleys within the interior of the peninsula. The only valleys in the vicinity of the spine (which is taken to mean a central ridge on the peninsula) being those associated with Glen Lussa, Lussa Loch, Saddell Glen, Barr Glen and Carradale Water. Such incised valley landscapes have a high sensitivity to the type of development proposed due to their smaller scale and prominent skylines. The sensitivity of these valleys has been acknowledged in ABC's ABLWECS and were deemed as deserving protection in the appeal for Freasdail Wind Farm and public local inquires for Creggan and Blary Hill wind farms. Notwithstanding such sensitivities, both Blary Hill Wind Farm and Freasdail Wind Farm were consented and are now operational, demonstrating the acceptability of development.

2.4.11 It is also the case that, far from being what EKCC claims to be "unprecedented", the Proposed Development reflects the emergent pattern of development on the peninsula that is diverse and does not solely focus on the 'spine' of the peninsula, as illustrated in **Figure 2.2, AI Volume 2a**

2.4.12 Examples of developments that deviate from the 'spine' include:

- The operational Beinn an Tuirc Phase 3 which occupies an elevated position northeast of Sgreaden Hill, east of the 'spine' from where it is visible from the upper reaches of Hidden Valley of Saddell Glen and the East Kintyre (Coast) APQ.
- The operational Blary Hill and Auchadaduie turbines that occupy prominent skyline positions above Glenbarr, west of the 'spine' and which are prominent in views from the Rocky Mosaic landscape type and the West Kintyre (Coast) APQ.
- The operational Freasdail Wind Farm which is located at the northern extents of the peninsula on a prominent hill above the incised valley that contains the B8001 route to Claonaig which fames views towards the Arran Mountains.
- The operational Cour Wind Farm, the turbines of which are visible from Carradale's Hidden Valley and Carradale Village, as well as the East Kintyre APQ. Cour is also prominent in views across the Kilbrannan Sound from north Arran (note: It is closer to the North Arran NSA than the Proposed Development).
- The consented Eascairt Wind Farm which occupies an area of undulating moorland on the eastern side of the peninsula and forms a prominent feature on the skyline above the sensitive Rocky Mosaic landscape in the vicinity of Claonaig.

- The consented Clachaig Glen S36c Variation Wind Farm that would occupy land to the west of Chruach Mhic an' t -Saoir, west of the 'spine' and which will be prominent in views from Gigha.
- The consented Tangy 4 Wind Farm, which occupies an especially prominent position on the edge of the peninsula above Machrihanish Bay.

2.4.13 In respect of existing and consented turbines size, the pattern of development comprises turbines of tip heights between 63.5 m and 200 m. The Proposed Development turbines are consistent with this range, and this has been an important design consideration for the Proposed Development.

2.4.14 The layout of the Proposed Development, as shown on in Figure 3.3, Volume 3a of the EIAR, is positioned on the upper eastern flank of the Beinn an Tuirc hill at elevations of between 228 m AOD at the easternmost side of the array and 347 m AOD at its westernmost extent. Higher summits are present at Torr a' Ghobhainn, immediately east of the array, which, when coupled with the rolling topography and structural vegetation on the eastern side of the peninsula, provides screening from parts of the B842 by Carradale. The Proposed Development is also enclosed to the south, west and north by elevated topography including the summits of Meall Donn and Clach a' Bhealaich (347 m AOD and 397 m AOD, respectively), Beinn an Tuirc (454 m AOD), Bord Mor and Cnocmalavaich (406 m AOD and 271m AOD) that limits the viewshed of the Proposed Development from much of the low lying coastal fringe on the eastern side of the peninsula, where key receptors, including the East Kintyre Coast APQ, are concentrated, as illustrated in the Zone of Theoretical Visibility in Figures 4.3a and 4.4b of Volume 3a of the EIAR.

2.4.15 Where theoretical visibility is indicated at receptor locations along the sensitive eastern coast of the Kintyre peninsula, a cross reference to relevant visualisations such as those for Viewpoints 1 at Torrisdale Bay (**Figures 2.3a to 2.3d, AI Volume 2b**), Viewpoint 7 at Torrisdale Castle (**Figures 2.9a to 2.9d, AI Volume 2b**), Viewpoint 8: B879, Millennium Bench, Carradale (**Figures 2.10a to 2.10d, AI Volume 2b**), Viewpoint 9: B879, Saddell (**Figures 2.11a to 2.11d, AI Volume 2b**) illustrates the degree of screening provided by a combination of intervening topography and vegetation and speaks to the efficacy of the siting and design of the Proposed Development. This contradicts the assertions of EKCC regarding the extent of the Proposed Development's visibility and effect on the APQ. Whilst it is acknowledged that some of the clearest views of the Proposed Development would be experienced from Carradale Golf Course and Carradale Point, such localised effects are not unusual for the type of development proposed and are not considered to be "unprecedented" even in the context of Carradale where the operational turbines of Cour Wind Farm are clearly visible from the village. **Section 2.7** below contains a detailed updated assessment of effects on the APQ.

2.5 Effects on the Special Qualities and Integrity of the North Arran National Scenic Area

2.5.1 Technical Appendix 4.2, Volume 4 of the EIAR contains a description of the special landscape qualities of the North Arran NSA based on NatureScot's description of the special landscape qualities of National Scenic Areas[8] and contains the original assessment of effects on the NSA.

[8] SNH (2010). The special qualities of the National Scenic Areas. SNH Commissioned Report No.374 (last accessed in July 2025)

ABC, in Section 6 of their review of the SLVIA[9] broadly agree with the findings and consider that effects on the North Arran NSA character and special qualities would not be significant.

2.5.2 The assessment in the EIAR was undertaken prior to the recently published NatureScot's guidance regarding the assessment of effects on the special landscape qualities of NSAs[10]. At the request of NatureScot an updated assessment has been produced that complies with this new guidance. This is set out in **Technical Appendix 2.1, AI Volume 3**.

2.5.3 The updated assessment also addresses additional viewpoints requested by NatureScot that fall within the NSA boundary (see **Figure 2.1.1**, **Technical Appendix 2.1, AI Volume 3)**. The view from each of these additional viewpoints is illustrated in the **Figures 2.1.2a - 2.1.10f, Technical Appendix 2.1, AI Volume 3**. In keeping with the findings of the original assessment of effects on the NSA the updated assessment concludes that there would be no significant effects on the special qualities of the NSA and, consequently, the integrity of the NSA would not be significantly affected.

2.6 Effects on the North Arran Wild Land Area

2.6.1 Technical Appendix 4.5, Volume 4a of the EIAR contains a Wild Land Impact Assessment (WLIA) in respect of effects on the North Arran Wild Land Area (WLA) in accordance with NatureScot's 2020 guidance[11]. That assessment concluded that *"no significant effects would be wrought on the key wild land characteristics. Consequently, there would be no significant effects on the integrity of the WLA."* ABC, Section 7 of their review of the SLVIA[12] indicate their general agreement with this conclusion.

2.6.2 It should, in any event, be noted that since completion of the WLIA in November 2024 a revised version of the guidance has been published, which states that *"this guidance should only be applied to proposals whose nature, siting, scale or design are likely to result in a significant effect on the qualities of a WLA. Given this, assessments are more likely for proposals within a WLA and are less likely for proposals outwith the WLA."* This position accords with the provisions of Policy 4g of NPF4 which only requires WLIAs for developments that lay within WLAs and states that *"buffer zones around wild land will not be applied, and effects of development outwith wild land areas will not be a significant consideration*." The Proposed Development is located around 12 km from the Proposed Development and as such falls well outside the WLA.

2.7 Effects on the East Kintyre (Coast) Area of Panoramic Quality

Background

2.7.1 The location and extent of the East Kintyre (Coast) Area of Panoramic Quality (APQ) is indicated in Figure 4.5a, Volume 3a of the EIAR. Technical Appendix 4.2, Volume 4a of the EIAR contains a description of East Kintyre (Coast) APQ.

[9] ABC and Jacobs (April 2025) West Torrisdale Wind Farm Landscape and Visual Review (Document B2340303/02.

[10] Available at https://www.nature.scot/doc/special-landscape-qualities-guidance-assessing effects#:~:text=This%20guidance%20sets%20out%20how%20to%20assess%20effects,Loch%20Lomond%20and%20Trossachs%20National%20Park%20Authority%20%28LLTNPA%29. (last accessed 30th June 2025).

[11] Available at https://www.nature.scot/doc/assessing-impacts-wild-land-areas-technical-guidance (last accessed July 2025).

[12] ABC and Jacobs (April 2025) West Torrisdale Wind Farm Landscape and Visual Review (Document B2340303/02.

2.7.2 APQs were designated in the ABC's adopted Local Development Plan (LDP) (2015)[13]. These are areas of regional importance in terms of their landscape quality which were previously identified as 'Regional Scenic Areas' in the former Strathclyde Structure Plan of 1995.

2.7.3 ABC, in their Adopted Supplementary Guidance LDP ENV 13 - Development Impact on Areas of Panoramic Quality[14] states that:

"*The aim of this policy is to provide locally important landscapes in Argyll and Bute, with adequate protection against damaging development that would diminish their very high scenic value. The Council has identified Areas of Panoramic Quality, and these are shown on the main Proposals Maps. These APQs are important not only for their physical landforms and scenic value, but also for the environmental assets that they represent. These qualities could easily be destroyed or damaged by even a relatively small, insensitive development. They therefore must be protected.*"

Special Landscape Qualities

2.7.4 There is no published citation which describes the special qualities of the APQ despite the guidance provided in the contemporary Scottish Planning Policy (2014) paragraph 196, which states:

"Reasons for local designation should be clearly explained and their function and continuing relevance considered when preparing plans."

2.7.5 Moreover, ABC do not provide this information in their extant LDP or 2016 Supplementary Guidance, and their Landscape Wind Energy Capacity Study also provides no information about the APQs special qualities.

2.7.6 The original assessment of effects on the APQ contained in the EIAR addressed key characteristics of the APQ based on landscape character descriptions provided in Volume 1 of the Argyll and Bute Landscape Wind Energy Capacity Study [15]and are discussed below.

2.7.7 The APQ comprises a narrow irregular coastal area that follows the coast between Carradale and the Lower Smerby, north of Campbeltown Loch and is typified by a gently rolling landform with small woodlands, fields, and small settlements. This coastal edge forms an intricate band between the foreground to scenic views along the coast and across the Kilbrannan Sound to Arran. Arran, and particularly its mountains, forms a dramatic landmark in seaward views from a large proportion of the APQ.

2.7.8 The coast is often backed by steeply graded forested scarp slopes that controls views inland into the peninsula interior and which mark the transition to the neighbouring Upland Forest moor Mosaic landscape that covers much of the Kintyre peninsula. Despite the often-restricted extent of views inland, attractive connecting views inland are provided along incised hidden glens including the valley of Saddell Water (which is oriented to the northwest, away from the coast) and the valley of Carradale Water (which is also oriented to the northwest, but has a western spur at Rhonadale).

2.7.9 The key characteristics of this landscape that formed the basis of the assessment of effects on the APQ in the SLVIA comprise:

[13] Available at https://www.argyll-bute.gov.uk/planning-and-building/planning-policy/local-development-plan-2 (last accessed in August 2025).

[14] Available at https://www.argyll-bute.gov.uk/moderngov/documents/s134464/supplementary_guidance_adopted_march_2016_env_9_added_june_2016.pdf (last accessed August 2025).

[15] Available at https://www.argyll-bute.gov.uk/planning-and-building/planning-policy/landscape-wind-energy-capacity-study (last accessed August 2025).

- Uneven, hummocky landform with rocky outcrops and narrow glens. This characteristic is most apparent around the edges of Saddell Bay and Dippen Bay.
- Raised beaches, cliffs and distinctive rounded knolls, these features are present within Carradale Bay and northeast of Campbeltown.
- Rocky, indented coastline with offshore islands and small sandy bays, this includes area such as Thorn Isle, Seal Rock, Yellow Rock and Smeby Rocks.
- Relatively small-scale landscape with diverse mix of colours and textures. This feature is visible along the B842 road corridor, with the diverse mix of coniferous woodland and roadside vegetation. This mix of colours and textures varies throughout the year with the seasonal changes.
- Steep wooded cliffs and hummocky, gorse-covered slopes, this characteristic is present along the lower and upper slopes of Torr a' Chobhainn, Meall Donn and Cnoc malacilach, all of which are in close proximity to the Proposed Development.
- Relatively well-settled, with scattered isolated farm buildings and small villages in sheltered sites. This is most pronounced in the small settlement of Torrisdale and along the B842 road corridor, which routes throughout the APQ.
- A complex transitional landscape with other adjacent landscape types such as the Upland Forest Moor Mosaic forming a key backdrop to the view from the coastline.

2.7.10 Of these characteristics/qualities, the majority are unlikely to be affected by the Proposed Development as they are physical characteristics rather than perceptual or experiential. There is potential for effects on the perceived scale of the landscape and the scenic quality along the coast and up hidden valleys, however, the Proposed Development is unlikely to affect views across the Kilbrannan Sound towards Arran.

Assessment of Effects on Special Landscape Qualities and Integrity

2.7.11 In assessing the effects of the Proposed Development, the provisions of NPF4 are relevant. NPF4 Policy 4, Paragraph d deals with impacts on local landscape designations and applies a different policy approach to that within the former Scottish Planning Policy (SPP), stating that:

"Development proposals that affect a site designated as …a local landscape area in the LDP will only be supported where:

- *Development will not have significant adverse effects on the integrity of the area or the qualities for which it has been identified; or*
- *Any significant adverse effects on the integrity of the area are clearly outweighed by social, environmental, or economic benefits of at least local importance."*

2.7.12 In determining the effects of the Proposed Development on the integrity of the APQ it is first necessary to establish what integrity means. NatureScot's (2020) draft Note on the Legislative and Policy Framework for National Parks and National Scenic Areas provides a useful starting point and identifies two considerations:

- "*Objectives of the Designation: Which is taken to represent the general safeguard, conservation, and enhancement of the interests for which the area has been designated.*
- *(The) Overall integrity, which is taken to mean the wholeness of the area, the unity or soundness of the whole being unimpaired, recognising that the entire area of the designation is valued and adverse effects to part of it could be damage to the unity or soundness of the whole.*"

2.7.13 Paragraph 11 of NatureScot's draft Note states that:

"A significant effect on a special landscape quality or several qualities does not inevitably compromise the designation's objectives and/or integrity. Neither is any such compromise dependent on an extensive area or large number of special landscape qualities being significantly affected. Compromise requires consideration of the nature of the locations affected, their qualities, and contribution to the wider designation."

2.7.14 The Zones of Theoretical Visibility (ZTV) presented in Figure 4.5b, Volume 3a of the EIAR shows the extent of the Proposed Development's viewshed and consequently the likely extent of effects on the APQ. The ZTV shows a highly constrained viewshed for the Proposed Development, and even within this theoretical viewshed further constraint on the visibility of the Proposed Development would be caused by intervening topography and vegetation. Moreover, where visibility does occur a small number of turbines would be visible inland, away from coastal views and views towards the Arran Mountains that form crucial aspects of the experience of the APQ. Whilst viewpoints at the Carradale Golf Course and Carradale Point (as illustrated in **Figures 4.14a to 4.14f and 4.25a t 4.25f, in Volume 3b of the EIA Report**, respectively) would provide views of the upper towers and rotors of all nine of the Proposed Development's turbines, the Proposed Development would be seen to the west of these viewpoints, away from the dramatic coastal and seaward views.

2.7.15 ABC, in their response agree that "*there would be limited visibility of the wind farm from the East Kintyre APQ due to screening by landform and vegetation*," but they argue that "*the areas of the APQ from which there would be visibility to the turbines currently have no visibility of existing wind development. Important vistas from Saddell Abbey, Saddell Castle and House, Saddell Bay with the Anthony Gormley statue, Torrisdale Estate, Torrisdale Bay and Carradale Bay and Carradale Point would all have visibility introduced of the West Torrisdale turbines*."

