

6 Landscape and Visual Impact

6.1 Introduction

- 6.1.1 This Chapter of the Environmental Statement (ES) has been produced by LDA Design. The Landscape and Visual Impact Assessment (LVIA) has been undertaken by members of LDA's Environmental Planning Team, who are members of the Landscape Institute (LI) and are Chartered landscape Architects (CMLI). This LVIA sets out the legislative and policy context, baseline conditions, approach to the assessment and methodology, embedded mitigation and enhancement measures, and the likely potential effects.
- 6.1.2 This assessment defines the existing landscape and visual baseline environments; assesses their sensitivity to change; describes the key landscape and visual related aspects of the Proposed Development; describes the nature of the anticipated change upon both the landscape and visual environments; assesses the effects during construction; the period following completion prior to the maturing of mitigation planting (short- to medium-term) and once the mitigation planting is mature (semi-permanent term) (the 'operational phase').
- 6.1.3 This LVIA update takes account of a new layout and accompanying mitigation planting proposals within the Proposed Development and therefore supersedes the previous assessment submitted with Greenfields BESS ES; with all new text highlighted red. Text in black is unchanged, where assessment and baseline material remain relevant and applicable. This report also takes account of recent comments from Ryder Landscape Consultants, provided on 7th April 2025, and includes additional cumulative assessment as well as revised assessment text in line with the amended Site layout and new mitigation measures.

6.2 Policy context

National Planning Policy Framework (NPPF)

- 6.2.1 Relevant national planning policy is set out in Appendix A6.5.

Local Planning Policy

- 6.2.2 The Site lies within Staffordshire Moorlands District Council (SMDC). Current local planning policy is described in Staffordshire Moorlands Local Plan 2014-2033 (adopted 2020). The site boundary spans two parish boundaries; both Cheddleton and Bagnall Parish, neither of which have a Neighbourhood Plan.

Staffordshire Moorlands Local Plan 2014 – 2033 (Adopted 2020)

- 6.2.3 The Local Plan was adopted on 9th September 2020 and sets out the Council's vision and strategy for the district until 2033.
- 6.2.4 It also looks at the proposed locations for development, and policies which will be used in determining planning applications. The Local Plan covers the Staffordshire Moorlands area except for the part that lies within the Peak District National Park Authority.
- 6.2.5 Policies of relevance to this LVIA are outlined below:

Policy DC 3 Landscape and Settlement Setting

6.2.6 This policy states that:

- 'The Council will protect and, where possible, enhance local landscape and the setting of settlements in the Staffordshire Moorlands by:
- Resisting development which would lead to prominent intrusion into the countryside or have a significant adverse impact on the character or the setting of a settlement or important views into and out of the settlement as identified in the Landscape and Settlement Character evidence;
- Supporting development which respects and enhances local landscape character and which reinforces and enhances the setting of the settlement as identified in the Landscape and Settlement Character evidence;
- Supporting developments which conserve or enhance the biodiversity qualities of any natural or man-made features within the landscape, such as trees, woodlands, hedgerows, walls, watercourses or ponds;
- Supporting opportunities to positively manage the landscape and use sustainable building techniques and materials which are sympathetic to the landscape;
- Ensuring that development does not adversely affect the wider setting of the Peak District National Park.'

Policy C3 Green Infrastructure

6.2.7 This policy states that:

- 'The Council will, through partnership working with local communities, organisations, landowners and developers, develop an integrated network of high quality and multi- functional green infrastructure that will:
 - a) Support and improve the provision of open space, sport and recreational facilities for local communities and enhance the settings of neighbourhoods;
 - b) Link existing and potential sites of nature conservation value and historic landscape features, create new wildlife habitats, increase biodiversity, and increase tree cover where it is appropriate to the landscape;
 - c) Enhance the natural, man-made and cultural features that are crucial to the local landscape and create opportunities for the restoration of degraded landscapes and the enhancement of the urban fringe;
 - d) Mitigate the negative effects of climate change and maximise potential climate change benefits including effective flood risk and waterways management;
 - e) Create appropriate access for a wide range of users to enjoy the countryside, including improved linkages to and provision of formal and informal recreation opportunities and accessible woodland areas, encouraging walking, cycling and horse riding;
 - f) Contribute to the diversification of the local economy and tourist development through the enhancement of existing, and provision of new facilities.

6.2.8 *The Council will identify, protect and enhance Green Infrastructure assets through the Green Infrastructure Strategy.'*

Policy NE2 Trees, Woodland and Hedgerows

6.2.9 This policy states that:

- 'The Council will protect existing trees, woodlands and hedgerows, in particular, ancient woodland, veteran trees and ancient or species-rich hedgerows from loss or deterioration.'

6.2.10 This will be achieved by:

- Requiring that existing woodlands, healthy trees and hedgerows are retained and integrated within a Proposed Development unless the need for, and benefits of, the development clearly outweigh their loss;
- Requiring new developments to provide tree cover that secures a good level of sustainability through tree retention, planting and soft landscaping, including where possible the on site replacement of any trees that are removed with sufficient tree planting to replace or increase the canopy cover on-site as appropriate. Landscaping schemes will also be required to mitigate against negative landscape impact and complement the design of new development and make provision for future maintenance. Where it is not possible to secure this new or replacement tree planting within the site, the Council will work with applicants to ascertain if a suitable site(s) can be found off-site for replacement planting in the locality;
- Resisting development that would directly or indirectly damage existing ancient woodland, veteran trees and ancient or species-rich hedgerows.

6.2.11 The Council will refer to its adopted Tree Strategy in the consideration of proposals; and will in general seek to retain as many trees and as much hedgerow on site as possible.'

Local Guidance and Studies

6.2.12 In addition to the policy documents identified above, the following local guidance documents are relevant to the Site and its immediate context:

- Staffordshire Moorlands District Council Design Guide (Adopted 2018)
- Green Belt Review Study (2015)

6.2.13 This document forms part of the documented baseline and has implications for the development siting and design and the assessment methodology, as appropriate. The above design guide provides a narrative on design approaches for new development within the Staffordshire Moorlands District and the Green Belt Study outlines areas of the Green Belt and their subsequent contribution to the purposes of the green belt. The Green Belt Study is reviewed separately in a Green Belt Assessment undertaken by LDA Design, which forms part of the wider suite of planning application documents (report reference: 9258_GBA_002).

6.3 Assessment methodology

Assessment Criteria

6.3.1 *"Landscape and Visual Impact Assessment is a tool used to identify and assess the significance of and the effects of change resulting from development on both the landscape as an environmental resource in its own right and people's views and visual amenity."* (Guidelines for Landscape and Visual Impact Assessment (GLVIA) 3, para. 1.1).

6.3.2 Paras. 2.20-2.22 of the same guidance indicate that the two components (assessment of landscape effects, and assessment of visual effects) are *"related but very different considerations"*.

6.3.3 The assessment method for this LVIA draws upon the established GLVIA3; An Approach to Landscape Character Assessment (Natural England, 2014); Landscape Institute Technical Information Note (LI TIN) 05/2017 regarding townscape character; LI TGN 02/2019 Residential Visual amenity assessment (RVAA); Landscape Institute's Technical Guidance Notes 02-21: Assessing landscape value outside national designations; LI

Technical Guidance Note 06/19 Visual Representation of development proposals and other recognised guidelines.

6.3.4 The methodology is described in more detail in Appendices 6.3 (assessment methodology) and 6.4 (visualisations and ZTV studies).

6.3.5 A full glossary is provided in Appendix 1 (glossary). The key terms used within this assessment are:

- Susceptibility and Value – which contribute to Sensitivity of the receptor;
- Scale, Duration and Extent - which contribute to the Magnitude of effect; and
- Significance.

6.3.6 These terms are described in more detail below.

Sensitivity of receptors

6.3.7 Susceptibility indicates the ability of a landscape or visual receptor to accommodate the Proposed Development “*without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.*” (GLVIA3, para. 5.40).

Table 6-1: Susceptibility

High	Undue consequences are likely to arise from the Proposed Development.
Medium	Undue consequences may arise from the Proposed Development.
Low	Undue consequences are unlikely to arise from the Proposed Development.

6.3.8 Susceptibility of landscape character areas is influenced by their characteristics and is frequently considered (though often recorded as ‘sensitivity’ rather than susceptibility) within documented landscape character assessments and capacity studies.

6.3.9 Susceptibility of designated landscapes is influenced by the nature of the special qualities and purposes of designation and/or the valued elements, qualities or characteristics, indicating the degree to which these may be unduly affected by the development proposed.

6.3.10 Susceptibility of accessible or recreational landscapes is influenced by the nature of the landscape involved; the likely activities and expectations of people within that landscape and the degree to which those activities and expectations may be unduly affected by the development proposed.

6.3.11 Susceptibility of visual receptors is primarily a function of the expectations and occupation or activity of the receptors (GLVIA 3, para 6.32).

6.3.12 Landscape Value is “*the relative value that is attached to different landscapes by society*” (GLVIA3, page 157).

Table 6-2: Landscape value

National/International	Designated landscapes which are nationally or internationally designated for their landscape value.
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Local / District	Locally or regionally designated landscapes; also areas which documentary evidence and/or site observation indicates as being more valued than the surrounding area.
Community	'Everyday' landscape which is appreciated by the local community but has little or no wider recognition of its value.
Limited	Despoiled or degraded landscape with little or no evidence of being valued by the community.

6.3.13 Areas of landscape of greater than Community value may be considered to be 'valued landscapes' in the context of NPPF paragraph 180.

6.3.14 Sensitivity is assessed by combining the considerations of susceptibility and value described above. The differences in the tables below reflect a slightly greater emphasis on value in considering landscape receptors, and a greater emphasis on susceptibility in considering visual receptors.

Table 6-3: Sensitivity

Landscape Sensitivity		Susceptibility		
		High	Medium	Low
Value	National/International	High	High-Medium	Medium
	Local/District	High-Medium	Medium	Medium-Low
	Community	Medium	Medium-Low	Low
	Limited	Low	Low-Negligible	Negligible
Visual Receptor Sensitivity		Susceptibility		
		High	Medium	Low
Value	National/International	High	High-Medium	Medium
	Local/District	High-Medium	High-Medium	Medium
	Community	High-Medium	Medium	Medium-Low
	Limited	Medium	Medium-Low	Low

6.3.15 For visual receptors; susceptibility and value are closely linked - the most valued views are also likely to be those where viewer's expectations will be highest. The value attributed relates to the value of the view, e.g. a National Trail is nationally valued for access, not necessarily for the available views.

Magnitude of effect

6.3.16 Scale of effect is assessed for all landscape and visual receptors and identifies the degree of change which would arise from the development.

Table 6-4: Scale

Large	Total or major alteration to key elements, features, qualities or characteristics, such that post development the baseline will be fundamentally changed.
Medium	Partial alteration to key elements, features, qualities or characteristics, such that post development the baseline will be noticeably changed.

Small	Minor alteration to key elements, features, qualities or characteristics, such that post development the baseline will be largely unchanged despite discernible differences.
Negligible	Very minor alteration to key elements, features, qualities or characteristics, such that post development the baseline will be fundamentally unchanged with barely perceptible differences.

6.3.17 Duration of effect is assessed for all landscape and visual receptors and identifies the time period over which the change to the receptor as a result of the development would arise.

Table 6-5: Duration

Permanent	The change is expected to be permanent and there is no intention for it to be reversed.
Long-term	The change is expected to be in place for 10-25 years and will be reversed, fully mitigated or no longer occurring beyond that timeframe.
Medium-term	The change is expected to be in place for 2-10 years and will be reversed, fully mitigated or no longer occurring beyond that timeframe.
Short-term	The change is expected to be in place for 0-2 years and will be reversed, fully mitigated or no longer occurring beyond that timeframe.

6.3.18 Most effects will be Long term or Permanent; however, Medium or Short term effects may be identified where mitigation planting is proposed or local factors will result in a reduced duration of effect (for example where maturing woodland will screen views in future). The effects arising from the construction of the development will usually be Short term.

6.3.19 In relation to renewable battery storage development, the operational lifespan is commonly for up to 40 years upon which all of the development is fully reversible and can be removed and the land returned to its original use. Therefore, a semi-permanent duration is used in for the operational timeframe in this LVIA.

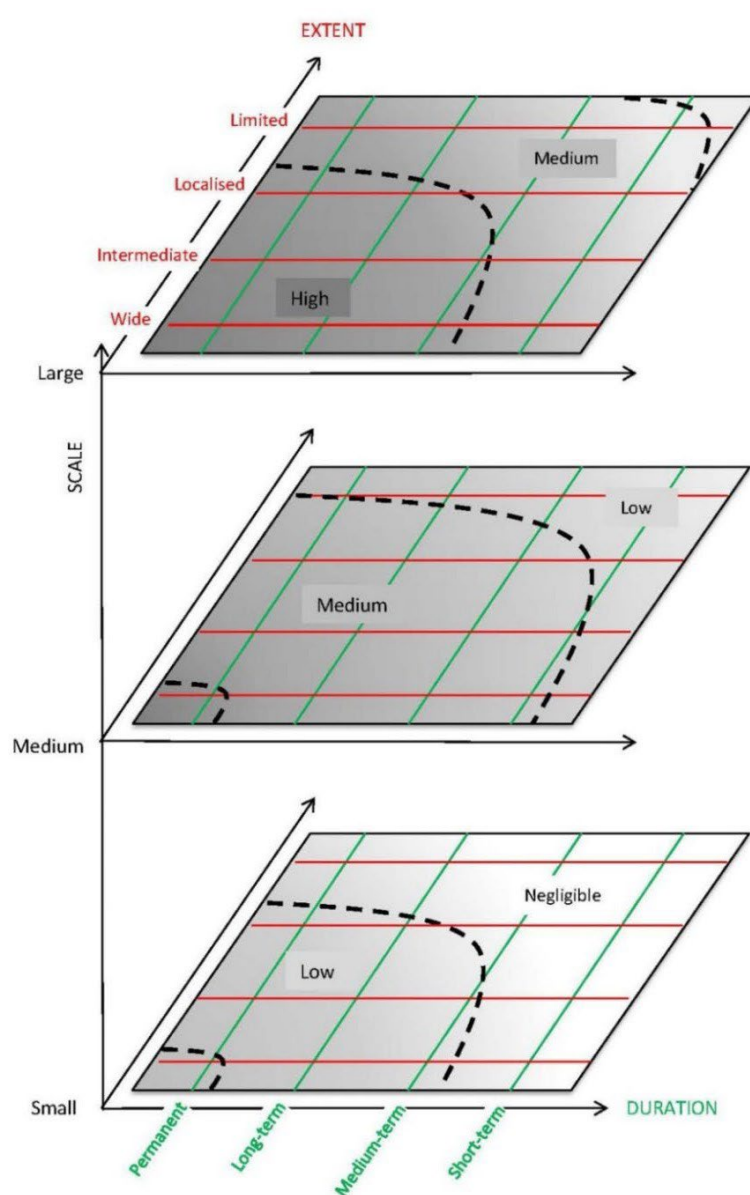
6.3.20 Extent of effects is assessed for all receptors and indicates the geographic area over which the effects will be felt.

