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Reinforcement to the North Shropshire Electricity Distribution Network



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Environmental Statement Appendix 6.1
Landscape and Visual Assessment Methodology

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Reinforcement to the North Shropshire Electricity Distribution Network

APPENDIX 6.1

LANDSCAPE AND VISUAL ASSESSMENT METHODOLOGY

Environmental Statement

DCO Document 6.6.1

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The Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

Regulation 5(2)(a)

Reinforcement to the North Shropshire Electricity Distribution Network

Environmental Statement: Appendix 6.1 – Landscape and Visual Assessment Methodology

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SP Manweb plc, Registered Office: 3 Prenton Way, Prenton, CH43 3ET. Registered in England No. 02366937

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APPENDIX 6.1: LANDSCAPE AND VISUAL ASSESSMENT METHODOLOGY

1.1 INTRODUCTION

1.1.1 This section outlines the technical methods used to determine what changes to the baseline are likely to occur as a result of the Proposed Development and sets out the significance criteria which have been used in the Environmental Impact Assessment (EIA).

Assessment guidance and methods

1.1.2 The methodology for undertaking the landscape and visual assessments has been developed in accordance with relevant guidance which is presented in the third edition of the 'Guidelines for Landscape and Visual Assessment' (GLVIA3)¹. GLVIA3 is the established best practice guidance for landscape and visual impact assessment and complies with the requirements of the Overarching National Policy Statement for Energy (EN-1)² and National Policy Statement for Electricity Networks Infrastructure (EN-5)³.

Assumptions and Limitations

1.1.3 A number of assumptions and limitations are made in relation to the information presented in this chapter of the ES:

- All assessment work applied a precautionary principle and a realistic worst-case scenario was assessed e.g. effects on visual amenity were considered during winter months following the autumn leaf fall (except for the 76 selected viewpoint locations where both winter and summer views were considered);
- A lighting assessment was not prepared because there is no requirement for night-time lighting during construction or operation, with the exception of short term night time work relating to erecting and removing scaffold netting over the railway near Babbinswood;
- Given the type of development being proposed it is assumed that predicted effects would be adverse (negative) unless otherwise stated;
- The assessment considered the geographical and temporal flexibility allowed for within the DCO⁴. For assessment purposes indicative locations have been shown for each of the wood poles, however during construction the poles may have to be slightly relocated to allow for localised ground conditions or landowner requirements. Similarly there is the flexibility for the proposed height of a wood pole structure to increase by up to 2m if required. This flexibility for micro-siting and height would be within the Order Limits and unless otherwise stated in the assessment would not affect the outcome of the assessment, which is based on a worst case scenario; and
- The curtilage of private residential properties was not accessed during site survey work, therefore the assessment of potential effects on the visual amenity of residents was undertaken from nearby roads and footpaths

¹ Landscape Institute/IEEMA, 2013

² Department for Energy and Climate Change, July 2011

³ Department for Energy and Climate Change, July 2011

⁴ An explanation of the geographical and temporal flexibility within the draft DCO is set out in Chapter 4 'Approach and General Methodology (DCO Document 6.4)

Baseline Data Gathering and Forecasting Methods

Sources

1.1.4 Available desktop information which was reviewed includes Ordnance Survey (OS) data, Google Earth Pro and stakeholder feedback.

1.1.5 Further information has been obtained from a review of the following documents:

- Shropshire, Cheshire and Staffordshire Plain National Character Area (NCA 61)⁵;
- Oswestry Uplands (NCA 63)⁶; and
- The Shropshire Landscape Typology⁷

Surveys to Date

1.1.6 The findings of the desktop study was informed by a programme of seasonal site surveys undertaken since February 2017.

1.1.7 A series of viewpoint photographic surveys was undertaken. These are representative of the views and local landscape within the 1km study area and initial 5km survey area. A full schedule of chosen viewpoints, including how they were selected and what they represent, is provided in Appendix 6.3 (**DCO Document 6.6.3**). A viewpoint assessment sheet is presented in Appendix 6.3 (**DCO Document 6.6.3**) for any viewpoint which was assessed as likely to experience minor adverse impacts or greater. Viewpoint assessment sheets are not provided where the visual impact was deemed to be negligible or where no view of the Proposed Development was possible.

1.1.8 All photography and data collection was undertaken in accordance with the Landscape Institute's (LI) Advice Note 01/11 'Photography and Photomontage in Landscape and Visual Assessment' and Scottish Natural Heritage's (SNH) 'Visual Representation of Wind Farms Version 2.2'. Whilst the latter is specifically intended for use in relation to wind farms, it is widely accepted as being applicable to other vertical infrastructure. The LI Advice Note 01/11 strongly advises members to follow this guidance where applicable in preference to any other guidance or methodology.

1.1.9 Site and viewpoint surveys allowed the assessors to obtain baseline photographs and gain further understanding and appreciation of the landscape and visual experience within the initial survey area and 1km study area.

Future Baseline

1.1.10 The baseline landscape along the route of the Proposed Development mainly derives from agricultural management practices, which influence patterns of land use, cover and vegetation diversity. The effects of climate change and natural succession (for example the gradual silting up of unmanaged ponds, or encroachment of scrub) have also help to shape the landscape.

1.1.11 All landscapes are dynamic and influenced by social, economic, technological and climatic changes, all of which can influence patterns of land use, land cover and land management. As such, the baseline for the landscape and visual assessment is constantly evolving which is why changes to the landscape which may arise in the future (where known) have to be taken into

⁵ An Approach to Landscape Character Assessment (2014), Natural England

⁶ An Approach to Landscape Character Assessment (2014), Natural England

⁷ Shropshire County Council, September 2006

account.

- 1.1.12 The Shropshire Council Site Allocations and Management of Development (SAMDev) Plan does not allocate land anywhere within the Order Limits of the Proposed Development for potential development or new purposes, therefore it is not anticipated that the future baseline would differ noticeably from the existing baseline.

1.2 LANDSCAPE ASSESSMENT METHODOLOGY

- 1.2.1 Landscape effects are defined by the Landscape Institute in GLVIA3 as follows:

'An assessment of landscape effects deals with the effects of change and development on landscape as a resource. The concern ... is with how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character... The area of landscape that should be covered in assessing landscape effects should include the site itself and the full extent of the wider landscape around it, which the proposed development may influence in a significant manner.' (para 5.1 and 5.2)

- 1.2.2 The proposed development may have direct (physical) effects on the landscape as well as indirect effects on landscape character which may be perceived over a wide area.

- 1.2.3 Landscape assessment follows a standard approach:

- Establish baseline conditions against which the effects of the Proposed Development are assessed. This includes consideration of how the landscape may change in the future irrespective of the Proposed Development;
- Determine the nature of the landscape receptor likely to be affected, i.e. its sensitivity (which in turn combines judgements about its susceptibility to change arising from a specific proposal with judgements about its relative value);
- Predict the nature or magnitude of the effect likely to occur (which combines judgements about the likely size and scale of the change, the geographical extent of the area over which it is likely to occur, whether it is direct or indirect) and positive, negative or neutral; and

- 1.2.4 Assess whether a significant effect on the landscape is likely to arise by considering the predicted magnitude of change together with the sensitivity of the receptor, taking into account any identified mitigation measures.

- 1.2.5 The landscape assessment involves a combination of quantitative and qualitative assessment and the application of professional judgement within a structured assessment framework. GLVIA3 notes:

'...whilst there is some scope for quantitative measurement of some relatively objective matters, ...much of the assessment must rely on qualitative judgement, for example what effect the introduction of a new development or land use change may have on visual amenity, or about the significance of change in the character of the landscape and whether it is positive or negative.' (para 2.23)

'In all cases there is a need for judgements that are made to be reasonable and based on clear and transparent methods so that the reasoning applied at different stages can be traced and examined by others.' (para 2.24)

Spatial Scope of Study Area

- 1.2.6 The landscape and visual assessment is focused on those areas which are likely to experience significant effects. This accords with the EIA Regulations⁸, which require the identification of the 'likely significant effects of the proposed development on the environment' (Schedule 4 Part 1 Para 20).
- 1.2.7 The study area for the landscape and visual assessment was agreed with Shropshire Council and in the Scoping Opinion and extends up to 1km from the Order Limits, for the overhead line. This is because at a distance of 1km, a Trident wood pole, which on average would be 12m high above ground (including the conductor), would appear approximately 7mm high in the view, which is highly unlikely to give rise to significant effects. In addition, throughout much of the study area the layering effect of intervening mature trees on field boundaries, along with generally low-lying landform, would reduce the wider visibility of a wood pole line.
- 1.2.8 Although it is considered unlikely that a wood pole overhead line could have a significant effect on a landscape more than 1km from the line, there are rare occasions where longer distance views of a wood pole overhead line may result in significant visual effects, particularly where the poles are seen above the horizon – i.e. on the skyline. Therefore, as agreed with Shropshire Council and explained in the Scoping Report⁹ a wider initial survey area up to 5km from the Order Limits was considered, as shown on Figure 6.1 'Landscape and Visual Impact Assessment (LVIA) Study Area' (**DCO Document 6.14**). In the assessments detailed in Chapter 6 'Landscape and Visual' (**DCO Document 6.6**) and Appendices 6.2 and 6.3 (**DCO Documents 6.6.2** and **6.6.3**) no significant effects were identified further than 1km from the Order Limits, within the wider 1km-5km survey area, therefore the final study area extended 1km from the Order Limits.
- 1.2.9 All underground cables, temporary access routes (excluding one at Berrywood Farm) and laydown areas are located within the 1km study area. The 1km study area and initial 5km survey area extend from the Order Limits for the overhead line only, rather than the substations, underground cables, temporary access routes or temporary laydown areas. This is because the potential landscape and visual effects resulting from the Proposed Development in these locations would only be related to relatively minor construction works and would be transient and/or very short term in duration. The likely effects of the substation works, sections of underground cables, temporary access routes and temporary laydown areas have all been considered within this ES.

