Chapter 5: Landscape and Visual Impact Assessment

Creag Riabhach Wind Farm Extension

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5 Landscape and Visual Impact Assessment

5.1 Introduction

Landscape and Visual Impact Assessment (LVIA) is one of the key components of Environmental Impact Assessment (EIA) for wind farms due to the introduction of tall elements into the landscape. The proposed development has been considered against the requirements of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the 'EIA Regulations') and relevant national and local planning policies as they relate to landscape and visual amenity.

The LVIA and cumulative assessment reported in this chapter has been produced by chartered Landscape Architects (Chartered Members of the Landscape Institute) at WSP. The objective of this assessment has been to determine the landscape and visual effects of the proposed development on the existing landscape resource and visual amenity. The following landscape and visual receptors have been assessed:

- Landscape character, key characteristics, and elements;
- Wild Land Areas (WLAs) and designated landscapes, including National Scenic Areas (NSAs) and Special Landscape Areas (SLAs); and
- Views and visual amenity experienced by residents, tourists, visitors, recreational and transport users.

The proposed development comprises three wind turbines with a blade tip height of 149.9m and associated infrastructure located adjacent to the existing Creag Riabhach Wind Farm (CRWF). Infrastructure associated with the proposed development includes internal access tracks and hardstanding areas, crane pads, one temporary construction compound and a battery energy storage system (BESS), and grid connection infrastructure (including underground cables linking the turbines to the substation of the existing CRWF). The site entrance would be via the access entrance to the existing CRWF. Full details of the proposals for the proposed development are included in **Chapter 3: Description of Development**.

The proposed development is located adjacent to the existing CRWF at the southern end of Strath Vagastie in the Highlands, approximately 8km south-east of Altnaharra and 21km north of Lairg. The site is set within an undesignated area of *Sweeping Moorland and Flows* and *Rounded Hills* landscape character.

The assessment process has encompassed time limited periods for the construction, operation, and decommissioning of the proposed development, the latter of which entails the reversal of most of the landscape and visual effects. Although the operational period for the proposed development is for the duration of up to 40 years (described in the assessment as 'long-term' and reversible) which is also the same as proposed for the operational life extension for the existing CRWF, it has been assessed in the same manner as a permanent development. If both the proposed development and the operational life extension of the existing CRWF are consented, it is the intention of the applicant to decommission the proposed development with the existing CRWF resulting in an overall operational life of the proposed development turbines

(functioning as a single generating station) of approximately 37 years. Further details are provided in **Chapter 1: Introduction**.

5.1.1 *Chapter Structure*

The chapter is supported by a number of Technical Appendices within Volume 4: Technical Appendices, comprising:

- **Technical Appendix 5.1:** LVIA Methodology and Glossary;
- **Technical Appendix 5.2:** Viewpoint Analysis; and
- **Technical Appendix 5.3:** Scoped Out LVIA Viewpoint Wirelines (these viewpoints were scoped out from the assessment during post-scoping consultation and exist for context and validation of the approach taken).

Figures relating to this LVIA are contained within Volumes 3a (Figures), 3b (NatureScot Visualisations) and 3c (The Highland Council Visualisations) and include plans and visualisations of the proposed development, the latter of which are presented in accordance with the NatureScot guidance and THC guidance.

Other key relevant chapters include **Chapter 3: Description of Development**, **Chapter 11: Cultural Heritage**[1], **Chapter 13: Socio-Economics, Recreation and Tourism** and the forestry section of **Chapter 14: Other Issues**.

5.1.2 *Variations*

The final candidate turbine for the site would be chosen post-consent and would be subject to a competitive tendering process. As a result, the exact hub height and rotor dimensions may vary slightly within the overall maximum blade tip height of 149.9m which would be agreed with Highland Council (THC). The LVIA has assessed the candidate turbine described in **Chapter 3: Description of Development**, which has a 92.4m hub height, 115m rotor diameter and an overall blade tip height of 149.9m.

Variations up to approximately +/- 5m of the turbine blade length within the overall 149.9m blade tip height are unlikely to alter the results of the LVIA and its conclusion. However, greater variability of turbine dimensions within the overall maximum blade tip height of 149.9m could affect the overall proportion of the turbines and their appearance, and each variation would need to be considered on a case-by-case basis.
The location of the proposed three turbines has been assessed on the basis of the final wind turbine layout, which would be subject to micrositing of up to +/-50m. Micrositing of up to +/-50m is unlikely to alter the results of the LVIA and its conclusion.

[1] As agreed with Historic Environment Scotland and The Highland Council's Histroic Environment Team, Cultural Heritage has been scoped out from the EIA but a chapter has been included to provide justification for this as per best practice.

Landscape Planning Policy and Guidance

The LVIA process has taken account of national and local planning requirements in relation to wind farm development, as described in the Planning Statement which accompanies the application for consent. This includes the Highland-wide Local Development Plan (HwLDP) (2012) and Caithness and Sutherland LDP (CaSPlan) (2018). Further information on strategic landscape planning guidance from NatureScot (NS) and THC is provided here.

5.1.3 *Supplementary Guidance: Onshore Wind Energy*

THC's '*Onshore Wind Energy Supplementary Guidance*' (OWESG) was adopted by the Council in November 2016 and now forms part of the Development Plan. The Guidance makes it clear at the outset that sections related to various land use planning topics are informative and not exhaustive, and proposals will continue to be assessed by all relevant policies in the HwLDP.

Key development plan considerations are set out in the OWESG as follows:

- **Siting and Design of Wind Farms** - THC is looking for sensitively sited and designed development that safeguards important, high-quality landscapes. Developers are expected to explain the detailed design of site access and other infrastructure and illustrate the evolution of the wind farm design. Reference should be made to Scottish Natural Heritage's (SNH) (now NS) guidance *Siting and Design Windfarms in the Landscape*, Version 3a, (Aug 2017);
- **Landscape and Visual Effects** - THC advises that development should seek to limit significant adverse effects, although it should be noted that no wind farm development can reasonably avoid significant landscape and visual effects. Key aspects that may be relevant to the assessment include NSAs, WLAs, SLAs, the capacity of the local landscape character (as defined by Landscape Character Assessment) and important public views from viewpoints, roads / core paths / tourist routes and related attractions;
- **Residential Amenity** - THC advises that the potential effects of wind energy developments on residential amenity are assessed. It is to be noted that there are no residential properties within 2km of the proposed development and therefore a Residential Visual Amenity Assessment has not been undertaken;
- **Mitigation** - Where feasible, appropriate mitigation should be demonstrated in response to significant adverse effects. This may involve further design evolution, altering the height, number, layout or colour of the proposed turbines and amendments to the associated infrastructure for example; and
- **Visualisations** - THC expects developers to follow its guidance[2] on the production of visualisations supporting their application.

[2] Visualisation Standards for Wind Energy Developments, Highland Council, July 2016.

Finally, THC has set out 10 Criteria within its OWESG to be used as a "*framework and focus for assessing proposals*." The criteria do not set absolute requirements, but seek to ensure that developers are aware of key constraints to development. An assessment of the proposed development against the 10 Criteria is set included in **Technical Appendix 5.4**.

Consultation

Consultation relevant to the LVIA has been undertaken with THC and NS, who commented on aspects of methodology, sources of information, viewpoint (VP) selection, scope of assessment and cumulative development. Consultation was undertaken via a Technical Note (TN) issued to THC and NS as part of the EIA Scoping Report and further consultation was undertaken with THC on 26 May 2022 and 25 July 2022 to agree the LVIA viewpoints and particular aspects of the assessment. A summary of these consultation responses is provided in **Table** 5.1.

Table 5.1: Summary of Consultation Responses

Consultee	Comment	Response
THC – Landscape Officer Response 26 May 2022	Content with the five viewpoints to be included as part of the LVIA.	Noted.
NatureScot – Scoping Opinion 10 June 2022	An assessment of National Scenic Areas (NSA) and Wild Land Areas (WLA) can be scoped out as the effects of the proposal will not be materially greater than those of the consented scheme.	Noted and a detailed assessment of these receptors is scoped out of the LVIA. However, at the request of THC, a high-level assessment is included in the assessment.
THC – Scoping Opinion 1 July 2022	Separate volumes of visualisations should be prepared to both Highland Council Standards and SNH guidance. These should be provided in hard copy. It would be beneficial for THC's volume to be provided in an A3 ring bound folder for ease of use.	Noted and this is provided as follows: THC Visualisations – Volume 3b NatureScot Visualisations – Volume 3c
	This assessment should include the expected impact of on-site borrow pits and access roads, despite the fact that the principal structures will be a primary concern. All elements of a development are important to consider within any EIAR, including the visual impact of the tracks and the proposed battery storage.	Noted and is included in the LVIA.
	The applicant should undertake the cumulative assessment over a study area the same as the visual assessment, a minimum 35km study area.	Noted and is included in the LVIA.
	As far as possible, the viewpoints should correspond with the viewpoints used for the previous Creag Riabhach application.	Viewpoints have corresponded with the previous Creag Riabhach application and have been agreed with NatureScot and THC.
	The Council does not consider forestry a permanent fixture in the landscape and therefore expects LVIA's to assume bare earth, along with 'permanent' physical infrastructure, baseline conditions, in order that effects are understood based on worst-case scenarios.	Noted and is included in the LVIA.

Consultee	Comment	Response
	The LVIA Chapter should clearly set out the methodology including magnitude of change, sensitivity of receptor and level of significance effect.	The LVIA sets out its methodology in a separate appendix (**Technical Appendix 5.1**) which accompanies this chapter.
	The Council are content with Viewpoint list proposed for the extension. However, they have requested photomontages for a number of additional viewpoints.	See response further below following post-scoping consultation with THC.
	We are content with a study area of 35km consistent with the area for the previous application given the scale of the turbines. Given the size of the turbines and the landscape sensitivities of this site and the surrounding area, we would expect a detailed assessment of effects should be undertaken for the whole study area	Noted and a 35km LVIA study area is included. The detailed LVIA study area is defined by the potential threshold for significant effects based on the viewpoint analysis and includes local / regional level receptors such as local LCTs, local landscape designations, main settlements, transport routes, core paths / local recreational routes and local attractions. The viewpoint analysis and field survey is used to confirm if a receptor can be scoped out and viewpoint analysis used to identify a conservative distance or 'threshold' for significant landscape and visual effects.
	When assessing the impact on recreational routes please ensure that all core paths, the national cycle network, and long-distance trails are assessed. It should be noted that these routes are used by a range of receptors. And, as above, we expect a full assessment of the sequential impacts of the three turbines for the A836	Noted and is included in the LVIA.
	The study area for a cumulative LVIA (CLVIA) should extend to the 35km study area.	Noted and is included in the LVIA.
	NatureScot 2019 landscape character assessment should be used	Noted and is included in the LVIA.
	We expect an assessment of the impact on all potentially effected WLAs to be included within the EIAR given the proximity to a number of WLAs and the theoretical visibility of the scheme from within WLAs. NatureScot will provide further assessment advice on WLAs	NatureScot has confirmed that effects on WLAs can be scoped out of the assessment. Further consultation with THC indicated that they would expect a high-level assessment of WLAs in the LVIA, which is included.

Consultee	Comment	Response
	We expect an assessment of the proposal against the criterion set out in the Council's OWESG to be included within the LVIA chapter of the EIAR	Noted and is included in the Planning Statement.
	An assessment of the impacts of the proposal on landscape should assess the impacts on any landscapes designated at a national and local scale	Noted and is included in the LVIA.
	No aviation lighting is envisaged to be required provided that the turbine heights remain below 150m.	Noted.
	Residential visual amenity should be assessed within the LVIA	A Residential Visual Amenity Assessment has not been undertaken given that the only property within 2km of the proposed turbines at Vagastie Cottage was demolished following a fire in 2018.
THC – Planning Officer Response 25 July 2022	The Council does not consider that the wirelines of some of the excluded viewpoints alone will allow them to complete a full assessment from those viewpoints where additional photomontages are requested. Therefore, it is advised to proceed as per the table in their Scoping response.	As per the EIA Scoping Report, the LVIA proposed five viewpoints as photomontages – VPs 6, 8, 13, 17 and 20 which was accepted by THC Landscape Officer (26 May 2022). THC Scoping Opinion requests photomontages from a further nine viewpoints – VPs, 1, 3, 4, 7, 10, 12, 15, 16 and 18. Having undertaken a further review, the LVIA now includes an additional four viewpoints as photomontages – VPs 1, 4, 12 and 18. In relation to remaining viewpoints (VPs 3, 7, 10, 15 and 16) the proposed turbines are visible as blade tips only or seen from distant elevated hill tops where the magnitude of change of the proposed turbines would be Very Low. Wirelines are produced for these viewpoints and included in **Technical Appendix 5.3**.
	The Council have understood that NatureScot has scoped the Wild Land Assessment and NSA assessment in their scoping response however in line with Scottish and Highland Planning Policies, the Council is required to come to a view on the development's likely impacts on the qualities of these features within their assessment. To that end, the Council advise that this aspect should not be scoped out, but addressed in high-level terms focussing on impacts on wild land qualities and the special qualities of the NSA.	Noted and is included in the LVIA.

Consultee	Comment	Response
NatureScot – Gatecheck response 15 May 2023	I can confirm we have had a number of pre-application communications with the applicant. The report appears to reflect the position as we see it and consider the Applicant has engaged appropriately. We have no further comments to make, but understand at this stage there is no opportunity to comment on the quality of the work undertaken or the findings of the studies completed. We therefore highlight that our advice is given without prejudice to a full and detailed consideration of the impacts of the proposal if submitted as a formal application.	Noted.

Assessment Methodology and Significance

The assessment methodology is set out in **Technical Appendix 5.1** which also includes a glossary of terms and abbreviations used in this chapter. The methodology for the LVIA and CLVIA has been undertaken in accordance with best practice guidance which is listed in the references at the end of this chapter; they include, but are not limited to, the following:

- Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, Landscape Institute and IEMA (May 2013), hereafter referred to as GLVIA 3;
- Siting and Designing Windfarms in the Landscape, Version 3a, SNH (August 2017);
- Guidance: Assessing the Cumulative Landscape and Visual Impact of Onshore Wind Energy; Developments, NatureScot (March 2021);
- Visual Representation of Wind Farms Version 2.2, SNH (February 2017);
- Visualisation Standards for Wind Energy Developments, The Highland Council, July 2016; and
- Guidance: General pre-application and scoping advice for onshore wind farms, SNH (September 2020).

5.1.4 *Determining the Significance of Effects*

In accordance with the EIA Regulations, it is important to determine whether the effects, assessed as a result of the proposed development, are likely to be significant. Significant landscape and visual effects will be highlighted in **bold** in the text and in most cases relate to all those effects that result in a '**Substantial**', '**Major**' or a '**Major to Moderate**' effect, as indicated in **Table 5.2** (and shaded dark grey). '**Moderate**' levels of effect (shaded grey) can also be assessed as significant, subject to the assessor's opinion, which should be clearly explained as part of the assessment. White or un-shaded boxes in **Table 5.2** indicate a non-significant effect.

In those instances where there would be no effect, the magnitude of change has been recorded as 'Zero' and the level of effect as 'None' or 'No View'. Intermediate levels of magnitude of change and levels of effect are also used in the LVIA and are shown in **Table** 5.2 in italics, for example *High – Medium* magnitude of change or *Substantial to Major* level of effect.

Table 5.2: Evaluation of Landscape and Visual Effects

Magnitude of Change	Landscape and Visual Sensitivity			
	High	Medium	Low	Very Low
High	**Substantial**	**Major**	Moderate	Not used
High - Medium	***Substantial to Major***	***Major to Moderate***	*Moderate to Minor*	
Medium	**Major**	Moderate	Minor	
Medium - Low	***Major to Moderate***	*Moderate to Minor*	*Minor*	
Low	Moderate	Minor	Negligible	
Low – Very Low	*Moderate to Minor*	*Negligible*	*Negligible*	
Very Low	Minor	Negligible	Negligible	
Zero	None / No View			

Viewpoint Selection

Viewpoint selection is based on the viewpoints identified in the 2013 LVIA of the existing CRWF. The viewpoint analysis has been conducted from 20 viewpoint locations with a detailed analysis for viewpoints 1, 4, 6, 8, 12, 13, 17, 18 and 20 (agreed through consultation with THC, as noted in **Table** 5.1) reported in **Technical Appendix 5.2** and illustrated in **Figures 5.17 to 5.25**. The remaining viewpoints are illustrated in **Technical Appendix 5.3**. The figures accord with Scottish Natural Heritage, *Visual Representation of Wind Farms: Good Practice Guidance*, Version 2.2, February 2017 and The Highland Council, *Visualisation Standards for Wind Energy Developments*, July 2016.

A summary of the viewpoint analysis is set out in **Table** 5.4.

All of the viewpoint locations are illustrated in **Figures 5.2 to 5.5**, and the visualisations are illustrated as photographs, wirelines and photomontages as agreed through consultation with THC. The viewpoint locations were photographed between August and December 2022. Photography was undertaken whilst the existing CRWF was under construction. As a result, not all of the existing turbines are visible in the baseline photographs. However, all of the existing CRWF turbines have been re-rendered in the baseline photographs. The visualisations illustrate the proposed turbines and, where visible, the proposed internal access tracks and associated infrastructure including the BESS within 10km.

Cumulative Wind Energy Development

Drawing from NS guidance,[3] a baseline of all other cumulative wind energy development within the LVIA study area has been collated. This includes all existing and consented wind energy development, and planning applications for other wind energy development. In accordance with the NS guidance, projects at scoping stage have been excluded, along with micro-generation turbines less than 50m to blade tip height. However, the Shinness Wind Farm located within 10km of the proposed development, which is currently at the scoping stage, has been included in the viewpoint wirelines.

In total, 18 other wind energy developments within 35km of the proposed development are included in the assessment as listed in **Table** 5.3and illustrated in **Figure 5.12**. The most relevant wind energy development to the cumulative LVIA is the existing CRWF adjacent to the proposed development.

The cumulative assessment has assessed the cumulative landscape and visual effects of the proposed development *in addition to* and *in combination with* the other wind energy development included in **Table** 5.3 in accordance with the methodology set out in **Technical Appendix 5.1**.

[3] NatureScot (2021), Guidance: Assessing the Cumulative Landscape and Visual Impact of Onshore Wind Energy Developments

Table 5.3: Wind Energy Development Included in the Cumulative LVIA

Reference and Name	No. of turbines	Distance from nearest turbine of proposed development (km)[4]	Hub height (m)	Rotor diameter (m)	Tip height (m)
Existing / Under Construction Wind Energy Developments within 35km					
E01. Creag Riabhach	22	0.3	75	100	125
E02. Achany	19	21.6	65	70	100
E03. Rosehall	19	22.4	59	62	90
E04. Lairg	3	24.5	59.5	80	99.5
E05. Kilbraur Extension	8	31.8	80	90	125
E06. Kilbraur	19	32.1	70	90	115
E07. Gordonbush Extension	11	34.1	81.9	136	149.9
E08. Gordonbush	35	34.4	67	80	107
Consented Wind Energy Developments within 35km					
C01. Sallachy	9	12.3	83.4	133	149.9
C02. Strath Tirry	4	13.3	83	104	135
C03. Braemore	18	24.9	80	92	126
C04. Lairg 2	10	25.1	132	136	200
C05. Strathy South	39	32.3	118	164	200
Applications (in planning or at appeal) for Wind Energy Developments within 35km					
A01. Chleansaid	16	11.2	98.5 / 118.5	163	180 / 200
A02. Achany Extension	20	17.8	81.9	136	149.9
A03. Garvary*	37	26.4	105	150	180
A04. Strath Oykel	11	29.1	122.5	155	200
A05. Meall Buidhe	8	31.5	87/92.4	115	144.5/149.9
Scoping Stage Wind Energy Developments within 10km					
S01. Shinness	19	7.2	122.5	155	200

* It is noted that the Garvary application has recently submitted a redesign (25 turbines) to the Energy Consents Unit. However, the LVIA for the proposed development assesses the original Garvary application given that the majority of this LVIA was already completed. There would be no notable change to the cumulative assessment of the Garvary redesign with the proposed development due to the long intervening distance of over 26km.

Zone of Theoretical Visibility (ZTV) and Viewpoint Analysis

The Zone of Theoretical Visibility (ZTV) and viewpoint analysis is used to assist the design process and further define the scope of the assessment. In particular, a threshold indicating the distance from the proposed development where significant effects may be likely has been identified. This has been used to focus the baseline information and detailed reporting of the assessment in this chapter.

[4] Measured from the mean centre of each wind energy development.