Table 6-6: Extent

Wide	Beyond 4km, or more than half of receptor.
Intermediate	Up to approx. 2-4km, or around half of receptor area.
Localised	Site and surroundings up to 2km, or part of receptor area (up to approx. 25%).
Limited	Site, or part of site, or small part of a receptor area (< approx. 10%).

6.3.21 The Magnitude of impact is informed by combining the scale, duration and extent of effect. Diagram 6-1 below illustrates the judgement process:

Diagram 6-1: Magnitude of effect



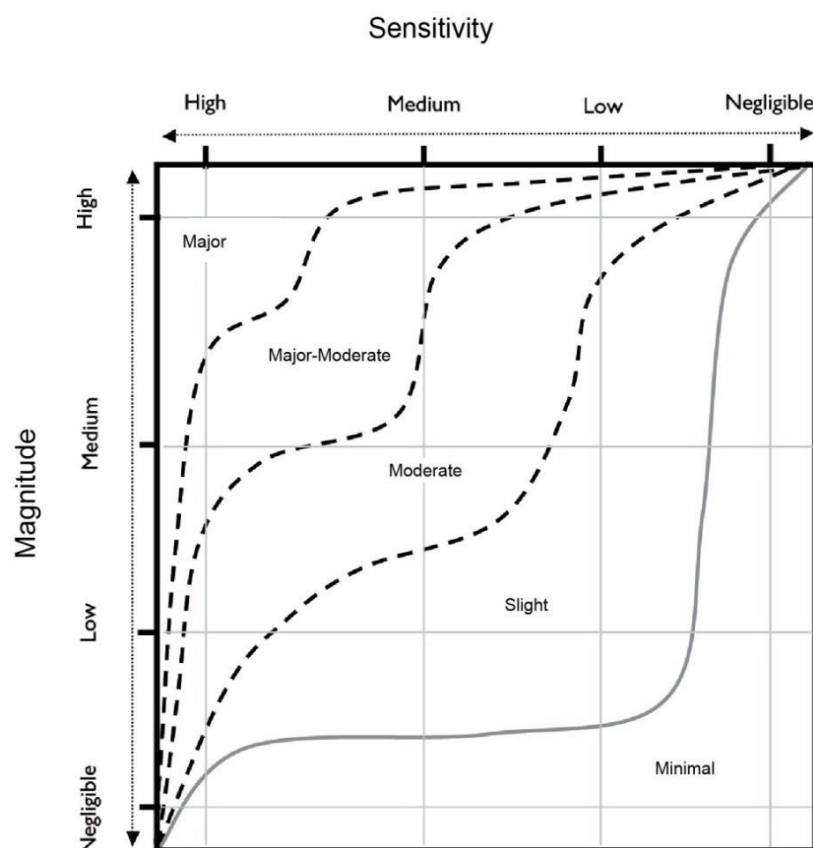
6.3.22 As can be seen from the diagram above, scale (shown as the layers of the diagram) is the primary factor in determining magnitude; most of each layer indicates that magnitude will typically be judged to be the same as scale, but may be higher if the effect is particularly

widespread and long lasting, or lower if it is constrained in geographic extent or timescale. Where the Scale of effect is judged to be Negligible the Magnitude is also assumed to be Negligible and no further judgement is required.

Significance

- 6.3.23 Significance indicates the importance or gravity of the effect. The process of forming a judgement as to the degree of significance of the effect is based upon the assessments of magnitude of effects and sensitivity of the receptor to come to a professional judgement of how important this effect is. This judgement is illustrated by the diagram below:

Diagram 6-2: Significance



- 6.3.24 The significance ratings indicate a 'sliding scale' of the relative importance of the effect, with Major being the most important and Minimal being the least. Effects that are Major-Moderate or Major are considered to be significant. Effects of Moderate significance or less are "of lesser concern" (GLVIA, 3rd edition, para 3.35). It should also be noted that whilst an effect may be significant, that does not necessarily mean that such an impact would be unacceptable, or should necessarily be regarded as an "undue consequence" (GLVIA, 3rd edition, para 5.40).

- 6.3.25 Where intermediate ratings are given, e.g. "Moderate-Slight", this indicates an effect that is both less than Moderate and more than Slight, rather than one which varies across the range. In such cases, the higher rating will always be given first; this does not mean that the impact is closer to that higher rating but is done to facilitate the identification of the more

significant effects within tables. Intermediate judgements may also be used for judgements of Magnitude.

Positive / Adverse / Neutral effects

- 6.3.26 Effects are defined as adverse, neutral or positive. Neutral effects are those which overall are neither adverse nor positive but may incorporate a combination of both.
- 6.3.27 The decision regarding the significance of effect and the decision regarding whether an effect is beneficial or adverse are entirely separate. For example, a rating of Major and Positive would indicate an effect that was of great significance and on balance positive, but not necessarily that the proposals would be extremely beneficial.
- 6.3.28 Whether an effect is Positive, Neutral or Adverse is identified based on professional judgement. GLVIA 3rd edition indicates at paragraph 2.15 that this is a “*particularly challenging*” aspect of assessment, particularly in the context of a changing landscape.

Geographical scope and study area

- 6.3.29 It is accepted practice within landscape and visual assessment work that the extent of the study area for a development proposal is broadly defined by the visual envelope of the Proposed Development site and the anticipated extent of visibility arising from the development itself. Based on the Zone of Theoretical Visibility (ZTV) study and field observation a study area of 1km radius has been deemed appropriate to cover all potentially significant landscape and visual impacts.

Residential amenity

- 6.3.30 This LVIA does not include a separate Residential Visual Amenity Assessment (RVAA). It is considered that the effects resulting from the Proposed Development would fall below the Residential Visual Amenity Threshold referred to in LI TGN 02/2019 as visual effects “*of such nature and / or magnitude that it potentially affects ‘living conditions’ or Residential Amenity*”. The Guidance Note further indicates that ‘*It is not uncommon for significant adverse effects on views and visual amenity to be experienced by people at their place of residence as a result of introducing a new development into the landscape. In itself this does not necessarily cause particular planning concern. However, there are situations where the effect on the outlook / visual amenity of a residential property is so great that it is not generally considered to be in the public interest to permit such conditions to occur where they did not exist before.*’

Green Belt

- 6.3.31 Green Belt is a land use designation and not an indication of landscape value. Effects on Green Belt do not fall under the remit of this LVIA. However, landscape and visual matters such as effects on visual openness inform Green Belt considerations. **As the Site lies within Green Belt, the assessors undertaking this LVIA have contributed to the consideration of effects on Green Belt and the relevant findings are reported within the accompanying Green Belt Assessment (LDA report reference: 9258_GBA_002).**

Distances

- 6.3.32 Where distances are given in the assessment, these are approximate distances between the nearest part of the Site and the nearest part of the receptor in question, unless explicitly stated otherwise.

Assumptions and Limitations

Desk-study & Fieldwork

- 6.3.33 The baseline conditions of the Site and the surrounding landscape described in the subsequent sections has been informed by desk-study and fieldwork (undertaken in February and July 2024).
- 6.4.1 A ZTV study (Figure 6.4) has been produced and used as tool to inform the design and professional judgements made in this LVIA. The ZTV study has been modelled on the maximum development height parameters available at the time of assessment. **The ZTV model has not been updated to reflect the revised masterplan, however it is envisaged that the visual envelope and theoretical visibility of the Proposed Development would remain largely unchanged when taking into account the baseline condition and existing site levels.**
- 6.3.34 The assumed vegetation growth rate is 400mm/year and is based on Forestry Commission growth rates although it is acknowledged that growth rates vary based on a number of variables. **This is applicable to all elements of the proposed vegetation within the site boundary and has been taken into account for the year 15 visualisations of the Proposed Development (Figure 6.7). Regarding the visualisations, it is noteworthy that whilst this LVIA has been updated to reflect changes to the Proposed Development, these visualisations have not been updated to reflect the latest masterplan layout.**
- 6.3.35 **Additional mitigation planting proposed within the Site as part of the revised site layout includes a variety of proposed planting typologies, such as new hedgerow, scrub and trees; all of which would help to partially screen the Proposed Development at different heights, once established. This additional mitigation is not illustrated within the year 15 visualisations given that they have not been updated alongside this LVIA.**

Consultation and Planning Responses

- 6.3.36 The approach to the landscape and visual assessments, proposed location and number of representative viewpoints were selected to assess the effects on visual receptors and issued to SMDC before undertaking the fieldwork and site survey. No response was provided by the LPA on the consultation letter, included as Appendix 6.8 (study area and viewpoint agreement). These proposed viewpoints were later refined and amended to reflect the findings of the fieldwork.
- 6.3.37 **Ryder Landscape Consultants provided a response to the Greenfields BESS planning application on 7th April 2025. Their response was in broad agreement with the effects judgements outlined within the original LVIA. A number of potential design amendments were included in section 8 of the Ryder Landscape Consultant's letter. This updated LVIA is in response to the additional requests by Ryder Landscape Consultants, primarily: taking into account additional nearby cumulative schemes, inclusion of additional landscape assessment within the Site and also updates to the proposed masterplan, planting and bund locations.**

6.5 Baseline Conditions

Introduction

- 6.5.1 An overview of the baseline study is provided in this section, presenting a review of the key local guidance documents and all of the landscape and visual receptors identified within the extent of the study area.

- 6.5.2 This section has undertaken an initial assessment of all the identified receptors and sets out which receptors merit further detailed consideration within the detailed assessments; and which receptors are not taken forward for further assessment, as effects “*have been judged unlikely to occur or so insignificant that it is not essential to consider them further*” (GLVIA3, para. 3.19). Full baseline descriptions are provided alongside the assessment of effects for those receptors taken forward to detailed assessment, for ease of reference.
- 6.5.3 Both this baseline study section and the detailed assessment describe landscape character and visual receptors before considering designated landscape. It is common for designations to encompass both character and visual considerations within their special qualities or purposes of designation. It therefore makes a more natural reading sequence to draw together those aspects of character and views which relate to the designation if they have been described earlier in the report.

Current Baseline

- 6.5.4 Figure 6.1 places the Proposed Development within its local context within a 1km radius study area used for the purposes of the LVIA. The Site is situated within a predominantly rural context, approximately 580m to the north of the settlement of Werrington and 350m to the south-west of Cellarhead National Grid Substation. The Site is accessed via Thorney Edge Road, which is a lane that runs between Thorney Edge to the north and Armshead to the south, passing the site access point to the south of Brookhouse.
- 6.5.5 The Site is currently undeveloped and comprises several irregular shaped fields of small to medium scale. The internal field parcels are delineated by a mixture of timber post and rail fencing, post and wire fencing, and hedgerow and trees of varying quality and intactness. The internal areas of the field are generally free from trees and are currently utilised as equestrian/pasture land.
- 6.5.6 The local topography within the study area is generally gently undulating, with some areas of higher ground to the north and west of the Site, broadly along the alignment of Armshead Road and siting it within a small ‘bowl’ like topography. Within the Site, field parcels are gently sloping, with the central site area forming the topographically highest point at approximately 244m AOD. Field parcels generally fall to the north and south from the Site centre. A small brook abuts a short section of the southeastern boundary of Site
- 6.5.7 A farmstead, access roads and nearby farming/equestrian buildings within the wider Greenfields Farm complex form the context to the Site to the north. Cellarhead National Grid Substation is sited to the north-east, but is clearly visible and forms a notable feature within views from both within the Site and surrounding landscape.

Zone of theoretical visibility (ZTV) study

- 6.5.8 A Zone of Theoretical Visibility (ZTV) study was generated based on the proposed design and has been used as a tool to inform the professional judgements made in this LVIA during the iterative masterplan process and stages. The ZTV is shown on Figure 6.4 and indicates areas of potential visibility. The analysis was carried out using a topographic model, taking into account topography, vegetation and buildings which have been included in the model with the heights obtained from a LIDAR digital surface model, as visual barriers in order to provide a more realistic indication of potential visibility. The model also includes for the reprofiling of the Site and setting of the substation below existing ground levels.

6.5.9 The Proposed Development is modelled on the maximum development parameters based on the following information:

- **Figure A3.1 - Proposed Site Plan**
- **Figure A3.11 - Cut and Fill Strategy**
- **Figure A3.12 - Proposed Levels Strategy**
- **Figure A3.12 - Site Cross Sections**

6.5.10 The ZTV study was used to determine which landscape and visual receptors are likely to be affected and merit detailed consideration in the assessment of effects, and those which are unlikely to have visibility.

6.5.11 It should be borne in mind that the ZTV represents a theoretical model of the potential visibility of the Proposed Development. As a result, the extent of actual visibility experienced on the ground will be less than suggested by the ZTV study and is illustrated by the Zone of Visual Influence (ZVI), also shown on Figure 6.4, which has been refined through a site survey.

ZTV and Zone of visual influence

6.5.12 **The ZTV model has not been updated for the revised masterplan, however it is envisaged that the visual envelope and theoretical visibility of the Proposed Development would remain largely unchanged when taking into account the baseline condition and existing site levels.**

6.5.13 The ZTV study indicates that the theoretical visibility of the Proposed Development would be largely contained to the local context of the Site (up to approximately 700m to the south and 500m to the east); and with some fragmented visibility to the north and west extending up to Thorney Edge Road.

6.5.14 The anticipated main area of visibility, hereafter referred to as the 'Zone of Visual Influence' (ZVI), is described below and shown on Figure 6.4.

6.5.15 The main areas of visibility, defined by the ZVI and validated through fieldwork, are predicted to include areas within the local context of the Site such as from Public Rights of Way (PRoW), which includes:

- Direct views into the Site from PRoW adjacent or within close proximity to the site boundary such as users of PRoW 49, PRoW 58 and PRoW 60.
- Partially filtered short distance views from the west at Thorney Edge Road, PRoW 49 and a number of nearby farmsteads known as Armshead Farm, Green Farm, Bungalow Farm, Field View Farm, Platts Farm and Newfields - all set back from, but within, the locality of the Site boundary
- Medium distance filtered views northwards from the settlement edge of Werrington, along short sections of Armshead Road.
- Medium distance views from PRoW within the local landscape to the east, such as PRoW 58.

6.5.16 Local topography, hedgerows and tree lined fields parcels within the study area provide screening and filtering properties which serve to generally limit visibility to within approximately 700m of the Site (Figure 6.4).

6.5.17 Based on fieldwork observations, it is judged that effects on landscape or visual receptors outside the ZVI described above would experience Negligible change and are not assessed in further detail in this report. This does not mean that there would be no potential

visibility outside the ZVI indicated, but rather that any visibility beyond the ZVI would be minimal or at such a distance that any potential visibility would not affect the overall composition of any potential views.