Temporal Scope

- 1.2.10 The assessment takes account of the effects of the Proposed Development at the following points in time:
- Construction – the point at which the construction works would be visible;
 - Operation Year 1 – the point at which the Proposed Development would first be visible in its entirety; and
 - Operation Year 15 – the point in time at which the Proposed Development would be visible, following further growth of any existing or new vegetation within the landscape.
- 1.2.11 Short-term effects are typically those which would arise during the construction phase of the Proposed Development. Construction of the Proposed Development is anticipated to take place between 2020 and 2021, and the intensity and scale of construction will vary along the route during this period. Works in any one location are anticipated to take no more than one week.
- 1.2.12 Medium and long-term effects are typically those which would arise during the operational phase of the Proposed Development. The opening year, when the overhead line is energised, was

⁸The Planning Inspectorate (PINS) (2009), Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended).

⁹ <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN020021/EN020021-000027-Scoping%20Report.pdf>

used as the basis for assessing operational effects. This is anticipated to be 2021.

- 1.2.13 Long-term residual effects of the Proposed Development are typically those which would remain after a minimum fifteen years. When assessing landscape effects this includes the establishment of any mitigation planting which may be required and further growth of existing vegetation.

Landscape Sensitivity

- 1.2.14 The first step in assessing the landscape effects is to determine the sensitivity of the landscape to the Proposed Development.
- 1.2.15 Paragraph 3.24 of GLVIA3 defines landscape sensitivity as being derived from the combination of 'judgements about the susceptibility of the landscape to change arising from the specific proposals, with judgements about the value attached to the receptor'.
- 1.2.16 Judgements on the value attached to the landscape are unrelated to the nature of a development proposal, whilst judgements on susceptibility may vary in response to the type of development proposed and the attributes of the area in which it is to be located.

Determining Landscape Value

- 1.2.17 The relative value of the landscape (along the route of the overhead line and in the wider landscape) is a key contributing factor in determining the sensitivity of landscape receptors.
- 1.2.18 Paragraph 5.19 of GLVIA3 notes that:
- 'This means the relative value that is attached to different landscapes by society, bearing in mind that a landscape may be valued by different stakeholders for a whole variety of reasons... a review of existing landscape designations is usually the starting point in understanding landscape value, but the value attached to undesignated landscapes also needs to be carefully considered'.*
- 1.2.19 The fact that an area of landscape is not designated either nationally or locally does not mean that it does not have any value. The European Landscape Convention promotes the need to take account of all landscapes, with less emphasis on the special and more recognition that ordinary landscapes also have their value. This can be achieved through the application of a criteria based comparative landscape approach to determining value.
- 1.2.20 The value of the landscape within each of the local LCAs was described and evaluated with reference to the following six criteria, which are specific to the landscape context of the area:
- Landscape character and quality (condition);
 - Scenic quality;
 - Natural landscape interests;
 - Historic landscape interests;
 - Recreation value; and
 - Perceptual aspects and tranquillity.
- 1.2.21 The criteria are listed in Table A6.1.1, together with an explanation as to how they were applied to indicate higher or lower value. Table A6.1.1 also identifies which of the Holford Rules

applies to each of the criteria.

1.2.22 For each criteria, professional judgement was applied to make a judgement on the relative value. This was informed by site visits and existing documentation including the Shropshire Landscape Typology, historic landscape character appraisal, stakeholder feedback and Conservation Area character appraisal. An overall value for each local LCA was determined by bringing together the judgements made for each of the criteria. The resulting value is described as high, medium-high, medium, medium-low and low¹⁰. The rationale in support of the assessment is explained for each receptor so that it is clear how each judgement was made.

Table A6.1.1 – Criteria for Judging Landscape Value	
1. Landscape Character and Quality (Holford Rule 2)	
<p>Areas where the landscape character/quality is positive and intact, are likely to be more susceptible to a 132kV overhead line than areas where landscape character/quality has been lost or is perceived as negative.</p> <p>Intactness of the landscape is demonstrated by, amongst other things, the presence of characteristic natural and man-made elements, which are generally in good condition and absence of significant incongruous or detracting elements.</p>	
<p>This is a value judgement which is informed by the following:</p> <ul style="list-style-type: none"> • National Character Map and Shropshire Landscape Typology; • Local character assessments including Conservation Areas; • Aerial imagery; and • Site survey. 	
Low	A landscape in very poor condition. Few characteristic/naturalistic features remain and these are highly fragmented and/or spoilt by large-scale visually intrusive or other inharmonious development. Landscape character has been lost or is perceived as negative. Farmland is typified by a very large scale and regular field pattern with absent or heavily degraded field boundaries.
Medium-low	A landscape in generally poor condition. Occasional characteristic/naturalistic features remain intact but most are fragmented and/or spoilt by some large scale visually intrusive or other inharmonious development. A weak sense of place with little distinctive identity. Farmland is typified by a large scale and regular field pattern with absent or degraded field boundaries.
Medium	A landscape in reasonable condition. Some characteristic/naturalistic features remain intact but others are fragmented and/or spoilt by some large scale visually intrusive or other inharmonious development. The pattern of the landscape, its elements and features contribute to a local sense of place. Farmland is typified by a medium scale field pattern with generally intact field boundaries.
Medium-high	A landscape in mostly good condition and unspoilt by large scale visually intrusive or other inharmonious development. Characteristic/naturalistic features are mainly intact. The pattern of the landscape, its elements and features contribute to a regional or county sense of place. Farmland is typified by a medium/small scale irregular field pattern with mainly intact traditional field boundaries. Some historic field patterns are evident.

¹⁰ When assessing the value, susceptibility, sensitivity and magnitude of change, some of the threshold categories have been subdivided to better reflect the nuances of the local landscape or visual conditions found within the study area and therefore do not necessarily reflect the subdivisions presented in the methodology overview in Chapter 5 ‘PEIR Approach and General Methodology’ of this PEIR.

Table A6.1.1 – Criteria for Judging Landscape Value	
High	A landscape in a consistently good condition and unspoilt by large scale visually intrusive or other inharmonious development. Characteristic/naturalistic features are widespread and intact. The landscape has a very distinctive character and sense of place which may be iconic and help to define a national and international landscape identity. Farmland is typified by an intimate or small scale irregular field pattern with intact traditional field boundaries. Extensive historic field patterns are evident.
2. Scenic Quality (Holford Rule 2)	
<p>Scenic landscapes are typically those that appeal to the senses through, for example, combinations of some of the following: distinctive, dramatic or striking landform or patterns of land cover; strong aesthetic qualities such as scale, form, colour and texture; or visual diversity which contributes to the appreciation of the landscape.</p> <p>Areas of attractive scenery, sense of place and local distinctiveness are typically more susceptible to a 132kV overhead line than less scenic areas. This includes landscapes designated for their natural beauty but also areas of undesignated landscape.</p>	
<p>This is a value judgement which is informed by the following:</p> <ul style="list-style-type: none"> • National Character Map and Shropshire Landscape Typology; and • Site survey. 	
Low	An unattractive landscape with very few or no aesthetically pleasing scenes. Very little visual interest in terms of scale, colour, form or texture. Also includes a landscape where different characteristics and elements visually compete and disrupt each other to create a chaotic and confused composition.
Medium-low	A landscape of generally low scenic quality with few aesthetically pleasing scenes. Little visual interest in terms of scale, colour, form or texture. Also includes landscapes where some characteristics and elements visually compete and disrupt each other to create a chaotic and confused composition.
Medium	A landscape with some aesthetically pleasing scenes of picturesque quality, which contribute to local value. Some variation in terms of scale, colour, form or texture. May includes some areas where characteristics and elements visually compete and disrupt each other to create a chaotic and confused composition. Such landscapes are typically valued locally.
Medium-high	An attractive landscape with many aesthetically pleasing scenes of picturesque quality and presence of some regionally important views, landmarks and/or scenic routes. Varied landscape in terms of scale, colour, form or texture resulting from combination of flora, fauna, geological and physiographic features. Most characteristics and elements visually contribute to a balanced and even composition. Such landscapes are typically valued regionally.
High	Very attractive and picturesque landscape with all or most of its scenic and special qualities retained, including flora, fauna, geological and physiographic features. Presence of nationally or internationally important views, landmarks and/or scenic routes. Landscape characteristics and elements visually contribute to a harmonious and concordant composition. Such landscapes are typically valued nationally and internationally.
3. Natural Landscape Interests (Holford Rules 1 and 2)	
<p>The natural landscape interest of each area is demonstrated by the presence of designated ecological features and/or by the presence of distinctive species and/or habitats that contribute to the character of the landscape, including features such as veteran parkland trees, distinctive hedgerow species and ancient woodlands.</p>	
<p>This is a value judgement which is informed by the following:</p> <ul style="list-style-type: none"> • Ancient woodlands (including inventories of smaller ancient woodland sites 0.25 – 2ha); • Veteran parkland trees 	