5.1.5 *ZTV and Cumulative ZTV Analysis*

The ZTVs have been calculated using ReSoft © WindFarm computer software to produce an area of potential visibility of any part of the proposed turbines, calculated to turbine blade-tip and hub-height, or selected infrastructure. The ZTV does not, however, take account of built development and vegetation, which can significantly reduce the area and extent of actual visibility in the field and as such provides the limits of the visual assessment study area. As a result, there may be roads, tracks and footpaths in the wider setting which, although shown as falling within the ZTV, have restricted viewing opportunities towards the proposed development since they are heavily screened or filtered by banks, walls and vegetation. The ZTVs, therefore, provides a starting point in the assessment process and accordingly tend to over-estimate the potential visibility of the proposed turbines.
A number of ZTV maps have been provided as follows:

- **Figure 5.2**: illustrates the ZTV calculated to blade tip at 1:270,000 scale across the 35km LVIA study area and provides an overview of the theoretical extent of visibility with viewpoint locations;
- **Figure 5.3**: illustrates the ZTV calculated to hub height at 1:270,000 scale across the 35km LVIA study area and provides an overview of the theoretical extent of visibility with viewpoint locations;
- **Figure 5.4a**: illustrates the comparative ZTV of the existing CRWF and the proposed development to blade tip;
- **Figure 5.4b**: illustrates the comparative ZTV of the existing CRWF and the proposed development to hub height;
- **Figure 5.5a**: (A0 fold-out) illustrates the ZTV calculated to blade tip at 1:90,000 scale across the 35km LVIA study area, including viewpoint locations and cumulative wind energy development;
- **Figure 5.5b**: (A0 fold-out) illustrates the ZTV calculated to hub height at 1:90,000 scale across the 35km LVIA study area, including viewpoint locations and cumulative wind energy development; and
- **Figure 5.6**: illustrates the ZTV calculated to blade tip within 5km.

ZTV Analysis: Proposed Development

The ZTV pattern for the proposed development reflects the underlying landform within the 35km LVIA study area and the percentages of theoretical visibility cover are summarised as follows:

- Total ZTV (to blade tip) coverage accounts for 8.35% of the 35km study area; and
- Total ZTV (to hub height) coverage accounts for 5.43% of the 35km study area.

Within 5km, the blade tip ZTV for the proposed development illustrates the proposed development's location in a shallow 'dish' formation at the head of two straths: Strath Vagastie to the north-east and Strath Tirry to the south-west. ZTV coverage extends in all directions out to *c*.2.5km, at which point theoretical visibility becomes contained by local hills to the north and north-east (Meall an Fhuarain (473m AOD), Creag Riabhach (399m AOD) and a further un-named summit (418m AOD)), to the south-west by Cnoc an Alskie (312m AOD), and to the east / south-east by Cnoc Sgriodian (544m AOD). ZTV coverage continues north-east along Strath Vagastie and the lower west facing slopes of Ben Klibreck, and south-west along the Strath Tirry. Further

patchy theoretical visibility is indicated to the south-east along the north facing slopes of Strath a' Chraisg (251m AOD) and the north and west facing slopes of Meall Meadhonach (438m AOD).

Within 5-10km, ZTV coverage becomes patchier with areas of theoretical visibility limited to Strath Tirry to the south, Strath Vagastie to the north-east, and both strath's containing hill slopes and summits to the west, including Creag Dhubh Mhor (533m AOD), Cnoc Maol na Cloiche Gile (405m AOD), Cnoc a' Mhaoit Ruaidh (288m AOD), and the western slopes of Ben Klibreck / Meal nan Con (962m AOD) to the east. A small area of theoretical visibility is also indicated to the south-east on the north and west facing slopes of Meall Odhar (429m AOD).

Beyond 10km, the ZTV is sporadic with the largest area of theoretical visibility indicated on the rising landform to the south-west of Loch Shin at between 12km and 22km with patchy visibility continuing to the north and south of Lairg at 20km to 30km. Other theoretical visibility is indicated in the open moorland north of Altnaharra and on isolated hill slopes and summits including Ben Hope (927m AOD), Ben More Assynt (998m AOD), Beinn Leoid (792m AOD), Ben Hee (873m AOD), Ben Loyal (764m AOD), and Beinn Sgeireach (476m AOD).

Comparative ZTV Analysis:

The comparative ZTV in **Figures 5.4a/b** show very few areas of additional visibility as a result of the introduction of the proposed development when compared with the existing CRWF. The percentages of theoretical additional visibility of the proposed development are summarised as follows:

- Additional visibility (blade tip and hub height) accounts for 0.03% of the whole study area.

It is noted that, where visible, the proposed development would always be viewed adjacent to the existing CRWF in all views for the operational period of the proposed development.

These limited areas of additional visibility are restricted to small patches of theoretical visibility to the north-east along Strath Vagastie and in remote areas in the north-east near Beinn Stumanadh, Dalvina Lodge and Skail. They also indicate that the proposed development would be much less visible in areas to the north, north-west and south-east where ZTV coverage is indicated for the existing CRWF only.

Cumulative ZTV Analysis:

A series of three cumulative ZTV maps are illustrated in **Figures 5.13 to 5.15**, indicating the extent of theoretical cumulative visibility in relation to the proposed development, and other existing and consented wind farms, and wind farm applications within the LVIA study area. All of the cumulative ZTVs assume bare ground and are calculated to blade tip height.

The cumulative developments have been grouped according to their planning status or geographical location and are described as follows:

- **Figure 5.13** – Cumulative ZTV 1 CRWF Extension, Existing and Consented Wind Farms between 10-35km.
- **Figure 5.14** – Cumulative ZTV 2 CRWF Extension and Application wind farms between 10-35km.
- **Figure 5.15** – Cumulative ZTV 3 CRWF Extension, CRWF, Sallachy and Strath Tirry wind farms.

Figure 5.13 illustrates that existing and consented wind farms would be most visible in areas to the south and west of the 35km study area with additional consented visibility across the north and north-east of the study area, due to the existing Strathy South and Creag Riabhach wind farms. Visibility of the proposed development alone (without intervisibility) would be limited to very isolated areas immediately to the north of the proposed turbines along Strath Vagastie, on open moorland north of Altnaharra and in scattered isolated areas to the west and north-east.

Figure 5.14 illustrates that other application wind farms are mostly located to the south of the proposed development. As a result, ZTV coverage indicates the highest concentration of visibility to the south of the 35km study area. Intervisibility with the proposed development is indicated in limited areas to the south and south-west along Strath Tirry and the rising landform south-east of Loch Shin. Visibility of the proposed development alone (without any intervisibility with other application wind farms) would be mostly limited to areas immediately to the north-west of the proposed turbines along Strath Vagastie, with further theoretical visibility indicated on open moorland north of Altnaharra and in scattered isolated areas to the west and north-east.

Figure 5.15 illustrates that intervisibility of the proposed development with the existing CRWF and the consented Sallachy and South Tirry wind farms occurs within the immediate area surrounding the proposed turbines and extends south into Strath Tirry and north-east into Strath Vagastie. Further intervisibility is indicated to the south-west on the rising landform at Loch Shin with further scattered intervisibility around Lairg and on slopes and summits in the wider area. Sallachy and Strath Tirry wind farms would both be intervisible across Loch Shin and Strath Tirry, and the existing CRWF would be visible to the north and north-west of the 35km study area with limited intervisibility with the proposed development. Added visibility from the introduction of the proposed turbines would be limited to small remote areas to the north-east along Strath Vagastie and in remote areas in the north-east near Beinn Stumanadh, Dalvina Lodge and Skail.

5.1.6 *Viewpoint and Cumulative Viewpoint Analysis*

The outer distance from the proposed development within which significant effects may be likely has been identified by the viewpoint analysis. Further, cumulative viewpoint analysis has identified a likely threshold for significant cumulative visual effects that would result from the proposed development, *in addition to*, or *in combination with* other existing and consented wind energy developments and applications.

Cumulative wind farm development included within the 35km study area that would be theoretically visible from each viewpoint has been illustrated in the wirelines.

Potential for Significant Effects: Proposed Development

The viewpoint analysis indicates that significant visual effects are likely to affect limited locations within approximately 5.6km distance from the proposed development, mainly to the east / north-east and immediate south, as follows:

- Viewpoint 6: Ben Klibreck;
- Viewpoint 8: A836 Northbound / NCN 1, near the Crask; and
- Viewpoint 20: A836 at track to Vagastie Cottage.

It is to be noted that, where visible, the proposed development would always be viewed adjacent to the existing CRWF in all views for the operational period of the proposed development and would be integrated with the existing CRWF broadly in relation to its vertical alignment and layout design.

The effects on all three viewpoints would also be cumulative and further cumulative analysis is provided below. There would be no significant visual effects from the north, west, north-west and south-west of the proposed development.

Potential for Significant Cumulative Effects

The proposed development would contribute to a significant, cumulative visual effect at three of the assessment viewpoints (Viewpoints 6, 8 and 20), all of which are within 5.6km distance from the proposed development. This is primarily with the existing CRWF and consented Sallachy Wind Farm (except Viewpoint 20 where Sallachy is not visible). Other more distant wind farms are also frequently visible from some of the assessment viewpoints, although these wind farms would be not significant. The viewpoint assessment also identifies five other viewpoints (Viewpoints 7, 12, 13, 17 and 18) that are significantly affected as a result of other existing, consented or other application wind farms within the 35km study area, excluding the proposed development.

Importantly, these levels of effect are indicative of a visual effect on a particular viewpoint location, and they should not be assumed to translate into visual effects on the overall visual experience, as each of the viewpoints have been specifically located where the sensitivity of the receptor and / or the views of the proposed development would be greatest. In this sense they are not always typical or representative.

As a precaution, the landscape and visual assessment has considered all of those receptors within 6km of the proposed development and national level receptors within 35km.

Interpretation of Viewpoint Analysis Summary Tables

The information set out in **Table** 5.4 provides a summary of the viewpoint analysis of the effects of the proposed development to the baseline, which includes the existing CRWF. This is because the operational periods for the proposed development and the existing CRWF would remain at the same at up to 40 years, and the existing CRWF would not be decommissioned prior to the proposed development.

Table 5.4 also provides a summary of viewpoint analysis of the cumulative the effects of the proposed development. The cumulative analysis sets out the effects of proposed development '*in addition to'* and '*in combination with'* other existing and consented wind energy developments and applications, assessing two scenarios in accordance with the methodology in **Technical Appendix 5.1** as follows:

- **proposed development**:
  This part of the assessment takes account of other existing forms of wind farm development that may be present in the landscape, whilst recognising that their influence on landscape character is likely to be time limited. It only considers the additional effects with the existing CRWF, and no other wind farms as noted above.
- **Scenario 1**: existing + consented + the proposed development
  The additional and combined cumulative effects of the baseline, including the existing and consented wind energy developments with the proposed development are reported.
- **Scenario 2**: existing + consented + applications + the proposed development
  The additional and combined cumulative effects of the baseline, including existing and consented wind energy developments and applications with the proposed development are reported.

Further information on **Table** 5.4 is provided in **Technical Appendix 5.2.**

Table 5.4: Summary of Viewpoint Analysis

Viewpoint No. and Title	FoV	Distance to nearest turbine (m)	Viewpoint Analysis: Proposed Development (PD)			Cumulative Viewpoint Analysis: Proposed Development (PD) and other wind farms					
			Sensitivity	Magnitude of Change	Level of Effect:	Cumulative Scenario 1:			Cumulative Scenario 2:		
						Magnitude of Change (Existing and Consented)	Additional Level of Effect (PD)	Combined Level of Effect	Magnitude of Change (Applications)	Additional Level of Effect (PD)	Combined Level of Effect
1. A836 Southbound / NCN 1, South of Altnaharra	3°	7,352	High	Low - Very Low	Moderate to Minor	Low	Moderate to Minor	Moderate (CRWF)	Zero	No cumulative effect	
2. Minor road / car park, South of Loch Meadie	N/A	11,105	Medium	Zero	No View	Zero	No cumulative effect		Zero	No cumulative effect	
3. B873, North of Altnaharra	<2°	8,737	Medium	Very Low	Negligible	Low - Very Low	Negligible	Minor to Negligible	Zero	No cumulative effect	
4. A836 Southbound / NCN 1, South of Loch Staing	28°	12, 710	High	Very Low	Minor	Low	Minor	Moderate (CRWF)	Zero	No cumulative effect	
5. Minor Road near Mudale	N/A	8,159	Medium	Zero	No View	Zero	No cumulative effect		Zero	No cumulative effect	
6. Ben Klibreck	12°	5,663	High	Low	**Moderate**	High	**Moderate**	**Substantial** (CRWF, PD)	Low	**Moderate**	**Substantial** (CRWF, PD)
7. Ben Hee	<6°	11,871	High	Very Low	Minor	Medium-Low	Minor	**Major to Moderate** (CRWF, Sallachy)	Low	Minor	**Major to Moderate** (CRWF, Sallachy)

Viewpoint No. and Title	FoV	Distance to nearest turbine (m)	Viewpoint Analysis: Proposed Development (PD)			Cumulative Viewpoint Analysis: Proposed Development (PD) and other wind farms					
			Sensitivity	Magnitude of Change	Level of Effect:	Cumulative Scenario 1:			Cumulative Scenario 2:		
						Magnitude of Change (Existing and Consented)	Additional Level of Effect (PD)	Combined Level of Effect	Magnitude of Change (Applications)	Additional Level of Effect (PD)	Combined Level of Effect
8. A836 Northbound / NCN 1, near the Crask	23°	893	High	High	**Substantial**	High	**Substantial**	**Substantial** (CRWF, Sallachy (if forestry is felled) and PD)	Zero	No cumulative effect	
9. Ferrycroft Visitor Centre, Lairg	N/A	21,404	High	Zero	No View	Zero	No cumulative effect		Zero	No cumulative effect	
10. Ben Hope	1°	20,338	High	Very Low	Minor to Negligible	Very Low	Minor to Negligible	Minor (CRWF)	Very Low	Minor to Negligible	Minor (CRWF)
11. Altnaharra, bridge	N/A	7, 820	High	Zero	No View	Zero	No cumulative effect		Zero	No cumulative effect	
12. Ben More Assynt	<3°	22,231	High	Very Low	Minor	Medium - Low	Minor	**Major to Moderate** (Sallachy)	Low - Very low	Minor	**Major to Moderate** (Sallachy)
13. Beinn Sgeireach	<2°	17,072	High	Very Low	Minor	Medium - Low	Minor	**Major to Moderate** (Achany, Rosehall, Sallachy)	High	Minor	**Substantial** (Achany, Rosehall, Achany Extension, Sallachy)
14. B873 Westbound / Grummore Caravan site	N/A	11,621	High	Zero	No View	Zero	No cumulative effect		Zero	No cumulative effect	

Viewpoint No. and Title	FoV	Distance to nearest turbine (m)	Viewpoint Analysis: Proposed Development (PD)			Cumulative Viewpoint Analysis: Proposed Development (PD) and other wind farms					
			Sensitivity	Magnitude of Change	Level of Effect:	Cumulative Scenario 1:			Cumulative Scenario 2:		
						Magnitude of Change (Existing and Consented)	Additional Level of Effect (PD)	Combined Level of Effect	Magnitude of Change (Applications)	Additional Level of Effect (PD)	Combined Level of Effect
15. Beinn Leoid	<1°	32,017	High	Very Low	Minor to Negligible	Low - Very Low	Minor to Negligible	Minor (CRWF)	Very Low	Minor to Negligible	Minor (CRWF)
16. Ben Loyal	<1°	19,136	High	Very Low	Minor to Negligible	Low – Very Low	Minor to Negligible	Moderate to Minor (Strathy South)	Very Low	Minor to Negligible	Moderate to Minor (Strathy South)
17. A836, South of Crask Inn	4°	2,869	High	Low - Very Low	Moderate to Minor	Medium	Moderate to Minor	**Major to Moderate** (CRWF)	Low - Very Low	Moderate to Minor	**Major to Moderate** (CRWF)
18. The track to Loch Choire	<2°	2,609	High	Very Low	Minor	Medium	Minor	**Major to Moderate** (CRWF)	Very Low	Minor	**Major to Moderate** (CRWF)
19. Achnairn Campsite	N/A	14,391	High	Zero	No View	Zero	No cumulative effect		Zero	No cumulative effect	
20. A836 at track to former Vagastie Cottage	80°	418	High	High	**Substantial**	High	**Substantial**	**Substantial** (CRWF, PD)	Zero	No cumulative effect	

Note: Significant effects resulting from the proposed development are indicated in **bold** text and shaded dark grey.

Baseline of Landscape Receptors

Information on the existing landscape resource or baseline conditions included in this assessment has been collected from local development plans and the OWESG, as well as OS maps and information gathered from field surveys. This baseline information is set out as an inventory of the existing landscape resource and focuses on those landscape receptors most likely to be significantly affected.

The baseline inventory includes the following landscape receptors:

- Landscape Character and associated pattern of wind farm development; and
- Landscape Planning Designations and WLAs.

The ZTV and viewpoint analysis indicate that significant visual effects are likely to be limited to within approximately 5.6km from the proposed development (VP 6, 8 and 20), mainly to the east / north-east and immediate south, subject to a clear view of the proposed turbines. Taking a precautionary approach, the assessment has focused on local landscape receptors overlapped by the blade tip ZTV within 6km of the proposed development and nationally important landscape planning designations and WLAs within the wider 35km LVIA study area. Receptors that would not be significantly affected have been excluded from the assessment with appropriate reasoning provided as part of the baseline analysis.

5.1.7 *Baseline Landscape Character*

Landscape across Scotland is classified into different types of landscape character (LCTs) by NatureScot in their Landscape Assessment (2019). The OWESG advises the use of the Landscape Assessment, and further notes that larger wind farm development *'should be focused around existing clusters that are generally found in rolling uplands, rugged massif and rocky moorland Landscape Character Types, but only where these are well designed, integrated into the existing pattern of development and do not undo the landscape and visual mitigation agreed for existing schemes.*' The proposed development fits well within this advice. This assessment divides the landscape into broad Landscape Character Types (LCT), illustrated in **Figures 5.7 and 5.8.**

The proposed development lies within the *Rounded Hills* and *Sweeping Moorland and Flows* LCTs. Wind farm development is recognised as characteristic of the *Rounded Hills* landscape in '*subtly undulating and lower hills set within the interior of these uplands*.' Wind farm developments are also recognised as '*more prominent features within the more modified outer fringes'* of the *Sweeping Moorland and Flows* LCT.

Including the host LCTs, there are three LCTs within 6km of the proposed development that are also overlapped by the blade tip ZTV and are included in the assessment:

- *LCT 135 - Rounded Hills*
  This is the host LCT of turbines EXT2 and EXT3 of the proposed development. The LCT is host to numerous other existing wind farms, including the adjacent CRWF, Achany, Lairg, Rosehall and

Kilbraur. Several other wind farms have been approved within this LCT, including Sallachy, Braemore, and Lairg 2.

- *LCT 134 - Sweeping Moorland and Flows*
  This is the host LCT of turbine EXT1 of the proposed development including the BESS. The LCT is also host to Gordonbush and Extension and Kilbraur Extension, and the approved Strath Tirry and Strathy South wind farms.
- *LCT 138 - Lone Mountains*, which includes Ben Klibreck to the east of the proposed development.

5.1.8 *Baseline Landscape Planning Designations and Wild Land Areas*

Landscape planning designations within the LVIA study area are illustrated in **Figure 5.7** which also illustrates the blade tip ZTV and other cumulative wind farm development.

The proposed development is not designated at a national or local level for landscape reasons. Landscape designations and their Special Landscape Qualities (SLQs) may, however, be affected by development beyond their boundaries, including views and perceptual qualities for which these areas are valued. Local landscape designations within 6km and national designations within the 35km LVIA study area that overlap with the blade tip ZTV have been included in the assessment.

NS agreed to scope out the assessment on all NSAs and WLAs within the 35km study area, as reported in **Table** 5.1. However, at the request of THC, a high-level assessment on the SLQs of the *Kyle of Tongue* and *Assynt – Coigach* NSAs and the wild land qualities of the *Ben Klibreck – Armine Forest* and *Foinaven – Ben Hee* WLAs has been included in the assessment. The remaining national designations are excluded from the assessment.

Landscape Planning designations included in the assessment are listed as follows:

- Local Landscape Designations within 6km:
  Ben Klibreck and Loch Choire Special Landscape Area (SLA 8)
- National Landscape Designations within 35km:
  - *Kyle of Tongue* NSA (NSA 23)
  - *Assynt – Coigach* NSA (NSA 36)
- Wild Land Areas within 35km:
  - *Ben Klibreck – Armine Forest* WLA (WLA 35)
  - *Foinaven – Ben Hee* WLA (WLA 37)

5.1.9 *Baseline Visual Receptors*

Information on visual receptors included in this assessment has been collected from local development plans, OS maps and relevant tourist literature, as well as information gathered from field surveys. This baseline information is set out as an inventory of the visual receptors focusing on those most likely to be significantly affected.

The baseline inventory includes the following visual receptors overlapped by the blade tip ZTV:

- Views from settlements and residential properties;
- Views experienced whilst travelling through the landscape (road / rail users, walkers, horse riders and cyclists for example); and
- Views from tourist and recreational destinations.

As noted previously, the ZTV and viewpoint analysis indicate that significant visual effects are likely to be limited to within approximately 5.6km from the proposed development. Taking a precautionary approach, the LVIA has focused on those visual receptors within 6km of the proposed development that overlap with the blade tip ZTV, in order to assess the likely significant visual effects. Within the wider 35km study area, the assessment has considered receptors of national importance such as Scotland's Great Trails and popular hill walking summits also overlapped by the blade tip ZTV. Receptors that would not be significantly affected have been excluded from the assessment, with appropriate reasoning provided as part of the baseline analysis.

Visual Receptors: Settlements and Residential Properties

There are no settlements within 6km of the proposed development. The nearest settlement within THC LDP is Lairg approximately 21km to the south, which is located outwith the ZTV.

A Residential Visual Amenity Assessment has not been undertaken, given that the only property within 2km of the proposed turbines at Vagastie Cottage was demolished following a fire in 2018.