Landscape character

6.5.18 Paragraphs 5.13-5.15 of GLVIA 3 indicate that landscape character studies at the national or regional level are best used to “*set the scene*” and understand the landscape context. It indicates that Local Authority Assessments provide more detail and that these should be used to form the basis of the assessment of effects on landscape character – with (appropriately justified) adaptation, refinement and interpretation where required.

6.5.19 Relevant assessments are:

- Natural England’s National Character Area Profiles, 2014;
- Landscape and Settlement Character Assessment, 2008.

6.5.20 Copies of relevant maps and character assessment descriptions of areas taken forward for assessment are included in Appendix 6.6 (extracts from landscape character assessments).

National Landscape Character Profiles

6.5.21 There are 159 National Character Area (NCA) profiles across England, providing a broad analysis of each area’s characteristics.

6.5.22 At a national level, the Site is located within Profile 64: Potteries and Churnet Valley as identified in the National Character Area Profiles (2014).

6.5.23 The key characteristics are:

- “Dissected hills and small plateaux, cut by river valleys and steep ravines, contrast with the industrial and densely settled conurbation of the Potteries.
- Sandstones from the Millstone Grit Group and Coal Measures produce prominent, roughly north–south ridges. Softer mudstones with poorly drained and seasonally waterlogged soils and peaty soils form the intervening moorland plateaux, and mudstones and siltstones from the Triassic Mercia Mudstone Group underlie the generally lower-lying ground on the margins of the Needwood Basin.
- The well-wooded character throughout the Churnet Valley contrasts strongly with the urban, sparsely wooded landscapes of the Potteries. Many of the woodlands in the south consist of conifer plantations managed for commercial forestry.
- Deep, fast-flowing rivers Churnet, Trent, Dove and their tributaries drain the area. Riffles, scour ponds, subsidence pools and numerous small ponds provide ecological connectivity.
- Hedgerow banks with hedgerow oaks confine small pastures in the Churnet Valley; in the north, hedgerows are gappy and hedgerow trees are few. At higher elevations, drystone walls replace hedgerows and fields are larger and rectilinear.
- Agriculture is predominantly permanent pasture for grazing and stock rearing with some dairying; flatter areas are used for silage production and some arable cropping in the south, mainly cereals.
- Ancient semi-natural woodland occurs predominantly in the valleys with grasslands and grazing marsh within valley bottoms, especially the lower reaches of the Churnet and in the Dove Valley; there is heathland on higher ground and significant areas of open mosaic habitat on restored industrial land within urban areas.

- There is a rich heritage associated with iron production, coal mining, silk production and, most notably, pottery; the area is characterised by industrial and residential development in the Potteries and waterpowered flint mills and foundries in the Churnet Valley, linked by historic trade routes.
 - Historic heathland habitats remain with their smallholdings – rare surviving examples of rural– industrial landscapes.
 - Historic parklands are characterised by woodland belts enclosing grassland with parkland trees and avenues with vistas. Some ancient wood pastures and squatter enclosures occur – once a common feature of the landscape, they provided shelter, pasture and fodder for livestock.
 - Red brick manufactured from the local Etruria Marl and sandstone from the Coal Measures are predominantly used as building materials in lowland areas; Millstone Grit is used in upland areas in farmhouses and drystone walls. Plain clay and large numbers of Staffordshire blue tiles or Welsh slate are used for roofing.
 - There is a contrast between the settlement pattern of valley-bottom villages with scattered farmsteads and hamlets on the valley slopes in the east and the sprawling conurbation of the Potteries in the west.
 - Major transport infrastructure includes several A roads (A34, A50 and A52) and the Stoke-on-Trent to London railway. The Caldon Canal and Trent and Mersey Canal link the conurbation with the Churnet Valley.
 - The Sabrina Way, a section of the National Cycle Network and the Staffordshire Way pass through the area. Alton Towers is the most popular tourist destination in the NCA, together with a number of parks and gardens and pottery visitor centres.”
- 6.5.24 NCA 64: Potteries and Churnet Valley is described as having a: *‘...diversity of running and still water habitats, ranging from deep, fast-flowing rivers and their tributaries, to riffles and scour ponds, subsidence pools and numerous small ponds. Rudyard Lake reservoir and Westport Lake are the largest open waterbodies. The River Trent rises within the Potteries before flowing out into the Trent Valley Washlands NCA, while the Churnet flows south-east to join the Dove which then joins the Trent to finally discharge into the Humber Estuary. Exemplifying the wooded character of the NCA, the Churnet Valley and Coombes Valley Sites of Special Scientific Interest (SSSI) represent the largest remaining concentration of high quality semi- natural ancient woodland in Staffordshire.*
- 6.5.25 *The woods are especially rich in invertebrate species – over 30 species of beetle – and an assemblage of priority woodland bird species, including tree pipit, redstart, wood warbler and pied flycatcher, with dippers frequently seen along the watercourses. On the steep slopes of the valleys, woodland often encloses small, ancient wood pastures, rich in flora. Hedgerow banks, sunken lanes and squatter enclosures add to the sense of enclosure, while parklands with their designed landscapes offer views across the wider area.’*

The NCAs provide context to the assessment, but given the scale of the NCAs, and the presence of more detailed character areas at a local level, effects on this NCA are not assessed in further detail.

Regional and Local Landscape Character

Historic Environment Character Assessment: Staffordshire Moorlands (2010)

- 6.5.26 At a regional level, the Staffordshire Moorlands area has been characterised within the Historic Environment Character Assessment (2010). The assessment focuses on 11 project areas based around three historic towns and 12 historic villages. The historic towns comprise Cheadle and Leek, but also Alton, which was established as a town during the medieval period, but is currently classed as a village by SMDC. The historic villages are of

various sizes, but the largest Biddulph, which has expanded considerably during the 20th century, is now classed as a town by the District Council.

- 6.5.27 The assessment aims to establish the potential for the historic environment of these 11 project areas to absorb new development and housing in particular. This has been carried out by dividing each of the project areas into 'Historic Environment Character Zones' (HECZs). This is not historic landscape character analysis, but more related to the present day historic elements of the landscape character.
- 6.5.28 The Site is not situated in any of the HECZs.
- 6.5.29 HECZs within Cheddleton, Wetley and Werrington are identified as CWWHECZ. The Site is situated directly to the north of CWWHECZ 4 and CWWHECZ 5.
- 6.5.30 CCWHECZ 4 is noted for a *'well preserved squatter enclosure associated with scattered historic farmsteads and cottages as well as an extant area of moorland'*.
- 6.5.31 CCWHECZ 5 is noted for a *'well preserved landscape of planned enclosure, created following an Act of Parliament, and associated with historic farmsteads. The fields are enclosed with stone walls characteristic of these upland landscapes'*.
- 6.5.32 The assessment states that *'of particular importance are the squatter enclosures to the north of Biddulph Moor, to the south of Cheadle and at Wetley Moor (cf. Appendices 2, 4 and 5 respectively for detail and below for the summaries). The intensification of development within these areas would fundamentally alter the historic landscape character of these vulnerable areas.'*

Landscape and Settlement Character Assessment (2008)

- 6.5.33 At a local level, the 'Landscape and Settlement Character Assessment' (2008) sets out the primary evidence base for landscape character, mapping and describing the key characteristics of the landscape across the Staffordshire Moorlands administrative area.
- 6.5.34 There are 10no. Landscape Character Types (LCT) which define smaller areas and characterise the landscape in finer detail.
- 6.5.35 As shown on Figure 6.5, the Site is situated within the Ancient Plateau Farmlands LCT. This area lies on the western edge of the District north of Werrington and contains an extensive area of lowland heath. Additional settlement and character analysis has been undertaken for the local landscape around the Site within this assessment, with the report noting 'significant footpaths' and the existing electricity infrastructure and presence of Cellarhead Substation, to the north-east.
- 6.5.36 Further details of the key characteristics and subsequent potential effects upon this LCT are considered in detail within this chapter.

Visual receptors

- 6.5.37 Visual receptors are *"the different groups of people who may experience views of the development"* (GLVIA 3para 6.3). In order to identify those groups who may be significantly affected the ZTV study, baseline desk study and site visits have been used.
- 6.5.38 The different types of groups assessed within this report encompass local residents; people using key routes such as roads; cycle ways, people within accessible or recreational landscapes; people using Public Rights of Way (PRoW); or people visiting key viewpoints. In dealing with areas of settlement, PRoW and local roads, receptors are

grouped into areas where effects might be expected to be broadly similar, or areas which share particular factors in common.

- 6.5.39 Seven representative viewpoints have been selected to assess the effects on visual receptors. In addition, specific viewpoints may be identified where there are key promoted viewpoints within the study area, or illustrative viewpoints to “*demonstrate a particular effect or specific issues, which might, for example, be the restricted visibility at certain locations*” (GLVIA, 3 para 6.19). Illustrative viewpoints have been included within the assessment to demonstrate a lack of visibility towards the Site, particularly from the north at Thorney Edge Road, and the south- west at both Armshead Road and Wetley Moor Common.

Visual environment of existing Site

- 6.5.40 The Site is situated within a generally rural context, with its surroundings comprising a number of farmsteads with associated sheds/farming buildings, in all directions, and Cellarhead Substation to the north-east. Site access is along a track off Thorney Edge Road, set back from the well vegetated road, which reduces the visibility of the Site from the road. Its location with a natural ‘bowl’ of the topography also serves to reduce its visibility.
- 6.5.41 Cellarhead Substation is visually notable within the local context, its taller elements visible above existing mature vegetative network which has a strong presence in the locality and provides an effective visual barrier to many views. In addition, there are a high number of overhead transmission lines that pass the Site within close proximity to the north and east, which also add to the sense of energy infrastructure in the locality.
- 6.5.42 The Site benefits from a number of hedgerow and trees which serve to delineate some internal field boundaries, however these vary in quality and intactness. There are lengths of the site boundary which lack vegetation and are delineated by post and wire fencing. This is particularly the case for the northern and eastern site boundary, where there are direct views into the Site from nearby PRoW although there are some lengths of hedgerow with bushy woody species and some trees.
- 6.5.43 The southern two field parcels are delineated by strong hedgerows with hedgerow trees. As such these fields benefit from a relatively high degree of enclosure, with intervisibility limited to short sections of nearby PRoW that pass the Site along its southern edge.
- 6.5.44 As topography rises towards the centre of the Site, there are views back southwards towards Werrington, where there are filtered views of residential dwellings that exist along Armshead Road, forming the northern settlement edge of Werrington and its interface with the countryside.

Visual receptor groups

- 6.5.45 Visual effects are assessed for groups of visual receptors within close proximity of each other and that are judged to experience similar visual effects arising from the Proposed Development. These are referred to as ‘Visual Receptor Groups’ (VRG) and include motorists on local roads, users of PRoW and local residents or visitors to settlements.
- 6.5.46 The following VRGs groups have been identified within the extent of the ZVI and are taken forward for detailed assessment in Section 6.0. The extents of the VRGs is described below.
- Public Rights of Way adjacent to the Site. Users of PRoW adjacent or within close proximity (up to 70m) to the site boundary. Predominantly users of PRoW Cheddleton

49, 58 and 60, which connect to a wider network of footpaths within the study area. These receptors are within the ZVI. There are no PRow within the Site itself.

- Surrounding farmsteads and local roads. Residents, roads users along Thorney Edge Road and Armshead Road and users of both PRow Cheddleton 49 and Bagnall 35. A number of nearby farmsteads situated within this visual receptor group include: Armshead Farm, Green Farm, Bungalow Farm, Field View Farm, Platts Farm and Newfields – which are all set back from, but within, the locality of the Site.
- Northern edge of Werrington. Residents and road users at the settlement edge of Werrington, along short sections of Armshead Road, south of the Site.
- PRow off Rownall Road. Users of PRow within the local landscape to the east, such as PRow Cheddleton 58. It is of note that a number of PRow to the east do not appear to be well used given the overgrown vegetation, lack of legibility on the ground.

6.5.47 It is judged that for those VRGs located outside of the ZVI there would be little to no visibility of the Proposed Development, and that effects would be Negligible at most. VRGs located outside of the ZVI are not taken forward for detailed assessment.

Roads and rail

6.5.48 Figure 6.2 shows that the following routes pass through the Study Area, note all distances are approximate:

- Armshead Road (280m, west);
- Thorney Edge road (0m, north-west);
- Rownall Road (830m, east)

6.5.49 The ZTV and field study has indicated there is very little to no visibility from Rownall Road due to a combination of existing buildings and vegetation within the local context east of the Site. At most a Negligible scale of change would occur for these receptors along Rownall Road and therefore are not assessed further. The visual effects upon users of the Armshead Road and Thorney Edge Road are considered in the detailed assessment.

Long distance walking routes

6.5.50 There are no long-distance walking routes situated within the Study Area.

National, regional and local cycle routes

6.5.51 There are no designated cycle routes situated within the Study Area.

Accessible and recreational landscapes

6.5.52 Figure 6.2 shows that the following accessible landscape within the Study Area comprise:

- Wetley Moor Common (360m, south-west)

6.5.53 The ZTV and field study (Figure 6.6: Illustrative viewpoint C) has indicated there is very little to no visibility from Wetley Moor Common due to a combination of existing buildings and vegetation within the local context east of the Site, as well as the nature of locally undulating topography, all of which serve to restrict views towards the Site. At most a Negligible scale of change would occur for these receptors at Wetley Moor Common and therefore are not assessed further.

Specific viewpoints

6.5.54 No specific viewpoints were identified within the study area.

Landscape designations and value

Designated landscapes

6.5.55 There are no designated landscapes situated within the Study Area.

Local landscape value

6.5.56 There are no designated landscapes situated within the Study Area.

6.5.57 Paragraph 5.19 of GLVIA 3 states that “A review of existing landscape designations is usually the starting point in understanding landscape value, but the value attached to undesignated landscapes also needs to be carefully considered and individual elements of the landscape- such as trees, buildings or hedgerows -may also have value. All need to be considered where relevant.”

6.5.58 An assessment of landscape value is made based on the following factors outlined in Table 1 of the Landscape Institute’s ‘Technical Guidance Notes 02-21: Assessing landscape value outside national designations’: natural heritage; cultural heritage; landscape condition; associations; distinctiveness; recreational; perceptual (scenic); perceptual (wildness and tranquility); and functional.

6.5.59 Within the Study Area there are a number of features that contribute to the value of the local landscape. These features include:

- PRow network;
- Publicly accessible landscapes such as Wetley Moor Common;
- The distribution of woodlands, and well-treed and established network of field boundaries.

6.5.60 The landscape value of the Site and its immediate context, which includes the characteristics outlined above, is considered of a ‘Community’ value, which is defined as an “everyday landscape which is appreciated by the local community but has little or no wider recognition of its value”.

Future Baseline

6.5.61 There are no additional known factors that should be considered as part of the future baseline scenario that would substantially alter the existing baseline for assessment purposes.

