

Volume 2: Chapter 11 – Cumulative Effects

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No visualisations are associated with this Chapter

11. CUMULATIVE EFFECTS

11.1 Introduction

- 11.1.1 This Chapter considers the potential significant cumulative effects predicted for the Proposed Development when considered alongside other reasonably foreseeable future developments ('in-combination effects'), and from an assessment of the potential for 'interactive effects' of the Proposed Development on common receptor groups.
- 11.1.2 This assessment is consistent with other SSEN Transmission Accelerated Strategic Transmission Investment (ASTI) projects' Environmental Impact Assessment (EIAs) in its methodology and approach to the assessment of in-combination cumulative effects.
- 11.1.3 This Chapter should be read in conjunction with **Volume 2, Chapter 3: Description of the Proposed Development**, **Chapter 5: EIA Process and Methodology**, and **Volume 2, Chapters 7-10** of the EIA Report (EIAR):
- **Chapter 7: Landscape and Visual Amenity** presents the findings of the assessment of the likely significant effects of the Proposed Development on landscape and visual receptors and includes a Residential Visual Amenity Assessment (RVAA).
 - **Chapter 8: Cultural Heritage** presents the findings of the assessment of the likely significant effects of the Proposed Development on cultural heritage.
 - **Chapter 9: Ornithology** presents the findings of the assessment of the likely significant effects of the Proposed Development on ornithological receptors.
 - **Chapter 10: Noise and Vibration** presents the findings of the assessment of the likely significant effects of the Proposed Development on noise sensitive receptors.
- 11.1.4 The following terminology is referred to throughout this chapter:
- Proposed Development: the proposed Emmock and Tealing Section 37 Tie-Ins; see **Volume 2, Chapter 3: Project Description**.
 - Reasonably Foreseeable Future Developments: an anticipated development which has either not yet been consented or has not yet been constructed. There are two categories of reasonably foreseeable future developments considered in this chapter:
 - **intra developments** – SSEN Transmission associated developments, that is SSEN Transmission projects associated with, and connected to, the Proposed Development; and
 - **inter developments** – other SSEN Transmission developments and third-party developments.
 - Receptor: A distinct part of the receiving environment on which effects are predicted in the EIA.
 - Study Area: the geographical area in which an assessment is undertaken.
 - Significant Effect: an effect which is considered material in the decision-making process and which is typically evaluated from the product of the sensitivity of a receptor and the magnitude of any given predicted impact on a receptor, as defined in **Volume 2, Chapter 5: EIA Process and Methodology**.
 - Cumulative Effect: the effect of more than one predicted effect acting on a receptor. These may be:
 - **in-combination effects**: those arising from consideration of the Proposed Development in combination with other reasonably foreseeable developments.
 - **interactive effects**: those arising from the interaction of different impact types of the Proposed Development on key receptors such as communities, designated areas and sensitive area-wide ecosystems.

11.2 Scope of the Assessment

Effects Assessed

11.2.1 The following cumulative effects were considered:

- The potential for significant residual (ie after application of mitigation) cumulative effects on receptors resulting from the Proposed Development during construction and operation in combination with other reasonably foreseeable future developments in the vicinity of the Proposed Development (in-combination effects).

- The potential for different impacts on local receptors arising from the Proposed Development during construction or operation which when occurring together interact in such a way that the effect experienced by the receptor is greater and possibly more significant (interactive effects).

Study Area

11.2.2 The Study Area for the cumulative effects assessment was defined by the Study Areas used in the technical EIA assessments and set out in the technical Chapters that the cumulative assessment draws on, as the potential for a cumulation of effects cannot exist outwith the spatial scale of the primary effects themselves. The Study Areas for each technical assessment have already been defined in the relevant technical Chapters (see **Volume 2, Chapters 7-10**) and will not be replicated here. The Study Area has also taken into account the spatial extent of predicted significant effects (where reported and available) for the intra developments assessed in the in-combination cumulative assessment. The assessment of interactive cumulative effects has adopted the same Study Areas as adopted within the relevant technical Chapters (see **Volume 2, Chapters 7-10**).

11.3 Assessment Methodology

11.3.1 The receptors considered to be susceptible to interactive effects (as identified in **Section 11.1**) was defined by the EIA team based on the conclusions of **Volume, 2 Chapters 7-10** and the team's collective understanding of baseline conditions and receptors.