2.7.16 However, it is a matter of fact that Saddell Abbey is outwith the APQ and Saddell Castle is substantially enclosed to the north, west and south by dense mature woodland. Of the other vantage points referenced by ABC, views of the Proposed Development from Torrisdale Bay and the Castle Estate would be substantially obscured by intervening topography and vegetation, as indicated at Viewpoint 1 (**Figures 2.3a to 2.3d, AI Volume 2b**). Similarly, with few exceptions, views from the majority of Dippen Bay would be substantially obscured. Whilst clearer views of the Proposed Development are provided from Carradale, such visibility is confined to open locations at Carradale Point (**Figures 2.8a to 2.8d, AI Volume 2b**) and on the Carradale Golf Course (**Figures 2.19a to 2.19d, AI Volume 2b**). As in the case of all views of the Proposed Development from the APQ, views from the relatively small number of viewpoints at Carradale would be away from the previously discussed dramatic coastal and seaward views that include the landmark summits of the Arran Mountains. Such highly scenic views are one of the principal special qualities of the APQ. On this basis, the only characteristic that would be adversely affected would be the scale and appearance of the scarp/hills that form a backdrop to views inland from these viewpoints.

2.7.17 Given the limited number of special qualities/characteristics, and extent of the APQ adversely affected by the Proposed Development, no significant overall effect on the integrity of the APQ was predicted in the EIAR.

2.8 Effects on Residential Visual Amenity

2.8.1 The Residential Visual Amenity Assessment (RVAA) is provided in Technical Appendix 4.4, Volume 4 of the EIAR and is accompanied by:

- Figure 4.4.1 (Technical Appendix 4.4, Volume 4 of the EIAR): RVAA Study Area, which shows a detailed ZTV and the position of properties within 3 km of the Proposed Development that would be subject to theoretical views of the turbines.
- Figures 4.4.2 to 4.4.17 (Technical Appendix 4.4, Volume 4 of the EIAR) contain of a series of detailed ZTVs and aerial photography images for each of the assessed properties.

2.8.2 ABC, in their consultation response of 2nd April 2025, and review of the SLVIA[16], state that:

"The RVAA provided has not followed the Landscape Institute Technical Guidance. Visualisations are required at Step 4 to aid judgement of properties which have been found to have significant effects, and these have not been provided within the RVAA figures, thus making the final conclusions of the RVAA assessment impossible to check or review."

2.8.3 The submitted RVAA is broadly based on the Landscape Institute Technical Guidance[17] in that it comprises:

- A clear and transparent methodology, including details of how impacts in the residential visual amenity of properties have been determined (see Section 1.3 of Technical Appendix 4.4, Volume 4 of the EIAR).
- Stage One: The establishment of the RVAA scope (set out in paragraphs 1.4.1, Section 1.4 of Technical Appendix 4.4, Volume 4 of the EIAR).
- Details of the survey and analysis of properties (referenced in paragraph 1.4.3 in Section 1.4 and detailed in Table 4.4.2 of Technical Appendix 4.4, Volume 4 of the EIAR).
- Stage Three: A summary of the assessment of impacts on the visual amenity of properties (referenced in paragraphs 1.4.4 and 1.4.5, with detailed descriptions provide in Table 4.4.2 of Technical Appendix 4.4, Volume 4 of the EIAR) based on a number of key criteria that are set out in the methodology.

2.8.4 It is acknowledged, however, that a fourth and final step is not presented in the RVAA (Technical Appendix 4.4, Volume 4 of the EIAR), that of the final analysis of whether the Residential Visual Amenity Threshold (RVAT) may be breached.

2.8.5 In defining the key aspects that contribute to a potential breach of the RVAT, the following terms are in commonplace usage in RVAAs and are addressed in the SLVIA in the EIAR:

- Overbearing: Tending to overwhelm. Of such scale and dominance relative to the residential environment and views that the development can be said to be represent a significant detractor from views and the character of the environment of the property.
- Overwhelming: Impacts are of such scale and dominance relative to the residential environment and views that the development can be said to be 'overpowering and/ or oppressive'. Such effects are pervasive and largely unavoidable in main views and main/ principal locations in the property.
- Oppressive: Effects may be considered intolerable or of such an extent that they result in a sense of ill-ease and discomfort.
- Pervasive: Effects are ubiquitous or experienced widely throughout the property and associated accesses.

2.8.6 For the RVAT to be breached one or more of these criteria need to apply. It is generally the case that more than one of the criteria will apply, such as overbearing effects that occur in

[16] ABC and Jacobs (April 2025) West Torrisdale Wind Farm Landscape and Visual Review (Document B2340303/02).

[17] Available at https://www.landscapeinstitute.org/technical-resource/rvaa/ (last accessed in July 2025).added

combination with overwhelming effects, where effects are also pervasive, it is possible that effects may be oppressive.

2.8.7 **Table 2.3** above includes a summary of impacts and provides the final piece of analysis for the RVAA. Cross reference should be made to Technical Appendix 4.4 and Figures 4.4.2 to 4.4.17, Volume 4 of the EIAR for Stages 1 -3 of the RVAA.

2.8.8 According to the RVAA significant levels of visual impact include Moderate, Moderate/High, and High levels of impact based on the criteria set out in Table 4.4.1, Technical Appendix 4.4, Volume 4 of the EIAR. This level of impact is predicted at the following properties:

- RVA 13 – Rubha Darach - the location of which is shown in Figure 4.4.15, Technical Appendix 4.4, Volume 4 of the EIAR and the appearance of the Proposed Development is depicted in the wireline image in **Figure 2.25a, AI Volume 2b**
- RVA 14 – Glen Croft - the location of which is shown in Figure 4.4.16, Technical Appendix 4.4, Volume 4 of the EIAR and the appearance of the Proposed Development is depicted in the wireline image in **Figure 2.26a, AI Volume 2b**
- RVA 15 – Glen Head - the location of which is shown in Figure 4.4.17, Technical Appendix 4.4, Volume 4 of the EIAR and the appearance of the Proposed Development is depicted in the wireline image in **Figure 2.27a, AI Volume 2b**

2.8.9 However, for the reasons stated in Table 4.4.2, Technical Appendix 4.4, Volume 4 of the EIAR, none of these properties is expected to experience Overbearing, Overwhelming, Oppressive or Pervasive effects. Consequently, the impacts experienced at these properties would not exceed the RVAT and the previous conclusions drawn in the EIAR remain the same.

Table 2.3: Summary of Effects on Residential Visual Amenity			
Property Reference	**Distance and Direction from the Proposed Development[18]**	**Visual Effect**	**Exceeds the Residential Visual Amenity Threshold (Y/N)**
RVA01 – Cnoc na Riabhach (Location shown in Figure 4.4.2, Technical Appendix 4.4, Volume 4 of the EIAR).	Located 1.8 km south/ southeast of the nearest turbine (T8)	Moderate/ Low (Not significant).	No significant visual effects are predicted at this property. Consequently, no incidence of overbearing, overwhelming, oppressive, or pervasive effects.
RVA02 – Ifferdale Cottage (Location shown in Figure 4.4.4, Technical Appendix 4.4, Volume 4 of the EIAR).	Situated 1.4 km south of the nearest turbine (T6).	None.	No significant visual effects are predicted at this property. Consequently, no incidence of overbearing, overwhelming, oppressive, or pervasive effects.
RVA03 – Seaside Cottage (Location shown in Figure 4.4.5 , Technical Appendix 4.4, Volume 4 of the EIAR).	Located 1.55 km east/ southeast of the nearest turbine (T9).	None.	No significant visual effects are predicted at this property. Consequently, no incidence of overbearing, overwhelming, oppressive, or pervasive effects.
RVA04 – Riverside Cottage (Location shown in Figure 4.4.6, Technical Appendix 4.4,Volume 4 of the EIAR).	Located 2.25 km east of the nearest turbine (T9).	None.	No significant visual effects are predicted at this property. Consequently, no incidence of overbearing, overwhelming, oppressive, or pervasive effects.
RVA05 – The Lodge (Location shown in Figure 4.4.7, Technical Appendix 4.4, Volume 4 of the EIAR).	Located 2.35 km east/ southeast of the nearest turbine (T9).	None.	No significant visual effects are predicted at this property. Consequently, no incidence of overbearing, overwhelming, oppressive, or pervasive effects.
RVA06 – Lephinbeag (Location shown in Figure 4.4.8, Technical Appendix 4.4, Volume 4 of the EIAR).	Located 1.75 km east/ southeast of the nearest turbine (T9).	None.	No significant visual effects are predicted at this property. Consequently, no incidence of overbearing, overwhelming, oppressive, or pervasive effects.
RVA07 – (Property adjacent to) Beinn an Tuirc Distillery (Location shown in Figure 4.4.9,	Located 1.6 km east/ southeast of the nearest turbine (T9).	Low (Not significant).	No. no significant visual effects are predicted at this property. Consequently, no incidence of overbearing, overwhelming, oppressive, or pervasive effects.

[18] Based on distance to nearest of the Proposed Developments turbine, rather than nearest visible turbine.

Table 2.3: Summary of Effects on Residential Visual Amenity			
Property Reference	**Distance and Direction from the Proposed Development[18]**	**Visual Effect**	**Exceeds the Residential Visual Amenity Threshold (Y/N)**
Technical Appendix 4.4, Volume 4 of the EIAR).			
RVA08 – Tigh Beag (Location shown in Figure 4.4.10, Technical Appendix 4.4, Volume 4 of the EIAR).	Located 1.95 km east of the nearest turbine (T9).	None.	No significant visual effects are predicted at this property. Consequently, no incidence of overbearing, overwhelming, oppressive, or pervasive effects.
RVA 09 – Capel Lodge (Location shown in Figure 4.4.11, Technical Appendix 4.4, Volume 4 of the EIAR).	Located 2.35 km east of the nearest turbine (T9)	None during spring/ summer months when the adjacent woodland is in leaf, increasing to Low, during winter months. (Not significant).	No significant visual effects are predicted at this property. Consequently, no incidence of overbearing, overwhelming, oppressive, or pervasive effects.
RVA 10 – Springwell (Location shown in Figure 4.4.12, Technical Appendix 4.4, Volume 4 of the EIAR).	Located 2.3 km east of the nearest turbine (T9).	None during spring/ summer months when the adjacent woodland is in leaf, increasing to Low, during winter months. (Not significant).	No significant visual effects are predicted at this property. Consequently, no incidence of overbearing, overwhelming, oppressive, or pervasive effects.
RVA 11 – Inyanga (Location shown in Figure 4.4.13, Technical Appendix 4.4, Volume 4 of the EIAR).	Located 2.32 km east of the nearest turbine (T9).	None during spring/ summer months when the adjacent woodland is in leaf, increasing to Low, during winter months. (Not significant).	No significant visual effects are predicted at this property. Consequently, no incidence of overbearing, overwhelming, oppressive, or pervasive effects.
RVA 12 – Erinvore (Location shown in Figure 4.4.14, Technical Appendix 4.4, Volume 4 of the EIAR).	Located 2.5 km east of the nearest turbine (T9).	None during spring/ summer months when the adjacent woodland is in leaf, increasing to Low, during winter months. (Not significant).	No significant visual effects are predicted at this property. Consequently, no incidence of overbearing, overwhelming, oppressive, or pervasive effects.
RVA 13 – Rubha Darach (Location shown in Figure 4.4.15, Technical Appendix 4.4, Volume 4 of the EIAR).	Located 2.7 km east of the nearest turbine (T9).	Moderate (Significant).	**Figure 2.25a, AI Volume 2b** illustrates the theoretical view of the Proposed Development from parts of this property. The Proposed Development would be seen distantly and would be partially obscure by intervening vegetation and topography. Views from the main elevation and rear elevation of the property and key amenity spaces would not be affected by the Proposed Development. However,

Table 2.3: Summary of Effects on Residential Visual Amenity			
Property Reference	**Distance and Direction from the Proposed Development[18]**	**Visual Effect**	**Exceeds the Residential Visual Amenity Threshold (Y/N)**
			views of the Proposed Development would be provided from the side garden to the west of the property, where there are some gaps within the tree line. The Proposed Development would form a small part of the overall view and views would be glimpsed, with the Proposed Development being partially screened by the intervening topography of Torr a' Ghobhain. Consequently, whilst some localised significant visual effects may be expected at this property, there would be no incidence of overbearing, overwhelming, oppressive or pervasive effects.
RVA **14 – Glen Croft** (Location shown in Figure 4.4.16, Technical Appendix 4.4, Volume 4 of the EIAR).	Located 1.4 km northeast of the nearest turbine (T9).	Moderate (Significant).	**Figure 2.26a, AI Volume 2b** illustrates the theoretical view of the Proposed Development from parts of this property. Views from the main elevation of the property would be unaffected by the Proposed Development, due to its orientation facing southeast, across the Torrisdale Castle Estate towards the Kilbrannan Sound, away from the Proposed Development. The Proposed Development would be fully screened along the majority of the main access track leading to the property. Whilst views of the Proposed Development would be provided from the rear elevation of the property from where the Proposed Development would be visible across the skyline to the southwest, forming a notable new addition to the landscape, but would be seen relatively distantly from the property and would be partially obscured. Given the preceding analysis no incidence of overbearing, overwhelming, oppressive, or pervasive effects is anticipated.
RVA 15 – Glen Head (Location shown in Figure 4.4.17, Technical Appendix 4.4, Volume 4 of the EIAR).	Located 1.25 km northeast of the nearest turbine (T9).	High/ Moderate (Significant).	**Figure 2.27a, AI Volume 2b, AI Report** illustrates the theoretical view of the Proposed Development from parts of this property. Views from the main elevation of the property would be unaffected by the Proposed Development, due to its orientation to the southeast, towards dense woodland vegetation associated with the Torrisdale Castle Estate, and away from the Proposed Development. From the rear elevation of the property, the Proposed Development would form a prominent and notable new addition to the landscape and view. The Proposed Development would introduce largescale development and whilst the Proposed Development would be highly visible when entering the property via the private access track such

Table 2.3: Summary of Effects on Residential Visual Amenity			
Property Reference	**Distance and Direction from the Proposed Development[18]**	**Visual Effect**	**Exceeds the Residential Visual Amenity Threshold (Y/N)**
			views would be localised and interrupted by woodland in the Torrisdale Castle Estate. Whilst the Proposed Development would represent a significant visual effect in parts of the property, it is not considered to constitute an overbearing, overwhelming, oppressive, or pervasive effect.
Group 01 – Ifferdale Lodge and Ifferdale Farm (Location shown in Figure 4.4.3, Technical Appendix 4.4, Volume 4 of the EIAR)	Situated between 1.5 km and 1.4 km south/ southeast of the nearest turbine (T8).	Moderate/ Low (Not significant).	No significant visual effects are predicted at this property group. Consequently, no incidence of overbearing, overwhelming, oppressive, or pervasive effects.

2.9 Summary and Conclusion

2.9.1 This chapter and associated technical appendices and figures are intended to provide additional information and some points of clarification or update in respect of consultees responses regarding:

- the updated cumulative context.
- the siting and design of the Proposed Development.
- effects on the Special Qualities and Integrity of the North Arran National Scenic Area (NSA).
- effects on the North Arran Wild Land Area (WLA).
- effects on the East Kintyre Area of Panoramic Quality (APQ); and
- effects on Residential Visual Amenity.

2.9.2 This information is intended to aid the competent authority to determine the application for the Proposed Development. It should be noted that none of the additional information provided in this chapter would alter the findings of the SLVIA presented in the EIAR.

3 Ecology

3.1 Introduction

3.1.1 This Chapter updates Chapter 6, Volume 2 of the EIAR to address post-submission feedback from stakeholders. Technical Appendix 6.3, Volume 4 Outline Habitat Management Plan (OHMP) of the EIAR has been replaced by an updated Technical Appendix 3.1: Revised Outline Habitat Management Plan, Additional Information (AI) Volume 3. With the exception of the Outline Habitat Management Plan, the contents of Chapter 6, Volume 2, figures and supporting appendices remain unchanged.