Table A6.1.1 – Criteria for Judging Landscape Value

<ul style="list-style-type: none"> • National Nature Reserves (NNR); • Local Nature Reserves (LNR); • RSPB Reserves; • Habitats of principal importance; • Ramsar Sites; • Special Areas of Conservation (SAC); • Special Protection Areas (SPA); and • Sites of Special Scientific Interest (SSSI). 	
Low	Landscape characterised by low value habitats where the landscape is mainly arable land or improved pasture and fields are large and bounded by post and wire fences. No semi natural ancient woodland.
Medium-low	Landscape habitats of local importance, including areas of intensively farmed land where there are still robust managed hedgerows and occasional areas of native vegetation, e.g. fragmented woodlands.
Medium	Landscape habitats which are of local importance but also contains a local BAP or other native or semi natural habitat which may be a local wildlife site.
Medium-high	Landscape with some protected assets of national importance e.g. SSSIs which are enhanced by local features such as ponds, robust hedgerows, veteran trees, species rich areas of scrub and blocks of woodland, which form valuable wildlife corridors. It also includes areas where many diverse habitats are linked together by hedgerows or streams and may have a reasonably high concentration of protected species. May include small areas of ancient semi natural woodland.
High	Landscape with multiple protected assets, including internationally or nationally designated sites. Much of the area comprises national or local BAP habitats or a substantial proportion of SSSI habitats. Likely to have a high concentration of protected species. Large areas of ancient semi natural woodland.

4. Historic Landscape Interests (Holford Rules 1 and 2)

The historic landscape interest of each local LCA is demonstrated by the presence of internationally or nationally designated heritage assets and/or historic landscape assets, which although not protected by designation are considered to be of national value, for example Registered Parks and Gardens.

This is a value judgement which is informed by the following:

- National Character Map and Shropshire HCA;
- World Heritage Sites;
- Scheduled Monuments;
- Registered Park and Gardens;
- Listed Buildings;
- Historic Battlefields;
- Historic mapped features; and

Table A6.1.1 – Criteria for Judging Landscape Value	
<ul style="list-style-type: none"> • Conservation Areas. 	
Low	Landscape with few or no archaeological or historic features of note. No visible presence of historic landscape in terms of settlement or field boundary patterns. Absence of traditional land management practices.
Medium-low	Landscape with few archaeological or historic features of note. Features present are widely distributed regionally and of no local interest. Little visible presence of historic landscape in terms of settlement or field boundary patterns. Little evidence of traditional land management practices.
Medium	Landscape with some archaeological or historic features which are listed or designated and which contribute to landscape character. Includes features which although widely distributed regionally, may be of some local interest. Some evidence of historic landscape in terms of settlement or field boundary patterns, and continuity of historic land uses. Some traditional land management practices which contribute to scenic quality.
Medium-high	Landscape with multiple archaeological or historic features which are listed or designated and which contribute to landscape character. Includes features which are historically rare or exceptional in a regional context. Good evidence of historic landscape in terms of settlement or field boundary patterns, and continuity of historic land uses. Traditional land management practices contribute to scenic quality.
High	Landscape characterised by archaeological or historic features which are designated or listed and which are of exceptional historic importance and nationally or internationally rare or unique. Strong historic settlement and field patterns and continuity of historic land uses. Traditional field management practices contribute extensively to scenic quality.
5. Recreation Value (Holford Rule 2)	
<p>The recreational value of each local LCA considers the extent to which the experience of the landscape makes an important contribution to recreational use and enjoyment of an area. This is indicated by the presence of designated and non-designated recreational features. Landscapes can be highly valued at different scales ranging from large nationally valued landscapes such as AONBs, through smaller locally valued landscapes to those which are valued for recreation at a small scale community level.</p> <p>This is a value judgement which is informed by the following:</p> <ul style="list-style-type: none"> • Open Access Land (including Common Land); • Country Parks; • Nationally designated and regionally promoted trails; • Public Right of Way (PRoW) network (footpaths, cycle routes and bridleways); • Promoted viewpoints; • Key visitor attractions (e.g. castles/hillforts/church towers); and • Visitor facilities (e.g. car parks and picnic sites). 	
Low	Landscape with very few or no recreational facilities offering opportunities for open air recreation. The PRoW network is small and typically poorly maintained and/or doesn't appear well used
Medium-low	Landscape with few recreational facilities offering opportunities for open air recreation. The PRoW network is small and is mainly poorly maintained and/or doesn't appear well used.

Table A6.1.1 – Criteria for Judging Landscape Value	
Medium	Landscape with some recreational facilities offering opportunities for open air recreation. The PRoW network is small and but is reasonably well maintained and appears to be in use. The area may include a locally local recreation route e.g. village walk.
Medium-high	Landscape with recreational facilities offering opportunities for open air recreation e.g. Open Access Land, Common Land, national and regional trails and local recreational routes. The PRoW network is well maintained and appears to be well used. Visitor facilities such as car parks and picnic areas may be present.
High	Landscape with many visitor and recreational facilities offering opportunities for open air recreation e.g. presence of Country Parks, Open Access Land, and Common Land, national and regional trails, local recreational routes. The PRoW network is extensive and well maintained, appears to be well used and is enhanced by visitor facilities such as car parks and picnic areas.
6. Perceptual Aspects & Tranquillity (Holford Rule 2)	
The extent to which the landscape provides opportunities to experience a sense of relative remoteness and/or tranquillity. This may be influenced by the presence or absence of modern development or infrastructure, which may introduce new and uncharacteristic features, which do not respond well to landscape context and which may detract from a sense of tranquillity and/or remoteness. Other factors which are considered include the degree of seclusion or isolation experienced, perception of naturalness, level of screening afforded by landform or vegetation, levels of visual or audible road or rail traffic, levels of pedestrian movements and degree of light pollution.	
This is a value judgement which is informed by the following: <ul style="list-style-type: none"> • Lidar terrain data; • Aerial imagery; • Ordnance Survey mapping; and • CPRE tranquillity maps (2007). 	
Low	A landscape dominated by large scale, visually intrusive or other inharmonious development. High level of human activity with movement for much of the day, such as large settlement, motorway or busy road resulting in visual and/or audible intrusion and little sense of tranquillity or remoteness. High levels of artificial lighting.
Medium-low	A landscape with mostly large scale, visually intrusive or other inharmonious development. A frequent but interrupted stream of human activity with movement for much of the day, such as large village, motorway or busy road resulting in visual and/or audible intrusion and little sense of tranquillity or remoteness. Some artificial lighting.
Medium	A landscape with some large scale visually intrusive or other inharmonious development but also with areas which are more tranquil and remote. An infrequent flow of human activity for most of the day such as a quiet road or rail corridor, canal, park or footpath, small village or hamlet. Little artificial lighting.
Medium-high	A landscape which is mostly remote and tranquil with few detracting features and only occasional presence of human activity, with movement only a few times a week, such as most valley floor agricultural areas or very quiet rural back road or track.
High	A landscape which has a strong sense of tranquillity and remoteness, with no detracting features and only the very occasional presence of human activity such as high hilltops or unvisited woodland.

Determining Landscape Susceptibility

1.2.23 The susceptibility of the landscape (along the route and in the wider landscape) is the second key contributing factor in determining the sensitivity of landscape receptors.