Visual Receptors: Transport Routes

Transport routes within 6km of the proposed development that are overlapped by the blade tip ZTV are listed as follows and included in the assessment:

- A836.

Visual Receptors: Recreational Routes

Recreational routes within 6km of the proposed development that are overlapped by the blade tip ZTV and included in the assessment are illustrated in **Figure 5.11** and listed as follows:

- Strath Tirry to Badanloch Tracks Heritage Path from the Crask Inn to Badanloch Lodge.

There are no known promoted horse-riding routes within 6km of the proposed development.

National and other long-distance recreational routes within 35km of the proposed development that are overlapped by the blade tip ZTV are included in the assessment and listed as follows:

- Sustrans Cycle Route 1.

ZTV and viewpoint analysis has confirmed that the views from the following national / long distance recreational routes within 35km would not be significantly affected (see **Figure 5.10**). They have, therefore, been excluded from the assessment and are listed as follows:

- Cape Wrath Trail (outwith ZTV);
- Sutherland Trail (outwith ZTV);
- Moray Firth Trail (very limited visibility of the proposed development south of Lairg); and
- North Coast 500 (outwith ZTV).

Overlapping recreational routes have not been 'double counted' and are assessed as one receptor where they occur with the national level receptor taking precedence in the assessment.

Visual Receptors: Recreational and Tourist / Visitor Attractions

Recreational and tourist destinations relevant to the LVIA include those features that appear as prominent landmarks or landscape features, and locations associated with passive recreation such as walking where there is a clear relationship between the feature / destination and an appreciation of the landscape. Gardens and Designed Landscapes (GDL) are included where these are open to the public, as well as National Trust gardens / land and Historic Environment Scotland visitor sites which are overlapped by the blade tip ZTV. Some of these locations are also referred to in **Chapter 11: Cultural Heritage** and **Chapter 13: Socio-Economics, Recreation and Tourism**. The assessment excludes locations for team sports and other recreational / tourist destinations where the focus of activity is not on the landscape or is indoors – for example museums, libraries, and gift shops.

The local area within 6km of the proposed development is not a promoted tourist destination or location. The following destinations have been identified as notable recreational / tourist destinations:

- Crask Inn.

ZTV and viewpoint analysis has confirmed that the views from the Tongue House GDL and Dun Dornaigil Broch Ruins would not be affected by the proposed development.

Visual Receptors: Hills and Mountains (Not Covered By Recreational Routes / Attractions)

The assessment recognises that a range of recreational / tourist activities may be undertaken within the hills and moorlands including, but not limited to, wildlife safari, stalking / hunting / fishing, climbing / mountaineering, paragliding, horse riding, skiing, and mountain biking. The assessment has focused on the walker as the main receptor activity whose attention is likely to be most focused on the landscape and an appreciation of their surroundings.

The assessment has included mountain summits and their associated access routes which are overlapped by the blade tip ZTV within 35km. Several of the Munro and Corbett summits are assessed by the viewpoint analysis contained in **Technical Appendix 5.2**, including Ben Klibreck, Ben Hope, Ben More Assynt, Ben Hee, Beinn Leoid and Ben Loyal. These receptors are indicated on the OS base maps and highlighted in **Figures 5.10 and 5.11**. Other Munros and Corbetts within 35km are located outwith the ZTV.

5.1.10 *Baseline Evolution*

The proposed development is envisaged to become operational in 2026 with a subsequent operation period of up to 40 years. The LVIA considers that during this period, the predicted future baseline and evolution of

landscape and visual receptors is unlikely to change significantly under the current regime of landscape and forestry management and maintenance. The assessment also recognises that some elements of the proposed development, such as the internal access tracks and crane hardstands, would be permanent and remain beyond the construction and decommissioning period, although subject to mitigation in respect of the BESS, whilst the internal access tracks and crane hardstands would be allowed to grass over, or would be covered with soil and reseeded. The operation period of up to 40 years, although 'long-term' is assessed as though it were permanent, whilst noting that the effects of the proposed turbines would be reversible once decommissioned.

Land management, and consequently landscape character, is dependent on a number of economic and environmental factors including the future effects of climate change and human adaptation which are difficult to predict at a local level and are not a matter for this assessment. It is likely, however, that mitigation and adaptation in response to changing climate and biodiversity pressures would continue to have an influence on this area in the form of increased renewable energy and other environmental changes which are likely to alter the landscape baseline as follows:

- Change resulting from an increased reliance on renewable energy, including wind farm development; and
- Change to current levels of forestry and woodland, which may increase.

Change to the future baseline of other wind energy development that can be reasonably predicted within 10km of the proposed development is set out in **Table** 5.5.

Table 5.5: Future Baseline of other Wind Energy Development within 10km

Wind Energy Development	Proposed Development: Operational Period of 40 years							
	2028-2033	2033-2038	2038-2043	2043-2048	2048-2053	2053-2058	2058-2063	2063-2068
	0-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40
Existing Wind Farms within 10km								
E01 Creag Riabhach	Operational 2023 for 25 years until 2048				Further operational extension by 15 years to 2063			

Embedded Mitigation

The design and project description including the associated infrastructure for the proposed development is detailed in **Chapter 3: Description of Development**. Landscape related aspects of the design and mitigation are described in this section.

The inherent nature of wind turbines as tall, modern structures means that the form of the wind farm as a whole is important. The appearance of the wind farm as an object or composition in the landscape has been a key factor in generating the layout. In this respect the design evolution has taken account of the following guidance, particularly in relation to wind farm extensions:

- SNH *Guidance on Siting and Designing Windfarms*, Version 3a, 2017, which aims to achieve a simple, rational and cohesive design that, to a reasonable degree, avoids overlapping turbines and gaps within the visual composition; and
- Landscape constraints, opportunities and guidance for wind farm development within the Rounded Hills and Sweeping Moorland and Flows LCTs, described by the SNH *Landscape Character Assessment*, 2019, the relevant policies of the *HwLDP* and THC's *OWESG* (2016).

The design of the proposed development is based upon the design principle that the proposed turbines would integrate with the existing CRWF and are a logical infill as they are in the same alignment. The proposed turbines take advantage of the differences in topography and are broadly within the visual envelope of the existing CRWF. There would be no discernible difference in tip heights from the majority of the viewpoints.

The proposed development has been designed to balance technical and project requirements with a need to safeguard the environment and satisfactorily accommodate the proposed development within its landscape setting. The design evolution has aimed to reduce landscape, visual and cumulative effects and to respect the landscape characteristics identified in the in the SNH *Landscape Character Assessment*, 2019. The design of the proposed development also meets all the suggested examples of appropriate mitigation advised for wind farm development in the THC's OWESG, as assessed within the accompanying Planning Statement.

5.1.11 *Landscape Specific Mitigation*

Specific landscape mitigation which has been embedded into the design of the proposed development is summarised below.

Construction Mitigation:

The development of the wind farm would draw upon the guidance set out in SNH guidance '*Good Practice during Windfarm Construction*'[5]. The key measures that would be implemented as part of the post-consent Construction Method Statement (CMS) and the supporting Construction Environmental Management Plan (CEMP), in order to avoid or reduce potential construction effects, include:

- The selective and sensitive location of temporary storage areas for materials, plant, and security fencing;
- Using designated routes around the site for construction vehicles and operation of construction plant such as cranes. Avoiding the creation of any wheel ruts and subsequent clear up of these;
- Implementation and monitoring of site management procedures, such as regular litter sweeps of the immediate environs to ensure the removal of all litter arising from the construction activities; and

[5] Good Practice during Windfarm Construction, A joint publication by Scottish Renewables, Scottish Natural Heritage, Scottish Environment Protection Agency, and the Forestry Commission Scotland; Version 1, October 2010.

- Removal, reinstatement, and clear up of the Construction Compound and any related construction arisings.

Site Access and Internal Access Tracks

The same site access as the existing CRWF would be used for the proposed development which is located south of Vagastie Bridge.

A total of approximately 1.5km of new wind farm internal access tracks would be constructed. The tracks would feature local widening on corners and would be surfaced with coarse aggregate (see **Figure 3.6** for typical track cross sections).

Small sections of the wind farm internal access tracks would be most visible from Viewpoints 6, 8 and 20 within 10km and are illustrated in **Figures 5.19, 5.20** and **5.25**. From other viewpoints, due to intervening landform and vegetation, they would not be visible. These low levels of visibility of the site infrastructure confirm minimal landscape and visual effects on the surrounding receptors.

On completion of site construction, the site entrance and internal access tracks would be cleared of any construction signage and left in a tidy and co-ordinated condition with verges restored and field boundary fencing neatly tied into new gates / access details.

Wind Turbines

A total of three wind turbines are proposed with a blade tip height of 149.9m, each with an associated crane pad. The turbines would be three bladed variable speed, pitch regulated wind turbines with the rotor and nacelle mounted on a cylindrical tower as described in **Chapter 3: Description of Development**.

The viewpoint analysis indicates that the turbines would frequently be viewed against the sky. For these reasons it is proposed that the standard turbine colour of pale grey would be most appropriate. The turbines would be a uniform semi-matte grey colour (no company logos or advertising to reduce their contrast with the background sky and landscape and minimise their reflectivity). This measure would ensure a reasonable degree of parity between the proposed turbines and the existing CRWF turbines.

The proposed turbines would all rotate in the same direction as the existing CRWF turbines.

Battery Energy Storage System

A Battery Energy Storage System (BESS) would be constructed within the temporary construction compound area. The BESS would consist of a palisade fenced open compound capable of taking in excess of 30MW of batteries along with inverters and transformers connected by an underground cable to the substation. The batteries would either be a series of individual cabinets mounted on a concrete base for stability or housed within a container for protection against the weather. The BESS compound would be approximately 90m x 75m in area which is similar to that of the temporary construction compound. Each battery storage unit is approximately 12.8m x 18.2m with a height of approximately 2.35m. 16 units are envisaged on the existing temporary construction compound area. To maintain the amenity and simplicity of the rounded hills, the colour of the associated battery containers and PCS would be coordinated with that of the existing substation

to have a low contrast with the surrounding landscape. These would also be enclosed by a 2.4m high perimeter fence with a low visibility style and colour. The visibility of the BESS is proposed to be mitigated by organically shaped bunding which takes into the account local topography and landscape elements, as illustrated in **Figure 3.9**, and would be largely screened by the bunding, particularly when viewed from the A836. Following the construction of the bunding, the BESS would have very low visibility from the surrounding areas. It is likely that people on the A836 around Viewpoint 8 and walkers climbing Ben Klibreck would have limited views of the BESS.

Temporary Construction Compound

The existing CRWF temporary construction compound (CRWF TCC) would be used temporarily for the additional turbine construction works and permanently for the BESS. Works would be undertaken on the eastern half of the CRWF TCC to remove rock to formation level, which would then be used in the construction of the access tracks and for the creation of a platform for a temporary construction compound for the proposed development (CRWFE TCC). Then the CRWFE TCC would be removed and the western half of the CRWF TCC will be excavated down to formation level to enable construction of the BESS *in situ*.

During the construction period, the construction compound would include laydown areas for storage area for the various components, fuels and materials required for construction. Any lighting would be directional in accordance with Institute of Lighting Professionals (ILP) guidance and mounted on the individual portacabins.

The location of the construction compound has been selected partly because it has low landscape sensitivity and would have limited visibility from surrounding receptors due to intervening landform and is likely to be visible by people on the A836 around Viewpoint 8 and walkers climbing Ben Klibreck.

Compensatory Planting

The effect of the existing woodland within the site boundary has been assessed in **Chapter 14: Other Issues** which has also considered appropriate mitigation including compensatory planting. The permanent area of woodland to be felled is associated with the footprint of turbines T02 and T03 (1.98 hectares (ha) turbine and track footprint, plus 15%). The area of compensatory planting would include an area of 2.28 ha to the south-east of T02 (illustrated in **Appendix B** of **Chapter 14**: **Other Issues**), enclosed by a deer fence, and comprising native species including Birch, Scots pine, Rowan, Alder, Willow and Juniper, which would keep in line with the existing character of the landscape. This new area of compensatory planting (woodland) would be most visible from a small part of the A836 and from the summit of Ben Klibreck.

There are a number of limitations and assumptions in relation to forestry / woodland management, as follows, that are relevant to this assessment:

- Where Forest Plans exist, felling phases are described and the replanting (compensatory planting) design and species choices are included. Designed open space and non-intervention or Long-Term Retention may be developed;
- By assessing the changes to any permanent woodland loss resulting from the proposed development, a reasonable worst case is assumed whereby the integrity of the woodland as a whole is preserved;

- It should be noted that the final tree height is dependent upon the local site conditions, particularly exposure to wind and soil strength. In exposed locations and areas of weak soil, a tree may not achieve a height of 20m before succumbing to windthrow.

Assessment of landscape effects

Potential effects reported in this section take account of the embedded measures and project description set out previously and in **Chapter 3: Description of Development**.

Landscape Effects are defined by the Landscape Institute in GLVIA 3, paragraphs 5.1 and 5.2 as "*An assessment of landscape effects deals with the effects of change and development on landscape as a resource. The concern [...] is with how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character. ... The area of landscape that should be covered in assessing landscape effects should include the site itself and the full extent of the wider landscape around it which the proposed development may influence in a significant manner*."

These effects are assessed by considering the landscape sensitivity (value and susceptibility) against the magnitude of change. The type of effect is also be described as temporary or permanent, direct or indirect, cumulative and beneficial, neutral, or adverse. An assessment of the cumulative landscape effects, taking account of other existing and consented wind farm development and any current wind farm applications, has been undertaken according to the methodology detailed in **Technical Appendix 5.1**. The assessment has taken a precautionary approach and focused on the landscape receptors within 6km. This has been guided by the results of the viewpoint analysis (**Technical Appendix 5.2**) which indicated that significant visual effects would be limited, primarily to within 5.6km of the proposed turbines.

In summary, the proposed development would have a localised **significant** effect (**Moderate**) on both host landscape character types of the *Rounded Hills* LCT and *Sweeping Moorland and Flows* LCT at distances of between 1.5-2km from the proposed turbines. Otherwise, and partly due to the large scale of the host landscape types, there would be no significant effects on the wider areas of landscape character. There would also be no significant effects on the SLQs of any designated landscapes and on the WLQs of any Wild Land Areas within the 6km and 35km study areas.

5.1.12 *Landscape effects: LCT 134 - Sweeping Moorland and Flows*

The landscape character within 6km is illustrated in **Figure 5.8**.

The proposed development spans two 'host' landscape character types, although in relation to the extent of the site, located at the transition between the LCTs, there is little discernible difference in landscape features.

The southernmost turbine (EXT-01) is located within *LCT 134 - Sweeping Moorland and Flows.* This LCT covers an extensive area to the north-east of Scotland within Caithness and East Sutherland. The landscape character of the *Sweeping Moorland and Flows* LCT is described further within the NS 2019 Landscape Character Assessment and the key characteristics listed by NS are:

- *Gently sloping or undulating landform which lies generally below 350 metres.*

- *Occasional isolated hills of limited height form local landmark features.*
- *Lochs and mature, meandering rivers.*
- *Very distinct flora, dominated by sphagnum mosses, produced by the wetness and infertility of the flows.*
- *Areas of peat cuttings and hagging.*
- *Pockets of improved grazing, mainly within the outer fringes of sweeping moorland.*
- *Coniferous forest forming a dominant characteristic within some parts of this landscape character type.*
- *Ribbons of broadleaf woodland occasionally run along the water courses and loch edges.*
- *Very sparsely settled with dispersed crofts, farms and estate buildings largely found on the outer edges of this landscape or near a strath.*
- *Vehicular tracks within parts of the landscape.*
- *Wind farms, transmission lines, the A9 and a network of minor roads are key features within the more modified outer fringes within Caithness.*
- *Long, low and largely uninterrupted skylines offering extensive views across this landscape and result in a feeling of huge space.*
- *Consistent views to the distant Lone Mountains and Rugged Mountain Massif – Caithness & Sutherland.*
- *Great sense of exposure on areas of flat peatland on upland plateau.*
- *A strong sense of remoteness is associated within the largely uninhabited, inaccessible core flows and moorlands of this landscape.*

It is noted that wind farms are key features within the '*more modified outer fringes*' of this LCT. Although the 35km study area does not cover the full extent of the *Sweeping Moorland and Flows* LCT, existing and consented wind farms occur to the north-east of the LCT within and just beyond the 35km study area, to the south and south-east, and adjacent to the site at Creag Riabhach (**Figure 5.7**). The existing CRWF is also located in the transitional landscape with 8 of the 22 turbines located within the *Sweeping Moorland and Flows LCT*. The area of the LCT within which the proposed development and existing CRWF are situated is located on the northern fringes of the expansive LCT area and is separated from the larger expanses of *Sweeping Moorland and Flows* LCT to the west, north and east by the more elevated *Rounded Hills* LCT as well as the *Lone Mountains* LCT to the north-east. The area does, however, connect to the greater expanse of the *Sweeping Moorland and Flows* LCT through a narrow corridor to the south-east. As a whole, the proposed development relates to the lower lying slopes in the transitional area where surrounding elevated landforms provide a degree of screening in the wider landscape.

Landscape Sensitivity

The landscape assessment has been undertaken in accordance with GLVIA 3 and the methodology in **Technical Appendix 5.1**. GLVIA 3, paragraph 5.39 advises that *"Landscape receptors need to be assessed firstly in terms of their sensitivity, combining judgements of their susceptibility to the type of change or development proposed and the value attached to the landscape. … it is specific to the particular project or development that is being proposed and to the location in question."*

Landscape susceptibility according to the GLVIA 3, glossary means *"the ability of the landscape to accommodate the development without undue consequences for maintenance of the baseline situation and / or the achievement of landscape planning policies and strategies"*.

Neither the THC's Onshore Wind Energy Supplementary Guidance (2016) nor the Landscape Sensitivity Appraisal (Addendum Supplementary Guidance: "Part 2B", December 2017)[6] cover the site area of the proposed development. However, the nearest area of *Sweeping Moorland and Flows* LCT documented within the Landscape Sensitivity Appraisal is the CT4: Central Caithness. This area mostly covers the north-eastern tip of the LCT and stops over 20km distance from the proposed development. The Appraisal ranks CT4 as '3 out of 4' in terms of susceptibility, with '1' being the most susceptibility to change. The document notes that there is "*limited scope for…Larger turbines*" as follows.

"*Turbines should:*

- *concentrate and consolidate with existing development*
- *maintain open, clear and direct views, which allow the appreciation of the wild landscape, in particular from the A9*
- *be designed so that the logical relationship between development scale and landscape character is maintained*

Extensions and repowering schemes should:

- *continue the scale, form and proportions of existing and consented development*
- *avoid unnecessary cumulative effects*

The more sensitive area of the LCT is considered within the document to be to the north-west of the LCT where "*…the relatively abrupt transition from the more rugged Sutherland landscape character to the open flatter landform of Caithness provides a key gateway and is highly sensitive to windfarm development in the immediate and wider landscape…".* This is also the location of key 'gateway views' which are identified as being "*Further west … as you cross the transition from the open flat moorland/agricultural plain of Caithness, to the more undulating and rugged moorland of Sutherland…"*.

In considering the THC Landscape Sensitivity Appraisal in relation to the proposed development, it is noted that the proposed turbines form an extension of an existing wind farm and follow the '*same scale, form and proportions'*. This necessarily '*concentrates and consolidates with existing development'*. In addition, it is also noted that the proposed development is not located within the most sensitive area to the north-west of the LCT.

In considering the landscape susceptibility for the proposed development, this assessment refers to a range of commonly accepted landscape criteria or indicators of susceptibility to wind energy development, as set out in **Table 5.6**. They include attributes of large landscape scale, simple landform and land cover, limited settlement, the presence of other wind farms and visual qualities of broad and simple skylines, all of which are key characteristics of the *Sweeping Moorland and Flows* LCT and often indicate lower susceptibility to

[6] The Highland Council (2017) Landscape Sensitivity Appraisal: Black Isle, Surrounding Hills and Moray Firth Coast Caithness, Addendum Supplementary Guidance: being part of the Highland Strategic Capacity content of the suite: "Onshore Wind Energy Supplementary Guidance, November 2016.

wind farm development. Other attributes such as wildness and remoteness tend to indicate higher susceptibility. Although the proposed development is not within a Wild Land Area, there are Wild Land Areas to the east and west of the site within the LCT.

The LCT is locally valued in terms of the Ben Klibreck and Loch Choire SLA which partially overlaps the LCT within the detailed study area to the west of Ben Armine and Creag Mhor. In the wider study area, the LCT is locally valued where it overlaps the Bens Griam and Loch nan Clar SLA which partially covers the LCT and nationally valued where it borders the Kyle of Tongue NSA and the Causeymire - Knockfin Flows NSA. In terms of openness, enclosure and connections with other neighbouring landscapes, the site is relatively contained by low lying hills in most directions, but has some visual connections from surrounding elevated areas including Ben Klibreck / Ben Klibreck and Loch Choire SLA to the north-east. Connection to other low-lying areas, however, is limited by the surrounding hills. As a result, an overall assessment has been made of Medium-Low landscape susceptibility. This approximately concurs with the Landscape Sensitivity Appraisal which ranks CT4 as '3 out of 4' in terms of susceptibility, with '1' being the most susceptible to change.