3.1.2 This Chapter is supported by the following additional figures and technical appendices:

AI Volume 2a: Figures

- **Figure 3.1: Revised Outline Habitat Management Plan.**

AI Volume 3: Technical Appendices

- **Technical Appendix 3.1: Revised Outline Habitat Management Plan;** and
- **Technical Appendix 3.2: Species Protection Plan.**

3.2 Consultee Responses

3.2.1 **Table 3.1** summarises the post submission consultation responses and provides information on where and/or how they have been addressed in this assessment.

Table 3.1: Post Submission Consultation Responses

Consultee and Date	Consultee Response	Response
NatureScot 1st May 2025	NatureScot did not request any further information to inform their response.	Noted.
Argyll and Bute Council (ABC) - Biodiversity, 1st May 2025	Recommendation to install pine marten *Martes martes* boxes	These have been added to **Technical Appendix 3.1, AI Volume 3.**
	Habitat restoration and defragmentation to benefit fish species.	Riparian planting along Torrisdale Water and Lephincorrach Burn is proposed in **Technical Appendix 3.1, AI Volume 3.** This planting was proposed in the original OHMP, but an additional figure showing the location of the planting has been provided for clarity (**Figure 3.1: Revised Outline Habitat Management Plan, AI Volume 2a**).
	It is recommended that further surveys for freshwater macroinvertebrates are conducted immediately prior to any works commencing	Noted. The Applicant is content for a condition on freshwater macroinvertebrates surveys prior to construction to be added to cover off the concerns stated in this response.
	The proposed peatland loss of 4.09ha must be compensated for at a 1:10 ratio (lost:compensation) as well as biodiversity net gain of 10%. The proposed restoration of 4.09ha minimum does not therefore meet the guidelines. I would ask the applicant to provide a more detailed HMP to show compensatory restoration and enhancement. It should be clear what is to be proposed and	The assessment has been updated so that only direct impacts on peatland habitats are included in the baseline area to be mitigated. The area of peatland to be lost has been calculated to be 0.49 ha. A commitment to enhance/restore 5.38 ha of peatland, in line with NatureScot guidance,

	a figure showing this would be beneficial. I note Figure 6.3.1 included in the HMP, but it is not clear what areas are proposed to be restored including areas of native woodland, bracken and rhododendron removal.	is set out in **Technical Appendix 3.1, AI Volume 3.**
	Due to the potential impact of the proposed development to a number of protected species, I ask that a Species Protection Plan (SPP) be submitted with appropriate mitigation and enhancement measures included.	A Species Protection Plan for protected species has been prepared, see **Technical Appendix 3.2, AI Volume 3.**
Argyll District Salmon Fishery, 26th February 2025	Concerned that that the proposed wind farm could potentially have some impact on migratory salmonid fish habitat downstream of the proposed development site. Although we do not have good information, the lower reach of the Torrisdale Water may be accessible to migratory salmonid fish. We therefore urge that in the event of the proposed wind farm being granted planning permission that monitoring of Water quality, macroinvertebrates, and fish should be undertaken to Scottish Government guidelines which include sites within the reaches of habitat where salmon may be present.	Noted. The Applicant is content for a condition on Water Quality and Fish Monitoring to be added to cover off the concerns stated in this response.
Royal Society for the Protection of Birds (RSPB), 18th April 2025	RSPB Scotland welcomes submission of the OHMP at this stage in the consenting process. Yet, we consider that there is presently a lack of detail and a lack of scope regarding the significant biodiversity enhancement requirement of Policy 3(b) of NPF4. We note that a detailed HMP is proposed to follow post-consent. However, RSPB Scotland recommends that further detail is submitted prior to determination, to ensure the feasibility of proposed enhancement activities in terms of land availability and land suitability for measures to support target species, with inclusion of key information as outlined in NatureScot guidance. The Application is required to demonstrate how biodiversity will be in a demonstrably better state than without intervention. Presently, the OHMP does not clearly set out what is proposed as mitigation and compensation and what measures are proposed to deliver enhancement.	Further information has been added to **Technical Appendix 3.1, AI Volume 3**, including **Figure 3.1, AI Volume 2a**. Distinctions between restoration and enhancement have been made where necessary in **Section 3.4**. Restoration work will occur within the Wind Protection Zones, with coniferous woodland removed and both habitats restored. The enhancement work includes the areas of bracken removal to enhance the bog habitats present.
	RSPB Scotland does not support the Applicant's outline proposals for peatland restoration, which are non-compliant with current NatureScot guidance. The Applicant states that: "As a minimum, restoration would restore an area of at least the same size as the area lost or degraded as a result of the Proposed Development. However, the aim would be to achieve an overall 10% gain of improved peatland habitat (4,089.88 m^2) in	The assessment of priority peatland loss has been updated, with the new data provided in **Section 3.3**. Further information has been added to Technical **Appendix 3.1, AI Volume 3**, including **Figure 3.1, AI Volume 2a.** The suitability of the locations to be used in the habitat restoration is discussed in **Technical Appendix 3.1, AI Volume 3**. The habitats are considered to be suitable

	the field survey area, over and above the 40,898.79 m^2 , rather than simply restoring what was lost or degraded [emphasis added]." (Volume 4, Technical Appendix 6.3, Section 1.3, para. 1.1.7) NatureScot guidance makes clear that peatland impacts require to be offset, exclusive of any additional enhancement activity, at a ratio of 1:10 (lost:restored):"Our current recommendation is that restoration to achieve offsetting (i.e. compensation rather than biodiversity enhancement) would be in the order of 1:10 (lost:restored), i.e. 1ha loss of peatland should result in measures to restore 10ha of peatland…" (NatureScot, 2023) Further, the proposed target areas for peatland restoration (the 'Wind Protection Zones'; see: Volume 3a, Figure 13.6) are surrounded by commercial conifer plantation, constraining their capacity to provide wider biodiversity benefit beyond the prevention of further carbon release from hagged areas and future carbon sequestration. The peatland restoration activities proposed do not constitute adequate mitigation for the impacts of the Proposed Development. By extension, this application does not therefore fulfil the requirement of NPF4 Policy 3(b) part (iv) under which applicants must to demonstrate that: "significant biodiversity enhancements are provided, in addition to any proposed mitigation [emphasis added]".	for peatland restoration/enhancement based on the conditions of the peatland currently on site. While this habitat is fragmented by coniferous woodland, it is still recorded to be in good condition with a high-water table due to the presence of peat and sphagnum species. The Proposed Development would create further areas of peatland habitat, particularly within the Wind Protection Zone, and would reduce the fragmentation of habitat with a network of open habitats. These would provide a habitat for invertebrates and small mammals. The Wind Protection Zone is therefore considered suitable for peatland habitat restoration/creation.

3.3 Updated Assessment of Potential Effects

Potential Construction Effects

Habitats

3.3.1 The assessment of the total loss of priority peatland habitat has been recalculated based on experience of the process of mitigating impacts on habitats under National Planning Framework 4 (NPF4)[1]. Priority peatland habitats requiring mitigation are areas of blanket bog and wet modified bog which are directly impacted by the Proposed Development. Both habitat areas are considered to be priority peatland and contain M17 and M19 NVC communities[2] (as shown on Figure 6.3: NVC, EIA Volume 3A). The areas of blanket bog and wet modified bog directly impacted by the Proposed Development comes to 4,889.21 m^2 (0.49 ha). The calculation of potential priority peatland loss that was reported in the EIAR is presented in **Table 3.1: Priority Peatland Loss**, along with the updated calculation. Where habitats have been discounted from this calculation in the AI Report (AIR), it is due to the lack of presence of NVC codes with potential to be Priority Peatland (M1, M2, M3, M17, M18

[1] NPF4. URL: https://www.gov.scot/publications/national-planning-framework-4/ [Accessed 11th July 2025].

[2] NatureScot (2023) Advising on peatland, carbon-rich soils and priority peatland habitats in development management. URL: https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management#:~:text=NVC%20communities%20that%20are%20especially,habitat%20therefore%20an%20important%20habitat [Accessed 11th July 2025]

and M19[3]). The wet heath on site is M15 which is not a priority peatland unless it is recorded on deep peat (not the case here). Indirect impacts on blanket bog and wet modified bog have also been discounted as these areas would be used as part of the habitat restoration, with drain blocking etc deployed to prevent any dewatering of habitats and potential loss of function.

Table 3.1: Priority Peatland Loss (m^2)

Habitat	EIAR Assessment	AIR Assessment
Permanent – Wet Heath (Direct)	4,743.47	
Permanent – Wet Heath (Indirect)	17,048.56	
Permanent – Blanket Bog (Direct)	3,224.29	3,224.29
Permanent – Blanket Bog (Indirect)	9,893.17	
Permanent – Wet Modified Bog (Direct)	1,664.92	1,664.92
Permanent – Wet Modified Bog (Indirect)	2,218.80	
Temporary – Wet Heath (Direct)	1,124.65	
Temporary – Wet Heath (Indirect)	980.93	
Total	**40,898.79**	**4,889.21**

3.3.2 This permanent loss, in the absence of mitigation measures, would result in a moderate magnitude impact and a significant effect on a feature of regional importance[4], due to the potential to disrupt the functionality of the habitat, especially as the blanket bog in the field survey area is fragmented within the woodland rides and is already subject to modification from the surrounding coniferous woodland plantation. As blanket bog on the Kintyre peninsula has been greatly disturbed by afforestation/other anthropogenic activities, and much of the blanket bog across Scotland is in poor condition, further loss or degradation of this Annex 1 habitat[5] at the Proposed Development site would be considered an adverse effect on a feature of regional importance. The wet modified bog is assessed to be of county importance, as it lacks the ability to actively form peat, but could still recover and become active.

3.4 Updated Mitigation

Mitigation during Construction

3.4.1 The Outline Habitat Management Plan (OHMP), as set out in Technical Appendix 6.3, Volume 4 of the EIAR, has been updated (see **Technical Appendix 3.1, AI Volume 3**) to reflect the need to align with the recent NatureScot guidance on peatland restoration and enhancement. Loss – compensation – enhancement a minimum of 53,781.31 m^2 (5.38 ha) of peatland habitat. This being calculated as a 1:10 ratio of lost to restored[6] plus a net gain of 10%.

[3] NatureScot (2023) Advising on peatland, carbon-rich soils and priority peatland habitats in development management. URL: https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management#:~:text=NVC%20communities%20that%20are%20especially,habitat%20therefore%20an%20important%20habitat [Accessed 11th July 2025]

[4] This magnitude of impact and significance of effect is the same as identified in EIA Chapter 6: Ecology, Volume 2.

[5] EC Directive on the Conservation of Natural Habitats and Wild Flora and Fauna, 92/43/EEC. URL: http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm [Accessed 11th July 2025].

[6] NatureScot (2023) Advising on peatland, carbon-rich soils and priority peatland habitats in development management. URL: https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management#:~:text=NVC%20communities%20that%20are%20especially,habitat%20therefore%20an%20important%20habitat [Accessed 11th July 2025]

Measures for achieving this are set out in **Technical Appendix 3.1, AI Volume 3**. **Technical Appendix 3.1, AI Volume 3** replaces Technical Appendix 6.3, Volume 4 of the EIAR.

3.5 Summary

3.5.1 This document has been prepared in response to the post submission responses received from ABC – Biodiversity, Argyll District Salmon Fishery and RSPB. The installation of pine marten boxes were requested by ABC and have been incorporated into the OHMP. Riparian planting was proposed and **Figure 3.1, AI Volume 2a** has been prepared to demonstrate the location of this. A condition to undertake macroinvertebrate, fish and water quality monitoring has been agreed to. A Species Protection Plan has been prepared for the protected mammal species recorded as present on site.

3.5.2 The required peatland restoration/enhancement has been updated. A commitment to restore/enhance 53,781.31 m^2 (5.38 ha) of peatland habitat has been made and the OHMP has been updated to reflect this. **Figure 3.1, AI Volume 2a** has also been prepared to show the location of this mitigation. Following the successful implementation of this mitigation, no significant residual impacts are predicted from habitat loss associated with the construction of the Proposed Development. The findings of this AI chapter remain the same as those from the EIAR, that no significant residual impacts are predicted.

4 Ornithology

4.1 Introduction

4.1.1 This Chapter updates Chapter 7, Volume 2 of the EIAR to address post-submission feedback from stakeholders. Unless explicitly stated in this report, the content of Chapter 7, Volume 2 of the EIAR, and its supporting technical appendices, has not been updated and remains as pertinent to the Additional Information (AI) Report.

4.2 Consultee Responses

4.2.1 **Table 4.1** summarises the post submission consultation responses and provides information on where and/or how they have been addressed in the AI Report.

Table 4.1: Post Submission Consultation Responses

Consultee and Date	Consultee Response	Response
NatureScot (NS), 1st May 2025	NS confirmed that no further ornithological information was required to inform their response.	Noted.
Royal Society for the Protection of Birds (RSPB), 18th April 2025	The boundary of the Proposed Development site interfaces with, and, in the northeast, overlaps Habitat Management Plan (HMP) units for the Beinn an Tuirc and Deucheran Hill wind farms. These HMPs were operationally merged in the early 2000s and are intended to support Annex 1 & Schedule 1/1A/A1 breeding Golden Eagle among other priority species and habitats. RSPB Scotland is concerned that the strong avoidance behaviour shown by Golden Eagles towards wind turbine infrastructure could result in functional habitat loss within Unit T of the Deucheran Hill HMP, around proposed turbines T7 and T9 of the current application. Open ground habitats to the north and northeast of these turbines show high Golden Eagle Topographical (GET) model scores and are thus anticipated to be preferred habitats of high value to foraging Golden Eagles. Further, the close proximity of T7 to a historically occupied Golden Eagle eyrie may render this nest site unfavourable for reoccupation by a territorial pair for the lifetime of the Proposed Development. To mitigate these concerns, RSPB Scotland strongly recommends that T7 and T9 are either removed from the proposal or relocated ≥ 500m further into the commercial plantation from the outer tree line.	The conclusion of the assessment in Chapter 7, Volume 2 of the EIAR was that a low magnitude, not-significant impact for displacement was predicted. This is based on the results of the flight activity surveys, the Predicted Aquila Territory (PAT) and the Golden Eagle Topography (GET) modelling, as described in Chapter 7, Volume 2 of the EIAR. The HMP for Deucheran Hill has been in operation since approximately 2001, and it is reasonable to assume that activities to improve that area for golden eagle would have taken effect in the intervening years and the condition of the habitats would be high at the time of survey (2019 to 2021). The surveys only identified a single golden eagle flight within Unit T of the HMP Area during these surveys (a flight of a pair of birds at Collision Risk Height). The assessed flight activity within this unit is very low. The Torrisdale Estate Unit T HMP area is 242 ha in size, with approximately 9 ha due to be impacted by potential displacement (3.7% of the HMP area), while Unit T itself is a small part of the much wider overall Deucheran Hill HMP area. An eyrie identified within Unit T was used once in the period of time that desk study data was purchased for (in 2015 out of 2015 to 2020),but the breeding attempt failed in that year. This suggests a potential new territory trying to establish between the Rhondale pair and the Ifferdale pair (although the Ifferdale pair were not present in 2015, so there is potential the Ifferdale pair relocated for one year, unsuccessfully), and failing. No evidence of further breeding attempts was recorded. Given the extremely low activity by eagles in this area and many years without any

