



LANDSCAPE AND VISUAL APPRAISAL (LVA)
STAYTHORPE BATTERY ENERGY STORAGE SYSTEM

SEPTEMBER 2022
REVISION 2: MAY 2023



Prepared By:

Arcus Consultancy Services

1C Swinegate Court East
3 Swinegate
York
YO1 8AJ

T +44 (0)1904 715470 | **E** info@arcusconsulting.co.uk
W www.arcusconsulting.co.uk

Registered in England & Wales No. 5644976

TABLE OF CONTENTS

1	INTRODUCTION	1
2	SCOPE OF THE APPRAISAL.....	1
2.1	The Development	1
2.2	Construction	2
2.3	Consultation	3
2.4	LVA Methodology & Relevant Guidelines	6
2.4.1	Cumulative Effects.....	7
2.5	Limitations of the Appraisal / Assumptions and Limitations	7
2.6	Study Area	8
2.7	Desk-Based Study	8
2.8	Field Study	8
2.9	Zone of Theoretical Visibility (ZTV)	9
2.10	Viewpoints.....	9
2.11	Photomontages	11
3	LANDSCAPE LEGISLATION AND POLICIES	11
3.1	National Planning Policy Framework (NPPF).....	11
3.2	Regional and Local Planning Policy.....	12
3.2.1	Newark and Sherwood District Council Amended Core Strategy (2019).....	12
3.2.2	Allocations & Development Management (ADM) (2013)	13
3.2.3	Newark & Sherwood Green Infrastructure Strategy (2010)	13
3.2.4	Planning Practice Guidance for the Natural Environment	13
3.3	Landscape Planning Designations.....	14
3.4	Cumulative Appraisal	15
4	BASELINE CONDITIONS	15
4.1	Landscape Character of the Site	16
4.2	Landscape Character of the Study Area	16
4.3	Landscape Character Areas	17
4.3.1	National Landscape Character - NCA 48 Trent and Belvoir Vales.....	17
4.4	Regional and Local Landscape Character.....	17
4.4.1	Trent Washlands CCA	18
4.5	Landscape Designations, Protected Features and Heritage Designations...	20
4.5.1	Listed Buildings	20
4.5.2	Registered Battlefield.....	20
4.5.3	Scheduled Monuments.....	20

4.5.4	Conservation Areas.....	21
4.5.5	Local Nature Reserves	21
4.5.6	Ancient Woodland	21
4.6	Visual Receptors.....	21
4.6.1	Settlements and Residential Properties	22
4.6.2	Recreational Routes.....	23
4.6.3	Outdoor Sport and Recreation.....	23
4.6.4	Transport Routes	24
4.7	Future Baseline.....	24
4.8	Landscape & Visual Receptors Scoped out of the Assessment	24
4.9	Night Time Baseline	25
5	ZTV ANALYSIS	25
5.1	Weather Conditions.....	26
6	APPRAISAL OF LIKELY EFFECTS DURING CONSTRUCTION	26
6.1.1	Effects on Landscape Resource	26
6.1.2	Effects on Visual Amenity.....	27
7	EMBEDDED MITIGATION MEASURES.....	28
8	APPRAISAL OF RESIDUAL LANDSCAPE EFFECTS	30
8.1.1	Landscape Character of the Site	30
8.1.2	Local Policy Zone TW11 Cromwell, North and South Muskham, Kelham, Averham, Staythorpe and Rolleston Village Farmlands	32
8.1.3	Cumulative Landscape Effects	34
9	APPRAISAL OF RESIDUAL VISUAL EFFECTS	35
9.1	Viewpoint Assessment	35
9.1.1	Viewpoint 1a – View from Staythorpe Road at Grange Farm	36
9.1.2	Viewpoint 1b – View from Staythorpe Road at Pingley Lane	37
9.1.3	Viewpoint 2 – View from Public Right of Way within the Site	39
9.1.4	Viewpoint 3 – View from Staythorpe Road at Behay Gardens	40
9.1.5	Viewpoint 4 – View from Staythorpe Road, North of the Site	41
9.1.6	Viewpoint 5 – View from Public Right of Way at Southern Site Boundary	42
9.1.7	Viewpoint 6 – View from Public Right of Way, North of Behay Gardens.....	43
9.1.8	Viewpoint 7 – Public Right of Way, North of Rolleston	44
9.1.9	Viewpoint 8 – Public Right of Way, West of Staythorpe.....	45
9.1.10	Viewpoint 9 – View from Public Right of Way, Eastern Edge of Averham.....	46
9.1.11	Viewpoint 10 – View from Public Right of Way, Southern Edge of Upton	47
9.1.12	Viewpoint 11 – View from Public Right of Way, Micklebarrow Hill	48
9.1.13	Summary of Viewpoint Appraisal	50

9.2	Visual Effects on Views from Residential Properties	52
9.3	Visual Effects on Views from Settlements.....	55
9.4	Visual Effects on Views from Recreational Routes	57
9.5	Visual Effects on Views from Transport Routes	59
9.6	Cumulative Effects	60
10	SUMMARY & CONCLUSION	62
10.1	Summary of Predicted Landscape Effects	62
10.2	Summary of Predicted Visual Effects	63
10.3	Conclusion	64
APPENDIX A LVA METHODOLOGY		1
Guidance.....		1
Introduction		1
Terminology		2
<i>Sensitivity of Receptor</i>		2
<i>Resource / Receptor Value</i>		2
<i>Susceptibility to Change</i>		2
<i>Magnitude of Change</i>		2
<i>Level of Effect</i>		2
Baseline		3
Assessment of Landscape Effects		3
<i>Sensitivity</i>		4
<i>Magnitude of Landscape Effects</i>		7
Assessment of Visual Effects.....		9
<i>Evaluating Visual Sensitivity to Change</i>		10
<i>Magnitude of Visual Change</i>		13
Level of Effect and Criteria		15
Nature of Effect		16
Assessment of Cumulative Effects		16
<i>Magnitude of Cumulative Change</i>		17
<i>Significance of Cumulative Effects</i>		17
Visual Assessment of Residential Properties		17
Viewpoint Analysis		19
ZTV Methodology.....		20
Viewpoint Visualisation Presentation		20
APPENDIX B FIGURES.....		21
APPENDIX C DRAWINGS.....		22

APPENDICES

Appendix A: LVA Methodology

Appendix B: Figures

Appendix C: Drawings

FIGURES (bound in Appendix B as an attachment to this report)

Figure 1.1: Site Location

Figure 1.2: Aerial Mapping

Figure 1.3: Topography

Figure 1.4: Bare Earth ZTV

Figure 1.5: Screened ZTV (to 2km)

Figure 1.6: Landscape and Related Designations

Figure 1.7: Landscape Character Areas

Figure 1.8: Visual Amenity

Figure 1.9: Cumulative Sites

Figures 1.10a-m: Viewpoints 1a-11

Figures 11a-d Photomontages (1a, 1b, 2 and 3)

DRAWINGS (bound in Appendix C as an attachment to this report)

Drawing 4951_DR_LAN_101 Rev E Landscape Mitigation Plan (LMP)

1 INTRODUCTION

This report presents the findings of a Landscape and Visual Appraisal ('LVA' or 'appraisal') undertaken as part of a planning application by ECAP Staythorpe BESS Ltd ('the Applicant') for the installation of a battery energy storage system (BESS) with associated infrastructure, ('the Development') on land approximately 18 m south of Staythorpe Road, Staythorpe, and c.4 km west of Newark ('the Site'). The site is also located on land directly south-west of the Staythorpe National Grid Substation.

The LVA has been reviewed by a Chartered Landscape Architect in accordance with good practice guidance and is informed by published landscape character assessments and other guidance as referred to in relevant sections of the LVA.

The figures illustrating the appraisal are located in Appendix B.

2 SCOPE OF THE APPRAISAL

This Section sets out the aspects of the Development and mitigation which have been appraised within the LVA, the scope and broad methodology of the LVA, and the appraisal viewpoints.

2.1 The Development

The total Site area is approximately 10.07 hectares (ha). The Site is flat and situated at relatively even height of 12 to 13 m Above Ordnance Datum (AOD). The Site is currently used for agricultural purposes for the cultivation of cereal crops.

The Development would be a BESS used to provide services supporting the flexible operation of the Staythorpe National Grid and decarbonisation of electricity supply, e.g. by balancing electricity supply and demand, and would consist of the following key elements:

- Approximately 202 no. containerised batteries (up to 3.8 m in height including concrete plinths), each with an adjacent DC box and inverter (up to 3.2 m in height including concrete plinths);
- Approximately 34 no. transformer stations (up to 3.8 m in height including concrete plinths);
- Approximately 34 no. smart controllers (up to 3.1 m in height including concrete plinths);
- Approximately 34 no. auxiliary transformers (up to 3.1 m in height including concrete plinths);
- A 400 kV substation compound to connect to the National Grid Substation, including low and high voltage equipment: A 132/400 kV substation transformer (up to 13 m in height); 132 kV Transformer (up to 6.45 m in height); A 33 kV Low Voltage Switch room (up to 3.91 m in height); A 33 kV High Voltage Switchroom (up to 5.051 m in height); and 3 no. 132 kV Switchrooms (up to 3.6 m in height);
- A new and widened access from Staythorpe Road with visibility splay;
- Perimeter palisade fencing (up to 2.4 m in height) or similar;
- Wooden acoustic fencing (up to 4 m in height);
- Internal access tracks;
- Car parking provisions;
- Permanent Welfare Area and a Spares Warehouse/Workshop;
- Landscaping and biodiversity enhancements, mainly along the boundary with Staythorpe Road and in on-site ecological management areas to the north, west and southeast of the Site;
- Internal access tracks;

- A new permissive footpath linking the existing (to be retained) footpath at both entrances to the Site, via the Site's western boundary, and including landscaping and screening;
- Cable Sealing End (CSE) added to the south east of the site; and
- A new gated emergency access road at the northeast corner of the site including an unlocked acoustic gate.

The Site is currently accessed from the existing agricultural track off Staythorpe Road, which is also along the route of a public footpath. A railway line runs east-west approximately 17 m south of the Site, Staythorpe Road runs east-west along the Site's northern boundary and the A617 road passes approximately 650 m northeast of the Site. A 33 kV overhead power line runs northwest-southeast across the Site. Ground levels at the Site are relatively even at approximately 13 m Above Ordnance Datum (AOD).

A full description of the Development, including dimensions of all infrastructure, is set out in the Planning Design and Access Statement which accompanies the planning application.

2.2 Construction

The construction period of the Development would typically last between 9-12 months and the operational period would be 40 years.

The elements of the construction period which are relevant to this LVA include the following:

- The use of construction vehicles and plant across the Site;
- The use of construction vehicles and plant across the Site;
- The presence of people working on the Site;
- A temporary construction compound;
- Temporary fencing located as detailed in the Arboricultural Report and Tree Constraints plan, protecting all existing trees and hedges to be retained;
- Excavations associated with the formation of a widened access track, the construction compounds, laying cables, and foundations for all elements of the battery site, lighting and information boards;
- The existing agricultural access through the hedgerow off Staythorpe Road would be widened with an appropriate visibility splay. This would be used as the main Site vehicular access. This would require the removal of 4 no. trees including T11 a U Category Ash tree with Ash dieback, T14 and T15 both C Category Ash trees and T16 a C Category Horse Chestnut (refer to the Arboricultural Report). A 100 linear metre length of hedgerow would also be removed;
- A gated 3.7 m wide emergency access road at the northeast corner of the site including an unlocked acoustic gate and associated removal of 10 linear metres of existing hedgerow and a tree T22, a C Category Norway Maple;
- Planting of new hedgerow with trees, linear woodland belts (approximately 10 m wide) and seeding of species-rich grassland and graded wildflower verges to hedgerows and planting; and
- Erecting around the perimeter of the Site, a low impact mesh fence or similar and wooden fence and wooden acoustic fencing, painted green or a colour to be agreed with Newark and Sherwood District Council to be visually recessive as per the layout plan.

There may be a need for temporary lighting during the construction phase, depending on the time of year and the length of the construction programme. This should only be required during any autumn-winter construction phases.

2.3 Consultation

Newark and Sherwood District Council had provided comprehensive pre-application feedback on landscape/visual and related matters, including suggested viewpoint locations for the LVA. These have been duly noted and taken into account during the design of the Development and the scope of the appraisal. The relevant feedback and responses are included in Table 2.1 below. In addition, contact was made with Via in relation to the selection of Viewpoints. Although an initial acknowledgment was received by Arcus, no feedback was provided by Via.

Table 2.1: Consultation

Consultation with Newark and Sherwood District Council	
Pre-application Feedback from NSDC and Consultees	Response
Ramblers Association: It is of course essential that the integrity of the footpath crossing the site is respected and we would like it to end up looking like a "green lane". This would involve screening the site from view by appropriate hedgerow / tree planting	The footpath would remain and its hedgerow boundaries would be gapped up and maintained to a height of 3 m in order to assist in the screening of the Development.
NSDC Tree and Landscape Officer: References to NPPF including to protecting and enhancing the natural, built and historic environment, improving biodiversity; Development is sympathetic to local character; secure the long-term maintenance of newly-planted trees, while existing trees are retained wherever possible; minimising impacts on and providing net gains for biodiversity.	The Development would include a range of measures that provide biodiversity enhancement and screening, including scrub with trees, woodland, grasslands and the retention and enhancements of existing grassland habitats. This also provides landscape character restoration. Five trees (one U Category and 4 C Category) and 110 linear metres of existing hedgerow would be lost to facilitate the construction of a new and widened access from Staythorpe Road and a new emergency gated access. These would be adequately compensated for with the proposed planting of a woodland belt, hedgerows and 129 proposed trees.
Natural England: Refers to NSDC core policy, of particular relevance to landscape and visual issues (Core Policy 9 Sustainable Design and Core Policy 13 Landscape Character.	The design of the Development including landscape mitigation measures aims to be sustainable and make a positive contribution to landscape character and the landscape fabric of the Site. The LVA assess the effects of the Development on local landscape character (as described in the Newark and Sherwood Landscape Character Assessment Supplementary Planning Document (December 2013).
Natural England: concludes that (of relevance to landscape and visual issues): Mature hedgerows and woodland will need protecting and enhancing. A detail landscaping scheme is needed to address the visual/biodiversity impact on the surrounding countryside, improve biodiversity, be in keeping with the character assessment of the area... reach an age to give a meaningful impact (40 years) without having a negative impact.	The design of the Development including landscape mitigation measures aims to be sustainable and make a positive contribution to biodiversity and landscape character and landscape fabric of the Site over the long term.
NSDC comments on landscape and visual issues: reference is made to Core policies 9 and 13 in	The design of the Development including landscape mitigation measures aims to be sustainable and make a positive contribution to biodiversity and

Consultation with Newark and Sherwood District Council	
Pre-application Feedback from NSDC and Consultees	Response
relation to sustainable design and landscape character.	landscape character and landscape fabric of the Site over the long term.
NSDC comments on landscape and visual issues: reference is made to the Trent Washlands Regional Character Area and Local Policy Zone (LPZ) TW11.	The LVA appraises the effects on local landscape character, taking note of the sensitivity and policy actions for LPZ TW11.
NSDC comments on landscape and visual issues: in relation to the height of the development and screening, the Council states that: <i>"The submission contends that the development would be seen in the backdrop of the existing power station and substations near the site, however, these facilities are barely visible from Staythorpe Road and the majority of dwellings due to existing mature tree planting and existing pylons are also sensitively positioned to limited visual intrusion from these significant receptors to the west and south-west."</i>	The appraisal acknowledges that the backdrop of the existing substation and power station would be less visible in views from Staythorpe Road but would be visible in more distant and elevated views.
NSDC comments on landscape and visual issues: in relation to the design and layout of the Development, the Council states that: <i>"Any illumination would be strongly resisted to mitigate any impact on the character of the open countryside. All existing hedgerows and trees should be retained."</i>	All existing hedgerows and trees to be retained would be strengthened and enhanced as part of a Site-wide landscape mitigation plan. Illumination will be kept to minimum, likely to be needed for emergency lighting or security lighting directed at appropriate angles. A lighting plan can be agreed pre-construction to ensure that the development would not result in inappropriate illumination and light-spill.
NSDC comments on landscape and visual issues: <i>"LVIA SZTV and viewpoint location information has not been submitted with this enquiry. Please note that Nottinghamshire County Council's landscape team is now managed by Via and you may wish to contact them directly to discuss the acceptability of potential viewpoint locations."</i>	Via was contacted on 26/07/2022 via email, with a list of proposed viewpoints. Although an initial acknowledgment was received, no comments on the viewpoints were provided. The choice of viewpoints reflects a variety of receptors and locations.
NSDC comments on landscape and visual issues: <i>"It is recommended that the results of your Landscape and Visual Impact Assessment work are used to inform the exact siting of the proposed development with the results of which submitted with any future application to identify and assess the likely significance of the landscape visual effects of the proposed development on the surrounding area including assessments from multiple viewpoints within a zone of theoretical visibility. It is suggested consideration is given to ways in which the proposal could action the policy of 'conserve' in this area as required by CP13 of the Core Strategy."</i>	An initial appraisal of likely effects was conducted in order to draw up a preliminary landscape and visual mitigation plan, which was further development based on a range of factors including operational constraints, ecological considerations and landscape and visual issues, such as conserving and restoring landscape character and mitigating visual effects.
NSDC comments on landscape and visual issues: <i>"It is currently considered that it may not be possible to acceptably mitigate the visual and landscape character impacts of the proposed development given its scale, height and alien"</i>	The LVA addresses potential impact on landscape character and views. There would be visual effects on views experienced by local residents along Staythorpe Road. The landscape mitigation plan addresses the issue of views and has been

Consultation with Newark and Sherwood District Council	
Pre-application Feedback from NSDC and Consultees	Response
<i>appearance. The scale and building requirements of the proposed development should be justified as being necessary to the development in order to seek to balance the need and scale against the visual impacts to the countryside. Furthermore, it has been indicated that the proposed structures would need to be raised and sat above a certain flood level on the site to reduce flood risk. No information has been submitted to state how much higher above existing ground level the units would need to sit. This could significantly increase the visual prominence of the development on the site, which would make an acceptable degree of mitigation even more difficult to successfully achieve. The landscape and visual impacts therefore remain a significant concern."</i>	developed to mitigate potential views, and contribute positively to local landscape character and the landscape fabric of the Site.
NSDC comments on landscape and visual issues: In relation to Public Rights of Way, the Council states that: <i>"... As the effect of a development on a right of way is a material planning consideration, it is important that the full consideration is given to the setting of these rights of way from the user's perspective and a suitable separation distance and buffer between the proposed development and the right of way to enable landscape planting to take place to soften any potential impact, would be strongly recommended."</i>	The footpath would remain and its hedgerow boundaries would be maintained up to a height of 3 m in order to assist in the screening of the Development.
NSDC comments on landscape and visual issues: In relation to Residential Amenity, the Council states that: <i>"The nearest residential property is located approx. 18m away from the site within Staythorpe settlement but with many other dwellings located at varying distances away from the site. Full consideration needs to be given to residential dwellings with regard to visual intrusion..."</i>	The LVA appraises the effects on local residents and surrounding settlements. The appraisal acknowledges that residents on Staythorpe Road may be affected by the Development, but that with distance, and screening by intervening vegetation and built form effects elsewhere would be limited. The landscape mitigation plan addresses the visual effects on local views from Staythorpe Road.
NSDC comments on landscape and visual issues: The Council has proposed that cumulative effects should be considered within a 5 km radius of the Site, stating that: <i>"The proposal would also have to be carefully considered in the light of the existing impacts of sub-stations, Staythorpe power station and railway line in close proximity to the enquiry site and the resultant cumulative impacts, especially on the amenity of nearby residents, but also in relation to visual and landscape character impacts would have to be presented within any</i>	The LVA includes a section on cumulative effects, based a study area of 5 km from the Site boundary. This should preclude the developments suggested by the Council, as they are located beyond the 5 km study area. However, they have been included along with another development to the north of the Site. The developments included are: • Staythorpe Power Station; • Staythorpe Substation; • 132 kV and 33 kV electricity transmission infrastructure; • The Grange Solar Farm; • Cotham Lane Solar Farm; • Newark Wind Farm; and

Consultation with Newark and Sherwood District Council	
Pre-application Feedback from NSDC and Consultees	Response
<i>formal submission and all cumulative impacts should be adequately and fully addressed."</i>	Ollerton Road wind turbines.

2.4 LVA Methodology & Relevant Guidelines

The methodology for the LVA is included in Appendix A and is based on current best practice guidance, namely:

- Landscape Institute/ Institute of Environmental Management and Assessment (2013), 'Guidelines for Landscape and Visual Impact Assessment', 3rd Edition ('GLVIA3')¹;
- Landscape Institute (2013), GLVIA3 Statement of Clarification 1/13²;
- Landscape Institute (2019), 'Visual Representation of Development Proposals', Technical Guidance Note³;
- Landscape Institute (2021), 'Assessing landscape value outside national designations', Technical Guidance Note 02/21⁴; and
- Natural England (2014), 'An Approach to Landscape Character Assessment'⁵.

The two components of LVA referred to throughout the report are based on the following definitions:

- 'Assessment of landscape effects: assessing effects on the landscape as a resource in its own right'⁶; and
- 'Assessment of visual effects: assessing effects on specific views and on the general visual amenity experienced by people'⁷.

Development may have a direct (physical) effect on the landscape in which it is located as well as an indirect or perceived effect from landscape character areas surrounding it. The potential landscape effects occurring during the construction and operational stages of the Development may therefore include, but are not restricted to, the following:

- Changes to landscape elements: the addition of new elements or the removal of vegetation, buildings and other characteristic elements of the landscape character type;
- Changes to landscape qualities: degradation, erosion, or reinforcement of landscape elements and patterns, and perceptual characteristics, particularly those that form key characteristic elements of landscape character types;
- Changes to landscape character: landscape and character may be affected through the effect on characteristic elements (including perceptual characteristics), landscape patterns and attributes and the cumulative addition of new features, the magnitude

¹ Landscape Institute and Institute of Environmental Management and Assessment, 2013, *Guidelines for Landscape and Visual Impact Assessment*, 3rd Edition, Routledge, London. [Accessed 01.08.2022]

² The Landscape Institute (2015) GLVIA3 – Statements of Clarification. Available online at: <https://www.landscapeinstitute.org/technical-resource/glvia3-clarifications/> [Accessed 01.08.2022]

³ The Landscape Institute, *Visual Representation of Development Proposals, Technical Guidance Note 06/19*, 17th September 2019. [Accessed 01.08.2022]

⁴ The Landscape Institute, *Assessing landscape value outside national designations*, Technical Guidance Note 02/21, 26th May 2021. Available online at: <https://www.landscapeinstitute.org/publication/tgn-02-21-assessing-landscape-value-outside-national-designations/> [Accessed 01.08.2022]

⁵ Natural England (2014), *An Approach to Landscape Character Assessment*. Available online at: <https://www.gov.uk/government/publications/landscape-character-assessments-identify-and-describe-landscape-types> [Accessed 01.08.2022]

⁶ Ibid. page 21.

⁷ Ibid. page 21.

and presence of which is sufficient to alter a notable part of the overall landscape character type of a particular area; and

- Cumulative landscape effects: where more than one development may lead to a potential landscape effect.

Visual effects are concerned wholly with the effect of development on visual receptors and general visual amenity. Visual effects are identified for different receptors (people) who would experience the view such as at their places of residence, during recreational activities, at work, or when travelling through the area. Visual effects may include the following:

- Visual effect: change in the appearance of the landscape as a result of development. This may include changes to the quality of the view, ability of the visual receptor to appreciate the view, or changes to the characteristic elements within the view. These changes can be beneficial (i.e. positive or an improvement) or adverse (i.e. negative or a detraction); and
- Cumulative visual effects: the cumulative or incremental visibility of similar types of development may combine to have a cumulative visual effect.

A detailed description of the methodology used in the LVA has been provided in Appendix A.

2.4.1 Cumulative Effects

Following Scoping Feedback from NSDC, as part of a cumulative appraisal, a search for other similar planned or operational developments was undertaken. NSDC had requested the consideration of a solar farm and a three-turbine wind development near Cotham, south of Newark. The Grange Solar Farm is a 49.9 MW development located on land adjacent to Cotham Lane, and is also adjacent to another, smaller, operational solar development, called Cotham Lane Solar Farm (4.6 MW). Newark Wind Farm comprises three turbines between 105 and 126.5 m to blade tip.

In addition, three wind turbines with a blade tip height of 102 m are located off Ollerton Road, north of Staythorpe. They each have single planning references, but are geographically closely associated with each other, and as such they will be regarded as a single group within the appraisal, referred to as the 'Ollerton Road turbines'.

Small scale solar (less than 1 MW) and wind (less than 100 m to blade tip) developments are not included in the cumulative appraisal.

Whilst there are unlikely to be any important cumulative effects arising in relation to the above developments, Staythorpe electricity substation (located adjacent to the Site), Staythorpe Power Station (located c. 350 m to the south-east), and the 132 kV transmission network emanating from the substation are the major developments contributing to the cumulative baseline due to their location, scale and visual prominence. The site selection for the Development exploits this concentration of electricity generation and transmission infrastructure within the area, avoiding the spread of similar development in other locations and benefitting from the intimate visual association with existing adjacent larger scale infrastructure.

2.5 Limitations of the Appraisal / Assumptions and Limitations

The preliminary desktop study identified there would be limited adverse effects on occupiers of residential properties south of the Site. This is due to screening by existing vegetation on or immediately adjacent to the southern boundary which, together, filters or restricts views north towards the Site.

The appraisal of residential properties, or groups of properties, is limited to those within c. 0.5 km of the Development. A number of these properties are accessed from private farm

tracks / roads, and due to the limitations of access, they have been appraised from the nearest public road or footpath with the aid of aerial photographs. No properties have been accessed from their curtilage and as such the appraisals are an estimation and have been undertaken from the nearest available public viewpoint using professional judgement.

It is acknowledged that there would be other views to the proposed Development. A selection of representative viewpoints has been analysed from a variety of directions and distances and to illustrate potential effects on the landscape context, and a range of visual receptors (e.g. road users, PRoW users, residential receptors and those undertaking recreation), to provide an overview 'in the round'.

2.6 Study Area

Different study areas have been used in order to focus on potentially important effects according to guidance as follows:

- A 0.5 km approximate radius area from the planning application boundary for the Site has been used to appraise visual effects on residential properties;
- A 1 km radius area from the planning application boundary has been used to appraise visual on residential properties, Public Right of Way (PRoW) users and users of local roads; and
- A 2 km radius area has been used to appraise effects on landscape character and landscape designations, and visual effects within the wider landscape.

Beyond these areas it was concluded that the Development would be highly unlikely to have any meaningful influence on the landscape resource or visual amenity due to the low-lying nature of the Development.

The extents of the study areas are shown in Figure 1.1.

2.7 Desk-Based Study

Information for the LVA was gathered from the following key sources:

- Newark and Sherwood District Council Amended Core Strategy (2019);
- Newark and Sherwood Landscape Character Assessment Supplementary Planning Document (2013);
- Newark & Sherwood Green Infrastructure Strategy (2010);
- Natural England, National Character Areas (2013);
- Ordnance Survey mapping at 1:50,000 and 1:25,000 scales;
- Aerial Photography;
- Public GIS databases;
- Lidar data;
- MAGIC website; and
- Google Earth, Street View and Maps.

2.8 Field Study

Following the desk-based appraisal, fieldwork was undertaken in July 2022.

Key activities undertaken during the fieldwork stage were:

- To augment and verify published descriptions of landscape character with fieldwork observations;
- To undertake an appraisal of the quality or condition of the baseline landscape and visual resource;
- To identify any significant features and elements in the landscape such as vegetation or built form that would screen the Development and thereby verify or refine the ZTV;

- To visit each viewpoint location identified during the desk study and screening report, and to microsite each viewpoint location in accordance with good practice guidance and to obtain accurate coordinates;
- To undertake viewpoint photography at each viewpoint location; and
- To identify landscape features and elements that may be altered or removed as a result of the Development.
- The fieldwork stage also included a provisional appraisal of effects on the following receptors:
 - Landscape resource including landscape character, landscape designations, landscape sensitivity, landscape features and landscape elements;
 - Residential and recreational receptors;
 - Roads; and
 - Public footpaths, bridleways and byways.

2.9 Zone of Theoretical Visibility (ZTV)

To assist with defining the area within which the Development would be likely to be seen, and to help identify potential visual receptors and viewpoint locations, Zone of Theoretical Visibility (ZTV) diagrams have been prepared.

ZTVs are computer-generated from a digital terrain model of the 2km radius study area (using OS Terrain 5 at 5m resolution), with a 3D model of the Development inserted (taken as 4 m above existing ground levels). They illustrate the theoretical visibility of the Development throughout the study area based on an average eye height of an adult person (taken as 1.6 m).

In this instance, two ZTVs have been prepared: 'bare-earth' and 'screened' (refer to Figures 1.4 and 1.5). The bare-earth ZTV illustrates theoretical visibility of the Development without the screening afforded by buildings and vegetation and, as such, it represents a 'worst-case scenario'. The Screened ZTV takes account of screening by buildings and woodland in excess of 3 m high (identified from OS Vector Map District Data). However, it does not take into account hedgerows, individual and groups of trees and other scattered vegetation which are characteristic features of the study area. In reality, therefore, actual visibility of the Development is likely to be significantly less than that indicated by the Screened ZTV when factoring in additional screening by hedgerows etc.

2.10 Viewpoints

Twelve viewpoints have been selected to illustrate likely views of the Development from nearby residential properties, the local road network, PRowS (footpaths, bridleways and byways) and other publicly accessible locations. Some of the viewpoints also illustrate the local landscape context surrounding the Site and other existing development that may be deemed to give rise to cumulative effects.

The viewpoints were selected initially by reference to the ZTVs and were then refined in the field to take account of screening by vegetation, buildings and local landform. Following methodology established in GLVIA3, the viewpoints were chosen based on the following criteria:

- Viewpoints should be representative of the likely impacts;
- Viewpoints should show a range of different types of views;
- Viewpoints should be representative of a range of different receptor groups;
- Viewpoints should be representative of a range of distances and directions; and
- Viewpoints should be representative of the varying views of the Development within the landscape.

A summary of the final viewpoints included in the LVA is provided in Table 2.2 below. The location of the viewpoints is shown in conjunction with the ZTVs in Figures 1.4, 1.5 and 1.6. All viewpoints are restricted to publicly accessible locations.

Baseline photographic panoramas located at each viewpoint in the direction of the Site are illustrated on Figures 1.10a – 1.10m. Both summer and winter views are provided. When deciduous vegetation is in leaf there may be additional filtering or screening of views, and the loss of this additional screening has been accounted for in the appraisal of effects.

Photomontages have also been provided for four viewpoints: 1a, 1b, 2 and 3.

Table 22: LVA Selected Viewpoints

VP Ref	Viewpoint Name/Location	Reason for Selection	Distance to Site (m)*
1a	Staythorpe Road/Grange Farm	Viewpoint illustrates close proximity views from settlement	20.78 m
1b	Staythorpe Road/Pingley Lane	Viewpoint illustrates close proximity views from settlement	20.58 m
2	Public Right of Way within the Site	Viewpoint illustrates view from PRoW into the Site	0 m
3	Staythorpe Road/Behay Gardens	Viewpoint illustrates close proximity views from settlement	21.77 m
4	Staythorpe Road, North of Site	Viewpoint illustrates close proximity views from settlement	10.39 m
5	Public Right of Way at Southern Site Boundary	Viewpoint illustrates view from PRoW at Site entrance	3.27 m
6	Public Right of Way, North of Behay Gardens	Viewpoint illustrates views from PRoW	218.32 m
7	Public Right of Way, North of Rolleston	Viewpoint illustrates views from PRoW and settlement	629.25 m
8	Public Right of Way, West of Staythorpe	Viewpoint illustrates view from PRoW, midway between Staythorpe and Upton	902.22 m
9	Public Right of Way, Eastern Edge of Averham	Viewpoint illustrates view from PRoW, settlement, Conservation Area and Scheduled Monument	1.02 km
10	Public Right of Way, Eastern Edge of Upton	Viewpoint illustrates view from PRoW, settlement and Conservation Area	1.60 km
11	Public Right of Way, Micklebarrow Hill	Viewpoint illustrates views from the highest point within the study area, PRoW and residential	1.63 km

**As measured from the viewpoint to the approximate location of the nearest Site boundary.*

The viewpoint photography has been undertaken to Landscape Institute guidance and details are set out in Appendix A.