Table 5.6: Sweeping Moorland and Flows: Landscape Susceptibility

Landscape Attributes	Characteristics that are less susceptible to wind farms			Characteristics that are more susceptible to wind farms	
	Low	Medium – Low	Medium	High - Medium	High
Physical Characteristics:					
Scale	Larger scale landscapes and landform which may be more able to accommodate large scale wind turbines			Smaller scale well defined landforms which may become dominated or overwhelmed by wind turbines	
	✓				
Landform and Topography	Simple upland plateau, gently rolling or flat landscapes as the turbines may be less easily scaled against the landform			Complex landforms with well-defined changes in level including ridges, steep sloping hillsides and narrow valleys.	
		✓			
Land Cover	Large scale simple and homogenous land cover e.g. moorland or forestry where the simply landcover may complement turbines			Complex and diverse land cover including a mix of arable fields, grassland, woodland, and water that turbines may dominate.	
	✓				
Pattern	Unenclosed land or large field patterns which may complement the modern aesthetic of turbines.			Irregular small-scale patchwork or medieval field patterns that turbines may overwhelm.	
	✓				
Settlement	Sparse or no settlement with relatively few visual receptors and scale indicators.			Populated areas / lowlands with lots of people and small-scale indicators.	
	✓				
Other Similar Development	Large scale industrial, infrastructure and mineral extraction land uses detracting from the overall landscape sensitivity and value. Landscapes with other wind farms.			Rural / traditional forms of development including parks and gardens and monuments enhancing the overall landscape sensitivity and value.	
		✓			
Perceptual Characteristics:					
Wildness and Naturalness	Area not valued for wildness as a key characteristic or SLQ.			Area valued for wildness as a key characteristic or SLQ.	
		✓			

Landscape Attributes	Characteristics that are less susceptible to wind farms			Characteristics that are more susceptible to wind farms	
	Low	Medium – Low	Medium	High - Medium	High
Remoteness	Area that feels closer to people and human activities. Conversely, a remote area not valued for wildness or tranquillity would have a lower number of visual receptors.			Area that feels remote from people and human activities. Conversely, landscapes that are settled / built up would have a higher number of visual receptors.	
		✓			
Rational / Windswept	Open and exposed landscapes where turbines, though more visible, may be logically located in windswept locations.			Enclosed or sheltered landform likely to be of a smaller scale and limited rational for turbine locations.	
	✓				
Visual Characteristics:					
Openness and Enclosure	Enclosed landscape with limited opportunities for long range views.			Open landscapes with opportunities for long range views.	
		✓			
Skyline	Broad simple skylines lacking in distinctive or 'landmark' topography.			Skylines which are an important and noticeable component in the landscape with 'landmark' topography.	
		✓			
Landmarks	Landscapes with no sensitive features where turbines might detract from settings			Landscapes with landmarks and features such as church spires and prominent listed buildings where turbines might compete as landscape foci and detract from settings	
		✓			
Surrounding Context	Self-contained landscape with limited relationship with adjacent areas.			Landscapes that are closely connected to the adjacent / surrounding areas in terms of similar character or visual backdrop.	
		✓			
Overall Susceptibility		**Medium - Low**			

Considering landscape value, the landscape overall is in a reasonable condition in terms of its representativeness, landscape interest, perceptual and scenic quality. In terms of public access and recreational use, the site is not a popular tourist or recreational area, although the A836 / Sustrans Cycle Route 1 is routed to the east of the proposed development. The site itself is not located within any locally or nationally designated landscapes, although the *Ben Klibreck and Loch Choire* SLA is located to the north-east of the site at approximately 2.1km distance and the *Ben Klibreck - Armine Forest WLA / Foinaven - Ben Hee WLA* are located <1km to the east and west of the site. Taking account of the landscape condition, recreational interests and adjacent local designation, the landscape value of the site and immediate surroundings is assessed as of Medium value.

Considering the assessment of Medium-Low susceptibility and the Medium value, the overall sensitivity of the *Sweeping Moorland and Flows* LCT to the proposed development is assessed as *Medium*.

The landscape elements on the site, mainly moorland vegetation and young mixed woodland, are not sensitive in landscape terms and have been assessed as of Low sensitivity.

Landscape Effects During Construction

The construction phase would result in localised direct landscape effects on the site and its component landscape elements which include moorland vegetation of Low sensitivity. Moorland vegetation would be removed to allow for the construction of internal access tracks, areas of hardstanding, turbine foundation and BESS. Some of the works would be temporary as in the case of temporary hardstandings and these areas would be reinstated through a process of relaying turfs / soils and re-seeding as described in **Chapter 3: Description of Development.**

Although temporary, the construction phase would be progressive and would cover a focused geographical area within the site boundary as it connects into the existing CRWF infrastructure (some of which would be located within the adjoining *Rounded Hills* LCT). This would marginally increase the footprint of the wind farm infrastructure further to the east / south-east. The magnitude of change would therefore increase from Zero to Medium, towards the completion of the proposed development. The magnitude of change is reduced due to the presence of existing wind farm infrastructure. The landscape effects on the fabric and constituent elements of the landscape would range from **Negligible** (at the start of the construction phase) to **Minor** (at the height of construction) and would be **Not Significant**, due to the low sensitivity of the landscape elements that would be affected. Some areas such as the hardstandings and crane pads would be reinstated in accordance with the Construction Environmental Management Plan (CEMP) (**Technical Appendix 3.1: Outline CEMP**), whilst most areas (such as the internal access tracks) would lead to a long term or permanent landscape change.

In terms of the likely effects on landscape character, the magnitude of change during the construction phase would range progressively from Zero to Medium, primarily as a result of the turbine construction and related infrastructure, including internal access tracks, BESS and construction compound. Overall, the landscape effects on the *Sweeping Moorland and Flows* LCT would range from None (at the start of the construction phase) and increase to **Moderate** and **Significant** upon completion, due in particular to the nature of construction activity (contrasting colours, movement, people) within the context of existing wind farm infrastructure. The geographical extent of significant effects would be limited to areas within the site itself extending out to approximately ~1.5-2km from the proposed turbine, where it would marginally increase the area significantly affected by the existing CRWF turbines.

With increased distance, the magnitude of change to the landscape would reduce to Low and Very Low to Zero resulting in a **Minor to Negligible**, to **None** and **Not Significant** landscape character effect on the majority of the *Sweeping Moorland and Flows* LCT. The nature of these effects would be short-term, direct and negative to neutral due primarily to the scale, contrast and movement associated with the construction period.

Landscape Effects During Operation

During operation, the completed wind farm extension would gain a more 'settled' appearance when compared to the same area during the construction period. Although significant, the landscape effects would continue throughout the operational period mainly as a result of the proposed turbine and less as a result of the associated infrastructure.

Most of the key characteristics of the *Sweeping Moorland and Flows* LCT are physical in nature and these would not be affected or altered by the proposed development during operation. Rather, there would be localised change in relation to the implementation of the Biodiversity Enhancement and Restoration Plan (BERP) and CEMP, bunding around the BESS and through the addition of the wind turbines and associated infrastructure. The proposed development, including the site infrastructure, would introduce new turbines to an existing wind farm to the northern fringe of the LCT, within a 'pocket' of the LCT surrounded by low lying hills. Through the design process, the proposed turbines have been designed to follow the pattern of the existing CRWF, match the scale of the existing turbines, and only slightly increase the overall footprint of the wind farm within the *Sweeping Moorland and Flows* LCT. This complies favourably with the criteria for extensions set out within the Landscape Sensitivity Appraisal for CT4.

The proposed development would contrast with the moorland landscape as the turbine blades would rotate and the proposed development would appear as a large-scale feature. Equally, however, the presence of existing turbines in combination with the site's location in a moorland landscape surrounded by low-lying hills reduces susceptibility.

As reported for the construction period, the same levels of landscape effect would continue through the period of operation. The magnitude of change would range from Medium (within ~1.5-2km to the east / south-east) to Very Low in the wider LCT. The level of landscape effect would range from **Moderate** and **Significant** (affecting a geographical area ~1.5-2km from the proposed turbine to the east / south-east and marginally extending the area of significant effects from the existing turbines) to **Minor to Negligible** and **Not Significant** in wider areas of the LCT. This level of effect, and geographical extent, is not unusual for large-scale wind farm development and significant effects on the host landscape are unavoidable.

The duration of these effects would be long-term (up to 40 years and assessed as permanent), although it should be noted that the effects would be largely reversed as a result of decommissioning (assessed separately).

Cumulative Assessment: Proposed Development + Existing and Consented Wind Farms

The southern half of the existing CRWF is located adjacent to the proposed development within this LCT and already has a direct effect on part of the *Sweeping Moorland and Flows* LCT. The proposed development would be associated with the existing CRWF, concentrating the effects to within this area of the *Sweeping Moorland and Flows* LCT surrounded by low lying hills.

Within the wider LCT, a cluster of other existing wind farm development is present to the south-east of the 35km study area at Kilbraur Extension / Kilbraur, and Gordonbush / Gordonbush Extension at distances of over 30km from the proposed turbines. The consented Strath Tirry would also be partially located to the south-east of the LCT at ~13.2km and the Strathy South Wind Farm would be located within the LCT to the north-east at over ~32km distance being the southernmost wind farm in a cluster of wind farm development beyond the 35km study area to the north-east. The magnitude of change to the LCT from the existing and consented wind farms would be High within ~2km of the respective turbines, reducing to Low and Very Low over distance.

The additional effect of adding the proposed development to a baseline of existing and consented wind farms would lead to a slight increase in the presence of wind farm development in this part of the *Sweeping Moorland and Flows* LCT. The level of additional effect would remain **Minor to Negligible** and **Not Significant** (**Moderate** and **Significant** within ~1.5-2km of the turbines). The combined cumulative effect on the LCT would be **Major to Moderate** and **Significant**, primarily due to CRWF and the proposed development in this part of the LCT (~2km from the proposed development), with further significant cumulative effects as a result of Kilbraur, Gordonbush and Strath Tirry in other parts of the LCT to the south-east (within ~2km of each development). The nature of these effects would be long-term (reversible), cumulative, direct, and negative.

Cumulative Assessment: Proposed Development + Existing, Consented and Application Wind Farms

The majority of the Chleansaid application would be located within the *Sweeping Moorland and Flows* LCT to the south-east on the eastern edge of Strath Tirry at ~11km distance from the proposed development, and would have localised significant effects on landscape character within ~2km of the turbines.

The additional effect of the proposed development would remain **Minor to Negligible** and **Not Significant** (**Moderate** and **Significant** within ~1.5-2km of the turbines). The combined cumulative effect on the LCT would also remain **Major to Moderate** and **Significant**, primarily due to CRWF and the proposed development in this part of the LCT (~2km from the proposed development) with further significant cumulative effects as a result of Kilbraur, Gordonbush, Strath Tirry and Chleansaid in other parts of the LCT to the south-east (within ~2km of each development). The nature of these effects would be long-term (reversible), cumulative, direct, and negative.

Landscape Effects During Decommissioning

During decommissioning, the site would return to a 'construction site' for a temporary period and the level of effect would be variable over the site and according to the phase of activity. In overall terms, the magnitude of change would reduce from operational levels to Very Low with the removal of the turbines and associated above ground infrastructure (excepting on-site internal access tracks). The remaining landscape effect would be **Minor to Negligible** and **Not Significant**. The nature of these effects would be permanent, direct, and neutral when compared to the pre-existing landscape.

5.1.13 *Landscape effects: LCT 135 - Rounded Hills*

The two northern turbines (EXT-02 and EXT-03) would be located within *Rounded Hills* LCT. This LCT comprises several large units covering a large geographic expanse within Caithness and Sutherland and extending into Ross and Cromarty. Those within the 35km study area are illustrated in **Figure 5.7**. The landscape character of the *Rounded Hills* LCT is described further within the NS 2019 Landscape Character Assessment and the key characteristics listed by NS are:

- *Rolling hills forming broad, subtly rounded summits, but with some more pronounced hills also occurring, these often featuring steeper slopes along the coast or where truncated by deep glens.*
- *Hills cut by numerous narrow burns and small lochans lie within dips, corries and on plateau summits.*

- *Predominantly dense heather ground cover and moorland grasses, but also some areas of bog.*
- *Fragments of broadleaf woodland in inaccessible locations.*
- *Scarcely settled with a largely uninhabited interior and widely scattered crofts and farms on lower slopes adjoining straths and farmed landscapes.*
- *Narrow glens and lower hill slopes often rich in archaeology with features such as standing stones, brochs and medieval townships.*
- *Wind farms located in more accessible and generally lower rolling hills, either close to extensive forestry or the high voltage transmission line aligned broadly parallel to the south-east Sutherland coast.*
- *Convex character of hill slopes limiting distant visibility and views of the hill tops when travelling through the landscape.*
- *Views into the interior of the hills very restricted.*
- *Strong sense of wild character can be experienced within the more remote and little modified parts of this landscape.*

It is noted that wind farms are key features '*in more accessible and generally lower rolling hills*' of this LCT. Existing and consented wind farms within the LCT occur to the south-west beyond Loch Shin where Sallachy is located and to the south-east where Gordonbush / Extension and Kilbraur / Extension straddle the *Rounded Hills* LCT and *Sweeping Moorland and Flows* LCT, as well as to the south at Achany, Rosehall, Braemore, Lairg and Lairg II. 14 of the 22 existing CRWF turbines are also located within this LCT, as illustrated on **Figure 5.8** where the landscape character transitions to *Sweeping Moorland and Flows* LCT. This area of the LCT is situated between the *Rugged Mountain Massif* LCT to the west and *Lone Mountains* LCT to the east and is flanked by *Sweeping Moorland and Flows* LCT to the north and south.

Landscape Sensitivity

As noted above in the assessment of the *Sweeping Moorland and Flows* LCT, neither the THC's Onshore Wind Energy Supplementary Guidance (2016) nor the Landscape Sensitivity Appraisal (Addendum Supplementary Guidance: "Part 2B", December 2017) cover the site area of the proposed development. In addition, there are no areas of *Rounded Hills* LCT documented within the Landscape Sensitivity Appraisal.

In considering the landscape susceptibility for the proposed development, this assessment has referred to a range of commonly accepted landscape criteria or indicators of susceptibility to wind energy development, as set out in**Table 5.7**. An overall assessment has been made of Medium-Low landscape susceptibility.

Table 5.7: Rounded Hills LCT: Landscape Susceptibility

Landscape Attributes	Characteristics that are less susceptible to wind farms			Characteristics that are more susceptible to wind farms	
	Low	Medium – Low	Medium	High - Medium	High
Physical Characteristics:					
Scale	Larger scale landscapes and landform which may be more able to accommodate large scale wind turbines			Smaller scale well defined landforms which may become dominated or overwhelmed by wind turbines	
	✓				

Landscape Attributes	Characteristics that are less susceptible to wind farms			Characteristics that are more susceptible to wind farms	
	Low	Medium – Low	Medium	High - Medium	High
Landform and Topography	Simple upland plateau, gently rolling or flat landscapes as the turbines may be less easily scaled against the landform			Complex landforms with well-defined changes in level including ridges, steep sloping hillsides and narrow valleys.	
		✓			
Land Cover	Large scale simple and homogenous land cover e.g. moorland or forestry where the simply landcover may complement turbines			Complex and diverse land cover including a mix of arable fields, grassland, woodland, and water that turbines may dominate.	
	✓				
Pattern	Unenclosed land or large field patterns which may complement the modern aesthetic of turbines.			Irregular small-scale patchwork or medieval field patterns that turbines may overwhelm.	
	✓				
Settlement	Sparse or no settlement with relatively few visual receptors and scale indicators.			Populated areas / lowlands with lots of people and small-scale indicators.	
	✓				
Other Similar Development	Large scale industrial, infrastructure and mineral extraction land uses detracting from the overall landscape sensitivity and value. Landscapes with other wind farms.			Rural / traditional forms of development including parks and gardens and monuments enhancing the overall landscape sensitivity and value.	
		✓			
Perceptual Characteristics:					
Wildness and Naturalness	Area not valued for wildness as a key characteristic or SLQ.			Area valued for wildness as a key characteristic or SLQ.	
			✓		
Remoteness	Area that feels closer to people and human activities. Conversely, a remote area not valued for wildness or tranquillity would have a lower number of visual receptors.			Area that feels remote from people and human activities. Conversely, landscapes that are settled / built up would have a higher number of visual receptors.	
		✓			
Rational / Windswept	Open and exposed landscapes where turbines, though more visible, may be logically located in windswept locations.			Enclosed or sheltered landform likely to be of a smaller scale and limited rational for turbine locations.	
	✓				
Visual Characteristics:					
Openness and Enclosure	Enclosed landscape with limited opportunities for long range views.			Open landscapes with opportunities for long range views.	
			✓		
Skyline	Broad simple skylines lacking in distinctive or ‘landmark’ topography.			Skylines which are an important and noticeable component in the landscape with ‘landmark’ topography.	
			✓		
Landmarks	Landscapes with no sensitive features where turbines might detract from settings			Landscapes with landmarks and features such as church spires and prominent listed buildings where turbines might compete as landscape foci and detract from settings	
		✓			

Landscape Attributes	Characteristics that are less susceptible to wind farms			Characteristics that are more susceptible to wind farms	
	Low	Medium – Low	Medium	High - Medium	High
Surrounding Context	Self-contained landscape with limited relationship with adjacent areas.		Landscapes that are closely connected to the adjacent / surrounding areas in terms of similar character or visual backdrop.		
			✓		
Overall Susceptibility		**Medium - Low**			

Considering landscape value, the landscape overall is in a reasonable condition in terms of its representativeness, landscape interest, perceptual and scenic quality. In terms of public access and recreational use, the site is not a popular tourist or recreational area, although the A836 / Sustrans Cycle Route 1 is routed to the east of the proposed development. The site itself is not located within any locally or nationally designated landscapes, although the *Ben Klibreck and Loch Choire* SLA is located within the LCT to the north-east of the site at approximately 2.1km and the *Ben Klibreck - Armine Forest WLA / Foinaven - Ben Hee WLA* are located <1km to the east and west of the site. Taking account of the landscape condition, recreational interests and adjacent local designation, the landscape value of the site and immediate surroundings is assessed as of Medium value.

Considering the assessment of Medium-Low susceptibility and the Medium value, the overall sensitivity of the *Rounded Hills* LCT to the proposed development is assessed as Medium.

The landscape elements on the site, mainly moorland vegetation and young mixed woodland, are not sensitive in landscape terms and have been assessed as of Low sensitivity.

Landscape Effects During Construction

The construction phase would result in localised direct landscape effects on the site and its component landscape elements which include moorland vegetation and young mixed woodland of Low sensitivity. Moorland vegetation and young mixed woodland would be removed to allow for the construction of the internal access tracks, areas of hardstanding, and turbine foundation. Some of the works would be temporary as in the case of hardstandings and crane pads and these areas would be reinstated through a process of relaying turfs / soils and re-seeding as described in **Chapter 3: Description of Development**.

Although temporary, the construction phase would be progressive and would cover a focused geographical area within the site boundary as it connects into the existing CRWF infrastructure (some of which would be located within the adjoining *Sweeping Moorland and Flows* LCT). This would marginally increase the footprint of wind farm infrastructure further to the east. The magnitude of change would, therefore, increase from Zero to Medium, towards the completion of the proposed development. The magnitude of change is reduced due to the presence of existing wind farm infrastructure. The landscape effects on the fabric and constituent elements of the landscape would range from **Negligible** (at the start of the construction phase) to **Minor** (at the height of construction) and would be **Not Significant**, due to the low sensitivity of the landscape elements that would be affected. Some areas such as the hardstandings and crane pads would be reinstated in accordance with the CEMP, whilst most areas (such as the internal access tracks) would lead to a long term or permanent landscape change.

In terms of the likely effects on landscape character, the magnitude of change during the construction phase would range progressively from Zero to Medium, primarily as a result of the progressive turbine construction and related infrastructure, including internal access tracks. Overall, the landscape effects on the *Rounded Hills* LCT would range from **None** (at the start of the construction phase) and increase to **Moderate** and **Significant** upon completion, due in particular to the nature of construction activity (contrasting colours, movement, people). The geographical extent of significant effects would be limited to areas within the site itself extending out to approximately 1.5-2km from the proposed turbines, where it would marginally increase the area significantly affected by the existing CRWF turbines.

With increased distance, the magnitude of change to the landscape would reduce to Low and Very Low to Zero resulting in a **Minor to None** and **Not Significant** landscape character effect on the majority of the *Rounded Hills* LCT. The nature of these effects would be short-term, direct and negative to neutral due primarily to the scale, contrast and movement associated with the construction period.

Landscape Effects During Operation

During operation, the completed wind farm extension would gain a more 'settled' appearance when compared to the same area during the construction period. Although significant, the landscape effects would continue throughout the operational period mainly as a result of the proposed turbines and less as a result of the associated infrastructure.

Most of the key characteristics of the *Rounded Hills* LCT are physical in nature and these would not be affected or altered by the proposed development during operation. Rather, there would be a localised change in relation to the implementation of the BERP and CEMP, and through the addition of the wind turbines and associated infrastructure. The proposed development, including the site infrastructure, would introduce new turbines to an existing wind farm within a lower-lying 'transitional' area of the LCT. Through the design process, the proposed turbines have been designed to follow the existing pattern of the CRWF and match the scale of the existing turbines, only slightly increasing the overall footprint of the wind farm within the *Rounded Hills* LCT.