- 1.2.24 Paragraph 5.40 of GLVIA3 defines the susceptibility of the landscape to change as ‘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 features, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or achievement of landscape planning policies and strategies’.
- 1.2.25 The assessment of landscape susceptibility is tailored to the individual project, in this case the Proposed Development and requires:
- Identification of the key components of the landscape that are likely to be affected by the proposed development; and
 - Identification of the various aspects of the Proposed Development, at all stages, that are likely to have an effect on those key components.
- 1.2.26 The susceptibility of each of the local landscape LCAs was described and evaluated with reference to the following five criteria, which are specific to the landscape context of the area and to the Proposed Development.
- Landform;
 - Landcover (including development);
 - Landscape scale;
 - Prominent landscape features and skylines; and
 - Settlement pattern.
- 1.2.27 The criteria are listed in Table A6.1.2 together with an explanation as to how they were applied to indicate higher or lower susceptibility. Table A6.1.2 also identifies which of the Holford Rules apply to each of the criteria.
- 1.2.28 For each criteria, professional judgement was to make a judgement on the susceptibility of the landscape to a 132kV overhead line on Trident wood pole support structures within each local LCA. This was informed by site visits and existing documentation including the Shropshire Landscape Typology, historic landscape character appraisal, stakeholder feedback and Conservation Area character appraisal. An overall value for each local LCA was determined by bringing together the judgements made for each of the criteria. The resulting susceptibility is described as high, medium-high, medium, medium-low and low¹¹. The rationale in support of the assessment is set out for each receptor so that it is clear how each judgement was made.

Table A6.1.2 – Criteria for Judging Landscape Susceptibility	
1. Landform (Holford Rules 4 and 5) (closely linked to land cover)	
	<p>Steep, dramatic or elevated landforms are typically be more susceptible to a 132kV overhead line. This is because they are often prominent and distinctive in character and can also lead to skylining of the wood pole support structures and conductors. Single and narrow ridges are particularly vulnerable especially where the slopes of the ridgeline are well defined/steep/or with rock outcrops. More complex landforms may provide some screening/backdropping opportunities.</p> <p>Valleys and low rolling hills are generally less susceptible because they have greater potential to provide backdropping and enclosure, limiting the perceptibility of an overhead line.</p>

¹¹ When assessing the value, susceptibility, sensitivity and magnitude of change, some of the threshold categories have been subdivided to better reflect the nuances of the local landscape or visual conditions found within the study area and therefore do not necessarily reflect the subdivisions presented in the methodology overview in Chapter 5 ‘PEIR Approach and General Methodology’ of this PEIR.

Table A6.1.2 – Criteria for Judging Landscape Susceptibility	
Landforms that are undulating may have greater potential to provide visual enclosure, thereby limiting the perceptibility of a 132kV overhead line (although this has to be balanced against other factors such as tree cover). Flat open landforms may be more susceptible where there is an absence of surrounding higher landform or vegetation to provide a backdrop, although again this has to be carefully balanced against other factors.	
Judgement informed by GIS datasets on landform and Lidar terrain data.	
Low	Low rolling/undulating lowland with hills orientated in direction of the route. Also includes valleys within upland areas.
Medium-low	Simple regular and low lying landform which is predominantly flat and has which has few distinctive physiographic features.
Medium	A landform with some distinctive physiographic feature which have to be avoided. Also includes low rolling lowland with hills orientated against the direction of the route.
Medium-high	Relatively distinctive or complex landform, with some dramatic or elevated features such as rock outcrops or ridgelines.
High	Highly prominent, steep, dramatic and elevated landform, including exposed upland plateau. Rugged with extensive rock outcrops and high ridgelines. Also very complex or intricate small scale landform e.g. drumlin field.
2. Land Cover Pattern (Holford Rules 5 and 6)	
<p>This factor is not concerned with the material sensitivity of the particular type of land cover (which is considered in other environmental topics), but with the character of the landscape created through the landscape pattern, which includes the distribution of vegetation. Whilst trees and woodland offer the potential to screen wood poles (particularly in combination with undulating landform), complex landscapes comprising a variety or mosaic of characteristic or susceptible landscape features such as trees and woodlands, hedgerows or traditional/historic field patterns, are typically more vulnerable to a 132kV overhead lines than simple uncluttered landscapes where there are few characteristic landscape features, or where such patterns have been obscured.</p> <p>Where landscape complexity is due to past or current commercial/industrial influences, this indicates lower rather than higher susceptibility. In rural areas a 132kV overhead line is likely to be less intrusive in a landscape that is characterised by large agricultural structures, areas of commercial forestry or intensive farming or by the presence of road or rail infrastructure.</p>	
Judgement informed by GIS datasets (topography and woodland) and Lidar terrain data.	
Low	Developed land, including commercial forestry, quarrying, large scale industrial or infrastructure. Tree cover concentrated into discrete woodlands with few hedgerow or field trees. Absence of historic field pattern and agricultural intensification resulting in a simple regular or uncluttered landscape with few or no distinctive features and extensive areas of uniform ground cover.
Medium-low	Some developed land, including commercial forestry, quarrying or infrastructure. Tree cover concentrated into discrete woodlands with few hedgerow or field trees. Absence of historic field pattern and agricultural intensification resulting in a simple, uniform or repetitive landcover pattern with few distinctive features and areas of uniform groundcover.
Medium	Landcover pattern of some complexity with some distinctive features and few visually intrusive or inharmonious land uses. High tree cover with some large woodlands and high prevalence of individual hedgerow and field trees. Historic field pattern present but showing evidence of agricultural intensification.

Table A6.1.2 – Criteria for Judging Landscape Susceptibility	
Medium-high	Complex landcover pattern with distinctive features and very few visually intrusive or inharmonious land uses. Very high tree cover with woodlands and high prevalence of individual hedgerow and field trees. May include distinctive tree knolls or veteran parkland/avenue trees. Historic field pattern present with little evidence of agricultural intensification.
High	Intricate landcover pattern creating a complex and textured landscape with many distinctive features and no visually intrusive or inharmonious land uses. High tree cover with woodlands, individual hedgerow and field trees and strong presence of distinctive tree knolls or veteran parkland/avenue trees. Strong historic field pattern with robust traditional field boundaries and no evidence of agricultural intensification.
3. Landscape Scale	
Scale is typically related to landform or landcover. A small-medium scale landscape where the proposed overhead line would appear in proportion to landscape features (e.g. domestic buildings, trees), is likely to be of lower susceptibility than a large scale landscape where the wood poles would appear out of scale.	
Judgement informed by GIS datasets including background mapping (field boundaries and contours), slope analysis and aerial imagery.	
Low	Medium or small scale landscape where the wood poles would be of a similar scale to the trees/buildings and other human scale landscape components.
Medium-low	Medium or small scale landscape where the wood poles would be in proportion to most existing landscape features.
Medium	Large scale or small scale landscape but with some human scale features such as trees or domestic buildings, which would be more in proportion to the scale of the wood poles.
Medium-high	Mainly large scale or very small scale/intimate landscape. In both situations the wood poles would appear out of proportion to the scale of the existing landscape.
High	Very large scale landscape or very small scale/intimate landscape. In both situations the wood poles would appear out of proportion to the scale of the existing landscape.
4. Prominent Landscape Features and Skylines (Holford Rule 4)	
Landscapes with distinctive ridges or skylines are likely to be more susceptible to the proposed overhead line than skylines that are less prominent or have been affected by visually intrusive structures. The presence of distinctive or historic landscape features such as hilltop monuments, church towers, vernacular villages or other landmark features (e.g. country houses, mansions, historic features), increases susceptibility as overhead lines can detract from or conflict with these features. Skylines which form prominent settings for settlement are also likely to be more susceptible as an overhead line may interrupt the relationship between these features and their landscape settings.	
Judgement informed by Shropshire Landscape Typology, GIS datasets (topography) and site survey.	
Low	A landscape with few or no prominent or distinctive landscape features, where skylines are not distinctive and are characterised by large scale, visually intrusive or inharmonious development.
Medium-low	A landscape with some prominent and distinctive landscape features or skylines where legibility of such features would be susceptible to an overhead line, but more typically characterised by large scale, visually intrusive or inharmonious development.

Table A6.1.2 – Criteria for Judging Landscape Susceptibility	
Medium	A landscape where the skylines are typically mixed in character with some prominent and distinctive landscape features, but where some large scale visually intrusive or other inharmonious development may be present.
Medium-high	A landscape with mostly prominent and distinctive landscape features or skylines where legibility of such features would be susceptible to an overhead line. This includes naturalistic skylines with prominent physiographic features or woodlands, and skylines with prominent or iconic historic landmark features such as traditional hilltop villages, monuments, church towers/spires or designed landscape features.
High	A landscape with highly prominent and distinctive landscape features or skylines, where legibility of such features would be susceptible to an overhead line. This includes naturalistic skylines with prominent physiographic features or woodlands, and skylines with prominent or iconic historic landmark features such as traditional hilltop villages, monuments, church towers/spires or designed landscape features.
5. Settlement Pattern (Holford Rules 1 & 2)	
<p>This relates to settlement pattern in relation to landscape character, rather than to visibility and views, which is discussed separately. Because a 132kV Trident overhead line can deviate relatively easily around individual or small groups of properties, they are more flexible than overhead lines on heavy duty wood poles or steel lattice towers.</p> <p>A settlement pattern which is closely related to the pattern and form of the landscape, particularly where traditional patterns are intact, is potentially more sensitive to development. Conversely, a settlement pattern which is less closely related to landscape, for example larger-scale built development rising over ridgelines or masking field patterns, is likely to be less susceptible.</p>	
Judgement informed by GIS datasets (settlement pattern), OS Data/aerial imagery (Google Earth Pro) and site visits.	
Low	Settlement clustered into a few villages or hamlets.
Medium-low	Mainly clustered settlement pattern with occasional dispersed properties or large farm complexes.
Medium	Mixed settlement pattern with villages, hamlets and dispersed properties or farms.
Medium-high	Mixed settlement pattern with multiple villages, hamlets and dispersed properties or farms.
High	Historic settlement pattern with a high density of dispersed farmsteads and properties.