2.11 Photomontages

Photomontages have been prepared to illustrate the scheme at Year 3 and Year 7. These timings were selected to reflect the proposed landscape mitigation as part of advance planting works, ahead of the infrastructure construction period. The photomontages were changed to show mitigation at Years 3 and Year 7 to illustrate the level of screening available in the early years, prior to maturity.

Advance planting along the perimeter of the scheme, along Staythorpe Road, would allow newly planted native trees and hedgerows to establish and the management of the existing hedgerow to grow out and be maintained at 3m in height. This would provide filtering and a degree of screening for the views from residential properties and the pathway along Staythorpe Road during construction.

The LVA written assessment has assessed the scheme at Year 1 and Year 15 intervals, at first operational stage post construction, and when the landscape planting has matured. This is good practice as from Year 15 any mitigation would have matured sufficiently to provide good screening benefits, although some filtering to views and general landscape benefits would be available much earlier.

The photomontages accompanying this report (Viewpoints 1a, 1b, 2 and 3, Figures 1.11 - 1.14) are presented to illustrate the Development in the context of the local landscape character. Viewpoint 2 was selected as a photomontage location to represent a view from the PRow, as a worse case

Trees and hedgerows are illustrated at the following heights:

- Year 3 – specimen and woodland trees are illustrated at 2 – 2.5m height and native hedgerow at 1.25 m height; and
- Year 7 - specimen and woodland trees are illustrated at 3.5 – 4.5 m height and native hedgerow at 2m height.

3 LANDSCAPE LEGISLATION AND POLICIES

This Section summarises current legislation, planning policy, and guidance of national and local importance that are pertinent to landscape and visual matters, and which are likely to have a bearing on the Site with implications for the Development.

3.1 National Planning Policy Framework (NPPF)⁸

The National Planning Policy Framework (NPPF) sets out the Government's strategic vision for the planning system in England and how it is expected to be applied at a local level in development plans and planning decisions. The NPPF places great emphasis on plans and developments that contribute to sustainable development.

Policies and paragraphs which cover landscape and visual matters and which are potentially relevant to the Site and the Development include:

- Paragraph 130, which covers design although matters of layout and appearance are not particularly relevant to the type of development proposed here. However, bullet b) notes that developments should incorporate effective landscaping, whilst bullet c) requires developments to be sympathetic to local character and their landscape setting;
- Paragraph 134, which also covers design issues and notes that decision-makers should refuse permission for development that fails to take opportunities available to improve the character and quality of an area;

⁸ Ministry of Housing, Communities and Local Government (July 2021), National Planning Policy Framework. Available online at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2> [Accessed 01.08.2022]

- Paragraphs 152 and 158 which deal with climate change, with para. 148 emphasising the importance of the planning system in supporting the transition to a low carbon future, including support for renewable and low carbon energy. Bullet b) of para. 154 also requires decision-makers, when determining applications for renewable and low carbon schemes, to grant consent if the impacts are (or can be made) acceptable;
- Paragraph 174, which deals with the natural environment with bullets a) and b) noting that policies and decisions should not only protect and enhance valued landscapes, but also recognise the intrinsic character and beauty of the wider countryside. Bullet d) also notes that new development should minimise impacts on, and provide net gains for, biodiversity; and
- Paragraph 176, which also deals with the natural environment, specifically development within designated landscapes (including AONBs) where it notes that great weight should be given to conserving and enhancing their landscape and scenic beauty. It says nothing about proposals that lie outside of, but adjacent to, designated areas and which may affect their setting (as is the case here).

3.2 Regional and Local Planning Policy

The determining authority for this application is Newark and Sherwood District Council (NSDC).

At a local level, the adopted Local Development Framework (LDF) for NSDC currently comprises a number of documents, of which the most pertinent to this LVA are:

- Amended Core Strategy (2019);
- Allocations and Development Management DPD (2013);
- Supplementary Planning Documents, in particular the Newark and Sherwood Landscape Character Assessment Supplementary Planning Document (2013); and
- Newark & Sherwood Green Infrastructure Strategy (2010).

3.2.1 Newark and Sherwood District Council Amended Core Strategy (2019)

The Amended Core Strategy sets out Newark and Sherwood District Council's spatial policy framework for delivering the development and change needed in the District up to 2033.

Key policies covering landscape and visual matters that are potentially relevant to this LVA are listed below.

- **Core Policy 9 – Sustainable Design:** requires developments to demonstrate a high standard of sustainable design, protect and enhance the surrounding natural environment, and contribute to and sustain the rich local distinctiveness of the District.
- **Core Policy 12 – Biodiversity and Green Infrastructure:** states the Council will support developments which conserve and protect the District's ecological, biological and geological assets, take into account sites of international national and local significance, and enhance the biodiversity and geological diversity of the District. It also requires developments to maximise opportunities to restore biodiversity and geological diversity and increase the District's provision of and access to green infrastructure.
- **Core Policy 13 – Landscape Character:** states Developments should positively address the implications of relevant Policy Zone(s) defined in the Landscape Character Assessment Supplementary Planning Document. Development should also protect and enhance the surrounding area's landscapes, particularly its valued landscapes.

3.2.2 Allocations & Development Management (ADM) (2013)

The main purpose of the ADM s to set out allocations of land for new housing, employment, retail and other development in the District's main settlements in order to meet the needs of Newark and Sherwood until 2026 and beyond. The document also sets out sites requiring continued protection from development (such as open space and green infrastructure designations).

Key policies covering landscape and visual matters that are potentially relevant to this LVA are listed below.

- **Policy DM5 – Design:** Developments should be assessed against, and adhere to, specified sustainable design criteria. Developments need to provide safe and inclusive access and appropriate levels of parking, must mitigate any detrimental impacts on surrounding amenity and protect and enhance natural features within or adjacent to the site, and developments should avoid harmful ecological impacts and reflect and respect the district's landscape and character.
- **Policy DM7 – Biodiversity and Green Infrastructure:** requires Development to protect, promote and enhance green infrastructure and contribute to the ecological network. Proposals should not be on, or affect, national or international level ecological designations unless the justification clearly outweighs the site's nature conservation value. Up-to-date ecological assessments are required for Developments affecting any national or international ecological designations or sites of regional or local importance.

3.2.3 Newark & Sherwood Green Infrastructure Strategy (2010)

The Green Infrastructure Strategy *"will allow for the expansion of settlements whilst ensuring that the District, its assets and landscapes suffer no negative effects and instead prosper from new development. Whilst new development is the main driver, the need for a high level of environmental quality, provision of recreational opportunities and access to green space, and the need to respond to the threats and challenges of climate change for communities and wildlife has also shaped the Strategy's development."*⁹

The strategy is informed by an evaluation of public need and opportunity. Needs are identified as:

- Health and wellbeing;
- Climate change and flood risk;
- Community needs for green space; and
- Environmental quality.

Figure 5.5 in the Green Infrastructure Strategy is useful in assessing the potential needs and opportunities within the Study Area, and in particular the Site and its locale. The need identified for the Site and the locale is relatively low, while the opportunities are within the medium range.

3.2.4 Planning Practice Guidance for the Natural Environment

This document relates to the protection of biodiversity but also has a section relating to landscape and reiterates policy set out in the NPPF. It clarifies that land outside the boundaries of National Parks and ANOB *'often makes a contribution to maintaining their natural beauty, and where poorly located or located developments can do significant harm. This is especially the case where long views from or to a designated landscape are identified as important, or where the landscape character of land within and adjoining the*

⁹ Newark & Sherwood District Council (2010) *Newark & Sherwood Green Infrastructure Strategy*, page 1. Available online at: <https://www.newark-sherwooddc.gov.uk/media/newark-and-sherwood/images-and-files/planning-policy/pdfs/open-space-and-green-infrastructure/green-infrastructure-strategy/CSEB18-Green-Infrastructure-Strategy.pdf> [Accessed 01.08.2022]

*designated area is complementary. Development within the setting of these areas will therefore need sensitive handling that takes these potential impacts into account’.*¹⁰

3.3 Landscape Planning Designations

As part of the baseline, any value attached to the landscape within the study area is taken into account. This usually takes the form of landscape-related designations valued for their wild qualities or scenic beauty at a national, regional or local level such as National Parks, Areas of Outstanding Natural Beauty (AONBs) and Special Landscape Areas.

The baseline assessment also takes account of any protected features, the presence of which may indicate value at a national, regional or more local level. Protected features mostly relate to cultural heritage or nature conservation assets such as World Heritage Sites, Ancient Monuments, Conservation Areas, Listed Buildings, Historic Parks and Gardens, Sites of Special Scientific Interest, Nature Reserves, Ancient Woodland, etc.

Landscape-related designations and protected features identified within the Site and wider study area from a search of the MSDC website and MAGIC website¹¹ are listed in Table 3.1 below and shown Figure 1.6.

There are no international or national nature conservation sites within the study area.

Table 3.1: Landscape & Planning Designations and Protected Features

Landscape Designations &/or Protected Features	Present Within Site	Present within 2 km Study Area
National Parks	None	None
Areas of Outstanding Natural Beauty (AONBs)	None	None
Special Landscape Areas (or equivalent)	None	None
Green Belt	None	None
Country Parks	None	None
World Heritage Sites	None	None
Scheduled Monuments	None	Yes
Conservation Areas	None	Yes
Listed Buildings	None	Yes
Registered Historic Parks and Gardens	None	None
Registered Battlefields	None	None
National Trails / National Cycle Routes and Long Distance Footpaths	None	Yes
Public Rights of Way (PRoW)	Yes	Yes

¹⁰ Planning Practice Guidance for the Natural Environment, (paragraph 042, ID: 8-042-20190721. Available online at: <https://www.gov.uk/guidance/natural-environment> [Accessed 01.08.2022]

¹¹ MAGIC website. Available online at: <https://magic.defra.gov.uk/> [Accessed 01.08.2022]

Landscape Designations &/or Protected Features	Present Within Site	Present within 2 km Study Area
Ancient Woodland	None	Yes
Nature Reserves	None	Yes
Sites of Special Scientific Interest (SSSI)	None	None
Ramsar Sites	None	None
Special Areas of Conservation	None	None
Special Protection Areas	None	None

3.4 Cumulative Appraisal

In addition to assessing the Development as a standalone scheme, the LVA also considers the additional effects on landscape character and visual amenity of the Development in conjunction with other related developments in the vicinity. This is discussed further in Section 9.6.

Cumulative effects are additional effects on key characteristics of landscape character and / or on views and visual amenity that arise when the Development is seen or experienced in conjunction with one or more similar developments from a particular location. Cumulative effects on views and visual amenity may also occur sequentially where two or more similar developments may be seen as part of a journey, for instance, along a road or recreational route.

As part of the baseline, a search was undertaken of BESS sites, wind energy and solar sites and electrical transmission and distribution structures that are operational, approved or subject of a valid planning application within 5km of the Site. This distance was identified in pre-application feedback from Newark and Sherwood District Council.

All the developments found are operational sites, identified as follows:

- Staythorpe Power Station, located c. 350 m to the east of the Site;
- Staythorpe Substation, also located off Staythorpe Road, c. 11 m (at its closest point) to the north-east of the Site;
- 132 kV and 33 kV electricity transmission infrastructure. The 32 kV overhead line passes through the Site, while the 132 kV overhead line with towers criss-crosses the study area;
- Ollerton Road wind turbines (planning references 11/00276/FUL, 12/01763/FUL and 14/004442/FUL), located off Ollerton Road, c. 4.9 km to the north of the Site;
- The Grange Solar Farm (planning reference 19/01408/FULM), located at Cotham Lane, Newark, c. 5.3 km to the south-east of the Site;
- Cotham Lane Solar Farm (planning reference 11/00333/FULM), located at Cotham Lane, Newark, c. 6 km to the south-east of the Site; and
- Newark Wind Farm (planning reference 11/01588/FULM), located at Cotham Lane, Newark, c. 5.7 km to the south-east of the Site.

4 BASELINE CONDITIONS

This Section describes the baseline landscape character, designations and visual amenity of receptors against which the Development will be appraised. This has been identified through desktop studies supplemented by field observations of the Site and wider study area.

4.1 Landscape Character of the Site

- The Site is located in proximity to Staythorpe, a small village c.4 km to the west of Newark. The Site extends to an area of 10.07 hectares (ha), comprising the development area;
- The fields are bordered by existing hedgerows and hedgerow trees. Existing vegetation creates screening along the southern boundary, adjacent to the railway line and the PRoW through the Site, also forming a visual backdrop to the Site in views from Staythorpe Road;
- The Site is relatively flat, levelled at c. 12-13 m (AOD) with land rising gently towards the north-west, with Micklebarrow Hill being the highest point within the study area, at 56 m; and
- The proposed development is located within two small fields divided by a public footpath with hedges and adjacent drainage ditch, which are under agricultural use for the cultivation of cereal crops.

4.2 Landscape Character of the Study Area

Staythorpe Road runs east-west along the Site's northern boundary and connects the A617 and the small village of Rolleston, to the south-west of Staythorpe. The A617 road is located approximately 650 m to north east from the Site.

Staythorpe Power Station, Staythorpe National Grid Substation and associated overhead lines and pylons, and three wind turbines, are dominant infrastructure landscape features within the study area.

The 2 km study area is dissected by a railway line that runs east-west, along the southern Site boundary at approximately 17 m from the Site. It connects Nottingham with Newark and is used for both passenger and freight services. The local railway station is at Rolleston.

The River Trent dissects the 2 km study area from north-east to south-east, adjacent to the south and east of Staythorpe Power Station and the village of Averham. At its closest point to Staythorpe, the river is c. 1.3 km to the south-east.

The long distance recreational route, the Trent Valley Way, passes through the 2 km study area between the north-west and south-west, following the western bank of the River to the south (with a short deviation to the west of woodland south of Averham) and the road network to the north.

The larger settlements within the study area, other than Staythorpe, are Averham (c. 900 m to the north-east), Farndon (c. 1.7 km to the south-east), Kelham (c. 2 km to the north-west), Rolleston (c. 830 m to the south-east) and Upton (c. 1.4 km to the west-north-west), and includes scattered farmsteads and a small number of individual properties.

Southwell Recourse / Golf Course is located approximately 1.1 km to the west-south-west of the Site. The Farndon Ponds Local Nature Reserve is located c. 1.4 km to the south-east, and Spring Wood Ancient Woodland c. 2 km to the north-west, of the Site.

The 2 km study area is primarily agricultural in characters comprising fields of medium to large size but irregular in shape, including retained burgage plots at Upton. Most are in arable use, but there some areas used for grazing. Most fields are bounded by hedgerows with trees, with some following drainage ditches. The general condition of the agricultural landscape is good but unremarkable.

There are few roads within the study area. The principal road is the A617, passing to the north of Averham. There are two other unclassified roads, which provide important links across the study area. Staythorpe Road links the A617 at Averham with Rolleston to the south-west, while Main Road/Main Street links the A617 to the north near Micklebarrow Hill with Upton to the west. Other narrower lanes, streets and farm access roads/tracks are relatively few in number in number across the study area.

The Ordnance Survey mapping and aerial photography of the Site and the wider 2 km study area are illustrated in Figures 1.1-1.2. The topography of the Site and the wider study area is illustrated in Figure 1.8.

4.3 Landscape Character Areas

An appraisal of the baseline landscape character has been considered at three levels:

- National landscape character, in relation to National Character Area (NCA) profiles produced by Natural England¹²;
- Newark and Sherwood Landscape Character Assessment Supplementary Planning Document (2013)¹³; and
- Local / Site scale, based on field observations of the study area and the site itself.

4.3.1 National Landscape Character - NCA 48 Trent and Belvoir Vales

At a national level, the study area falls within National Character Area (NCA) 48 Trent and Belvoir Vales. Direct and indirect landscape effects on the National Character Area (NCA) profiles have been scoped out of this assessment. The local landscape character assessment, with more detail on the local landscape has been used within this assessment.

Landscape characteristics detailed within the NCA profiles are likely to be represented over a wide area of the NCA. As such, any changes at the Site level relative to the NCA would be extremely small in scale and are unlikely to impact upon those key landscape characteristics identified for the NCA. As such, the National Character Area (NCA) profiles are not considered further in the LVA.

4.4 Regional and Local Landscape Character

The landscape character of the 2 km study is set out in the Newark and Sherwood Landscape Character Assessment Supplementary Planning Document (December 2013), a district-level assessment of landscape character, which forms part of the wider county-level landscape character assessment.

Regional and local Landscape character is illustrated in Figure 1.7.

The following description identifies the key characteristics and key sensitivities of the County Character Areas (CCA), followed by a review of the more detailed constituent Landscape Policy Zones (LPZ), which themselves can be categorised into landscape types.

Within the published landscape character assessment, each LPZ character description is accompanied by an analysis of condition and an assessment of sensitivity, which are used to inform a final statement on landscape actions – a series of policies designed to conserve, reinforce, create or restore key characteristics.

The Site is located within the Trent Washlands CCA. The host LPZ is 'TW11 Cromwell, North and South Muskham, Kelham, Averham, Staythorpe and Rolleston Village Farmlands'. It is within this LPZ that direct landscape effects would be experienced resulting from the introduction of the Development.

Neighbouring LPZs would experience varying levels of indirect effects, but it is expected that those indirect effects would be negligible, given the screening by woodland, trees and hedgerows and other development, within a landscape or relatively level terrain (see Figure

¹² Natural England 2013, National Character Area Profile NCA Profile: 48: Trent and Belvoir Vales (NE429). Available online at: [NCA Profile: 48: Trent and Belvoir Vales - NE429 \(naturalengland.org.uk\)](https://naturalengland.org.uk/nca-profiles/nca-profile-48-trent-and-belvoir-vales-ne429) Accessed 28.06.2022.

¹³ Newark and Sherwood Landscape Character Assessment Supplementary Planning Document (2013). Available online at: [Landscape character assessment SPD | Newark & Sherwood District Council \(newark-sherwooddc.gov.uk\)](https://newark-sherwooddc.gov.uk/landscape-character-assessment-spd-newark-sherwood-district-council) Accessed on 28.06.2022.

1.3). As such, the appraisal will focus on the effects of the Development on the host LPZ (TW11) and assessment of all other LPZs has been scoped out.

4.4.1 Trent Washlands CCA

This is the host CCA. The relevant key characteristics of the CCA within the study area are:

- *The historical pattern of land use and settlement within the region is closely linked to the physical character of the valleys, with settlements along the Trent situated on the margins of the valley and the raised river terraces. The free-draining soils, water supplies and ease of communication have attracted people and settlement to the region at all dates.*
- *The Trent flows through the large urban centres of Nottingham and Newark in Nottinghamshire. The urban edges of Nottingham and Newark have radically altered the character of the Trent river corridor locally and the number impact of power stations and pylon lines, mineral extraction, urban encroachment, road and rail developments and agricultural intensification has led to alterations in the traditional pattern of land use and a fragmentation of landscape structure within much of the Trent river corridor.*
- *Away from the urban areas settlement is characterised by a nucleated pattern of villages and isolated farmsteads. These have retained their distinctive vernacular character, being of red brick and pantile roof construction. Modern houses have, however, been constructed in most settlements, introducing a suburban character to many villages, especially those situated close to the main cities and towns.*
- *Arable cultivation now dominates large areas of the river corridors, whereas previously it was confined to the river terraces. Within the Trent corridor a narrow band of riverside grassland is all that remains of a once extensive tract of meadowland and pasture. The meandering river channels are dominant components of the river corridor landscapes; however, along the Trent, high floodbanks often shield the river from view. Within the Trent corridor the river is most visible where associated with the steep wooded bluffs of the Trent Trench, upstream of East Stoke. In this area, and many others, the traditional riverine character of the valleys has been retained. The strength and unity of this character is greatest where there are features such as flood meadows, grazing animals, wooded bluffs, willow holts, mixed hedgerows, historical settlements, permanent pastures and irregular field pattern. Many areas are also rich with archaeological and historical features including deserted medieval villages, Roman fort sites, ridge and furrow, and crop marks.¹⁴*
- *Trent Washland LCA recognises that the area has historically been shaped by the presence of energy generation and transmission infrastructure, such as the Staythorpe Power Station, Staythorpe National Grid Substation and multiple high voltage overhead power lines.*
- *A framework of national policy, reflecting the need to increase the supply and usage of energy from low-carbon sources and to ensure that adverse impacts are satisfactorily addressed, has been put in place to help deliver these aims. Significantly, this carries the expectation that applications be approved, unless material considerations indicate otherwise, if their impacts (such as that on the landscape) are (or can be made) acceptable.*
- *Trent Washlands LCA recognises that with the transition to renewable energy, set out by both national and local policy, there are likely to be future applications for energy*

¹⁴ Newark and Sherwood Landscape Character Assessment Supplementary Planning Document (2013). Available online at: [Landscape character assessment SPD | Newark & Sherwood District Council \(newark-sherwood.gov.uk\)](https://www.newark-sherwood.gov.uk/landscapes/landscape-character-assessment-spd/) Page 286 – 287 [Accessed 01.08.2022]

*developments. The energy generation industry will therefore continue to be a dominant feature of the region.*¹⁵

4.4.1.1 **Landscape Policy Zone TW11 Cromwell, North and South Muskham, Kelham, Averham, Staythorpe and Rolleston Village Farmlands**

This is the host Landscape Policy Zone (LPZ).

The relevant key visual characteristics of the LPZ within the study area are:

- "A flat, large scale intensive arable landscape.
- Medium to large-sized semi-irregular fields with hedgerows intact but fragmented in places.
- Smaller field sizes adjacent to villages with pasture
- Former mineral extraction areas restored to open water, often with tree planting to periphery.
- Landscape fragmented by busy roads and railway.
- Winding roads between the villages with strong hedgerows.
- Nucleated villages with red brick and pantile roofed buildings to the historic core."¹⁶

The following conclusions within the Newark and Sherwood Landscape Character Assessment Supplementary Planning Document are used to define the overall landscape sensitivity of LPZ TW11.

*"The Landscape Condition is defined as **moderate**. The landscape has been fragmented in places by transport routes, including the busy A1 to the north east of the area. There are some detracting features which include the National Grid power station to the south of Averham, pylons, the railway line and busy roads. There is some commercial development, not always in keeping with a rural landscape. Overall the area is **visually coherent**."*

*"The Landscape sensitivity is defined as **moderate**. The historic time-depth has been degraded by intensive arable farming, transport routes and mineral extraction. However, the historic settlement with small areas of pasture and narrow county roads are characteristic of the Trent Washlands LCA. The historic parkland landscape still exists around Kelham Hall. The villages of Kelham and Averham are designate conservation areas. Overall the sense of place is **moderate**."*

*"Views are often open due to lack of tree cover and the flat valley landform. Within villages, and along winding often narrow country roads with hedgerows, views are more enclosed. The visibility of the PZ is **moderate**."*

The above contributing factors lead to the following assessment of landscape sensitivity:

*"A **moderate** sense of place with a **moderate** degree of visibility leads to **moderate** landscape sensitivity."*

Overarching Landscape Actions identified for this Policy Zone are **Conserve and Create**. They are describe in detail below.

Landscape Actions identified for the landscape features of this Policy Zone are:

- "**Conserve** and restore the traditional pattern of hedged fields – seek opportunities to restore the historic field pattern.
- **Conserve** the historic woodland and parkland landscape around Kelham Hall.

¹⁵ Newark and Sherwood Landscape Character Assessment Supplementary Planning Document (2013). Available online at: [Landscape character assessment SPD | Newark & Sherwood District Council \(newark-sherwooddc.gov.uk\)](#) Page 282 [Accessed 09.09.2022]

¹⁶ Newark and Sherwood Landscape Character Assessment Supplementary Planning Document (2013). Available online at: [Landscape character assessment SPD | Newark & Sherwood District Council \(newark-sherwooddc.gov.uk\)](#) Page 311 - 313

- **Seek** opportunities to restore arable land to permanent pasture/wet alluvial grassland close to the River Trent.
- **Promote** measures for strengthening the existing level of tree cover.
- **Strengthen** the continuity and ecological diversity of stream corridors. Built features.”

Landscape Actions identified for the built features of this Policy Zone are:

- “**Restoration** of mineral workings should provide varied habitats rather than large expanses of open water.
- **Conserve** the character and setting of village settlements of Cromwell, North and South Muskham, Averham, Staythorpe and Rolleston.
- **Conserve** the rural character of the landscape by concentrating new development around above existing settlements.
- **Conserve** historic field pattern by containing new development within historic enclosed boundaries, restoring hedgerow boundaries where necessary.
- **Conserve** historic sites within the landscape including Scheduled Ancient monuments and associated earthworks
- **Promote** sensitive design and siting of new agricultural buildings.
- **Promote** measures for reinforcing the traditional character of farm buildings using vernacular styles.”
- **Create** small scale woodlands/tree planting to soften new development, preferably in advance of development.”¹⁷

4.5 Landscape Designations, Protected Features and Heritage Designations

Landscape-related designations and protected features identified within the study area are summarised below and shown on Figure 1.6.

A number of cultural heritage assets have been appraised within this LVA in terms of their contribution to landscape character or to a visitor attraction in accordance with GLVIA3. Direct and indirect effects on cultural heritage features, for example effects on setting of an asset, are addressed separately within the cultural heritage assessment.

There are no trees within or adjacent to the Site which are covered by a Tree Preservation Order (TPO).

4.5.1 Listed Buildings

No Listed Buildings lie within the Site boundary but there are a number of listed properties within the study area. They are mostly Grade II listed, and three Grade I listed.

The assessment of the setting of listed buildings and cultural heritage features are assessed within the Heritage Impact Assessment.

4.5.2 Registered Battlefield

None are present within the 2 km Study Area.

4.5.3 Scheduled Monuments

The nearest Scheduled Monuments to the Site are shown in Table 4.1 below.

Detailed information on the setting of heritage assets within a 3 km radius are assessed in the Heritage Impact Assessment. However, the views for visitors to two scheduled

¹⁷ Newark and Sherwood Landscape Character Assessment Supplementary Planning Document (2013). Available online at: [Landscape character assessment SPD | Newark & Sherwood District Council \(newark-sherwooddc.gov.uk\)](https://www.newark-sherwood.gov.uk/landscapes/landscape-character-assessment) Page 311 – 313 Accessed on 28.06.2022.

monuments have been assessed as part of this LVA (reference Figure 1.6) in accordance with the methodology in Appendix 6A, aligned with GLVIA3.

There are unlikely to be any views of the Development due to intervening screening from intervening vegetation and/or other development. No meaningful visual effects on heritage assets are likely to be associated with this Development, and therefore have been scoped out of this assessment.

Table 4.14: Scheduled Monuments within 2 km

Scheduled Monuments within 2 km			
Name	Location	Distance from Site (km)	Grid Reference
Averham moat and enclosure (reference Viewpoint 9, from the PRoW on the edge of Averham, and east of the scheduled monument)	Averham	0.87	476550 354349
Rolleston manor: three moats, eight fishponds with sluices, ridge and furrow and a leat	Rolleston	1.15	474247 352736

4.5.4 Conservation Areas

The nearest Conservation Areas to the Site are shown in Table 4.2 below.

The LVA appraises Conservation Areas in terms of their contribution to the character of the landscape.

There are unlikely to be any views of the Development due to intervening screening from intervening vegetation and/or other development. No meaningful visual effects on Conservation Areas are likely to be associated with this Development, and therefore have been scoped out of this assessment.

Table 4.2: Conservation Areas within 2 km

Conservation Areas within 2 km		
Name	Location	Distance from Site (km)
Averham Conservation Area	Averham	0.69
Upton Conservation Area	Rolleston	1.34
Farndon Conservation Area	Farndon	1.75

4.5.5 Local Nature Reserves

There is one Local Nature Reserve within the 2 km study area. Farndon Ponds area is located approximately 1.4 km southeast of the Site. This lies outside of the ZTV and has not been included within this assessment.

4.5.6 Ancient Woodland

No Ancient Woodland can be found within the 2 km study area.

4.6 Visual Receptors

The visual appraisal draws on the ZTV, site visits and viewpoint analysis to determine the potential effects of the Development on views and visual amenity experienced by a variety of visual receptors (people) within the study area.

Visual receptors include people who:

- Live and work in the area;
 - Visit the area for a specific reason (for instance, visitors to tourist or recreational attractions); and
 - Pass through the area (on foot, by horse, by bicycle, by car or by train).
- In this instance, the following key receptor groups have been identified within the study area:
- Occupiers of residential properties (individually, in groups or part of larger settlements);
 - Users of sign-posted recreational routes (local footpaths, bridleways and byways);
 - People engaged in outdoor sport or recreation; and
 - Users of the existing road and rail network where applicable (motorways, A- and B-class roads, local roads and railways).
- Within these key receptor groups, the appraisal of effects focusses on receptors who are most likely to undergo the 'greatest' change in visual amenity arising from views gained of the Development.

4.6.1 Settlements and Residential Properties

The Site is located in a predominantly rural landscape in which settlement is characterised by villages and scattered farmsteads and residential properties. This pattern of settlement is shown on Figure 1.1.

The main settlements identified within the study area, and included in the appraisal, are the following villages (in broadly distance order from the Site):

- Staythorpe;
- Rolleston;
- Averham;
- Upton;
- Farndon; and
- Kelham.

In considering effects on views from these settlements, the appraisal takes account of any public open spaces or public realm areas included within the settlement boundaries as well as residential areas that make up the built form.

In addition, there are a number of isolated properties, small groups of properties and farmsteads scattered across the study area from which there may be views of the Development. A radius of 0.5 km was considered appropriate given the low-rise nature of the Development, and the wooded and visually contained nature of the Site afforded by field boundary vegetation. In addition, consideration is given to its setting or screening in views in relation to the Staythorpe substation and the power station, and the view-limiting effects of the strong pattern of hedgerows, trees and wooded areas, which characterises the wider area.

Within this radius, the individual and small groups of properties are all associated with Staythorpe along Staythorpe Road and will be assessed under the heading for Staythorpe as mentioned above. However, the arrangement of dwellings along Staythorpe Road makes it possible to identify discrete groups and individual dwellings, which will form the basis of the assessment.

These have been identified on Figure 1.8 where they are numbered R1, R2, etc. from north to south, and are listed below¹⁸:

¹⁸ Where names are not visible, reference has been made to OS mapping and NSDC's Local Development Framework Policies Map at http://www.cartogold.co.uk/newark_sherwood/map.htm (accessed 17/08/22)

- R1 Pingley Bridge;
- R2 White Cottage;
- R3 Staythorpe House Farm and associated dwellings;
- R4 Grange Farm/Pingley Close/Pingley Lane/Manor Farm;
- R5 Behay Gardens;
- R6 Crossing Cottage; and
- R7 Hughes Close.

4.6.2 Recreational Routes

There is a network of public footpaths, bridleways, byways and local cycle routes that cross the wider landscape within the study area, connecting isolated farmsteads and settlements.

PRoW within 2 km of the Site are illustrated on Figures 1.1 and 1.8, and listed in Table 1.7 below.

Users of recreational routes which pass within c. 1 km of the Site have most potential to undergo a 'pronounced' effect on views and visual amenity arising from the Development and the LVA focuses on these.

The routes potentially affected as shown by the Screened ZTV (Figure 1.5) within 1 km of the Site include:

- Trent Valley Way LDF;
- Averham FP8;
- Farndon BW1 / NT Farndon BW1;
- NT Rolleston FP2 / Rolleston FP2 / Rolleston FP2A;
- NT Rolleston FP11 / Rolleston FP10 / Rolleston FP11;
- NT Staythorpe FP1 / Staythorpe FP1 (and LCN route); and
- NT Staythorpe FP2 / Staythorpe FP2 / Staythorpe FP3.

No national trails or national cycle routes pass across or adjacent to the Site.

Local Cycle Network (LCN)¹⁹ route utilises part of PRoW NT Staythorpe FP1 / Staythorpe FP1 (which passes through the Site, crossing the railway, linking Staythorpe with the River Trent to the south-east). The LCN links the railway line south of the Site with the River Trent.

One long-distance recreational route passes through the 2 km study area, and 1 km distance at its closest point. The Trent Valley Way Long Distance Footpath (LDF), a 135 km long-distance footpath along the Trent Valley, passes through the eastern section of the study area, in a generally north-south orientation between Kelham in the north and Farndon in the south. Between Averham and Farndon, the route follows the western bank of the River Trent and intersects the 1 km study area at two locations, within Averham and adjacent to the power station.