		breeding attempts, the conclusion of a low magnitude impact from displacement on golden eagle is considered to remain appropriate. No changes to the assessment have been made and no changes to the design of the Proposed Development are considered to be required.
	The Applicant notes that:"…the Wind Turbine Array would be a suitable habitat for hen harriers following felling to accommodate the Proposed Development and subsequent re-stocking with conifers." (Main Report, Volume 2, Chapter 7, Section 7.4, para. 7.4.24) and "Once the Proposed Development is operational, the habitats within the Wind Turbine Array would be suitable for hen harriers for the first 15 years of operation and evidence shows that hen harrier are not as dissuaded from activity within wind farms as golden eagle, suggesting a low magnitude, beneficial impact in the medium term (up to 15 years)…" (Main Report, Volume 2, Chapter 7, Section 7.4, para. 7.4.25) RSPB Scotland is concerned that the Applicant has not accounted for the risk of increased collision mortality that drawing Hen Harriers into the turbine array to access new, favourable habitat poses. This is particularly important where the keyholing of turbines, and any associated peatland restoration activity in Wind Protection Zones (see: Volume 3a, Figure 13.6), has scope to create favourable nesting and/or foraging habitat very close to turbine infrastructure. RSPB Scotland recommends that this issue is mitigated by the targeted provision of high-quality Hen Harrier nesting and foraging habitat at a safe distance from the turbine array	The conclusion of the assessment in Chapter 7, Volume 2 of the EIAR was that a not-significant, beneficial impact on hen harriers would occur, i.e. hen harriers could be attracted to the Proposed Development, but not at a substantial rate. It is extremely unlikely to be able to create higher quality breeding habitat for the species than already exists in the wider area beyond the site. It is not anticipated that hen harrier collision risk would increase significantly from what was previously predicted, particularly as hen harriers typically fly below Collision Risk Height and with breeding habitat unlikely, display flights by male birds which involve higher altitude flying are unlikely. Felling the trees on site would mean that hen harriers would fly lower as they do not need to fly above tree height. It should also be noted that hen harriers have been recorded successfully breeding adjacent to Beinn an Tuirc 3 Wind Farm, see Confidential 7.5b: Confidential Survey Results (EIA Volume 5). No changes to the assessment have been made.
	In relation to overhead grid connections, it is important to ensure a feasible route that does not present issues for bird species exists at the earliest possible stage. It is noted (Main Report, Volume 2, Chapter 1, Section 1.3, para. 1.3.4) that the Proposed Development has secured a distribution grid connection offer for 2026, connecting to Carradale substation, located approximately 3 km to the northeast of the Wind Turbine Array; and that the grid connection infrastructure between the proposed on-site substation and the Carradale Substation would be the subject of a separate application. If a connection between these two substations crosses open ground to the northeast of the Proposed Development, it would transit the Deucheran Hill HMP area. Further, it could negatively impact Golden Eagle due to this area featuring very high GET model scores as above. We note that the grid connection route is indicated in Volume 2 of the Main Report. This should be considered in the cumulative assessment. Although the grid connection	In order to address this comment, further assessment has been undertaken in **Section 4.3.** The grid connection for West Torrisdale Wind Farm has been added into the Assessment of Potential Effects as an additional potential cumulative effect. This assumes that the connection would be via Underground Cable (UGC). It is noted that Ourack Wind Farm was approved without reference to the grid connection in the Section 36 application. However, following that addition, no significant cumulative effects are predicted.

	will be subject to a separate consent, it is a reasonably foreseeable development that will be required for any consented scheme should be considered along with other impacts.	

4.3 Updated Assessment of Potential Effects

Potential Cumulative Effects

4.3.1 The grid connection for the Proposed Development meets the criteria of being "reasonably foreseeable" development as it will definitely be required, however this would be subject to a separate consent and Environmental Assessment process. The routeing study for this has not commenced so the exact location of the development is unknown. Subject to final design, it is reasonable to assume that the connection would be an underground cable and would link the substation in the middle of the Proposed Development to Carradale Substation, approximately 3.5 km to the northeast. The underground cable connections for Beinn an Tuirc Phase 3 and Blary Hill Wind Farms cross the Proposed Development from the southwest to the north and continues over Meall Donn to the north (across part of the Deucheran Hill HMP area). It is reasonable to believe that the Proposed Development grid connection may follow a similar route. However, doing so impacts an extremely small part of the HMP land area and, if installed to best practice, would be unlikely to result in significant effects on the habitats present.

4.4 Summary

4.4.1 This document has been prepared in response to the post submission response received from RSPB. With regards to comments on potential golden eagle displacement and potential increased hen harrier collision risk, the original assessment (Chapter 7, Volume 2 of the EIAR) is considered to be robust. Some additional information has been provided to support these conclusions. The Cumulative Impact Assessment has been updated to include potential for impacts arising from the proposed West Torrisdale Grid Connection, though no significant cumulative impacts are likely arising from this development.

5 Hydrology and Hydrogeology

5.1 Introduction

5.1.1 This Chapter provides additional information on Hydrology and Hydrogeology associated with the construction, operation and decommissioning of the Proposed Development, further to assessment that was provided in Chapter 8, Volume 2 of the EIAR.

Scope of Assessment

5.1.2 This additional information is provided in response to consultee comments (provided in February 2025 and detailed below in **Table 5.1**).

5.1.3 Ramboll is not aware of any significant alterations to the baseline hydrological or hydrogeological conditions at the Site since submission of the EIAR. No forestry felling has taken place on the Site since 2021, and therefore the findings of a site walkover carried out in 2021, and desktop assessment are considered to remain valid.

5.1.4 The EIAR found that, taking in to account the proposed design of the wind farm and the implementation of standard good practice measures to protect the water environment, the residual effect of the Proposed Development would be Negligible and Not Significant during the construction, operational and decommissioning phases.

5.1.5 National scale policy informing the original hydrological and hydrogeological assessment remains valid, although some guidance has been updated since the preparation of the original submission. The most recent versions of updated guidance are summarised below and are not found to significantly impact assessment provided to date.

Recent Guidance and Advice

- SEPA, CAR - A Practical Guide, Version 9.4 (July 2024)[1]; and
- SEPA, Guidance on Assessing the Impacts of Developments on Groundwater Dependent Terrestrial Ecosystems (August 2024)[2].

5.2 Consultation

5.2.1 **Table 5.1** summarises the post submission consultation responses received regarding Hydrology and Hydrogeology and provides information on where and/or how they have been addressed in this assessment.

Table 5.1: Consultation Responses

Consultee and Date	Consultee Response	Response
SEPA, 14 February 2025	SEPA note that there are two turbines and associated infrastructure that infringe upon	Further information is provided in **Section 5.3.** The turbine locations remain

[1] SEPA The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended), A Practical Guide. Version 9.4, February 2025. Available online: https://www.sepa.org.uk/regulations/water/) [Last accessed July 2025]

[2] SEPA, Guidance on Assessing the Impacts of Developments on Groundwater Dependent Terrestrial Ecosystems (August 2024) https://www.sepa.org.uk/media/a1yh0blq/guidance-on-assessing-the-impacts-of-developments-on-groundwater-dependent-terrestrial-ecosystems.docx [Last accessed July 2025]

Table 5.1: Consultation Responses		
Consultee and Date	**Consultee Response**	**Response**
	the 50 m watercourse buffer (Turbines T3 and T7). "While standard mitigation should be applied at all times, we would question why the infrastructure (T3 and T17) needs to be within the 50m buffer in these locations and therefore submit a holding objection and ask that the infrastructure is pulled back outwith the buffer zone."	unchanged from those previously proposed and have been selected to: • Maintain a buffer at which suitable protection measures could be installed. • Avoid locating turbine pads within more sensitive habitat areas; and • Facilitate the perpendicular crossing of watercourses. A 75m micrositing allowance has been requested, which will allow for minor adjustments to turbine positions. Any required refinements will be addressed during more detailed Site investigations. The current buffer encroachments are to be within 20m of an engineered drain and 35m of Torrisdale Water.
	SEPA note that there is a requirement for seven crossings of watercourses across the proposal. To protect the water environment, SEPA request a condition requiring all watercourse crossings to be designed as bottomless box/ arches or span bridges to protect the bed and banks of all watercourses	Watercourse crossing design will be finalised by the appointed contractor in line with applicable planning conditions.

5.3 Turbine Locations T3 and T7

Turbine Locations

5.3.1 There are two locations at which the construction of turbine hardstand is proposed within a 50m buffer of watercourses.

Turbine T3

5.3.2 Approximately 190 m² of the proposed hardstanding associated with turbine T3 is within the 50m watercourse buffer. Torrisdale Water is situated approximately 35m north of the proposed hardstanding area (**Figure 1**). At the nearest location Torrisdale Water was recorded as being 0.8m wide and 0.6m deep, the substrate of the stream was recorded as gravel-pebble, cobble, boulder. The stream exhibits a natural course and a high habitat diversity at this location. During site surveying it was observed that the proposed turbine location is within the forestry area and that the proposed turbine is separated from Torrisdale Water by an area of forestry (which would be felled to create wind protection zones around the turbine) and an area of grassland which slopes down to the river (**Figure 2**) and which would provide a riparian buffer between the proposed turbine location and the watercourse. A 75 m micrositing allowance has been requested, which provides flexibility to adjust the turbine location slightly, if needed, to further minimise environmental impacts and avoid sensitive features. Final positioning will be confirmed following more detailed Site investigations.

Turbine T7

5.3.3 Approximately 1,050m² of the proposed hardstanding associated with turbine T7 is within the 50 m watercourse buffer. The proposed hardstanding area is situated 18 m east of the headwaters of an unnamed tributary of Torrisdale Water. The watercourse is a straightened

drain which forms part of the forestry drainage network. Downstream of the forestry area water from the small drain flows overland and surveying of this area classified the mapped watercourse as an 'ephemeral flow path' (**Figure 3 and Figure 4**). The watercourse forms a minor tributary of Torrisdale Water. The majority of turbine T7 hardstand and the proposed turbine location is within the forestry area. The watercourse is not recorded on 1:50,000 OS mapping.

Figure 1: Torrisdale Water, approximately 35 m north of turbine T3 (downstream)

Figure 2: View from land adjacent to Torrisdale Water upslope to forestry and proposed location of turbine T3

Figure 3: Overland flow path downstream of turbine T7, which is fed by a forestry drain (facing downstream)

Figure 4: Overland flow path downstream of turbine T7, which is fed by a forestry drain (facing upstream)

Design Justification

Turbine T3

5.3.4 Locating the hardstand area of turbine T3 to the north and slightly encroaching into the 50m buffer is necessary in order to allow the track alignment to the south to make a perpendicular crossing at Watercourse Crossing 4 (see Technical Appendix 8.2, Volume 4 of the EIAR) and provide sufficient arc for access.

Turbine T7

5.3.5 Locating the turbine T7 pad as far as possible west, while maintaining a reduced buffer to the watercourse, avoids siting the turbine and hardstand within an area classified during Phase I ecological habitat surveying as Blanket bog to the east (NVC GWDTE classification Moderate, M15c) and a reduction of habitat loss. While the bog habitat is not considered to be groundwater dependent (as confirmed by SEPA in consultation dated February 2025), minimising disruption of this habitat by encroaching within the 50 m watercourse buffer is considered preferable. Track design providing access to the turbine location would ensure continued surface water distribution across the area of bog to the east.

5.3.6 The sensitivity of the forestry drain to the west is considered to be lower than other watercourses on the Site. The drain is straightened limiting the potential for habitat diversity. Downstream the drain forms an overland flow path rather than a distinct watercourse. Surface water supply to these areas would be maintained through the implementation of SuDS measures at the turbine location.

Mitigation

5.3.7 Assessment of the locations of turbines T3 and T7 (including records of surveying carried out in 2021) confirms that SuDS measures and mitigation measures for the protection of watercourses could be implemented, in line with measures that would be implemented across the Site during the construction phase.

5.3.8 As identified in Chapter 8, Volume 2 of the EIAR, at the limited number of locations where a track is required to cross a watercourse, or where other infrastructure is necessary within 50 m of a surface watercourse, either as described in this Chapter or as identified by the Environmental Clerk of Works (ECoW), the installation of SuDS measures would be supervised by the ECoW during the construction phase of works. Were Site conditions such that the potential for the implementation of construction phase SuDS measures is constrained at either location, alternative solutions such as the use of settlement tanks could be considered. Any requirement for monitoring of water quality within watercourses downstream of the Proposed Development would be agreed with SEPA and the Marine Directorate. Procedures for this would be detailed in the CEMP.

Turbine T3

5.3.9 A 35 m buffer is maintained to the watercourse at which distance the implementation of standard best practice mitigation measures would be feasible. Sediment control measures and SuDS measures to be implemented at turbine T7 location would be located within the current forestry area (which would be felled prior to construction) and would not encroach onto the grass area which would remain in place and provide a riparian buffer to Torrisdale Water.

Turbine T7

5.3.10 A 20 m buffer is maintained to the watercourse (forestry drain) at which distance the implementation of standard best practice mitigation measures set out in Chapter 8, Volume 2 of the EIAR would be feasible.

5.3.11 Overland surface water flows would be maintained to grass areas and through the management of surface water runoff via a suitable SuDS system water quality of surface water runoff would be maintained.

5.4 Summary

5.4.1 Design of the Proposed Development has considered the potential for impacts to the water environment and the majority of infrastructure located outwith 50 m watercourse buffers.

5.4.2 Following a request for further information by SEPA details of the justification for encroachment of the 50 m water buffer have been provided, together with a more detailed summary of hydrological receptors at each location. In relation to the mitigation of impacts to watercourses (and particularly Torrisdale Water) the implementation of standard best practice measures are considered suitable, and such measures would be set out in a CEMP by the appointed contractor.

5.4.3 Overall, there are no changes to the findings of the original assessment. Impacts to the Hydrology and Hydrogeology remain negligible, with no significant adverse effects anticipated.

6 Geology and Soils

6.1 Introduction

6.1.1 This Additional Information (AI) Chapter supplements Chapter 9, Volume 2 of the EIAR. **Table 6.1** provides a summary of the Consultee comments on the original EIA and the subsequent responses from the Applicant. **Table 6.1** provides details of the Technical Appendices which have been updated to address the Consultee comments. Additional peat probing has also been undertaken across the Proposed Development and assessments have been updated to include the additional data. The effects of the updated assessments are also detailed within the responses and the following sections.

6.1.2 The methodology employed in this Chapter remains the same as set out in Chapter 9, Volume 2 of the EIAR.

6.1.3 This Chapter is supported by the following Technical Appendices which replace the appendices provided in the EIAR:

- AI Volume 3: Technical Appendices
  - **Technical Appendix 6.1: Revised Borrow Pit Assessment;**
  - **Technical Appendix 6.2: Revised Peat Landslide Hazard Risk Assessment;**
  - **Technical Appendix 6.3: Revised Peat Management Plan; and**
  - **Technical Appendix 6.4: Revised Carbon Balance Assessment.**

6.2 Consultee Responses

6.2.1 **Table 6.1** summarises the post-submission consultation responses received regarding Geology and Soils and provides information on where and/ or how they have been addressed in this assessment.