Determining Landscape Sensitivity

- 1.2.29 The judgements on susceptibility and value were considered together to provide an overall profile of the sensitivity of the landscape within each local LCA to the Proposed Development. Each local LCA was classified into one of five tiers, high, medium-high, medium, medium-low or low, between which there is a gradual transition. The relationship between susceptibility to change and value can be complex and is not linear. For example a highly valued landscape (such as an AONB) may in some areas have a low susceptibility to change, due to the characteristics of the landscape and the nature of the development being proposed.
- 1.2.30 In accordance with GLVIA3, the final assessment of sensitivity for each of the local LCAs was based on informed professional judgement based on consideration of the susceptibility and value judgements and the relative weight attached to these which varied from landscape to landscape based on the indicative descriptions in Table A6.1.3. The presence of any combination

of attributes within the criteria above was considered when assessing the sensitivity of each of the LCAs. The rationale in support of the assessment is set out for each receptor so that it is clear how each judgement has been made.

Table A6.1.3 – Categories of Landscape Sensitivity	
Sensitivity	Definition of Sensitivity to Change resulting from a 132kV Overhead Line on Trident Wood Pole Support Structures
High	<p>A landscape whose overall character, its individual elements and/or features, or particular aesthetic or perceptual aspects are very vulnerable to change or loss and offer limited opportunities to accommodate a new overhead line. Typically includes:</p> <p>Landscapes of particularly distinctive character and/or high scenic quality which may be statutorily designated;</p> <p>Landscapes containing elements/features that are nationally scarce, including mature vegetation such as ancient woodland or veteran trees; and</p> <p>Landscapes defined by very distinctive aesthetic or perceptual aspects.</p>
Medium-high	
Medium	<p>A landscape whose overall character, its individual elements and/or features, or particular aesthetic or perceptual aspects are reasonably robust, vulnerable to change or loss and offer some opportunities to accommodate new overhead lines. Typically includes:</p> <ul style="list-style-type: none"> • Landscapes of positive character but with some evidence of alteration to/degradation of elements/features resulting in areas of more mixed character; • Areas of degraded character but which are valued by local communities; • Landscapes containing elements/features that are locally commonplace; • Landscapes containing elements/features that are rare or unusual locally but are in degraded or poor condition; and • Landscapes with aesthetic or perceptual aspects that do not contribute particularly to local distinctiveness and quality.
Medium-low	<p>A landscape which is of low quality whose overall character, individual elements and/or features, or particular aesthetic or perceptual aspects are robust, tolerant to change and offer good opportunities to accommodate wood pole overhead lines. Typically includes:</p> <ul style="list-style-type: none"> • Landscapes of neutral character with few notable features; • Landscapes which have been adversely altered or degraded; • Landscapes containing elements/features that are nationally or regionally ubiquitous; • Landscapes containing elements/features that detract from landscape character e.g. other overhead lines, power stations, major roads; and • Landscapes whose key aesthetic or perceptual aspects are negative.
Low	

Magnitude of Change

1.2.31 As explained in GLVIA3 (para 5.48 – 5.52), the nature or magnitude of change that is likely to occur is determined by reference to its size/scale, geographical extent and duration/reversibility as follows:

- The size/scale of an effect is determined by considering the amount of change experienced by a receptor, including the extent or proportion of loss or addition of existing landscape elements, the degree to which aesthetic or perceptual aspects of the landscape may be altered and whether the change affects its key characteristics and overall character;
- The geographical extent is the area over which the effects are experienced. It is not the same as size/scale as a small-scale change may cover a wider area, or vice-versa. The

geographical extent is described as being at the site level (within the PPB), within the immediate setting of the proposed development, at the scale of the local LCA or on a larger scale and affecting several local LCAs; and

- In accordance with GLVIA3, this is a separate, but linked consideration and the duration of effect may be described a short term (0-3 years), medium term (3 -15 years) or long term (> 15 years). For the purposes of the landscape and visual assessment construction effects are assumed to be short term and temporary, whilst operational effects are assumed to be long term and permanent, but generally reversible.

1.2.32 The judgements on the size/scale of effect and geographical extent were considered together to derive an overall magnitude of predicted change or effect for each receptor, which was determined through informed professional judgement guided by the descriptions in Table A6.1.4. Duration and reversibility were considered at this stage as it is not a linked concern. For example a high magnitude of change may occur over a short or long time frame and may, or may not, be reversible. The magnitude of landscape effect is described as high, medium-high, medium, medium-low and low. The rationale in support of the assessment is explained for each receptor so that it is clear how each judgement has been made.

Table A6.1.4 – Judging the Magnitude of Landscape Effect	
Magnitude of Change	Description
High	Considerable change to the landscape over a wide area or intensive change over a limited area with severe negative consequences for the elements, character and quality of the baseline landscape. The development will form a dominant landscape element and post development the baseline situation will be fundamentally changed, potentially creating a different landscape character. If designated, affecting the reasons for the designation.
Medium-High	Conspicuous change to the landscape over a wide area or considerable change over a limited area, with undesirable consequences for the elements, character and quality of the baseline landscape. The development will form a prominent landscape element and post development the baseline situation will be substantially changed. If designated, affecting the reasons for the designation.
Medium	Noticeable change to the landscape over a wide area or conspicuous change over a limited area, with some undesirable consequences for the elements, character and quality of the baseline landscape. The development will form a conspicuous landscape element and post development the baseline situation may be noticeably changed. If designated, unlikely to affect the reasons for the designation.
Medium-Low	Slight change to the landscape over a wide area or noticeable change over a limited area, with few undesirable consequences for the elements, character and quality of the baseline landscape. The development will be perceptible but post development, the baseline landscape will be largely unchanged. If designated, not affecting the reasons for the designation.
Low / Negligible	Inconspicuous change to the landscape, with no undesirable consequences for elements, character and quality of the baseline landscape. The development will be just perceptible and post development, the baseline landscape will appear unchanged. If designated, not affecting the reasons for the designation.

1.2.33 The judgements on magnitude in Table A6.1.4 were adjusted (either up or down) to reflect the duration of the change (i.e. short, medium or long term) and whether it is potentially reversible.

1.2.34 The assessment also identifies areas where no landscape change is anticipated.

Determining Overall Significance

1.2.35 In accordance with the overall approach described in Chapter 4 ‘Approach and General Methodology’ (DCO Document 6.4) of this ES, the separate judgements about the sensitivity of the

landscape receptor and the magnitude of likely effect were combined to allow a final judgement to be made about whether or not the effect is considered significant using guidance presented in Table A6.1.5.

Table A6.1.5 – Judging Significance of the Effect on the Landscape		
Less likely to be significant	↔	More likely to be significant
The development is generally well accommodated within the landscape and does not conflict or undermine its key characteristics. The effects will be small in scale and typically (but not always) limited in its geographical extent. The effects are more likely to be short term, temporary and reversible.	↔	The development conflicts with the character of the landscape, forming an intrusive feature which substantially erodes the valued characteristics. The effects will be large in scale and will typically (but not always) be perceived across a wide geographical area. The effects are more likely to be long term, permanent and irreversible.

1.2.36 The relationship between receptors and effects is not generally a linear one and there are no hard or fast rules about what makes an effect significant. Judgements are therefore supported by qualitative text to draw out the important issues, describe the effects and explain the underlying decision-making rationale. As explained in Chapter 4 ‘Approach and General Methodology’ (DCO Document 6.4) assigning each effect to standard significance categories (major, moderate, minor or negligible) enables different topic issues to be placed upon the same scale. This assists the decision-making process at whatever stage the project is at within that process. In arriving at the significance of effect, the assessor also considers whether the effect is direct, indirect, secondary, cumulative, short, medium or long-term, permanent or temporary, positive or negative. The different terms are defined in Table A6.1.6 below.

Table A6.1.6 – EIA Predicted Effects Definitions	
Adverse	Detrimental or negative effects on an environmental resource or receptor.
Beneficial	Advantageous or positive effects on an environmental resource or receptor.
Negligible	Imperceptible effects on an environmental resource or receptor.
Minor	Slight, very short term or highly localised effect of no significant consequence.
Moderate	More than a slight, very short or localised effect (by extent, duration or magnitude) which may be considered significant.
Major	Considerable effect (by extent, duration or magnitude) of more than local significance or in breach of recognised acceptability, legislation, policy or standards.