Legislation, Policy and Guidance

11.3.2 There is no legislation or policy specifically directing the assessment of cumulative effects within EIA, although guidance from the Planning Inspectorate¹ which is pertinent to Nationally Significant Infrastructure Projects in England and Wales has been followed where relevant in the assessment of in-combination effects. The approach to the assessment of interactive cumulative effects follows a qualitative assessment based on the previous project experience and professional judgement of the EIA project team.

Baseline Data Sources

11.3.3 For both the in-combination and interactive effects assessments the information presented in this Chapter draws from the technical **Chapters in Volume 2, Chapters 7-10**.

- The in-combination effects assessment considered information about the potential effects of the reasonably foreseeable future developments obtained from a review of publicly available sources such as planning applications, Section 37 applications, EIARs and EIA Scoping Reports, or from information provided by SSEN Transmission in relation to other planned electricity transmission projects.
- The interactive effects assessment used information from each of the **Volume 2, Chapters 7-10** relating to baseline receptors and their sensitivity, together with the predicted likely effects of the Proposed Development, to scope a series of key receptor groups which formed the focus of the assessment.

Consultation

11.3.4 The approach to the cumulative assessment took account of relevant feedback from the consultation process, in particular the EIA Scoping Opinion (and responses from consultees) (provided in **Volume 4, Appendix 6.2 Scoping Opinion**). The key points raised by consultees in relation to scoping this cumulative assessment are summarised in **Table 11.1: Summary of Consultation Related to Assessment of Cumulative Effects** with a brief summary of how they have been addressed within the assessment reported in this Chapter.

Table 11.1 - Summary of Consultation Related to Assessment of Cumulative Effects

Organisation and Date	Feedback Provided	Response to Feedback
The Scottish Government –	Agrees with consultees that cumulative assessments should be provided for:	• Volume 2, Chapter 10: Noise and Vibration includes operational noise

¹ UK Government (2024) Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment. Available online at: <https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-cumulative-effects-assessment>.

Organisation and Date	Feedback Provided	Response to Feedback
Energy Consents Unit – Scoping Opinion 28 May 2025	- operational noise including cumulative noise with other OHL developments; - ornithology, in consultation with NatureScot; and - additional developments which enter the planning process after the date of the scoping opinion.	assessment including a cumulative assessment with other OHL developments; Volume 2, Chapter 09: Ornithology provides a cumulative assessment, and a summary of consultations carried out; and as noted in the assessment methodology (see Section 11.3), an appropriate cut-off was used to ensure that all reasonably foreseeable developments were taken into account.
Angus Council 14 May 2025	Chapter 11 deals with cumulative effects and Tables 11.1: and 11.2 list major and foreseeable developments. An up to date check of the status of projects can be provided prior to submission and the shortlist should include Myreton Farm - (ECU00005053), Balnuth BESS – consented (ECU00004887), Fithie BESS - screening (ECU00005034), 17 Acres BESS – screening (ECU00005170). Consideration to shortlisting should also be given to the recently submitted Pitpointie solar proposal – application (25/00250/FULM) which is around 3 km west of the site.	These have been taken into account in this cumulative assessment.

Approach to assessment of in-combination effects

- 11.3.5 The assessment of the in-combination effects considered two categories (intra and inter developments) of reasonably foreseeable future developments, and it has been approached in a tiered manner. This was to ensure that the SSEN Transmission projects which are associated with the Proposed Development, but for which consent is being sought separately, were first considered in-combination with the Proposed Development (the intra developments, ie the proposed Emmock substation), prior to consideration alongside the other developments (the inter developments, including other SSEN Transmission developments and third party developments).
- 11.3.6 This search area was subsequently refined on the basis of the likely significant cumulative effects identified at the scoping stage and as reported in the EIA Scoping Report. Developments considered in the cumulative assessment include all reasonably foreseeable developments within 3 km of the Proposed Development, following a review of the potential for significant environmental effects from the Proposed Development taking account of committed Embedded and Applied Mitigation. In addition, for the purposes of Landscape and Visual Impact Assessment (LVIA), projects including tall infrastructure (ie wind farms and OHLs) have been included where these would be within 5 km of the Proposed Development. This wider extent of 5 km was also consistent with the extent of the proposed LVIA Study Area drawing from review of the initial Zone of Theoretical Visibility (ZTV) and which captured the majority of Study Areas for other EIA disciplines, taking account of the nature of both the Proposed Development and intra development (Emmock substation) and the receiving environment.
- 11.3.7 The following criteria were used to identify the projects from the long list that were more likely to have potentially significant environmental effects in their own right and therefore greater potential to result in significant cumulative effects in combination with those predicted for the Proposed Development:
- development proposals of more than local scale (ie national or major development²); and/or
 - development proposals of local scale where EIA is required, or where there is considered to be potential for significant effects on key receptors, and which are located within 2 km of the Proposed Development; and where:
 - planning applications (or equivalent consent applications under other consenting regimes) have been submitted but not yet determined; or
 - potential applications at the EIA Screening, EIA Scoping or statutory consultation stage; or