6.6 Embedded Design Mitigation

6.6.1 The avoidance of effects is always challenging when there is a physical change to land use. However, the landscape and visual sensitivities of the Site have influenced masterplanning through an iterative process. Thus, the Site incorporates a degree of integral (or embedded) mitigation designed to avoid or reduce potential landscape and visual effects. Primarily they include:

- Retention of the existing landscape fabric within and around the boundaries of the Site, including key biodiversity assets, as informed by the findings and recommendations of the ecology assessment, namely mature hedgerows and tree cover which contribute to the landscape character of the local context.

- Setting back the Proposed Development from PRoW and including to the siting of the substation below existing ground levels to reduce its visibility. The proposed plateau level of the Substation is approximately 4.7m lower than nearby existing retained ground levels. Reduction in the proposed plateau level for the Substation would reduce the height at which taller elements may be seen on the skyline from surrounding dwellings, PRoW and other visual receptors in the local landscape.
 - The careful design of the Proposed Development and its interface with land immediately to the south and east, with visual receptors using a nearby PRoW, seeks to provide a soft, landscaped edge to the Proposed Development.
 - Sensitive green colouring of new built form within the Site, including acoustic fencing, BESS and Substation. It is proposed that the green colouring should not be uniform in RAL colour and instead should be a variation of shades of green to reflect existing colours that occur within the local rural area.
 - Taking into account recent feedback from the LPA's external landscape consultant, the form of the substation will be subject to a more bespoke design to appear more agricultural in appearance. The design and appearance of the substation would be confirmed at the detailed design stage. The current height of the proposed substation, like other 400kV GIS switch houses, is primarily due to the height of the 400kV GIS gear. Above this is also a beam with lifting gear for installation and maintenance. A reduction in substation height can be partly achieved by reduction in ground levels (as have been included in the revised layout) and by utilising a curved roof design. Any further reduction in the proposed plateau level of the substation is restricted by the need for safe and ease of access to the building.
 - Retention of existing features that contribute to landscape character, where practicable including the use of existing tracks and field gateways, retention of green infrastructure, and the considered siting and design of new development areas, as illustrated by the detailed soft landscape design plan.
 - The creation of biodiverse habitats within the Site where practicable including wild flower grassland, SuDs and marginal habitats to contribute positively to biodiversity within and beyond the Site. Details of these proposals, including species and management are set out with outline Landscape and Ecology Management Plan (oLEMP), included within Appendix 3.4, and is submitted as part of the application. **The oLEMP has not been updated alongside this LVIA.**
- 6.6.2 The existing strong vegetative network situated within the study area and within the Site including the mature woodland blocks, vegetation aligning PRoW and dense scrub and trees aligning field boundaries are all located within close proximity to the site boundary and serve to restrict and enclose visibility within the study area.
- 6.6.3 New areas of landscaped bunds are proposed in both the western and southern site areas. The proposed bunds are indicatively sited on the Detailed Soft Landscape Plan and are proposed to be 1.5m in height with graded banks at 1 in 3. The footprint of these bunds would avoid the root protection areas of existing vegetation. Where there is limited space to accommodate a bund at this height and grade, such as a short stretch along the southern site boundary, the height and width of the bund would respond accordingly to ensure the banks do not appear over engineered. The finalised bund design would be determined at detailed design stage.
- 6.6.4 Extensive site wide planting includes new scrub, hedgerow and trees which serve to connect to and reinforce the existing green infrastructure within the Site. Once mature, the proposed planting would serve to partially screen views towards the Proposed Development at varying heights; with hedgerow and scrub filtering mid to lower level views, and new trees filtering potential mid to higher level views associated with the proposed substation. The planting of new hedgerow and trees, along with the management of those above head height, along the site boundaries serve to limit views of

the Proposed Development from nearby PRow such as Bagnall FP35, Cheddleton FP49 and FP58.

- 6.6.5 LDA Design's landscape architects have worked with the design team to embed mitigation is that which has been considered as an integral part of the overall design and locational strategy for the Site and in accordance with the mitigation hierarchy.

6.7 Potential Landscape and Visual Effects

Introduction

- 6.7.1 This section sets out the effects that the Proposed Development would have on both landscape and visual receptors.
- 6.7.2 The principal landscape and visual effects would occur during the 40 year operational lifetime of the Battery Energy Storage System (BESS) and substation. At the end of its lifespan, the Proposed Development would be decommissioned and the Site returned to its former use in accordance with an approved decommissioning plan. As such, all landscape and visual effects are deemed to be reversible.
- 6.7.3 The only receptor likely to experience construction effects that are markedly different to the operational effects are those within the Site itself, which would temporarily (in the short-term) take on the character of a construction site. These effects would be very different in nature to those experienced once the Proposed Development is complete, but similar in terms of their magnitude and significance.
- 6.7.4 The construction and eventual decommissioning of the BESS and substation would be short- term activities involving the movement of vehicles, localised excavations and the installation/removal of containers and infrastructure using machinery. Neither construction nor decommissioning activities would give rise to notable landscape character or visual effects over and above those of the operational Site
- 6.7.5 Key potential impacts during the construction and decommissioning phases might include the visual effect of site vehicles and construction traffic, within the Site and in surrounding areas; other components typical of construction activities, including workers' welfare facilities, stockpiles of materials, lighting of specific areas, such as construction compounds; and gradual modification of landscape character as part of a phased programme of construction/decommissioning works. Effects during construction/decommissioning would be Temporary and Short-term and would be of notably lower magnitude than those on completion. Therefore, construction stage effects are not assessed in detail as they would be no greater than those concluded for the operational phase.
- 6.7.6 The primary operational effects would arise principally from the proposed substation and BESS components. Other electrical components such as switchgear, welfare facilities, access and fencing would also give rise to effects in combination with these. **Effects resulting from larger scale infrastructure, such as the substation, could be further mitigated through detailed design at a later stage. Any reduction in substation scale and pursuit of an agricultural aesthetic would serve to reduce visually adverse effects.**
- 6.7.7 Operational effects are assessed during the period following completion, when construction is complete but before mitigation planting is fully mature. During this period the effects will gradually reduce as proposed planting within and at the boundary of the Site matures. It is during this early period effects to the landscape and visual resource are likely to be at their greatest.

- 6.7.8 As additional planting is proposed as part of the scheme, effects, once the vegetation has matured, are also assessed. Up to this point, effects are described as Medium-term, thereafter they are considered to be Semi – Permanent but Reversible effects. The semi – permanent but reversible effects are those that arise once the vegetation has established, generally considered to be around 10 years onwards once new planting has matured.

Construction Phase

- 6.7.9 It is anticipated that site preparation and construction would take place over 18 months with some elements of the Proposed Development being phased during this period. The construction activities that can potentially cause landscape and visual impacts include:

- Demolition and clearance of vegetation within the construction zone, where necessary ;
- Earthworks and temporary storage of topsoil;
- Removal of unwanted waste from the Site;
- Erection of site hoarding and fencing around vegetation (tree protection scheme);
- Erection of temporary structures within the main contractor's construction compound, plus materials stockpiling and lay-down areas;
- Potential lighting of the works (during winter);
- Erection of scaffold structures;
- Movement of construction vehicles;
- Partially completed built form;
- Works associated with the implementation of the landscape scheme; and
- Removal of temporary construction facilities.

- 6.7.10 As set out in chapter 3 of the ES, it is anticipated that the construction phase will last for approximately 18 months.

- 6.7.11 Construction activities and deliveries will be carried out Monday to Friday 08:00-1800 and between 08:00 and 13:30 on Saturdays. No construction activities or deliveries will occur on Sunday or Public Holidays. Where possible, construction deliveries will be coordinated to avoid construction vehicle movements during the traditional AM peak hour (08:00-09:00) and PM peak hour (17:00-18:00).

- 6.7.12 This assessment has assumed a scenario based on conventional best practice approaches. The following construction control measures should be implemented and adhered to, secured by a suitably worded planning condition, during the temporary construction phase:

- 6.7.13 An outline Construction Environmental Management Plan (CEMP) is submitted as part of the planning application and the detailed one will be secured and approved prior to commencement on site. An Ecological Construction Method Statement will also be included within this, which is designed to avoid significant ecological effects, including those on key landscape features, and incorporating the measures listed below as appropriate.

- 6.7.14 The potential construction phase effects are outlined below, detailing the potential residual construction effects on both landscape character receptors and visual amenity receptors. Any proposed construction mitigation is also outlined below which would serve to limit any temporary effects during construction.

Operational Phase

- 6.7.15 This section describes the likely effects of the Proposed Development on the landscape and visual resource following overall completion at operation year 1 and without landscape mitigation measures having matured. The main potential landscape and visual impacts of the Site once completed, irrespective of any mitigation measures, are summarised below.
- 6.7.16 Potential adverse landscape impacts caused by the operational development would largely be localised in scale and largely restricted to the Site itself and immediate environs due to the relatively enclosed nature of the Site and its immediate surroundings. Proposed tree loss is outlined within the Arboricultural Impact Assessment (AIA) undertaken by Barton Hyett Associates in (report dated July 2024). **This AIA forms part of a wider suite of documents being submitted for the original planning application. Tree losses would be strictly limited, with new site accesses and internal tracks designed to limit vegetation loss as far as possible;**
- 6.7.17 Change to the character of the landscape of the Site, through alteration of land use and introduction of new temporary and permanent features, the latter including some beneficial effects such as the creation of new habitats within the site boundary;
- 6.7.18 Semi-permanent adverse impacts on landscape character would occur due to physical impact on landscape within the Site, introduction of new built form and ground remodelling within existing land and addition of built form within the Site.
- 6.7.19 There would be adverse visual impacts on nearby visual receptors, such as users of public footpaths, residential dwellings and road users, due to visibility of the completed scheme.

6.8 Additional Mitigation

- 6.8.1 An understanding of the mitigation measures embedded in the masterplan is fundamental to an assessment of the potential landscape and visual effects. A key principle of landscape assessment is that the assessment should take account of the effect of any proposed mitigation (GLVIA3, para 6.45).
- 6.8.2 The hierarchical approach toward mitigation (prevent, reduce, offset) has been (1) first to avoid where possible, any effects through the overall design and layout of the Proposed Development and disposition of its elements; this constitutes primary mitigation by preventing effects occurring through sensitive design and layout; (2) subsequently reducing effects arising through the careful siting of strategic landscape mitigation measures and careful consideration of the siting of each of the different elements of the Proposed Development; (3) Tertiary mitigation is achieved through the compensation of potential losses.
- 6.8.3 Those mitigation measures pertinent to landscape and visual matters are detailed with reference to the different stages of the Proposed Development below.
- 6.8.4 The Proposed Development will comprise the following elements as described in more detail in the Design and Access Statement (DAS). **Figure A3.10** details the proposed landscape mitigation elements, these are outlined in more detail below.
- 6.8.5 As set out within the baseline section of this chapter, all relevant landscape policies and guidance have been considered as part of the iterative design process. Table 6.8 below sets out the key policies / guidance of relevance to the landscape and visual context and demonstrates how the design of Proposed Development responds.

Table 6.8: Summary of key policies / guidance (relevant to the landscape and visual context) and the Proposed Development's response

Policy / Guidance	Project response / Comment
Policy DC 3 Landscape and Settlement Setting	The Proposed Development provides a wide variety of landscape enhancements, which not only serve to conserve local landscape character but also benefit the biodiversity within the Site and its local context. An oLEMP is submitted as part of the planning application which seeks to ensure the positive and long term management regimes of both the existing and proposed landscape planting within the Site. In turn, this would ensure both the existing and proposed ecological habitats within the Site are appropriately managed.
Policy C3 Green Infrastructure	The proposed Detailed Soft Landscape Plan (Figure A3.10) has been informed by GI aspirations and seeks to contribute to the existing Green Infrastructure within the Site and wider local landscape. Whilst it is acknowledged that some existing vegetation would be required for removal to accommodate site access and proposed linkages between the internal field parcels, the Site delivers compensatory native planting which is appropriate for the local landscape character and would help improve biodiversity as dictated by this policy.
Policy NE2 Trees, Woodland and Hedgerows	The proposed site layout allows for the vast majority of existing trees and hedgerows to be retained and integrated within a Proposed Development. As outlined above, where the loss of existing vegetation is required, mitigation planting is proposed to not only compensate for this loss but also enhance and provide a betterment to the existing baseline condition. The accompanying AIA demonstrates the baseline condition and proposed subsequent tree loss within the Site.

6.8.6 While the Proposed Development would result in a change to the character of the Site and its immediate surroundings, the design of the Proposed Development has been underpinned by an understanding of the local landscape and visual context. A landscape strategy has been prepared and is included within the oLEMP. This has been developed as an iterative process and underpins the development of the Site. The oLEMP will ensure the long term management and maintenance of Proposed Development is secured.

6.8.7 Central to the design is to maintain and enhance the landscape structure. This has resulted in the retention of existing vegetation where practicable and new planting along the northern, southern, western and eastern site boundaries, comprising new native hedgerow, scrub and trees. Large areas of new scrub planting with occasional taller trees are also proposed alongside areas of new bunding, all of which would serve to filter mid to lower- level views of the Proposed Development. In turn, this serves to strengthen and develop the local green Infrastructure network, enhancing connectivity and providing new habitat to increase biodiversity. The newly planted site boundaries also serve to filter views towards the Proposed Development from nearby PRoW, therefore tempering potential adverse impacts on nearby PRoW. Updates to the Proposed Development include a different battery type, which has allowed for the reduction in area required for the BESS layout. This reduction in footprint, combined with the additional planting and bunding, reduces the scale of adverse visual impacts of the Proposed Development. These updates also increase the spatial distance between the Proposed Development and nearby dwellings such as Green Farm and Bungalow Farm.

- 6.8.8 Other mitigation includes the bolstering and reinforcement of existing hedgerows where thin/gappy, particularly for internal field boundaries. This serves to not only retain and strengthen the internal landscape fabric of the Site but also ‘break up’ the Proposed Development, providing enhanced visual screening and ecological permeability within the Site. Other forms of biodiversity enhancement include substantial areas of neutral, wet and wildflower grassland, as well as wetland meadows all proposed within the Site.
- 6.8.9 As shown within **Figure A3.10**, the Proposed Development would retain the majority of existing tree and hedgerow field boundaries within and around the Site, with built development confined to individual field parcels suitably offset from boundaries to ensure root protection areas are avoided where practicable. As outlined above, it is acknowledged there would be some minor vegetation removal to accommodate safe and ease of access to the individual field parcels once the Proposed Development is operational. Careful consideration of the internal track network has been undertaken to limit the number of field boundary crossings. Where crossings are necessary, they have been carefully aligned to utilise existing access points and field gateways to reduce the amount of vegetation removal. The width of the new tracks would be minimised as far as practicable.