The proposed development would contrast with the moorland landscape, the turbine blades would rotate, and the proposed development would appear as a large-scale feature. Equally, however, the presence of existing turbines in combination with the sites' location in a moorland landscape surrounded by low-lying hills reduces susceptibility.

As reported for the construction period, the same levels of landscape effect would continue through the period of operation. The magnitude of change would range from Medium and the level of landscape effect would range from **Moderate** and **Significant** affecting a geographical area 1.5-2km from the proposed turbines (to the east); to **Minor to None** and **Not Significant** across wider areas of the LCT. This level of effect and geographical extent is not unusual for large-scale wind farm development and significant effects on the host landscape are unavoidable.

The duration of these effects would be long term (up to 40 years and assessed as permanent), although it should be noted that the effects would be largely reversed as a result of decommissioning (assessed separately).

Cumulative Assessment: Proposed Development + Existing and Consented Wind Farms

The northern half of the existing CRWF is located adjacent to the proposed development within this LCT and already has a direct effect on part of the *Rounded Hills* LCT. The proposed development would be associated with the existing CRWF, concentrating the effects to within this area of the *Rounded Hills* LCT surrounded by low lying hills.

Within the wider LCT, the nearest wind farm development is the consented Sallachy Wind Farm which would be intervisible across an intervening area of *Sweeping Moorland and Flows* LCT at approximately 12km distance. Beyond this, the nearest cluster of existing and consented wind farm development (Achany, Rosehall, Lairg, Braemore and Lairg II wind farms) occurs to the south at over 22km in an area of *Rounded Hills* LCT separated from the proposed development by two other landscape character types. Other existing wind farm development is present to the south-east at over 32km (Kilbraur Extension / Kilbraur) and separated by up to three other landscape character types. The magnitude of change to the LCT from the existing and consented wind farms would be High within ~2km of the respective turbines, reducing to Low and Very Low over distance.

The additional effect of adding the proposed development to a baseline of existing and consented wind farms would lead to a slight increase in the presence of wind farm development in this part of the *Rounded Hills* LCT. The level of additional effect would remain **Minor to Negligible** and **Not Significant** (**Moderate** and **Significant** within ~1.5-2km of the turbines). The combined cumulative effect on the LCT would be **Major to Moderate** and **Significant**, primarily due to CRWF and the proposed development in this part of the LCT (~2km from the proposed development) with further significant cumulative effects as a result of Sallachy, Achany, Rosehall, Braemore, Lairg, Lairg II and Kilbraur in other parts of the LCT to the south-east, south and south-west (within ~2km of each development). The nature of these effects would be long-term (reversible), cumulative, direct, and negative.

Cumulative Assessment: Proposed Development + Existing, Consented and Application Wind Farms

A small number of the Chleansaid turbines would be located within the *Rounded Hills* LCT to the south-east at ~10km distance from the proposed development. Achany Extension would also be located within this LCT at ~17km distance from the proposed development to the south-west. Other application wind farm development within the *Rounded Hills* LCT would occur at greater distances to the south (Strath Oykel, Meall Buidhe and Garvary), separated by up to three other LCT areas. All the above wind farms would have localised significant effects on landscape character within ~2km of their turbines.

The additional effect of the proposed development would remain **Minor to Negligible** and **Not Significant** (**Moderate** and **Significant** within ~1.5-2km of the turbines). The combined cumulative effect on the LCT would also remain **Major to Moderate** and **Significant**, primarily due to CRWF and the proposed development in this part of the LCT (~2km from the proposed development) with further significant cumulative effects as a result of Sallachy, Achany, Rosehall, Braemore, Lairg, Lairg II, Kilbraur, Chleansaid, Achany Extension, Strath Oykel, Meall Buidhe and Garvary in other parts of the LCT to the south (within ~2km of each development). The nature of these effects would be long-term (reversible), cumulative, direct, and negative.

Landscape Effects During Decommissioning

During decommissioning, the site would return to a 'construction site' for a temporary period and the level of effect would be variable over the site and according to the phase of activity. In overall terms, the magnitude of change would reduce from operational levels to Very Low with the removal of the turbines and associated above ground infrastructure (excepting on-site internal access tracks). The remaining landscape effect would be **Minor to Negligible** and **Not Significant**. The nature of these effects would be permanent, direct, and neutral when compared to the pre-existing landscape.

5.1.14 *Effects on the Surrounding Landscape Character*

The effects on surrounding landscape character would be limited to effects on the key visual or perceptual characteristics of these landscapes, resulting from views of the proposed turbines and associated infrastructure where visible. The assessment considers the likely change to landscape character and as such it is different from the visual assessment of particular views experienced by people.

In summary, there would be localised significant effects on the western edge of the *LCT 138 - Lone Mountains: Ben Klibreck*, up to 2km of the proposed turbines.

Table 5.8: Effects on Surrounding Landscape Character within 6km

Landscape Character Type	Assessment
LCT 138 - Lone Mountains: Ben Klibreck	LCT 138 - *Lone Mountains* captures secluded areas of individual mountains in Caithness and Sutherland. The nearest of these is located approximately 1.7km to the east of the proposed development, where it envelopes Ben Klibreck. Viewpoint 6 is located within this LCT. The LCT is described by NS in their Landscape Character Assessment (2019) and key characteristics are listed as follow: • *Individual mountains forming landmarks seen widely and at considerable distance across expansive lower-lying Sweeping Moorland and Flows and Cnocan – Caithness & Sutherland.* • *Mountains possess a distinctive profile, usually comprising steep, sweeping, concave slopes, making them look quite elegant and graceful.* • *Height of mountains varies, but even the smaller mountains can appear high because of their isolation, steep-sided profiles and when seen in juxtaposition with lower-lying Sweeping Moorland and Flows.* • *Peaks generally topped by exposed rock and sparse dwarf vegetation which gradually merges into the moorland surrounds.* • *Ribbons of broadleaf scrub woodland associated with the many water courses that tumble down steep glens.* • *Largely uninhabited, creating a distinct sense of remoteness, although some of its peaks attract significant numbers of hill walkers, especially during the summer months.* • *Peaks offer extensive views of the surrounding area including the distinctive watery landscapes of the Flows.* This area of Lone Mountains LCT is overlapped by the *Ben Klibreck – Armine Forest* Wild Land Area and the locally designated *Ben Klibreck and Loch Choire* SLA. It has been assessed as of High value. The susceptibility has been assessed as High reflecting Ben Klibreck' prominent and distinctive presence as a feature in the landscape and on the skyline. Consequently, the sensitivity is assessed as *High*.

Landscape Character Type	Assessment
	Assessment: Proposed Development None of the proposed turbines would be located within this LCT. The blade tip ZTV covers the western part of this LCT with no coverage indicated to the east of the LCT beyond the summit and ridgeline of Ben Klibreck. The proposed turbines would be located to the east of the existing CRWF which already has an influence on the character of this LCT. Although the proposed turbines would be integrated into the existing wind farm, they would slightly extend the influence of wind farm development marginally closer towards the LCT at 1.7km distance from its closest point. There would be significant effects on landscape character out to 2km from the proposed turbines affecting the transitional boundary at the western tip of the *Lone Mountains* LCT, although the magnitude of change would be slightly reduced by the presence of the existing CRWF. Effects on the character of the *Lone Mountains* LCT would reduce with distance as the more 'intimate' connection to the immediate features of the adjoining areas of *Sweeping Moorland and Flows* LCT / *Rounded Hills* LCT reduces with altitude and the *Lone Mountain* LCT connects with the vast landscape beyond. For these reasons, the magnitude of change to the landscape character of this LCT as a result of the proposed development would be Medium out to 2km reducing to Very Low (Meall nan Con summit) to Zero (eastern areas). The level of effect would be **Minor** and **Not Significant** (Meall nan Con summit) and **None** to the east (**Major to Moderate** and **Significant** at the western edge of the LCT up to 2km). Despite this proximity, the proposed development would not change the overall character of this LCT which is already influenced by the existing CRWF and would maintain its distinctive profile and landmark with extensive views. The nature of these effects would be long-term (reversible), indirect and negative. Cumulative Assessment: Existing + Consented Sites + Proposed Development There are no wind farms within the LCT, therefore effects from surrounding wind farms would be indirect. Other existing and consented wind farms visible from this area include the existing CRWF located adjacent to the proposed development (High to Zero magnitude of change). Sallachy Wind Farm would be visible behind the proposed turbines at ~18km distance (Very Low to Zero magnitude of change). Strath Tirry would be visible to the south at ~13km distance (Very Low to Zero magnitude of change). Achany and Rosehall wind farms would be visible to the south-south-west at ~23km distance and Kilbraur and its Extension to the south-east at ~30km (all Very Low to Zero magnitude of change). The additional effect of the proposed development would be **Minor to None** and **Not Significant** (**Major to Moderate** and **Significant** at the western edge of the LCT, up to 2km). The combined landscape effect would be **Substantial to Major** and **Significant** (due to CRWF and the proposed development), to **Minor to None** and **Not Significant**. The nature of these effects would be long-term (reversible), cumulative, indirect and negative. Cumulative Assessment: Existing + Consented + Applications + Proposed Development Chleansaid would be located ~ 11km to the south of the LCT boundary, affecting south facing slopes and intervisible with the proposed development near the summit of Ben Klibreck where it would be partially screened by intervening landform (Low to Zero magnitude of change). Achany Extension, Strath Oykel, Garvary and Meall Buidhe wind farms would be theoretically visible in the same view as the proposed development at distances of between ~23km and 36km distance (Very Low to Zero magnitude of change). The additional effect of the proposed development would be **Minor to None** and **Not Significant** (**Major to Moderate** and **Significant** at the western edge of the LCT up to 2km). The combined landscape effect would be **Substantial to Major** and **Significant** (due to CRWF and the proposed development), to **Minor to None** and **Not Significant**. The nature of these effects would be long-term (reversible), cumulative, indirect and negative.

5.1.15 *Effects on Landscape Planning Designations*

Landscape planning designations within the LVIA study area are illustrated in **Figure 5.9** which also illustrates the blade tip ZTV and other cumulative wind farm development. The proposed development is not located within any landscape planning designations. As such, it would equate, in landscape terms, to *'Spatial Planning Group 3: Areas where Wind Farms are likely to be acceptable*'. Therefore, there can be no physical or direct impact on landscape planning designations within the 35km study area, which includes three NSAs, nine WLAs and seven SLAs.

As set out in the baseline and as agreed through consultation, the indirect effects on one SLA are included in the assessment, as follows:

- Ben Klibreck and Loch Choire SLA

A high-level assessment on the *Kyle of Tongue* NSA, *Assynt – Coigach* NSA, *Ben Klibreck – Armine Forest* WLA and *Fionaven – Ben Hee* WLA have also been included in **Tables 5.10 to 5.13**, at the request of THC given NS agreed to scope out a detailed assessment on these designated landscapes (see **Table** 5.1).

The assessment of landscape planning designations differs from landscape character or visual assessment in that it considers the effects of the proposed development on the Special Landscape Qualities (SLQs), including views and perceptual qualities and the integrity of the designation as advised by SNH (now NS) in their document *'Siting and Designing Wind Farms in the Landscape*, Version 3a':

"The key test applied in relation to NSAs, but often employed for other valued landscapes too, is whether impacts would affect the integrity of a valued landscape." (Siting and Designing Wind Farms in the Landscape, Version 3, SNH, 2017, paragraph 3.11).

In order to assist the assessment, a description of each of the landscape planning designations and their SLQs are documented by THC in respect of SLAs and by NS in respect of NSAs. It is important to note that wind farm development is not necessarily incompatible with the valued qualities of a landscape depending on the nature and / or effects of the development and the nature of the SLQs. A visual effect on a view from the SLA, for example, may or may not affect the SLQ and the integrity of the designation. In particular, the Landscape Institute further advises:

"An internationally, nationally or locally valued landscape does not automatically or by definition have high susceptibility to all types of change."

"It is possible for an internationally, nationally or locally important landscape to have relatively low susceptibility to change resulting from the particular type of development in question, by virtue of both the characteristics of the landscape and the nature of the proposal."
"The particular type of change or development proposed may not compromise the specific basis for the value attached to the landscape."

(GLVIA 3, paragraphs 5.46-47)

The effects of the proposed development on the SLQs have been assessed in accordance with the methodology set out in **Technical Appendix 5.1** which accords with GLVIA 3. In summary, the sensitivity of each relevant SLQ is determined through a combination of value and the susceptibility of the SLQ to change posed by the proposed development; this in turn is considered against the nature or magnitude of change in order to determine the level of effect on each receptor (SLQ). The design process is integral to the assessment which is an iterative process that seeks to reduce adverse effects and ensure that, where possible, mitigation is embedded into the proposed development. Each effect is described in terms of its geographical extent (through reference to the viewpoints and ZTV) and whether it is cumulative, temporary / long term, positive / neutral / negative.

In those situations where a significant negative effect is identified, paragraph 212 of SPP advises that any "*significant adverse effects on the qualities for which the area has been designated are clearly outweighed by social, environmental or economic benefits of national importance*." Similarly, Policy 57 of the HwLDP states:

"*For features of national importance, we will allow developments that can be shown not to compromise the natural environment, amenity and heritage resource. Where there may be any significant adverse effects, these must be clearly outweighed by social or economic benefits of national importance. It must also be shown that the development will support communities in fragile areas who are having difficulties in keeping their population and services*."

In summary, there would be no significant effects on the SLQs of any designated landscapes and on the WLQs of any Wild Land Areas within the 35km study area.

Ben Klibreck and Loch Choire SLA

SLAs are non-statutory designations that represent landscapes and features of local / regional importance and value within THC area. Further guidance on SLAs and their special qualities and features of importance is provided by THC in their Assessment of Highland Special Landscape Areas[7].

The *Ben Klibreck and Loch Choire* SLA is principally an area of the *Lone Mountain* LCT which extends slightly south-east to cover lower lying summits and Loch Choire which lies between Ben Klibreck and the lower lying hills. It is located approximately 2.3km east of the proposed development. The SLA is an irregular shape and covers an area approximately 12km wide (from east to west), extending to approximately 15km at its greatest extent from south-east to north-north-west. The southern extents (south and south-east of Loch Choire) are located within an area of *Rounded Hills* LCT and a small area of *Sweeping Moors and Flows* LCT. Viewpoint 6 is located within the SLA. An overview of the SLA and its SLQs as listed by THC is described as follows:

[7] Assessment of Highland Special Landscape Areas, The Highland Council in partnership with SNH, commissioned report by Horner + Maclennan with Mike Wood Landscape Architect, June 2011

"*One of several prominent lone mountains and mountain groups which rise dramatically from an open moorland in central Sutherland, Ben Klibreck is notable for its distinctive western profile. It rises like a great wave above Strath Vagastie and Loch Naver and is the dominant landscape feature in this part of Sutherland. It is separated from the neighbouring Ben Armine Forest by a secluded glen occupied by Loch Choire and Loch a' Bhealaich. The slopes rising from the southern shores of these lochs have fine remnants of native broad-leaved woodland*."

- *SLQ 1) Distinctive Mountains - The prominent mountain ridge of Ben Klibreck is a popular Munro, fairly easy to climb from Altnaharra. However the absence of constructed tracks over the hill means the area retains a strong sense of wildness. A long crescent-shaped ridge forms the spine of Ben Klibreck with its steep western slopes descending to Strath Vagastie and Loch Naver. A conspicuous break of slope above the crags of A 'Chioch, topped by the summit cone of Meall nan Con, form the distinctive stepped profile seen in views from the south. Contrasting eastern slopes form large grassy corries which sweep more gently down to the shores of Loch Choire and Loch a' Bhealaich, dissected by parallel watercourses.*
- *The Ben Armine massif is less dramatic than Ben Klibreck but the steep bounding slopes on its eastern and northern sides provide a contrast with the relatively flat Flow Country beyond. This juxtaposition and vantage point is given added significance by the fact that Ben Armine is one of the most remote hill summits in Scotland.*
- *SLQ 2) Secluded Glen with Network of Tracks - The glen of Loch a Choire possesses a strong sense of seclusion and wildness although punctuated by the estate lodge. Landscape and visual interest is enhanced by important native woodland remnants. The glen also contains no through-routes for non-vehicular traffic from Crask to Forsinard and numerous tracks south of the Loch.*
- *SLQ 3) Extensive Views from Peaks and Summits - Exceptional panoramic views from high ridges and summits in clear conditions, extending to the northern coastline and beyond, taking in neighbouring peaks including Ben Hope and Ben Loyal and vast areas of surrounding moorland, the character of which is hard to discern from lower levels.*
- *SLQ 4) Historic Landscape - This area contains the isolated remains of a cleared township and a number of shielings are located on the southern shore of Loch Choire. The flatter area to the east of Ben Kilbreck represents the southern extent of an extensive prehistoric settlement that is predominantly south of Loch Naver. Accordingly, a number of roundhouses, a burnt mound and a field system are recorded, although the main area of settlement lies outwith the boundary to the north."*

Although designated at a local level, the SLA is indicative of High value as it overlaps with the *Ben Klibreck – Armine Forest* WLA. The landscape is of High susceptibility to wind farm development due to the wild land qualities of wildness and seclusion in combination with distinctive mountains and extensive views from peaks and mountains as described above; however, susceptibility is slightly reduced (High-Medium) towards the proposed development, due to the presence of the existing CRWF. As a result, the overall sensitivity of the SLA is assessed as *High*.

Assessment: Proposed Development

Despite its proximity to the proposed turbines, ZTV coverage is limited to the western slopes, summit and ridgeline of Ben Klibreck with the remainder of the SLA outwith the ZTV due to intervening landform.
There would be no effect on the '*secluded glen with network of tracks*' and the '*historic landscape*' SLQs (2 and 4) of the SLA as there is no ZTV coverage (and therefore No View of the proposed development) in these parts of the SLA. As a result, the proposed development would have a limited effect on only two of the SLQs, namely:

SLQ 1) Distinctive Mountains

The relevant components of this SLQ are the potential for the proposed development to affect the "*steep western slopes descending to Strath Vagastie and Loch Naver*" and "*the distinctive stepped profile seen in views from the south*". There would be no effect on the Ben Armine massif which is outwith the ZTV.
With regards to the two components noted above, these would be mostly visible from the A836 which follows Strath Vagastie and passes between the proposed turbines and the SLA, continuing north and south, also noting the presence of the existing CRWF adjacent to the proposed development. Views from the A836 are illustrated in the sequential route assessment (**Figure 5.16**) and in Viewpoints 1, 4, 8, and 17 (**Figures 5.17, 5.18, 5.20, and 5.23**). From the route, the proposed development would be visible to the west of Strath Vagastie, in a different part of the landscape to the Ben Klibreck ridgeline and steep western slopes. This is seen in views along Strath Vagastie in Viewpoint 1 (**Figure 5.17**), where the lower slopes of the SLA are just visible to the west of the view and turbine hubs and tips would be theoretically visible. Viewpoint 8 (**Figure 5.20**) views north near the Crask where the steep western slopes descending to Strath Vagastie and the distinctive stepped profile above the crags of A 'Chioch (topped by the summit cone of Meall nan Con) are both visible, but across Strath Vagastie as a distinct and separate feature to the lower lying rounded hills supporting the proposed development. Further south, ZTV coverage becomes limited and visibility of the proposed development becomes increasingly screened by intervening landform as illustrated in Viewpoint 17 (**Figure 5.23**). These views demonstrate that the perceptual qualities of the steep western slopes descending to Strath Vagastie and the distinctive stepped profile would remain strong. The proposed development would be identified in a different part of the landscape relating to lower hills to the west of Strath Vagastie.

Regarding the 'strong sense of wildness', THC notes that this relates partially to the popular ascent of Ben Klibreck from Altnaharra and the absence of constructed tracks along the route. A promoted route to the summit of Meall nan Con ascends the western slopes from the A836 adjacent to the existing CRWF. Although there are no direct effects on this route, the existing CRWF is visible from the majority of the route and the proposed development would slightly increase the number and presence of turbines in this location. The

sense of wildness due to lack of pathways would not be affected by the proposed development and it is noted that the A836 is also visible as a human development in the same views as the proposed development. Although not within the SLA, the track towards Cnoc Sgriodain and the associated designated parking area in combination with the promoted route to Ben Klibreck denotes a well-defined popular route for the ascent. This is used by many hill walkers and it is not uncommon to meet several other walkers on the route. The magnitude of change affecting this SLQ would be Very Low and the level of effect would be **Minor to Negligible** and **Not Significant**. This level of effect is unlikely to contribute significantly to cumulative effects.

SLQ 3) Extensive Views from Peaks and Summits

This SLQ relates to the qualities of "*Exceptional panoramic views from high ridges and summits in clear conditions, extending to the northern coastline and beyond, taking in neighbouring peaks including Ben Hope and Ben Loyal and vast areas of surrounding moorland, the character of which is hard to discern from lower levels*."

Views from the ridgeline at A' Chioch are illustrated in Viewpoint 6 (**Figure 5.19**). This view illustrates the existing CRWF in the middle distance in views south-west. The existing turbines are visible on low-lying slopes beyond Strath Vagastie where they occupy a small part of the view. The proposed development would form part of the same cluster of turbines, slightly increasing the influence of wind turbines in this part of the view. Views north to the coastline and the neighbouring peaks of Ben Hope and Ben Loyal would be unaffected by the proposed development. The magnitude of change affecting this SLQ would be Low and the level of effect would be **Moderate to Minor** and **Not Significant**.