² Including those set out in *The Town and Country Planning (Hierarchy of Developments) (Scotland) Regulations 2009*.

- where development consents have been granted and that are pending construction at the time of the assessment³.

11.3.8 The schedule of potential reasonably foreseeable future developments was completed at the end of June 2025 to provide an appropriate cut-off for the subsequent assessment and reporting of the predicted effects of the Proposed Development in this EIAR. Information on the reported environmental effects of each development shortlisted for cumulative assessment, where available, was then collated by the EIA project team and provided to each topic specialist. Development proposals which were under construction at the time of carrying out the assessment were considered in the main assessment as part of the future EIA baseline, and not as intra or inter developments.

11.3.9 The list of reasonably foreseeable future developments that was identified is presented in **Table 11.2: List of Reasonably Foreseeable Future Developments – Intra and Inter Developments**. The table is split into the two categories of projects, ‘intra’ developments and ‘inter’ developments. The intra development is the SSEN Transmission substation project (Emmock substation) associated with the Proposed Development and the inter developments comprise other reasonably foreseeable developments (including electricity transmission developments known to SSEN Transmission and other third-party development proposals meeting the above criteria). In addition, **Table 11.2: List of Reasonably Foreseeable Future Developments – Intra and Inter Developments** identifies with an asterisk (*) the projects that were assessed for in-combination effects for the intra development in their respective EIAR. The reasonably foreseeable future developments set out in **Table 11.2: List of Reasonably Foreseeable Future Developments – Intra and Inter Developments** are shown in **Volume 3, Figure 5.1 - Cumulative Developments**.

Table 11.2 - List of Reasonably Foreseeable Future Developments - Intra and Inter Developments

Reasonably Foreseeable Development Name	Link to Project Information
Intra (Associated) Development	
Emmock 400 kV substation SSEN Transmission Development	https://planning.angus.gov.uk/online-applications/caseDetails.do?caseType=Application&keyVal=S N6VOFCFMUA00
Inter Developments (Other SSEN Transmission and Third Party Developments)	
Alyth to Tealing 275 kV OHL Upgrade (to 400 kV)*	https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00005167
Tealing to Westfield 275 kV OHL Upgrade (to 400 kV)*	https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00005168
Kintore to Tealing 400 kV OHL	https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00005225
Fithie Energy Park*	https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00005034
Balnuth Battery Energy Storage System (BESS)*	https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00004887
Myreton Battery Energy Storage System (BESS)*	https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00005053
17 Acres Battery Energy Storage System (BESS)	https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00005170&T=0
Pitpointie Solar Proposal Application	https://planning.angus.gov.uk/online-applications/applicationDetails.do?activeTab=documents&keyVal=SOY99KCF08200
Ark Hill Wind Farm Extension	https://planning.angus.gov.uk/online-applications/applicationDetails.do?activeTab=documents&keyVal=R04VKBCFFLH00

³ Developments which had been constructed at the time of the assessment are excluded from the cumulative assessment as they are deemed to be part of the baseline environment

* These projects were assessed cumulatively for the intra development EIA ie the EIAR for the proposed Emmock substation associated with the Proposed Development.