1.2.37 Paragraph 5.54 of GLVIA3 notes that significance of landscape effects is not absolute and ‘can only be defined in relation to each development and its specific location’.

1.2.38 At opposite ends of the spectrum GLVIA3 notes that:

- ‘Major loss or irreversible negative effects, over an extensive area, on elements and/or aesthetic and perceptual aspects that are key to the character of nationally valued landscapes are likely to be of the greatest significance; and
- Reversible negative effects of short duration, over a restricted area, on elements and/or aesthetic and perceptual aspects that contribute to but are not key characteristics of the character

of landscapes of community value are likely to be of the least significance and may, depending on the circumstances, be judged as not significant.'

- *Where assessments of significance place landscape effects between these extremes, judgements will be made about whether or not they are significant, with explanations of why these conclusions have been reached.'*

Approach to Mitigation

1.2.39 As explained in Chapter 3 'The Proposed Development' (**DCO Document 6.3**) and Section 4.6 of Chapter 4 'Approach and General Methodology' (**DCO Document 6.4**), the main strategy for minimising any adverse environmental effects of the Proposed Development has been avoidance through careful planning, design and routing in accordance with the Holford Rules. The aim was to ensure that the development takes account of environmental constraints and opportunities and achieves the optimum environmental fit as part of an environmentally integrated design. During the detailed design process, there was a continuing exploration of further opportunities for mitigation of likely significant landscape effects through sensitive alignment and siting of the component parts of the Proposed Development including:

- Individual pole positions and their associated infrastructure;
- Temporary access arrangements; and
- Temporary laydown areas (in relation to important landscape characteristics, and receptors).

1.2.40 The aim was to maximise use of screening landform and vegetation when siting the different elements of the Proposed Development. Wherever possible indicative pole positions have been located close to woodland blocks, individual trees and hedgerows to help better accommodate them within the landscape. Temporary laydown areas have been kept to a minimum and any areas which will be disturbed by construction will be reinstated, including any sections of hedgerows removed.

1.2.41 This has led to the Proposed Development which is the subject of this ES and the application for an Order granting development consent.

1.3 VISUAL ASSESSMENT METHODOLOGY

1.3.1 Visual effects are defined by GLVIA3 as the changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements.

1.3.2 Desktop and extensive site survey work identified receptors within the following groups of sensitive visual receptors:

- Settlements and residential properties;
- Visitor attractions and the setting of attractions, e.g., historic sites such as Whittington castle, and tourist routes;
- Informal recreational resources including regional and national trails, recreational waterways, cycle ways and public rights of way (PRoW), parks and gardens;
- Formal recreational resources including parks and gardens;
- Common land and open access areas;
- Main roads and routes, including 'A' and 'B' class roads;

- Sensitive sites identified by stakeholders during the ongoing consultation process; and
- The locations of existing electricity infrastructure, including overhead lines, and the potential for combined visual effects.

1.3.3 The visual baseline is detailed in Appendix 6.6.3: Visual Baseline, Viewpoint Sheets and Assessment (**DCO Document 6.6.3**).

Zone of Theoretical Visibility

1.3.4 As suggested in the June 2016 Line Route Report¹² (page 10) (**DCO Document 7.9**) and agreed with Shropshire Council at Stakeholder Meeting 1 on the 12th April 2016, computer generated 'Zone of Theoretical Visibility' (ZTV) maps¹³ were not produced because the general pattern of visibility within the study area is such that this tool would not provide meaningful results. Given the above ground height of a Trident pole, the locally undulating nature of the terrain and the amount of scattered mature tree cover would combine to screen many views of the line. The proposed Trident wood pole supports are of a similar height to the mature trees and so carry the conductors at a level/elevation which is generally below the horizon formed by mature trees. Therefore any analysis of visibility which doesn't take account of tree cover would produce a much larger zone of visibility than is likely to result in reality. Instead, extensive field survey has been used to gain understanding of the likely extents of visibility. This was carried out at the same time as the landscape assessment. No access to properties was sought and the assessment is therefore based on a best assumption from publicly accessible locations outside or close to properties.

Viewpoint Analysis

1.3.5 Viewpoint analysis has been conducted from a series of publicly accessible viewpoints. The analysis was used to assist preparation of the visual assessment, both in terms of assessing the level of effect for particular receptors and to help guide the iterative design and assessment process. A range of viewpoints was selected to represent the different groups of people who are likely to be affected¹⁴. Each viewpoint was visited and examined in detail to determine whether a significant effect is likely to arise. All information was recorded as a Fulcrum dataset¹⁵. The fieldwork was conducted in fine weather conditions and good visibility, whenever possible. The assessments have considered the seasonal effects of reduced leaf cover.

1.3.6 The viewpoints were agreed with Shropshire Council (email dated 17th February 2017). Following site survey work some viewpoints were moved due to practicalities on the ground such as selecting the most open view of the site. In total 76 viewpoints were selected and these are shown in Figure 6.8: Viewpoint Locations (**DCO Document 6.14**).

1.3.7 As explained in GLVIA3 (para 6.19), viewpoints were deliberately selected to be either representative of the view experienced by different groups of people, to be specific to a particular location, or to demonstrate a particular effect. The selection took account of a number of factors, including:

- The accessibility to the public;
- The potential type, relative number and sensitivity of the viewers who may be affected;
- The viewing direction and distance (short, medium and long distance);

¹² SP Energy Networks (June 2016), North Shropshire Reinforcement Route Corridor Options Report

¹³ These are typically based on topographic information¹³ to identify areas from where the proposed development would be visible (known as 'bare ground' visibility).

¹⁴ It should be noted that it is the people who would be experiencing the view from the viewpoint that are the receptor, not the viewpoint itself. The location affords the view to the recipient, and whilst the location cannot change, the opinion of the viewer can be variable. These people will generally have different responses to a change in view depending on their location, the activity they are engaged in and other factors, including the weather and the time of day/year.

¹⁵ Fulcrum is a hosted mobile platform for recording and storing data collected in the field. It has been customised for the Proposed Development.

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- Whether the view is static or part of a sequential view along a route;
 - The view types (glimpsed, framed or panoramic); and
 - The potential for cumulative views of the Proposed Development in conjunction with other similar proposed developments.

- 1.3.8 It should be noted that the selected viewpoints are not intended to be representative sample of all the visual receptors, but are deliberately biased to be representative of the most sensitive visual receptor groups – namely residential areas and valued landscapes/sites.
- 1.3.9 No access to private land was sought and the assessment was therefore based on a best assumption from publicly accessible locations.
- 1.3.10 Wherever possible, viewpoints were selected in places where they represent several different receptor groups (e.g. on the edge of a settlement where a footpath leaves the village; at a car park or picnic site on promoted footpath, or at a trig point in an area of Open Access Land).
- 1.3.11 Each viewpoint was visited and a photographic record taken. As wood pole overhead lines do not require any artificial lighting, and construction is anticipated to take place during normal working hours, no significant effects arising from lighting are anticipated. Therefore a night time visual assessment was not undertaken or included in the EIA and there was no requirement for night time photography.
- 1.3.12 A schedule of all 76 viewpoints is provided within this ES in Appendix 6.3: Visual Baseline, Viewpoint Sheets and Assessment (**DCO Document 6.6.3**). Full details (assessment sheets) of those viewpoints which are considered to experience a minor adverse, or greater, visual effect are also included in Appendix 6.3: Visual Baseline, Viewpoint Sheets and Assessment (**DCO Document 6.6.3**). In these viewpoint sheets, the composition of the view is described, including foreground, mid ground and background characteristics, as will the nature of the view towards likely to be experienced.

Photography

- 1.3.13 All photographs taken for the viewpoint assessment sheets were prepared in accordance with the Landscape Institute's (LI) Advice Note 01/11 'Photography and Photomontage in Landscape and Visual Assessment'¹⁶ and Scottish Natural Heritage's (SNH) Visual Representation of Wind Farms Version 2.2¹⁷. Whilst the latter is specifically intended for use in relation to wind farms, it is widely accepted as being applicable to other vertical infrastructure including overhead lines. The Landscape Institute (LI) Advice Note 01/11 strongly advises members to follow this document where applicable in preference to any other guidance or methodology.
- 1.3.14 Visual assessment follows a standard approach:
- Establish baseline conditions against which the effects of the Proposed Development are to be assessed. This includes consideration of how the landscape (and therefore views) may change in the future irrespective of the project;
 - Determine the nature of the receptor likely to be affected, i.e. its sensitivity (which in turn combines judgements about its susceptibility to change arising from a specific proposal with judgements about its value attached); and

¹⁶ Landscape Institute (LI) Advice Note 01/11 (2011), Photography and Photomontage in Landscape and Visual Assessment

¹⁷ Scottish Natural Heritage (SNH) (2017), Visual Representation of Wind Farms Version 2.2

- Predict the nature or magnitude of the effect likely to occur (which combines judgements about the likely size and scale of the change, the extent of the area over which it is likely to occur, whether it is direct or indirect, reversible or irreversible, short, medium or long term in duration) and positive, negative or neutral.