Cumulative effects from existing and consented wind farms on the SLQs of the SLA would be Low to Very Low magnitude of change by the existing CRWF at ~2.3km, consented Sallachy and Strath Tirry wind farms at ~10-18km, and Very Low magnitude of change as a result of the limited visibility of existing Achany, Rosehill and Lairg wind farms at over 23km (as indicated in Viewpoint 6). The level of cumulative effect (additional and combined) would remain **Moderate to Minor** and **Not Significant** and the nature of this effect would be long-term (reversible), cumulative, direct, and negative. The influence of application wind farms on the SLA would be Low to Very Low magnitude of change resulting from intervisibility of Chleansaid at ~10km and distant visibility of Achany Extension, Garvary and Meall Buidhe at ~23km and 36km distance. The level of cumulative effect (additional and combined) would remain **Moderate to Minor** and **Not Significant** and the nature of this effect would be long-term (reversible), cumulative, direct, and negative.

A summary of the SLQ assessment for the Ben Klibreck and Loch Choire SLA is set out in **Table** 5.9.

Table 5.9: Summary of Assessment: Ben Klibreck and Loch Choire SLA

Special Landscape Quality (SLQ)	Sensitivity	Magnitude of Change	Level of Effect
Distinctive Mountains	High	Very Low	**Minor to Negligible** and **Not Significant**
Secluded Glen with Network of Tracks	Not assessed – The proposed development would not be visible from the Secluded Glen with Network of Tracks.		
Extensive Views from Peaks and Summits	High	Low	**Moderate to Minor** and **Not Significant**

Special Landscape Quality (SLQ)	Sensitivity	Magnitude of Change	Level of Effect
Historic Landscape	Not assessed – The proposed development would not be visible from the Historic Landscape area of the SLA.		

High-Level Assessment of NSAs and WLAs

Through post-scoping consultation as noted in **Table** 5.1, NS was content to scope out the assessment of the SLQs of NSAs and WLAs within the 35km study area. However, THC requested a high-level assessment of these designations which is provided below. The focus of the high-level analysis is a broad assessment of the proposed development on the SLQs and wild land qualities of the NSAs and WLAs, and therefore does not follow the four-stage approach as per the NS working draft '*Guidance for Assessing the Effects on Special Landscape Qualities*', November 2018. The assessment has taken account of how the area is perceived and used by people, and a number of recreational viewpoints and routes within the blade tip ZTV have been considered in the assessment. All the summit views would be experienced as wide panoramic views (typically 360°) and viewed over long distances. The proposed development is not within an NSA or WLA, so the physical integrity of the NSA and WLA as a whole would remain intact. The only potential for effects would occur as a result of intervisibility between the NSA / WLA and the proposed development.

Kyle of Tongue NSA

The proposed development would be located approximately 16km south of the boundary of the *Kyle of Tongue NSA* (NSA 23). Viewpoints 10 and 16 are located within the NSA and the boundary is illustrated in **Figure 5.9.** ZTV coverage within the NSA is very limited, being present on the south facing slopes of Ben Hope, Ben Loyal and Cnoc nan Cuilean. The ZTV pattern reflects the underlying landform within the NSA and the percentages of theoretical visibility cover are summarised as follows:

- ZTV (to blade tip) coverage of the proposed development (in addition to the 4.96% of the existing CRWF visible) accounts for 0.025% of the entire Kyle of Tongue NSA.

Table 5.10 provides a broad assessment on the SLQs of the Kyle of Tongue NSA.

Table 5.10: High-level SLQ Assessment: Kyle of Tongue NSA

Special Landscape Quality (SLQ)	Sensitivity	Magnitude of Change	Level of Effect
An ever-present backdrop of mountains	High	Very Low to Zero	**Minor to Negligible** and **Not Significant**
	The proposed development would not be located within the area of *Sweeping Moorland Flows* LCT to the south of the NSA, but rather would be mostly screened by the low-lying *Rounded Hill*s LCT beyond the sweeping moorland and seen in conjunction with existing CRWF. There would be no effect of the proposed development on the presence of Ben Hope and Ben Loyal in the landscape.		
The Kyle	Not assessed – The proposed development would not be visible from the Kyle.		
Scale, from domestic to monumental	Not assessed – physical characteristic that could not be affected by the proposed development which is well beyond the NSA boundary.		
The constantly changing character of the Kyle	Not assessed - There would be no effect on the influence of light and tides within the NSA from the proposed development.		
Rich variety of coastal scenery	Not assessed – physical characteristic that could not be affected by the proposed development which is well beyond the NSA boundary.		

Special Landscape Quality (SLQ)	Sensitivity	Magnitude of Change	Level of Effect
Distinct pattern of settlement	Not assessed – physical characteristic that could not be affected by the proposed development which is well beyond the NSA boundary.		

Existing, consented and other application wind farms also have a Minor to Negligible effect (Very Low magnitude) on the 'ever-present backdrop of mountains' of the NSA and appear in the same FoV as the proposed development. However, the consented Strathy North Wind Farm would appear in a different FoV, however, it would also have a Minor to Negligible effect. The level of combined cumulative landscape effect on the SLQs of the NSA would be **Minor to Negligible** and **Not Significant**. The additional cumulative landscape effect on the SLQs of the NSA would also remain **Minor to Negligible** and **Not Significant**. The nature of this effect would be cumulative, indirect, long term (reversible) and neutral.

Assynt – Coigach NSA

The proposed development would be located approximately 18km east of the boundary of the *Assynt - Coigach NSA* (NSA 36). Viewpoints 12 and 15 are located within the NSA and the boundary is illustrated in **Figure 5.9**. ZTV coverage within the NSA is very limited, being present on the east facing slopes and summits of Ben More Assynt, Meall an Aonaich, Beinn Uidhe and Beinn Leoid. The NSA covers several LCTs including *Rugged Mountain Massif* LCT, two areas of *Lone Mountain* LCT, an area of *Rocky Hills and Moorland* LCT and also includes *Sweeping Moorland and Flows* LCT at its eastern extent and *Cnocan - Caithness & Sutherland* LCT at its western extent. The ZTV pattern reflects the underlying landform within the NSA and the percentages of theoretical visibility cover are summarised as follows:

- ZTV (to blade tip) coverage of the proposed development (in addition to the 1.11% of the existing CRWF visible) accounts for 0.04% of the entire Assynt - Coigach NSA.

Table 5.11 provides a broad assessment on the SLQs of the Assynt - Coigach NSA.

Table 5.11: High-level SLQ Assessment: Assynt - Coigach NSA

Special Landscape Quality (SLQ)	Sensitivity	Magnitude of Change	Level of Effect
Spectacular scenery of lone mountains	High	Very Low to Zero	**Minor to Negligible** and **Not Significant**
	Where visible from the mountain summits within the NSA, the proposed development would appear relatively low in the landscape and avoids hill summits and slopes, appearing adjacent to or behind the existing CRWF. It would be visible in clear conditions given the long distance of over 20km (nearest lone mountain) and would be seen as a small-scale feature in the background of the view, with other existing wind farms appearing in the same FoV as the proposed development. The '*dramatic profile'* of the lone mountains would be unaffected by the proposed development given its long-distance and small-scale feature. Even when the lone mountains are visible from beyond the NSA, the proposed development would not affect their '*dramatic profile*' in these views and would continue to be '*recognisable from many miles*.'		

Special Landscape Quality (SLQ)	Sensitivity	Magnitude of Change	Level of Effect
	Existing and consented wind farms also have a Minor to Negligible effect (Very Low magnitude of change) on the '*dramatic profile'* of the lone mountains and appear in the same FoV as the proposed development. However, the consented Sallachy Wind Farm would have a Moderate to Minor effect (Low magnitude of change) on the 'dramatic profile' of the lone mountains given its proximity to Ben More Assynt.		
Rocky topography of great variety	Not assessed – physical characteristic that could not be affected by the proposed development which is well beyond the NSA boundary.		
Settlements nestled within a wider landscape of mountain peaks, wild moorlands, and rocky seascapes	As above.		
Extensive cnocan landscapes	The proposed development would also not be visible from any settlements within the NSA.		
A coastline of endless drama	Not assessed – physical characteristic that could not be affected by the proposed development which is well beyond the NSA boundary.		
An intricate multitude of lochs and lochans	As above.		
A landscape of vast open space and exposure	High	Very Low to Zero	**Minor to Negligible** and **Not Significant**
	There would be No View of the proposed development from any of the enclosed parts of the NSA including the area below and around Beinn Mor Coigach and the hidden steep sided folds of wooded valleys on the B869 Assynt coastal road. Even though much of the NSA appears open and expansive, the proposed development would only be visible from a small number of mountain summits with the remainder of the NSA having No View of the proposed development due to the juxtaposition of intervening landform. The '*openness*' and '*expansiveness*' of the NSA would be unaffected by the proposed development given its long-distance, small-scale feature amongst other existing wind farms and 360° panoramic views of the wide, open landscape.		
Significant tracts of wild land	High	Very Low to Zero	**Minor to Negligible** and **Not Significant**
	Views towards the proposed development are tempered by both intervening distance and the presence of existing and consented wind farm development and further human development in the straths and glens beyond the NSA boundary. The effects of the proposed development would be very limited to the eastern slopes and summits on the eastern part of the NSA, which have a slightly weakened wild land quality due to the context of other human land use and wind farm development near the eastern extremities of the NSA. There would be No View of the proposed development from the areas of cnocan in the north and secluded spaces such as corries, basins or shelves.		
Unexpected and extensive tracts of native woodland	Not assessed – physical characteristic that could not be affected by the proposed development which is well beyond the NSA boundary.		
A still, quiet landscape under a constantly changing sky	Not assessed – the proposed development would not affect the still landscape of the NSA which is well beyond the NSA boundary.		

Existing, consented and other application wind farms also have a Minor to Negligible effect (Very Low magnitude) on the 'spectacular scenery of mountains', 'vast open space and exposure' and 'wild land' SLQs of the NSA and appear in the same FoV as the proposed development. However, the consented Sallachy Wind Farm would would have a Moderate to Minor effect (Low magnitude) on the NSA given its proximity to the NSA. The level of combined cumulative landscape effect on the SLQs of the NSA would be **Moderate to Minor** and **Not Significant**. The additional cumulative landscape effect on the SLQs of the NSA would be **Negligible** and **Not Significant**. The nature of this effect would be cumulative, indirect, long term (reversible) and negative to neutral.

Ben Klibreck – Armine Forest WLA

The proposed development would be located approximately 0.45km west of the boundary of the *Ben Klibreck – Armine Forest WLA* (WLA 35). Viewpoint 6 is located within the WLA and the WLA boundary is illustrated in **Figure 5.9.** ZTV coverage within the WLA is very limited, being present on the west facing slopes and summit of Ben Klibreck along with some lower lying ground along Strath Vagastie. The WLA overlaps with the *Ben Klibreck and Loch Choire* SLA and some of the *Bens Griam and Loch nan Clar* SLA. The WLA covers three LCTs, including *Rounded Hills, Sweeping Moorland and Flows*, and *Lone Mountains* LCTs. The ZTV pattern reflects the underlying landform within the WLA and the percentages of theoretical visibility cover are summarised as follows:

- ZTV (to blade tip) coverage of the proposed development (in addition to the 2.55% of the existing CRWF visible) accounts for 0.01% of the entire WLA.

The proposed development, being located outwith the WLA could not affect the physical attributes, but could affect the perceptual responses experienced from within the WLA which are listed as follows:

- Sense of Sanctuary / Solitude / Refuge;
- Arresting / Inspiring Qualities, Sense of Awe and Prospect;
- Risk or Anxiety / Hazard; and
- Physically Challenging.

Table 5.12 provides a broad assessment on the SLQs of the Ben Klibreck – Armine Forest WLA.

Table 5.12: High-level WLQ Assessment: Ben Klibreck – Armine Forest WLA

Receptor / Location	Wild Land Assessment			Cumulative Wild Land Assessment			
	Sensitivity	Magnitude of Change	Level of Effect	Existing + Consented		Existing, Consented + Applications	
				Additional	Combined	Additional	Combined
WLQ 1: ***"An awe-inspiring simplicity of landform and landcover and a perception of 'emptiness', so that the extent of the peatland often seems greater than it is."***							

Receptor / Location	Wild Land Assessment			Cumulative Wild Land Assessment			
	Sensitivity	Magnitude of Change	Level of Effect	Existing + Consented		Existing, Consented + Applications	
				Additional	Combined	Additional	Combined
Overall Assessment within 15km of the proposed development	Medium to Low	Low to Very Low	**Minor** and **Not Significant**	**Minor** and **Not Significant**	**Major to Moderate** and **Significant** (CRWF)	Minor and Not **Significant**	**Major to Moderate** and **Significant** (CRWF, Chleansaid)
	Views towards the proposed development are tempered by the presence of the existing CRWF and further human development along Strath Vagastie beyond the WLA boundary. The overall effects (and cumulative effects) of the proposed development on WLQ 1 and the associated perceptual qualities of simplicity and emptiness WLQs would not be significantly affected.						
WLQ 2: ***"Arresting, isolated mountains rise up in stark contrast to surrounding peatland and glens, amplifying the awe-inspiring qualities of each."***							
Overall Assessment within 15km of the proposed development	High to Medium	Low to Very Low	**Moderate to Minor** and **Not Significant**	**Minor** and **Not Significant**	**Major to Moderate** and **Significant** (CRWF)	**Minor** and **Not Significant**	**Major to Moderate** and **Significant** (CRWF, Chleansaid)
	The effects of the proposed development would be limited to the western extremities of the WLA which have a weakened WLQ due to the context of other human land use and the existing CRWF along the margins and western extremities of the WLA. The overall effects (and cumulative effects) of the proposed development on WLQ 2 and the associated perceptual qualities of arresting, isolated and awe-inspiring WLQs would not be significantly affected.						
WLQ 3: ***"A remote interior where access involves long distances and lengthy time via penetrating glens or crossing over and around rugged landforms and waterbodies."***							
Not assessed – The proposed development would not be visible from the remote interior of the WLA.							
WLQ 4: "***An extensive area of peatland with a prevailing strong sense of naturalness***."							
Overall Assessment within 15km of the proposed development	Medium to Low	Very Low	**Minor to Negligible** and **Not Significant**	**Minor to Negligible** and **Not Significant**	**Major to Moderate** and **Significant** (CRWF)	**Minor to Negligible** and **Not Significant**	**Major to Moderate** and **Significant** (CRWF, Chleansaid)
	The effects of the proposed development would be limited to the western extremities of the WLA which have a weakened WLQ due to the context of other human land use and the existing CRWF along the margins and western extremities of the WLA. Views towards the proposed development are tempered by the presence of the existing CRWF and further human development along Strath Vagastie beyond the WLA boundary. The overall effects (and cumulative effects) of the proposed development on WLQ 4 and the associated perceptual qualities of naturalness WLQs would not be significantly affected.						
WLQ 5: ***"A secluded, elevated and remote interior plateau shielded by an outer rim of hills, in which there is a strong sense of solitude, sanctuary and risk."***							
Not assessed - The proposed development would not be visible from the secluded, elevated and remote interior plateau of the WLA.							

Foinaven – Ben Hee WLA

The proposed development would be located approximately 0.95km east of the boundary of the *Foinaven – Ben Hee WLA* (WLA 37). Viewpoint 7 is located within the WLA and the WLA boundary is illustrated in **Figure 5.9**. ZTV coverage within the WLA is limited to the eastern extremities and margins of the WLA with some hill summits, including Ben Hee. The WLA overlaps with the *North-West Sutherland* NSA beyond 20km and covers three LCTs including *Rounded Hills, Sweeping Moorland and Flows*, and *Rugged Mountain Massif* LCTs. The ZTV pattern reflects the underlying landform within the WLA and the percentages of theoretical visibility cover are summarised as follows:

- ZTV (to blade tip) coverage of the proposed development (in addition to the 11.27% of the existing CRWF visible) accounts for 0.01% of the entire WLA.

The proposed development, being located outwith the WLA could not affect the physical attributes of WLAs, but could affect the perceptual responses, experienced from within the WLA which are listed as follows:

- Sense of Sanctuary / Solitude / Refuge;
- Arresting / Inspiring Qualities, Sense of Awe and Prospect;
- Risk or Anxiety / Hazard; and
- Physically Challenging.

Table 5.13 provides a broad assessment on the SLQs of the Foinaven – Ben Hee WLA.

Table 5.13: High-level WLQ Assessment: Foinaven – Ben Hee WLA

Receptor / Location	Wild Land Assessment			Cumulative Wild Land Assessment			
	Sensitivity	Magnitude of Change	Level of Effect	Existing + Consented		Existing, Consented + Applications	
				Additional	Combined	Additional	Combined
WLQ 1: *"Towering, rugged mountains, highlighted by their prominent rock covering, that appear awe-inspiring and contribute to a strong sense of naturalness."*							
Not assessed - The proposed development would not affect the rugged mountains in the northern part of the WLA (Foinaven, Arkle, Cranstackie and the hills of Cape Wrath) due to lack of visibility as illustrated on the ZTV in **Figure 5.9**.							
WLQ 2: *"A remote, secluded interior with very few human elements and a strong perception of sanctuary and solitude."*							
Not assessed - The proposed development would not affect the remote, secluded interior of the WLA due to lack of visibility as illustrated on the ZTV in **Figure 5.9**.							
WLQ 3: *"A variety of shelves, corries and basins carved into the mountain landforms that harbour a strong sense of sanctuary and solitude- some with lochs, rivers and waterfalls."*							
The secluded spaces such as corries, basins or shelves, created by irregular landforms that include screening or enclosing high mountain tops, variable peaks, plateaux, shelves and basins are not a particular characteristic of the eastern extremities of the WLA. Rather, these areas are characterised by more open, low rounded hill summits and slopes descending into Strath Vagastie. The WLQ and characteristics are more typical of the central and northern parts of the WLA which is outwith the ZTV as illustrated on **Figure 5.9**. Therefore, there would be no effect on this WLQ as a result of the proposed development.							

Receptor / Location	Wild Land Assessment			Cumulative Wild Land Assessment			
	Sensitivity	Magnitude of Change	Level of Effect	Existing + Consented		Existing, Consented + Applications	
				Additional	Combined	Additional	Combined
WLQ 4: "***A complex mix of towering and arresting crags, cliffs and knolls with a predominance of bare rock, conveying a strong sense of naturalness***."							
The crags, cliffs and knolls are not a particular characteristic of the eastern extremities of the WLA. Rather, the WLQ and characteristics are more typical of the northern parts of the WLA which is outwith the ZTV as illustrated on **Figure 5.9**. There would also be No View of the proposed development from Loch Eriboll and Creag na Faoilinn. Therefore, there would be no effect on this WLQ as a result of the proposed development.							
WLQ 5: ***"Long straths and glens that penetrate far into the interior – some with tracks or paths, that provide access through the landscape."***							
Not assessed - The proposed development would not affect the long straths and glens (Srath Dionard, Srath Beag and around Gobernuisgach and West Merkland) which are more typical of the central and northern parts of the WLA and are outwith the ZTV as illustrated in **Figure 5.9**.							
WLQ 6: "*Extensive peatland slopes that appear awe-inspiring in their simplicity and contrast to neighbouring mountains, and allow wide open views of the surrounding area*."							
Overall Assessment within 16km of the proposed development	Medium	Low to Very Low	**Minor to Negligible** and **Not Significant**	**Minor to Negligible** and **Not Significant**	**Major to Moderate** and **Significant** (CRWF, Sallachy)	Minor to Negligible and **Not Significant**	**Major to Moderate** and **Significant** (CRWF, Sallachy)
	The effects of the proposed development would be limited to the eastern and south-eastern extremities of the WLA which have a weakened WLQ due to the context of other human land use and the existing CRWF (and consented Sallachy wind farm) along the margins and eastern / southern extremities of the WLA. The overall effects (and cumulative effects) of the proposed development on WLQ 6 and the associated perceptual qualities of simple, open and awe-inspiring WLQs would not be significantly affected.						

Assessment of Visual Effects

Visual effects are assessed by considering the sensitivity of the receptor (people in the landscape) and the magnitude of change that would affect the view or overall visual amenity. They are defined by the Landscape Institute in GLVIA 3, paragraphs 6.2 as follows:

> *"An assessment of visual effects deals with the effects of change and development on the views available to people and their visual amenity. The concern here is with assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements."*

The assessment has taken a precautionary approach and focused on local visual receptors within 6km, and national level receptors within 35km. This has been guided by the results of the viewpoint analysis (**Technical Appendix 5.2**) which indicated that significant visual effects would be limited primarily to within 5.6km of the proposed turbines.

5.1.16 *Visual Effects During Construction, Operation and Decommissioning*

Most of the significant visual effects would be experienced as a result of views of the proposed turbines during the operational period and this forms the main focus of the assessment. However, the visual effects associated with the construction and decommissioning phases of the proposed development and the infrastructure components (including the BESS) also have the potential to be significant and these have been included in the assessment where there is the potential for a significant visual effect.

An outline description of the visual effects associated with the construction and decommissioning phases is set out below.