Table 6.1: Consultation Responses

Consultee and Date	Comments	Response
Scottish Environment Protection Agency (SEPA), 14th February 2025	Due to a lack of information in relation to avoidance of peat and impacts on the water environment we submit a holding objection and request that determination is deferred until the information outlined below in Sections 1.1 and 5.1 has been provided for our assessment. We also ask that the conditions outlined in Sections 2.2, 5.2, 6.1, and 7.1 be applied with any grant of consent. If any of these issues is not covered by condition, then please still consider our position to be one of objection.	Noted.
	1. Impacts on peat 1.1 In our scoping response we ask that peat surveys are provided showing peat probe locations annotated at a usable scale to demonstrate avoidance of peat over 1m. While we note that a high-level interpolated survey has been supplied, it is not at a scale or detailed to a level with which we can assess whether the proposal has clearly demonstrated how	An updated and more detailed peat depth interpolation figure has been provided in **Technical Appendices 6.2 and 6.3, AI Volume 3**. As part of the updated Technical Appendix, further probing has been undertaken across the Proposed Development site to supplement the existing data. The increased density of probing has allowed the interpolated peat depth mapping to be updated, and analysis of those data has

	the mitigation hierarchy outlined in NPF4 has been applied. We therefore must submit a holding objection until more detailed surveys are supplied at a usable scale, showing all infrastructure and proposed excavations overlaid. These surveys should demonstrate how areas of peat over 1m have been avoided. If there are clear nearby alternatives where relocating the footprint of the turbines would result in less peat excavations, then we would expect these to be considered to fulfil the mitigation hierarchy in NPF4. This is especially relevant should lesser impacts on peat be found within the 50m micro sighting distances.	demonstrated an overall reduction in peat excavation volumes.
	2. Borrow pits 2.1 Section 6.6 of the Borrow Pit Assessment (Technical Appendix 9.1) states "The base of the borrow pit would re-use existing stockpiled materials/soils generated from the site excavations to create a habitat on the floor of the borrow pit, this would be to a maximum of 2 m thick across the floor area..." While Table 5-1 in the Peat Management Plan indicates that all 5 borrow pits will be reinstated with peat (calculations showing a max of 1.5 m depths). While we would not expect peat to be reinstated above 1.5 m in the borrow pit areas, it is also unclear how these areas will support peatland conditions in perpetuity, as it has been stated that the borrow pits were located to avoid peat over depths of 1m. Therefore, it appears these areas do not support peat conditions. NPF4 policy 5d)iii states that a peat management plan should restore/enhance the site into a functioning peatland system capable of achieving carbon sequestration.	As indicated above the peat excavation volumes have reduced due to the additional probing data. Peat reuse within borrow pit areas has been reduced across the Proposed Development to more appropriate levels based on peat recorded at and within the area of each proposed Borrow Pit. Additional details on how habitats will be maintained have been provided in the **Revised Borrow Pit Assessment** (**Technical Appendix 6.3, AI Volume 3)**.
	2.2 We therefore request a condition is attached to any consent for the submission of detailed finalised plans for borrow pit management and restoration prior to commencement of construction on site. In the meantime, we recommend the applicant further explores reducing excavated peat by avoidance. We recommend the submission of a Finalised Peat management Plan is also conditioned.	Increased density of probing has reduced average peat depths across most infrastructure and resulted in an overall reduction in peat excavation volumes Reports have been updated to reflect comments. Borrow pit layouts have been updated including details on restoration. (**Technical Appendix 6.1 and 6.3, AI Volume 3**).
Ironside Farrar (on behalf of the Energy Consents Unit), February 2025	Recommendations requiring response from Developer: 1. The team undertaking the assessment is not described in the PLHRA assessment. Please provide sufficient clarification of the qualifications and experience of the team which carried out this assessment to meet the requirements of the ECUBPG. 2. The desk study should be updated with additional information such as	1. Details on the team experience are provided in **Technical Appendix 6.1, 6.2 and 6.3, AI Volume 3**. 2. An updated desk study with additional information where appropriate is provided in **Technical Appendix 6.1, 6.2 and 6.3, AI Volume 3.** All the relevant information which could be obtained has been included. 3. Probing along areas of the existing access track that will likely require upgrading is provided in **Technical Appendix 6.3, AI**

	information from local landowners, the adjacent wind farm site, and landowners. 3. The study area covers the whole red line boundary however the peat probing/depth and likelihood mapping is noted to exclude the main access track corridor. 4. Six cores across the site are noted but the results are not discussed or core logs and photos provided. These should be included to inform the assessment. 5. Site walkovers are not discussed within the desk study section and should be included. 6. Phase 1 Probing onsite is not on a 100m grid as stated in the report. Clarification of what the Phase 1 survey covered should be included. 7. A review of the Phase 1 and Phase 2 peat survey does not appear to be in compliance with the required publish guidance density. The following areas have an insufficient probing density and require additional probing in order to meet the requirement of the published guidance: 8. 100m x 100m grid Phase 1 probing across the whole site has not been met. 9. The recommended 10m x 10m probing grid has not been met on turbine locations, crane pads, substations and borrow pits. 10. The recommended 10m x 10m probing grid has not been met on the Substation and battery compound. 11. All access tracks have inconsistent probing which does not appear a minimum of 50m spacing with 10m offsets. Specific areas lacking probing are: — All proposed access tracks between T1, T4 and T6 — Access tracks between T2 and T3. — All existing access tracks requiring upgrades. 12. The interpolation method used for peat depths should be stated. 13. In order to fully comply with the ECUBPG a geomorphological map should include information such as, guying/erosion, cuttings, existing soil slips and major slope breaks. 14. Figure 9.2.5 Geomorphology shows that there are areas of artificial drainage and forestry across the proposed development, but these	**Volume 3**. Probing was not undertaken along existing Beinn an Tuirc access roads as this is likely to require maintenance only. 4. This is an error in the text, four cores were undertaken across the Site, details provided within **Annex 6.2B** of **Technical Appendix 6.2. AI Volume 3**. 5. Relevant surveys are discussed within **Technical Appendix 6.2, AI Volume 3**. 6. An additional 1,189 peat probes have been undertaken across the Proposed Development to address the Consultee comments. The additional probing has been undertaken in accordance (where possible due to forestry restrictions) with current guidance and is reported in **Technical Appendix 6.2, AI Volume 3**. 7. As above. 8. As above. 9. As above. 10. As above. 11. As above. 12. Interpolation methods have been outlined in **Technical Appendix 6.2, AI Volume 3**. 13. A Geomorphological map is detailed on Figure 6.2.5 and geomorphology discussion is included within **Technical Appendix 6.2. AI Volume 3.** 14. Additional commentary on the risk assessment methodology and detail on artificial drainage and forestry is provided in **Technical Appendix 6.2, AI Volume 3**. 15. As above. 16. Environmental designations are discussed, and a list of potential receptors are provided in **Technical Appendix 6.2, AI Volume 3**. 17. An updated mitigation table is provided in **Technical Appendix 6.2, AI Volume 3**. 18. A Revised Outline Peat Management Plan (OPMP) is provided in **Technical Appendix 6.3, AI Volume 3**, which details estimated volume of peat excavation. Recommendations for control measures and good practice when considering temporary storage of peat are provided in **Technical Appendix 6.3, AI Volume 3**. However, providing a detailed plan of all potential temporary storage locations for peat across the Site is not possible at this initial planning stage.

	do not appear to have been taken into consideration as part of the likelihood assessment. Comment is required on if the likelihood assessment can be considered suitably robust without their inclusion. 15. In order to fully comply with the ECUBPG a geomorphological map should also include information such as, guying/erosion, current signs of instability, forestry, cuttings, and major slope breaks. Previous soil slides are identified within the report and should be included upon the geomorphological map. 16. Any onsite environmental designations should be confirmed as they could potentially be receptors and impacted by peat slides. 17. Mitigation provided in Table 6-12 is fairly generic and not sufficiently detailed to demonstrate that the associated risks are controllable. Please provide further clarification and specific risk mitigation for each area that is potentially impacted. 18. This should include the extent and volumes of peat excavated specifically for peat slide mitigation at each location and whether this requires to be added to the volumes already included in the PMP. Please clarify the associated risks associated with excavation as the primary mitigation control, for example the impact associated with reducing the shear strength/undercutting the "toe" of the remaining peat on the slope by excavation. Peat storage is not covered at all within the mitigation measures comment should be included on how peat will be stored.	

6.3 Updated Assessment of Effects

6.3.1 To address Consultee comments further peat surveys have been undertaken at the Proposed Development site. The technical appendices listed above have been revised to include the additional data and address the comments.

Borrow Pit Assessment (BPA)

6.3.2 A Revised BPA is provided in **Technical Appendix 6.1, AI Volume 3** and has been undertaken to address consultee comments raised in **Table 6.1**. Updated borrow pit layouts and additional detail on peat re-use in the borrow pits has also been provided.

6.3.3 The outcomes of the aggregate assessment and conclusions of the Borrow Pit Assessment provided in Technical Appendix 9.1, Volume 4 of the EIAR remain unchanged.

Peat Landslide Hazard Risk Assessment (PLHRA)

6.3.4 A Revised PLHRA is provided in **Technical Appendix 6.2, AI Volume 3** and has been undertaken to address consultee comments raised in **Table 6.1**.

6.3.5 Additional probing in line with current guidance has been undertaken across the Site to support the updated PLHRA and address comments from SEPA requesting further peat probing surveys. There has been no change to the severity of Peat Stability Risk or the conclusions within Technical Appendix 9.2, Volume 4 of the EIAR. Whilst there are no changes to the severity of peat stability risk, additional probing and updated methodology indicate that there are further areas of peat stability risk (as detailed **Figure 6.2.9**, **Technical Appendix 6.2, AI Volume 3**) which are addressed within Table M, **Technical Appendix 6.2, AI Volume 3.** The conclusions and recommendations have been updated and detailed in sections 6.0 and 7.0 of **Technical Appendix 6.2, AI Volume 3**. The following updated conclusions and recommendations are noted below:

- Through probing and visual surveys peat is largely confined to the flatter areas of ground and local hollows and depressions and has been observed to be absent from the steeper slopes across the Proposed Development site. Superficial soils were observed at surface across some steep side slopes.
- A total of 3,881 peat probes were undertaken across all survey phases with an average thickness of peat recorded across the Proposed Development of 0.6 m.
- The results indicate that 12% of probe locations are at medium risk of peat instability with 23 medium risk sites discussed in additional detail (as per the assessment discussed within **Technical Appendix 6.2, AI Volume 3**). No high risk zones were identified. The previous EIAR assessment identified 19 risk zones.
- The overall conclusion regarding peat stability is that there is a negligible to low risk of peat instability over most of the main site although some areas of medium risk have been identified. For these areas, a hazard impact assessment was completed which concluded that, subject to micro-siting and the employment of appropriate mitigation measures, all these areas can be considered as an insignificant hazard. Additional mitigation measures have been identified in areas where hazards are already considered insignificant to further reduce the risk of potential hazards occurring (as detailed within **Technical Appendix 6.2, AI Volume 3**).

Outline Peat Management Plan (OPMP)

6.3.6 An Revised OPMP is provided in **Technical Appendix 6.3, AI Volume 3** and has been undertaken to address consultee comments raised in **Table 6.1**.

6.3.7 As a result of the additional peat probing undertaken in support of the PLHRA and OPMP, the peat excavation volumes have been updated and are presented in **Annex 6.1A**, **Technical Appendix 6.3, AI Volume 3.** The total excavated volume of peat for the Proposed Development (worst-case maximum amount of peat to be excavated) has been reduced from 95,545 m^3 to 59,685 m^3. Overall, the potential reuse volume is calculated at 63,879 m^3 which is 4,194 m^3 greater than the total excavated 59,685 m^3.

6.3.8 The recommendations on excavation and re-use peat are detailed within the **Technical Appendix 6.3, AI Volume 3.** An updated Stage 2 PMP would be secured by a planning condition (post any consent) prior to construction commencing. The following recommendations are noted:

- Through a process of continued design refinement (focused on minimising peat excavation volumes) and adoption of best practice working method, the Proposed Development is expected to achieve an overall peat balance, i.e. the volume (and character) of excavated peat is less than the volume of potential re-use. Thus, all excavated material will be required for reuse as part of the works and no surplus excavated peat is anticipated.
- The Proposed Development supports moderately decomposed peat with a very distinct plant structure that is considered suitable for re-use during reinstatement work, e.g. dressing of infrastructure edges, restoration and borrow pit restoration. Good practice standards, which will be outlined in the updated CEMP, relating to excavation, handling, and storage of peat, shall ensure against any compromise to the structural integrity of the peat and its associated suitability for reuse.
- Avoidance, though micro-siting, of localised pockets of deep peat that would otherwise require excavation will continue to be a key design refinement objective.

6.4 Cumulative Development Update

Cumulative Baseline

6.4.1 Since the submission of the application, the cumulative wind farm situation in the Study Area has changed. The relevant changes to the cumulative baseline are as follows:

- Clachaig Glen Wind Farm S36c Variation (now Consented)
- Cnoc Buidhe Wind Farm (now In-planning)
- High Dalrioch Wind Farm (now Withdrawn)
- Coalashee Wind Farm (now Withdrawn)
- Allt Domhain Wind Farm (In-planning)

Cumulative Effects

6.4.2 The updated cumulative baseline does not change the cumulative assessment in relation to geology and soils presented in Chapter 9, Volume 2 of the EIA Report, as the cumulative developments will be developed and managed in accordance with current best practice, industry standards and relevant legislation, planning policy and guidance regulated by statutory consultees. These standards ensure, with respect to geology and soils, potential impacts are mitigated and controlled at source. The mitigation measures that are presented in the EIA ensure there are no likely effects beyond the application boundary.

6.4.3 It is therefore considered that no cumulative effects on geology and soils are anticipated as a result of the Proposed Development.

6.5 Conclusions

6.5.1 The additional detailed peat probing surveys have confirmed a reduction in average interpolated peat depths across the Proposed Development and the updated assessments undertaken using this additional data, as detailed in **AI Technical Appendices 6.2 and 6.3**, **AI Volume 3**, have resulted in a reduction of potential effects on peat arising from the Proposed Development when compared to those effects reported in the EIAR, which were not significant.

7 Noise

7.1 Introduction

7.1.1 This Chapter provides Additional Information (AI) on noise associated with the operation of the Proposed Development, further to the assessment that was provided in Chapter 11, Volume 2 of the Environmental Impact Assessment Report (EIAR).

7.1.2 The AI has been provided by Seth Roberts, Principal Acoustic Consultant, Hayes McKenzie Partnership Ltd (author of the assessment presented at Chapter 11 of the EIAR). Seth Roberts has a BEng (Hons) degree in Acoustical Engineering from the University of Southampton and has been carrying out wind farm noise assessments for over 14 years.

Scope of Assessment

7.1.3 This AI is provided in response to consultee comments (provided in May 2025 and detailed below in **Table 7.1**). Although this chapter includes consideration of an alternative candidate turbine model, it should be noted that this is only representative of the maximum size of turbine which could be installed and does not represent any change to the proposed development since submission of the EIAR

7.1.4 Although queries are raised about the analysis of baseline noise data, Hayes McKenzie consider that the data collected during the baseline noise survey for the submission of the EIAR remains valid and representative for the closest residential receptors to the Site. Therefore, no additional data has been collected, and queries are addressed through a more detailed analysis of the baseline noise data.

7.1.5 The EIAR found that, taking in to account the proposed design of the wind farm and noise predictions for a suitable candidate turbine model, the residual effect of the Proposed Development would be Negligible and Not Significant during the construction, operational and decommissioning phases, as the relevant limits were predicted to be met. There are no queries directly concerning the assessment of construction or decommissioning noise and this has been scoped out from the assessment presented here.

7.1.6 National scale policy and guidance informing the original noise assessment remains valid. The same guidance used within the EIAR has been followed for the updated operational noise assessment presented here, namely:

Operational Noise Guidance

- ETSU-R-97 The Assessment and Rating of Noise from Wind Farms; and
- Institute of Acoustics (IOA), A Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise.

7.2 Consultation

7.2.1 **Table 7.1** summarises the post submission consultation responses received regarding noise and provides information on where and/or how they have been addressed in this assessment.