- 11.3.10 All EIA technical teams assessed the intra development set out in **Table 11.2: List of Reasonably Foreseeable Future Developments – Intra and Inter Developments** in combination with the Proposed Development to identify potential significant cumulative effects, ie alongside Emmock Substation. All EIA technical teams then assessed the cumulative effects of the Proposed Development and the intra development with the inter developments. Each EIA technical team determined which of the other inter developments were relevant for consideration for their EIA discipline and the selected projects were captured in the assessment. This allowed topic teams to screen out some of the remaining inter developments where it was clear that there would not be potential for significant cumulative effects.
- 11.3.11 The assessments drew on relevant EIA best practice for each EIA topic. The assessments took account of the predicted residual effects of the assessment of the Proposed Development in combination with each reasonably foreseeable development. The level of detail of the assessments was also necessarily guided by the level of information available for each future development set out in **Table 11.2: List of Reasonably Foreseeable Future Developments – Intra and Inter Developments** and the degree of certainty around its likelihood of being consented and the timescales for its construction.
- 11.3.12 Each of the EIAR technical **Volume 2, Chapters 7-10** presents a section on cumulative assessment including tables to present the cumulative in-combination assessment findings for the intra development, then the relevant inter developments, along with a narrative discussing the overall findings for that topic. The in-combination assessments in each of the **Volume 2, Chapters 7-10** were primarily based on an informed qualitative approach drawing on professional judgement. **Table 11.4: Likely Significant Residual In-Combination Effects** below summarises where a significant in-combination effect is likely when the Proposed Development is considered alongside the intra and inter developments for each EIA topic. For clarity the following sets out the methodologies by which each technical team undertook the in-combination assessment:
- **Chapter 7, Landscape and Visual Amenity** – the red line boundaries and available details of the intra and inter developments (including submitted LVIA chapters, where available) were reviewed to inform where likely significant effects on landscape and visual receptors may be experienced. In the absence of published assessments, high level assessments have been undertaken;
 - **Chapter 8, Cultural Heritage** - this was based upon consideration of the effects of the Proposed Development on the heritage assets that were identified within the inner Cultural Heritage Study Area and on the settings of assets with statutory and non-statutory designations within the outer Cultural Heritage Study Area (which includes the inner Study Area), in addition to the likely effects of the intra and inter developments;
 - **Chapter 9, Ornithology** – predicted adverse effects on birds arising from the construction and operation of the Proposed Development have the potential to contribute to cumulative effects upon wider regional populations. In-isolation effects on birds, ie those arising from the Proposed Development alone, were considered alongside predicted effects from the intra and inter developments as far as possible based on the data available. The assessment considered the NatureScot guidance for assessing cumulative effects of wind farms which recommends using an additive approach to sum predicted effects from relevant projects arising from displacement, collision risk and barrier effects, which is also considered to be appropriate guidance to adopt for this assessment; and
 - **Chapter 10, Noise and Vibration** – the in-combination assessment considered potential cumulative noise and vibration effects from the Proposed Development alongside intra and inter developments. Construction noise inputs included traffic and transport contributions, with impacts on nearby noise-sensitive receptors (NSRs) assessed using worst-case assumptions. Qualitative assessments of other developments were informed by available data and professional judgment, accounting for weather conditions and receptor proximity. Vibration effects were considered negligible due to the nature of works. Operational noise from corona discharge was assessed cumulatively where relevant infrastructure is in relevant proximity.

11.3.13 **Table 11.4: Likely Significant Residual In-Combination Effects** summarises the conclusions of the cumulative in-combination assessments and indicates with a **Blue** box the potential significant in-combination effects and the project phases for the predicted effects ie during **Construction, Operation** or **Both**.

Approach to Assessment of Interactive Effects

11.3.14 For the interactive effects the assessment considered the combined or synergistic effects caused by the combination of a number of different predicted adverse effects (such as noise, visual etc) from the Proposed Development on a particular single, or group of, receptors (such as residential properties or areas of importance for cultural and natural heritage) taking into consideration the construction and operational phases of the Proposed Development. The significance of such interactive effects may collectively be greater than the individual effects predicted on the key receptor groups.

11.3.15 The approach to the assessment of the interactive effects considered the changes in baseline conditions at common sensitive receptors (ie those receptors predicted to be affected by impacts that have been assessed by more than one EIA topic) due to the Proposed Development.

11.3.16 **Table 11.5: Identification of Potential Interactive Effects** sets out a schedule of key receptors considered to be potentially sensitive to interactive effects which were identified through a review of the relevant baseline information by each of the EIA topic teams, the EIA management team and discussion with the technical leads. The key receptors in **Table 11.5: Identification of Potential Interactive Effects** are grouped under four categories as follows:

- People in their homes and communities forming their immediate local environment;
- Areas accessed for greenspace, recreation and wider enjoyment of the countryside;
- Areas of significance for culture, heritage, history and education; and
- Areas of intrinsic importance for the natural heritage.