4.6.3 Outdoor Sport and Recreation

People engaged in outdoor sport or recreation within the study area, which are included in the appraisal, are shown on Figure 1.1. There is one promoted tourist destination (Brown signposted) in the study area, and one other recreational facility that could have visibility to the Development:

- Southwell Racecourse and Golf Club, which is located which is located 1.12 km to the south-west of the Site (extending to beyond the Study Area); and

¹⁹ A Green Infrastructure Strategy for Newark & Sherwood (February 2010). Available online at: <https://www.newark-sherwooddc.gov.uk/media/nsdc-redesign/documents-and-images/your-council/planning-policy/local-development-framework/amended-core-strategy-dpd/amended-core-strategy-examination-library/environment/CSEB18-Green-Infrastructure-Strategy.pdf> (page 36) Accessed on 28/08/2022.

- Farndon Marina located off the River Trent, 1.69 km to the south-east of the Site.

Whilst the screened ZTV (Figure 1.5) suggests potential visibility of the Development from these locations, the site assessment confirmed is that there would be no discernible views. As such, these recreational sites are not considered further in this assessment.

Views from the River Trent are appraised in Section 4.6.2 Recreational Routes.

4.6.4 Transport Routes

There are several transport routes that pass through or adjacent to the study area, including roads and a railway line, and these are shown on Figures 1.1 and 1.8.

The main road route in the study is the A617, which passes through the northern portion of the study area via Averham.

Two A- roads pass through the study area:

- Staythorpe Road, between the A617 at Averham to the north-east and Rolleston to the south-west. Beyond Rolleston the road is named Rolleston Road and exits the study area; and
- The variously named Main Road / Main Street / Upton Road, links the A617 to the north of the study area to Southwell (beyond the study area) via Upton.

The Newark to Nottingham railway line, used for both passenger and freight services, is located adjacent to the Sites wooded southern boundary.

Users of local roads that pass within c. 1 km of the Site have most potential to undergo a 'pronounced' effect on views and visual amenity arising from the Development and therefore the LVA focuses on these. The following routes are located within the Screened ZTV (Figure 1.5). Main Road / Main Street is located beyond the 1 km study area, but is included in the appraisal due to the elevated position overlooking Staythorpe.

- A617, c. 1 km to the north-west of the Site;
- Staythorpe Road, adjacent to the Site's northern and western boundary;
- Main Road / Main Street, c. 1.24 km from the Site; and
- Railway line, adjacent to Site's southern boundary.

4.7 Future Baseline

It is not anticipated that the baseline conditions of much of the local landscape character and land use, described above will differ significantly in the future without the Development, with the Development or after the 30-year operational phase. This is due to the nature of the Site, which is currently under agricultural use, and the existing agricultural uses, woodlands and hedgerows that cover the study area. The existing operational substation at Staythorpe, Staythorpe Power Station and the relatively complex network of overhead power lines (and variety of towers) have a defining impact on the character of the local landscape.

Several of the Ash trees on Site exhibit symptoms of Ash dieback and this is expected to reduce the number of Ash trees within the field boundary hedgerows as this disease is generally fatal.

4.8 Landscape & Visual Receptors Scoped out of the Assessment

Whilst character areas designated at a national / regional scale have a role to play in providing general context, local landscape character assessments have been published by Newark & Sherwood District Council. These assessments contain a greater level of detail subdividing the previous extensive character areas into much smaller discrete character areas. The regional CCAs defined, include the CCA: Trent Washlands. This is considered to

be too extensive for there to be any potential to be significantly altered by any one development and their sheer size and diversity can limit the extent to which the character description is directly relevant to the Development and its associated 2 km study area.

This has led to the conclusion that CCA Trent Washlands is not likely to be significantly affected by the Development, and hence does not require further assessment as part of the LVA of this Development. Therefore, the Natural England NCAs, Regional CCA listed above have not been assessed further within this LVA.

However, guidance within the LCTs and RCAs on landscape opportunities and trends will be referred to and reviewed as part of the LVA and development of the mitigation proposals.

The following landscape character receptors have been scoped out due to a combination of distance and the very small geographic area included in the 2 km study area with potential to be affected by the Development. The limited extent of theoretical visibility indicated by the screened ZTV for some of these receptors has also been a factor:

- NCA48 Trent and Belvoir Vales;
- Trent Washlands CCA;
- LPZ TW 32 Kelham Hills River Meadowlands;
- TW 53 Averham Weir River Meadowlands;
- TW10 River Greet Meadowlands; and
- TW13 Manor Farm River Meadowlands.

The following visual receptors have been scoped out on the basis of little of no theoretical visibility indicated by the screened ZTV:

- Scheduled Monuments within 2km radius;
- Listed Buildings within 2km radius;
- Southwell Racecourse; and
- Farndon Marina.

4.9 Night Time Baseline

The majority of land within the 2 km Study Area is occupied by arable farmland, therefore the area has limited light pollution on the whole.

There are some sources of light pollution arising from the settlements and infrastructure within the 2 km study area. These include the Staythorpe Power Station and street lighting in residential properties within local villages.

5 ZTV ANALYSIS

The screened 2 km ZTV (Figure 1.5) indicates that there could be visibility from the north and north-west from higher ground near Upton, with high levels of potential visibility within an arc, created by screening provided by housing and other built form within Staythorpe. The highest levels of potential visibility naturally occur within and close to the Site, particularly from Staythorpe Road. Smaller fragments of high potential visibility also occur towards the north-east, while potential visibility to the south and south-west is limited by either the Site's southern wooded boundary or by the railway, development and vegetation near the level crossing.

When factoring in distance, it is unlikely that there would be clear/discernible views of the Development beyond 0.5 km to the west, north and north-east due to the low-level nature of the Development and the relatively flat terrain, while to the south, clear and recognisable views of the Development would be similarly difficult to obtain.

Panoramic views from the higher ground at Micklebarrow Hill and Upton would be possible, although the Development would be a minor component set against the context of the existing substation, power station and overhead transmission network.

5.1 Weather Conditions

In reality, changing weather patterns and local climatic conditions would influence visibility of the Development in terms of the extent of view, the colour and contrast of the structures and thus the perceived visual impact. There would be some periods of low visibility (i.e. fog, precipitation, and bright sunny conditions that are accompanied by haze) as well as periods of high visibility in clear weather. However, the Site is low-lying, and screened by vegetation along its perimeter. The appraisal assumes high visibility in clear weather.

6 APPRAISAL OF LIKELY EFFECTS DURING CONSTRUCTION

In order to understand the likely effects of the Development, it is first necessary to understand the construction processes involved and the elements of the construction period that could cause landscape or visual effects are set out in Section 2.2.

During construction a number of excavations for foundations of the sub-station, Battery Storage System (BESS) infrastructure and small structures would cause localised variations in topography and the Site would gain an increased level of detail with the presence of machinery and construction materials which may cause visual and audible disturbance to residents.

All construction effects would occur over a period of up to 9-12 months and are considered to be short-term.

6.1.1 Effects on Landscape Resource

The Site is located within, and is typical of, Local Policy Zone TW11 Cromwell, North and South Muskham, Kelham, Averham, Staythorpe and Rolleston Village Farmlands.

During the construction period, Development would introduce excavations, new materials, built structures and moving vehicles and personnel into most parts of the Site and in particular a construction compound and BESS and substation area. Although agricultural practices already occur in the locality, the Site's current use as arable land results in less change and human intervention. No parts of the Site currently contain any man-made features other than fencing and an overhead wooden pole transmission line which extends across the Site from the south-east to the west. There are other transmission lines and lattice towers visible in the wider landscape. However, the presence of machinery and plant would introduce an increased level of detail.

The changes would affect the rural and agricultural key characteristic exhibited by the LPZ. This would result in important direct effects across the Site.

The topography of the Site would largely remain although excavations for foundations and cabling, and material storage would cause localised variations. The field structure would remain in place and apparent, the existing vegetation to be retained, protected during construction activities, and enhanced to aid the mitigation of landscape effects. Some vegetation would be removed to facilitate a visibility splay, this includes a 110 linear length of hedgerow (165 m²) and four trees.

The mostly rural, though locally developed, characteristics of the landscape would be replaced by increased movement, additional man-made elements and a sense of disruption. Proposed mitigation planting would not provide additional screening at this stage and would not provide benefits for several years.

Effects on character would decrease with distance from the Site.

Overall, the effects of construction on landscape character would be restricted to the Site and would not result in the removal of any important or unusual landscape features. The effects would be of short duration (up to 12 months), localised and reversible, and it is not considered that they would have any meaningful influence on the wider landscape character.

6.1.2 Effects on Visual Amenity

The most visible elements of the construction period would be the presence and movement of vehicles and plant, the excavations of the existing agricultural landscape and stock piles of material, and the Development structures as they are erected. Any lighting required, should the construction period occur in winter, would also be visible, although this would be restricted to working hours of darkness. There would be greatest visibility and disturbance during construction to residential properties on Staythorpe Road, and the public right of way through the Site, where public access may be temporarily diverted through the proposed permissive route.

Where visible beyond the Site, the construction activities would be seen as filtered or glimpsed views through gaps in field and roadside vegetation.

The movement of people and machinery would be visible from Staythorpe Road.

These changes in views would be of short duration and 'temporary' but 'reversible' and limited to a distance of less than 1 km. Effects of the construction period have not been appraised further within the LVA.

7 EMBEDDED MITIGATION MEASURES

As the result of the early appraisal of potential effects, a number of mitigation measures have been developed and incorporated into the Development. A preliminary design layout assuming development across the developable site area formed the basis of an early appraisal. The final layout was achieved through consideration of landscape and visual constraints and opportunities, in combination with other design parameters.

Principally, mitigation measures involve the reinforcement of existing, or planting of new boundary screening vegetation. The primary mitigation measures undertaken are as follows:

- Existing trees and hedges of good condition would be retained and protected where possible;
- There would be very limited removal of five U or C Category trees which have a limited lifespan and an approximate 110 linear metre length of existing hedgerow to create a visibility splay for the new and widened site and emergency entrances, and the Development would make use of existing field entrances in order to access the Site and internally between the two fields;
- 70 to 120 m offsets from residential properties along Staythorpe Road;
- 6 m offset from the overhead transmission line that passes through the Site;
- 10 m buffer to existing woodland and watercourses or ponds;
- An offset from the field boundaries was established in order to preserve and protect existing trees and hedges and provide potential for a species-rich graded edge to develop;
- A minimum 6 m wide linear native species scrub to mix with trees has been proposed along the Site's northern boundary;
- Planting has been proposed along the acoustic fences to soften their appearance and create new habitat, to the east of the main area of battery storage units (providing an enclosure for the new permissive way);
- Planting has been proposed along the Site's northern boundary east of the Site entrance, and a further area will be planted surrounding the flood compensatory storage location;
- A minimum 10 m approx. wide native species woodland mix to be planted at the Site's western boundary, with larger areas of woodland adjacent to and north of the permanent welfare enclosure and close to the southern entrance of the Site to provide additional screening;
- Additional hedgerow trees would be planted at or adjacent to the existing boundary vegetation to enhance the screening function in views from the north and or north west;
- Allow existing native mix hedges on the roadside and field boundaries to be maintained at a height of 3 m in order to provide maximum screening, and for a number of new hedgerow trees to be planted adjacent to grow as hedgerow trees; and
- Additional hedgerows to be planted at the Site boundary and to fill gaps in existing Site hedgerows where necessary.

For locations and details of proposed embedded mitigation such as indicative species please refer to the Landscape Mitigation Plan. Mitigation embedded within the design of the Development, includes the following:

- 200 linear metres of proposed native species hedgerow with native (standard) trees spaced at approximately 7m centres to tie in with existing rows of trees within hedgerows on Site;

- 431 linear metre of existing hedgerows to be enhanced with planting up of gaps, and tree planting;
- 111 linear metre length (approximate) of 1-1.2 m high native mix 'instant' hedging to replace hedgerow removed to the north-east of the existing access road within the visibility splay;
- Five trees and an approximate 110 linear metre length of existing hedgerow removed to facilitate a visibility splay for the new emergency and widened vehicular access;
- 0.40 ha of native species woodland scrub planting with tree planting;
- 0.60 ha of native species scrub mix with tree planting;
- 0.08 ha of low maintenance grass mix;
- 0.06 ha of native species wet meadow;
- 1.44 ha of native species grass and wildflower meadow mix;
- 0.01 bulb planting;
- 0.15 ha of specialist tussock grassland mix; and
- 129 No. proposed trees.

Overall, there is a considerable amount of planting proposed across the Site and the measures proposed in the landscape mitigation plan have contributed to a biodiversity net gain of **+15.8% in Habitat Biodiversity Metric units** and **+71.54% Hedgerow Biodiversity Metric Units** as reported in the Biodiversity Metric Assessment Report.

8 APPRAISAL OF RESIDUAL LANDSCAPE EFFECTS

This Section considers the potential effects of the Development on the landscape resource in terms of landscape character of the study area during its operational phases.

An appraisal of the baseline landscape character has been undertaken in order to determine the sensitivity of the landscape and its capacity to accommodate the Development.

The landscape character is considered at three levels:

- Local setting, based on field observations to confirm the key features and characteristics pertinent to the 2 km study area and the Site;
- A local – regional setting landscape character areas (LPZ), based on the Newark and Sherwood Landscape Character Assessment Supplementary Planning Document (December 2013); and
- National/regional setting, in relation to the Natural England National Character Area Profiles.

National and regional landscape character areas which have been scoped out of the LVA are outlined in Section 4.8.

It is also important to note that duration includes timescales for mitigation measures to become effective. This could take several years if, for example, new planting is provided to screen views but needs to achieve a certain height.

Timescales required for new planting to be effective at screening views is particularly important in the appraisal of visual effects (as described in Section 9). As such, for this part of the appraisal, levels of effect are normally assessed, firstly, at completion when new planting is in place but not effective (taken as Year 1) and, secondly, when new planting has matured sufficiently to be effective at screening views (taken as Year 15).

Levels of effects reported at Year 15 are also 'residual' effects that remain after mitigation has become effective and achieved its design intentions.

For consistency, effects on landscape character described in this Section are also appraised at Year 1 and Year 15, however, timescales required for planting to achieve an effective screen is less important since effects on landscape character are not dependent on visibility. As such, no meaningful reduction in levels of effect would be expected over this timescale even though planting provided to mitigate views can help to soften the appearance of the built form, filter views, and integrate the Development with the wider landscape.

8.1.1 Landscape Character of the Site

The landscape of the Site includes small field units of flat arable fields with fallow areas, relatively geometric form.

Field boundaries are defined predominantly by hedgerows with hedgerow trees giving a sense of enclosure on Site, with intermittent views.

There are overhead power lines crossing the Site.

The landscape character of the Site has been assessed as follows:

8.1.1.1 Landscape Value

The Landscape within the Site is undesignated agricultural land but containing landscape features such as woodland and vegetated boundaries which create an intact landscape composition reflecting local and regional landscape characteristics. There is also access across the Site and around the Site in the form of footpaths. The landscape is also strongly enclosed by vegetation and therefore contributes to the setting of the wider and immediate landscape without visual permeation within. It is therefore considered to be of low landscape value overall.

8.1.1.2 Landscape quality

Land use on Site and in the immediate landscape setting is primarily agricultural and landscape quality is considered to be low to medium as the boundaries are generally intact albeit with gaps within existing hedgerows. The landscape also contains PRow and is characteristic of the LPZ. It is considered that there is recreational value in the surrounding landscape setting insofar as the vegetation of the Site contributes to the well treed nature of the landscape and reinforces the simplicity of the wider landscape features such as gently sloping arable land which is well managed, boundary hedgerows and characteristic woodlands, copses and plantations, despite the dominance of infrastructure features of pylons and the Staythorpe Power Station.

8.1.1.3 Landscape Susceptibility & Capacity to Change

There is a high capacity for the landscape of the Site to accommodate the Development, which would not detract from the overall existing landscape quality, features and characteristics of the landscape. This results in a low susceptibility to the Development because the landscape would be able to accommodate it without undue adverse effects, taking account of the existing character and quality of the landscape, and other manmade landscape features.

The existing neighbouring man-made infrastructure in the immediate context of the Site, such as the overhead cables on Site and nearby Power Station, suggests the landscape does have the capacity to change and accommodate the Development, which would not detract from the overall existing local landscape character. Existing mature trees and hedgerows provide existing screening and also contribute to the capacity to change.

8.1.1.4 Landscape Sensitivity

This is an undesignated landscape and contains adjacent visual detractors to the east and southeast; however it does have a large amount of intact vegetated boundaries and vegetation synonymous with the wider landscape character. The Site is considered to be of a low landscape sensitivity overall. The main effects of the Development will be the addition of battery storage units across the Site, together with related infrastructure. This will change the predominantly rural character of the Site to a predominantly industrial one, as would be expected for a development of this nature.

The effects would be large in scale, however the Development would retain key characteristics of the landscape. There would be a change in land use from agricultural land to renewable energy, however the Development would retain the existing flat topography and proposed infrastructure would not protrude the open skyline due to the low-level nature of the development.

The Development would also seek to retain all landscape features which define field margins such as tree lined hedgerows wherever possible. In addition, a number of enhancements will be provided to improve the landscape and enhance the biodiversity value of the Development, including improvements to the quality of existing hedgerows, new native species hedgerows with tree, native species woodland, native meadow grazing land, a species rich grassland with wildflower mix and a wet meadow grass mix; together with enhanced management of existing natural features on Site.

8.1.1.5 Magnitude of Change

The magnitude of change arising from the Development within the Site would be large as the land use would change from arable land to a renewable energy scheme.

However, embedded mitigation would introduce a strong framework of vegetation which would unify existing hedgerow boundaries, introduce new hedgerow trees, create new hedgerows with hedgerow trees and form new woodland blocks surrounding the Site, whilst

reinforcing the green network and the screening of existing manmade infrastructure such as pylons and industrial buildings that such new features will provide. This is true also for the additional wet meadow grassland and wildflower grassland enhancements external to the fence line of the battery storage area which will introduce grassland pastures ~~to the~~ which retain seasonal contrast.

On balance, taking into account both the Development and the mitigation, the magnitude of change is judged to be medium adverse. Judgements also took account of localised enhancements, as described above, which at the Site level are judged to be medium beneficial.

8.1.1.6 Level of Effect

As the landscape sensitivity on Site is considered low to medium but the magnitude of change is large due to change from agricultural uses to energy storage the landscape effects would be **moderate - major, adverse** and direct at Year 1.

That said the proposed embedded mitigation and enhancements proposed would reinforce and connect existing landscape features such as hedgerow boundaries with trees throughout the Site, and new hedgerows with trees, woodland and plantations in specific areas would reinforce the characteristics of the wider LCA's. By Year 15 when proposed embedded mitigation has matured, this would alter to provide beneficial effects to existing features within the landscape on Site and landscape effects would be **minor – moderate to moderate – major and neutral**.

Due to the low-level nature of the Development which will not break the sky line and retention of large scale field parcels, there would be limited discernible deterioration to the existing landscape scale and landscape quality and there would in fact be moderate improvement in the fabric of the landscape due to embedded mitigation which will introduce infill planting and additional rows of trees within hedgerows around the boundary of the BESS.

8.1.2 Local Policy Zone TW11 Cromwell, North and South Muskham, Kelham, Averham, Staythorpe and Rolleston Village Farmlands

The Site is located within LPZ TW11 Cromwell, North and South Muskham, Kelham, Averham, Staythorpe and Rolleston Village Farmlands.

8.1.2.1 Landscape Sensitivity

In terms of value, the landscape is undesignated, although the presence of Conservation Areas at Averham and Kelham (within this LPZ, within 2 km of the Site) means that this area functions as a wider setting for these valued historic or architecturally significant locations. There are some scattered farmsteads with vernacular architecture, though few narrow lanes, ~~but~~ and an established footpath network, which contribute to a localised historic sense of place. The quality of the landscape ~~is~~ unremarkable, but attractive, though influenced by urbanising elements such as the overhead power lines and towers.

By combining judgments on value and susceptibility, an overall level of sensitivity is derived. In this instance, the landscape value of LPZ TW11 to the Development is judged to be medium and its susceptibility is also judged to be medium, resulting in a medium sensitivity. This judgment also applies to the Site itself, as it is typical of the general character and condition of TW11 Locally.

This assessment of sensitivity is generally supported by the published landscape character assessment, which has ascribed a moderate landscape sensitivity for TW11. The published assessment also includes 'landscape actions' for the LPZ, which are 'Conserve and Create'. These broad actions, are further refined, as outlined in 4.1.1 above. Of those detailed actions, the following are directly relevant to the setting of the Site:

- Promote measures for strengthening the existing level of tree cover;
- Conserve the character and setting of village settlements of Cromwell, North and South Muskham, Averham, Staythorpe and Rolleston;
- Conserve the rural character of the landscape by concentrating new development around above [sic] existing settlements;
- Conserve historic field pattern [sic] by containing new development within historic enclosed boundaries, restoring hedgerow boundaries where necessary and
- Create small scale woodlands/tree planting to soften new development, preferably in advance of development.

The Proposal would result in a new BESS with infrastructure and associated fencing, including acoustic fences, with mitigation planting and access tracks. The nature of the changes resulting from the Development are described in Table 8.1 below.

Table 8.1: Nature of Change to Local Policy Zone TW11

Character Criteria	Nature of Change
Topography	The Development would have little effect on the topography of the LPZ.
Scale (landform and component landscape features)	The Site would reflect the scale of the existing field pattern. Although the BESS would be comprised of linear structures and include infrastructure associated with its substation, they are relatively low-level features, while similar sized features, including the existing substation and other buildings, such as barns, already exist in the local and wider landscape.
Landscape pattern and complexity (including sense of time-depth)	The replanting of missing areas of field boundary hedging and boundary tree planting would strengthen the scale of fields, while preserving the existing field pattern and most of the boundary hedgerows.
Perceptual qualities	Whilst the Development would not significantly affect the overall sense of tranquillity, the new 4 m high structures would introduce an additional commercial element into a rural landscape with a degree of established sense of time depth.
Skyline character and visual prominence	The Development would not form skyline views. The existing substation and Staythorpe Power Station would form the backdrop to views from the north and west. Views from the south and east would be screened by Site boundary woodland.
Visual sensitivities and intervisibility	There is limited intervisibility due to the low-level nature of the Development and screening by trees, hedgerows, woodland and development within the immediate setting and the wider landscape. The Development would introduce an additional modern and urbanising element into what is seen as a rural landscape with urbanising influences, and a moderate capacity for development. Whilst the published landscape character assessment states that the "area is visually coherent", it recognises the "detracting features which include the National Grid power station to the south of Averham, pylons, the railway line and busy roads." The overhead transmission lines and towers, existing substation and Staythorpe Power Station within the local landscape exert a strong visual influence, and this small-scale development does not introduce a new, alien feature, of comparable size to the existing detractors. The change would be small in this context. The mitigation planting of boundary trees, hedgerows, scrub and the enhancement and management of the existing retained hedgerows would reduce any glimpsed or filtered visual prominence over time.

8.1.2.2 Landscape Value

The Landscape within the Site is undesignated agricultural land and is therefore considered to be of low landscape value overall.

8.1.2.3 Landscape Quality

Land use on Site and in the immediate landscape setting is primarily agricultural and industrial and landscape quality is considered to be low – medium. The landscape does however contain PRow and is characteristic of the defined landscape character zone. It is considered that there is recreational value in the surrounding landscape setting.

8.1.2.4 Landscape Capacity to Change

There is a high capacity for the landscape to accommodate the Development, which would not detract from the overall existing landscape quality, features and characteristics of LPZ TW11. This results in a low susceptibility to the Development because the landscape would be able to accommodate it without undue adverse effects, taking account of the existing character and quality of the landscape, and other manmade landscape features.

The existing neighbouring man made infrastructure in the immediate context of the Site, such as the Power Station as well as several pylons on Site, suggests the landscape does have the capacity to change and accommodate the Development, which would not detract from the overall existing local landscape character.

8.1.2.5 Magnitude of Change

The geographical extent over which physical changes would be experienced within LPZ TW11 would be localised and limited to the Site and its immediate setting. Perceptual changes would occur up to c. 0.5 km to the north and reduce with distance within the LPZ. At Year 1 the magnitude of change within the Site would be high (within the local setting up to 0.5 km radius) and small when appraised within the study area as a whole. At Year 15, the magnitude of change would reduce to small within 0.5 km radius and negligible within the LPZ as a whole.

8.1.2.6 Level of Effect

Appraised at Site level effects on landscape character during Year 1 and Year 15 would be **Moderate – Major adverse** and both direct and indirect within the immediate site area within LPZ TW11. Effects on landscape character within the LPZ as whole, during Year 1 would be **Minor adverse** and in Year 15 would be **Negligible** indirect.

8.1.3 Cumulative Landscape Effects

The operational Staythorpe substation, located adjacent to the Site, is also located within LPZ TW11. The proximity of Staythorpe Power Station, located in the neighbouring LPZ TW53, c. 350 m to the south-east, and the presence of transmission lines and towers which transect the host and neighbouring LPZs, provide the immediate cumulative landscape baseline context influenced by man-made features, a landscape of power and infrastructure. To the north and east within the host LPZ, the landscape is predominantly rural, with a number of housing areas (within and close to Staythorpe) and the presence of the railway, which carries both passenger and heavy freight traffic.

Given the extent of the host LPZ affected by these developments (either directly or indirectly), they can be considered part of its key characteristics within the study area. Although, cumulative effects are discussed further at Section 9.6, it is noted here that the cumulative effect of the Development in combination with the features mentioned above in relation to the characteristics of the baseline and the landscape's capacity to accommodate further similar development, is considered to be small in magnitude, leading to a **Minor adverse** level of cumulative effect within the host LPZ.

9 APPRAISAL OF RESIDUAL VISUAL EFFECTS

Visual effects are concerned wholly with the effect of the Development on views, and the general visual amenity as experienced by people.

Visual effects are assessed by considering the sensitivity of the receptor (people) against the proposed magnitude of change to determine a level of visual effect. The acceptability of this effect largely relates to the activity and the experience of the viewer and the visual composition, character, context, and the overall ability of the landscape in that view to accommodate the Development in design terms. Visual effects are assessed in relation to the agreed viewpoints, properties and settlements, tourist and recreational destinations including tourist routes as well as main transport routes.

As also noted in the previous Section, visual effects are appraised at the year of completion (taken to be Year 1) and at 15 years (Year 15) following completion of the construction process in order to assess changes over time including the effectiveness of mitigation planting at reducing levels of effects on views. In this case, established vegetation on and immediately adjacent to the boundaries of the Site already provide a degree of visual containment, which requires supplementation, as illustrated in the Landscape Mitigation Plan, Appendix C, Drawing 4951_DR_LAN_101 Rev E.

The appraisal has also taken seasonality into account when considering the effectiveness of existing and proposed vegetation at screening the Development. In most instances the screening vegetation tends to comprise the woodland and hedges located adjacent to the Site and other intervening field and roadside boundary vegetation. These tend to create a relatively dense visual barrier but during periods of foliage loss there are some heavily filtered views through them, and the hedges tend to be maintained at heights of less than 2m, which are also gappy in places. Where applicable, expected notable differences between levels of effects in summer and winter are noted. Judgments about levels of effect recorded in the following viewpoint assessment below are, based on a worst-case winter visibility, when screening by deciduous vegetation is least effective. The photographs represent both summer and winter views.

9.1 Viewpoint Assessment

In order to gain an understanding of the nature of changes to views and visual amenity arising from visibility of the Development, twelve viewpoints were identified in the visual baseline Section to represent visibility from key visual receptor groups (e.g. residents, recreational walkers, road users, etc.) in a selection of locations.

For each viewpoint, the following information is provided:

- A representative baseline photograph (90, 180 or 360 degree horizontal angle of view) orientated in the direction of the Development to show illustrate the existing view;
- A description of the existing baseline view; and
- A qualitative appraisal of the potential visual effects, taking account of the sensitivity of the receptor and the predicted magnitude of change in view.

It is recognised that different receptors would perceive the landscape in different ways, depending on whether they live, work, or are undertaking recreation in the area, and how they are travelling e.g. in a vehicle or foot, etc.

Those living within, or travelling through, the landscape of the study area on a regular basis may appreciate it beyond the perception of a visitor and may appreciate familiarity of landscape and views, based on their experience of viewing it in a certain way, over time and in its present state without intervention. Therefore, those who notice change within the landscape may be more acutely affected by change irrelevant of the scale of the Development. There may also be a different appreciation for change where such change

for instance brings social or economic benefits and as such it is difficult to interpret how such changes would be interpreted by various users other than as set out in the methodology in Appendix A.

The location of the viewpoints is shown in conjunction with the Bare Earth and Screened ZTVs on Figures 1.4 and 1.5. Baseline photographic panoramas at each viewpoint representing views to the Site are presented in Figures 1.10a-1.10m, supported by photomontages for Viewpoints 1a, 1b, 2 and 3 in Figures 1.11a to 1.14c, having been prepared to represent a selection of views from Staythorpe Road at years 3 and 7 of the Development's life.

The photography was captured during the summer, when the trees and hedges were in full leaf, which provides the maximum screening during the year. In order to consider the 'worst-case' scenario, the appraisal, and conclusions presented, take into account the more limited screening and filtering of views during the winter, when deciduous trees are not in leaf. Additional winter photography was undertaken to illustrate viewpoints 1a, 1b, 3 and 4 from Staythorpe Road as this was assessed as the viewpoint location with the most potential to be visually sensitive location during the winter months.

Seven views include a 90° horizontal angle. However, due to proximity to the Site, five views include a 180° horizontal angle (split into two x 90° views on a single sheet), and one includes a 360° horizontal angle of view over two sheets (split into four x 90° views).

9.1.1 Viewpoint 1a – View from Staythorpe Road at Grange Farm

This viewpoint is located in front of Grange Farm and is representative of views from residential properties and the view from Staythorpe Road.

Figure number: 1.10a

Distance to the Site: 20.78 m

Angle of View: 180°

View direction: 156° (south-south-east)

9.1.1.1 Baseline

The view extends across Staythorpe Road and includes the Site boundary hedgerows with trees. The Site is visible behind the low hedgerow, bounded by woodland at the horizon. Man-made elements are visible, including most notably, the overhead transmission lines and towers, and telegraph poles/lines and road signs.

9.1.1.2 Susceptibility & Value

Residential receptors would be of a high value, and their susceptibility to change would also be high.

Local road users would be of a medium value, and their susceptibility to change would also be medium.

9.1.1.3 Sensitivity

Residential Receptors: High

Local Road Users: Medium

9.1.1.4 Magnitude of Change (Year 1)

The creation of a new emergency and a new and widened Site access and the accompanying loss of five trees and a length of hedgerow from the roadside vegetation would be apparent and create glimpsed views into the Site. At this point the newly planted

boundary woodland, instant hedging and trees/scrub would not have matured sufficiently to obstruct views at Year 1. However, the main BESS elements with the most potential to be visible from this location would in this view be offset from the Site boundary by between c. 80 and 105 m and located behind a green 4 m acoustic timber fence, fronted by new native species shrub planting with native standard trees. The compound area and some BESS elements, most notably the acoustic fence and the tallest substation components, would be glimpsed through the larger gaps between existing mature boundary trees and filtered views would be available through the more robust elements of the existing boundary hedge, if allowed to grow to a height of c 3 m.

The experience of the viewer would change, particularly through the wider gaps between existing trees, although the offsetting of the BESS elements and the installation of the green acoustic fence would mean that it would appear more distant than the Site boundary, and colour-blended into the existing landscape (in summer views).

The magnitude of change would be Medium.

9.1.1.5 Level of Visual Effect (Year 1)

Residential Receptors: **Moderate-Major and adverse**

Local Road Users: **Moderate and adverse**

9.1.1.6 Magnitude of Change (Year 15)

Assuming the planted boundary woodland and trees/scrub would have matured to a height of approximately 7 to 15 m and the existing boundary hedgerow had been gapped-up and allowed to grow to a height of 3 m, the built elements would be largely screened, with the possibility of some heavily filtered views particularly in winter or glimpsed views above or along the gated emergency access.

Whilst the view would comprise largely vegetative elements, the openness of the existing baseline view would change to one of enclosure and focussed views.

The magnitude of change would be small, but neutral in character.

9.1.1.7 Level of Visual Effect (Year 15)

Residential Receptors: Minor - **Moderate and neutral**

Local Road Users: **Minor and neutral**

9.1.2 Viewpoint 1b – View from Staythorpe Road at Pingley Lane

This viewpoint is located at the junction of Staythorpe Road and Pingley Lane and is representative of views from residential properties and the road.