Table 7.1: Consultation Responses

Consultee and Date	Consultee Response	Response
Argyll and Bute Council 1 May 2025	Argyll and Bute Council commissioned a review, carried out by Mott MacDonald, of the noise assessment presented in the EIAR, which was summarised in a report dated March 2025. In the Executive Summary of the Mott MacDonald Report it is noted that: "*The measured background noise levels that are relied upon by the Applicant relied to inform the noise limits should be reprocessed (in accordance with Institute of Acoustics Good Practice Guide) to eliminate the influence of the Beinn an Tuirc wind farm and its extensions, which operational at the time of the survey.*"	Further information is provided at **Section 7.3** below. The reanalysis of the noise survey data provides a conservative assessment of the measured data which excludes the possibility of contribution from the Beinn an Tuirc Wind Farm and its extensions.
	In the Executive Summary of the Mott MacDonald Report it is noted that: "*The EIAR Chapter 11 Section 11.2.7 presents noise emission data for the Vestas V136 4.2 MW candidate turbine that is used as a basis for the assessment of operational noise impacts. However, the Project Description Chapter 2 Proposed Development Section 2.3.1 states that the candidate will be rated up to 6 MW. Furthermore, Chapter 11 Noise Section 11.2.4 gives a value of 5 MW. A turbine rated at 6 MW is likely to produce noise that is greater than a 4.2 MW turbine. Therefore, there is a risk that predicted noise levels under-estimate the impact of the Proposed Development.*"	Further information is provided at **Section 7.4** below. Alternative candidate turbine models have been considered and predictions for a worst-case option have been carried out to provide an update to the assessment.
	In the Executive Summary of the Mott MacDonald Report it is noted that: "*Confirmation of the correction of predicted L_{Aeq} to give L_{A90} by subtracting 2 dB is not stated.*"	Confirmation provided at **Paragraph 7.4.3** below
	In the Executive Summary of the Mott MacDonald Report it is noted that: "*Confirmation that there are no derelict residential properties within the study area is not given*."	Confirmation provided at **Paragraph 7.4.4** below
1 August 2025	Following an initial reanalysis of baseline data (as requested in the Mott MacDonald Report), it became apparent that a standard approach would not be suitable for this site. Hayes McKenzie contacted Mott MacDonald directly to discuss a novel approach to the analysis. A video conference call was arranged to present some initial findings using the novel approach to analysing the baseline data. The call was held on the 1st of August 2025 with Andrew Monk-Steel and Richard Perkins of Mott MacDonald. The novel approach involved use of the same noise datasets as presented in the EIAR but with recalculated bandlimited L_{A90} levels excluding third octave bands where existing turbine noise might have the potential to significantly affect calculated baseline levels and derived noise limits. On the call, the suitability of this novel approach was demonstrated through presentation of initial findings alongside bandlimited turbine noise predictions. Mott MacDonald confirmed on the call that the novel approach was suitable for this site.	The information provided at **Section 7.3** below is in line with the novel approach agreed with Mott MacDonald.

7.3 Reanalysis of Baseline Survey Data

7.3.1 It should be noted that the analysis of the baseline data presented in Chapter 11, Volume 2 of the EIAR did not indicate that measured noise levels were significantly affected by wind turbine noise from the Beinn an Tuirc turbines, and that the worst case predictions of cumulative noise were considered to be a considerable overestimate of turbine noise occurring during the survey. However, based on the comments about the analysis of the baseline survey data within the Mott MacDonald report, the baseline data has been reanalysed at each measurement location to examine the potential contribution from existing operational wind turbine noise from Beinn an Tuirc.

7.3.2 A commonly used method to remove the influence of wind turbine noise would be to filter out wind directions where the measurement location is considered to be downwind of any turbine from any of the phases of the Beinn an Tuirc Wind Farm. Initial analysis indicated that this standard approach would not be appropriate (see **Section 7.3.4** below) and a novel approach was agreed with Mott MacDonald (see **Table 7.1**) that relies on band limiting the measured noise data.

Wind Direction Filtering

7.3.3 It should be noted that excluding data from any wind directions where the measurement location is downwind of any of the phases of the Beinn an Tuirc Wind Farm generally ensures that the baseline noise levels do not include wind turbine noise. However, this is very much a conservative approach due to the large numbers of wind turbines and distances involved, as in reality it would only be likely to be the closest wind turbines contributing significantly. Typically, it would be expected that for wind directions where a property is upwind of a wind farm, the propagation conditions would attenuate (reduce) noise from the wind turbines by 10 dB or more (dependent on sufficient distance between wind farm and receptor and the intervening terrain). The distances and terrain between monitoring locations and the closest Beinn an Tuirc turbines are such that this level of upwind attenuation would be expected.

7.3.4 Downwind sectors are calculated based on the bearing from a receptor to the extremes of the three phases of the Beinn an Tuirc Wind Farm with an additional ±45° tolerance. This is in line with the good practice recommendations contained in SGN5[1] of the IOA GPG. A review of the measured baseline noise data, filtered to exclude these wind directions, indicated similar levels of background noise as presented in the EIAR. However, it resulted in a dataset without enough datapoints to satisfy the requirements of the IOA GPG, and therefore an alternative analysis method was necessary.

Novel Approach

7.3.5 Section 2.5 of the Mott MacDonald report compares predicted overall L_{A90} from the Beinn an Tuirc wind turbines with measured baseline L_{A90} levels reporting predicted levels up to 34, 39 and 33 dB at Lephincorrach Cottage, Ifferdale and Glen Croft, respectively. Although the EIAR does not present predicted levels for the cumulative sites without inclusion of the West Torrisdale turbines, Hayes McKenzie can confirm that the Mott Macdonald results align with the predictions presented in the EIAR. However, there is an important point to note about the baseline measurement location referred to as Ifferdale in Table 11.5, Chapter 11, Volume 2 of the EIAR because this does not actually correspond to Ifferdale Cottage as assumed by Mott MacDonald. The exact location of the monitoring equipment is confirmed at both Table 11.3, Chapter 11 Volume 2 of the EIAR and Table 1 of Technical Appendix 11.1, Volume 4 of the EIAR which detail the easting and northing coordinates. The monitoring location, referred to as Ifferdale is adjacent to the noise sensitive receptor 'Maneight' detailed at Table 11.6, Chapter 11, Volume 2 of the EIAR and is further from the Beinn an Tuirc turbines than Ifferdale Cottage. The increased distance at the Ifferdale monitoring location means that the predicted level of turbine noise at this location is lower than at Ifferdale Cottage.

[1] Institute of Acoustics, A Good Practice Guide to the Applications of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise, Supplementary Guidance Note 5, Post Completion Measurements (paragraph 2.1.7)

7.3.6 At residential receptors more than 500 m from a wind turbine, it can generally be expected that most of the high frequency noise will be attenuated by atmospheric absorption. This means that overall predicted turbine noise levels are generally controlled by noise in third octave frequency bands up to about 630 Hz. Conversely, this also means that very little turbine noise can be expected in the third octave bands above 630 Hz, and this provides another means of reanalysing the baseline noise data. Through band-limiting the baseline data to third octave bands of 800 Hz and above (excluding the lower frequencies from the summation), this has the effect of minimising the potential influence of turbine noise on the measured levels. The expected magnitude of operational turbine noise within this band can be examined by excluding the third octave bands below 800 Hz from the summation of predicted turbine noise levels.

Band-limited Noise Predictions

7.3.7 The same assumptions set out in Technical Appendix 11.2, Volume 4 of the EIAR have been used for predictions of the existing noise from Beinn an Tuirc turbines. The results have been summed for third octave frequency bands of 800 Hz and above to provide predicted band-limited turbine noise levels. The band-limited level has been corrected by applying a 2 dB reduction to convert from L_{Aeq} to L_{A90} values, in line with best practice.

7.3.8 Band-limited predictions have been carried out for each of the three noise monitoring locations, noting that Maneight is representative of the location described as Ifferdale. Results indicate no more than 14, 23 and 15 dB at Lephincorrach Cottage, Ifferdale and Glen Croft respectively within these higher frequency bands.

7.3.9 In order to further assess the level of turbine noise that could potentially be affecting baseline measurements in these higher frequency bands, band-limited predicted levels are presented for a range of wind speeds. The predicted band-limited levels for each phase of Beinn an Tuirc have been adjusted according to the relative sound power levels at each integer wind speed for the respective turbines as detailed at Table 11.11, Chapter 11, Volume 2 of the EIAR and the results at each windspeed have then been logarithmically summed.

Band-limited Baseline Data

7.3.10 Although it is not detailed in the Chapter 11, Volume 2 of the EIAR or Technical Appendix 11.1, Volume 4 of the EIAR, it should be noted that in addition to overall 10-minute values of L_{Aeq} and L_{A90}, the sound level meters were also set to record these L_{eq} and L_{90} in third octave bands over the same periods. This allows the baseline data to be recalculated by summing L_{A90} data for third octave bands of 800 Hz and above in order to minimise the effect of existing turbine noise.

7.3.11 The results of L_{90} values in each of the third octave bands have been A-weighted before summing to calculate the overall band-limited L_{A90} values in each 10-minute period. Results of analysis using this band-limited data are presented in the following section.

Updated Derivation of ETSU-R-97 Noise Limits

Lephincorrach Cottage

7.3.12 **Figure 1** and **Figure 2** below represent updates to Figure 7 and Figure 8 from Technical Appendix 11.1, Volume 4 of the EIAR. These figures show the band-limited datasets of background noise (800 Hz to 20 kHz) plotted against wind speed for Lephincorrach Cottage and the band-limited predictions for existing turbine noise at this location. It can be seen that the predicted band-limited turbine noise level is more than 15 dB below derived prevailing background noise, and therefore the contribution from existing turbine noise is negligible.

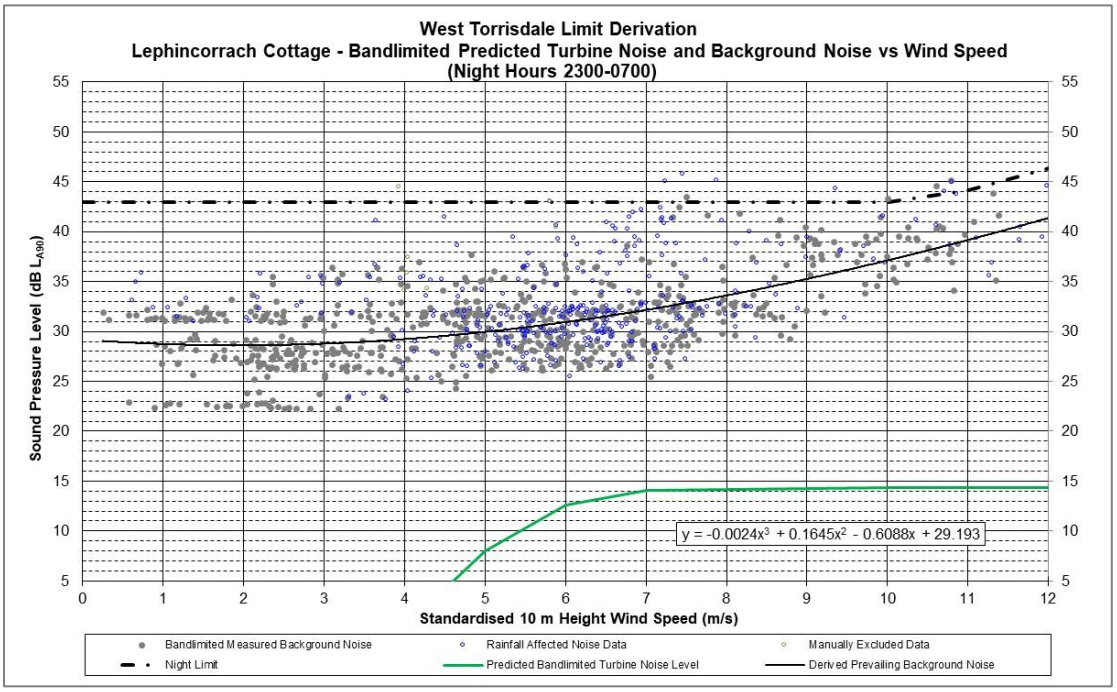

Figure 1: Derived Night Limit – Lephincorrach Cottage

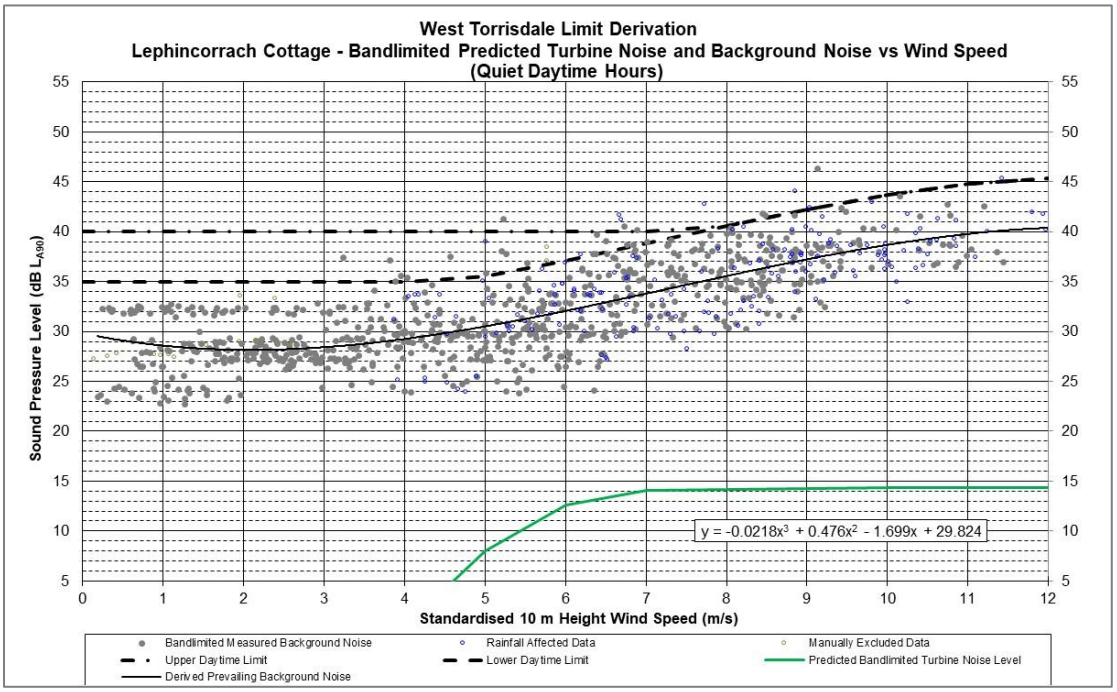

Figure 2: Derived Daytime Limits – Lephincorrach Cottage

7.3.13 At Lephincorrach Cottage, the updated night noise limits are slightly lower than those presented in the EIAR for wind speeds of 10 m/s and above. The updated lower daytime noise limit is roughly 2 dB below the limit presented in the EIAR for wind speeds of 4 to 11 m/s and equal to or below the EIAR limits for all other wind speeds.

Ifferdale

7.3.14 **Figure 3** and **Figure 4** below represent updates to Figure 9 and Figure 10 from Technical Appendix 11.1, Volume 4 of the EIAR. These figures show the band-limited datasets of background noise (800 Hz to 20 kHz) plotted against wind speed for Ifferdale and the band-limited predictions for existing turbine noise at this location. It can be seen that the predicted band-limited turbine noise level is 7 dB or more below derived prevailing background noise at night and 11 dB or more below derived prevailing background noise during the day, and it is considered that the contribution from existing turbine noise is negligible.

7.3.15 At this location, the updated night noise limits are lower than those presented in the EIAR by up to 2 dB for wind speeds above 9 m/s. The updated lower daytime noise limit is below the limit presented in the EIAR by up to 3 dB for wind speeds above 5 m/s.