1.3.15 The process involves a combination of quantitative and qualitative assessment and the application of professional judgement within a structured assessment framework outlined in the flowchart below. GLVIA3 notes:

'...whilst there is some scope for quantitative measurement of some relatively objective matters, ...much of the assessment must rely on qualitative judgement, for example what effect the introduction of a new development or land use change may have on visual amenity, or about the significance of change in the character of the landscape and whether it is positive or negative'. (para 2.23)

'In all cases there is a need for judgements that are made to be reasonable and based on clear and transparent methods so that the reasoning applied at different stages can be traced and examined by others.' (para 2.24)

Photomontages

1.3.16 The photomontages were produced by following relevant methodologies from the guideline documents listed below:

- The Landscape Institute/IEMA Guidelines for Landscape and Visual Impact Assessment (GLVIA3);
- Landscape Institute Advice Note 01/09 (Use of photography in landscape and visual assessment); and
- Scottish Natural Heritage (SNH) Visual Representation of Windfarms: Good Practice Guidance.

1.3.17 For each photomontage location a series of high resolution photographs were taken with full sensor SLR camera with 50mm prime lens, which gives an angle of view similar to that of the human eye (approximately 40°). Precise panoramic photographs were taken by mounting the camera in landscape format on a tripod which has been set at eye level (1.6m) and levelled horizontally and laterally by means of a camera mounted spirit level. Photos were stitched together using industry standard software.

1.3.18 GPS locations were recorded of the photo location and viewpoint reference markers, giving the relevant grid reference and height data.

1.3.19 The proposed overhead line was created in the 3D modelling application (Autodesk 3D Studio Max) using data received from engineers, along with a terrain model of the surrounding area, produced using OS Landform xyz data.

1.3.20 Viewpoint cameras were created with the same settings as the camera and lens and located in the 3D modelling application using recorded GPS co-ordinates. Reference markers were placed using recorded co-ordinates used to align the cameras, matching precisely the view to the photograph.

1.3.21 A lighting environment was then set up in the model, re-creating the same light as the conditions when the photo was taken. Textures and details were also added to model.

1.3.22 For each photomontage, wireframe renders were generated, indicating the appearance of the proposed overhead line. These wireframes are geometrically accurate depictions of the proposed overhead line superimposed on a digital terrain model. The wireframes were produced based on a 1:10,000 scale digital terrain dataset (OS Land-Form PROFILE) using a model of the proposed wooden poles, which was also generated electronically to provide an accurate depiction of the appearance of the overhead line.

1.3.23 Wireframes are representative of the maximum theoretical visibility of the proposed overhead line on bare ground. In reality, the visibility of the line would be variable depending on both the

weather, intervening screening from vegetation and the lighting conditions. For selected viewpoints, photorealistic renders at high resolution were produced using 3D Studio Max. The renders were then imported into Photoshop and overlaid onto original photo. With the rendered views aligned to the photography, a mask was applied to hide aspects of the proposed development that would be occluded by existing features. This process was performed on all views.

Spatial Scope of Study Area

- 1.3.24 The visual assessment focuses on those groups of receptors which are likely to experience significant effects. This accords with the EIA Regulations¹⁸, which require the identification of the 'likely significant effects of the proposed development on the environment' (Schedule 4 Part 1 Para 20).
- 1.3.25 The design and route of the proposed overhead line, combined with the screening effects of landform and vegetation, means that its effects on views and visual amenity would generally be limited. Only those receptors close to the Proposed Development, would experience a significant change in their view. Although the overhead line may be visible in the distance, the effects on views further away would not be significant as it would be perceived as a small feature in the view and would generally blend into the background scenery.

Public Views

- 1.3.26 The assessment of visual effects addresses potential changes in people's views or visual amenity caused by the appearance and prominence of the proposed development in those views. In accordance with GLVIA3, the assessment focuses on publicly accessible rather than private viewpoints, and on those receptor groups who are likely to be most sensitive to the effects of an overhead line. Receptor groups assessed include communities, where views contribute to the wider landscape setting enjoyed by residents in an area, road users and residents or visitors using recreational routes features and attractions. It includes an assessment of the effects on views from the edges of defined settlements and from aggregated groups of dispersed properties.
- 1.3.27 The study area is as defined for the landscape assessment above, starting at paragraph 1.2.6.

Temporal Scope

- 1.3.28 The temporal scope is as per that outlined for the landscape assessment above, starting at paragraph 1.2.10.

Sensitivity of Visual Receptors

- 1.3.29 The first step in assessing the visual effects was to identify the receptor groups and determine their sensitivity to the Proposed Development.
- 1.3.30 Paragraph 6.31 of GLVIA3 notes that the sensitivity of visual receptors 'should be assessed in terms of both their susceptibility to change in views and visual amenity and also the value attached to particular views'. The susceptibility of a visual receptor is defined on page 158 of the Glossary of GLVIA3 as the, 'ability of a defined visual receptor to accommodate the specific proposed development without undue negative consequences'. The susceptibility of visual receptors to change is discussed in GLVIA3 (para 6.32 – 6.36). These paragraphs explain that the susceptibility of visual receptors to changes in views and general visual amenity is primarily a function of:
- *'The occupation or activity of people experiencing the view at a particular location; and*
 - *The extent to which their attention or visual interest may therefore be focussed on the views and the visual amenity they experience at particular locations.'*
- 1.3.31 The first bullet point and first part of the second bullet point relate to how much people are likely to be interested in their surroundings at a particular location. For example, people using a

¹⁸ The Planning Inspectorate (PINS) (2009), Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended)

National Trail have a special interest in their surroundings and are more likely to be susceptible to changes in the view than those using a sports pitch or working in an industrial unit where the landscape setting may not be the primary focus. This association between activity and susceptibility to changes in view is essentially a consideration of the expectations of the visual receptor.

- 1.3.32 The second part of the second bullet point, namely the visual amenity that people currently experience, and consideration of whether any particular value or importance is likely to be attributed to the view by them i.e. whether they have any expectation of a view is an important one. For example, travellers using a motorway (typically considered to be of lower susceptibility) may be more susceptible when driving along a highly scenic section. Similarly residents of a particular settlement (typically considered to be of higher susceptibility) may be considered less susceptible if the settlement has a degraded visual setting.
- 1.3.33 The type of development being proposed affects the expectations and therefore susceptibility of a visual receptor. For example walkers on a National Trail in a tranquil rural area with occasional residential development, are more likely to be susceptible to a new overhead line than to a new residential property constructed in the local vernacular. Similarly if a section of National Trail passes through an urban area, it is likely that the expectations of people using that section of trail will be reduced.
- 1.3.34 The value/popularity of a viewpoint and/or relative numbers of viewers also plays a part in determining the sensitivity of different receptors groups. This can be estimated by reference to Ordnance Survey maps, observations made during site visits and publicly available information on user numbers. For example, tourist attractions, important landmarks or heritage sites, and nationally designated trails which are used by relatively high numbers of people are likely to be more sensitive than those which are used less frequently. Exceptions to this are travellers on motorways which although used by many people are typically assigned to the low sensitivity category. This is because the speed of travel makes appreciation of views difficult unless it is a very large scale landscape, and the appreciation of the views is not usually their primary motivation for undertaking a motorway journey. Similarly, people visiting remote areas such as hill walkers, are unlikely to be high in numbers but will have a high or very high sensitivity because the primary purpose of the visit is likely to be an appreciation of the landscape and the views and tranquillity that it offers.
- 1.3.35 These divisions are not black and white and the nature of the groups of people who are likely to be affected and the extent to which their attention is likely to be focused on views and visual amenity has been carefully considered. The specific circumstances behind individual judgements is explained in each case and linked back to the visual baseline assessment.
- 1.3.36 Paragraph 6.37 of GLVIA3 notes that the value attached to a particular view is another contributing factor in determining the sensitivity of visual receptors. The value of a view depends on:
- *'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 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....'*
- 1.3.37 Judgements about the value of the view take account of:
- *'Planning designations specific to views;*
 - *Views which are important in relation to the special qualities of a designated landscape or which are identified in specific viewpoint studies;*
 - *Views recorded as important in relation to heritage assets;*
 - *Appearances in guidebooks or on tourist maps, or provision of facilities for their enjoyment, such as parking, picnic facilities and interpretation; and*

- Judgements about the quality or condition of the view as assessed by a landscape professional.'