Construction Mitigation

- 6.8.10 The adoption of an approved Arboricultural Method Statement (AMS) incorporating best practice guidance set out in British Standard 5837: ‘2012 Trees in Relation to Design, Demolition and Construction’ which would ensure retained trees and other vegetation are not adversely affected during the construction process.
- 6.8.11 The use of visual screening, such as hoardings for more sensitive visual receptors in proximity to the Site, including residential and PRow receptors that have the greatest potential to be affected by the Proposed Development.
- 6.8.12 Existing residents proximal to the Site would be more sensitive to construction lighting due to the proximity, direction and type of receptor. Mitigation measures for construction lighting are likely to include directional fittings and restricted hours of operation; and
- 6.8.13 Construction works which create dust should be kept to a minimum within proximity to existing pedestrian routes and residential properties, and dust prevention measures, such as damping, should be undertaken to reduce the impact on users of the PRow network.

6.9 Residual effects

- 6.9.1 This section describes the residual landscape and visual effects during the construction stage following implementation of the design mitigation measures (to reduce the effects of construction activities) and after completion, once landscape mitigation measures have matured.
- 6.9.2 The Proposed Development has been designed to consider the sensitivity of the landscape and views within and around the Proposed Development. The ‘residual’ effects of the scheme are considered to be those that persist once the effects of mitigation – be that strategic planting or the softening of the Proposed Development provided by internal planting and areas of open space – have become established. In planning terms, these are the effects to which most ‘weight’ should be attached, since they represent the long-term effect on the landscape and visual baseline.
- 6.9.3 As outlined above in the methodology section, the significance ratings indicate a ‘sliding scale’ of the relative importance of the effect, with Major being the most important and Minimal being the least. Effects that are Major-Moderate or Major are considered to be

significant. Effects of Moderate significance or less are “*of lesser concern*” (GLVIA, 3rd edition, para 3.35).

Construction Phase

- 6.9.4 This section describes the likely significant effects of the Proposed Development on landscape and visual receptors during the construction phase, which would involve site clearance, groundworks, limited ground reprofiling, and construction of buildings, vehicular accesses, tree and shrub planting and grass seeding. The effects described below take account of both embedded mitigation and additional measures set out above.

Effects on landscape character

- 6.9.5 It is to be expected there will be large scale effects on the character of the Site, given that it is changing from agricultural land into built development. How rapidly effects diminish beyond the Site depends on the scale of development and the context and visibility of the Proposed Development from the wider landscape.
- 6.9.6 There would be large scale construction effects on landscape character (total or major alteration to key elements, features, qualities or characteristics, such that post development the baseline will be fundamentally changed). These large-scale construction effects would be limited to the Site itself, where the Site would change from an undeveloped landscape to comprising a construction site within a predominantly rural setting. Tall and established field boundary vegetation along the boundaries of southern field boundaries provide some containment to the Site in this direction. The eastern and northern boundaries are less screened, with little or no vegetation present. However the proposed landscape strategy for the Site proposes to re- establish and reinforce these boundaries with new hedgerow and tree planting (Figure A3.10).
- 6.9.7 The worst-case scenario for construction effects on the Site, following the implementation of construction mitigation, on landscape character would be of high magnitude, major-moderate significance and adverse in nature. This effect is significant but is only limited to the Site itself.
- 6.9.8 Beyond the site boundary, effects on the landscape character area would be tempered by existing vegetation within the local context of the Site. The effect on the wider character area would be reduced when compared to those effects contained only within the Site, particularly when taking into account the existing baseline landscape character and site survey findings.
- 6.9.9 As such, the worst-case scenario for construction effects, following the implementation of construction mitigation, on landscape character would be of medium magnitude, moderate-slight significance and adverse in nature. This effect is not significant.
- 6.9.10 Potential construction effects on LCT's within the wider landscape would likely be negligible to none given the distance from the site boundary. The location of other LCT's within the study area are shown on Figure 6.5.

Visual effects

Visual Receptor Group (VRG) 1: Public Rights of Way adjacent to Site (0-70m, North, East, South).

- 6.9.11 This VRG is of High-Medium Sensitivity.

- 6.9.12 This group includes users of PRoW adjacent or within close proximity (up to 70m) to the site boundary. Predominantly users of PRoW Cheddleton 49, 58 and 60, which connect to a wider network of footpaths within the Study Area as shown on Figure 6.2. However, it should be noted that PRoW 58 and 59 do not appear to be well used and not legible nor passable in their entirety on the ground.
- 6.9.13 Effects on these visual receptors are represented by representative viewpoints 1, 2, 3 and 5. These are included within Figure 6.6.
- 6.9.14 Following implementation of construction mitigation, construction of the Proposed Development would lead to a Large to Medium Scale of Effect, within a Limited Extent. Therefore Medium magnitude, Major-Moderate and, on balance, Adverse are anticipated. This effect is significant.

Visual Receptor Group 2: Surrounding farmsteads and local roads (up to 300m, West, East, South).

- 6.9.15 This VRG is of High-Medium Sensitivity.
- 6.9.16 This VRG includes residents, roads users along Thorney Edge Road and Armshead Road and users of both PRoW Cheddleton 49 and Bagnall 35. A number of nearby farmsteads situated within this VRG group include: Armshead Farm, Green Farm, Bungalow Farm, Field View Farm, Platts Farm and Newfields – which are all set away from, but within the locality of, the Site.
- 6.9.17 Effects on these visual receptors are represented by representative viewpoint 4, to the east of Armshead, where a number of surrounding farmsteads are situated within the Site's locality.
- 6.9.18 Following implementation of construction mitigation, construction of the Proposed Development would lead to a Medium Scale of effect, within a Localised Extent. Therefore Medium term effects would be of Medium magnitude, Moderate and, on balance, Adverse. This effect is not significant.

Visual Receptor Group 3: Northern edge of Werrington (700m, South).

- 6.9.19 This VRG is of High-Medium Sensitivity.
- 6.9.20 This group includes residents and road users at the settlement edge of Werrington, along short sections of Armshead Road, south of the Site.
- 6.9.21 Effects on these visual receptors are represented by representative viewpoint 6.
- 6.9.22 Following implementation of construction mitigation, construction of the Proposed Development would lead to a Small Scale of effect, within a Localised Extent. Therefore Medium term effects would be of Low magnitude, Slight and, on balance, Adverse. This effect is not significant.

Visual receptor group 4: Public Rights of Way off Rownall Road (550m, East).

- 6.9.23 This VRG is of High-Medium Sensitivity.
- 6.9.24 This group includes users of PRoW within the local landscape to the east, such as PRoW Cheddleton 58 which does not appear to be well used given the overgrown vegetation along sections of this route.

6.9.25 Effects on these visual receptors are represented by representative viewpoint 7 which is representative of views towards the Site for local PRoW that spur off Rownall Road, west of Wayfields Farm.

6.9.26 Following implementation of construction mitigation, construction of the Proposed Development would lead to a Small Scale of effect, within a Localised Extent. Therefore Medium term effects would be of Low magnitude, Slight and, on balance, Adverse. This effect is not significant.

Road and rail receptors

Armshead Road (280m, west) – Low Sensitivity

6.9.27 This route passes the Site to the south and west, running along the northern settlement edge of Werrington and north towards Bagnall in the north, beyond the Study Area. Road users on this route, which is mostly travelled at relatively slow speeds and is not an identified scenic route, are judged to be of Low sensitivity.

6.9.28 Following implementation of construction mitigation, construction of the Proposed Development would be lead to Small scale effects along a Localised extent of the route, as the road passes north of Werrington. Considering the worst case scenario; effects on users of this route would be of Low Magnitude, Slight and, on balance, Adverse. This effect is not significant.

Thorney Edge Road (0km, north-west) – Low Sensitivity

6.9.29 This route passes the Site to the west, connecting to Armshead Road and continuing north within the wider landscape. Road users on this route, which is mostly travelled at relatively slow speeds and is not an identified scenic route, are judged to be of Low sensitivity.

6.9.30 Following implementation of construction mitigation, construction of the Proposed Development would lead to Small scale and Neutral effects along a Localised extent of the route, as the road passes the Site to the west. Considering the worst case scenario; effects on users of this route would be of Low Magnitude, Slight and, on balance, Adverse. This effect is not significant.

Operational Phase

6.9.31 This section outlines the potential effects of the Proposed Development, following construction, in the short-medium term (0-10 years) and semi-permanent term (10-40 years).

Effects on landscape character

6.9.32 A number of landscape features, comprising parts of the Site's physical fabric, would be modified or removed, as follows:

- There would be some minor loss of hedgerow and hedgerow trees to accommodate the new internal access track layout within the Site. However, new hedgerow and tree planting is proposed along field boundaries currently lacking vegetation and also where there are gaps in existing hedgerow. Short sections of hedgerow within the central site area would be lost to accommodate for the Proposed Development – however the majority of this hedgerow would be retained and reinforced as part of the site wide landscaping proposals.
- The replacement of arable fields and grazed fields with renewable energy development and also biodiversity and landscape enhancements, **is** illustrated in the Detailed Soft

Landscape Plan (Figure A3.10) and set out in the oLEMP. Updates to the Proposed Development have allowed for greater areas of green space which include more grassland, tree and scrub planting; all of which enhance biodiversity with the taller planting visually enclosing the Proposed Development.

- 6.9.33 The Site exhibits a generally rural character of small to medium sized irregular shaped fields, defined by a mixture of well-established and gappy hedgerows, some overgrown, with intermittent mature hedgerow trees. Its position within a natural 'bowl' of the landscape also serves to reduce its prominence within the wider landscape. The Site exhibits varying degrees of enclosure, with the southernmost field parcels having a stronger and more intact landscape fabric with continuous lengths of field boundary hedgerow with trees. The northern site parcels are more visually open in nature, with field boundaries defined by post and wire fences and lacking vegetation. Despite this, views are contained to the local landscape, within approximately 700m, by hedgerow and trees associated with both Thorney Edge Road and Armshead Road, as well as field boundaries within the Site's immediate context. This serves to limit the extent of potential effects within the Ancient Plateau Farmlands LCT.
- 6.9.34 The Site is generally characteristic of the host Ancient Plateau Farmlands LCT, particularly in relation to the presence of and views towards electricity power lines and substations i.e. Cellarhead Substation to the north-east.
- 6.9.35 It is to be expected there will be Large scale effects on the character of the Site, given that it is changing from agricultural land into built development. How rapidly effects diminish beyond the Site depends on the scale of development and the context and visibility of the Proposed Development from the wider landscape.
- 6.9.36 Large scale effects on landscape character (total or major alteration to key elements, features, qualities or characteristics, such that post development the baseline will be fundamentally changed) would be limited to the Site itself, where the Site would change from an undeveloped landscape to development comprising BESS, a substation, associated infrastructure and some gravel surfacing, all set within the existing field pattern structure. Tall and established field boundary vegetation along the boundaries of southern field boundaries provide some containment to the Site in this direction. The eastern and northern boundaries are less screened, with little or no vegetation present. However the proposed landscape strategy for the Site proposes to re-establish and reinforce these boundaries with new hedgerow and tree planting (Figure A3.10). Additional tree and scrub planting and reprofiling of land to introduce new bunds at the western and southern site edges would serve to enclose the Site in the semi-permanent term once the vegetation has fully established.
- 6.9.37 Medium scale effects on landscape character (partial alteration to key elements, features, qualities or characteristics, such that post development the baseline will be noticeably changed) would be limited to an area of the surrounding landscape within 300m of the Site, where intervisibility between the Proposed Development may affect the rural character of the surrounding fields. Beyond this, intervening vegetation within the wider landscape serves to screen and filter more distant views, thus reducing effects on the landscape character. Therefore, potential operational effects on LCT's within the wider landscape would likely be negligible to none given the distance from the site boundary. The location of other LCT's within the study area are shown on Figure 6.5.
- 6.9.38 Beyond these areas effects reduce rapidly from Small scale (minor alteration to key elements, features, qualities or characteristics, such that post development the baseline will be largely unchanged despite discernible differences) to Negligible (very minor alteration to key elements, features, qualities or characteristics, such that post

development the baseline will be fundamentally unchanged with barely perceptible differences), due to screening and / or filtering effects of intervening built form and tiers of established field boundary vegetation, woodland belts and undulating nature of the local topography.

6.9.39 Taking the above considerations into account, and as stated in Section 4.3.2, only LCT Ancient Plateau Farmlands would be affected by the Proposed Development. Descriptions for this assessed landscape character type is summarised below. Full descriptions of the LCT are provided in Appendix 6.6.

6.9.40 The presence of both nearby electrical infrastructure at Cellarhead Substation and existing farmsteads and associated agricultural structures within the Site's context serve to reduce the LCT's susceptibility to the Proposed Development.

Landscape Character Assessment of Staffordshire Moorlands (2008)

Ancient Plateau Farmlands

6.9.41 The presence of both nearby electrical infrastructure at Cellarhead Substation and existing farmsteads and associated agricultural structures within the Site's context serve to reduce the LCT's susceptibility to the Proposed Development.

6.9.42 The Site is within the Ancient Plateau Farmlands LCT. The key characteristics as outlined within the character assessment are as follows:

- 'Gentle undulating landform with some steep slopes
- Heathland including wet heath with rushes and rough grasses
- Drystone walls with remains of unmanaged hedgerows and isolated trees
- Fields often demarcated by fencing
- Dairy farming and horse grazing
- Small woodlands, broadleaf and conifer
- Isolated stone farm houses and buildings converted to residential dwellings
- Electricity power lines and substation'.

6.9.43 The character assessment states that there is *'evidence of over grazing. Power lines and electricity substation are dominant incongruous features within the landscape.'*

6.9.44 In regard to existing vegetation, the assessment states that *'Blocks of broadleaf and conifer plantations are mainly associated with buildings and to screen substation, with belts of trees found along stream lines. Woodlands are dominated by birch reflecting the heathland character of the area. There are some hedgerows but they are generally in poor condition. Poorly draining soils creating acid grassland with a wet heath of rushes and rough grasses. Within the upland areas, small areas of heath still remain. Some birch and oak are present mainly along field boundaries.'*

6.9.45 Similarly, it also states that *'hedges used as field boundaries are poorly maintained with gaps that have been replaced with post and barbed wire fence that is also in poor condition. Subdivision of fields for horse grazing has led to damage to hedgerows and to trees. Where hedgerows have not been replaced field boundaries are often marked by isolated trees and remnant holly and thorn along wire fences.'*

- 6.9.46 The above text highlights a need for enhancement and reinforcement of existing field boundary hedgerow, which the Proposed Development directly addresses within its landscape strategy, as illustrated within the Detailed Soft Landscape Plan (Figure A3.10).
- 6.9.47 With regard to the landscape planning guidelines, the assessment requires that *'a new vegetational structure comprising of heathlands, hedgerows, trees and woodlands to be created. Particular consideration should be given to establishing buffer areas around the lowland heath so that invasive tree, shrub and herbaceous species do not threaten the reestablishment and management of the lowland heathland. The new vegetational structure should link to existing remnant vegetation. It should create a mosaic of spaces, some open some wooded and of small to medium scale.'*
- 6.9.48 The assessment directly states that arable field margins should be *'maintained, improved and restored where possible.'*
- 6.9.49 Fieldwork has confirmed that the above is only partially reflective of the present landscape character of the Site and locality, predominantly where it describes the existing energy infrastructure and degraded hedgerow boundaries. The Ancient Plateau Farmlands is judged as having a Community value with Low susceptibility, given the existing energy development within it. This gives an overall Low sensitivity for the LCT.
- 6.9.50 The worst-case scenario for operational effects from the Site, following the implementation of mitigation measures, on landscape character would be of high magnitude, major-moderate significance and adverse in nature. This effect is significant but is only limited to the Site itself.
- 6.9.51 Beyond the site boundary, effects on the landscape character area would be tempered by existing vegetation within the local context of the Site. The effect on the wider character area would be reduced when compared to those effects contained only within the Site, particularly when taking into account the existing baseline landscape character and site survey findings.
- 6.9.52 As set out above, Medium scale effects would arise within the immediate context of the Site and extend up to 300m within the Ancient Plateau Farmlands LCT. Medium scale effects covering a Limited extent of this character type, would lead to a Medium-Low magnitude of effect for a Semi-permanent duration resulting in a Slight significance of impact and on balance Adverse as the Proposed Development would change the character of the Site from a rural character to that of a renewable energy development.
- 6.9.53 Medium scale effects on the Ancient Plateau Farmlands LCT would reduce in the long term once the proposed planting has established and better assimilated the Proposed Development within the surrounding landscape. Reversible effects of Slight significance and on balance Adverse are concluded.
- 6.9.54 Beyond these areas, effects on to the Ancient Plateau Farmlands LCT would be Low - Negligible in scale resulting in Minimal and Adverse effects. This effect is not significant.