Figure number: 1.10b

Distance to the Site: 20.58 m

Field of view: 180°

View direction: 158° (south-south-east)

9.1.2.1 Baseline

The view extends across Staythorpe Road, and is very similar to that of Viewpoint 1a, although the gaps between the hedgerow trees are wider. The Site is visible behind the low hedgerow with occasional trees, bounded by woodland at the horizon. Man-made elements are visible, including most notably, one of the chimneys of Staythorpe Power Station and the overhead transmission lines and towers, and telegraph poles/lines.

9.1.2.2 *Susceptibility & Value*

Residential receptors would be of a high value, and their susceptibility to change would also be high.

Local road users would be of a medium value, and their susceptibility to change would also be medium.

9.1.2.3 *Sensitivity*

Residential Receptors: High

Local Road Users: Medium

9.1.2.4 *Magnitude of Change (Year 1)*

As for Viewpoint 1a, the removal of five trees and a length of hedgerow to provide an appropriate visibility splay for the new emergency and new widened Site entrance would be discernible and enable glimpsed views into the Site. The newly planted boundary woodland, instant hedging and trees/scrub would not have matured sufficiently to obstruct views. However, the main BESS elements with the most potential to be in this view would be offset from the Site boundary by between c. 80 and 105 m and located behind a green 4 m acoustic timber fence, fronted by new native shrub vegetation. The compound area and some BESS elements, most notably the acoustic fence and the tallest substation components would be glimpsed through the larger gaps between existing boundary trees and as a filtered views through the more robust elements of the existing boundary hedge, if allowed to grow to a height of 3 m.

The experience of the viewer would change, particularly through the wide gaps between trees, although the offsetting of the BESS elements and the installation of the green acoustic fence would mean that it would appear visually recessive and more distant than the Site boundary, and colour-blended into the existing landscape (particularly in summer views).

The magnitude of change would be medium.

9.1.2.5 *Level of Visual Effect (Year 1)*

Residential Receptors: **Moderate-Major and adverse**

Local Road Users: **Moderate and adverse**

Magnitude of Change (Year 15)

Assuming the planted boundary woodland and trees/scrub would have matured to a height of approximately 7 to 15 m and the existing boundary hedgerow had been gapped-up and allowed to grow to a height of 3 m, the built elements would be largely screened, with the possibility of heavily filtered views, particularly in winter.

Whilst the view would comprise largely vegetative elements, the openness of the existing baseline view would change to one of enclosure and focussed views.

The magnitude of change would be small, but neutral in character.

9.1.2.6 *Level of Visual Effect (Year 15)*

Residential Receptors: Minor - **Moderate and neutral**

Local Road Users: **Minor and neutral**

9.1.3 Viewpoint 2 – View from Public Right of Way within the Site

This viewpoint is located at the entrance to the fields within the Site, at the edge of the public footpath that links Staythorpe Road and the railway line. It is representative of users of the PRoW, however it has been selected as a worst case scenario as it shows views directly into the eastern and western fields through the gates, and is not representative of the view from the length of the footpath.

Figure numbers: 1.10c and 1.10d

Distance to the Site: 0 m

Field of view: 360°

View direction: 147° (south-south-east) and 327° (north-north-west)

9.1.3.1 Baseline

The view across the Site is partially obscured by field boundary hedgerows, although the view is open at the entrances to the fields on either side of the footpath. The first of the two 180° views (Figure 1.10c) extends across the eastern cultivated field as far as Staythorpe to the north and Staythorpe Power Station to the east, and includes glimpses of the electricity substation. An overhead transmission line and towers tracks across the horizon from east (right of view) to west (left of view).

In the second of the two 180° views (Figure 1.10d), the view is mostly obscured by the field boundary hedgerows, although at the field entrances, the cultivated western field is visible extending as far as the Site's southern wooded boundary, adjacent to the railway.

The field entrances at this location will be gated, allowing secure access to the southern section of the Development from the main access track off Staythorpe Road. There will be close proximity views of the battery storage units beyond the gates at this location. The perimeter fencing will be located behind the hedgerows, which will be retained to assist with screening of the Development from the PRoW.

9.1.3.2 Susceptibility & Value

Recreational users would be of a medium value, and their susceptibility to change would also be medium.

9.1.3.3 Sensitivity

Recreational Users: Medium

9.1.3.4 Magnitude of Change (Year 1)

While the existing field boundary hedgerows would be retained and improved, the view would be dominated by the Development within the perimeter fence, with direct views of the battery storage units beyond the perimeter fencing to the south and views of the welfare area to the north.

The magnitude of change would be large, however, these would be glimpsed and oblique views for those recreational users of the footpath.

9.1.3.5 Level of Visual Effect (Year 1)

Recreational Users: **Moderate-Major and adverse**

9.1.3.6 Magnitude of Change (Year 15)

Assuming that the proposed enhancement of existing field hedgerow boundaries (gapping up and allowing to grow to 3 m in height), the structures visible at Year 1 would be largely

screened from the public footpath to the north and south of the gated entrances. However, there would be glimpsed views through the gated entrances while walking along the footpath, which would remain open to the Development, and would not markedly change from those at Year 1.

The magnitude of change would remain Large.

Level of Visual Effect (Year 15)

Recreational Users: **Moderate-Major and neutral**

9.1.4 Viewpoint 3 – View from Staythorpe Road at Behay Gardens

This viewpoint located on Staythorpe Road in front Behay Gardens and is representative of views from residential properties and the road.

Figure number: 1.10e

Distance to the Site: 21.77 m

Field of view: 180°

View direction: 97° (east)

9.1.4.1 Baseline

At this location situated on Staythorpe Road, the Site boundary hedgerow with occasional trees is taller and denser than at Viewpoints 1a and 1b. This screens views into the Site in this summer photograph. Beyond the Site, little is visible to the right of view, while to the left of view the overhead transmission line and some towers are visible. During winter, there may be some filtered views into the Site, albeit dependent on the density of the hedgerow.

9.1.4.2 Susceptibility & Value

Residential receptors would be of a high value, and their susceptibility to change would also be high.

Local road users would be of a medium value, and their susceptibility to change would also be medium.

9.1.4.3 Sensitivity

Residential Receptors: High

Local Road Users: Medium

9.1.4.4 Magnitude of Change (Year 1)

The battery storage units would be located behind a green acoustic fence, located approximately 25 to 40 m from the Site boundary in this view. It is unlikely the loss of the trees and length of hedgerow would influence this view to any noticeable amount. The newly planted woodland edge would not have matured sufficiently to obstruct views, and there would be heavily filtered views towards the Development through the existing hedgerow and trees during winter. The acoustic fence would provide further screening, but may be potentially visible in filtered winter views. Summer screening based on the existing boundary vegetation would be effective in screening views of the Development.

There would be no view of the Development in the summer when vegetation is in leaf.

The magnitude of change would be Small.

9.1.4.5 *Level of Visual Effect (Year 1)*

Residential Receptors: **Minor – Moderate and adverse**

Local Road Users: **Minor and adverse**

9.1.4.6 *Magnitude of Change (Year 15)*

Assuming the proposed woodland edge would have matured to a height of approximately 7 to 15 m and that the boundary hedgerow had been maintained to its present height (or greater) and density, filtered views of the Development during winter would be limited.

There would be no view of the Development in the summer when vegetation is in leaf.

The magnitude of change would be negligible neutral (as the existing boundary vegetation would have been reinforced but not markedly changing the outlook)

9.1.4.7 *Level of Visual Effect (Year 15)*

Residential Receptors: Negligible and neutral

Local Road Users: Negligible and neutral

9.1.5 ***Viewpoint 4 – View from Staythorpe Road, North of the Site***

This viewpoint is located on Staythorpe Road to the south of Pingley Lane. The view is very similar to that of Viewpoint 1b, although the distance to the perimeter fence at the Site entrance on Staythorpe Road is c. 25 m.

Figure number: 1.10f

Distance to the Site: 10.39 m

Field of view: 180°

View direction: 125° (south-east)

9.1.5.1 *Baseline*

The view extends across Staythorpe Road and is very similar to that of 1b. The Site is visible behind the low hedgerow with occasional trees, bounded by woodland at the horizon. Man-made elements are visible, including most notably, one of the chimneys of Staythorpe Power Station and the overhead transmission lines and towers, and telegraph poles/lines.

9.1.5.2 *Susceptibility & Value*

Local road users would be of a medium value, and their susceptibility to change would also be medium.

9.1.5.3 *Sensitivity*

Local Road Users: Medium

9.1.5.4 *Magnitude of Change (Year 1)*

As for Viewpoint 1b, the new emergency and new, and widened Site entrances and the resultant loss of five U and C Category trees and a length of hedgerow, would be noticeable and reveal glimpsed views into the Site. The newly planted boundary woodland, instant hedging and trees/scrub would not have matured sufficiently to obstruct views. However, the main BESS elements with the most potential to be visible in this view would be offset from the Site boundary by between c. 25 and 105 m and located behind a green 4 m acoustic fence, fronted by new scrubby vegetation. The compound area and some BESS

elements, most notably the acoustic fence and the tallest substation components would be glimpsed through the larger gaps between existing boundary trees and as a filtered view through the existing boundary hedge, if allowed to grow to a height of c 3 m

The experience of the viewer would change, particularly through the wide gaps between trees following the tree and hedge removal, although the replacement instant hedging and tree planting and the offsetting of the BESS elements and the installation of the green acoustic fence would mean that it would appear more distant than the Site boundary, and colour-blended into the existing landscape (in summer views).

The magnitude of change would be Medium.

9.1.5.5 *Level of Visual Effect (Year 1)*

Road Users: **Moderate and adverse**

9.1.5.6 *Magnitude of Change (Year 15)*

Assuming the proposed instant hedging, native shrub planting with trees adjacent to the Site boundary would have matured to a height of approximately 7 to 15 m and the boundary hedgerow had been gapped-up and allowed to grow to a height of 3 m, the built elements would be largely screened, with the possibility of heavily filtered views, particularly in winter and glimpsed and oblique views through the Site entrance or new emergency access.

Whilst the view would comprise largely vegetative elements, the openness of the existing baseline view would change to one of predominantly enclosure and focussed views.

The magnitude of change would small, but neutral in character

9.1.5.7 *Level of Visual Effect (Year 15)*

Road Users: **Minor and neutral**

9.1.6 ***Viewpoint 5 – View from Public Right of Way at Southern Site Boundary***

This viewpoint is located at the southern end of on the public footpath that passes through the Site between the railway line and Staythorpe Road and is representative of views from users of the PRow.

Figure number: 1.10g

Distance to the Site: 3.27 m

Field of view: 180°

View direction: 337° (north-west)

9.1.6.1 *Baseline*

The view looks across the Site towards Staythorpe. The footpath forms the boundary between the two fields that divide the Site, which are under cultivation. Houses within Staythorpe are visible beyond the Site's northern hedgerow boundaries and trees. A large area of woodland beyond the Site boundary, but adjacent to and screening the electricity substation, is located to the right of view. In addition, also present beyond the Site are the overhead transmission lines and towers, while within the Site, a wooden pole transmission route follows the alignment of the footpath, with the base of an H-frame visible at the far right of the view.

9.1.6.2 *Susceptibility & Value*

Recreational users would be of a medium value, and their susceptibility to change would also be medium.

9.1.6.3 *Sensitivity*

Recreational Users: Medium

9.1.6.4 *Magnitude of Change (Year 1)*

Being at the Site boundary and within 7 m of the perimeter fence, there would be close proximity views of the substation equipment and the battery storage units across a majority of the width of the panorama. New woodland planting to the immediate right of view would not provide any additional screening by Year 1.

The magnitude of change would be Large.

9.1.6.5 *Level of Visual Effect (Year 1)*

Recreational Users: **Moderate-Major and adverse**

9.1.6.6 *Magnitude of Change (Year 15)*

Assuming the new woodland planting to the right of the view would have reached a height of approximately 7.5 m and that the existing hedgerows had been maintained to a height of 3 m, a degree of additional screening would soften some aspects of the view.

The magnitude of change would be medium.

9.1.6.7 *Level of Visual Effect (Year 15)*

Recreational Users: **Moderate and neutral**

9.1.7 ***Viewpoint 6 – View from Public Right of Way, North of Behay Gardens***

This viewpoint is located on the footpath in front between Staythorpe Road and Pingley Close, north of Behay Gardens. It is representative of views from users of the PRow.

Figure number: 1.10h

Distance to the Site: 218.32 m

Field of view: 90°

View direction: 111° (east-south-east)

9.1.7.1 *Baseline*

The view towards the Site extends across the cultivated field in the foreground towards Staythorpe Road and beyond to the Site's southern wooded boundary at the horizon. Although the Site interior is not directly visible, there are views to the wooden electricity pole line that crosses the Site (apart from the closest two poles, all are within the Site).

The view also includes, most notably, the chimneys and taller buildings of Staythorpe Power Station and the electricity transmission infrastructure including towers. To the right of the view is Behay Gardens, partially screened by trees.

9.1.7.2 *Susceptibility & Value*

Recreational users would be of a medium value, and their susceptibility to change would also be medium.

9.1.7.3 Sensitivity

Recreational Users: Medium

9.1.7.4 Magnitude of Change (Year 1)

The loss of trees and hedgerow would not be discernible from the densely vegetated skyline. The newly planted woodland and scrub with trees edges would not have matured sufficiently to provide a contribution to screening, although tree planting would have a filtering effect. The BESS elements in this view would be offset from the Site boundary by between c. 25 m and 100 m and located behind a green 4 m acoustic fence, fronted by new shrubby vegetation. The compound area and some BESS elements, most notably the acoustic fence and the tallest substation components would be glimpsed through large gaps between boundary trees and as filtered views through the existing boundary hedge, if allowed to grow to a height of c 3 m.

The experience of the viewer would change slightly in that the distances to the nearest elements of the Development would mean that, the while visible, most BESS elements would be back clothed by the Sites wooded southern boundary. Only the tallest structures within the substation would appear 'taller' than the wooded southern boundary.

The magnitude of change would be Small.

9.1.7.5 Level of Visual Effect (Year 1)

Recreational Users: Minor and adverse

9.1.7.6 Magnitude of Change (Year 15)

Assuming the proposed woodland planting and scrub with trees edge adjacent to the Site boundary would have matured to a height of approximately 7 to 15 m, and the boundary hedgerow had been gapped-up and allowed to grow to a height of 3 m, the built elements would be largely screened – including during winter when the filtering of views through vegetation not in leaf would appear nearly as effective as screening by vegetation in leaf.

The magnitude of change would be negligible.

9.1.7.7 Level of Visual Effect (Year 15)

Recreational Users: Negligible and neutral

9.1.8 Viewpoint 7 – Public Right of Way, North of Rolleston

This viewpoint is on the footpath that crosses the railway, north of the village, and is representative of views from the PRow and it represents a clear view towards the Site.

Figure number: 1.10i

Distance to the Site: 629.25 m

Field of view: 90°

View direction: 52° (north-east)

9.1.8.1 Baseline

The viewpoint is located a few metres to the north of the railway line. The view extends across a cultivated field, occupying the majority of the view. To the right of the field is a track, which runs parallel to the railway line, which is visible to the right of view. Towards the horizon can be seen the field boundary with occasional trees, behind which can be seen Behay Gardens in Staythorpe. Hughes Close, just south of the level crossing, is visible to the right of the railway line, against a backdrop of mature trees. Staythorpe Power

Station is partly screened by trees to the right of the view, while the overhead transmission line and towers span the view. The Site itself screened by intervening hedgerows and trees, although there are some barely recognisable glimpses of the Site through the vegetation, which would be more evident in winter.

9.1.8.2 Susceptibility & Value

Recreational users would be of a medium value, and their susceptibility to change would also be medium.

9.1.8.3 Sensitivity

Recreational Users: Medium

9.1.8.4 Magnitude of Change (Year 1)

The Site would be extensively screened by existing intervening field boundary hedges and trees, although the taller of the BESS elements would be visible in some glimpsed views. However, given a) the distance to the Development, b) the small portion of view that they would occupy and c) the use of a green finish for acoustic fences and the battery storage unit, the Development would be barely perceptible in summer views. During winter, there may be a slight increase in the degree of visibility of some parts of the Development, but due to the distance to the screening elements within the landscape (c. 370 to 590 m) the filtering of views would be relatively efficient.

The magnitude of change would be Negligible.

9.1.8.5 Level of Visual Effect (Year 1)

Recreational Users: **Negligible and adverse**

9.1.8.6 Magnitude of Change (Year 15)

The maturing of the woodland planting and scrub with trees at the Site's northern and western boundaries would enhance the screening already provided by intervening hedgerows and trees.

The magnitude of change would be remain Negligible.

9.1.8.7 Level of Visual Effect (Year 15)

Recreational Users: **Negligible and neutral**

9.1.9 Viewpoint 8 – Public Right of Way, West of Staythorpe

This viewpoint is located on the footpath that links Staythorpe with Upton and is representative of views from the PRow network in this area, to the west of the Site.

Figure number: 1.10j

Distance to the Site: 902.22 m

Field of view: 90°

View direction: 101° (east)

9.1.9.1 Baseline

This view towards the Site, encompasses a broad swathe of flat arable land. To the right of view a wooded drainage ditch limits views further south, while to the left the view is expansive. Behay Gardens and Pingley Close/Pingley Lane are visible on the horizon, although screened by surrounding mature trees.

The view is dominated by the overhead transmission line and its towers, having originated from the electricity substation close to Staythorpe Power Station, which is also visible at the horizon. The horizon is marked by a line of vegetation, comprising field boundary hedgerows, trees, and woodland, including the wooded southern boundary of the Site. The interior of the Site, including its crop, is visible from this location, identified by a line of wooden electricity poles, between the right-hand power station chimney and the wooden pole to the right of the second of the large transmission towers to the right of the power station. The power line through the Site terminates at an H-frame close to the Site's southern entrance, visible in the gap to the right of the first large transmission tower to the right of the power station.

9.1.9.2 Susceptibility & Value

Recreational Users would be of a medium value, and their susceptibility to change would also be medium.

9.1.9.3 Sensitivity

Recreational Users: Medium

9.1.9.4 Magnitude of Change (Year 1)

Despite the open view into a part of the Site, the distance to the nearest BESS elements is such that the Development would be barely distinguishable against the backdrop of the wooded southern Site boundary and amongst those elements of intervening associated with Staythorpe Road and

The magnitude of change would be Negligible.

9.1.9.5 Level of Visual Effect (Year 1)

Recreational Users: **Negligible and adverse**

9.1.9.6 Magnitude of Change (Year 15)

The maturing of the woodland planting and scrub with trees edge at the Sites northern and western boundaries would strengthen the existing screening in this view. It is anticipated that there would be no discernible view of the Site's interior.

The magnitude of change would remain Negligible

9.1.9.7 Level of Visual Effect (Year 15)

Recreational Users: **Negligible and neutral**

9.1.10 Viewpoint 9 – View from Public Right of Way, Eastern Edge of Averham

This viewpoint is located on a public footpath/Trent Valley Way LDF at the eastern edge of Averham and is representative of views from the PRow/long distance footpath and residential receptors. In addition, it is within Averham Conservation Area, and is adjacent to a Scheduled Monument (1017687, Averham Moat and Enclosure).

Figure number: 1.10k

Distance to the Site: 1.02 km

Field of view: 90°

View direction: 240° (west-south-west)

9.1.10.1 Baseline

The view across fields is centred on the Site location, which is located directly beyond the electricity substation, of which there are glimpsed views between trees at the horizon. Although not included in the view, Staythorpe Power Station is also visible to the south of view. The Scheduled Monument can be identified by the enclosure extending from the centre to the west of the view. Trees form an almost continuous backdrop to the local view, while the transmission line and towers beyond head north-westwards from the substation.

Views to Site are screened by trees and the substation, and further woodland between the substation and the Site. In winter views the Site would difficult discern.

9.1.10.2 Susceptibility & Value

Residential and recreational receptors (users of a long distance footpath) would be of a high value, and their susceptibility to change would also be high.

9.1.10.3 Sensitivity

Residential Receptors: High

Recreational Users: High

9.1.10.4 Magnitude of Change (Year 1)

The Site would be extensively screened by existing trees and the substation, and it is unlikely there would be a meaningful view.

The greatest magnitude of change would be Negligible.

9.1.10.5 Level of Visual Effect (Year 1)

Residential Receptors: **Negligible and adverse**

Recreational Users: **Negligible and adverse**

9.1.10.6 Magnitude of Change (Year 15)

Due to operational constraints, the Development would not have any augmented screening at its eastern boundary. However, the existing screening described above would result in no discernible views of the Site, even in winter, and there would be no change in the view from Year 1.

The greatest magnitude of change would be Negligible.

9.1.10.7 Level of Visual Effect (Year 15)

Residential Receptors: **Negligible and neutral**

Recreational Users: **Negligible and neutral**

9.1.11 Viewpoint 10 – View from Public Right of Way, Southern Edge of Upton

This viewpoint is located on a public footpath at the eastern edge of Upton and is representative of views from the PRoW and residential receptors. In addition, it is located within Upton Conservation Area.

Figure number: 1.10I

Distance to the Site: 1.61 km

Field of view: 90°

View direction: 108° (east-south-east)

9.1.11.1 Baseline

This slightly elevated view extends across the gently sloping plain below towards Staythorpe and the Site. The viewpoint is located in an arable field in crop, with the view locally constrained by wooded hedgerows. Partial views towards the Site through the trees include the chimneys of Staythorpe Power Station and the overhead transmission lines and towers originating from the substation, which dominate the far view. The Site is visible through a gap between the local hedgerow trees, although it is only the Site's southern wooded boundary that is discernible.

9.1.11.2 Susceptibility & Value

Residential receptors would be of a high value, and their susceptibility to change would also be high.

Recreational receptors would be of a medium value, and their susceptibility to change would also be medium.

9.1.11.3 Sensitivity

Residential Receptors: High

Recreational Users: Medium

9.1.11.4 Magnitude of Change (Year 1)

The combination of distance and the low-lying nature of the Development along with some local screening would result in barely discernible views of the Development, as they would both merge together and merge within the landscape at this distance, and dwarfed by the electricity transmission infrastructure in the view. There would be no meaningful view of the Development, which would occupy a small and distant portion of the view.

The maximum magnitude of change would be Negligible.

9.1.11.5 Level of Visual Effect (Year 1)

Residential Receptors: **Negligible and adverse**

Recreational Users: **Negligible and adverse**

9.1.11.6 Magnitude of Change (Year 15)

The maturing of the newly planted boundary woodland and trees/scrub at the Site's northern and western boundaries would provide enhanced screening, limiting views of the BESS elements further.

The greatest magnitude of change would remain Negligible, or as the proposed planting matures, screening the Development within the landscape

9.1.11.7 Level of Visual Effect (Year 15)

Residential Receptors: **Negligible and neutral**

Recreational Users: **Negligible and neutral**

9.1.12 Viewpoint 11 – View from Public Right of Way, Micklebarrow Hill

This viewpoint is located on the public footpath at Micklebarrow Hill, the highest location within the Study Area, and is representative of views from the PRow and Micklebarrow House (albeit the latter includes a degree of screening by trees).

Figure number: 1.10m

Distance to the Site: 1.63 km

Field of view: 90°

View direction: 147° (south-south-east)

9.1.12.1 Baseline

The elevated view across the lower-lying land towards the Site is expansive and characterised by pasture and arable fields within a visible framework of boundary hedgerows with occasional trees, and some small blocks of woodland. The horizon appears complex as long distances are condensed into a small portion of the view. However, notable features at the horizon include Staythorpe Power Station and the electricity substation, and the network of electricity transmission lines and towers. Parts of Staythorpe are also visible including Behay Gardens and Manor Farm, while trees within and surrounding the village provide screening. While the Site itself is difficult to discern, the wooded southern boundary is visible. Beyond the Site, the three-turbine wind development near Cotham is visible behind the low buildings of the power station (over 6.2 km to the nearest turbine).

9.1.12.2 Susceptibility & Value

Residential receptors would be of a high value, and their susceptibility to change would also be high.

Recreational Users would be of a medium value, and their susceptibility to change would also be medium.

9.1.12.3 Sensitivity

Residential Receptors: High

Recreational Users: Medium

9.1.12.4 Magnitude of Change (Year 1)

The Site would be largely screened by existing intervening trees and development, although it would be possible for the tallest structures of the Development to be potentially visible. However, given the distance they would be indiscernible from each other and would merge into the background.

The maximum magnitude of change would be Negligible.

9.1.12.5 Level of Visual Effect (Year 1)

Residential Receptors: **Negligible and adverse**

Recreational Users: **Negligible and adverse**

9.1.12.6 Magnitude of Change (Year 15)

The maturing of the newly planted boundary woodland and trees/scrub at the Site's northern and western boundaries would provide enhanced screening, limiting views of the BESS elements further.

The greatest magnitude of change would be No Discernible View.

9.1.12.7 Level of Visual Effect (Year 15)

Residential Receptors: No View

Recreational Users: No View

9.1.13 Summary of Viewpoint Appraisal

The appraisal of effects at the 11 representative viewpoints illustrates that there would be limited visual or cumulative effects from this proposal. Any identified effects would be reduced by allowing existing field boundary hedges to grow taller, the establishment of additional planting of boundary woodland and trees/scrub the inter-planting of trees alongside hedges, and new replacement hedgerow establishment (both along Staythorpe Road outwith the visibility splay and within the Site) to compensate for any losses. The proposed landscape mitigation would have screening benefits in particular for Viewpoints 1a, 1b, 3, 4 and 5 where there are close proximity views from residential properties along Staythorpe Road and would in general enhance the landscape fabric and biodiversity of the Site and visual amenity. The viewpoint appraisal is summarised in Table 9.1 below.

Table 9.1: LVA Selected Viewpoints – Summary of Effects

VP Number	Distance to Site (m)	User Sensitivity	Magnitude of Change Year 1 and Year 15	Effect Year 1 and Year 15
1a Staythorpe Road/Grange Farm	20.78 m	Residents: High Local Road Users: Medium	Yr 1: Medium Yr 15: Small	Yr 1: Residents: Moderate-Major, adverse Local Road Users: Moderate, adverse Yr 15: Residents: Moderate-Major, neutral Local Road Users: Moderate, neutral
1b Staythorpe Road/Pingley Lane	20.58 m	Residents: High Local Road Users: Medium	Yr 1: Medium Yr 15: Small	Yr 1: Residents: Moderate-Major, adverse Local Road Users: Moderate, adverse Yr 15: Residents: Minor-Moderate, neutral Local Road Users: Minor, neutral
2 Public Right of Way within the Site	Within Site Boundary	Recreational: Medium	Yr 1: Large Yr 15: Large	Yr 1: Recreational: Moderate-Major, adverse Yr 15: Recreational: Moderate-Major, neutral
3	21.77 m	Residents: High Local Road Users: Medium	Yr 1: Small Yr 15:	Yr 1: Residents: Minor-Moderate, adverse

VP Number	Distance to Site (m)	User Sensitivity	Magnitude of Change Year 1 and Year 15	Effect Year 1 and Year 15
Staythorpe Road/Behay Gardens			Negligible	Local Road Users: Minor, adverse Yr 15: Residents: Negligible, neutral Local Road Users: Negligible, neutral
4 Staythorpe Road, North of Site	10.39 m	Local Road Users: Medium	Yr 1: Medium Yr 15: Small	Yr 1: Local Road Users: Moderate, adverse Yr 15: Local Road Users: Minor, neutral
5 Public Right of Way at Southern Site Boundary	3.27 m	Recreational: Medium	Yr 1: Large Yr 15: Medium	Yr 1: Recreational: Moderate-Major, adverse Yr 15: Recreational: Moderate, neutral
6 Public Right of Way, North of Behay Gardens	218.32 m	Recreational: Medium	Yr 1: Small Yr 15: Negligible	Yr 1: Recreational: Minor, adverse Yr 15: Recreational: Negligible, neutral
7 Public Right of Way, North of Rolleston	629.25 m	Recreational: Medium	Yr 1: Negligible Yr 15: Negligible	Yr 1: Recreational: Negligible Yr 15: Recreational: Negligible
8 Public Right of Way, West of Staythorpe	902.22 m	Recreational: Medium	Yr 1: Negligible Yr 15: Negligible	Yr 1: Recreational: Negligible Yr 15: Recreational: Negligible
9 Public Right of Way, Eastern Edge of Averham	1.02 km	Residents: High Recreational: High	Yr 1: Negligible Yr 15: Negligible	Yr 1: Residents: Negligible

VP Number	Distance to Site (m)	User Sensitivity	Magnitude of Change Year 1 and Year 15	Effect Year 1 and Year 15
				Recreational: Negligible Yr 15: Residents: Negligible Recreational: Negligible
10 Public Right of Way, Eastern Edge of Upton	1.61 km	Residents: High Recreational: Medium	Yr 1: Negligible Yr 15: Negligible	Yr 1: Residents: Negligible Recreational: Negligible Yr 15: Residents: Negligible Recreational: Negligible
11 Public Right of Way, Micklebarrow Hill	1.63 km	Residents: High Recreational: Medium	Yr 1: Negligible Yr 15: No View	Yr 1: Residents: Negligible Recreational: Negligible Yr 15: Residents: No View Recreational: No View

9.2 Visual Effects on Views from Residential Properties

The effect of the Development on local residents requires particular attention because they would tend to experience the Development for longer periods of time than other receptors.

Whilst individual or specific observations are made below concerning views or potential views from properties in the direction of the Development, a 'summation' is offered based on an opinion 'in the round', i.e. taking all relevant factors into account. This could include potential views from the property itself as well as from the surrounding amenity ground, the access/egress points and the immediately adjacent highway. Effects from views from ground floor windows and external areas are assessed. The appraisal is an informed estimate as the properties themselves have not been accessed.

A total of seven individual or groups of properties were identified within 0.5km of the Site. All are within or close to the settlement of Staythorpe. This appraisal provides a detailed analysis of the views and effects within the village. A more general assessment on the settlement is also provided below at Section 9.3. An appraisal of the effects on Staythorpe have been provided.

These groups and individual properties are shown on Figure 1.8, where they are labelled R1, R2, etc. None of these properties were scoped out of the appraisal at the baseline stage on the basis of little or no theoretical visibility indicated by the Screened ZTV (see Section 4.6.1). Having theoretical visibility, each group or individual property is considered

in Table 9.2 below based on a desktop appraisal in conjunction with a site visit to the closest public location in the vicinity of each property.

Occupants of residential properties are judged to be of High sensitivity as they are static receptors whose enjoyment of their property is likely to be affected by the quality of views and visual amenity experienced there.