11.3.17 Within each of the four groupings, a number of sub-groups of receptors are also presented in the table to illustrate the key receptors which are considered to be vulnerable to interactive cumulative effects across people / communities and the natural and cultural heritage.

11.3.18 Only residual effects were considered in the interactive effects assessment ie where there was a common sensitive receptor which is predicted to be affected in the assessments undertaken for different EIA topics following consideration of embedded, applied and any additional mitigation.

11.3.19 Consideration was also given to the findings of the in-combination cumulative effects assessment, which is summarised in **Table 11.4: Likely Significant Residual In-Combination Effects**, particularly where significant in-combination effects were predicted which had the potential to intensify impacts on the receptor groups predicted to be susceptible to multiple effects from the Proposed Development on its own.

11.3.20 Cumulative interactive effects cannot be quantified or assessed in detail due to the differing nature of the topics and methodologies of the individual assessments, and the scope for variability of responses from receptors to the identified effect interactions. Professional judgement has therefore been applied to the assessment involving the judgement of relevant EIA discipline leads where relevant and taking account of relevant good practice guidance where available and relevant to the assessment.

11.3.21 **Table 11.3: Colour Coding used for Table 11.5** below sets out the categories used to indicate the residual effects predicted during construction or operation used in **Table 11.5: Identification of Potential Interactive Effects** which indicates the level of residual effect significance predicted for each of the identified groups of receptors in each of the technical chapters in **Volume 2, Chapters 7-10**. **Table 11.5: Identification of Potential Interactive Effects** also indicates where a potential significant interactive effect is considered likely which is indicated by a **Blue** box with an indication of whether the potential significant interactive effects are predicted to occur during construction or operation.

Table 11.3: Colour Coding used for Table 11.5

	Significant Residual Effect
	Non-Significant Minor Residual Effect
	Potential Significant Interactive Effect

11.3.22 Where a likely significant interactive effect was predicted on a receptor group further assessment would be undertaken to inform a determination of whether residual effects would be predicted to be significant and, where required and possible, to set out additional mitigation to reduce such effects.

Assumptions and Limitations

11.3.23 The following assumptions and limitations apply to the cumulative effects assessment:

- The cut-off date for gathering data about other potential future developments for the in-combination assessment was June 2025. This was required to provide a 'settled' schedule of projects to be defined and passed to the EIA technical assessment teams to complete their cumulative assessments and incorporate the findings within this EIA Report.
- The in-combination assessment is based on published information which was available in the public domain at the time of the assessment plus other electricity transmission projects details which were available to SSEN Transmission. This included information provided by the Local Planning Authority.
- Only potential developments considered reasonably foreseeable have been included. Development proposals at the pre-application stage where a Proposal of Application Notice (PoAN) has been submitted are not included as they are not considered reasonably foreseeable. Projects known to SSEN Transmission, which are not yet the subject of an application or consent (but are foreseeable to SSEN-Transmission and relevant to the EIA).
- Both the in-combination and interactive effects assessments are informed qualitative assessments as they are limited to the level of information available relating to the other development projects and / or are considering different types of effects that cannot be quantifiably measured (eg landscape effects together with noise effects). Both assessments were based on professional judgement by assessors experienced in the assessment of environmental effects.
- Both the construction and operational phases have been considered in the assessment of in-combination effects where the information was available; otherwise, a 'worst case' scenario was assumed that construction may occur at the same time as the Proposed Development (particularly for larger scale projects likely to have lengthy construction programmes).
- No additional research, data collection or site visits have been undertaken to inform the cumulative assessment.
- The cumulative assessment draws on existing assessments and, as such, inherits any limitations of the initial assessments that are described in each respective chapter in **Volume 2, Chapters 7-10**.

11.4 Predicted In-combination Effects

11.4.1 **Table 11.4: Likely Significant Residual In-Combination Effects** sets out a summary of the likely significant residual in-combination effects, the intra and inter developments are shown in **Volume 3, Figures 5.1 Cumulative Developments**. The key findings are discussed below.