Visual effects

Visual aids

- 6.9.55 Annotated photographs are shown on Figure 6.6 supporting this LVIA. The method of presentation for each viewpoint has been informed by Landscape Institute Technical Note 06/19 'Visual representation'. The viewpoint description, description of effects and scale of

effect for each viewpoint (see Figure 6.4 for locations) is set out on the relevant photograph. The scale of effect at each viewpoint is summarised in Table 3 below:

6.9.56 To aid the visual assessment of the Proposed Development, three Type 4 visualisations have been produced for viewpoints 1, 3 and 7 at year 1 and year 15 (Figure 6.7) to demonstrate the reduction in visibility as a result of the proposed landscape planting. All viewpoint locations are shown upon Figure 6.4. **It is noteworthy that whilst this LVIA has been updated to reflect changes to the Proposed Development, these visualisations have not been updated to reflect the latest masterplan layout.**

Table 6-7: Representative viewpoints

Viewpoint Reference & Location	Distance, direction	Scale of effect <i>Adverse / Neutral / Positive</i>	
		Medium-term	Semi-Permanent
Viewpoint 1 PRoW 60, looking south	Within Site	Medium, Adverse	Small, Adverse
Viewpoint 2 PRoW 58, looking west	19m, East	Medium, Adverse	Small, Adverse
Viewpoint 3 PRoW 49, looking north-west	49m, South	Large, Adverse	Large, Adverse
Viewpoint 4 PRoW 49, looking north-east	206m, South-west	Medium, Adverse	Small, Adverse
Viewpoint 5 PRoW 35 / Thorney Edge Road, Looking south-east	Within Site	Small, Adverse	Negligible
Viewpoint 6 Armshead Road, looking north	708m, South	Small, Adverse	Small, Adverse
Viewpoint 7 PRoW 58, looking west	521m, East	Small, Adverse	Small, Adverse

6.9.57 Each of the viewpoints is a 'sample' of the potential effects, representing a wide range of receptors – including not only those actually at the viewpoint, but also those nearby, at a similar distance and/or direction.

6.9.58 From these viewpoints it can be seen that:

- The extent of Large scale visual effects, where the Proposed Development would form a major alteration to key elements, features, qualities and characteristics of the view such that the baseline will be fundamentally changed, would generally be limited to locations within or immediately adjacent to the Site, where the Proposed Development would appear above or through intervening vegetation, or where very little vegetation exists. **Large scale visual effects are primarily associated with potential views towards the taller proposed infrastructure within the Site, such as the proposed substation. However, the scale of those effects associated with direct views of the substation could be further lessened at the detailed design stage, where a more bespoke design is incorporated, in order for the substation to look more agricultural in appearance.**
- Beyond this area, the extent of Medium scale effects is limited due to the screening effects of local woodland, copses and the extensive tree lined hedgerows partially within and in close proximity to the Site.

- Beyond approximately 250m from the site boundary, scale of effects reduce from Medium to Small, particularly once the mitigation planting along the site boundaries has matured, breaking up the edge of the built form and filtering and screening views of the Proposed Development. The infilling and reinforcement of existing landscape fabric also serves to restrict visibility locally.
- 6.9.59 Outside these areas, the Proposed Development would either be screened from visual receptors by vegetation within the wider landscape, or the Proposed Development would form a very limited change in views, being seen in the context of existing energy infrastructure such as overhead powerlines and Cellarhead National Grid substation.

Visual receptor groups

- 6.9.60 This assessment focuses on effects on groups of visual receptors, incorporating effects on views from public spaces and streets within settlements (or around the houses in areas with isolated dwellings), and the routes and accessible landscape in the surrounding countryside. Residents and visitors within these communities are assessed to be of High-Medium sensitivity. The assessment of effects on settlements focuses on the visual amenity of public spaces, though views from groups of dwellings will also be noted in the descriptions where applicable. Effects on private residential amenity is a separate matter, and only require assessment when a development is likely to have effects over the Residential Visual Amenity Threshold referred to in LI TGN 02/2019, which is not the case in respect of this development.
- 6.9.61 As previously stated above, all potential visual effects are reversible and at the end of its lifespan, the Proposed Development would be decommissioned and the Site returned to its former use with hedgerow and tree planting retained. The below assessment is based therefore on Short-Medium term (before maturation of planting) and Semi-permanent (post maturation of planting) term effects.

Visual Receptor Group 1: Public Rights of Way adjacent to Site (0-70m, North, East, South).

- 6.9.62 This VRG is of High-Medium Sensitivity.
- 6.9.63 This group includes users of PRow adjacent or within close proximity (up to 70m) to the site boundary. Predominantly users of PRow Cheddleton 49, 58 and 60, which connect to a wider network of footpaths within the Study Area. As noted previously, many of the footpaths to the east of the Site do not appear to be well used and sections are not legible on the ground.
- 6.9.64 Effects on these visual receptors are represented by representative viewpoints 1, 2, 3 and 5. For lengths of these PRow within close proximity to the Site to the north and east, the proposed BESS and Substation would present an alteration to existing site characteristics. The fields nearest to the PRow receptors have been retained as open and undeveloped which serves to temper the scale of effects to some degree. For PRow to the south, the taller proposed substation elements of the scheme would be visible from this locality. Additional new BESS, Substation and associated infrastructure would also be visible in the foreground, despite the well-established landscape fabric associated with the southern site field parcels. Figure 6.7 includes a number of visualisations and the effect. **It is noteworthy that whilst this LVIA has been updated to reflect changes to the Proposed Development, these visualisations have not been updated to reflect the latest masterplan layout.**
- 6.9.65 **The additional bunding, trees and new hedgerow proposed within the Site as part of the updates would further limit the potentially adverse visual effects for users of nearby PRow, particularly those to the south along Cheddleton 58. It is noteworthy that views of the proposed substation would likely be partially filtered once mitigation matures. The**

architectural style and design of the proposed substation will be confirmed during detailed design. An attempt to design the substation buildings to appear more agricultural i.e through the inclusion of timber cladding and pitched roof, would serve to better integrate the larger scale proposed elements within views towards the Site.

- 6.9.66 In the Short -Medium term, before the proposed planting has become established, the Proposed Development would lead to a Large to Medium Scale of Effect, within a Limited Extent. Therefore, a Medium magnitude, Major/Moderate and Adverse are anticipated. This effect is significant.
- 6.9.67 Semi-permanent visual effects on this receptor group would reduce to Medium/Small Scale as the proposed planting matures. Whilst the additional bunding, tree and scrub planting would further screen views of the Proposed Development in the semi-permanent term, the overall scale of effect for this VRG would remain the same as originally judged, primarily due to the receptor's location directly adjacent to the Site. Visual impact upon PRoW in the wider study area would reduce rapidly with distance as planting matures in the semi-permanent term. These effects would remain Medium to Low Magnitude, Moderate and, on balance, Adverse but reversible given the temporary nature of the Proposed Development. This effect is not significant.

Visual Receptor Group 2: Surrounding farmsteads and local roads (up to 300m, West, East, South).

- 6.9.68 This VRG is of High-Medium Sensitivity.
- 6.9.69 This VRG includes residents, roads users along Thorney Edge Road and Armshead Road and users of both PRoW Cheddleton 49 and Bagnall 35. A number of nearby farmsteads situated within this VRG group include: Armshead Farm, Green Farm, Bungalow Farm, Field View Farm, Platts Farm and Newfields – which are all set away from, but within the locality of, the Site.
- 6.9.70 Effects on these visual receptors are represented by representative viewpoint 4, to the east of Armshead, where a number of surrounding farmsteads are situated within the Site's locality. The proposed Substation, BESS and associated infrastructure would present a partial alteration to existing visual composition from this area. The Proposed Development would already be partially screened by existing field boundary vegetation, particularly to the west and south, where boundary vegetation is intact and provides a higher degree of enclosure. The Site and Proposed Development would be seen in the context of Cellarhead National Grid Substation, which already has a strong influence on the character and composition of views in this area. Overall effects would be Adverse, although seen in the context of the existing energy infrastructure which is already visible. It is noted that views from surrounding farmsteads would vary depending on each individual properties circumstance, however, following survey of the Site and surrounding context it is deemed that most views towards the Proposed Development would be filtered by a combination of both new and existing vegetation in the Semi-permanent term.
- 6.9.71 Potential views from Green Farm and Bungalow Farm would be filtered by additional landscaped bunds, which are proposed to be planted with new native trees and scrub. In the semi-permanent term, this vegetation would have fully established and will provide adequate screening to the nearby dwellings. In addition, the Proposed Development is further offset from Bungalow Farm and Green Farm, through the reduction in proposed footprint of the BESS elements of the Proposed Development. This offset would also serve to reduce potentially adverse visual effects from the nearby dwellings in the semi-permanent term.

- 6.9.72 In the Short -Medium term, before the proposed planting has become established, the Proposed Development would lead to a Medium Scale of effect, within a Localised Extent. Therefore, Medium term effects would be of Medium magnitude, Moderate and, on balance, Adverse. This effect is not significant.
- 6.9.73 Semi-permanent visual effects on this receptor group would, in the worst case, reduce to Small Scale as the proposed planting matures. These effects would be of Low Magnitude, Slight and, on balance, Adverse but reversible given the temporary nature of the proposals. This effect is not significant.

Visual Receptor Group 3: Northern edge of Werrington (700m, South).

- 6.9.74 This VRG is of High-Medium Sensitivity.
- 6.9.75 This group includes residents and road users at the settlement edge of Werrington, along short sections of Armshead Road, south of the Site.
- 6.9.76 Effects on these visual receptors are represented by representative viewpoint 6. Hedgerow and trees within the local landscape dominate the midground, with distant higher ground to the north visible on the skyline. Cellarhead National Grid Substation and overhead powerlines are infrastructure features which are visible within the local landscape and form part of the visual context to the Site. The Site's internal field parcels are not clearly apparent as they blend in with vegetation within the local landscape.
- 6.9.77 The proposed new Substation and taller elements of the Proposed Development would be partially visible on the skyline, set amongst existing trees and alongside existing taller energy infrastructure associated with Cellarhead National Grid Substation. Whilst not an alien feature in existing views they would increase the extent of visible electrical infrastructure and for this reason, visual effects at this locality are deemed to be Adverse.
- 6.9.78 In the Short -Medium term, before the proposed planting has become established, the Proposed Development would lead to a Small Scale of effect, within a Localised Extent. Therefore, Medium term effects would be of Low magnitude, Slight and, on balance, Adverse. This effect is not significant.
- 6.9.79 Semi-permanent visual effects on this receptor group are also deemed to lead to a Small Scale of effect, within a Localised Extent. Therefore, Medium term effects would be of Low magnitude, Slight and, on balance, Adverse. This effect is not significant.

Visual receptor group 4: Public Rights of Way off Rownall Road (550m, East).

- 6.9.80 This VRG is of High-Medium Sensitivity.
- 6.9.81 This group includes users of PRoW within the local landscape to the east, such as PRoW Cheddleton 58 which does not appear to be well used and is impassable where it joins PRoW 59 linking to Rownall Road.
- 6.9.82 Effects on these visual receptors are represented by representative viewpoint 7 which is reflective of views towards the Site for local PRoW that spur off Rownall Road, west of Wayfields Farm. The local undulations in landform are apparent due to rising land to the east, which hosts New House Farm and a series of overhead powerlines which form a prominent feature on the skyline. A number of sporadic farmsteads within the locality of the Site are partially visible through the strong vegetative network of hedgerows and trees. The Site is situated within the midground and is not prominent within the view, blending in with its rural context.

- 6.9.83 The proposed new Substation and taller elements of the Proposed Development would be partially visible on the higher ground within the Site, amongst existing trees and alongside existing taller energy infrastructure associated with Cellarhead National Grid Substation. For this reason, visual effects for this VRG are deemed to be Adverse.
- 6.9.84 In the Short -Medium term, before the proposed planting has become established, the Proposed Development would lead to a Small Scale of effect, within a Localised Extent. Therefore, Medium term effects would be of Low magnitude, Slight and, on balance, Adverse. This effect is not significant.
- 6.9.85 Semi-permanent visual effects on this receptor group are also deemed to lead to a Small Scale of effect, within a Localised Extent. Therefore, Medium term effects would be of Low magnitude, Slight and, on balance, Adverse. This effect is not significant.

Road and rail receptors

Armshead Road (280m, west) – Low Sensitivity

- 6.9.86 This route passes the Site to the south and west, running along the northern settlement edge of Werrington and north towards Bagnall in the north, beyond the Study Area. Road users on this route, which is mostly travelled at relatively slow speeds and is not an identified scenic route, are judged to be of Low sensitivity.
- 6.9.87 The proposed Substation and taller elements of the Proposed Development would be partially visible on the skyline, amongst existing trees and alongside existing taller energy infrastructure associated with Cellarhead National Grid Substation extending the visible extent of energy infrastructure. For this reason, visual effects along this route are deemed to be Adverse.
- 6.9.88 Potential views of the BESS would be partially filtered by additional landscaped bunds in the western site area, which are proposed to be planted with new native trees and scrub. In the semi-permanent term, this vegetation would have fully established and will provide adequate screening.
- 6.9.89 Medium and semi-permanent term effects on this route are illustrated by viewpoint 6 and would be Small scale and Neutral along a Localised extent of the route, as the road passes north of Werrington. Considering the worst-case scenario; effects on users of this route would be of Low Magnitude, Slight and, on balance, Adverse. This effect is not significant.