Table 9.2: Visual Effects on Residential Properties

Property	Description of Effect
R1	Pingley Bridge Description: A group of detached dwellings located off Staythorpe Road, adjacent to the electricity substation. The group comprises a number of single-storey dwellings facing onto Staythorpe Road, and a more recent close of two-storey dwellings, set back from the road. Distance to Site: c.420 m. This group is immediately surrounded by mature trees and large shrubs to the east and south, providing a good degree of enclosure, limiting views towards the existing substation and the Site. Views of the Site from the single-storey dwellings would be oblique from the side and rear elevations, and limited by the surrounding vegetation and the existing substation. Views to the Site from the two-storey dwellings would be direct from the rear elevations of some dwellings, and oblique from others, with dwellings to south/west of the development screening views from dwellings to the north/east. In addition, mature trees would screen ground-level views. There would be some filtered views through the surrounding trees from some upper storey windows, although these would be primarily focussed towards the existing substation. Limited views of the Development would be in the context of the existing development. There would be no noticeable change in the view predicted from ground floor windows between Years 1 and 15. There would be some indistinct filtered views of the Development from some upper storey windows. Magnitude of change (Year 1): Negligible. Level of effect: Negligible and adverse Magnitude of change (Year 15): Negligible. Level of effect: Negligible and neutral
R2	White Cottage Description: A two-storey detached dwelling located off Staythorpe Road and adjacent to the western edge of the existing substation. Its principal elevation faces west towards the far northern section of the Site boundary Distance to Site: c.165 m. This property is surrounded by trees and shrubby vegetation to the north and west, while views to the south are screened by woodland in the field immediately adjacent to the Site's boundary. To the east and south is located the existing substation, within close proximity to the dwelling. Whilst there is a good level of existing screening towards the Site, there would be some glimpsed views through the less robust sections of screening towards the Site's most northerly corner. However, this part of the Development is reserved for existing/enhanced habitat, which means that the built elements of the Development would not be visible from the dwelling. Magnitude of change (Year 1): Negligible. Level of effect: No change / Negligible and neutral Magnitude of change (Year 15): Negligible. Level of effect: No change / Negligible and neutral
R3	Staythorpe House Farm and associated dwellings Description: This group includes the main dwelling at Staythorpe House Farm, which fronts onto Staythorpe Road. It is connected to possibly two further dwellings, including Harness Cottage, which do not have views towards the road. In addition, Staythorpe House Farm Cottage fronts onto Staythorpe Road. Staythorpe House Farm and Staythorpe House Cottage are both two-storey dwelling. Distance to Site c.65 m There would direct views from the main dwelling across the field on the opposite of the road towards the Site. Due to operational limitations, a portion of the Site's boundary along the visible edge in the view will not benefit from additional screening, which means

Property	Description of Effect
	that views of the BESS elements, including the battery storage units and the substation would be possible. The view from Staythorpe House Farm Cottage would be similarly affected, although the views would be oblique and there would be some partial screening provided by trees in the field on the opposite side of the road. The closest elements of the Development to Staythorpe House Farm would be c. 100 m and 165 m from Staythorpe House Farm Cottage. The views from the other connected dwellings would not be directed towards the Site. By allowing the Site's hedgerow boundary to grow to a height of 3 m would help to screen parts of the Development in views from ground level, but would not eliminate views, particularly from upper storey windows or through gaps in boundary vegetation at the Site entrance and emergency access point. Magnitude of change (Year 1): Medium. Level of effect: Moderate-Major and adverse Magnitude of change a (Year 15): Small. Level of effect: Minor-Moderate and adverse
R4	Grange Farm/Pingley Close/Pingley Lane/Manor Farm Description: This is the largest group of dwellings within Staythorpe, situated on the northern side of Staythorpe Road, c. 17 m from the Site boundary at its closest point. Distance to Site boundary: ranging from c. 17 m to 120 m. Refer to Viewpoints 1a and 1b and Photomontages 1a and 1b. The group consists of Grange Farm, which appears to be numbered 4 and 5 Staythorpe Road, and neighbouring dwellings numbered 1 and 3s, which are situated at the edge of Staythorpe Road. Views from 1 and 3 are direct from principal elevations, while views from 4 and 5 are at right angles to the direction of the Site, and partially enclosed by another building and wall. Elsewhere, there is a mix of single- and two-storey dwellings with various orientations in relation to the Site. Most views of the Site would be screened by other dwellings, garden vegetation and trees. Some views would be possible from dwellings on Pingley Lane (before the junction with Pingley Close) and the rear elevations of some dwellings on Pingley Close. The loss of five trees and a length of hedgerow would be discernible although partially compensated by instant hedging beyond the visibility splay at the Site entrance. There would also be some limited views from dwellings set further back from the main road junction, including The Cottage. Beyond that, it is unlikely that any views would be possible due to the density of tree cover and the dispersion of the dwellings amongst it. The level of effects described below are the maximum in relation to the dwellings on or close to Staythorpe Road. Elsewhere within the group, effects would be negligible or there would be no views. The level of effect at Year 15 reflects the maturation of Site boundary screening enhancements installed as part of the Development. Magnitude of change (Year 1): Medium. Level of effect: Moderate-Major and adverse Magnitude of change a (Year 15): Small. Level of effect: Minor-Moderate and adverse
R5	Behay Gardens Description: Behay Gardens is a development of ten two-storey dwellings with their own gardens arranged around a communal garden, situated off Staythorpe Road. The principal elevations of the two at the front and the two at the back face directly towards the Site, while the others are at orientated at right angles to the Site, facing each other. Distance to Site boundary: ranging from c. 14 m to 100 m. Refer to Viewpoint 3 and Photomontage 3. At present, the Site boundary vegetation is robust, limiting views from Behay Gardens into the Site, but that may be dependent on the season. There may be oblique views through the gaps created following the loss of five trees. However, this boundary would be further strengthened to screen the BESS elements, as illustrated in the photomontages. There would be views of the Development from the two dwellings facing the road, and slightly more restricted views from the other dwellings. By year 15, the maturation of the Site boundary screen planting would reduce the visibility of the BESS elements. Magnitude of change (Year 1): Small to Medium. Level of effect: Minor – Moderate and adverse Magnitude of change (Year 15): Negligible. Level of effect: Negligible and neutral
R6	Crossing Cottage

Property	Description of Effect
	Description: Crossing Cottage is a single-storey dwelling located adjacent to the level crossing and opposite the signal box. Its principal elevation is not clear from the road. Distance to Site boundary: c. 38 m. The dwelling is surrounded by trees on three sides and by a hedge with access to the road on the side facing the Site. It is from this elevation that views of the Site are possible. Currently the Site boundary vegetation includes a weak hedgerow with trees, which allows for glimpses into the Site as far as the boundary between the two fields within the Site. By Year 15 this gap will have been eradicated by the reinforcement of the hedgerow and the maturation of the boundary screen planting. Magnitude of change (Year 1): Small. Level of effect: Minor-Moderate and adverse Magnitude of change (Year 15): Negligible. Level of effect: Negligible neutral
R7	Hughes Close Description: Hughes Close comprises five two-storey dwellings. Mature leylandii hedges facing the road and some trees provide screening of the close. Although views towards the Site are very limited, there is a small potential for some oblique upper storey views towards the Site, although the BESS elements are unlikely to appear in these views due to their setting back from the Site boundary by 40 m and the small portion of the Site edge that would be potentially visible. By Year 15, the boundary edge planting would have matured to screen the interior of the Site in these views. Magnitude of change (Year 1): Negligible. Level of effect: Negligible and adverse Magnitude of change (Year 15): Negligible. Level of effect: No Discernible View

9.3 Visual Effects on Views from Settlements

The settlements identified in Section 4.7.1 of the baseline conditions as having potential visibility to the Development are considered in Table 9.3 below.

Occupants of residential properties are judged to be of high value, with a high susceptibility to the development, and therefore 'high' sensitivity as they are static receptors whose enjoyment of their property is likely to be affected by the quality of views and visual amenity experienced there.

Table 9.3: Visual Effects on Settlements

Settlement	Description of Effect
Staythorpe	Staythorpe is the closest settlement to the Site, being adjacent to the Site boundary. Whilst this appraisal considers the whole settlement, an additional appraisal is provided in Section 9.2, where groups and individual properties are considered in more detail. The screened ZTV indicates that there would be visibility to the Development from most areas of the village, while the highest levels of potential visibility would avoid most residential properties. This is largely due to roadside properties screening views of the Site from those properties behind them. The extent of a view would depend on the position and orientation of the principal elevation, whether the view is from a ground floor or from an upper storey, and the presence or otherwise of other screening agents such as garden shrubs and trees. In addition, screening by existing boundary vegetation would be beneficial, although the degree to which that screening is effective would vary and the loss of trees and hedgerow vegetation to facilitate the new emergency access and the visibility splay for the Site entrance would be discernible before replacement planting takes effect. At Year 15, the additional boundary screening would have matured to further reduce visual effects. Overall, the effects on the village are considered to be notable, with those properties facing the Site along Staythorpe Road being the most affected. Maximum magnitude of change (Year 1): Medium. Level of effect: Moderate-Major and adverse Maximum magnitude of change (Year 15): Small. Level of effect: Minor- Moderate-Major neutral

Settlement	Description of Effect
Rolleston	Rolleston is an L-shaped linear village that lines the road between the A617 to the north and Fiskerton to the south. Distance and direction to Site: c. 830 m south-west of the Site. The screened ZTV indicates that very few properties within the village would experience views of the Development. However, the extent of actual visibility would be much less than the ZTV indicates (given the limitations of the digital model), and very few views of the Development would be anything more than barely discernible, due to both the presence of other intervening development, hedgerows and trees, and distance from the Site. Following the maturation of the Development's boundary planting (woodland and trees/scrub) at Year 15, no clearly discernible views are predicted. Magnitude of change (Year 1): Negligible. Level of effect: Negligible Magnitude of change (Year 15): No View. Level of effect: No View
Averham	Averham is a nucleated village located adjacent to the A617. Distance to and direction to Site: c. 900 m north-east of the Site. The screened ZTV indicates very limited visibility of the Site, resulting from the screening influence of the trees to the east of the Site, other housing at Pingley Bridge and the presence of the electricity substation. Actual views, where gained (if any, along the southern edges), would be barely discernible through the structures within the electricity substation. As there is no mitigation planting along the Site's eastern edge, the view would not change between Years 1 and 15. Magnitude of change (Year 1): Negligible. Level of effect: Negligible Magnitude of change (Year 15): Negligible. Level of Effect: Negligible
Upton	Upton as a linear village that lines the road between the A617 to the east and Southwell to the West. It sits on higher ground to the north west of the Site. Distance and direction to Site: c. 1.4 km north-west of the Site. The screened ZTV indicates that very few properties within the village would experience views of the Development. This would be the case, although some views would be possible from the edge of the village where local screening by trees does not inhibit views across the plain below. Here, views of the development would be relatively indistinct from the background setting of the Site. The maturation of the woodland and tree/scrub planting at the Site's northern and western boundaries would help to further screen the interior of the Site, although the change to view between years 1 and 15 would be barely distinguishable. Magnitude of change (Year 1): Negligible. Level of effect: Negligible Magnitude of change (Year 15): Negligible. Level of effect: Negligible
Farndon	Farndon is a relatively large village situated on the eastern bank of the River Trent, close to the A46, and south-west of Newark. Distance and direction to Site: c. 1.7 km south-east of the Site. The screened ZTV indicates that only a few properties within the village would experience views of the Development. Given both the distance to the Site and the presence of intervening tree screening along the riverbank and within the wider landscape in the direction of the Site (including the Site's wooded southern boundary), no views are predicted. Magnitude of change (Year 1): No View. Level of effect: No View Magnitude of change (Year 15): No View. Level of effect: No View
Kelham	Kelham is small nucleated village located on the A617, to the north-east of the Site. Distance and direction to Site: c. 2 km north-east of the Site. The screened ZTV indicates that no residential properties within the village would experience views of the Development. This is due to screening by other development close to the Site, including the electricity substation and Averham village. In addition, trees at the southern edge of the village further restrict views. Magnitude of change (Year 1): No View. Level of effect: No View Magnitude of change (Year 15): No View. Level of effect: No View

9.4 Visual Effects on Views from Recreational Routes

Of those recreational routes identified in the baseline in Section 4.6.2, the Screened ZTV indicates some theoretical visibility of the Development from a number of public footpaths that pass within c. 1km of the Site. These are considered in Table 9.4 below.

Users of locally used recreational routes are judged to be of a medium value, with a medium susceptibility to the Development, and therefore a 'medium' sensitivity to the Development. Users of well-used PRow and long distance footpaths where the attractive nature of the landscape is a significant factor in the enjoyment of the walk, are judged to be of a high value, with a high susceptibility to the Development, and therefore a 'high' sensitivity to the Development. The levels of sensitivity reflect the activity of passing slowly through the area, focussing on views of the landscape.

Each route is appraised sequentially as a whole.

Table 9.4: Visual Effects on Recreational Routes

Route	Description of Effect
Trent Valley Way including sections of NT Staythorpe FP1 / Staythorpe FP1 and Averham FP8	The route extends from Staythorpe Power Station in the south to the A617 at Averham in the north. The Trent Valley Way and the public footpaths are coincident, except for a section along the western bank of the River Trent south-east of Averham, where an area of woodland separates them. This section of the route falls outside of the study area. At its closest point is located c. 840 m from the Site (to the south-east). Its maximum distance from the Site within the study area is 1 km. The screened ZTV indicates that there could be some low levels of potential visibility (up to 40%) to the far south and to the north, while the power station screens views in the direction of the Site. Along the section south of the power station, theoretical visibility does not take into account of the ability to perceive a feature from a large distance through a landscape that includes overlapping layers of hedgerows, woodland and trees, and where distant gaps in that cover might be indiscernible. That effect, plus woodland cover along the river's edge south of the power station renders any views towards the Site as indiscernible. This would also be true along the section that extends beyond the 1 km study area along and close to river. At Averham, there would be no discernible views due to the intervening substation and tree cover, as represented by Viewpoint 9 (Figure 1.10k). As the LDF passes through the village towards the A617, views towards the Site would be screened by development and garden vegetation, as the screened ZTV indicates. Sensitivity: High Magnitude of change (Year 1): Negligible. Level of effect: Negligible and adverse Magnitude of change (Year 15): Negligible. Level of effect: Negligible and neutral
Farndon BW1 / NT Farndon BW1	Only a small section of this route passes through the 1 km study area, on the opposite side of the River Trent from the power station. The screened ZTV shows fragmented and very limited theoretical visibility of the Development from a short section of this route. However, riparian vegetation along the River Trent and the PRow near the marina screens views to the north west. Sensitivity: Medium Magnitude of change (Year 1): No Change. Level of effect: No Effect Magnitude of change a (Year 15): No Change. Level of effect: No Effect
NT Rolleston FP2 / Rolleston FP2 / Rolleston FP2A	The PRow extends from the northern edge of Rolleston to the River Trent, passing Rolleston Gorse close to the edge of the 1 km study area. Whilst the screened ZTV shows theoretical visibility up to 40%, actual visibility of the Development would be much more limited, due to the distance (and the effects of perception over long distances). There is a small section of this route where it is possible to see the wooded southern boundary of the Site (between and beyond local tree cover and hedgerows). However, at this point the PRow is c. 900 m from the most proximate part of the visible Site boundary. The wooded Site boundary is also orientated at an oblique angle to the view, which has the effect of making the woodland edge 'deeper' than if it were a direct view. Any views of the Development from this part of the route would indistinct and indiscernible from the woodland edge. Views from the route alongside the village of Rolleston would also be

Route	Description of Effect
	limited by intervening tree cover and other development, such that any glimpsed views would be barely distinguishable. Sensitivity: Medium Magnitude of change (Year 1): Negligible. Level of effect: Negligible and adverse Magnitude of change (Year 15): negligible. Level of effect: Negligible and neutral
NT Rolleston FP11 / Rolleston FP10 / Rolleston FP11	These PRoWs are located to the west of Staythorpe Road, north of the village of Rolleston. They extend from the road towards the north-west, each crossing the railway line. The closest of these to the Site is located c.575 m to the south-west of the Site boundary. The ZTV indicates a theoretical visibility up to 40%. As Viewpoint 7 (Figure 1.10i) shows, views towards the Site would be possible, albeit those views are distant and affected by intervening features such other development, trees and hedgerows, and any glimpses of the Development would be indistinct. The maturation of boundary screen planting would further reduce actual visibility. Further west along Rolleston FP11, more of the Site becomes potentially visible, and there are opportunities for some further glimpses of the Development. Here too, however, the maturation of the Site's boundary screen planting would limit further those glimpses. Sensitivity: Medium Magnitude of change (Year 1): Negligible. Level of effect: Negligible and adverse Magnitude of change (Year 15): Negligible. Level of effect: Negligible and neutral
NT Staythorpe FP1 / Staythorpe FP1	The PRoW links Staythorpe Road at Staythorpe with the River Trent, via the Site. Part of the route, between the railway line and the River Trent) is also designated as a Local Cycle Network route. Given that part of the route passes through the Site, the ZTV indicates high levels of theoretical visibility (over 81%) within the Site, and up to 40% visibility south of the railway line. Actual visibility within the Site would be unavoidably at close proximity, although by Year 15, the hedgerows that bound the route within the Site would be so tall that views above the hedge would be impossible. However, the route passes the access to the western field from the eastern field, where views of the Development would be open through a limited aperture within the hedges on both sides (see Viewpoint 2, Figures 1.10.c to 1.10.d). To the south of the Site, the Site's wooded boundary screens vies into the Site, where the power station becomes another focus of views along the route. Sensitivity: Medium (for both PRoW and LCN) Maximum Magnitude of change (Year 1): Large. Level of effect: Moderate-Major and adverse Maximum Magnitude of change (Year 15): Large. Level of effect: Moderate-Major and neutral
NT Staythorpe FP2 / Staythorpe FP2 / Staythorpe FP3	This route extends from Staythorpe Road at Staythorpe (with a connection from Pingley Close) to Upton. At its closet point to the Site, it is located c.21 m from the Site boundary (although during fieldwork access was not possible from this location due to crops). The screened ZTV indicates a high level of theoretical visibility along 'Staythorpe FP3' (over 81%), but this falls to between 0% and 80% along 'Staythorpe FP2'. Viewpoint 6 (Figure 1.10h) illustrates the view from 'Staythorpe FP3', where elements within the Site (wooden electricity poles) indicate that there would be potential views of some features within the Development, especially in its early life. Following the maturation of boundary screen planting, views of the Development would be further limited. With increasing distance from the Site, it would become more difficult to experience clear views of the Development. At Viewpoint 8 (Figure 1,10j), illustrates a similar view to Viewpoint 6, but located close the 1 km study area edge. Elements within the Site are visible, though difficult to discern clearly, and following the maturation of the boundary screen planting, views of the Development would be barely discernible. Sensitivity: Medium Maximum Magnitude of change (Year 1): Small. Level of effect: Minor and adverse Maximum Magnitude of change (Year 15): Small. Level of effect: Minor and neutral

9.5 Visual Effects on Views from Transport Routes

Of those key transport routes identified in Section 4.6.4 of the baseline conditions, the Screened ZTV indicates some theoretical visibility of the Development the routes considered in Table 9.5 below.

Users of main (A-class) roads are judged to be of low value, with a low susceptibility to the Development, and therefore 'low' sensitivity to the Development where they pass through the area at high speed with limited awareness of their surroundings. Users of local (B-class) and minor roads are judged to be of 'medium' sensitivity as they travel at slower speeds and generally have a greater appreciation of their surroundings.

Users of the rail network are judged to be of low value, with a low susceptibility to the development, and therefore 'low' sensitivity to the Development where they pass through the area at high speed with limited awareness of their surroundings.

Effects on the routes are appraised sequentially as a whole.

Table 9.5 Visual Effects on Transport Routes

Route	Description of Effect
A617	Only a small extent of this route lies within the 1 km study area, north of Averham. The screened ZTV shows that there would be no views of the Development immediately north of Averham, as it would be screened by the settlement. To the west of Averham, the screened ZTV indicates up to 60% visibility of the development. While views from the road towards the Site are partially screened by roadside trees, there would be glimpsed views of some of the taller elements within the development, although indistinct at this distance. Sensitivity: Low Magnitude of change (Year 1): Negligible. Level of effect: Negligible and adverse Magnitude of change (Year 15): Negligible. Level of effect: Negligible and neutral
Staythorpe Road	The screened ZTV shows a pattern of potential visibility of up to 60% close to the junction with the A617, north-west of the Site. This begins to increase as the route approaches the edge of Staythorpe reaching a maximum (over 81%) along the section of road adjacent to the Site boundary (a distance of c. 520 m) and the loss of the trees and hedgerow to facilitate the construction of a new gated emergency access would be apparent until the replacement planting provides enclosure and enhanced filtering. South of the railway line, visibility falls suddenly due to screening by trees and housing, and remains low as far as Rolleston. This theoretical pattern would be the case in reality, although when the Site boundary planting has matured, views of the Development would be restricted. Refer to Viewpoints 1a to 1b and 3 to 4 (Figures 1.10a to 1.10b and 1.10e to 1.10f). Sensitivity: Medium Maximum Magnitude of change (Year 1): Medium. Level of effect: Moderate and adverse Maximum Magnitude of change a (Year 15): Small. Level of effect: Minor and neutral
Main Road / Main Street	This road is located just outside of the 1 km study area and is included here because users of the road would have elevated views overlooking Staythorpe. Between the A617 and Upton, the screened ZTV indicates an increasing level of potential visibility from up to 20% to over 61%. This reflects the pattern of topography (see Figure 1.3) where elevation increases towards, and peaks at, Upton (from c. 15m to c. 38 m). The views between the A617 and Upton would be part-screened/filtered by local hedgerows and trees, while further screening within the sider landscape and alongside the Site boundary would render any views of the Development barely discernible and set within the content of the power station and the overhead power lines and towers. As the road climbs towards Upton, roadside screening would become less effective for a while, and the context of the view (previously described) would become more prominent. Closer to Upton, local filed boundary screening overlaps providing a more efficient screen, although this begins to become less effective where the road turns up a steeper part of the road into the village. Following maturation of the boundary screen panting, already indiscernible views would become further restricted. Views would be screened within Upton.

Route	Description of Effect
	Sensitivity: Medium Maximum Magnitude of change (Year 1): Negligible. Level of effect: Negligible and adverse Maximum Magnitude of change (Year 15): negligible. Level of effect: Negligible and neutral
Railway Line	The railway line connecting Newark and Nottingham passes through the 1 km study area between the southwest and east, passing the Site's southern boundary. The screened ZTV shows that potential visibility would range between 1-80%, with the highest levels adjacent to the western section of the Site boundary. Views from passenger trains are constrained mainly to views out of windows at right-angles to the direction of travel, and the speed at which they may travel would result in short duration views. Along most of the railway line through the 1 km study area, passenger would not be aware of the Site nor the Development within it, principally because it is located adjacent to the railway line (long distance views are not possible in the direction of travel). Passengers would only become aware of the Development as they pass the Site. Existing boundary screening would also limit the views, and combined with the short duration of the view, it is unlikely that there would be any meaningful appreciation of the Development. Sensitivity: Low Maximum Magnitude of change (Year 1): Negligible. Level of effect: Negligible and adverse Maximum Magnitude of change (Year 15): negligible. Level of effect: Negligible and neutral

9.6 Cumulative Effects

The cumulative baseline includes the following related developments, all of which are operational:

- Staythorpe Power Station, located c. 350 m to the east of the Site;
- Staythorpe Substation, also located off Staythorpe Road, c. 11 m (at its closest point) to the north-east of the Site;
- 132 kV and 33 kV electricity transmission infrastructure. The 32 kV overhead line passes through the Site, while the 132 kV overhead line with towers criss-crosses the study area; and
- Ollerton Road wind turbines (planning references 11/00276/FUL, 12/01763/FUL and 14/004442/FUL), located off Ollerton Road, c. 4.9 km to the north of the Site.

The following cumulative developments are located beyond 5 km radius:

- The Grange Solar Farm (planning reference 19/01408/FULM), located at Cotham Lane, Newark, c. 5.3 km to the south-east of the Site;
- Cotham Lane Solar Farm (planning reference 11/00333/FULM), located at Cotham Lane, Newark, c. 6 km to the south-east of the Site; and
- Newark Wind Farm (planning reference 11/01588/FULM), located at Cotham Lane, Newark, c. 5.7 km to the south-east of the Site;

These are identified on Figure 1.9.

Although a maximum 5 km search area was established for the cumulative appraisal, Cotham Lane Solar Farm, The Grange Solar Farm and Newark Wind Farm, are located beyond the search area, off Cotham Lane, south of Newark. However, as NSDC requested these to be included in the cumulative appraisal they do form part of the cumulative baseline in this LVA. However, the cumulative effects arising from the Development in combination and sequentially with these developments are unlikely to be notable, given the distance between them and the Development and the degree of visual enclosure surrounding the Site.

There are occasional views of the Newark Wind Farm wind turbines in the direction of the Site from the more elevated land to the north-west of the study area, for example at Micklebarrow Hill (see Viewpoint 11, Figure 1.10m), where the turbines appear behind the substation and power station. Other elevated views include from Averham Park, c.2.7 km to the north-west of the Site and c.8.5 km to the north-west of the wind farm. Views of the solar developments in combination with the Development are not possible, even from the most elevated locations to the north. Views that include the cumulative sites off Cotham Lane in the direction of the Site would not include the Development due to intervening landform, vegetation and development. In terms of sequential effects, the distance between the Development and the group of sites off Cotham Lane would involve a journey by car of approximately 10 minutes, depending on the exact route, time of day and traffic conditions.

Views that include the Ollerton Road wind turbines in combination with the Development from public locations are unlikely from any vantage point to the north of the Site, due to landform and intervening vegetation, although the blades of the Ollerton turbines are visible from locations to the north and south of the Site including from Staythorpe Road, north of the Site and public footpaths east of Rolleston, south of the Site. In views of the turbines from the south of the Site, the Development would not be discernible due to the wooded southern Site boundary and other intervening hedges and trees.

Views of the Newark Wind Farm turbines from south of the Site are possible from the public footpath network, although those views would not be possible in combination when facing either one of the developments. Views of the Development from any part of the public rights of way network to the south would be indiscernible due to the wooded southern Site boundary. Sequential views using the public rights of way network would not be possible without a diversion to cross the river using the road network.

There would be a notable visual association with the substation and the power station at Staythorpe, and in relation to the overhead transmission network. Regarding the transmission network, any views of the Development would also include views of transmission infrastructure, while sequential views would be possible from almost any direction from the Site. Most views of the Development would be from the west and north, and would include the backdrop of the substation and the power station. In distant elevated views, for example from Micklebarrow Hill, the substation and power station would dominate the view, while the Development would form a low-level feature, difficult to discern from a distance of more than 1 km, especially once the boundary screen planting had matured. In close proximity views of the Development, from Staythorpe Road, the Development would form the main feature of foreground views, while views of the substation and power station would be slightly less clear to the observer due to the proximity of woody vegetation, including hedges and trees at the Site boundaries.

In terms of effects on landscape character, the Development would have a notable effect locally, but as already described in Section 8.1.1. it would affect a very small proportion of the host LPZ. Cumulatively, there is degree of intensification of development within the LPZ, but the scale and location of the Development is such that the intensification occurs within an area already dominated by energy generation and distribution infrastructure. In landscape character terms, this is an appropriate location in which to site such a scheme, albeit it has visual effects on local residents.

Overall, the magnitude of visual cumulative effect is considered to be Small, and judged in relation to high sensitivity receptors, the level of cumulative effect would be Minor-Moderate.

Overall, the magnitude of landscape cumulative effects is Negligible, leading to a Negligible cumulative effect.

10 SUMMARY & CONCLUSION

This Landscape and Visual Appraisal (LVA) has been carried out in order to appraise the likely landscape and visual effects associated with the proposed ECAP Staythorpe BESS Ltd development (the Development) located approximately 18 m from Staythorpe Road, Staythorpe, and 4.0 km west of Newark. The application Site extends to an area of c. 10.07 ha.

The LVA has recorded and analysed the baseline landscape resource and visual amenity of the Site and surrounding area, identified the landscape and visual receptors likely to be affected by the Development, and determined the nature and extent of those effects.

The LVA has concluded that, whilst the Development would give rise to varying degrees of some adverse landscape and visual effects on a number of receptors, effects during the operational phase are predicted to be limited and would occur mainly within the Site itself and within its immediate setting up to 0.5 km radius.

10.1 Summary of Predicted Landscape Effects

The landscape effects resulting from the operational period of the Development are defined as long term, but reversible. The main effect of landscape character would be the change in land use of the Site from agricultural land to energy, and the resultant effects upon the local landscape character.

The Development would retain key landscape elements which are characteristic of the local setting, for example the majority of boundary hedgerows with trees, although there would be some limited hedgerow removal and five trees would have to be felled to facilitate the construction of a new emergency access and a new widened Site entrance. Due to the low-lying nature of the Development the overall composition of the landscape would remain characteristic of the receiving setting and topography will remain unchanged.

The Site is located in Landscape Policy Zone (LPZ) TW11 Cromwell, North and South Muskham, Kelham, Averham, Staythorpe and Rolleston Village Farmlands, which is predominantly rural in nature and identified as being of a "moderate" sensitivity, which translates to a medium sensitivity (for large-scale or strategic development) within the LVA methodology.

During construction, significant levels of built development, machinery, plant and workers would be present, locally affecting surface levels, depositing materials and changing the agricultural land use for a period of up to 9 - 12 months.

During operation, the Development would introduce built structures to most parts of the Site which, at present, contains few man-made features (other than a 33 kV wooden pole line) and this would affect the rural and agricultural character of the landscape at the Site level only.

Landscape effects would be predominantly restricted to the Site, and there are no identified effects on valued features including Conservation Area, nor on the setting of heritage features. The Development would have limited and very localised effects. Perceptual changes would occur up to c. 0.5 km to the north and reduce with distance. The intention is to additionally filter the limited or glimpsed views into the Site through additional and replacement boundary planting, so that beyond the Site the Development would be integrated within the existing landscape (which also includes the adjacent existing substation within the host LPZ and Staythorpe Power Station within the neighbouring LPZ TW53).

Embedded mitigation and proposed enhancements would ultimately improve the fabric of the landscape baseline and reduce effects of existing detracting features.

The maintenance of existing hedgerows, and planting of new native shrub planting with trees and woodland, combined with hedgerow gap-filling on the Site perimeter, would have a positive benefit on landscape character by Year 15. The establishment of areas of native species grass and wildflower meadows and the retention and enhancement of existing habitats on Site (poor semi-improved grassland and dense/continuous scrub) would also have biodiversity and wider landscape benefits.

10.2 Summary of Predicted Visual Effects

Effects on views and visual amenity arising from the Development have been determined through analysis of a 'screened' ZTV diagram, of both existing and proposed screen planting, and a number of viewpoints that represent visibility for a range of visual receptors (people).

In this instance, the ZTV shows theoretical visibility of the Development largely limited to the Site and its immediate setting within approximately 0.5 km, which is mainly due to existing vegetation found within and characteristic of the landscape of the Site. This is supported in Figure 1.5 (Screened ZTV) which clearly demonstrates the limit of theoretical visibility particularly to the south and west.

Initially the visual effects during the construction period would be limited to an increase in vehicular movements, however as construction progresses visual effects would become greater with the construction. The viewpoint appraisal has found that there would be limited adverse effects on views. Pronounced effects would be mostly restricted to residential views from Staythorpe Road at Year 1, but that those effects would be moderated by Year 15. The level of effect would not change, but the character of the change would be neutral rather than adverse – due to the maturation of boundary planting to limit and screen views of the Development. There would be lower level effects at the remaining viewpoints.

During construction, significant levels of built development, machinery, plant and workers would be present within the Site for a period of up to 9 - 12 months and the removal of five trees and a 110 linear length of hedgerow vegetation would be apparent, although compensated by replacement and additional planting in the next planting season. This would be visible from properties on Staythorpe Road and by local road users for the duration of the construction period.

There would be important operational effects on people living in residential properties along Staythorpe Road (R3- R5) during the early years of the Development. In addition, important effects on people using the public footpath through the Site would be experienced, and would be notable during the operational lifetime of the Development. Effects would be generally moderated over time up to and including Year 15, when the landscape mitigation measures would have matured sufficiently. These have been proposed to help screen and soften filtered or glimpsed views towards the Development, particularly from residential properties and public footpaths. Views from the public footpath within the Site would be screened by allowing the hedges bounding it to grow to 3 m, but there would still be open views towards the battery storage units at the field entrances, which would be retained for operational use. A new permissive footpath would allow footpath users an alternative route to pass through the Site.

There would be limited cumulative visibility with the existing wind and solar developments at Cotham Lane (to the south-east) and Ollerton Lane (to the north). However, there would be a notable visual association with the substation and the power station at Staythorpe, and in relation to the overhead transmission network. All views from the north and west towards the Site would include the overhead transmission lines and towers, with the substation and the power station forming a backdrop to the low-level Development, which would be increasingly difficult to discern with distance. Only in close proximity to the

Development (on and close to Staythorpe Road) would it form the main feature of foreground views, while views of the substation and power station would be slightly less clear to the observer due to the proximity of woody vegetation, including hedges and trees at the Site boundaries.

10.3 Conclusion

The nature, scale and form of the proposed BESS installation at Staythorpe would result in some limited, but adverse effects on the landscape resource and visual amenity of the Site and its surroundings, as summarised above. However, the low-lying nature of the batteries, their arrangement within existing field patterns and location within a largely agricultural landscape of hedgerows with trees and wooded areas, would result in limited effects. Important effects would be restricted to relatively small numbers of receptors located within c. 500 m radius of the Site and could be mitigated by appropriate landscape mitigation which would have some biodiversity and visual amenity benefits in the long-term.

Overall, there is a considerable amount of embedded mitigation planting proposed across the Site, and the Development would retain, protect and enhance landscape features such as existing trees and hedgerows, where possible, with the loss of only five of Category U and C trees and 110 linear metres of existing hedgerow to facilitate the new emergency access and the visibility splays at the new and widened Site entrance. These losses are adequately compensated by the proposed planting of 129 trees and 0.40 ha of new woodland.