Visual Effects During Construction

The assessed levels of effect would tend to increase from Zero, at the start of construction and progressively increase to a maximum level of effect, equal to that occurring during operation, upon completion of the construction period. The construction effects, although temporary, are likely to involve greater movement of machinery and visibility of contrasting construction activity, background noise and associated lighting. The nature of these effects would be temporary, direct, and negative. Some construction activities may be remote from the site (access works) and / or temporary (temporary construction compound) and subject to restoration on completion of the construction period.

An outline assessment of each of the component parts of the proposed development likely to be constructed during the construction period is provided as follows:

- New internal access tracks, turning heads and crane hardstandings:
  New internal access tracks, turning heads and crane hardstandings would provide access to the proposed turbines entailing 3 watercourse crossings. Views of these works would be most closely experienced by road users and cyclists on the A836 / Sustrans Cycle Route 1 (Viewpoint 8) and walkers accessing Ben Klibreck (Viewpoint 6) who would be of High sensitivity. The internal access tracks would be visible adjacent to existing wind farm access tracks, and the magnitude of change would be Very Low. The visual effects would be **Minor** and **Not Significant**. The nature of these effects would be permanent, direct and negative.
- BESS:
  The BESS would be located in an area formerly used as the construction compound for the existing CRWF and as such is already present in the landscape. The BESS would have low visibility from the adjacent low-lying areas due to the elevated nature of the surrounding landform features. From more elevated surrounding areas there would be visibility of earthworks construction activity relating to mitigation bunding surrounding the BESS. The colour of the BESS would be co-ordinated with the colour of surrounding moorland to have a low contrast, hence reducing the magnitude of change. There would be limited opportunities to view this part of the proposed development, the closest receptors are road users and cyclists on the A836 / Sustrans Cycle Route 1 (Viewpoint 8) and walkers accessing Ben Klibreck (Viewpoint 6) who would be of High sensitivity. The magnitude of change would be Low-Very Low and the level of visual effect would be **Moderate to Minor** and **Not Significant**, short-term (reversible), direct, and negative.
- Electrical cables:

Electrical cables connecting to the proposed turbines to the existing substation would be underground within the site, and post-construction there would be no visual effects.

- Temporary construction compound:
  A temporary site compound with laydown and storage areas and associated construction infrastructure, including a batching plant, is proposed at the same location as the construction compound for the existing CRWF. The site compound would be visible to users of the A836 / Sustrans Cycle Route 1 and walkers accessing Ben Klibreck (High sensitivity). The contrasting colours, movement and noise associated with the construction compound would tend to contrast with the visual characteristics of its surroundings resulting a Medium to Low magnitude of change, compared to the turbines. Consequently, the level of visual effect would be **Moderate** and **Significant**, short term (reversible), direct, and negative.
- Construction Lighting:
  During the construction and decommissioning periods, some limited health and safety lighting would be required at the site entrance and temporary construction compound and there would also be lights from vehicles moving around the site during periods of darkened daylight hours such as heavy rain / dark skies. A crane may also carry unmitigated aviation warning lights in accordance with Article 222 of the UK ANO 2016. The magnitude of change is likely to be High to Medium within approximately 1-2km of the light sources, subject to an intervening screening, and the visual effects would be **Major / Moderate** and **Significant**, extending out to approximately 1-2km from the light sources within the Site, primarily to the south-east and east. The nature of these effects would be temporary, direct, and negative.

Visual Effects During Operation

The assessed levels of effect are likely to be at their greatest during the period of operation (which is the focus of the main visual assessment), due to the visibility of the proposed turbines. However, the appearance of the proposed development would also recover a 'calmer' visual character with negligible levels of maintenance activity visible on-site in comparison to the construction phase. Although the main visual assessment has focused on the proposed turbines in **Sections 5.11.2-5**, it also refers to the associated infrastructure (including the BESS), assessed above, where visible.

Visual effects During Decommissioning

During decommissioning, the site would return to a construction site for a temporary period and the level of visual effect would gradually reduce with the removal of the turbines and associated above ground infrastructure. Therefore, the visual effects likely to be experienced during the decommissioning period would reduce from the operational levels and would not be significant on completion of the decommissioning. As with the construction period, although temporary, these works are likely to involve greater movement of machinery and visibility of contrasting construction activity, background noise and associated lighting. In overall terms, the level of visual effect would reduce to non-significant levels and the nature of these effects would be permanent, direct, and neutral when compared to the pre-existing baseline landscape of the local area. The adjacent existing CRWF would also be decommissioned at the same time as the proposed development.

5.1.17 *Visual Effects from Settlements and Residential Properties*

As noted in **Section 5.8.3**, there are no settlements within 6km and no individual residential properties within 2km of the proposed development.

5.1.18 *Visual Effects from Transport Routes*

This section of the assessment considers the sequential and cumulative visual effects on views of the proposed development from selected transport routes within 6km of the proposed development, as noted in **Section 5.8.3**.

The views from these routes would be experienced transiently by road users (mainly drivers / passengers and, where appropriate, cyclists) who would experience the wind farm as part of the changing sequence of views experienced from the road. Each of these routes were driven in both directions to assess the potential effects with additional assistance of sequential wirelines, ZTV maps and True View Visuals 3D augmented reality software. The assessment has also taken account of other wind farms visible from these routes.

In summary, significant visual effects would be limited to the A836 affecting approximately 4.9km of the route as it approaches and passes the proposed turbines between the summit of The Crask and Druim Allt na h-Aire (or for approximately 4.4km if forestry is retained north of The Crask summit). At this section of the route, the proposed turbines would be visible at close proximity and to the fore of the existing CRWF. The significant visual effects would equate to 2.5% of the entire 196km route and would occur over a period of approximately 3-4 minutes, whilst travelling at an average speed of 35-50mph. The remainder of the route would not be significantly impacted by the proposed development.

A836

The A836 is a 196km long route connecting Dornoch at its southernmost extent to John o'Groats at its most northerly extent via Lairg, Altnahara and Tongue. The route has been assessed within 12km of the proposed development given the ZTV coverage along this route. The route from south to north roughly follows the River Tirry along the eastern slopes of Strath Tirry before passing into Strath Vagastie and following the strath to the west of River Vagastie. At Altnaharra, the route leaves the strath and traverses an area of open moorland to the north.

The A836 is not a promoted tourist route, but is one of the few arterial routes in the area and also forms part of the Sustrans Cycle Route 1. Within 12km, the route does not pass through any designated landscape areas, although it passes within 1.5km of the *Ben Klibreck and Loch Choire* SLA and close to the boundaries of two WLAs. Beyond 12km to the north, the route passes through the *Kyle of Tongue* NSA and is described as a 'Key' route in the OWESG as it travels along the northern coastline just outside the 35km study area. The value of the route is therefore assessed as High. The susceptibility to change from the introduction of the proposed development is considered to be High-Medium and the overall sensitivity of this route is, therefore, assessed as High.

The route is assessed sequentially from south to north in **Table** 5.14 and is illustrated in **Figure 5.16a-f**. This section of the route is approximately 26.5km in length.

Table 5.14: Visual Effects on Views from A836

Sequential Viewpoint	Description of Effects
Travelling south to north, the first theoretical visibility of the proposed development would be from North Dalchork, approximately 5.9km south of the proposed development. To the south of this location there would be **No View** of the proposed development.	
VPA: North Dalchork (**Figure 5.16b**)	This viewpoint illustrates the first theoretical view of the proposed development for northbound road users within 12km. It is located on a slightly elevated section of road with long range views across moorland to the west and north / north-west. From this section of the route, there would be theoretical visibility of the proposed turbine blades between and behind existing CRWF in the direction of travel for ~300m section of the route. The blades would be partially screened by young, near distance coniferous trees. Views would be screened as the coniferous forestry matures. The magnitude of change (without forestry) would be Very Low.
After North Dalchork, the road loses elevation and there are no theoretical views of the proposed development for ~2.5km. The proposed turbines are again theoretically visible as the route rises slightly and curves north-east near the Crask car park and viewing area for ~100m.	
VPB: South of The Crask parking and viewing area (**Figure 5.16b**)	As the route reaches the Crask car parking and viewing area, the blades of all three proposed turbines would be theoretically visible adjacent to the existing CRWF. These views would be partially screened by rising landform to the east of the road and vegetation for ~100m. The magnitude of change would be Very Low.
At The Crask parking and viewing area, views open across the Strath a' Chraisg valley towards The Crask (290m AOD) to the north of the valley. Views would be similar to VPC below. The magnitude of change would be Very Low for ~350m.	
VPC: South of Crask Inn (LVIA VP 17) (**Figure 5.16c**)	This viewpoint is located at a cattlegrid and informal layby along the route. The blades of all three proposed turbines would be visible adjacent to the existing CRWF on the horizon of the view in the direction of travel. The magnitude of change would be Low - Very Low.
Between VPC and VPD, visibility of the proposed turbines reduces after ~150m as the road descends into Strath a' Chraisg and there would be **No View** for ~400m as the road crosses the River Tirry bridge and nears the summit due to intervening landform, buildings and vegetation. There would be theoretical visibility of tips and blades of the proposed turbines as the road curves to the west of The Crask summit. However, views would be mostly screened by linear roadside coniferous forestry. The magnitude of change would be Low-Very Low. If roadside coniferous trees were felled, the magnitude of change would increase to High-Medium for the last ~550m of the route.	
VPD: North of the Crask (LVIA VP 8) (**Figure 5.16c**)	This viewpoint is located at a layby to the north of The Crask at a point where roadside trees end and views open towards the existing CRWF, Strath Vagastie and Ben Klibreck. At this location there would be close range views of the proposed turbines to the east of the existing turbines at 893m distance. The proposed BESS would be largely screened by bunding. The magnitude of change would be High.
Between VPD and VPE the route would descend into Strath Vagastie. The turbines would be visible in close proximity in the direction of travel (northbound). The magnitude of change would be High for ~1.1km.	
VPE: Near Site Entrance (**Figure 5.16d**)	At VPE the road begins to pass the proposed turbines and would be located below the base of the turbines. As a result, views of the turbines would be slightly oblique and away from the base of the valley and line of the road ahead (northbound). The turbines would be visible to the fore of the existing CRWF. The magnitude of change would be High.

Sequential Viewpoint	Description of Effects
Between VPE and VPF the route would continue along Strath Vagastie. The turbines would be visible in close proximity, but oblique in both directions of travel (northbound and southbound). The turbines would be visible to the fore of the existing CRWF. The magnitude of change would be High for ~1.1km.	
VPF: Nr.Track to Vagastie Cottage (LVIA VP 20) (**Figure 5.16d**)	From this location views towards the proposed turbines would be along the valley in the direction of travel (southbound) – although views of the existing CRWF would extend in both directions. The turbines would be visible in close proximity. The magnitude of change would be High.
Beyond VPF to the north, the views of the proposed turbines would only be visible for southbound users. Between VPF and VPG the route continues along Strath Vagastie. The views of the proposed turbines from southbound road users would extend for another ~2.2km and would become more distant as the road continues north. There would be close range views of the proposed turbines for ~2.2km for southbound users. The magnitude of change would be High reducing to High-Medium magnitude of change for ~2.2km.	
VPG: Druim Allt na h-Aire (**Figure 5.16e**)	This viewpoint is located at an informal layby. At this location the turbines would be partially visible in the direction of southbound travel as two hubs and a blade. The rest of the turbines would be partially screened by intervening landform. Tips of the existing CRWF would also be visible. The magnitude of change would be Low. The level of effect would be **Moderate** and **Not Significant,** due to the transient nature of the view and the changing nature of the view as the road curves through the valley.
Between VPG and VPH the route continues further along Strath Vagastie. The views of the proposed turbines for southbound users would extend for another ~1km after which there would be **No View** of the proposed turbines for ~450m. Patchy visibility resumes after this point for ~ 350m until VPH. The magnitude of change would be Very Low.	
VPH: South of Altnaharra (LVIA VP 1) (**Figure 5.16e**)	This viewpoint is located where visibility first occurs after Altnaharra travelling southbound. Two turbines would be theoretically visible. Both of the turbines would be largely screened by landform such that one hub and one blade would be visible alongside the existing CRWF. The magnitude of change would be Very Low.
Between VPH and VPI visibility of the proposed turbines would continue for ~400m after which there would be **No View** for ~1.5km as the route passes through Altnaharra. After Altnaharra, the route passes from a narrow strath setting into open moorland with long range views. The views of the proposed turbines for southbound users would extend for ~1.3km where the turbines would be visible in the direction of travel mostly as blades adjacent to the existing CRWF, extending the spread of turbines east into a dip on the undulating skyline. The magnitude of change would be Very Low.	
VPI: East of Loch Buidhe (**Figure 5.16f**)	This viewpoint is located at an informal layby to the east of Loch Buidhe. At this point, views of the proposed turbines for southbound users would be visible in the direction of travel as blades and a partial hub adjacent to the existing CRWF, extending the spread of turbines east into a dip on the undulating skyline. The magnitude of change would be Very Low.
Between VPI and VPJ visibility of the proposed turbines would continue for ~3km. Views would be similar to VPI. The magnitude of change would be Very Low.	
VPJ: South of Loch Staing (LVIA VP 4) (**Figure 5.16f**)	This viewpoint is located at a passing place to the south of Loch Staing and is the first point of theoretical visibility for road users travelling southbound. All three turbines would be visible as a hub, a partial blade and a blade tip. The proposed turbines would be visible immediately adjacent to the existing CRWF. The magnitude of change would be Very Low.
<u>Assessment Proposed Development</u> In summary, the experience of significant visual effects would be limited to a total of approximately 4.9km (or 4.4km with coniferous trees retained south of Viewpoint D). These effects would occur for northbound users as the	

Sequential Viewpoint	Description of Effects
	road reaches the summit of The Crask, descends towards the site entrance and passes the site between Viewpoint D and Viewpoint F, and for southbound road users between Viewpoint E and Viewpoint G. The significant visual effects would equate to 2.5% of the entire 196km route and would occur over a period of approximately 3-4 minutes, whilst travelling at 35-50mph. The magnitude of change for these sections of the route would range between High to High-Medium and the level of visual effect would be **Substantial** to **Substantial / Moderate** and **Significant**. The nature of these effects would be long term (reversible), indirect and negative. Where visible from this section of the route, the turbine tower bases would be partially screened by intervening landform as the route twists along Strath Vagastie. The proposed turbines would be visible in the context of the existing CRWF and would appear well-integrated in terms of scale and layout such that they would not appear as a new element in the landscape. Due to the presence of other man-made elements, the proposed development would not appear incongruous and could be reasonably accommodated in these views. There are no footpaths or cycle lanes along these parts of the route and the significant effects would not coincide with designated scenic views as part of NSAs, WLAs or THC SLAs from the A836. Areas of the A836 passing through designated areas would be unaffected by the proposed development. Elsewhere along the A836, effects would range from **Moderate to No View** and **Not Significant**. <u>Cumulative Assessment: Proposed Development + Existing + Consented Sites</u> The existing CRWF would be most visible from this route between the Crask and along Strath Vagastie (High to Zero magnitude of change). There would be theoretical sequential visibility of the consented Sallachy Wind Farm for southbound road users at between Viewpoint A and Viewpoint C and near the summit of The Crask at ~9.5km distance (Low to Zero magnitude of change). The existing Achany and Rosehall wind farms would be partially visible as distant features for southbound road users between Viewpoint A and Viewpoint B and near the summit of The Crask at ~19km distance (Very Low to Zero magnitude of change). Although not intervisible with the proposed turbines there would be close range sequential views of Strath Tirry Wind Farm further south from the route, partially screened by coniferous woodland (High-Medium magnitude of change). The additional effect of the proposed development would range from **Substantial** and **Significant** to **No View** and **Not Significant**. The combined effect would be **Substantial** and **Significant** (due to the CRWF, Strath Tirry and the proposed development) to **No View** and **Not Significant**. The nature of these effects would be long-term (reversible) indirect, cumulative and negative. <u>Cumulative Assessment: Proposed Development + Existing + Consented Sites + Applications</u> There would be views of Achany Extension and Meall Buidhe application wind farms for southbound users between Viewpoints A and B with tips visible from Viewpoint J (Very Low to Zero magnitude of change). There would be sequential visibility of Chleansaid to the south where it would be located to the east of the route at ~4.2km – turbine towers would be screened by intervening coniferous forest (High -Medium magnitude of change if forestry felled). The additional effect of the proposed development would range from **Substantial** and **Significant** to **No View** and **Not Significant**. The combined effect would be **Substantial** and **Significant** (due to the CRWF, Strath Tirry, Chleansaid (if forestry is felled), and the proposed development) to **No View** and **Not Significant**. The nature of these effects would be long-term (reversible) indirect, cumulative and negative.

5.1.19 *Visual Effects from Recreational Routes*

The visual assessment has considered the potential visual effects likely to be experienced by people (walkers / cyclists / horse riders / and others) on recreational routes overlapped by the blade tip ZTV. The recreational routes include Core Paths, Heritage Paths and Scottish Hill Tracks which have been assessed within 6km of the proposed development. National level recreational routes within 35km of the proposed development

have also been assessed where they overlap with the blade tip ZTV. These routes are illustrated in **Figures 5.10 to 5.11**.

Each of these routes were walked and / or visited and walked in sections according to the ZTV coverage. The assessment was assisted on-site with the use of sequential wirelines and True View Visuals 3D software.
All of the routes have been assessed as of *High* sensitivity on account of their High - Medium value as recreational routes, routed through designated landscapes and the High susceptibility of the walkers and cyclists using these routes whose attention would be focused on the landscape around them.

As noted in **Section 5.8.3**, only two routes are included in the assessment as follows:

- Strath Tirry to Badanloch Tracks Heritage Path from the Crask Inn to Badanloch Lodge; and
- Sustrans Cycle Route 1.

In summary, there would be significant effects on the views from one recreational route as follows:

- Sustrans Cycle Route 1 (overlaps with the A836): There would be significant effects for approximately 4.9km (or 4.4km with coniferous trees retained north of the Crask) as the route approaches and passes the proposed turbines between the summit of The Crask and Druim Allt na h-Aire. At this section of the route, the proposed turbines would be visible at close proximity and to the fore of the existing CRWF.

Strath Tirry to Badanloch Tracks Heritage Path

This 34km long route is located to the south and south-east of the proposed development, starting west at the A836 south of The Crask Inn and following north of the River Tirry along Strath a' Chraisg, towards Loch Choire and eventually Badenloch in the east.

Within 6km of the proposed development, ZTV coverage is patchy and indicates theoretical visibility of all three turbines for a short ~1.5km section of the route, immediately east of the A836 at ~2.6-2.8km distance with another short section between ~3.4-4.3km distance east. The remainder of the route is outwith the ZTV. Where all three proposed turbines would be theoretically visible, they would be visible as blades and a partial hub and set within the existing CRWF. Where theoretical visibility of one or two turbines is indicated, intervening landform screening reduces visibility to blade tips. Viewpoint 18 is located along this route and illustrates how the surrounding landform of the rising strath sides screen visibility of the turbine towers and hubs. The magnitude of change is assessed as Very Low to Zero. The level of effect would be **Minor to No View** and **Not Significant**. The nature of these effects would be long term (reversible), indirect and neutral.

Cumulative Assessment: Existing + Consented Sites + Proposed Development

The existing CRWF would be visible at ~2.6km distance (Medium to Zero magnitude of change) from the route near the Crask. There would be theoretical intervisibility of the consented Sallachy Wind Farm in views west along the strath at ~10.5km distance where hubs would be visible above intervening landform (Low to Zero magnitude of change). The additional effect of the proposed development would range from **Minor to**

No View and **Not Significant**. The combined effect would be **Major to Moderate** and **Significant** (due to CRWF and not the proposed development) to **No View** and **Not Significant**. The nature of these effects would be long-term (reversible) indirect, cumulative and negative.

Cumulative Assessment: Existing + Consented Sites + Applications + Proposed Development

There would be theoretical visibility of Achany Extension as blade tips above the strath sides to the south-west, but this is likely to be screened by intervening vegetation (Very Low to Zero magnitude of change). The additional effect of the proposed development would range from **Minor to No View** and **Not Significant**. The combined effect would be **Major to Moderate** and **Significant** (due to CRWF and not the proposed development) to **No View** and **Not Significant**. The nature of these effects would be long-term (reversible) indirect, cumulative and negative.

Sustrans Cycle Route 1

Within the 35km study area, the Sustrans Cycle Route 1 follows the A836 between Bonar Bridge in the south and Achnabourin in the north. ZTV coverage of the route occurs mostly within 5-12km of the proposed development where it overlaps with the A836. This section of the route is assessed in **Section 5.11.3** and **Table** 5.14 above. In summary, the experience of significant visual effects (**Substantial to Substantial / Moderate)** would be limited to a total of approximately 4.9km (or 4.4km with coniferous trees retained north of the Crask).

Beyond 12km, theoretical visibility is very limited. ZTV coverage is indicated as the route reaches the A838 at Dalchork for ~3.2km of the route. At this point, there would be theoretical visibility of blade tips behind the visible hubs and blades of the existing CRWF. In reality these would not be visible due to the long intervening distance (over ~17km) and vegetation. Similarly theoretical visibility occurs for 400m to the south of Lairg railway station (over ~23km distance), and again in patches between Allt na Fearna Mor and Invershin (between ~26-32km distance). The magnitude of change would be Very Low to Zero, and the level of effect would be **Minor to No View** and **Not Significant.**

There would be an increase in cumulative effects as the route passes close to the consented Strath Tirry Wind Farm (High to Zero magnitude of change), Braemore Wind Farm (Medium to Zero magnitude of change) and Lairg / Lairg II Wind Farms (Low to Zero magnitude of change) and the application Garvary Wind Farm (Medium to Zero magnitude of change). These would increase the combined cumulative effect in the south of the wider 35km study area to **Substantial to Substantial / Moderate** and **Significant** (due to the other wind farms and not the proposed development). The nature of these effects would be long-term (reversible) indirect, cumulative and negative.