Thorney Edge Road (0km, north-west) – Low Sensitivity

- 6.9.90 This route passes the Site to the west, connecting to Armshead Road and continuing north within the wider landscape. Road users on this route, which is mostly travelled at relatively slow speeds and is not an identified scenic route, are judged to be of Low sensitivity.
- 6.9.91 The proposed Substation and taller elements of the Proposed Development would be partially visible on the skyline, amongst existing trees and alongside existing taller energy infrastructure associated with Cellarhead National Grid Substation. Whilst not an incongruent feature it would extend the amount of energy infrastructure visible. For this reason, visual effects along this route are deemed to be Adverse.
- 6.9.92 Potential views of the BESS would be partially filtered by additional landscaped bunds in the western site area, which are proposed to be planted with new native trees and scrub. In the

semi-permanent term, this vegetation would have fully established and will provide adequate screening.

- 6.9.93 Medium and Semi-permanent term effects on this route are illustrated by viewpoint 5 and would be Small scale along a Localised extent of the route, as the road passes the Site to the west. Considering the worst-case scenario; effects on users of this route would be of Low Magnitude, Slight and, on balance, Adverse.

6.10 Cumulative effects

- 6.10.1 As outlined within the screening opinion (Appendix 1.2), the Proposed Development is one of a number of energy developments in the area, both approved or currently under consideration. This is in addition to the existing Cellarhead Substation.
- 6.10.2 Outlined above in the methodology section, the significance ratings indicate a 'sliding scale' of the relative importance of the effect, with Major being the most important and Minimal being the least. Effects that are Major-Moderate or Major are considered to be significant. Effects of Moderate significance or less are "*of lesser concern*" (GLVIA, 3rd edition, para 3.35).

Introduction

- 6.10.3 Cumulative assessment relates to the assessment of the effects of more than one development.
- 6.10.4 Developments that are subject to a valid planning application are included where specific circumstances indicate there is potential for cumulative effects to occur, with progressively decreasing emphasis placed on those which are less certain to proceed. For the purposes of this LVIA assessment operational and consented developments are treated as being part of the landscape and visual baseline. i.e. it is assumed that consented schemes will be built except for occasional exceptions where there is good reason to assume that they will not be constructed.
- 6.10.5 Additional cumulative schemes that have been granted planning permission have also been included at the request of Ryder Landscape Consultants.
- 6.10.6 The cumulative assessment considers five proposed developments comprising granted or ongoing planning applications located either wholly or partially within the study area.
- 6.10.7 Other cumulative schemes identified as part of the wider EIA have been discounted from this LVIA either because the nature of the proposals would not lead to cumulative effects when taken into account alongside the Proposed Development, or they are at a particular distance and far enough away to not be considered as a cumulative scheme alongside the Proposed Development, insofar as there would be no cumulative effect. The five schemes which could potentially lead to cumulative landscape and visual effects given their close proximity and similar development typology, are outlined below.
- 6.10.8 The schemes originally considered as part of the cumulative assessment included:
- Planning Application reference: SMD/2024/0019. "Development of a Battery Energy Storage System (BESS) with ancillary infrastructure, security fence, access, landscaping and biodiversity enhancements, to provide balancing services to the local electricity grid." [referred to as Cumulative Site A] – approximately 200m north-east of the Site.
 - Planning Application reference: SMD/2023/0523. "Installation of a solar farm comprising ground mounted solar PV panels with a generating capacity of up to 49.99MW including

mounting system, underground cabling, stock proof fence, CCTV, internal tracks and associated infrastructure, landscaping, biodiversity net gain and environmental enhancements for a temporary period of 40 years.” [referred to as Cumulative Site B] – approximately 800m north of the Site.

- Planning Application reference: SMD/2024/0055. “*Erection of a Flexible Energy Facility, associated works, landscaping and habitat creation.*” [referred to as Cumulative Site C] – approximately 360m east of the Site.

6.10.9 Since the submission of the original planning application, two additional sites have come forward for cumulative consideration. Ryder Landscape Consultants provided details and reference to these schemes within their response letter. The two additional cumulative schemes for consideration are as follows:

- Armshead Farm BESS (granted approval at appeal reference APP/B3438/W/23/3335922.)
- New House Farm BESS, Luzlow Lane (Live planning application ongoing, application ref: SMD/2024/0452)

6.10.10 The above cumulative schemes are all located within the Study Area. These cumulative schemes are considered as part of the landscape and visual amenity cumulative assessment below, with their locations shown within Figure A4.1.

6.10.11 Cumulative effects are assessed on the same groups of landscape and visual receptors as the assessment for the main scheme. Landscape and visual receptors that are considered to receive effects of Low-Negligible or Negligible magnitude (both localised and overall) from the Proposed Development are not included in this assessment, as an effect of such low magnitude manifestly adds nothing or very little regardless of the effects of other developments. If significant cumulative effects arise on those receptors, they would be as a result of other developments and as such are not relevant for consideration as part of this application.

Assessment scenarios and methodology

6.10.12 This cumulative assessment considers likely effects should all the cumulative proposals and the Proposed Development get constructed. The five cumulative schemes outlined above are renewable energy developments comprising a mixture of either solar panels or battery storage or both.

6.10.13 The significance ratings indicate a ‘sliding scale’ of the relative importance of the effect, with Major being the most important and Minimal being the least. Effects that are Major-Moderate or Major are considered to be significant. Effects of Moderate significance or less are “*of lesser concern*” (GLVIA, 3rd edition, para 3.35).

Cumulative effects on landscape character

Ancient Plateau Farmlands LCT

6.10.14 As outlined above in the main body of the LVIA, the Ancient Plateau Farmlands is judged as having a Community value with Low susceptibility, given the existing energy development within it. This gives an overall Low sensitivity for the LCT.

Construction

6.10.15 Taking into account Cumulative Sites A, B and C as listed above, as well as Armshead Farm and New House Farm BESS, it is noted that the application Site and all five cumulative schemes are situated within the Ancient Plateau Farmlands LCT. If all sites were to come forward, the overall cumulative scale of change during construction for the LCT would be

Large, over a short duration and Localised extent. The construction areas for new upcoming developments associated with renewable energy would increase and would change the characteristics of the LCT for the duration of the construction periods of the Proposed Development and five additional cumulative schemes.

6.10.16 There would be a potentially greater number of vehicular movements, increases in construction noise, greater visibility of machinery etc. and other perceptual construction elements that would adversely affect the landscape character of the LCT.

6.10.17 This gives rise to a potential cumulative effect of Medium to High magnitude, of Moderate significance and on balance Adverse. The significance would be Moderate given the increase in construction associated with upcoming renewable energy development schemes present within the context of the existing area of the LCT. The construction effects would be of Moderate significance. This effect would be significant, predominantly due to the number of developments under construction within a 1km study area. The construction effects would likely be apparent within the local character area, with a number of previously undeveloped land parcels transformed into construction sites.

Operation

6.10.18 Taking into account Cumulative Sites A, B and C as listed above, as well as Armshead Farm BESS and New House Farm BESS, it is noted that the application Site and all five schemes are situated within the Ancient Plateau Farmlands LCT. If all sites were to come forward, the overall cumulative scale of change for the LCT would be Medium to High, over a Semi-permanent duration and Localised extent. The area of new development associated with renewable energy would increase and would change the characteristics of the LCT for the lifetime of the cumulative schemes.

6.10.19 This gives rise to a potential cumulative effect of Medium to High magnitude, of Moderate significance and on balance Adverse. This demonstrates an increase in magnitude of effect as a result of the five cumulative schemes coming forward within the 1km study area. The significance would be Moderate given the increase in renewable energy development schemes present within the context of the existing area of the LCT. This effect is not significant primarily due to the extensive mitigation proposals associated with the numerous cumulative schemes. The maturation of new planting, combined with land reprofiling and bunding, would ensure operation effects upon the LCT would not be significant.

Cumulative visual effect

6.10.20 The assessment considers two types of cumulative visual effect as identified by GLVIA3, namely effects arising from combined and sequential views. These comprise:

- Combined views which '*occur where the observer is able to see two or more developments from one viewpoint*'. Combined visibility may either be in combination (where several developments are within the observer's arc of vision at the same time) or in succession (where the observer has to turn to see the various developments); and
- Sequential views which '*occur when the observer has to move to another viewpoint to see different developments.*'

6.10.21 This section assesses the anticipated cumulative visual effects arising from the Proposed Development in combination with the cumulative schemes. For linear routes sequential views are also considered where relevant.

Representative viewpoints

Construction

6.10.22 Considering the representative viewpoints, there would be cumulative construction effects on representative viewpoint 1, 2, 4 and 7, when taking into account Armshead Road BESS and Cumulative Sites A and C. For viewpoint 7, this view looks west from PRoW 58 and is representative of views towards the Site for local PRoW that spur off Rownall Road, west of Wayfields Farm. The local undulations in landform are apparent due to rising land to the east, which hosts New House Farm and a series of overhead powerlines which form a prominent feature on the skyline. A number of sporadic farmsteads within the locality of the Site are partially visible through tree canopies and gaps in vegetation. The construction activity within the Site would be seen in the distance from within the site boundary of Cumulative Site C, of which there would also be construction activity and therefore potential diversions of this PRoW. From viewpoint 7, to the east, the construction of Armshead Road BESS site would be largely screened by existing vegetation in the local landscape. Taller construction machinery may be partially visible alongside construction activities within the Site. New House Farm BESS would likely not be visible further westwards, set behind existing trees and hedgerow. Westerly views from PRoW within/proximal to Cumulative site C would experience a Medium Magnitude Adverse cumulative effect that would not be significant.

6.10.23 However, closer to the Site along PRoW at viewpoint 4, receptors with views of Armshead Road BESS would experience a Medium to Large scale cumulative effect. Construction activity associated with Armshead Road BESS and the Proposed Development would be visible either side of PRoW Cheddleton 49, in close proximity to PRoW users. Construction machinery and activities would likely be visible amongst existing retained vegetation along the PRoW. Taller construction machinery may also be visible from viewpoints 1 and 2 above existing tree canopies, such as the use of cranes and other lifting mechanisms. In turn, this would lead to a cumulative effect of Medium to High magnitude, Moderate significance and of an Adverse nature. This effect is significant but would be short term whilst the Proposed Development and other visible cumulative schemes, such as Armshead Farm BESS, are constructed. Significant Cumulative effects would be associated with PRoW adjacent to the Site, to the south. Cumulative visual effects from the east would be of a lesser magnitude and not significant.

6.10.24 For Cumulative Site A, there would be no greater cumulative effects, above and beyond the effects of the standalone Proposed Development. This is primarily due to lack of direct views between the two proposals from nearby visual receptors due to the wooded and undulating nature of the local landscape. There is potential for sequential views along PRoW Cheddleton 48, 58 and 60 noting that these do not appear to be well used. However, sequential views from these PRoW would lead to no greater cumulative effects, above and beyond the effects of the standalone Proposed Development. The magnitude would be Medium to Low, of Moderate significance and of an Adverse nature. This effect is not significant.

6.10.25 There is no inter-visibility between the Proposed Development and Cumulative Site B due to intervening woodland situated to the south and west of Cellarhead Substation.

Operation

6.10.26 Considering the representative viewpoints, there would be cumulative effects on representative viewpoint 1, 2, and 7, when taking into account Armshead Farm BESS and Cumulative Sites A and C. For viewpoint 1, 2 and 7, the operational cumulative effect would reduce to Low magnitude, Slight significance and of an Adverse nature. The

Proposed Development would be less prominent within the views than Cumulative Site C due to the proximity to the PRoW visual receptor.

6.10.27 With regard to viewpoint 4, taking into account operational effects associated with the Proposed Development and Armshead Farm BESS, there would be no greater cumulative effects, above and beyond the effects on the standalone Proposed Development; primarily due to the maturation of mitigation planting, which would largely filter the BESS in the landscape proximal to the viewpoint.

6.10.28 For Cumulative Site A, it remains the case that for operational effects there would be no greater cumulative effects, above and beyond the effects on the standalone Proposed Development. Again, there is potential for sequential views during operation along PRoW Cheddleton 48, 58 and 60.

6.10.29 There is no visibility between the Proposed Development and Cumulative Site B due to intervening woodland situated to the south and west of Cellarhead Substation.

6.10.30 There would be no significant cumulative visual effects associated with the Proposed Development and New House Farm BESS.

Cumulative effects on visual receptor groups

Construction

6.10.31 Considering the VRGs identified within the main body of the LVIA, VRG 1, 2 and 4 would have the potential for cumulative construction visual effects. These groups include users of PRoW within the Site and local landscape, such as PRoW Cheddleton 48, 58 and 60, as well as surrounding farmsteads and local roads.

6.10.32 During construction, Cumulative Site A and Armshead Farm BESS would be visible for VRG 1 and 2, along with the construction of the Proposed Development. The construction of the Substation and taller elements of the Proposed Development would be partially visible alongside the construction of Cumulative Site A and Armshead Farm BESS, particularly from PRoW Cheddleton 49, 58 and 60 (VRG1) and Greenfields Farm, Armshead Farm, Green Farm and Newfields Farm (VRG 2). Cumulative construction visual effects upon VRG 1 and 2 are deemed to be Major Moderate significance and of an Adverse nature. This effect is significant.

6.10.33 VRG 2 would experience potentially adverse cumulative construction effects, with Armshead Farm BESS and the Proposed Development being visible during construction, amongst existing vegetation within the context of nearby farmsteads; notably Armshead Farm and Green Farm. Cumulative effects on VRG would be of Moderate significance and Adverse in nature. This effect is not significant.

6.10.34 Cumulative Site C would be visible for VRG 4, with the Proposed Development also being visible approximately 500m to the west. The proposed Substation and taller elements of the Proposed Development would be partially visible on higher ground, amongst existing trees and alongside existing taller energy infrastructure associated with Cellarhead National Grid Substation. Cumulative construction visual effects upon VRG 4 are deemed to be Moderate significance and of an Adverse nature. This effect is not significant.

6.10.35 For VRG 3, there would be no cumulative effect as a result of the above cumulative schemes identified. This is primarily due to the due to the wooded and undulating nature of the local landscape and subsequent lack of notable intervisibility between the identified cumulative schemes.

Operation

6.10.36 Considering the VRGs identified within the main body of the LVIA, VRG 1,2 and 4 would have the potential for cumulative operational visual effects.

6.10.37 During operation in the short to medium term, Cumulative Site A and Armshead Farm BESS would be visible for VRG 1, north-east and west of the Proposed Development. The proposed Substation and taller elements of the Proposed Development would be partially visible alongside Cumulative Site A, particularly within sequential views from PRoW Cheddleton 58 and 60 (VRG1), noting that these do not appear to be well used. There would be sequential views of Armshead Farm BESS and the Proposed Development from PRoW Cheddleton 49. Cumulative operational visual effects upon VRG 1 are deemed to be Major Moderate significance and of an Adverse nature, in the short term. However, over time as the proposed landscape mitigation as part of the Proposed Development and cumulative schemes mature, this cumulative effect would likely reduce to Moderate significance but remain of an Adverse nature in the semi-permanent term. This effect is not significant.