It is considered that conclusions outlined within the assessment support that the Site has the capacity to accommodate the Development as it forms a complementary use of the land together with the wind farms and Staythorpe Power Station and due to the low level nature of the Development. As such the Site has the capacity to absorb the development during its operation, beneficial effects have been identified as a result of the landscape mitigation proposed, and any adverse effects, are reversible.

APPENDIX A LVA METHODOLOGY

Guidance

The assessment methodology follows the 'Guidelines for Landscape and Visual Impact Assessment' Third Edition (GLVA3)²⁰. As recommended by GLVA3, this is not a generic LVA methodology, but has been tailored to be proportionate to the nature and location of the Development. The methodology also considers the following guidance:

- Landscape Institute/ Institute of Environmental Management and Assessment (2013), 'Guidelines for Landscape and Visual Impact Assessment', 3rd Edition ('GLVA3')²¹;
- Landscape Institute (2013), GLVA3 Statement of Clarification 1/13²²;
- Landscape Institute (2019), 'Visual Representation of Development Proposals', Technical Guidance Note²³;
- Landscape Institute (2019), Residential Visual Amenity Assessment TGN 2/19²⁴;
- Landscape Institute (2021), 'Assessing landscape value outside national designations', Technical Guidance Note 02/21²⁵;
- Natural England (2014), 'An Approach to Landscape Character Assessment'²⁶; and
- Natural England (2019), An approach to Landscape Sensitivity Assessment²⁷.

Introduction

The level of landscape and visual effect is determined through consideration of the 'sensitivity' and 'susceptibility' of the landscape or visual receptor to the BESS and the 'magnitude of change' that would be brought about by the proposed BESS were they to be constructed.

The time period for the assessment covers the construction of the proposed BESS and associated infrastructure, to completion of the works and the commencement of its operation.

The assessment has involved a process of iterative design and re-assessment of any remaining, residual effects that could not otherwise be mitigated or 'designed out'. The type of effect is also considered and may be direct or indirect; temporary or permanent (reversible); cumulative; and beneficial, neutral or adverse. The landscape and visual assessment unavoidably involves a combination of both quantitative and qualitative assessment and wherever possible a consensus of professional opinion has been sought

²⁰ Landscape Institute and Institute of Environmental Management and Assessment, 2013, *Guidelines for Landscape and Visual Impact Assessment*, 3rd Edition, Routledge, London. [Accessed 01.08.2022]

²¹ Landscape Institute and Institute of Environmental Management and Assessment, 2013, *Guidelines for Landscape and Visual Impact Assessment*, 3rd Edition, Routledge, London. [Accessed 01.08.2022]

²² The Landscape Institute (2015) GLVIA3 – Statements of Clarification. Available online at: <https://www.landscapeinstitute.org/technical-resource/glvia3-clarifications/> [Accessed 01.08.2022]

²³ The Landscape Institute, *Visual Representation of Development Proposals, Technical Guidance Note 06/19*, 17th September 2019. Available online at: https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/09/LI_TGN-06-19_Visual_Representation.pdf [Accessed 01.08.2022]

²⁴ Landscape Institute, *Residential Visual Amenity Assessment (RVAA) Technical Guidance Note 02/19* 15th March 2019. Available online at: <https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/03/tgn-02-2019-rvaa.pdf> [Accessed 01.08.2022]

²⁵ The Landscape Institute, *Assessing landscape value outside national designations*, Technical Guidance Note 02/21, 26th May 2021. Available online at: <https://www.landscapeinstitute.org/publication/tgn-02-21-assessing-landscape-value-outside-national-designations/> [Accessed 01.08.2022]

²⁶ Natural England (2014), *An Approach to Landscape Character Assessment*. Available online at: <https://www.gov.uk/government/publications/landscape-character-assessments-identify-and-describe-landscape-types> [Accessed 01.08.2022]

²⁷ Natural England (2019), *An approach to landscape sensitivity assessment*. Available on line at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/817928/landscape-sensitivity-assessment-2019.pdf [Accessed 01.08.2022]

through consultation, internal peer review, and the adoption of a systematic, impartial, and professional approach.

Terminology

A description of the terms used in this LVA are provided below.

Sensitivity of Receptor

This is established by considering the value of the receptor and its susceptibility to change. Both these two aspects inform the sensitivity of landscape and visual receptors as set out in Sections 1.5.1 and 1.6.1 below. For the purposes of this LVA, receptor sensitivity is classified on a four-point scale of: negligible, low, medium, and high (refer to Tables A1.4 and A1.11).

Resource / Receptor Value

For the landscape resource this is related to the value that is attached to different landscapes by society. A landscape may be valued by different people for different reasons. For visual receptors this relates to the recognition attached to a particular view (for example in relation to heritage assets or through planning designations) and indicators of value attached to views by visitors (for example through appearances in guidebooks or on tourist maps and the provision of facilities such as car parking and interpretation). For the purposes of the LVA a receptor value is classified on a four-point scale of: negligible, low, medium, and high (refer to Tables A1.1, A1.2 and A1.9).

Susceptibility to Change

For landscape receptors this means the ability to accommodate a Development without undue consequences for the maintenance of the baseline situation and/or achievement of landscape planning policies and strategies

For visual receptors this is a product of the occupation or activity of people experiencing the view and the extent to which their attention or interest may therefore be focused on the views and visual amenity they experience.

For the purposes of this LVA, susceptibility to change is classified on a three-point scale of: low, medium, and high (refer to Tables A1.3 and A1.10).

Magnitude of Change

This is gauged by assessing the type and amount of change predicted to occur in relation to the landscape or visual receptor. Factors influencing the magnitude of change include: size, scale and nature of change; geographical extent; and duration and reversibility of effect as set out in Sections 1.5.2 and 1.6.2 and associated tables.

For the purposes of the LVA, magnitude of change is classified on a four-point scale of: negligible, small, medium, and large (refer to Table A1.8 and A1.14)

Where there is no change to the receptor, or indeed no view of the BESS & infrastructure, the magnitude of change is assessed as **No Change** which would result in **No Effects**.

Level of Effect

The level of landscape and visual effect is gauged by considering the magnitude of change along with the sensitivity of the receptor using professional judgement. For the purposes of the LVA, level of effect is classified on a six-point scale of: negligible, minor, minor to moderate, moderate, moderate to major and major (Tables A1.15 and A1.16).

In line with best practice guidance set out in GLVA3, in addition to assessing level, effects are classified as: beneficial, adverse or neutral, as well as direct and indirect. An effect is

understood to be neutral when the predicted residual change would, on balance, result in neither an improvement, nor a deterioration of the landscape and visual resource compared with the existing situation.

Baseline

The landscape and visual baseline of the assessment was established by undertaking a detailed desk study, fieldwork, and analysis of findings to create a detailed understanding of the existing landscape and visual context of both the site and surrounding landscape within the study area.

Establishing the landscape baseline included gathering data on the landscape character and how this varies through the study area; together with its geographic extent; and how it is experienced and valued. The desk-based assessment began with a review of legislation, policy and guidance including published landscape character assessments of the area and its wider context. This developed an understanding of the baseline environment within which the 2 km radius study area is located.

The visual baseline establishes the areas from where the new components of the development can be seen, who can see them, the places where those who see them would be affected and the nature of views and visual amenity.

Together the established baseline provides an understanding of the components of the landscape and visual resource that may be affected by the development, which includes the identification of key receptors and viewpoints which represent such receptors. The baseline is of sufficient detail to enable a well-informed assessment of the likely landscape & visual effects on the baseline conditions of the Development.

The desk-based assessment has involved the following key activities:

- Familiarisation with the landscape and visual resources of the area within which the development would be located;
- Identification of landscape and visual resources likely to be significantly affected by the development;
- Preparation of Zone of Theoretical Visibility (ZTV) maps;
- Identification of the location of viewpoints, informed by the ZTV, that were used to inform the assessment of effects of both landscape and visual resources; and
- Identification of suitable study areas for the LVA.

Viewpoints identified through consultation and during desk studies were ground-truthed through fieldwork and their positions fixed prior to photography being undertaken. Landscape character types (LCTs) were reviewed during fieldwork and the descriptions contained in the published landscape character assessment were augmented where necessary. Landscape and visual receptors were also assessed to ensure they are accurately represented through desk-based assessment.

Assessment of Landscape Effects

In accordance with GLVIA3 the assessment of landscape and visual effects are separate but linked procedures; the landscape is assessed as an environmental resource in its own right, whereas visual effects are assessed on views and visual amenity experienced by people.

Both landscape and visual effects have been assessed at construction stage and during operation of the BESS & infrastructure.

Sensitivity

As noted above, the sensitivity of landscape receptors is assessed through consideration of their value and susceptibility to change. The process for determining landscape sensitivity is set out below.

Landscape Value

For landscape receptors, value concerns the importance of the landscape resource as evidenced by the presence of landscape designations and professional judgement. Susceptibility is concerned with the landscapes ability to absorb change brought about by the development.

Table A1.1 below illustrates how the value has been determined.

Table A1.1: Landscape Receptor Value

Value	Recognition	Features / Quality	Condition
High	Typically, a landscape / feature of international or national recognition e.g. World Heritage Sites, National Parks, Scheduled Monuments and Grade I and II* Listed Buildings, Registered	A strong sense of place with landscape / features worthy of conservation; Absence of detracting features.	A very high-quality landscape / feature; attractive landscape / feature; exceptional
Medium	Regional recognition e.g. Conservation Areas; Grade II Listed Buildings, Registered Parks and Gardens	A number of distinguishing features worthy of conservation; evidence of some degradation and occasional detracting features.	Ordinary to good quality landscape / feature with some potential for substitution; a reasonably attractive landscape / feature.
Low	Undesignated, but locally valued landscape / features	Few landscape features worthy of conservation; evidence of degradation with some detracting features.	Ordinary landscape / feature with high potential for substitution; quality that is fairly commonplace.
Negligible	Typically, an undesignated landscape / feature.	No landscape features worthy of conservation; evidence of degradation with many detracting features.	Low quality landscape / feature with very high potential for substitution; limited variety or distinctiveness; commonplace

The European Landscape Convention²⁸ promotes the need to take account of all landscapes, with less emphasis on the special and more recognition that ordinary landscapes, such as community landscapes also have their own value. The criteria used to assess undesignated (community value) landscapes are set out using Box 5.1 in GLVIA3²⁹, as per Table A1.2 below.

Table A1.2: Factors for Assessing the Value of Undesignated Landscapes

Factor	Criteria
Landscape Quality (condition)	A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements.

²⁸ The European Landscape Convention for the UK. Available on line at <https://www.gov.uk/government/publications/european-landscape-convention-guidelines-for-managing-landscapes>

²⁹ Landscape Institute Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, Box 5.1, Page 84.

Factor	Criteria
Scenic Quality	The term used to describe landscapes that appeal primarily to the senses (primarily but not wholly the visual senses).
Rarity	The presence of rare elements or features in the landscape or the presence of a rare Landscape Character Type.
Representativeness	Whether the landscape contains a particular character and/or features or elements which are considered particularly important examples.
Conservation interests	The presence of features of wildlife, earth science or archaeological or historical and cultural interest can add to the value of the landscape as well as having value in their own right.
Recreation value	Evidence that the landscape is valued for recreational activity where experience of the landscape is important.
Perceptual aspects	A landscape may be valued for its perceptual qualities, notably wildness and/or tranquillity.
Associations	Some landscapes are associated with particular people, such as artists or writers, or events in history that contribute to perceptions of the natural beauty of the area.

Susceptibility of the Landscape Receptors to Change

This means the ability of the landscape receptor (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies³⁰.

Susceptibility of landscape receptors to change has been assessed using the criteria set out in Table A1.3 below.

Table A1.3: Landscape Receptor Susceptibility to Change

Susceptibility	Criteria
High	The landscape receptor is highly susceptible to the development, and a low ability to accommodate the specific proposed change, because the key characteristics of the landscape have no or very limited ability to accommodate the specific proposed change without undue adverse effects taking account of the existing character and quality of the landscape, and/or achievement of relevant planning policies / strategies.
Medium	The landscape receptor is moderately susceptible to the development, and a moderate ability to accommodate the specific proposed change, because the relevant characteristics of the landscape have some ability to accommodate it without undue adverse effects, taking account of the existing character and quality of the landscape, and/or achievement of relevant planning policies / strategies.
Low	The landscape receptor has low susceptibility to the development, and a high ability to accommodate the specific proposed change, because the relevant characteristics of the landscape are generally able to accommodate it with little, or no, undue consequences for the maintenance of the baseline situation, taking account of the existing character and quality of the landscape.
Negligible	Very high ability to accommodate the specific proposed change; no undue consequences for the maintenance of the baseline situation (receptor value) and/or achievement of relevant planning policies / strategies.

³⁰ Landscape Institute Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, Paragraph 5.40, Page 88.

Landscape Sensitivity

GLVIA3 indicates that combining susceptibility and value can be achieved in a number of ways and needs to include professional judgement. However, it is generally accepted that a combination of high susceptibility and high value is likely to result in the highest sensitivity, whereas a low susceptibility and low value is likely to result in the lowest level of sensitivity. A summary of the likely characteristics of the different levels of sensitivity is described below in Table A1.4 below. It should be noted that the levels are indicative and in practice there is not a clear distinction between criteria levels.

Table A1.4: Landscape sensitivity criteria

Landscape Resource Sensitivity	Characteristics
High	Landscape character, characteristics, and elements where, through consideration of the landscape resource and characteristics, there would generally be a lower landscape capacity or scope for landscape change or positive enhancement, and higher landscape value and quality. Often includes landscapes which are highly valued for their scenic quality, including most statutorily (nationally / internationally designated landscapes). Elements/features that could be described as unique or are nationally scarce. Mature vegetation with provenance such as ancient woodland or mature parkland trees, and/or mature landscape features which are characteristic of and contribute to a sense of place and illustrates time- depth in a landscape and if replaceable, could not be replaced other than in the long term.
Medium	Landscape character, characteristics, and elements where, through consideration of the landscape resource and characteristics, there would be a medium landscape capacity or some scope for landscape change. Often includes landscapes of medium landscape value and quality which may be locally designated. Areas that have a positive landscape character but include some areas of alteration/degradation/or erosion of features. Perceptual/aesthetic aspects has some vulnerability to unsympathetic development; and/or features/elements that are locally commonplace; unusual locally but in moderate/poor condition; or mature vegetation that is in moderate/poor condition or readily replicated.
Low	Landscape character, characteristics and elements where, through consideration of the landscape resource and characteristics, there would be higher landscape capacity or scope for landscape change or positive enhancement. Damaged or substantially modified landscapes with few characteristic features of value. Capable of absorbing major change, and landscape elements/features that might be considered to detract from landscape character such as obtrusive man-made features (e.g. power lines, large-scale developments, etc.).
Negligible	Landscape character, characteristics and elements where there is a high landscape capacity or a planned desire for landscape change. Usually applies to landscapes with a lower landscape susceptibility or higher landscape capacity for the development. May also apply to derelict landscapes, spoil heaps, and de-graded urban fringe areas that require restoration or re- development / re-planting.

Landscape Resource Sensitivity	Characteristics
	Areas that are relatively bland or neutral in character with few/no notable features. A landscape that includes areas of alteration/degradation or erosion of features, and/or landscape elements/features that are common place or make little contribution to local distinctiveness. Opportunities for the restoration of landscape through mitigation measures associated with the Development.

Magnitude of Landscape Effects

The determination of the magnitude of landscape and visual effects combines an assessment of the size or scale of change likely to be experienced as a result of each effect³¹, the geographical extent of the area likely to be influenced and the duration and reversibility of effects.

Geographical Extent

The geographical area over which the landscape effects would be felt is also considered. This is dependent upon the nature of the Development and the scale of effects upon the receiving landscape; however, in general effects may have an influence at the following scales:

- At the site level, within the Development site itself;
- At the level of the immediate setting of the site;
- At the scale of the landscape type or character area within which the Development lies; or
- On a larger scale, influencing several landscape types or character areas.

Size or Scale

Judgements are needed about the size or scale of change in the landscape that is likely to be experienced as a result of each effect. GLVIA3 states that 'judgements should, for example, take account of:

- The extent of the existing landscape elements that would be lost, the proportion of the total extent that this represents and the contribution of that element to the character of the landscape – in some cases this may be quantified;
- The degree to which aesthetic and perceptual aspects of the landscape are altered either for example, removal of existing components of the landscape or by addition of new ones; and
- Whether the effect changes the key characteristics of the landscape, which are critical to its distinctive character.

Duration and Reversibility of the Landscape Effects

Duration and Reversibility are separate but linked considerations. Duration can usually be simply judged on a scale such as:

- Short-term: 0-5 years;
- Medium-term: 5-10 years; and
- Long-term: 10-40 years.

³¹ Guidelines for Landscape and Visual Impact Assessment (page 90)

For the purposes of this assessment this Development has been assessed as long term.

Reversibility is a judgement about whether or not a development can be removed, and once removed can the landscape / landscape be fully restored. The examples in Table A1.7 below indicate the type of land use and the respective assessment of reversibility defined in GLVIA3. Tables A1.5 to A1.8 set out the criteria used to assess the magnitude of landscape effects. Not all aspects of a criterion need to be met for an evaluation to be given.

Table A1.5 Magnitude of Landscape Change: Reversibility

Category	Description
Permanent	Permanent, is irreversible change to the landscape, for example housing development, as it not possible to remove the BESS and infrastructure and restore the land to the original state.
Partially Reversible	Partially Reversible, change to the landscape, where the landscape can be restored to something similar to the landscape that was removed. For example, mineral developments, as it is possible to restore the land to something similar to the original state, but not the same state.
Reversible	Reversible, change to the landscape where the landscape can be fully restored. For example, a BESS development, as it is possible to wholly remove the remove the BESS and infrastructure and to restore the landscape to the original state. This also includes construction activities which are of temporary nature.

Overall Magnitude of Landscape Change

The overall magnitude combines size and scale, geographical extent, duration and reversibility as set out in Table A1.6 below.

Table A1.6: The Assessment of Overall Magnitude of Change

Category	Description
Large	A large extent of existing landscape elements would be lost / adjusted, the proportion that this represents within the landscape is considerable and the resultant change to the landscape character resulting from such a loss is large. Large-scale alteration of the aesthetic and perceptual aspects of the landscape such as the removal of existing components of the landscape or by addition of new ones – for example, removal of hedges may change a small-scale, intimate landscape into a large-scale, open one, or introduction of new buildings or tall structures may alter open skylines. The effect changes the key characteristics of the landscape & landscape, which are critical to its distinctive character. The change would affect all of the landscape receptors being assessed, as the development would occupy a large geographical extent, e.g., the change would be on a large-scale, influencing several landscape types or character areas. The effects are either of a long duration, permanent, or irreversible /reversible change to the landscape.
Medium	A medium extent of existing landscape elements would be lost / adjusted, the proportion that this represents within the landscape is medium and the resultant change to the landscape character resulting from such a loss is medium. Medium scale alteration of the aesthetic and perceptual aspects of the landscape such as the removal of existing components of the landscape or by addition of new ones. The effect changes some of the key characteristics of the landscape & landscape, which are critical to its distinctive character. The change would affect a medium extent of the landscape receptors being assessed, as the development would occupy a moderate geographical extent, e.g., at the scale of the landscape type or character area within which the Development lies.

Category	Description
	The effects are either of a long / or medium duration, permanent, or irreversible /reversible change to the landscape.
Small	A small extent of existing landscape elements would be lost / adjusted, the proportion that this represents within the landscape is low and the resultant change to the landscape character resulting from such a loss is low. Small-scale alteration of the aesthetic and perceptual aspects of the landscape such as the removal of existing components of the landscape or by addition of new ones. The effect changes a small number of the key characteristics of the landscape & landscape, which are critical to its distinctive character. The change would affect a small part of the landscape receptors being assessed, as the development would occupy a small geographical extent, e.g., at the level of the immediate setting of the site. The effects are either of a Medium / or short duration and reversible change to the landscape.
Negligible	A barely perceptible extent of landscape features and elements of importance to the character of the baseline are lost / adjusted. There is a barely discernible change to aesthetic and / or perceptual attributes of landscape & landscape character and such changes occurs across a very limited geographical area and / or proportion of the landscape receptor. The effect changes a barely discernible number of the key characteristics of the landscape, which are critical to its distinctive character. The change would affect only a negligible part of the landscape receptors being assessed, as the development would occupy a limited geographical extent, e.g., the site level, within the development site itself. The effects are of short duration and reversible.
No Change	The proposals would not affect any of the landscape receptors being assessed

Assessment of Visual Effects

Visual effects are concerned wholly with the effect of the development on views, and the general visual amenity and are defined by the Landscape Institute in GLVIA3, paragraphs 6.1, as follows:

"An assessment of visual effects deals with the effects of change and development on views available to people and their visual amenity. The concern ... is with assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the context and character of views."

Visual effects are identified for different receptors (people) who will experience the view at their places of residence, during recreational activities, at work, or when travelling through the area. The visual effects may include the following:

- Visual effect: a change to an existing static view, sequential views, or wider visual amenity as a result of development or the loss of particular landscape elements or features already present in the view.
- Cumulative visual effects: the cumulative or incremental visibility of similar types of development may
- combine to have a cumulative visual effect.

The visual assessment aims to determine from which points the Development can be seen in the surrounding landscape; this is known as the visual envelope. Once determined, a series of key representative viewpoints are chosen (i.e. areas within the visual envelope from where it may be possible to see the Development from publicly accessible viewpoints), such as residential areas, public open spaces, PRoW / public footpaths and roads.

Visual effects relate to changes in available views of the landscape and the effect of those changes on people, including:

- The direct effects of the Development on the content and character of views through the intrusion or obstruction and/or the change or loss of existing elements.
- The overall effect on visual amenity, be it degradation or enhancement.

In predicting the effects of the Development on the visual receptors from specific viewpoints being assessed, GLVIA3 (para 6.27) states that it is helpful to consider (but not restricted to) the following issues:

- Nature of the view (full, partial or glimpsed);
- Proportion of the Development visible (full, most, part or none);
- Distance of the viewpoint from the Development and whether it would be the focus of the view or only a small element;
- Whether the view is stationary, transient or sequential; and
- The nature of the changes to the view.

Additionally, the seasonal effects of vegetation are to be considered, in particular the varying degree of screening and filtering of views.

People have different responses to views which are dependent upon context such as the:

- Location;
- Time of day;
- Season; and
- Degree of exposure to views.

Responses to views are also dependent upon the purpose of people being in a particular place such as:

- Recreation;
- Residence;
- Employment; and
- Passing through on roads, rail or other forms of transport.

As people move through the landscape, certain activities or locations may be specifically associated with the experience and enjoyment of the landscape, such as:

- The use of paths such as footpaths, bridleways, byways open to all traffic (BOATs) and National Trails;
- National or local cycle routes; and
- Tourist or scenic routes, and associated viewpoints on land or water.

Evaluating Visual Sensitivity to Change

To determine visual effects both the sensitivity of the visual receptor and the magnitude of change must be considered. Determining visual sensitivity is the combination of susceptibility to change and value of a view. It is considered that a combination of high susceptibility to change and high value is likely to result in the highest sensitivity, whereas a low susceptibility and value is likely to result in the lowest level. The value, susceptibility to change and resultant sensitivity of a visual receptor are broadly categorised based on the following Tables A1.7 and A1.8 below. It should be noted that the levels are indicative and in practice there is not a clear distinction between criteria levels.

The susceptibility of visual receptors to changes in the view and visual amenity is related to activity they are engaged in and the extent to which their attention is focussed on the views and visual amenity at that location. As such those receptors most sensitive to change are likely to include people engaged in outdoor activities where an appreciation of the landscape is the focus or residents in areas where the landscape setting contributes to the setting of the properties.

Conversely, those considered least sensitive to change include (but are not restricted to) people engaged in outdoor sports or recreation where there is no focus on the surrounding landscape/views and people at their place of work where the focus is on the work activity.

See Table A1.7 below for a full description of the criteria used to assess the susceptibility of viewpoints.

Susceptibility of Visual Receptors to Change

The susceptibility of visual receptors to changes in views depends upon:

- The occupation or activity of people experiencing the view at particular locations; and
- The extent to which their attention or interest may therefore be focussed on the views and the visual amenity they experience at particular locations.³²

The criteria used to assess the susceptibility of a visual receptor are summarised in Table A1.7 below.

Table A1.7 Visual Receptor Sensitivity to Change

Susceptibility	Type of Receptor
High	Residents at home. Views from well used public rights of way including strategic footpaths / long distance trails and cycle routes (where the attractive nature of the countryside is a significant factor in the enjoyment of the walk). Visitors along scenic routes and to recognised viewpoints. Visitors to protected landscapes or heritage assets where views of the surroundings are an important contributor to the experience. The location, numbers, frequency of use and visual context of the viewpoint would be high. Communities where views contribute to the landscape setting enjoyed by residents in the area. Travellers on road, rail or other transport routes along scenic routes, where the appreciation of the view contributes to the enjoyment and quality of the journey.
Medium	Views experienced from boats, public rights of way / footpaths used locally and passing through the landscape and well used footpaths within settlements. Views from places of worship and associated grounds, schools, country parks and golf clubs. Views experienced by users of local roads where there are clear / open views across the landscape and low levels of traffic. The location, numbers, frequency of use and visual context of the viewpoint would be medium.
Low	Views experienced from places of work where workers and visitors are concentrating on their day to day activities. Views experienced by on near to motorways, major roads Views experienced by users of the rail network and main roads travelling at speed or local roads where the focus is upon the road ahead owing to traffic conditions and the context / composition of the view. Views experienced from less well used public rights of way which pass through less attractive landscapes or townscape and are not used for enjoyment of the scenery. Views experienced by those playing or spectating at outdoor sports or utilising outdoor sports facilities. The location, numbers, frequency of use and visual context of the viewpoint would be low.

³² Ibid. 1. Paragraph 6.32

In making judgements about the value of each view, the assessment should take into account the following:

- Recognition of the value to a particular view, e.g. in relation to heritage assets or planning designations; and
- Indicators of the value attached to views by others, e.g., in guide books, tourist maps, literary references, painting etc.

Table A1.8 below shows a full description of the criteria used to assess the value of the view.

The value attached to views should be made on judgements based on the following:

- Recognition of the value attached to particular views, for example in relation to heritage assets, or through planning designations; and
- Indicators of the value attached to views by visitors, for example through appearances in guidebooks or on tourist maps, provision of facilities for their enjoyment and references to them in literature or art.

The criteria used to assess the value of views are summarised in Table A1.8 below.

Table A1.8 Value Attached to Views

Value	Criteria
High	Views from and within landscapes / viewpoints of national importance (National Parks, , AONBs), highly popular visitor attractions where the view forms an important part of the experience, or heritage assets, or through planning designations such as conservation areas, listed buildings, Parks & Gardens or with important cultural associations, or where the view is deemed by the assessor to be of a high value.
Medium	Views from landscapes / viewpoints of regional/district importance, or visitor attractions at regional or local levels where the view forms part of the experience, or local planning designations, or with local cultural associations, or where the view is deemed by the assessor to be of a medium value.
Low	Views from landscapes / viewpoints with no designations, and not particularly popular as a viewpoint, and unlikely to be visited specifically to experience the view available with minimal or no cultural associations, or where the view is deemed by the assessor to be of a low small value.

Sensitivity of Visual Receptors

The sensitivity of visual receptors is defined in terms of the relationship between the value of views and the susceptibility of the different viewers to the proposed change. Professional judgements are made on the merit of the view based on the visual receptor, with Table A1.9 below serving as a guide.

Table A1.9 Visual sensitivity criteria

Value	Criteria
High	A well balanced view containing attractive features and notable for its scenic quality. A view which is an important reason for receptors being there. A view which is experienced by a large number of people and/ or recognized for its qualities.

Value	Criteria
	A view with a medium – high susceptibility to change, and experienced by visual receptors of a high sensitivity.
Medium	An otherwise attractive view that includes some attractive or discordant features or visual detractors. A view which plays a small part in the reason why a receptor would be there. A view which is locally recognized. A view with a low - medium susceptibility to change, and experienced by visual receptors of a low - medium sensitivity.
Low	A view that is unattractive, discordant and/or contains many visual detractors. A view which is unlikely to be part of the receptor's experience. A view with a negligible susceptibility to change, and a low sensitivity.

Magnitude of Visual Change

The magnitude of change to visual receptors is assessed in terms of the following:

- The scale of the change in the view with respect to the loss or addition of features in the view and changes in its composition, including the proportion of the view occupied by the Development;
 - The degree of contrast or integration of any new features or changes in the landscape with the existing or remaining landscape elements and characteristics in terms of form, scale and mass, line, height, colour and texture; and
 - The nature of the view of the Development, in terms of the relative amount of time over which it would be experienced and whether views would be full, partial or glimpses.
- Table A1.10 below sets out the criteria used to assess the magnitude of visual change. Not all aspects of a criterion need to be met for an evaluation to be given.

Geographical Extent

The geographical extent of the visual change identified at viewpoints is assessed by reference to a combination of the ZTV and field work. The following factors are considered:

The geographical extent of a visual effect reflects:

- The angle of view in relation to the main activity of the receptor;
- The distance of the viewpoint from the BESS; and
- The extent of the area over which the changes would be visible.

Duration and Reversibility of Visual Change

The following terminology, which considers whether views would be permanent and irreversible or temporary and reversible, is used to describe the duration of the visual change at representative viewpoints:

- Short-term: 0-5 years;
- Medium-term: 5-10 years; and
- Long-term: 10 to 40 years.

For the purposes of this assessment the BESS and infrastructure have been assessed as long term.

Reversibility is a judgement about whether or not a development can be removed, and once removed can the view be fully restored.

Overall Magnitude of Visual Change

The three factors that contribute to assessment of the magnitude of visual change are combined as shown in Table A1.10.

Table A1.10 Assessment of Magnitude of Visual Change

Magnitude evaluation	Size, scale and nature	Geographical Extent	Duration & Reversibility
Large	Occupies an extensive proportion of the view and may even obstruct a significant portion of the view. Views may become the dominant feature. Considerable change to the majority / many existing landscape elements and/or landscape character; fundamental changes the surroundings and baseline to a large extent; very noticeable	Ranging from notable change over extensive area to intensive change over a more limited area.	Long term; permanent / non- reversible or partially reversible.
Medium	Occupies much of the view but would not fundamentally change its characteristics. Changes would be immediately visible but not a key feature of the view. Some change to existing landscape elements and /or landscape character; discernible changes the surroundings of a receptor, such that its baseline is partly altered; readily noticeable.	Moderate changes in a localised area.	Medium term; semi-permanent or partially reversible.
Small	Occupies a small portion of the view and therefore would not result in a change to the view's composition. Small change to existing landscape elements and/or landscape character; slight, but detectable impacts that do not alter the baseline of the receptor materially not readily noticeable	Minor changes in a localised area.	Short term / temporary; partially reversible or reversible.
Negligible	Occupies a small portion of the view and therefore would not result in a change to the view's composition. Small change to existing landscape elements and/or landscape character; slight, but detectable impacts that do not alter the baseline of the receptor materially not readily noticeable	Minor changes in a localised area.	Short term / temporary; partially reversible or reversible.
No Change	There are no changes to the existing view.		

Level of Effect and Criteria

The level of landscape and visual effect has been assessed based on the sensitivity of the affected resource / receptor, and the magnitude of change caused by the proposed Extension, as set out for each above in the preceding tables.

The combined sensitivity and magnitude used to determine the level of effect is summarised within Table A1.11 below.

Table A1.11 - Matrix for Determining Level of Effect

		Sensitivity (value / importance)			
		High	Medium	Low	Negligible
Magnitude of change	Large	Major	Moderate – Major	Minor – Moderate	Negligible
	Medium	Moderate – Major	Moderate	Minor	Negligible
	Small	Minor – Moderate	Minor	Negligible – Minor	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

It should be noted that the above matrix is intended as a framework for assessment only and that the level of effect will vary depending on the circumstances, the type and scale of development proposed, the baseline context and other factors. The gradations of magnitude of change and level of effect used in the assessment represent a continuum; the assessor has used professional judgement when gauging the level of effect.

Table A1.12 below provides a more detailed summary of the categories of effect.