5.1.20 *Visual Effects from Recreational and Tourist Destinations*

The visual assessment has considered the potential visual effects likely to be experienced by people at recreational / visitor or tourist destinations or attractions, which are overlapped by the ZTV, within the 6km detailed study area. Each of these locations were visited and / or assessed with the use of ZTVs and wirelines.

All of the destinations have been assessed as of *High* sensitivity on account of their High to Medium value as recreational and tourist destinations (some located within designated landscapes) and the High susceptibility

of the people visiting these destinations whose attention would be focused on the landscape around them. As noted in **Section 5.8.3**, only one recreational and tourist destination within 6km has been included in the assessment – the Crask Inn.

The assessment has also included mountain summits and their associated access routes which are overlapped by the blade tip ZTV within the 35km study area. Several of the Munro and Corbett summits are assessed by the viewpoint analysis contained in **Technical Appendix 5.2**, including Ben Klibreck, Ben Hope, Ben More Assynt, Ben Hee, Beinn Leoid and Ben Loyal and are therefore, not repeated below.

Crask Inn

The Crask Inn is located along the A836 as the route passes through the Strath a' Chraisg valley and is a popular location for hill walkers and visitors to the area. ZTV coverage is intermittent at this location and indicates theoretical visibility of one turbine at ~2.4km distance. Wireline analysis indicates that one blade tip would be theoretically visible on the horizon of the hill in views north from the Inn. In reality, it would be barely perceptible due to intervening outbuildings and vegetation. Where visible, it would be seen alongside the tips and blades of the existing CRWF and would not appear as a new feature in the view. The magnitude of change would be Very Low and the level of effect would be **Minor to Negligible** and **Not Significant**. The nature of these effects would be long term (reversible), indirect and neutral.

Cumulative Assessment: Existing + Consented Sites + Proposed Development

The existing CRWF would be visible to the left of the proposed development (Medium-Low magnitude of change). There would be theoretical intervisibility of the consented Sallachy Wind Farm, albeit in a different part of the view to the south and across the strath at ~10.5km distance (Low magnitude of change). The additional effect of the proposed development would be **Minor to Negligible** and **Not Significant**. The combined effect would be **Moderate** and **Not Significant**. The nature of these effects would be long-term (reversible) indirect, cumulative and negative.

Cumulative Assessment: Existing + Consented Sites + Applications + Proposed Development

There would be theoretical visibility of Achany Extension to the south-west, but this is likely to be screened by intervening vegetation (Very Low magnitude of change). The additional effect of the proposed development would be **Minor to Negligible** and **Not Significant**. The combined effect would be **Moderate** and **Not Significant**. The nature of these effects would be long-term (reversible) indirect, cumulative and negative.

Summary of Residual Landscape and Visual Effects

The residual landscape, visual and cumulative effects are those effects remaining after all the proposed design mitigation has been taken into account. Therefore, the likely effects assessed in **Sections 5.10-11** should be regarded as the residual effects because all relevant mitigation has been embedded into the proposed development as part of the design evolution.

A summary of the residual landscape, visual and cumulative effects is provided in **Tables 5.15-16** and the information set out in these tables is explained as follows:

- Receptor Name.
- Sensitivity: The sensitivity of the receptor is recorded (ranging from 'High', 'Medium', 'Low', and 'Very Low') in accordance with the methodology in **Technical Appendix 5.1**.
- LVIA Assessment (Primary Effect):
    - Magnitude of change: The magnitude of change, taking account of the proposed development only, is recorded (ranging from High, High – Medium, Medium, Medium – Low, Low, Low – Very Low, Very Low, and Zero) in accordance with the methodology.
    - Level of Effect: The level of effect for the proposed development is recorded and takes account of the sensitivity and magnitude of change in accordance with the methodology. Those levels of effect shown in **bold** relate to significant effects.
- Cumulative Assessment (CLVIA):
    - Magnitude of change (Existing and Consented Wind Farms): The magnitude of change, taking account of other existing and consented wind farms is recorded (ranging from High, High – Medium, Medium, Medium – Low, Low, Low – Very Low, Very Low, and Zero) in accordance with the methodology.
    - Additional Level of Effect: Adding the proposed development to the baseline of existing and consented wind farms.
    - Scenario 1 / Cumulative Level of Effect 1: The level of effect, taking account of the other existing, consented / under construction wind farms and the proposed development, is recorded (taking account of the sensitivity and magnitude of change in accordance with the methodology). Those levels of effect shown in **bold** relate to significant effects and the wind farm contributing most to the cumulative effects is recorded in brackets.
    - Magnitude of change (Other Application Wind Farms): The magnitude of change, taking account of other wind applications is recorded (ranging from High, High – Medium, Medium, Medium – Low, Low, Low – Very Low, Very Low, and Zero) in accordance with the methodology.
    - Additional Level of Effect: Adding the proposed development to the baseline of existing and consented wind farms and other wind farm applications; and
    - Scenario 2 / Cumulative Level of Effect 2: The level of effect, taking account of the other existing, consented / under construction, application wind farms and the proposed development, is recorded (taking account of the sensitivity and magnitude of change in accordance with the methodology). Those levels of effect shown in **bold** relate to significant effects and the wind farm contributing most to the cumulative effects is recorded in brackets.

Table 5.15: Summary of Residual Landscape Effects

Landscape Receptors	Primary Assessment: LVIA: Proposed Development			Cumulative Assessment: Proposed Development (PD) and other wind farms					
				Cumulative Scenario 1:			Cumulative Scenario 2:		
	Sensitivity	Magnitude of Change	Level of Effect:	Magnitude of Change (Existing + Consented)	Additional Level of Effect (PD)	Combined Level of Effect	Magnitude of Change (Applications)	Additional Level of Effect (PD)	Combined Level of Effect
Effects on the host Landscape Character									
Sweeping Moorland and Flows LCT (during Construction)	Medium	Zero to Medium	None to **Moderate** (1.5-2km)	No cumulative construction activity.					
***Sweeping Moorland and Flows* LCT (**during Operation)	Medium	Medium to Zero	**Moderate** (1.5-2km) reducing to Minor to Negligible	High to Zero	**Moderate** (1.5-2km) reducing to Minor to Negligible	**Major** to **Moderate** (CRWF, PD) to Minor to Negligible. Other parts of the LCT would be significantly affected by Kilbraur, Gordonbush & Strath Tirry.	High to Zero	**Moderate** (1.5-2km) reducing to Minor to Negligible	**Major** to **Moderat** (CRWF, PD) to Minor to Negligible**.** Other parts of the LCT would be significantly affected by Kilbraur, Gordonbush, Strath Tirry & Chleansaid.
***Sweeping Moorland and Flows* LCT** (during Decommissioning)	Medium	Very Low	Minor to Negligible	The residual cumulative effects as a result of the existing CRWF and the PD post decommissioning would be Minor to Negligible.					
***Rounded Hills* LCT** (during Construction)	Medium	Zero to Medium	None to **Moderate** (1.5-2km)	No cumulative construction activity.					

Landscape Receptors	Primary Assessment: LVIA: Proposed Development			Cumulative Assessment: Proposed Development (PD) and other wind farms					
				Cumulative Scenario 1:			Cumulative Scenario 2:		
	Sensitivity	Magnitude of Change	Level of Effect:	Magnitude of Change (Existing + Consented)	Additional Level of Effect (PD)	Combined Level of Effect	Magnitude of Change (Applications)	Additional Level of Effect (PD)	Combined Level of Effect
***Rounded Hills* LCT** (during Operation)	Medium	Medium to None	**Moderate** (1.5-2km) reducing to Minor to None	High to Zero	**Moderate** (1.5-2km) reducing to Minor to Negligible	**Major** to **Moderate** (CRWF, PD) to Minor to Negligible. Other parts of the LCT would be significantly affected by Sallachy, Achany, Rosehall, Braemore, Lairg, Lairg II & Kilbraur.	High to Zero	**Moderate** (1.5-2km) reducing to Minor to Negligible	**Major** to **Moderat** (CRWF, PD) to Minor to Negligible. Other parts of the LCT would be significantly affected by Sallachy, Achany, Rosehall, Braemore, Lairg, Lairg II, Kilbraur, Chaleansaid, Achany Extension, Strath Oykel, Meall Buidhe & Garvary.
***Rounded Hills* LCT** (during Decommissioning)	Medium	Very Low	Minor to Negligible	The residual cumulative effects as a result of the existing CRWF and the PD post decommissioning would be Minor to Negligible.					
Effects on Landscape Character within 6km of the Proposed Development									
***Lone Mountains* LCT**	High	Very Low to Zero to Medium within 2km	Minor to None (**Major to Moderate** locally up to 2km)	High to Zero	Minor to None (**Major to Moderate** locally up to 2km)	Minor to None (**Substantial to Major**– CRWF, PD)	Low to Zero	Minor to None (**Major to Moderate** locally up to 2km)	Minor to None (**Substantial to Major**– CRWF, PD)
Effects on Landscape Planning Designations									
***Ben Klibreck and Loch Choire* SLA**	High	Low to Zero	Moderate to Minor	Low	Moderate to Minor	Moderate to Minor	Low	Moderate to Minor	Moderate to Minor
Kyle of Tongue NSA	High	Very Low to Zero	Minor to None	Very Low to Zero	Minor to None	Minor to None	Very Low to Zero	Minor to None	Minor to None

Landscape Receptors	Primary Assessment: LVIA: Proposed Development			Cumulative Assessment: Proposed Development (PD) and other wind farms					
				Cumulative Scenario 1:			Cumulative Scenario 2:		
	Sensitivity	Magnitude of Change	Level of Effect:	Magnitude of Change (Existing + Consented)	Additional Level of Effect (PD)	Combined Level of Effect	Magnitude of Change (Applications)	Additional Level of Effect (PD)	Combined Level of Effect
Assynt - Coigach NSA	High	Very Low to Zero	Minor to None	Very Low to Zero	Minor to None	Minor to None	Low to Zero	Negligible to None	Moderate (Sallachy) to None
Ben Klibreck – Armine Forest WLA	High to Low	Low to Very Low	Moderate to Minor	High	Minor	**Major to Moderate** (CRWF)	High	Minor	**Major to Moderate** (CRWF)
Foinaven – Ben Hee WLA	Medium	Low to Very Low	Minor to Negligible	High	Minor to Negligible	**Major to Moderate** (CRWF, Sallachy)	High	Minor to Negligible	**Major to Moderate** (CRWF, Sallachy)

Table 5.16: Summary of Residual Visual Effects

Visual Receptors	Primary Assessment: LVIA: Proposed Development			Cumulative Assessment: Proposed Development (PD) and other wind farms					
				Cumulative Scenario 1:			Cumulative Scenario 2:		
	Sensitivity	Magnitude of Change	Level of Effect:	Magnitude of Change (Existing + Consented)	Additional Level of Effect (PD)	Combined Level of Effect	Magnitude of Change (Applications)	Additional Level of Effect (PD)	Combined Level of Effect
Visual Effects on Settlements									
None assessed									
Visual Effects on Transport Routes									
A836	High	High to High – Medium (4.9km or 4.4km if forestry retained), Low to Zero elsewhere	**Substantial to Substantial / Moderate** (4.9km or 4.4km if forestry retained), Moderate to No View elsewhere	High to Zero	**Substantial to Substantial / Moderate** (4.9km or 4.4km if forestry retained), Moderate to No View elsewhere	**Substantial to Substantial / Moderate** (CRWF, Strath Tirry, PD), Moderate to No View elsewhere	Low to Zero (High-Medium If forestry is felled)	**Substantial to Substantial / Moderate** (4.9km or 4.4km if forestry retained), Moderate to No View elsewhere	**Substantial to Substantial / Moderate** (CRWF, Strath Tirry, PD & Cheansaid if forestry felled), Moderate to No View elsewhere
Visual Effects on Recreational Routes									

Visual Receptors	Primary Assessment: LVIA: Proposed Development			Cumulative Assessment: Proposed Development (PD) and other wind farms					
				Cumulative Scenario 1:			Cumulative Scenario 2:		
	Sensitivity	Magnitude of Change	Level of Effect:	Magnitude of Change (Existing + Consented)	Additional Level of Effect (PD)	Combined Level of Effect	Magnitude of Change (Applications)	Additional Level of Effect (PD)	Combined Level of Effect
Sustrans Cycle Route 1	Assessed above as overlaps with the A836								
Strath Tirry to Badanloch Heritage Path Trail	High	Very Low to Zero	Minor to No View	Medium to Zero	Minor to No View	**Major to Moderate** (CRWF) to No View	Very Low to Zero	Minor to No View	**Major to Moderate** (CRWF) to No View
Visual Effects on Recreational and Tourist / Visitor Attractions									
Crask Inn	High	Very Low	Minor to Negligible	Medium-Low	Minor to Negligible	Moderate (CRWF)	Very Low	Minor to Negligible	Moderate (CRWF)
Visual Effects on Hill Summits									
Ben Klibreck	High	Low	**Moderate**	High	**Moderate**	**Substantial** (CRWF, PD)	Low	**Moderate**	**Substantial** (CRWF, PD)
Ben More Assynt	High	Very Low	Minor	Medium - Low	Minor	**Major to Moderate** (Sallachy)	Low-Very Low	Minor	**Major to Moderate** (Sallachy)
Conival	High	Very Low	Minor	Very Low	Minor	Minor	Very Low	Minor	Minor
Ben Hope	High	Very Low	Minor to Negligible	Very Low	Minor to Negligible	Minor (CRWF)	Very Low	Minor to Negligible	Minor (CRWF)
Ben Loyal	High	Very Low	Minor to Negligible	Low – Very Low	Minor to Negligible	Moderate to Minor (Strathy South)	Very Low	Minor to Negligible	Moderate to Minor (Strathy South)
Beinn Leoid	High	Very Low	Minor to Negligible	Low - Very Low	Minor to Negligible	Minor (CRWF)	Very Low	Minor to Negligible	Minor (CRWF)
Ben Hee	High	Very Low	Minor	Medium-Low	Minor	**Major to Moderate** (CRWF, Sallachy)	Low	Minor	**Major to Moderate** (CRWF, Sallachy)

Note: significant effects resulting from the proposed development are indicated in **bold** text and shaded grey.

Summary and Conclusions

The LVIA has been undertaken in accordance with GLVIA 3 by chartered landscape architects at WSP. The assessment process has encompassed periods for the construction, operation, and decommissioning of the proposed development, the latter of which entails the reversal of most of the landscape and visual effects. The proposed development comprises three wind turbines with a blade tip height of 149.9m and associated infrastructure located adjacent to the existing CRWF at the southern end of Strath Vagastie in the Highlands, approximately 8km south-east of Altnaharra and 21km north of Lairg and is set within an undesignated area of *Sweeping Moorland and Flows* and *Rounded Hills* LCT.

The ZTV for the proposed development is very limited, illustrating very few areas of additional visibility when compared with the existing CRWF, accounting for 0.03% of the 35km study area. It is to be noted that where visible, the proposed development would always be viewed adjacent to the existing CRWF in all views for the operational period of the proposed development. These limited areas of additional visibility are restricted to small patches of theoretical visibility to the north-east along Strath Vagastie and in remote areas in the north-east near Beinn Stumanadh, Dalvina Lodge and Skail. They also indicate that the proposed development would be much less visible in areas to the north, north-west and south-east where ZTV coverage is indicated for the existing CRWF only.

5.1.21 *Landscape Planning Policy and Guidance*

The design and assessment process has taken account of national and local planning requirements in relation to wind farm development, as described in the Planning Statement which accompanies the application for consent. This includes the Highland-wide Local Development Plan (HwLDP) (2012) and Onshore Wind Energy Supplementary Guidance (OWESG) (2016).

The proposed development performs well against THC's 10 Criteria listed in the Supplementary Guidance that provide a framework or checklist for assessing proposed wind farm development. An assessment of the proposed development against the 10 Criteria is set out in the Technical Appendix 5.4.

5.1.22 *Consultation*

Consultation has been undertaken with THC and NS who commented on aspects of methodology, sources of information, scope of assessment, viewpoint assessment and cumulative development. The advice from consultees has been used to assist the design evolution and assessment process with additional comments provided on viewpoint selection and scope of the assessment.

5.1.23 *Embedded mitigation*

The design of the proposed development has been reviewed against NS's guidance *Siting and Designing Windfarms in the Landscape*, Version 3a, 2017, the advice contained within the NS *Landscape Character Assessment*, 2019, and the relevant policies of the HwLDP and THC's *Onshore Wind Energy Supplementary Guidance*. As a result, the proposed development has been designed to reduce landscape, visual and

cumulative effects and to reflect the landscape characteristics and Special Landscape Qualities of the site location and its wider area which includes WLAs, SLAs and NSAs.

The proposed development has been designed to balance technical and project requirements with a need to safeguard the environment and satisfactorily accommodate the proposed development within its landscape setting.

All of the mitigation related to landscape, visual and cumulative effects is 'built-in' or embedded into the design of the proposed development including the bunding associated with the BESS.

5.1.24 *Landscape and Cumulative Landscape Effects*

Landscape effects are concerned with how the proposed development would affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape, and its distinctive character.
The proposed development would have a significant effect on the host landscape character of the *Rounded Hills* and *Sweeping Moorland and Flows* LCTs within 1.5-2km of the proposed turbines. These effects would be largely limited to the east / southeast due to the presence of the adjacent CRWF to the north and west and would not be significant in terms of the overall landscape character. A localised and significant cumulative effect is also predicted as a result of the combined effect of the existing CRWF in the same part of the LCTs.

There would also be a localised and significant (and cumulative) effect on part of the neighbouring *Lone Mountains* LCT, affecting the western edge of the LCT where it is within 2km of the proposed turbines. The majority of this LCT would not be significantly affected by the proposed development.

All remaining LCTs within the 35km study area would not be significantly affected by the proposed development.

The proposed development is not located within any designated landscapes or WLAs and there would be no significant effects on the special landscape qualities or integrity of any landscape planning designations including the *Kyle of Tongue* NSA, *Assynt - Coigach* NSA or *Ben Klibreck and Loch Choire* SLA. Equally there would be no significant effects on the wild land qualities of any WLAs included within the wild land assessment.

5.1.25 *Visual and Cumulative Visual Effects*

No settlements or residential properties would be significantly affected by the proposed development.
Significant visual and cumulative effects would be limited to the A836 affecting approximately 4.9km of the route as it approaches and passes the proposed turbines between the summit of The Crask and Druim Allt na h-Aire (or for approximately 4.4km if forestry is retained north of The Crask summit). At this section of the route, the proposed turbines would be visible at close proximity and to the fore of the existing CRWF. The significant visual effects would equate to 2.5% of the entire 196km route and would occur over a period of approximately 3-4 minutes, whilst travelling at 35-50mph. The remainder of the route would not be

significantly affected by the proposed development. None of the other roads in the 35km study area would be significantly affected by the proposed development.

Significant visual and cumulative effects would also be limited the same sections of the Sustrans Cycle Route 1 that overlaps with the A836. There would be no significant visual effects on the views from the remaining recreational routes or any tourist destinations within the 35km study area.

There would be significant visual and cumulative effects from Ben Klibreck as a result of the proposed development. None of the other mountain summits in the 35km study area would be significantly affected by the proposed development.

5.1.26 *Conclusions*

The proposed development comprises three wind turbines with a blade tip height of 149.9m and associated infrastructure located adjacent to the existing CRWF at the southern end of Strath Vagastie in the Highlands, approximately 8km south-east of Altnaharra and 21km north of Lairg and is set within an undesignated area of *Sweeping Moorland and Flows* and *Rounded Hills* LCT.

The design of the proposed development has been reviewed against NS's guidance *Siting and Designing Windfarms in the Landscape*, Version 3a, 2017 and the advice contained within the NS *Landscape Character Assessment*, 2019, the relevant policies of the HwLDP and THC's *Onshore Wind Energy Supplementary Guidance*. As a result, the proposed development has been designed to reduce landscape, visual and cumulative effects and to reflect the landscape characteristics and Special Landscape Qualities of the site location and its wider area which includes WLAs, SLAs and NSAs.

The site is located in an area with potential for wind farm development, adjacent to an existing wind farm, which is made more suitable by the existing landscape character and landform of the area that act to reduce the sensitivity of the site and limit both the visibility and number of people close to the site who might otherwise view the proposed turbines.

Significant landscape effects are restricted to an area of *Rounded Hills* and *Sweeping Moorland and Flows* LCTs within 1.5-2km, and a small area of the western edge of the *Lone Mountains* LCT up to 2km from the proposed turbines. Significant visual effects are restricted to a short section of the A836 overlapped by the Sustrans Cycle Route 1 and from the summit of Ben Klibreck.

There would be no significant effects on any designated landscapes and WLAs or their Special Landscape Qualities / Wild Land Qualities and integrity.

The proposed development has taken account of guidance set out in the OWESG and the requirements of the THC's LDP policies in respect of landscape, visual and cumulative effects.

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