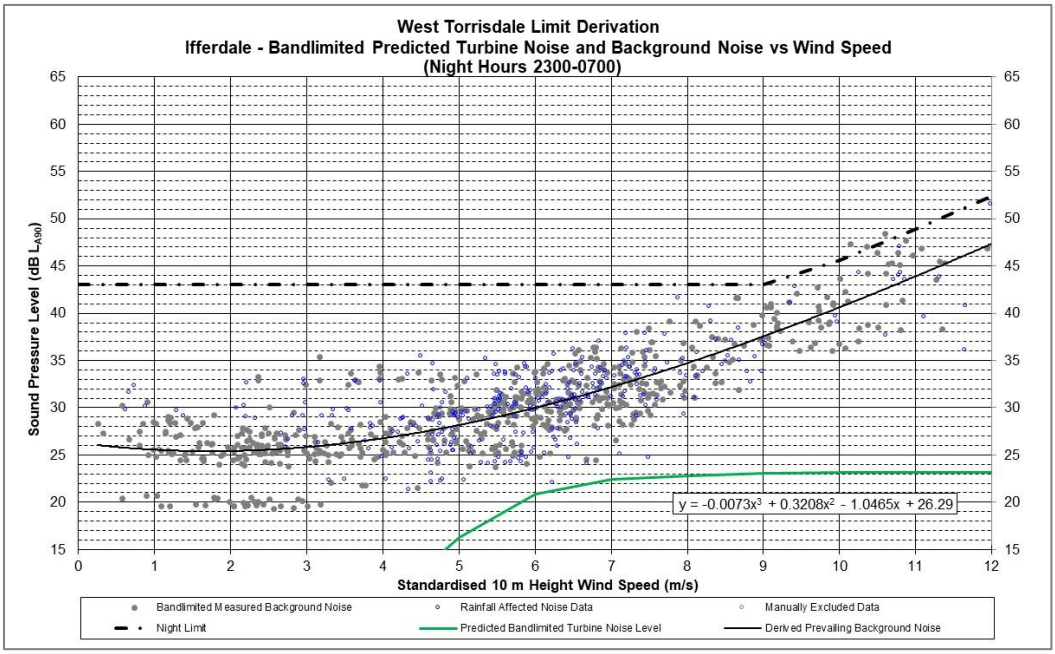

Figure 3: Derived Night Limit – Ifferdale

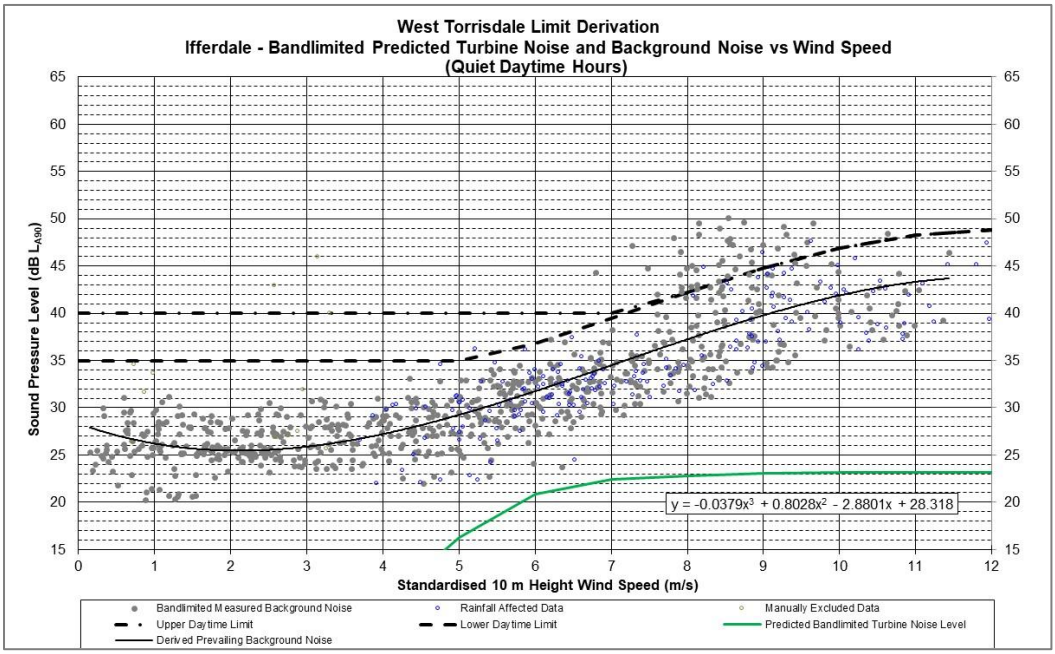

Figure 4: Derived Daytime Limits – Ifferdale

Glen Croft

7.3.16 **Figure 5** and **Figure 6** below represent updates to Figure 11 and Figure 12 from Technical Appendix 11.1, Volume 4 of the EIAR. These figures show the band-limited datasets of background noise (800 Hz to 20 kHz) plotted against wind speed for Glen Croft and the band-limited predictions for existing turbine noise at this location. It can be seen that the predicted band-limited turbine noise level is more than 20 dB below derived prevailing background noise, and therefore the contribution from existing turbine noise is negligible.

7.3.17 At this location, the updated night noise limits are lower than those presented in the EIAR by up to 2 dB for wind speeds of 7 m/s and above. The updated lower daytime noise limit is below the limit presented in the EIAR for all wind speeds by 1 – 2 dB.

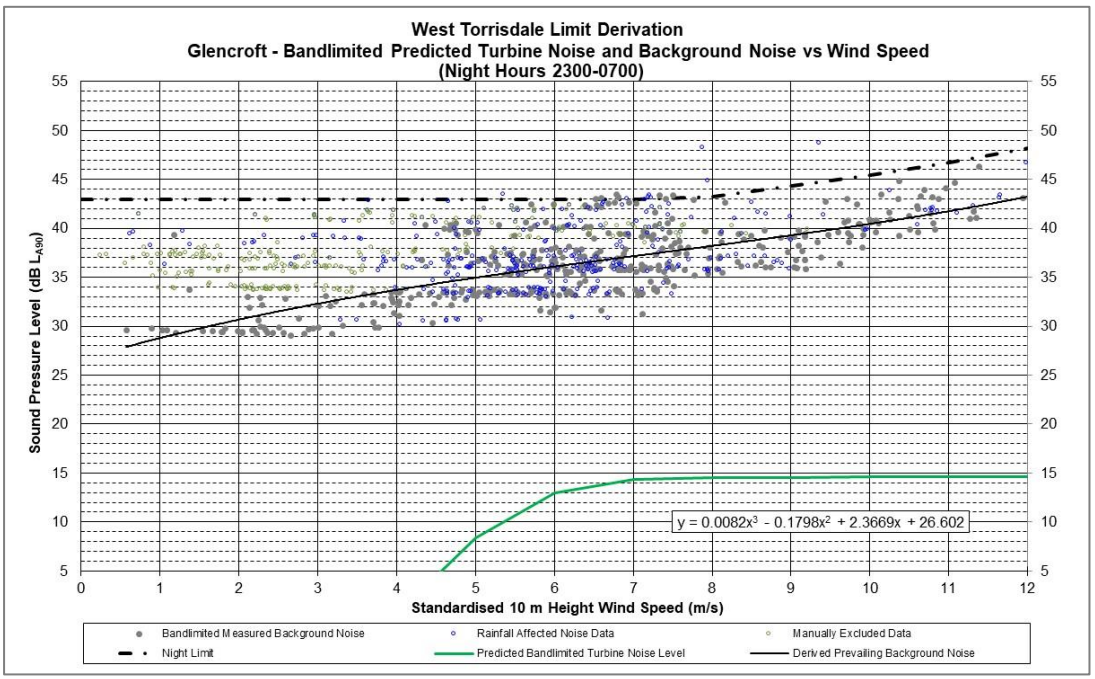

Figure 5: Derived Night Limit – Glen Croft

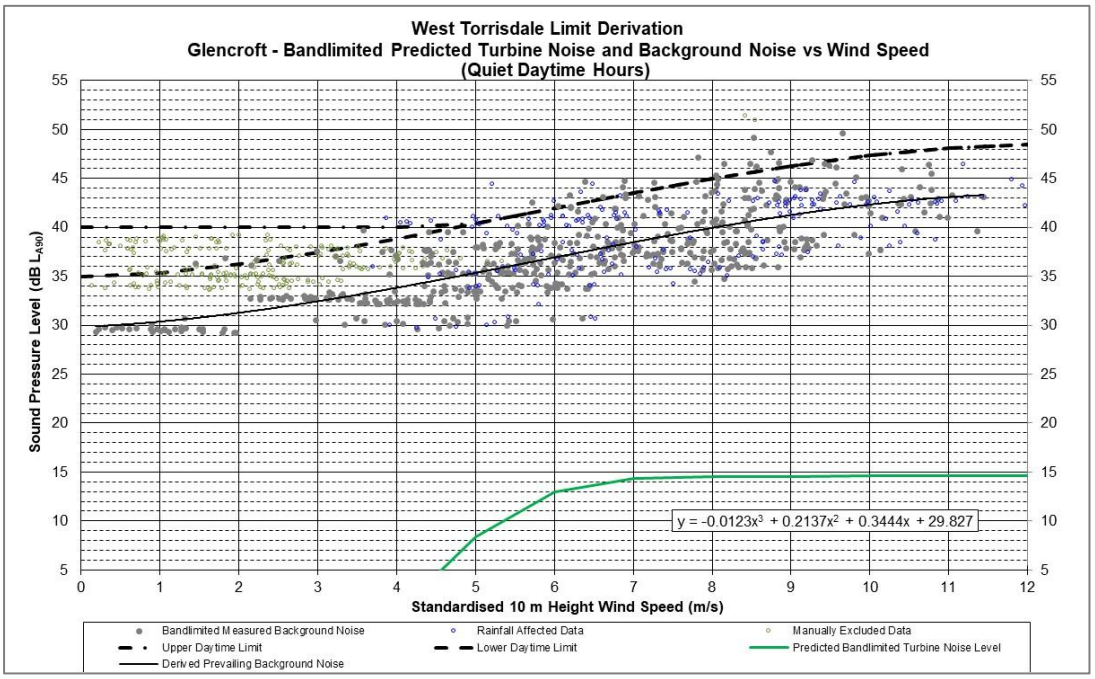

Figure 6: Derived Daytime Limits – Glen Croft

7.3.18 Through band-limiting the baseline noise measurements, it is considered that the potential influence from existing turbine noise is reduced to a minimum. The predicted band-limited turbine noise levels indicate that, at Lephincorrach Cottage and Glen Croft, there is a negligible effect of turbine noise affecting the band-limited derived prevailing background noise. At Ifferdale, that the predicted band-limited turbine noise levels are within 10 dB of the band-limited derived prevailing night background noise but more than 10 dB below the derived prevailing daytime background levels.

7.3.19 Based on the analysis of band-limited levels and the relatively small reductions to the derived limits, it is considered that existing turbine noise did not significantly affect background noise measurements. However, the updated derived noise limits represent a conservative approach that is considered suitable to ensure that derived noise limits do not include any significant contribution from existing turbine noise. The resultant band-limit background noise levels are presented at **Table 7.2**.

Table 7.2: Re-Derived Band-Limited Background Noise Levels (dB L_{A90})

Location	Time Period	Standardised 10 m height wind speed (m/s)										
		2	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Lephincorrach Cottage	Night-time	29	29	29	30	31	32	34	35	37	39	41
	Quiet Day-time	28	28	29	31	32	34	36	37	39	40	40
Ifferdale	Night-time	25	26	27	28	30	32	35	38	41	44	47
	Quiet Day-time	25	26	27	29	32	34	37	40	42	43	44
Glen Croft	Night-time	31	32	34	35	36	37	38	39	40	42	43
	Quiet Day-time	31	32	34	35	37	38	40	41	42	43	43

Updated Table of Derived Noise Limits

7.3.20 Table 11.7, Chapter 11, Volume 2 in the EIAR details the Derived noise limits and an updated version of this is presented at **Table 7.3**. It should be noted that the updated limits are based on the band-limited datasets shown in **Figure 1** through to **Figure 6**.

Table 7.3: Derived Noise Limits (dB L_{A90})

Location	Time Period	Standardised 10 m height wind speed (m/s)										
		2	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Lephincorrach Cottage	Night-time	43	43	43	43	43	43	43	43	43	44	46
	Lower Day-time	35	35	35	36	37	39	41	42	44	45	45
	Upper Day-time	40	40	40	40	40	40	41	42	44	45	45
Ifferdale	Night-time	43	43	43	43	43	43	43	43	46	49	52
	Lower Day-time	35	35	35	35	37	39	42	45	47	48	49
	Upper Day-time	40	40	40	40	40	40	42	45	47	48	49
Glen Croft	Night-time	43	43	43	43	43	43	43	44	45	47	48
	Lower Day-time	36	37	39	40	42	43	45	46	47	48	48
	Upper Day-time	40	40	40	40	42	43	45	46	47	48	48

7.4 Updated Noise Predictions

7.4.1 As noted in **Section 7.1.3**, the AI presented here does not represent any change to the proposed development and the updated noise predictions are presented for information only. The power output of the proposed development (and individual turbines) is only indicative based on what might be possible within the maximum tip height that is proposed. Furthermore, candidate turbines chosen for the purposes of a noise assessment cannot necessarily be expected to represent those which might be selected through the procurement process.

7.4.2 Based on the comments regarding the candidate turbine within the Mott MacDonald report, it has been confirmed that candidate turbines up to 5 MW represent a reasonable worst case for EIA purposes. The rotor diameter of the V136 4.2 MW machine assessed within the EIAR represents one of the larger rotors that could be included (136 m diameter) within the parameters of the Proposed Development. Review of the available turbine models indicates that there are few options with increased power that are still within this rotor diameter but there is an Enercon machine with slightly more electrical power and an increased noise output. The Enercon E136 EP5 4.65 MW has been selected as an alternative candidate turbine model which is considered to represent a worst-case for the proposed development in terms of the noise output.

7.4.3 The same assumptions set out in Technical Appendix 11.2, Volume 4 of the EIAR have been used for predictions and the only aspect which has changed is the sound power level for the revised candidate turbine model. Although not explicitly stated in the EIAR, it is confirmed that 2 dB has been subtracted from predicted L_{Aeq} to arrive at predicted L_{A90} values, and the same approach is taken for the predictions presented here.

7.4.4 The same list of receptors has been used as detailed at Table 11.6, Chapter 11 of the EIAR which were identified using OS "AddressBase_Plus" data obtained in 2021 and it should be noted that the Applicant has confirmed that no derelict dwellings (that theoretically could become residential properties in the future) exist that are closer to the Proposed Development than the identified receptors.

Sound Power Data

7.4.5 The source noise levels for the candidate turbine assumed for the Proposed Development are set out in **Table 7.4** which represents an update to Table 11.1, Chapter 11, Volume 2 of the EIAR. The candidate turbine used for the purposes of the predictions is an Enercon E136 EP5 4.65 MW with a hub height of 82 m (the same hub height as used in the EIAR noise chapter). The octave band noise data taken from the manufacturer's technical specification document (D0819691-0/DA) for a standardised 10 m height wind speed of 9 m/s have been normalised to the overall sound power level at each integer wind speed. The specification document also notes an uncertainty value of 1.2 dBA which is added to give the overall levels used for the predictions shown at **Table 7.4**.

Table 7.4: Candidate Turbine Octave Band Sound Power Level (dB L_{WA})

Standardised 10 m height wind speed	Octave band centre frequency (Hz)								Broadband
	63	125	250	500	1000	2000	4000	8000	
4	75.3	84.1	91.2	93.1	91.6	89.1	84.0	76.6	97.9
5	80.5	89.3	96.4	98.3	96.8	94.3	89.2	81.8	103.1
6	83.8	92.6	99.7	101.6	100.1	97.6	92.5	85.1	106.4
7	85.4	94.2	101.3	103.2	101.7	99.2	94.1	86.7	108.0
8	85.7	94.5	101.6	103.5	102.0	99.5	94.4	87.0	108.3
9	85.7	94.5	101.6	103.5	102.0	99.5	94.4	87.0	108.4
10	85.8	94.6	101.7	103.6	102.1	99.6	94.5	87.1	108.4
11	85.8	94.6	101.7	103.6	102.1	99.6	94.5	87.1	108.4
12	85.8	94.6	101.7	103.6	102.1	99.6	94.5	87.1	108.4

Revised Operational Noise Assessment

Predicted Levels

7.4.6 **Table 7.5** shows the predicted L_{A90} results for West Torrisdale based on the revised candidate turbine model discussed above (E136). This results in higher noise levels at each receptor (no more than 2.2 dB increase at any location), representing an update to Table 11.8, Chapter 11, Volume 2 of the EIAR.

7.4.7 **Table 7.6** shows the predicted cumulative L_{A90} results for the sites considered in the EIAR based on the revised candidate turbine model discussed above (E136). This results in higher noise levels at each receptor (no more than 1.7 dB increase at any location), representing an update to Table 11.13, Chapter 11, Volume 2 of the EIAR.