Table A1.12 - Categories of Landscape and Visual Effect

Level of Effect	Description of Landscape Effect	Description of Visual Effect
Major	Considerable change over an extensive area of a highly sensitive landscape, fundamentally affecting the key characteristics and the overall impression of its character.	The development would become a prominent feature and would result in a very noticeable change to an existing highly sensitive and well composed view.
Moderate	Small or noticeable change to a highly sensitive landscape or more intensive change to a landscape of medium or low sensitivity, affecting some key characteristics and the overall impression of its character.	The development would introduce some enhancing or detracting features to an existing highly sensitive and well composed view, or would be prominent within a less well composed and less sensitivity view, resulting in a noticeable improvement or deterioration of the existing view.
Minor	Small change to a limited area of landscape of high or medium sensitivity or a more widespread area of a less sensitive landscape, affecting few characteristics without altering the overall impression of its character.	Where the Development would form a perceptible but not enhancing or detracting feature within a view of high or medium sensitivity or would be a more prominent feature within a poorly composed view of low sensitivity, resulting in a small improvement or deterioration of the existing view.

Level of Effect	Description of Landscape Effect	Description of Visual Effect
Negligible	No discernible improvement or deterioration to the existing landscape character.	No discernible improvement or deterioration in the existing view.
No Effect	The development would not affect the landscape receptor.	The development would not affect the view

As this report is not subject to the EIA Regulations it is not required that the significance of effect be identified. However, professional judgement has been made as to whether the effects identified are 'important' or not. As such Major, Major – Moderate and Moderate effects are considered to be important.

Nature of Effect

The nature of an effect is also assessed. This is dependent on a number of criteria which vary between effects upon the landscape/landscape and effects on visual amenity. Effects are classified as beneficial, neutral or adverse according to the following definitions:

- **Beneficial** effects contribute to the landscape and visual resource through the enhancement of desirable characteristics or the introduction of new, positive attributes. The removal of undesirable existing elements or characteristics can also be beneficial, as can their replacement with more appropriate components;
- **Neutral** effects occur where the development neither contributes to nor detracts from the landscape and visual resource or where the effects are so limited that the change is hardly noticeable. A change to the landscape and visual resource is not considered to be adverse simply because it constitutes an alteration to the existing situation; and
- **Adverse** effects are those that detract from or weaken the landscape and visual resource through the introduction of elements that contrast in a detrimental way with the existing characteristics of the landscape and visual resource, or through the removal of elements that are key in its positive characterisation.

The LVA describes the overall effects on receptors and explains the justification for each assessment. For each assessed effect, a conclusion has been drawn on whether the effect is beneficial, neutral or adverse.

Assessment of Cumulative Effects

The assessment of cumulative effects is essentially the same as for the assessment of the stand-alone landscape and visual effects, in that the level of landscape and visual effect is determined by assessing the combination of sensitivity of the landscape or visual receptor (ranging from high to negligible) and the magnitude of change (ranging from high to zero).

Types of cumulative effect are defined as follows:

- Cumulative Landscape Effects: Where more than one type of development may have an effect on a landscape designation or particular area of landscape character.
- Cumulative Visual Effects: Where the cumulative or incremental visibility of similar types of
- Development combined generate a cumulative visual effect.
- These can be further defined as follows:
 - Simultaneous or combined: where two or more developments may be viewed from a single fixed viewpoint simultaneously, within the viewer's field of view and without requiring them to turn their head.
 - Successive or repetitive: where two or more developments may be viewed from a single viewpoint successively as the viewer turns their head or swivels through 360°.

- Sequential: where a number of developments may be viewed sequentially or repeatedly at increased frequency, from a range of locations when travelling along a route within the Study Area.

A cumulative landscape or visual effect simply means that more than one type of development is present or visible within the landscape. Other forms of existing development and land use such as woodland and forestry, patterns of agriculture, built form, and settlements already have a cumulative effect on the existing landscape that is already accepted or taken for granted. These features often contribute strongly to the existing character, forming a positive component of the local landscape. Landscapes however, will have a finite capacity for new development, beyond which further change or alteration to the existing landscape character may be unacceptable in landscape terms.

Whilst the CLVIA considers other development, it should not be considered as a substitute for individual LVA assessment in respect of each of the other developments concerned.

The methodology for cumulative assessment follows that contained within GLVIA3. GLVIA3 (para 7.8) and requires that the baseline includes additional changes to the baseline landscapes or visual resources as a result of other development.

Existing similar types of developments are therefore included within the baseline description, and cumulative effects of consented and Development are considered separately.

Magnitude of Cumulative Change

Cumulative landscape and visual effects may result from additional changes to the baseline landscape or visual resources, as a result of the Development, in conjunction with other developments.

The principle of magnitude of cumulative change thus makes it possible for the Development to have a major effect on a particular receptor, while having only a minor cumulative effect in conjunction with other existing developments.

The cumulative landscape and visual magnitude of change is determined with reference to the criteria set out above and the following considerations:

- The number of visible existing and/or potentially visible proposed developments.
- The distance to existing and/or proposed developments.

Significance of Cumulative Effects

Cumulative landscape and visual effects may result from additional changes to the baseline landscape or visual resources, as a result of the Development, in conjunction with other developments.

The principle of magnitude of cumulative change thus makes it possible for the Development to have a major effect on a particular receptor, while having only a minor cumulative effect in conjunction with other existing developments.

The cumulative landscape and visual magnitude of change is determined with reference to the criteria set out above and the following considerations:

- The number of visible existing and/or potentially visible proposed developments; and
- The distance to existing and/or proposed developments.

Visual Assessment of Residential Properties

Planning law contains a widely understood principle that individuals (i.e. visual receptors at a single residential property) have no 'right to a view' and that the outlook or view from a private property is a private interest and not therefore protected by the UK planning system.

However, the planning system also recognises situations where the effects on residential visual amenity are considered as a matter of public interest. This matter has been examined at a number of public inquiries where the key determining issue was not the identification of significant effects on views, but whether a Development would have an overbearing effect and/or result in unsatisfactory living conditions, leading to a property being regarded, objectively, as an unattractive (as opposed to a less attractive) place in which to live.

As a consequence, the visual assessment methodology provides for a much more detailed assessment of the closest residential properties. This allows the assessor, and consequently the determining authority, to make a judgement as to whether the residents at these properties would be likely to sustain unsatisfactory living conditions which it would not be in the public interest to create. Reviews of decisions demonstrate that significant changes to the views available from a residential property, and its curtilage, are not the decisive consideration.

By way of further clarification, the methodology for assessing the visual effects on views from residential properties allows for two stages of assessment as follows:

- The first stage is to identify those properties where a significant visual effect on a view from the property is likely to occur.
- The second stage is to consider the residential amenity and whether, in terms of the wider public interest, the visual effects would result in unsatisfactory living conditions, leading to a property being regarded, objectively, as an unattractive (as opposed to a less attractive) place in which to live.

A residential property, for the purposes of environmental impact assessment, should be one that was designed and built/converted for that purpose and currently (at the time of the assessment) remains in a habitable condition, of a safe construction, wind and water tight with appropriate vehicle access, and services (drinking water, sanitation, and power supply). Related buildings such as barns/outbuildings, garage, huts and derelict properties should generally be excluded from the assessment, unless they form part of the curtilage of an existing residence.

The sensitivity of individual residential receptors is assessed as high in each case.

The assessment of residential properties or groups of residential properties in this case has been limited to those properties within 1 km of the proposed BESS, which appear on the Ordnance Survey 1:25,000 scale map. Whilst most of the properties can be viewed at close range from public roads and footpaths, some of these properties are accessed via private or gated roads and due to these access limitations, they have been assessed from the nearest public road or footpath which may be at greater distance from the property. The assessment, in this instance, should therefore be regarded as a 'best estimate' of the likely visual effects.

The assessment has been further supported by aerial and ground level photography as well as map-based data. The assessment takes account of the likely views from the ground floors of properties and main garden areas, but excludes upper floors and other land that may be connected with the property. Relevant information considered as part of the assessment may include, but is not limited to the following:

- Scale of Development:
 - Number and height of the Development;
 - The horizontal extent or AOV of the visible array; and
 - Separation distance (closest and furthest buildings).
- Description of Property, as far as this can be ascertained:
 - Orientation and size of property and whether views from the property towards the development would be direct or oblique;

- Location of principle rooms and main living areas such as living/dining rooms, kitchens and conservatories, as opposed to working areas such as farm buildings and utility areas;
- Location of principle garden areas which may include patios and seating areas as opposed to less well used areas such as paddocks or garages; and
- The effects of any screening by landform, vegetation or nearby built development.
- Location and Context:
 - The aspect of the property in terms of the overall use and relationship to the garden areas and surrounding landscape;
 - The principle direction of main views and visual amenity; and
 - The context and nature of any intervening structures e.g. other existing development, farm buildings or forestry.

Viewpoint Analysis

Viewpoint analysis is used to assist the LVA and is conducted from selected viewpoints within the Study Area. The purpose of this is to assess both the level of visual impact for particular receptors and to help guide the design process and focus the landscape and visual assessment.

A range of viewpoints are examined in detail and analysed to determine whether a significant visual effect would occur. By arranging the viewpoints in order of distance it is possible to define a threshold or outer limit beyond which there would be no further significant effects.

The assessment involves visiting each viewpoint location. The fieldwork is conducted in periods of fine weather and good visibility and also considers seasonally reduced leaf cover.

Viewpoint selection followed good practice guidance and in particular paragraphs 6.18 to 6.20 of GLVIA3. The viewpoints chosen were used to aid the description of effects on both landscape and visual resources.

The selection of viewpoints was made on the basis of the following types of publicly accessible viewpoints, as follows:

- Representative viewpoints (for example, representing views of users of a particular footpath);
- Specific viewpoints (for example, a key view from a specific visitor attraction);
- Illustrative viewpoints (chosen to demonstrate a particular effect/specific issue);
- Any important sequential views, for example, along key transport routes; and
- Any additional viewpoints that have been requested by consultees at Scoping.

For the purposes of the LVA, all of the viewpoints were taken from publicly accessible land.

Baseline photographic panoramas have been produced for each viewpoint to illustrate the nature of existing views in the direction of the BESS. A baseline photographic survey has been undertaken using a digital SLR camera in accordance with current good practice guidance³³.

The methodology for photography follows GLVA3 and the Landscape Institute's TGN 06/19 Visual Representation of development proposals.

³³ Landscape Institute, 2019, *Technical Guidance Note 06/19 Visual representation of development proposals*
https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/09/LI_TGN-06-19_Visual_Representation.pdf

ZTV Methodology

In order to assist with viewpoint selection and to appreciate the potential influence of the development in the wider landscape, preliminary ZTV plans are used. ZTV plans illustrate the area from where it may be theoretically possible to view all, or part, of the Development. The ZTV does not however, take account of the screening effects of buildings, localised landform and vegetation, unless specifically mentioned (see individual figures). As a result, there may be roads, tracks and footpaths in the vicinity of the site and in the wider setting which, although shown as falling within the ZTV, are screened or filtered by banks, walls and vegetation which would otherwise preclude viewing opportunities.

The ZTVs provide a starting point in the assessment process and accordingly tend towards giving a 'worst case' or greatest calculation of the theoretical visibility.

Ordnance Survey Terrain 5 dataset was used as the Digital Terrain Model (DTM) for the Bare Earth ZTV. This DTM is a 5 m by 5 m raster dataset that is representative of the land form across Great Britain.

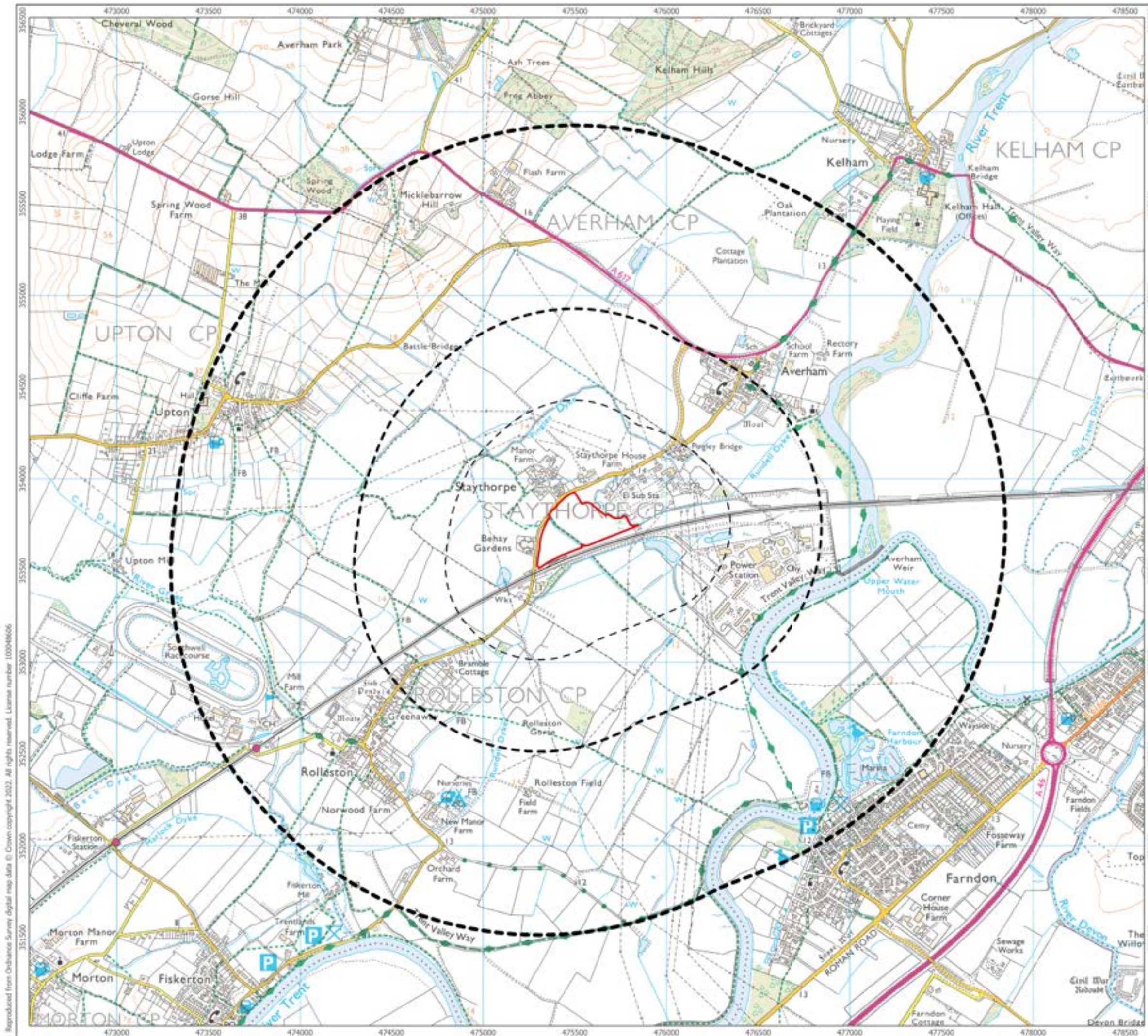
The ZTV was produced using ArcGIS Pro 2.1 software, and the calculations were based on the proposed infrastructure. The ZTV is created by highlighting areas on the DTM where a potential piece of infrastructure may be visible, based on the DTM. The height value given to the infrastructure was dependent on the flood depth value per field within the BESS development, plus the height of BESS units.

Arcus has developed additional methodology to supplement the "Bare Earth ZTV" which enables a more accurate representation of viewpoint assessment and a greater understanding of the visual baseline. The ZTV has been refined using the topographic survey of the site, LiDAR and DTM data, and stereo-photography modelling of trees, to enable a better understanding of the likely visual footprint of the Development. This will still represent theoretical visibility and will be considered in line with fieldwork to ground truth the findings of the data.

Viewpoint Visualisation Presentation

All photography, visualisations and graphics were undertaken in accordance with the Landscape Institute Guidance Note 01/11 Photography and photomontage. The photographs were taken using a digital full frame sensor DSLR camera with a fixed focal length equivalent of 50 mm lens, on a stable and levelled tripod pan head with a camera height of 1.5 m above ground level. Single shot frames were taken and spliced together using Adobe Photoshop to form a panorama and a GPS location was recorded at each Viewpoint.

APPENDIX B FIGURES



- Site Boundary
- Landscape Study Areas
 - 0.5 km Study Area
 - 1 km Study Area
 - 2 km Study Area

1:20,000 Scale @ A3
 0 0.5 1 km

Produced By: YC	Ref: 4951-REP-015
Checked By: CH	Date: 01/09/2022

Site Location
Figure 1.1

Staythorpe Battery Energy Storage System
Landscape and Visual Appraisal



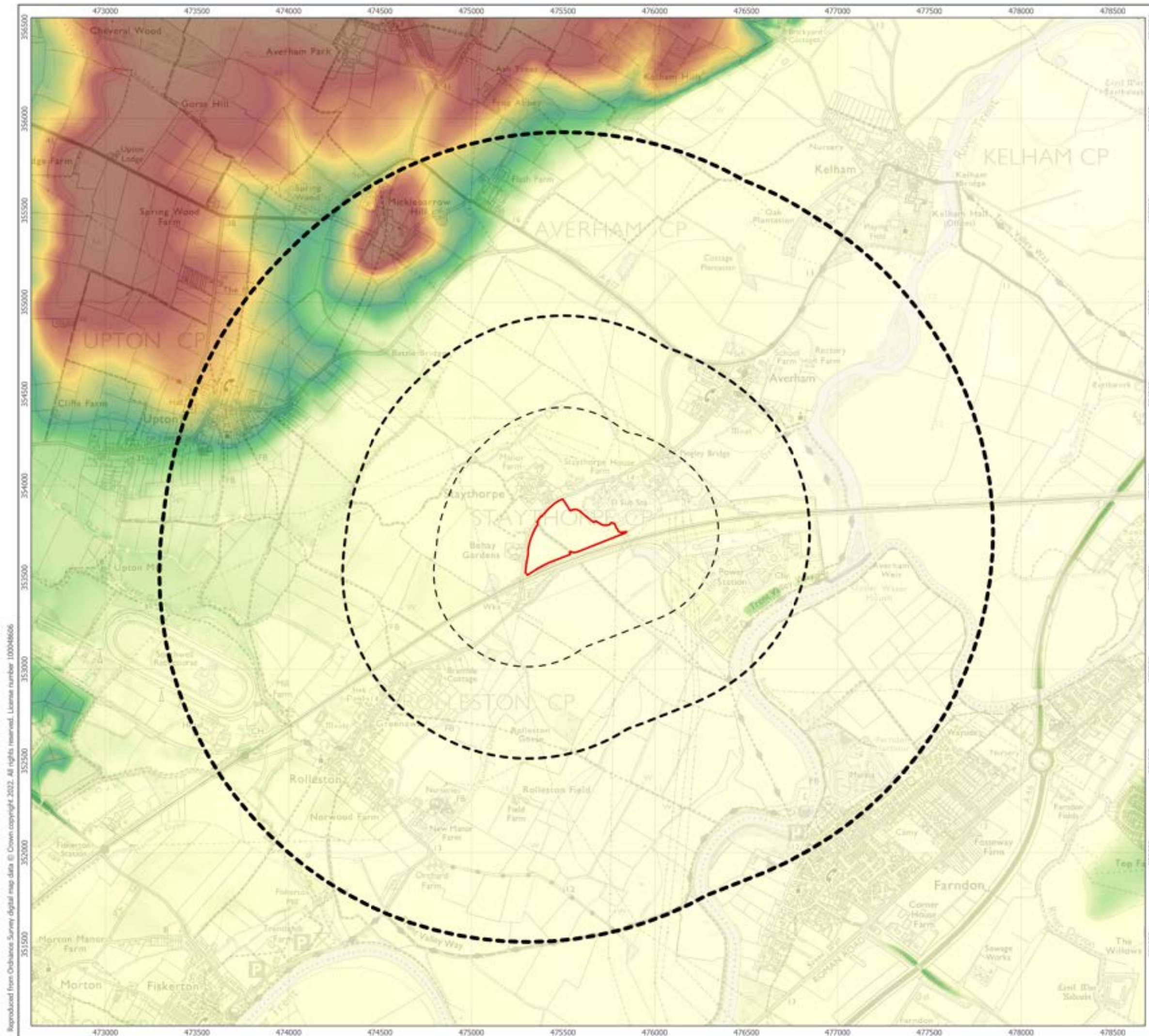
- Site Boundary
- Landscape Study Areas
- 0.5 km Study Area
 - 1 km Study Area
 - 2 km Study Area



Produced By: YC	Ref: 4951-REP-016
Checked By: CH	Date: 01/09/2022

Aerial Mapping Figure 1.2

**Staythorpe Battery Energy
Storage System
Landscape and Visual Appraisal**



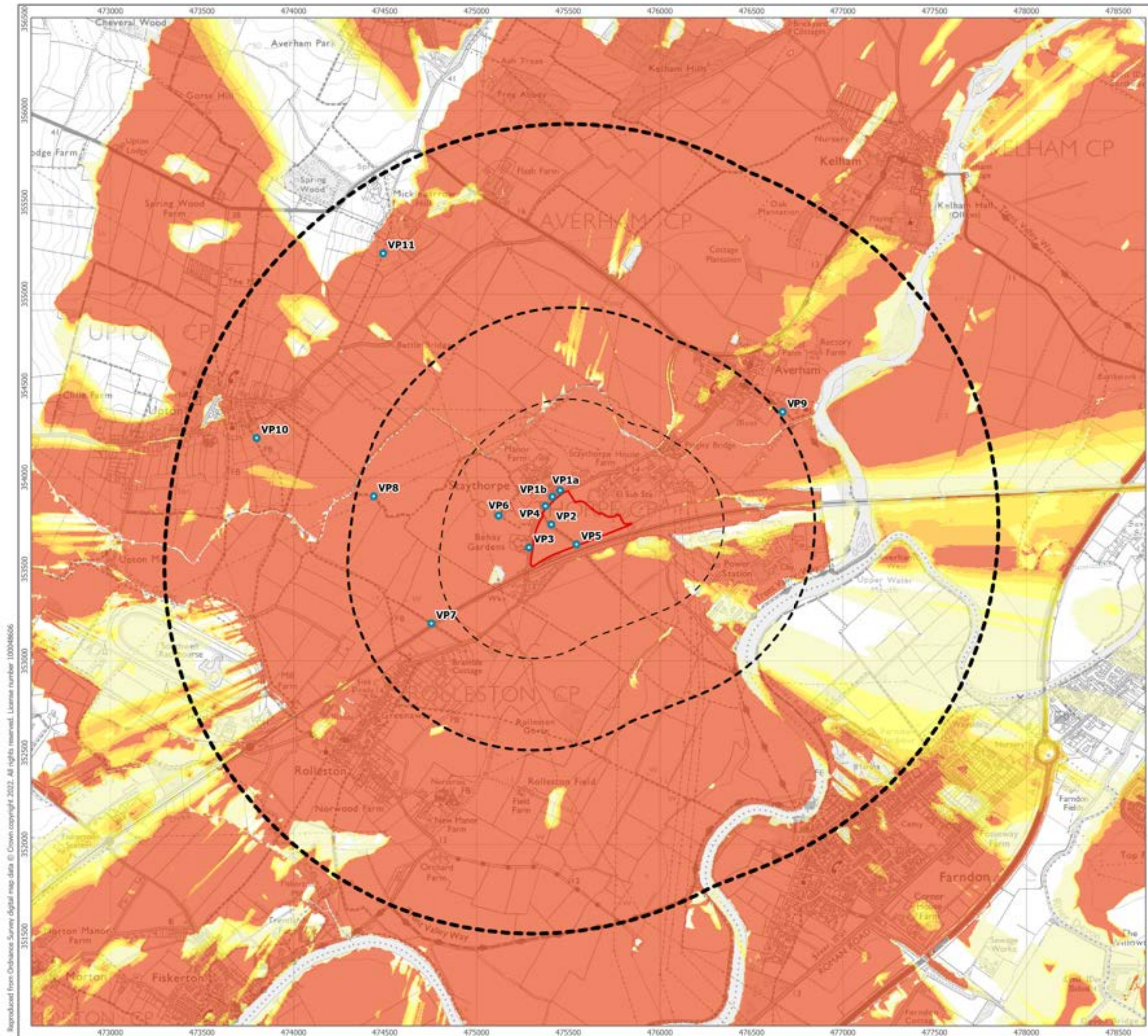
- Site Boundary
- Landscape Study Areas
 - 0.5 km Study Area
 - 1 km Study Area
 - 2 km Study Area
- OS Terrian 5 Digital Model
 - 69.87 AOD(m)
 - 5.23 AOD(m)



Produced By: YC	Ref: 4951-REP-021
Checked By: CH	Date: 01/09/2022

Topography
Figure 1.3

**Staythorpe Battery Energy
Storage System
Landscape and Visual Appraisal**



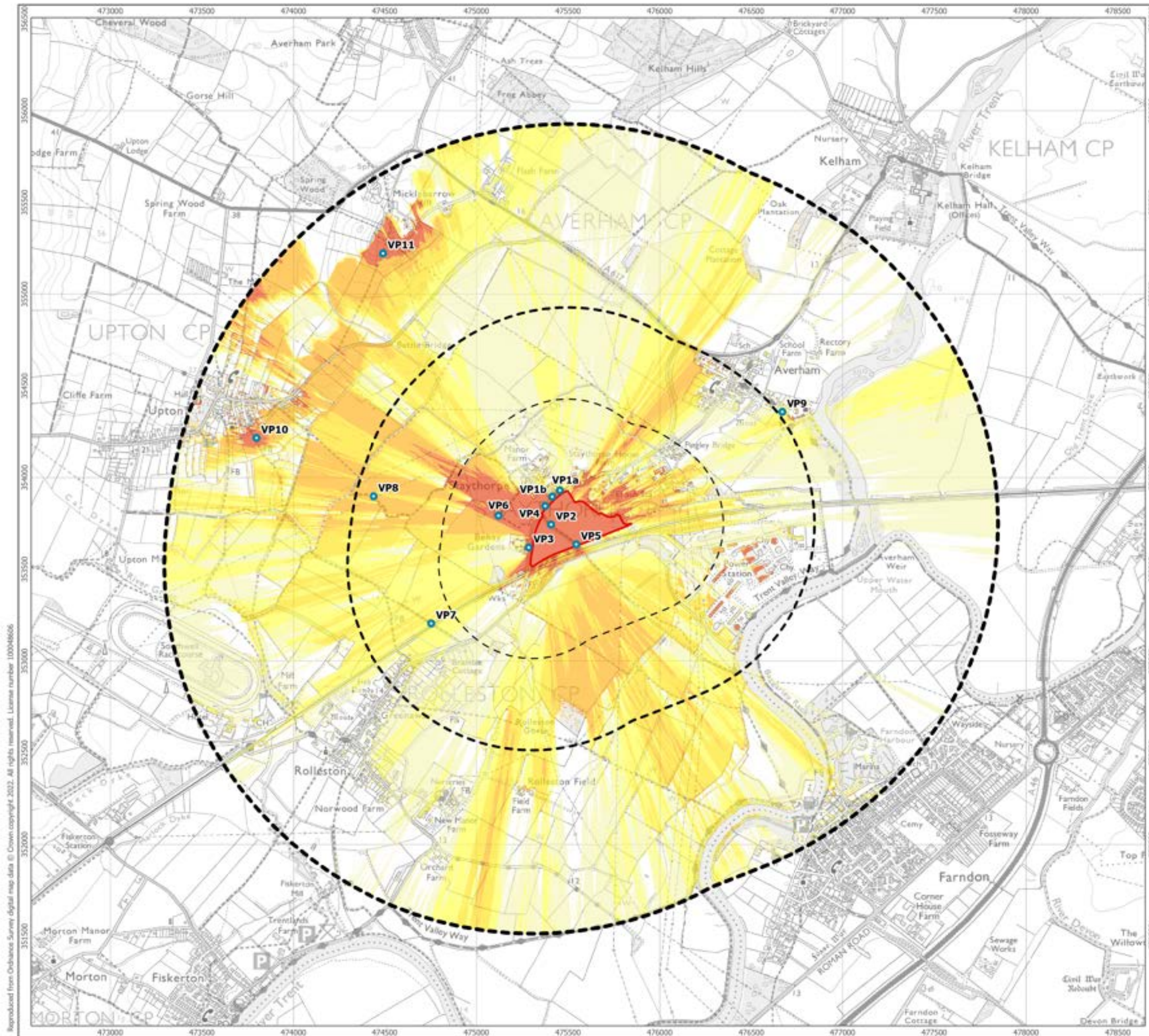
- Site Boundary
- Viewpoint Location
- Landscape Study Areas**
 - 0.5 km Study Area
 - 1 km Study Area
 - 2 km Study Area
- Zone of Theoretical Visibility**
 - 1-20% Proposed Development may be visible
 - 21-40% Proposed Development may be visible
 - 41-60% Proposed Development may be visible
 - 61-80% Proposed Development may be visible
 - 81-100% Proposed Development may be visible

1:20,000 Scale @ A3
 0 0.5 1 km NORTH

Produced By: YC	Ref: 4951-REP-017
Checked By: CH	Date: 05/09/2022

Bare Earth ZTV
 Figure 1.4

**Staythorpe Battery Energy
 Storage System
 Landscape and Visual Appraisal**



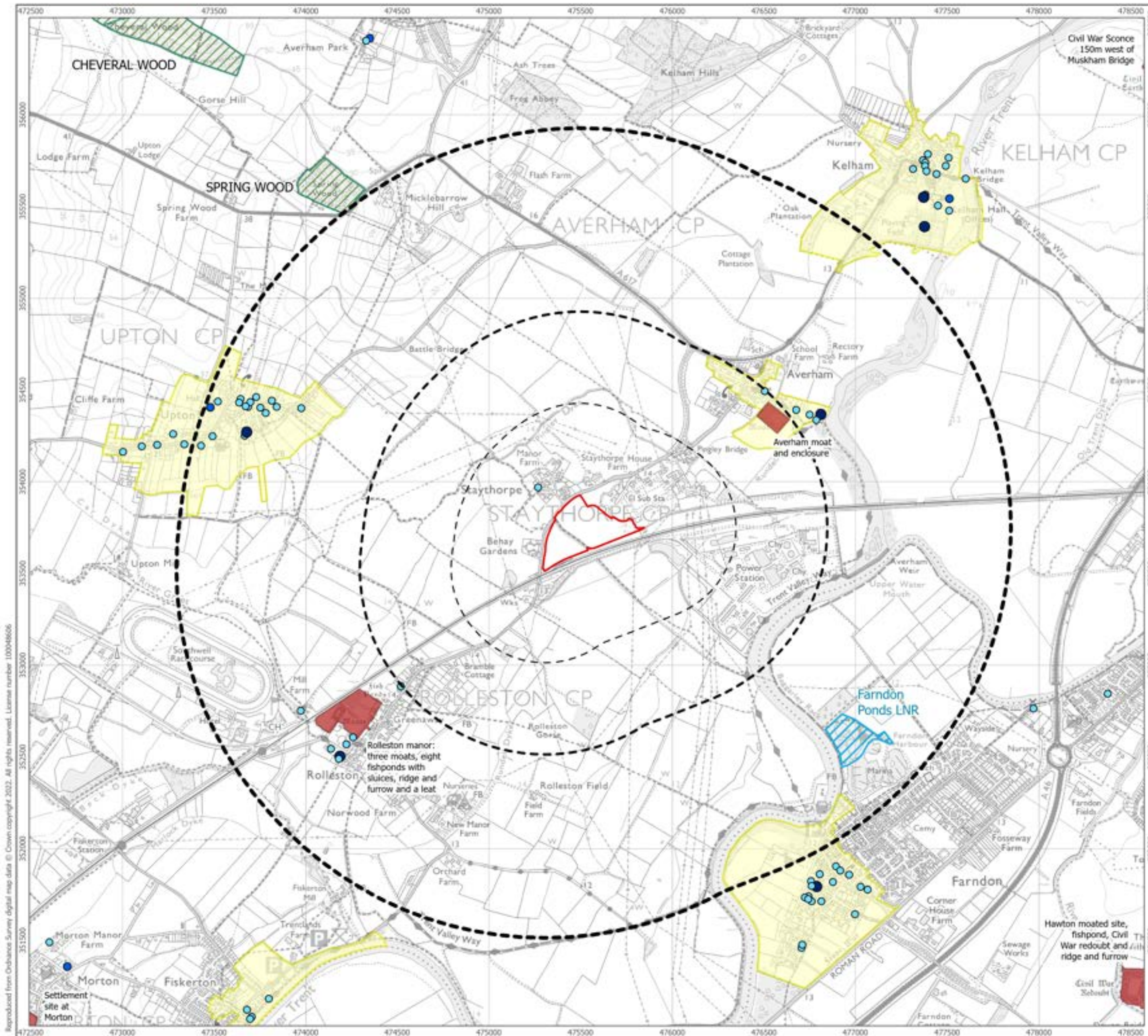
- Site Boundary
- Viewpoint Location
- Landscape Study Areas**
 - 0.5 km Study Area
 - 1 km Study Area
 - 2 km Study Area
- Zone of Theoretical Visibility**
 - 1-20% Proposed Development may be visible
 - 21-40% Proposed Development may be visible
 - 41-60% Proposed Development may be visible
 - 61-80% Proposed Development may be visible
 - 81-100% Proposed Development may be visible