Intra (Associated) Development

11.4.2 When the Proposed Development was considered alongside the intra developments significant in-combination effects were predicted in relation to the following receptors:

- Landscape and visual – in-combination effects were predicted when the Proposed Development was considered alongside the construction and operation of the intra development, ie Emmock 400 kV substation, which is being developed by SSEN Transmission and which is associated with the Proposed Development. This is largely due to the scale of construction activities, and the overlap of the construction phases requiring concurrent activities to the northwest of Tealing Substation. During operation, the Proposed Development is expected to give rise to Significant cumulative landscape and visual effects largely due to the concentration of development to the

northwest of the Tealing Substation, combined with the vertical prominence of the Proposed Development, and the spatial scale of the proposed Emmock substation. These in-combination landscape and visual effects would be **Significant**. See **Chapter 7: Landscape and Visual Amenity** for further details.

Inter Developments (Other SSEN Transmission and Third Party Developments)

11.4.3 When the Proposed Development and the intra development were considered alongside the inter developments significant in-combination effects were predicted in relation to the following receptors:

- Landscape and Visual – in-combination effects during construction and operation on both landscape and visual receptors were predicted when the Proposed Development was considered alongside the inter developments including existing Tealing and Seagreen Substations and both Balnuith (consented) and Myreton (proposed) BESS schemes while no effects were predicted alongside Fithie Energy Park (proposed). During construction this would be due to the overlap of construction programmes and the proximity of the works for the projects. **Significant** landscape and visual effects are predicted due to proximity of the construction works, including access tracks, to residential properties and recreational receptors. During operation the Proposed Development in combination with the inter developments would have **Significant** cumulative effects on the local landscape and visual receptors as the developments together would intensify the presence of electrical infrastructure, these include Balnuith BESS, Myreton BESS and Fithie Energy Park. The in-combination landscape and visual effects would be **Significant** during construction and operation. It is expected that compensatory planting and screening, which should be provided by each project individually, may in time reduce some of the overall effects on the landscape and visual receptors, although compensatory planting may not necessarily be provided in the vicinity of the development. See **Volume 2, Chapter 7: Landscape and Visual Amenity** for further details.
- Cultural Heritage – the Proposed Development is predicted to give rise to significant operational cumulative effects on a Scheduled Monument when combined with one of the inter developments, namely the Kintore to Tealing 400 kV OHL. Significant cumulative operational effects of Moderate significance are concluded on the setting of Balkemback Cottage Stone Circle (SM 2868) see **Volume 2, Chapter 10: Cultural Heritage** for further details.

Table 11.4: Likely Significant Residual In-Combination Effects ⁴

Project	Landscape and Visual Amenity (Chapter 7)	Cultural Heritage (Chapter 8)	Ornithology (Chapter 9)	Noise and Vibration (Chapter 10)
Intra (Associated) Developments				
Emmock 400 kV substation	Construction Landscape LCT 387: Dipslope Farmland LCT 382: Lowland Hill Ranges Sidlaw LLA Visual VRA 1 Operation Landscape LCT 387: Dipslope Farmland Visual VRA 1 and 2	None	None	None
Inter Developments (Other SSEN Transmission and Third Party Developments)				
Kintore to Tealing 400 kV OHL	Construction Landscape LCT 382: Lowland Hill Ranges Visual VRAs 1, 2, 3, 4, 5 and 6 Operation Landscape LCT 387: Dipslope Farmland LCT 382: Lowland Hill Ranges Sidlaw LLA Visual VRAs 1, 2, 3, 4	Operation Balkemback Cottages Stone Circle (SM 2868)	None	None

⁴ Projects with an asterisk (*) are those that were also assessed cumulatively for the Intra Development in the EIA for the intra development (Emmock Substation).