Table 7.5: Operational Noise Prediction Results (dB L_{A90})

Location	Standardised 10 m height wind speed (m/s)								
	4	5	6	7	8	9	10	11	12
Alderlea Cottage	23	28	31	33	33	33	33	33	33
Auchanuilt	21	26	30	31	32	32	32	32	32
Castle Flats	20	25	28	30	30	30	30	30	30
Garden Cottage	20	26	29	31	31	31	31	31	31
Glen Croft	27	32	35	37	37	37	37	37	37
Glen House	22	27	31	32	32	32	32	32	32
Glenhead	28	33	37	38	39	39	39	39	39
Ifferdale Cottage	19	24	27	29	29	29	29	29	29
Ifferdale Lodge	19	24	27	29	29	29	29	29	29
Lephincorrach Cottage	23	28	31	33	33	33	33	33	33
Lephincorrach Farm	23	28	31	33	33	33	33	33	33
Maneight	20	25	28	30	30	30	30	30	30
Meiklehill	22	27	30	32	32	32	32	32	32
Street Record	20	25	28	30	30	30	30	30	30
The Arch Cottage	20	25	29	30	30	31	31	31	31
The Bothy Glen House	22	27	31	32	32	32	33	33	33
The Bunkhouse	20	25	28	30	30	30	30	30	30
Tigh Beag	20	25	29	30	30	31	31	31	31
Torrisdale Castle	20	25	28	30	30	30	30	30	30

Table 7.6: Cumulative Operational Noise Prediction Results (dB L_{A90})

Location	Standardised 10 m height wind speed (m/s)								
	4	5	6	7	8	9	10	11	12
Alderlea Cottage	24	30	33	35	35	35	35	35	35
Auchanuilt	22	28	32	34	34	34	34	34	34
Castle Flats	21	27	31	33	33	33	33	33	33
Garden Cottage	22	28	32	33	34	34	34	34	34
Glen Croft	27	33	36	38	38	38	38	38	38
Glen House	23	29	33	34	35	35	35	35	35
Glenhead	28	34	38	39	39	39	39	39	39
Ifferdale Cottage	25	32	36	38	38	38	39	39	39
Ifferdale Lodge	23	29	34	35	35	36	36	36	36
Lephincorrach Cottage	24	30	34	35	35	35	35	35	35
Lephincorrach Farm	24	30	34	35	35	35	35	35	35
Maneight	24	30	35	36	37	37	37	37	37
Meiklehill	23	29	33	34	34	35	35	35	35
Street Record	21	27	31	33	33	33	33	33	33
The Arch Cottage	22	28	32	33	33	33	33	33	33
The Bothy Glen House	23	29	33	34	35	35	35	35	35
The Bunkhouse	24	30	35	36	37	37	37	37	37
Tigh Beag	21	27	31	33	33	33	33	33	33
Torrisdale Castle	21	27	31	33	33	33	33	33	33

Error Noted Within EIAR

7.4.8 Whilst preparing the revised predictions and comparing with the tables in the EIAR, it was noted that an error was present whereby the predicted noise levels presented for Glen House and Glenhead appear to have been accidentally switched. Table 11.8, Chapter 11, Volume 2 of the EIAR includes this error for the predicted operational noise levels from West Torrisdale, resulting in ±6 dB difference at both. Table 11.13, Chapter 11, Volume 2 of the EIAR includes this error for the predicted cumulative operational noise levels, resulting in ±4 dB difference at both.

7.4.9 This error has been carried through to the tables showing margins between West Torrisdale and the limits (Tables 11.9 and 11.10, Chapter 11, Volume 2 of the EIAR) and the tables showing margins between cumulative and the limits (Tables 11.14 and 11.15, Chapter 11, Volume 2 of the EIAR). This error should therefore be borne in mind when comparing results presented for the AI here with those set out in the EIAR.

Margin to Revised Noise Limits

7.4.10 Table 7.7 shows the margin between predicted L_{A90} for West Torrisdale (Table 7.5) and the revised night-time noise limits (Table 7.3). This results in smaller margins at each receptor (minimum margin of 5 dB at any location), representing an update to Table 11.9, Chapter 11, Volume 2 of the EIAR.

7.4.11 Table 7.8 shows the margin between predicted L_{A90} for West Torrisdale (Table 7.5) and the revised lower daytime noise limits (Table 7.3). This results in smaller margins at each receptor (minimum margin of 5 dB at any location), representing an update to Table 11.10, Chapter 11, Volume 2 of the EIAR.

Table 7.7: Margin Between Predicted Operational Noise Level and Revised Night-Time Noise Limits (dB L_{A90})

Location	Standardised 10 m height wind speed (m/s)								
	4	5	6	7	8	9	10	11	12
Alderlea Cottage	20	15	12	10	10	11	12	14	15
Auchanuilt	22	17	13	12	12	13	14	15	17
Castle Flats	23	18	15	13	13	13	13	14	16
Garden Cottage	23	17	14	13	12	12	12	13	15
Glen Croft	16	11	8	6	6	7	8	9	11
Glen House	21	16	13	11	11	12	13	14	16
Glenhead	15	10	6	5	5	6	7	8	10
Ifferdale Cottage	24	19	16	14	14	14	16	20	23
Ifferdale Lodge	25	19	16	15	14	14	17	20	23
Lephincorrach Cottage	20	15	12	10	10	10	10	11	13
Lephincorrach Farm	20	15	12	10	10	10	10	11	13
Maneight	23	18	15	13	13	13	16	19	22
Meiklehill	21	16	13	11	11	11	11	12	14
Street Record	23	18	15	13	13	13	13	14	16
The Arch Cottage	23	18	15	13	13	13	13	14	16
The Bothy Glen House	21	16	13	11	11	12	13	14	16
The Bunkhouse	23	18	15	13	13	13	15	19	22
Tigh Beag	23	18	15	13	13	13	13	14	16
Torrisdale Castle	23	18	15	13	13	13	13	14	16

Table 7.8: Margin Between Predicted Operational Noise Level and Revised Day-Time Noise Limits (dB L_{A90})

Location	Standardised 10 m height wind speed (m/s)								
	4	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Alderlea Cottage	16	13	11	11	12	13	14	15	15
Auchanuilt	18	14	12	12	13	15	16	16	17
Castle Flats	15	11	9	9	10	12	13	15	15
Garden Cottage	15	10	8	8	10	11	13	14	14
Glen Croft	12	8	7	7	8	9	10	11	11
Glen House	17	13	11	11	13	14	15	16	16
Glenhead	11	7	5	5	6	8	9	9	10
Ifferdale Cottage	16	11	9	10	13	15	17	19	19
Ifferdale Lodge	17	11	10	11	13	16	18	19	20
Lephincorrach Cottage	12	7	6	6	7	9	10	11	12
Lephincorrach Farm	12	7	6	6	7	9	10	11	12
Maneight	15	10	9	10	12	15	17	18	19
Meiklehill	13	9	7	7	8	10	11	12	13
Street Record	15	11	9	9	10	12	13	15	15
The Arch Cottage	15	10	9	9	10	12	13	14	15
The Bothy Glen House	17	13	11	11	13	14	15	16	16
The Bunkhouse	15	10	9	10	12	15	17	18	19
Tigh Beag	15	10	9	9	10	12	13	14	15
Torrisdale Castle	15	11	9	9	10	12	13	15	15

7.4.12 Table 7.9 shows the margin between predicted cumulative L_{A90} (Table 7.6) and the revised night-time noise limits (Table 7.3). This results in smaller margins at each receptor (minimum margin of 4 dB at any location), representing an update to Table 11.14, Chapter 11, Volume 2 of the EIAR.

7.4.13 Table 7.10 shows the margin between predicted cumulative L_{A90} (Table 7.6) and the revised lower daytime noise limits (Table 7.3). This results in smaller margins at each receptor (minimum margin of 3 dB at any location), representing an update to Table 11.15, Chapter 11, Volume 2 of the EIAR.

Table 7.9: Margin Between Predicted Cumulative Operational Noise Level and Revised Night-Time Noise Limits (dB L_{A90})

Location	Standardised 10 m height wind speed (m/s)								
	4	5	6	7	8	9	10	11	12
Alderlea Cottage	19	13	10	8	8	9	10	11	13
Auchanuilt	21	15	11	9	9	10	11	13	14
Castle Flats	22	16	12	10	10	10	10	11	13
Garden Cottage	21	15	11	10	9	9	9	11	13
Glen Croft	16	10	7	5	5	6	7	8	10
Glen House	20	14	10	9	9	10	11	12	14
Glenhead	15	9	5	4	4	5	6	7	9
Ifferdale Cottage	18	11	7	5	5	5	7	10	14
Ifferdale Lodge	20	14	9	8	8	7	10	13	17
Lephincorrach Cottage	19	13	9	8	8	8	8	9	11
Lephincorrach Farm	19	13	9	8	8	8	8	9	11
Maneight	19	13	8	7	6	6	9	12	15
Meiklehill	20	14	10	9	9	8	8	10	12
Street Record	22	16	12	10	10	10	10	11	13
The Arch Cottage	21	15	11	10	10	10	10	11	13
The Bothy Glen House	20	14	10	9	9	10	11	12	13
The Bunkhouse	19	13	8	7	6	6	8	12	15
Tigh Beag	22	16	12	10	10	10	10	11	13
Torrisdale Castle	22	16	12	10	10	10	10	11	13

Table 7.10: Margin Between Predicted Cumulative Operational Noise Level and Revised Day-Time Noise Limits (dB L_{A90})

Location	Standardised 10 m height wind speed (m/s)								
	4	5	6	7	8	9	10	11	12
Alderlea Cottage	15	11	9	9	10	11	12	13	13
Auchanuilt	16	12	10	10	11	12	13	14	14
Castle Flats	14	8	6	6	7	9	11	12	12
Garden Cottage	13	8	5	5	7	9	10	11	12
Glen Croft	11	7	5	6	7	8	9	10	10
Glen House	16	11	9	9	10	12	13	13	14
Glenhead	10	6	4	4	6	7	8	9	9
Ifferdale Cottage	10	3	1	2	4	6	8	10	10
Ifferdale Lodge	12	6	3	4	7	9	11	13	13
Lephincorrach Cottage	11	6	4	4	5	7	8	9	10
Lephincorrach Farm	11	6	4	4	5	7	8	9	10
Maneight	11	5	2	3	6	8	10	11	12
Meiklehill	12	7	4	5	6	8	9	10	11
Street Record	14	8	6	6	8	9	11	12	12
The Arch Cottage	13	8	6	6	7	9	10	11	12
The Bothy Glen House	16	11	9	9	10	12	13	13	14
The Bunkhouse	11	5	2	3	5	8	10	11	12
Tigh Beag	14	8	6	6	8	9	11	12	12
Torrisdale Castle	14	8	6	6	7	9	11	12	12

7.5 Planning Conditions on Noise

7.5.1 Section 4.3 of the Mott MacDonald report sets out wording for a suggested planning condition on noise but does not include noise limits due to concerns over the baseline data. It is considered that the wording of the suggested condition is acceptable (see **Technical Appendix 7.1**) and noise limits that could be applied to the Proposed Developments are presented in this section.

7.5.2 Operational noise limits applied via planning conditions for the Proposed Development must apply to the Proposed Development only, whereas the ETSU-R-97 noise limits apply to noise from all wind turbine developments. Therefore, appropriate noise limits should be derived from the ETSU-R-97 noise limits that take into account the potential contribution from existing consented wind turbine developments.

7.5.3 Proposed planning condition noise limits have been derived by logarithmically subtracting the predicted cumulative operational noise levels (excluding the Proposed Development) from the derived ETSU-R-97 night and lower daytime noise limits (presented at **Table 7.3**). It is considered that there is reasonable justification to apply the ETSU-R-97 upper daytime noise limit to cumulative operational noise levels given the existing consents, however, to ensure conservative derived limits, the lower daytime limits have been used here. No additional margin has been added to the predicted cumulative operational noise levels when deriving the planning condition limits as it is considered that the cumulative predicted operational noise levels are suitably conservative.

7.5.4 The resultant derived proposed planning condition noise limits are shown in **Table 7.11** and **Table 7.12** for the night and daytime periods respectively.

Table 7.11: Derived Proposed Planning Condition Night-Time Noise Limits (dB L_{A90})

Location	Standardised 10 m height wind speed (m/s)								
	4	5	6	7	8	9	10	11	12
Alderlea Cottage	43	43	43	43	43	44	45	47	48
Auchanuilt	43	43	43	43	43	44	45	47	48
Castle Flats	43	43	43	43	43	43	43	44	46
Garden Cottage	43	43	43	43	43	43	43	44	46
Glen Croft	43	43	43	43	43	44	45	47	48
Glen House	43	43	43	43	43	44	45	47	48
Glenhead	43	43	43	43	43	44	45	47	48
Ifferdale Cottage	43	43	42	42	42	41	45	49	52
Ifferdale Lodge	43	43	43	42	42	42	45	49	52
Lephincorrach Cottage	43	43	43	43	43	43	43	44	46
Lephincorrach Farm	43	43	43	43	43	43	43	44	46
Maneight	43	43	42	42	42	42	45	49	52
Meiklehill	43	43	43	43	43	43	43	44	46
Street Record	43	43	43	43	43	43	43	44	46
The Arch Cottage	43	43	43	43	43	43	43	44	46
The Bothy Glen House	43	43	43	43	43	44	45	47	48
The Bunkhouse	43	43	42	42	42	42	45	49	52
Tigh Beag	43	43	43	43	43	43	43	44	46
Torrisdale Castle	43	43	43	43	43	43	43	44	46

Table 7.12: Derived Proposed Planning Condition Daytime Noise Limits (dB L_{A90})									
Location	**Standardised 10 m height wind speed (m/s)**								
	4	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Alderlea Cottage	39	40	42	43	45	46	47	48	48
Auchanuilt	39	40	42	43	45	46	47	48	48
Castle Flats	35	35	36	38	40	42	44	45	45
Garden Cottage	35	35	36	38	40	42	43	45	45
Glen Croft	39	40	42	43	45	46	47	48	48
Glen House	39	40	42	43	45	46	47	48	48
Glenhead	39	40	42	43	45	46	47	48	48
Ifferdale Cottage	35	33	31	35	40	44	46	48	49
Ifferdale Lodge	35	34	35	38	41	44	47	48	49
Lephincorrach Cottage	35	35	36	38	40	42	43	45	45
Lephincorrach Farm	35	35	36	38	40	42	43	45	45
Maneight	35	34	34	37	41	44	47	48	49
Meiklehill	35	35	36	38	40	42	43	45	45
Street Record	35	35	37	38	40	42	44	45	45
The Arch Cottage	35	35	36	38	40	42	43	45	45
The Bothy Glen House	39	40	42	43	45	46	47	48	48
The Bunkhouse	35	34	34	37	41	44	47	48	49
Tigh Beag	35	35	37	38	40	42	44	45	45
Torrisdale Castle	35	35	36	38	40	42	44	45	45

7.5.5 Comparison of the predicted operational noise levels for the Proposed Development shown in **Table 7.5** with the proposed limits above show that the proposed planning condition noise limits are met.

7.6 Summary

7.6.1 Baseline noise data has been re-analysed to remove the potential effect of wind turbine noise relating to any of the phases of the Beinn and Tuirc Wind Farm. The derived ETSU-R-97 noise limits are generally slightly lower than those presented in the EIAR.

7.6.2 An alternative candidate turbine model which fits the required dimensions and a power of up to 5 MW has been selected and assessed as a worst-case. The Enercon E136 EP5 4.65 MW machine results in predicted noise levels which are generally higher than the candidate turbine model used in the EIAR.

7.6.3 The updated assessment shows that when comparing the increased predicted noise from the alternative worst case candidate turbine with the revised noise limits, there is still a large margin between predicted noise levels and derived noise limits. This does not result in any change to the predicted effects which are still considered to be not significant as the relevant noise limits are predicted to be met. When considering the AI, the effects therefore remain unchanged compared to the EIAR.

7.6.4 It is noted that section 4.3 of the Mott MacDonald report sets out wording for a suggested planning condition but does not include noise limits. Hayes McKenzie consider that the wording of the suggested condition is generally acceptable although some suggested changes have been made along with the inclusion of the derived noise limits in **Table 7.1** and **Table 7.12** and the revised condition is set out in **Technical Appendix 7.1**, AI Volume 3.

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