1:20,000 Scale @ A3
 0 0.5 1 km NORTH

Produced By: YC	Ref: 4951-REP-018
Checked By: CH	Date: 05/09/2022

Screened ZTV
 Figure 1.5

Staythorpe Battery Energy Storage System
Landscape and Visual Appraisal



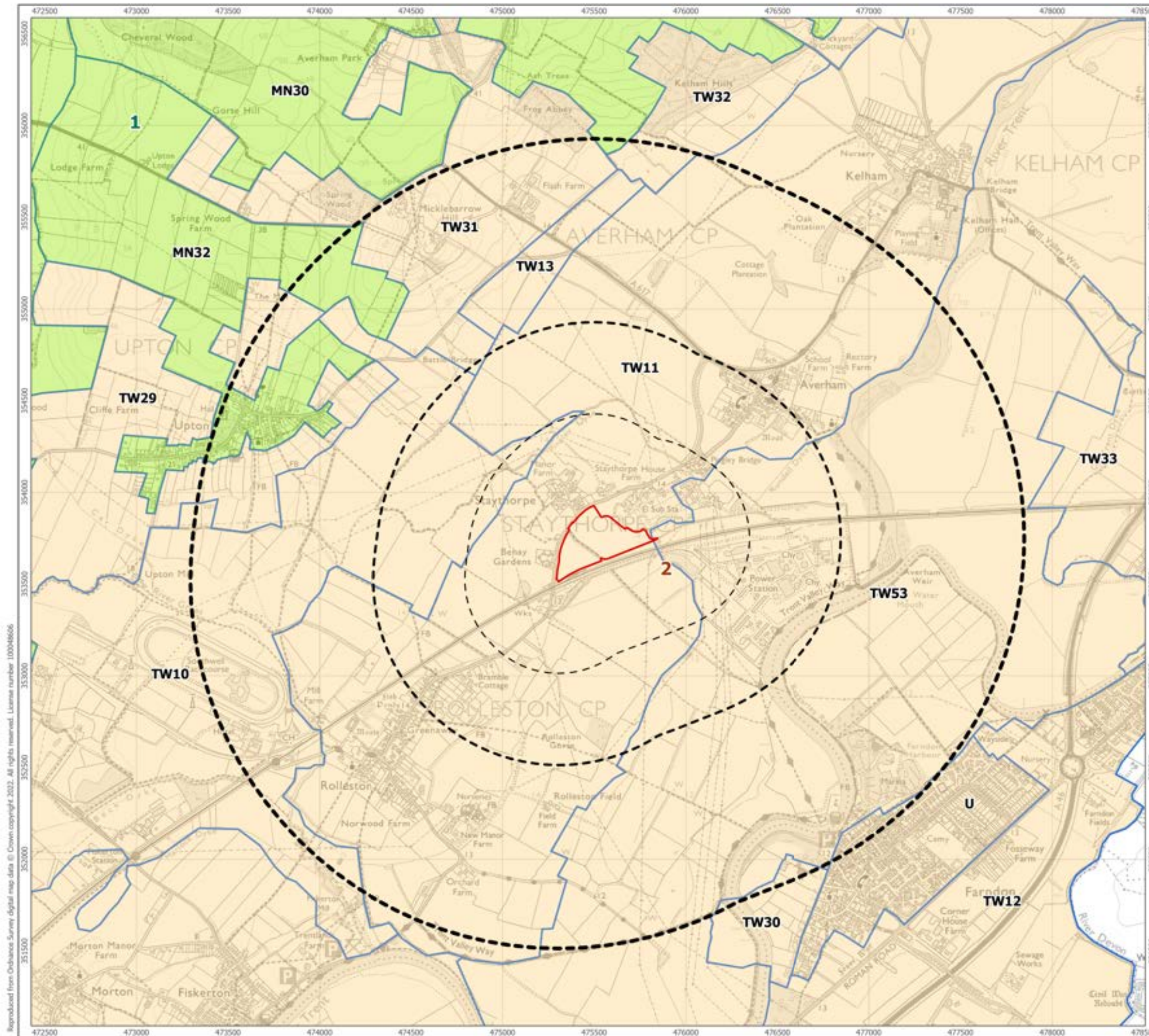
- Site Boundary
- Landscape Study Areas**
 - 0.5 km Study Area
 - 1 km Study Area
 - 2 km Study Area
- Listed Buildings**
 - I
 - II*
 - II
- Scheduled Monuments
- Conservation Areas
- Ancient Woodland
- Farndon Ponds Local Nature Reserves

1:20,000 Scale @ A3
 0 0.5 1 km

Produced By: YC	Ref: 4951-REP-019
Checked By: CH	Date: 03/09/2022

Landscape and Related Designations Figure 1.6

Staythorpe Battery Energy Storage System Landscape and Visual Appraisal



- Site Boundary
- Landscape Study Areas**
 - 0.5 km Study Area
 - 1 km Study Area
 - 2 km Study Area
- Newark and Sherwood District Regional Landscape Character Areas**
 - 1 Mid-Nottinghamshire Farmlands
 - 2 Trent Washlands
- Newark and Sherwood District Landscape Policy Zones**
 - MN30** Knapthorpe Village Farmlands with Ancient Woodland
 - MN32** Upton Village Farmlands
 - TW10** River Greet Meadowlands
 - TW11** Cromwell, North and South Muskham, Kelham, Averham, Staythorpe and Rolleston Village Farmlands
 - TW12** Farndon Village Farmlands
 - TW13** Manor Farm River Meadowlands
 - TW29** Upton Hall River Meadowlands
 - TW30** Farndon River Meadowlands
 - TW31** Battle Bridge River Meadowlands
 - TW32** Kelham Hills River Meadowlands
 - TW33** Newark West River Meadowlands
 - TW53** Averham Weir River Meadowlands
 - U** Urban

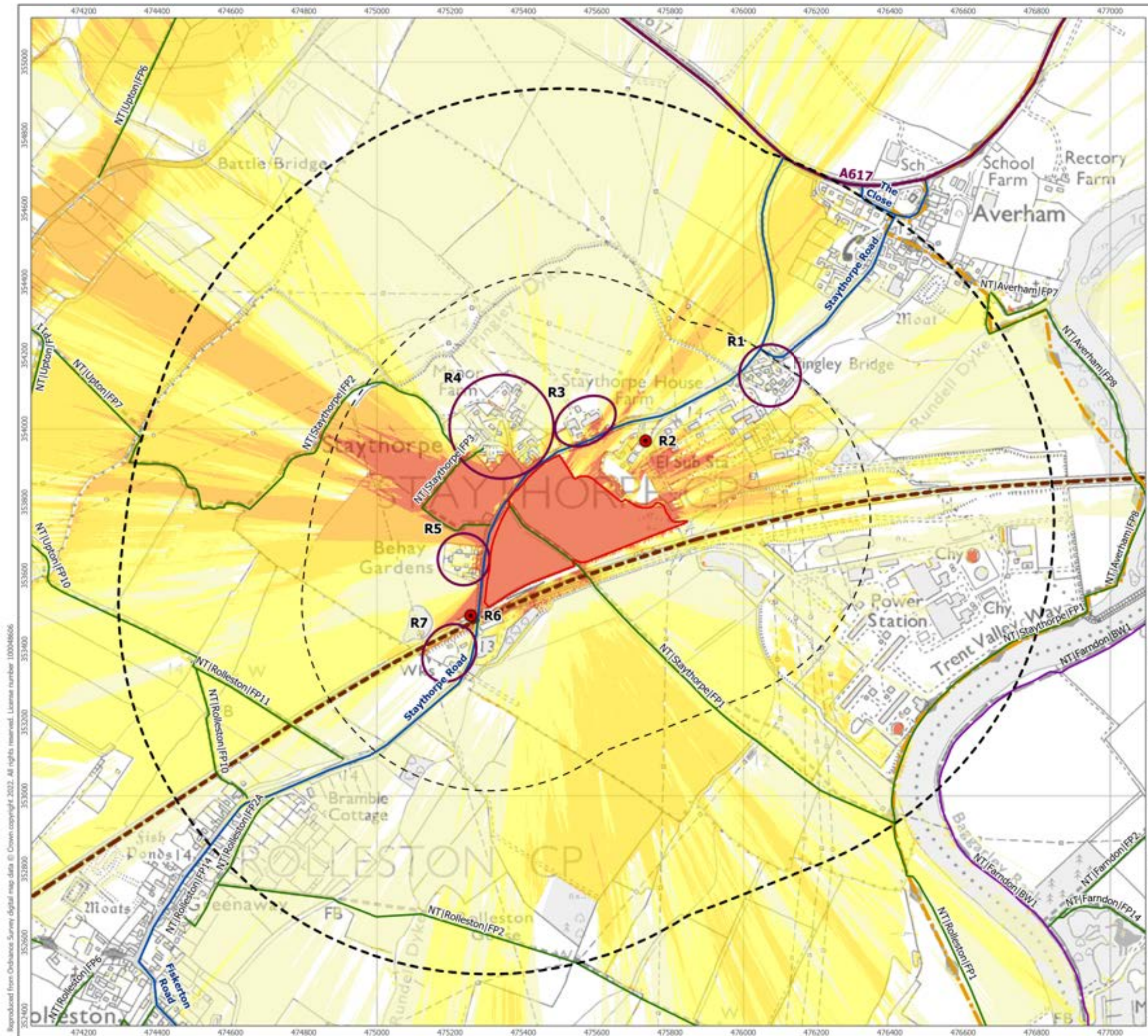
1:20,000 Scale @ A3

 0 0.5 1 km

Produced By: YC	Ref: 4951-REP-020
Checked By: CH	Date: 03/09/2022

Landscape Character Areas Figure 1.7

Staythorpe Battery Energy Storage System Landscape and Visual Appraisal



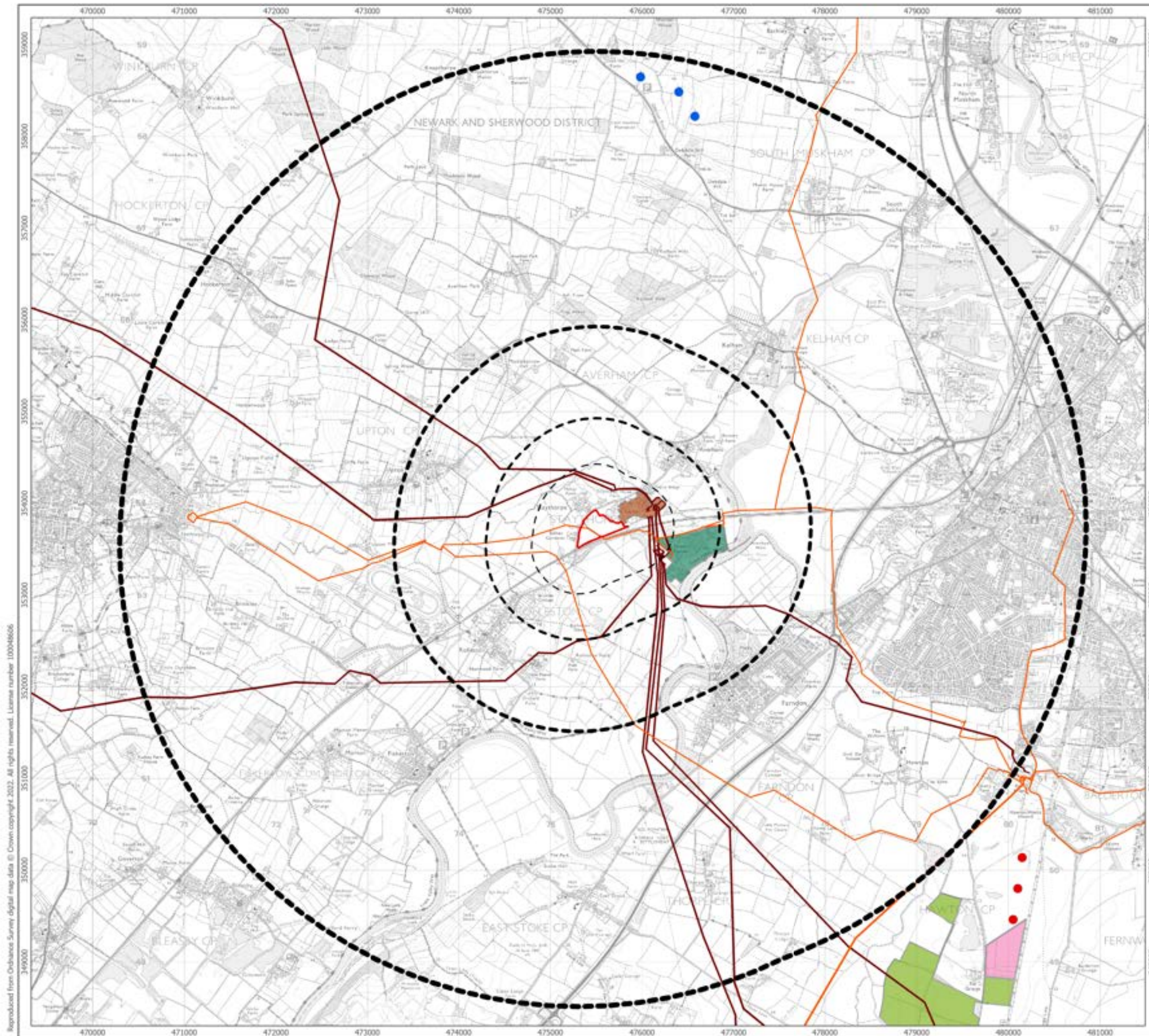
- Site Boundary
- Landscape Study Areas**
 - 0.5 km Study Area
 - 1 km Study Area
- Residential Receptors
- Residential Receptors (Groups)
- Public Rights of Way**
 - Footpath
 - Bridleway
 - Long Distance Footpath
 - A Class Road
 - Minor Road
 - Railway
- Zone of Theoretical Visibility**
 - 1-20% Proposed Development may be visible
 - 21-40% Proposed Development may be visible
 - 41-60% Proposed Development may be visible
 - 61-80% Proposed Development may be visible
 - 81-100% Proposed Development may be visible

1:10,000 Scale @ A3
 0 0.25 0.5 km NORTH

Produced By: YC	Ref: 4951-REP-022
Checked By: CH	Date: 03/09/2022

Visual Amenity Figure 1.8

**Staythorpe Battery Energy
Storage System
Landscape and Visual Appraisal**



- Site Boundary
- Landscape Study Areas**
 - 0.5 km Study Area
 - 1 km Study Area
 - 2 km Study Area
 - 5 km Study Area
- Electrical Transmission Network**
 - 33 kV Lines
 - 132 kV Lines
- Cumulative Sites**
 - Newark Wind Farm
 - Ollerton Road Wind Turbines
 - Cotham Lane Solar Farm
 - The Grange Solar Farm
 - Staythorpe Substation
 - Staythorpe Power Station

1:40,000 Scale @ A3
 0 1 2 km

Produced By: YC	Ref: 4951-REP-023
Checked By: CH	Date: 03/09/2022

Cumulative Sites
 Figure 1.9

Staythorpe Battery Energy Storage System
Landscape and Visual Appraisal

APPENDIX C DRAWINGS



A length of instant hedging may be re-instated outside of the visibility splay along the length of hedgerow to be removed to facilitate the visibility splay. A wildflower verge to the instant hedgeline would be established with a close mown edge. Four trees would also need to be removed (T11, T14, T15 and T16). Refer to the Arboricultural Report for more information.

PROPOSED
INTERPRETATION
BOARD

PERMANENT
WELFARE
AREA

PROPOSED FLOOD
COMPENSATORY
STORAGE AREA

PROPOSED
TIMBER BENCHES

	SITE BOUNDARY
	EXISTING POWER LINE
	6 M BUFFER FROM EXISTING POWER LINE
	EXISTING WATER FEATURES
	EXISTING TREES, WOODLAND, HEDGEROWS AND VEGETATION Indicative locations to be confirmed on site
	EXISTING TREES, WOODLAND, HEDGEROWS AND VEGETATION TO BE REMOVED
	EXISTING GRASS VERGE Indicative locations to be confirmed on site
	PROPOSED TRACK
	PROPOSED FENCE
	PROPOSED WOODEN ACOUSTIC FENCE
	PROPOSED WOODEN FENCE
	PROPOSED ENTRANCE GATE
	PROPOSED NATIVE SPECIES TREE PLANTING Planted as standard trees typically 250-300 cm high using locally native species including alder (<i>Alnus glutinosa</i>), silver birch (<i>Betula pendula</i>), common whitebeam (<i>Sorbus aria</i>), English oak (<i>Quercus robur</i>) and wild cherry (<i>Prunus avium</i>)
	PROPOSED NATIVE SPECIES HEDGEROW PLANTING Planted with transplants 60-80 cm high as a double staggered row using locally native species including common gorse (<i>Ulex europaeus</i>), crab apple (<i>Malus sylvestris</i>), dog-rose (<i>Rosa canina</i>), hazel (<i>Corylus avellana</i>), wild cherry (<i>Prunus avium</i>), dogwood (<i>Cornus sanguinea</i>), goat willow (<i>Salix caprea</i>), hawthorn (<i>Crataegus monogyna</i>), guelder rose (<i>Viburnum opulus</i>) and holly (<i>Ilex aquifolium</i>)
	HABITAT ENHANCED AREA
	PROPOSED NATIVE SPECIES GRASS AND WILDFLOWER MEADOW MIX Somerset Meadow Seed Mix - Neutral Soils, Habitat Aid, Sown at rate of 4 g/m ²
	PROPOSED NATIVE SPECIES TUSOCK MIX Tussock Seed Mix, Habitat Aid, Sown at rate of 4 g/m ²
	PROPOSED NATIVE SPECIES LOW MAINTENANCE MEADOW MIX Low Maintenance Wildflower and Grasses Seed Mix, Habitat Aid, Sown at rate of 4 g/m ²
	PROPOSED NATIVE SPECIES WET MEADOW MIX Wet Wildflower Meadow Seed Mix, Habitat Aid, Sown at rate of 4 g/m ²
	PROPOSED NATIVE SPECIES BULB MIX Species including autumn flowering crocus (<i>Crocus speciosus</i>), snowdrop (<i>Galanthus nivalis</i>) and wild daffodil (<i>Narcissus pseudonarcissus</i>)
	PROPOSED NATIVE SPECIES SCRUB MIX Planted with transplants 60-80 cm high using locally native species including rowan (<i>Sorbus aucuparia</i>), crab apple (<i>Malus sylvestris</i>), blackthorn (<i>Prunus spinosa</i>), grey willow (<i>Salix cinerea</i>), hazel (<i>Corylus avellana</i>), hawthorn (<i>Crataegus monogyna</i>) and wild damson (<i>Prunus domestica</i>)
	PROPOSED NATIVE SPECIES WOODLAND MIX Planted with transplants 60-80 cm high using locally native species including rowan (<i>Sorbus aucuparia</i>), field maple (<i>Acer campestre</i>), blackthorn (<i>Prunus spinosa</i>), holly (<i>Ilex aquifolium</i>), hazel (<i>Corylus avellana</i>), hawthorn (<i>Crataegus monogyna</i>) and bird cherry (<i>Prunus padus</i>)
	PROPOSED LOG PILE LOCATION
	PROPOSED CHIPPINGS
	PROPOSED TYPE 1 AGGREGATE SURFACE
	PROPOSED TYPE 2 AGGREGATE SURFACE
	VISIBILITY SPLAY

Note: All existing boundary hedgerows within the site to be gapped up and in-filled with native species hedgerow plants.

THIS DRAWING HAS BEEN PREPARED IN ACCORDANCE WITH THE SCOPE OF WORK APPROPRIATE TO ITS CLIENT AND IS SUBJECT TO THE TERMS OF THAT APPROPRIATE. ARCUS ACCEPTS NO LIABILITY FOR ANY USE OF THIS DOCUMENT OTHER THAN BY ITS CLIENT AND ONLY FOR THE PURPOSES FOR WHICH IT WAS PREPARED AND PROVIDED.

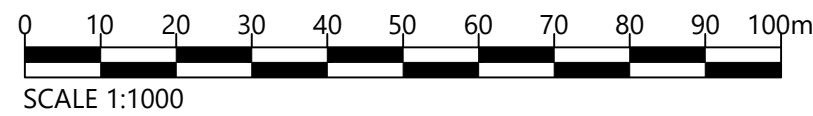
- NOTES:
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
 2. ALL DIMENSIONS, CHANGES, LEVELS AND COORDINATES ARE IN METRES UNLESS OTHERWISE STATED.
 3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE PROJECT HEALTH & SAFETY FILE FOR ANY IDENTIFIED POTENTIAL RISKS.
 4. THE DRAWING IS THE COPYRIGHT OF ARCUS AND CANNOT BE REPRODUCED IN ANY FORM WITHOUT THE EXPRESS CONSENT OF THE COMPANY. WRITTEN AND SCALE DIMENSIONS TO BE CHECKED ON SITE, AND ANY DISCREPANCIES SHOULD BE REPORTED TO ARCUS PRIOR TO WORK COMMENCING ON SITE.

STATUS: **FOR PLANNING**

BASE: Reproduced from Ordnance Survey digital map data
© Crown copyright 2022. All rights reserved.
Licence number 100048606

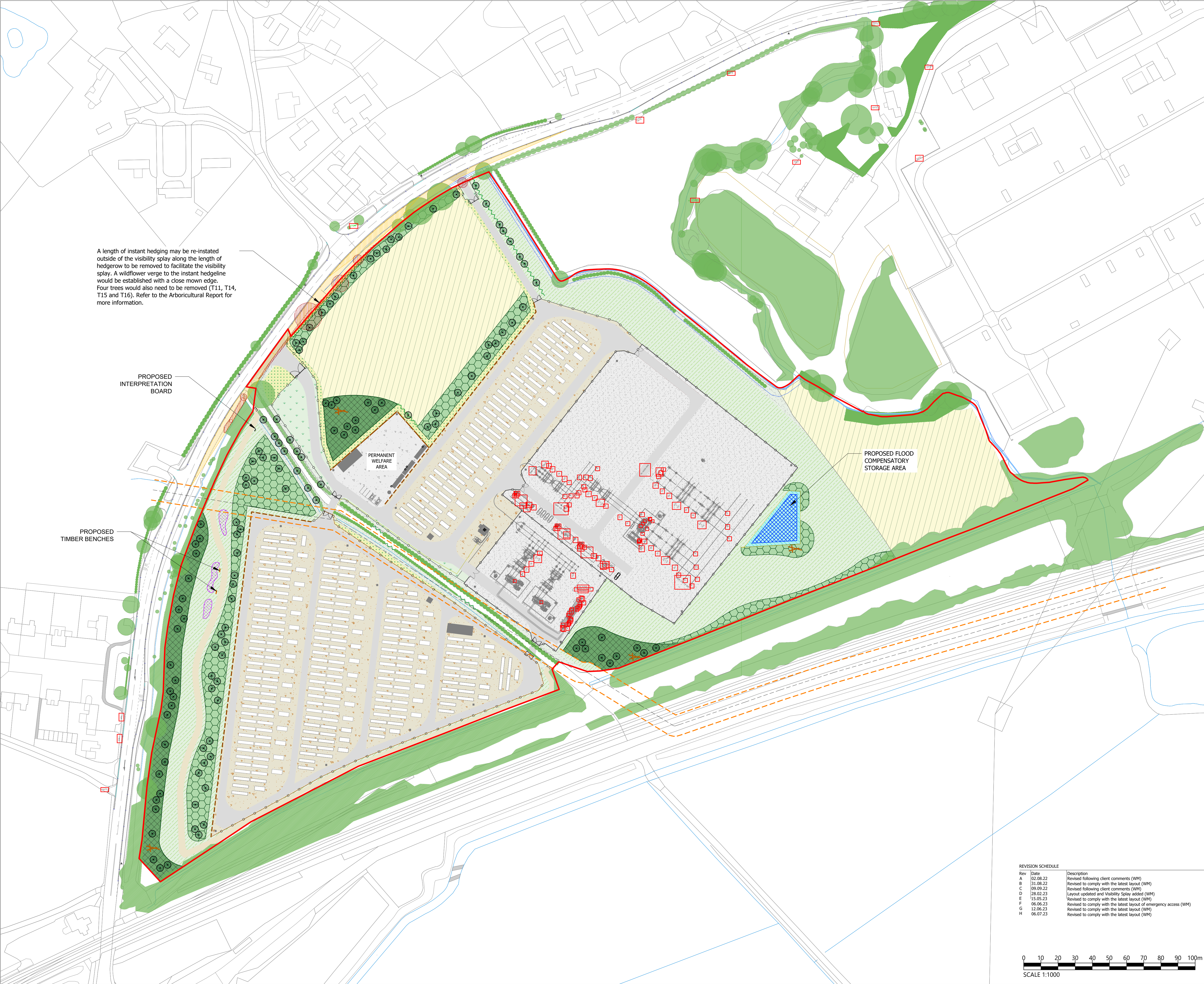
GRID REFERENCE: SK 755537

REVISION SCHEDULE		
Rev	Date	Description
A	02.08.22	Revised following client comments (WM)
B	31.08.22	Revised to comply with the latest layout (WM)
C	09.09.22	Revised following client comments (WM)
D	28.02.23	Layout updated and Visibility Splay added (WM)
E	15.05.23	Revised to comply with the latest layout (WM)



PROJECT: Staythorpe BESS
TITLE: Landscape Mitigation Plan
CLIENT: Ecop Renewables Staythorpe Ltd
DATE: 01.08.22 SCALE: 1:1000@A1
DRAWN: WM DRAWING NO.: 4951-DR-LAN-101
CHECKED: JH REVISION: E

Arcus Consultancy Services
Landscape Architecture &
Arboriculture
1/C Swinegate Court East
3 Swinegate
York, YO1 8AU
tel: +44 (0)1904 715 470
www.arcusconsulting.co.uk



SITE BOUNDARY

EXISTING POWER LINE

6 M BUFFER FROM EXISTING POWER LINE

EXISTING WATER FEATURES

EXISTING TREES, WOODLAND, HEDGEROWS AND VEGETATION
Indicative locations to be confirmed on site

EXISTING TREES, WOODLAND, HEDGEROWS AND VEGETATION TO BE REMOVED

EXISTING GRASS VERGE
Indicative locations to be confirmed on site

PROPOSED TRACK

PROPOSED FENCE

PROPOSED WOODEN ACOUSTIC FENCE

PROPOSED WOODEN FENCE

PROPOSED ENTRANCE GATE

PROPOSED NATIVE SPECIES TREE PLANTING
Planted as standard trees typically 250-300 cm high using locally native species including alder (*Alnus glutinosa*), silver birch (*Betula pendula*), common whitebeam (*Sorbus aria*), English oak (*Quercus robur*) and wild cherry (*Prunus avium*)

PROPOSED NATIVE SPECIES HEDGEROW PLANTING
Planted with transplants 60-80 cm high as a double staggered row using locally native species including common gorse (*Ulex europaeus*), crab apple (*Malus sylvestris*), dog-rose (*Rosa canina*), hazel (*Corylus avellana*), wild cherry (*Prunus avium*), dogwood (*Cornus sanguinea*), goat willow (*Salix caprea*), hawthorn (*Crataegus monogyna*), guelder rose (*Viburnum opulus*) and holly (*Ilex aquifolium*)

HABITAT ENHANCED AREA

PROPOSED NATIVE SPECIES GRASS AND WILDFLOWER MEADOW MIX
Somerset Meadow Seed Mix - Neutral Soils, Habitat Aid, Sown at rate of 4 g/m²

PROPOSED NATIVE SPECIES TUSSOCK MIX
Tussock Seed Mix, Habitat Aid, Sown at rate of 4 g/m²

PROPOSED NATIVE SPECIES LOW MAINTENANCE MEADOW MIX
Low Maintenance Wildflower and Grasses Seed Mix, Habitat Aid, Sown at rate of 4 g/m²

PROPOSED NATIVE SPECIES WET MEADOW MIX
Wet Wildflower Meadow Seed Mix, Habitat Aid, Sown at rate of 4 g/m²

PROPOSED NATIVE SPECIES BULB MIX
Species including autumn flowering crocus (*Crocus speciosus*), snowdrop (*Galanthus nivalis*) and wild daffodil (*Narcissus pseudonarcissus*)

PROPOSED NATIVE SPECIES SCRUB MIX
Planted with transplants 60-80 cm high using locally native species including rowan (*Sorbus aucuparia*), crab apple (*Malus sylvestris*), blackthorn (*Prunus spinosa*), grey willow (*Salix cinerea*), hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*) and wild damson (*Prunus domestica*)

PROPOSED NATIVE SPECIES WOODLAND MIX
Planted with transplants 60-80 cm high using locally native species including rowan (*Sorbus aucuparia*), field maple (*Acer campestre*), blackthorn (*Prunus spinosa*), holly (*Ilex aquifolium*), hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*) and bird cherry (*Prunus padus*)

PROPOSED LOG PILE LOCATION

PROPOSED CHIPPINGS

PROPOSED TYPE 1 AGGREGATE SURFACE

PROPOSED TYPE 2 AGGREGATE SURFACE

VISIBILITY SPLAY

Note: All existing boundary hedgerows within the site to be gapped up and in-filled with native species hedgerow plants.

THIS DRAWING HAS BEEN PREPARED IN ACCORDANCE WITH THE SCOPE OF WORK APPROPRIATE TO ITS CLIENT AND IS SUBJECT TO THE TERMS OF THAT APPROPRIATE. ARCUS ACCEPTS NO LIABILITY FOR ANY USE OF THIS DOCUMENT OTHER THAN BY ITS CLIENT AND ONLY FOR THE PURPOSES FOR WHICH IT WAS PREPARED AND PROVIDED.

NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
2. ALL DIMENSIONS, CHANGES, LEVELS AND COORDINATES ARE IN METRES UNLESS OTHERWISE STATED.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE PROJECT HEALTH & SAFETY FILE FOR ANY IDENTIFIED POTENTIAL RISKS.
4. THE DRAWING IS THE COPYRIGHT OF ARCUS AND CANNOT BE REPRODUCED IN ANY FORM WITHOUT THE EXPRESS CONSENT OF THE COMPANY. WRITTEN AND SCALE DIMENSIONS TO BE CHECKED ON SITE, AND ANY DISCREPANCIES SHOULD BE REPORTED TO ARCUS PRIOR TO WORK COMMENCING ON SITE.

REVISION SCHEDULE		
Rev	Date	Description
A	02.08.22	Revised following client comments (WM)
B	31.08.22	Revised to comply with the latest layout (WM)
C	09.09.22	Revised following client comments (WM)
D	28.02.23	Layout updated and Visibility Splay added (WM)
E	15.05.23	Revised to comply with the latest layout (WM)
F	06.06.23	Revised to comply with the latest layout of emergency access (WM)
G	12.06.23	Revised to comply with the latest layout (WM)
H	06.07.23	Revised to comply with the latest layout (WM)

STATUS:

FOR PLANNING

BASE:

Reproduced from Ordnance Survey digital map data
© Crown copyright 2022. All rights reserved.
Licence number 100048606

GRID REFERENCE:

SK 755537

PROJECT:

Staythorpe BESS

TITLE:

Landscape Mitigation Plan

CLIENT:

Ecap Staythorpe BESS

DATE:

01.08.22

SCALE:

1:1000@A1

DRAWN:

WM

DRAWING NO.:

4951-DR-LAN-101

CHECKED:

JH

REVISION:

H

ARCUS
Arcus Consultancy Services
Landscape Architecture &
Arboriculture
1C Swinegate Court East
3 Swinegate
York, YO1 8AU
tel: +44 (0)1904 715 470
www.arcusconsulting.co.uk

Reproduced from Ordnance Survey digital map data © Crown copyright 2022. All rights reserved. Licence number 100048606