Project	Landscape and Visual Amenity (Chapter 7)	Cultural Heritage (Chapter 8)	Ornithology (Chapter 9)	Noise and Vibration (Chapter 10)
Alyth to Tealing 275 kV OHL Upgrade (to 400 kV) * SSEN Transmission Development	None	None	None	None
Tealing to Westfield 275 kV OHL Upgrade (to 400 kV) * SSEN Transmission Development	None	None	None	None
Fithie Energy Park * Third Party Development	Operation Landscape LCT 387: Dipslope Farmland Visual VRAs 2 and 3	None	None	None
Balnuith Battery Energy Storage System (BESS)* Third Party Development	Construction Landscape LCT 387: Dipslope Farmland Visual VRA 3 Operation Landscape LCT 387: Dipslope Farmland Visual VRA 3	None	None	None
Myreton BESS * Third Party Development	Construction Landscape LCT 387: Dipslope Farmland Visual VRA 3 Operation Landscape LCT 387: Dipslope Farmland Visual VRA 3	None	None	None

Project	Landscape and Visual Amenity (Chapter 7)	Cultural Heritage (Chapter 8)	Ornithology (Chapter 9)	Noise and Vibration (Chapter 10)
17 Acres Battery Energy Storage System (BESS)	Construction Landscape LCT 387: Dipslope Farmland Visual VRA 2 Operation Landscape LCT 387: Dipslope Farmland Visual VRA 2	None	None	None
Pitpointie Solar Proposal Application	None	None	None	None
Ark Hill Wind Farm Extension Third Party Development	None	None	None	None

Key:

Predicted significant in-combination effect with an indication of whether the in-combination effect is during construction, operation or both.

11.5 Predicted Interactive Effects

- 11.5.1 **Table 11.5: Identification of Potential Interactive Effects** shows the identified key receptor groups and the residual (significant and non-significant) environmental effects predicted in each of the **Volume 2, Chapters 7-10**. Drawing upon the methodology detailed in paragraphs 11.3.15 to 11.3.23, and the conclusions within each of the four technical chapters (Chapters 7-10) from **Table 11.5: Identification of Potential Interactive Effects** it can be identified which receptor groups may experience potential interactive effects, and these are discussed below together with the findings of further assessment undertaken for potentially significant interactive effects. Where relevant, interactive effects were considered alongside the in-combination effects following the initial assessment.
- 11.5.2 **Table 11.5: Identification of Potential Interactive Effects** indicates that none of the receptor groups, or sub groups are likely to experience adverse interactive cumulative effects from the Proposed Development in either the construction or operational phases. The significant effects and non significant effects that have been identified are spread across receptor grounds and sub groups. Therefore, no significant interactive effects have been identified, and further analysis of the potential for interactive effects per receptor group and sub group is unnecessary.

Table 11.5: Identification of Potential Interactive Effects

Receptor Groups	Receptor Sub-Groups	Landscape and Visual Amenity (Chapter 7)	Cultural Heritage (Chapter 8)	Ornithology (Chapter 9)	Noise and Vibration (Chapter 10)	Potential Significant Interactive Effect?
People in their homes and communities / local environment	Residential properties (or groups)	Construction (Visual) Operation (Visual)	N/A	N/A	Negligible	No
	Private water supplies (PWS)	N/A	N/A	N/A	N/A	No
Areas accessed for greenspace, recreation and wider enjoyment of the countryside	Parks, open spaces, recreation areas	Construction (some Visual receptors <1km) Operation (some Visual receptors <1km)	N/A	N/A	N/A	No
	Key recreational routes including Core Paths	Construction (some Visual receptors <1km) Operation (some Visual receptors <1km)	N/A	N/A	N/A	No
	Accessible woodlands	N/A	N/A	N/A	N/A	No
	Accessible watercourses	N/A	N/A	N/A	N/A	No
Areas of significance for culture, heritage, history and education	GDLs and historic landscapes	N/A	N/A	N/A	N/A	No
	Key heritage sites (especially those visited by the public)	N/A	Operation	N/A	N/A	No

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Receptor Groups	Receptor Sub-Groups	Landscape and Visual Amenity (Chapter 7)	Cultural Heritage (Chapter 8)	Ornithology (Chapter 9)	Noise and Vibration (Chapter 10)	Potential Significant Interactive Effect?
	Other sites of local / community cultural importance	N/A	Construction	N/A	N/A	No
Areas of intrinsic importance for the natural heritage	Sensitive and rare habitats and species	N/A	N/A	Negligible	N/A	No
	Protected areas / resources including designated sites	N/A	N/A	Negligible	N/A	No
	Important landscapes	Construction (Sidlaw Hills LLA) Operation (Sidlaw Hills LLA)	N/A	N/A	N/A	No
	River catchments / corridors	N/A	N/A	N/A	N/A	No

Key

	Significant Residual Effect
	Non-Significant Residual Effect
	Potential Significant Interactive Effect
N/A	Not Assessed