6.10.38 During operation in the short to medium term, Cumulative Site A would be visible for VRG 2, particularly in views from Greenfields Farm and Newfields Farm to the north and east. To the west, there would be potentially adverse cumulative visual effects for Armshead Farm and Green Farm, with views towards both Armshead Farm BESS and the Proposed Development. The proposed Substation and taller elements of the Proposed Development would be partially visible alongside Cumulative Site A and Armshead Farm BESS. Cumulative operational visual effects upon VRG 2 are deemed to be of Moderate significance and of an Adverse nature, in the short term. However over time as the proposed landscape mitigation as part of the Proposed Development and cumulative schemes mature, this cumulative effect would likely reduce to Slight significance but remain of an Adverse nature in the semi-permanent term. This effect is not significant.

6.10.39 Cumulative Site C would be visible for VRG 4, with the Proposed Development also being visible approximately 500m to the west. The proposed Substation and taller elements of the Proposed Development would be partially visible on higher ground, amongst existing trees and alongside existing taller energy infrastructure associated with Cellarhead National Grid Substation. In both the short to medium term and semi-permanent terms, the cumulative operational visual effects upon VRG 4 are deemed to be Moderate significance and of an Adverse nature. This effect is not significant.

6.10.40 For VRG 3, there would be no cumulative effect as a result of the above cumulative schemes identified. This is primarily due to the due to the wooded and undulating nature of the local landscape and subsequent lack of notable intervisibility between the identified cumulative schemes.

6.10.41 Whilst there would be some potentially adverse cumulative effects as a result of the Proposed Development and surrounding cumulative schemes, the individual schemes all include site specific landscape mitigative measures that would provide a more robust landscape fabric within the local context of the Site. The Site provides extensive new areas of native planting which contributes to the biodiversity net gain and new habitat within the Site. This in turn sits alongside the existing retained landscape features within the study area and the other new landscape planting areas proposed as part of the other cumulative schemes.

6.11 Summary

- 6.11.1 Effects on the receptors assessed above are summarised in Table 6-9. For receptors where the significance of effects varies, the distribution of effects is summarised. Effects apply before the mitigation planting has matured in the Short-Medium term and once the mitigation planting has matured in the Semi-permanent term, unless specifically stated otherwise.
- 6.11.2 This LVIA assessment describes the existing landscape and views, considers their sensitivity to change and identifies the changes likely to arise from the Proposed Development; providing judgements of the importance of effects arising.
- 6.11.3 The Proposed Development comprises the installation of a BESS Facility, Substation, associated infrastructure and works. The Proposed Development provides a wide variety of landscape enhancements, which not only serve to preserve and enhance local landscape character but also benefit the biodiversity within the Site and its local context. The Proposed Development would be subject to the outline Landscape and Ecology Management Plan (oLEMP) submitted as part of the planning application which seeks to ensure the positive and long-term management regimes of both the existing and proposed landscaping within the Site. In turn, this would ensure both the existing and proposed ecological habitats within the Site are appropriately managed. Consideration of potential Semi-permanent landscape character and visual effects has formed an integral role in the development of the Proposed Development.
- 6.11.4 While the Proposed Development will inevitably result in a change to the character of the Site and its immediate surroundings, the design of the Proposed Development has been underpinned by an understanding of the local landscape and visual context. A landscape strategy has been prepared and is included within the oLEMP. This has been developed as an iterative process and underpins the development of the Site. The oLEMP will ensure the long- term management and maintenance of the Proposed Development is secured. The Proposed Development would retain the majority of existing tree and hedgerow field boundaries within and around the Site, with built development confined to individual field parcels suitably offset from boundaries to ensure the Proposed Development is well integrated into the landscape and provide screening. As outlined above, it is acknowledged there would be some minor vegetation loss to accommodate safe and ease of access to the individual field parcels once the Proposed Development is operational. Careful consideration of the internal road network has been undertaken to limit the number of field boundary crossings. Where crossings are necessary, they have been carefully aligned to utilise existing access points where it will have the minimal impact and avoid where possible the loss of existing vegetation. The width of the new tracks would be minimised as far as possible to retain the landscape structure and habitat connectivity, and generous PRoW offsets with buffer planting flanking the routes to provide screening and protect recreational amenity.
- 6.11.5 The principal landscape and visual effects would occur during the 40 year operational lifetime of the BESS and substation. At the end of its lifespan, the Proposed Development would be decommissioned and the Site returned to its former use with more established proposed planting retained. All landscape and visual effects are deemed to be reversible given that the Proposed Development has only a set life span and therefore has the potential to be decommissioned, with the landscape condition restored and mitigation planting retained as new mature elements of the local landscape fabric.
- 6.11.6 The methodology outlines that significance ratings indicate a 'sliding scale' of the relative importance of the effect, with Major being the most important and Minimal being the least. Effects that are Major-Moderate or Major are considered to be significant. Effects of Moderate significance or less are "*of lesser concern*" (GLVIA, 3rd edition, para 3.35).

- 6.11.7 With regard to potential effects on the site wide landscape character only, it is judged that there would be temporary Major-Moderate landscape effects within the site boundary only, across all assessment durations until decommissioning. This is primarily due to the temporary change in land use from undeveloped greenfield to developed land containing BESS and large-scale substation infrastructure, all of which would adversely impact the perceptual elements of the Site's landscape character. Upon decommissioning, retention of the proposed extensive planting within the Site would provide a permanent benefit to the landscape character of the Site.
- 6.11.8 Beyond the site boundary within the wider landscape character area, there is deemed to be no significant effects upon the wider Ancient Plateau Farmlands, which is judged as having a low sensitivity. At most, construction effects would be Moderate-Slight significance which would reduce to slight significance in the semi-permanent term.
- 6.11.9 Cumulative effects upon this LCT take into account Cumulative Sites A, B, C, Armshead Farm BESS and New House Farm BESS (see reference for details as listed above in this LVIA). It is noted that the application Site and all five cumulative schemes are situated within the Ancient Plateau Farmlands LCT.
- 6.11.10 In the short term, there would be potentially adverse cumulative effects on the Ancient Plateau Farmlands LCT during construction. These effects would likely be significant as they are all located within the LCT and would introduce a number of local construction site's proximal to the Site. As mitigation matures, operational cumulative effects would be of Medium magnitude, of Moderate significance and on balance Adverse. This demonstrates an increase in magnitude of effect as a result of the cumulative schemes coming forward. The significance would be Moderate given the increase in renewable energy development schemes present within the context of the existing area of the LCT. The cumulative effects during operation would not be significant.
- 6.11.11 There is deemed to be no significant semi-permanent residual effects upon the visual amenity of receptors at publicly accessible locations, as outlined within the individual visual receptor groups. The visual effects experienced as a result of the Proposed Development reduces rapidly with distance from the site boundary and therefore the overall number of visual receptors that would experience significant effects is very limited.
- 6.11.12 The greatest non-significant visual impact would be experienced upon visual receptors along Public Rights of Way adjacent to the Site and also for surrounding farmsteads and local roads. In the Short -Medium term, all of these reach a Major/Moderate significance when assessed in line with the appended LDA methodology. These relate to visual Receptor Group 1. In the Semi- permanent term, once mitigation planting has matured, potential visual effects reduce due to the increased visual screening of the Proposed Development. As such, there are no predicted Semi-Permanent significant residual effects.
- 6.11.13 There would be potentially adverse significant cumulative visual effects, during construction, upon VRG1 and VRG2 given the short distances between nearby PRoW, farmsteads and various cumulative schemes.
- 6.11.14 There would be Moderate adverse non-significant cumulative effects upon Visual Receptor Group 4. There would be no cumulative effects from VRG 3.
- 6.11.15 Whilst the Proposed Development would yield change and have some adverse effects on landscape character and visual amenity, this LVIA finds those effects to be very localised in nature and completely reversible once the Proposed Development is decommissioned.
- 6.11.16 The Proposed Development demonstrates sensitive design principles (see Design & Access Statement and revised detailed soft landscape plan), which has sought to void and

wherever practicable and mitigate potential adverse effects whilst also deliver positive effects, such as biodiversity enhancements, beyond that that of renewable energy storage.

6.12 References

6.12.1 See Appendix 6.2 for a list of references drawn upon within this chapter.

Table 6-9: Summary of effects

Only effects of greater than Negligible magnitude and/or Minimal significance are included in the summary table. As outlined in the methodology section, the significance ratings indicate a 'sliding scale' of the relative importance of the effect, with Major being the most important and Minimal being the least. Effects that are Major-Moderate or Major are considered to be significant. Effects of Moderate significance or less are "of lesser concern" (GLVIA, 3rd edition, para 3.35). **Red text below indicates an update to the landscape and visual summary of effects table.**

Receptor	Description of potential impact	Significance prior to mitigation	Proposed mitigation	Residual effect	Significant / not significant
Construction Phase					
LCT Ancient Plateau Farmlands (Within the Site only)	Site wide effects	Major	CEMP details, visuals screening and hoarding, lighting limitations and dust restrictions.	Major-Moderate Adverse	Significant
LCT Ancient Plateau Farmlands	Construction phase only . Site Landscape Character - Covers Site & partial Study Area	Moderate	CEMP details, visual screening and hoarding, lighting limitations and dust restrictions.	Moderate-Slight Adverse	Not significant
VRG 1. Public Rights of Way adjacent to the Site	Construction phase only	Major-moderate	CEMP details, visual screening and hoarding, lighting limitations and dust restrictions.	Major-moderate	Significant
VRG 2. Surrounding farmsteads and local roads	Construction phase only	Major-moderate	CEMP details, visual screening and hoarding, lighting limitations and dust restrictions.	Moderate Adverse	Not significant
VRG 3. Northern edge of Werrington	Construction phase only	Moderate-Slight	CEMP details, visual screening and hoarding, lighting limitations and dust restrictions.	Slight Adverse	Not significant
VRG 4. Public Rights of Way off Rownall Road	Construction phase only	Moderate-Slight	CEMP details, visual screening and hoarding, lighting limitations and dust	Slight Adverse	Not significant

			restrictions.		
Armshead Road	Construction phase only	Moderate-Slight	CEMP details, visual screening and hoarding,	Slight Adverse	Not significant
Receptor	Description of potential impact	Significance prior to mitigation	Proposed mitigation	Residual effect	Significant / not significant
			lighting limitations and dust restrictions.		
Thorney Edge Road	Construction phase only	Moderate-Slight	CEMP details, visual screening and hoarding, lighting limitations and dust restrictions.	Slight Adverse	Not significant
Operation Phase – Short to Medium Term (0-10 years)					
LCT Ancient Plateau Farmlands (Within the Site only)	Site wide effects	Major	Extensive site wide tree, hedgerow and scrub planting. Sewing of new grassland areas comprising neutral, wildflower meadow and wetland meadow.	Major-Moderate Adverse	Significant
LCT Ancient Plateau Farmlands	Site Landscape Character - Covers Site & partial Study Area	Moderate-Slight	Extensive site wide tree, hedgerow and scrub planting. Sewing of new grassland areas comprising neutral, wildflower meadow and wetland meadow.	Slight Adverse	Not significant
VRG 1. Public Rights of Way adjacent to the site	Medium term, before proposed planting has become established	Major-Moderate	Extensive site wide tree, hedgerow and scrub planting. Sensitive green colouring of built structures within the Site.	Major-Moderate Adverse	Significant
VRG 2. Surrounding farmsteads and local roads	Medium term, before proposed planting has become established	Moderate	Extensive site wide tree, hedgerow and scrub planting. Sensitive green colouring of built structures within the Site.	Moderate Adverse	Not significant

VRG 3. Northern edge of Werrington	Medium term, before proposed planting has become established	Slight	Extensive site wide tree, hedgerow and scrub planting. Sensitive green colouring of built structures within the Site.	Slight Adverse	Not significant
VRG 4. Public Rights of Way off Rownall Road	Medium term, before proposed planting has become established	Slight	Extensive site wide tree, hedgerow and scrub planting. Sensitive green colouring of built structures within the Site.	Slight Adverse	Not significant

Receptor	Description of potential impact	Significance prior to mitigation	Proposed mitigation	Residual effect	Significant / not significant
Armshead Road	Medium term, before proposed planting has become established	Slight	Extensive site wide tree, hedgerow and scrub planting. Sensitive green colouring of built structures within the Site.	Slight Adverse	Not significant
Thorney Edge Road	Medium term, before proposed planting has become established	Slight	Extensive site wide tree, hedgerow and scrub planting. Sensitive green colouring of built structures within the Site.	Slight Adverse	Not significant
Operation Phase – Semi-permanent Term (10-40 years)					
LCT Ancient Plateau Farmlands (Within the Site only)	Site wide effects	Major-moderate	Extensive site wide tree, hedgerow and scrub planting. Sensitive green colouring of built structures within the Site.	Major-Moderate Adverse	Significant
LCT Ancient Plateau Farmlands	Site Landscape Character - Covers Site & partial Study Area. Magnitude reduced to low.	Slight	Extensive site wide tree, hedgerow and scrub planting. Sensitive green colouring of built structures within the Site.	Slight Adverse	Not significant
VRG 1. Public Rights of Way adjacent to the Site	Semi – permanent but reversible effects. Magnitude remains medium	Moderate	Extensive site wide tree, hedgerow and scrub planting. Sensitive green colouring of built structures within the Site.	Moderate Adverse	Not significant

VRG 2. Surrounding farmsteads and local roads	Semi – permanent but reversible effects. Magnitude reduced to medium - low.	Slight	Extensive site wide tree, hedgerow and scrub planting. Sensitive green colouring of built structures within the Site.	Slight Adverse	Not significant
VRG 3. Northern edge of Werrington	Semi – permanent but reversible effects. Magnitude remains low.	Slight	Extensive site wide tree, hedgerow and scrub planting. Sensitive green colouring of built structures within the Site.	Slight Adverse	Not significant
VRG 4. Public Rights of Way off Rownall Road	Semi – permanent but reversible effects. Magnitude remains low.	Slight	Extensive site wide tree, hedgerow and scrub planting. Sensitive green colouring of built structures within the Site.	Slight Adverse	Not significant
Armshead Road	Semi – permanent but reversible effects.	Slight	Extensive site wide tree, hedgerow and scrub planting. Sensitive green colouring of	Slight Adverse	Not significant
Receptor	Description of potential impact	Significance prior to mitigation	Proposed mitigation	Residual effect	Significant / not significant
			built structures within the Site.		
Thorney Edge Road	Semi – permanent but reversible effects.	Slight	Extensive site wide tree, hedgerow and scrub planting. Sensitive green colouring of built structures within the Site.	Slight Adverse	Not significant