- 1.3.38 Views which are not widely recognised as valuable can still be important at a local scale. The identification of locally valued views was informed by stakeholder discussions and the Proposed Development's assessment of local LCA which was prepared for the EIA. For example views related to a local LCA judged to be of relatively low sensitivity are considered of lower value than views related to a local LCA judged to be of relatively high sensitivity.
- 1.3.39 An assessment of the sensitivity of the visual receptors to the Proposed Development was made by combining judgements about the value attached to the existing view and the susceptibility of the receptors to changes in their view or visual amenity.
- 1.3.40 Table A6.1.7 provides guidance on the evaluation of visual sensitivity. Receptors were classified into one of four sensitivity threshold categories, very high, high, medium, and low. These serve to capture all visual receptor groups that might potentially be affected by the Proposed Development.
- 1.3.41 In formulating sensitivity categories it is important to acknowledge the special circumstances where peoples' expectations in relation to the view are enhanced and where a sensitivity category of 'very-high' has been introduced. This means for example that receptors experiencing views from locations in a National Park or AONBs were defined as 'high' rather than 'very-high', with 'very-high' only applying to designed landscapes/parks/gardens and/or specific views, vistas, borrowed landscapes and visual experiences which are the main focus of the activity and fundamental to the appreciation of that location. If all receptors within nationally designated landscapes were defined as 'very-high' then this would undervalue the primacy of panoramic viewpoints (such as those identified on OS maps) and designed views or particularly valued viewpoints where the prime objective is for receptors to be able to absorb the valued view.
- 1.3.42 The rationale and justification behind attributing a 'high' rather than 'very-high' sensitivity for people living in local communities also needs clarification. People living in settlements are acknowledged as having a higher than average sensitivity to the proposed development. They do not, however, have the highest level of sensitivity unless standing at a specific destination and/or valued viewpoint in which case they are captured under that category of visitor.

Table A6.1.7 – Categories of Typical Visual Receptor Sensitivity	
Category	Typical Receptors
Very High	Locations which people might visit purely to experience the view and which typically offer a prolonged viewing opportunity, including: Panoramic viewpoints (often marked on OS plans and providing interpretation facilities); Mountain and hilltops; Tourist, visitor and other destinations where the view is an important contributor to the experience; Nationally designated walks, cycleways and bridleways; and Heritage destinations affording a specific, important and highly valued view.
High	Locations where people are likely to pause to appreciate the view, including: Occupiers of residential properties (assessed as part of the residential visual amenity assessment); People living and moving around their local community; Promoted scenic drives or tourist routes;

Table A6.1.7 – Categories of Typical Visual Receptor Sensitivity

Category	Typical Receptors
	Designed landscapes/parks and gardens with specific views/vistas/borrowed landscapes and visual experiences which are fundamental to the appreciation of the attraction; Tourist, visitor or heritage destinations where views of the surroundings are fundamental to the experience; Viewpoints marked on road atlases, or referred to in guidebooks and have brown road signage and/or interpretation boards; and Nationally designated/regionally promoted walks and cycle routes.
Medium	People with a general interest in their surroundings or with transient viewing opportunities, including: Incidental footpaths and standard local PRowS; General public open spaces, greenspace, recreation grounds and play areas; and People in rural offices and business parks; and Rural outdoor workers and those engaged in marine surface-based activities such as fishing.
Low	People with limited opportunity to enjoy the view due either to the speed of travel or because their attention is elsewhere, including: Workers in industrial and commercial buildings; Main roads (although sensitivity may be higher in scenic locations); Residential distributor and local road network; Indoor facilities; Commuters; and Those engaged in outdoor sport or recreation which does not depend on an appreciation of views of their surroundings.

1.3.43 Depending on the individual circumstances of each receptor, the judgements on sensitivity in Table A6.1.7 were adjusted (either up or down) to fully reflect the viewer's expectations at a particular location. At one end of the scale are locations where receptors experience a highly valued, impressive or well composed view, with no detracting features and where changes would be highly noticeable. At the other end of the scale are locations where the view is incidental or not important to the receptors and the nature of the view is of limited value or poorly composed with numerous detracting features and is tolerant of a large degree of change.

1.3.44 The assessment also identified areas where no change to the view is anticipated.

1.3.45 A reasoned narrative justifies the particular visual sensitivity allocated to each receptor so that it is clear how the judgement was made.

Magnitude of Change

1.3.46 As explained in GLVIA3 (para 6.38), the nature or magnitude of visual effect that is likely to occur is determined by reference to its size/scale, geographical extent and duration/reversibility.

Size and Scale

1.3.47 The size/scale of visual effect is determined by considering the amount of change experienced by a receptor, which is influenced by a combination of the following factors:

- **Scale:** The scale of 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. This can be explained by reference to the relative height of the poles and the number of them which appear in the view as well as by the field of view that they occupy and is described by words such as 'dominant', 'prominent', 'noticeable' and 'negligible';
- **Contrast:** The degree of contrast or integration of any new features or changes in the view with the existing or remaining landscape elements and characteristics in terms of form, scale and mass, line, height, colour and texture. Developments which contrast or appear incongruous with their surroundings are more likely to be visible and lead to a higher magnitude of change;
- **Speed:** The duration and nature of the visual effect, whether temporary or permanent, intermittent or continuous, stationary or transient etc. This depends on the speed of travel which affects how long a view is experienced (continuously, intermittently, glimpsed either once or repeatedly and sequentially along a route) and the possibility that a development will be noticed;
- **Screening:** Screening by buildings, landform or vegetation (including seasonal effects due to variations in deciduous leaf cover¹⁹) may wholly or partly obstruct or screen views of a development. Visual receptors with open views, particularly where such views are a key characteristic, are likely to be able to see much more of a proposed development; and
- **Skylining/backgrounding:** Whether a development is viewed against the sky or against a solid, such as landform or vegetation, can affect the level of contrast and scale. For example wood poles, conductors (wires) and other electricity infrastructure are more difficult to discern when viewed against a textured background than against an open sky background. Any backgrounding minimises the scale of change on the view as is acknowledged in the Holford Rules.

Geographical Extent

1.3.48 The geographical extent is the area over which the visual effects would be experienced. It is not the same as size/scale as a small scale change may be experienced over a wide area or vice-versa. The geographical extent varies depending on the viewpoint and is likely to reflect:

- **Angle of View:** This applies both horizontally and vertically. Views up to a development are generally considered to be of greater magnitude due to the enhanced verticality of the structures than views down to a development where the height appears foreshortened or reduced. Developments directly in front of the viewer are likely to be more visible than developments which are seen obliquely. Road users are typically more aware of the views in the direction of travel, whilst rail users tend to be more aware of views to the side.
- **Distance:** The distance of the viewpoint from a development is measured objectively and used to determine the relative height of a development in the landscape at the viewpoint. Distance can be strong indicator of the magnitude of visual change although, as explained above, apparent height of a development can be affected by the surrounding landscape.
- **Extent of Visibility:** the geographical extent of the area over which the changes to the view would be visible, which is defined by the distance, area and the horizontal and vertical field of the view affected.

Duration and Reversibility

1.3.49 In accordance with GLVIA3, this is a separate, but linked consideration and the duration of effect may be described a short term (usually 0-3 years), medium term (usually 3 -15 years) or long

¹⁹ In visual assessment terms, the worst case scenario prevails for winter views where there is minimal screening by vegetation and deciduous trees.

term (usually greater than 15 years). For the purposes of the visual assessment construction effects were assumed to be short term and temporary, whilst operational effects were assumed to be long term and permanent, but generally reversible.

1.3.50 The judgements on the size/scale of effect and geographical extent were then considered together to derive an overall magnitude of predicted change or effect for each receptor, which was determined through informed professional judgement guided by the descriptions in Table A6.1.8. Duration and reversibility were not considered at this stage as it is not linked concern. For example a high magnitude of change may occur over a short or long time frame and may, or may not, be reversible. The magnitude of visual effect is described as high, medium-high, medium, medium-low and low. The rationale in support of the assessment is set out for each receptor so that it is clear how each judgement has been made.


Table A6.1.8 – Indicative Criteria for Judging the Magnitude of Change in the View	
Magnitude	Typical Example
High	The development will form a dominant element in the view and result in a dramatic change to the character and quality of the existing view and how it is perceived. Typically this would be where a development would be seen in very close proximity with a large proportion of the view affected by no/minimal filtering or backgrounding. The development will control the view and is likely to be seen by many people.
Medium-High	The development will form a prominent element in the view and result in a substantial change to the character and quality of the existing view and how it is perceived. Typically this would be where a development would be seen in close proximity with a large proportion of the view affected by little filtering or backgrounding. The development will affect the main focus of the view and is likely to be seen by many people.
Medium	The development will form a conspicuous element in the view and result in a noticeable change to the character and quality of the existing view and how it is perceived. Typically this would be where a development would be seen in views where a moderate promotion of the view is affected, although there may be some screening or backgrounding. The development will be clearly visible and well-defined and is also likely to be seen by a relatively high number of people.
Medium-Low	The development will form a small element in the view and result in a slight change to the character and quality of the existing view and how it is perceived. Typically this would be where a development would be seen in distant views, where only a small proportion of the view is affected, where the effect is reduced due to a high degree of filtering of backgrounding or where there is a low scale of change from the existing view. The development would be visible but be indistinct and/or partially obscured and is likely to be seen by few people.
Low / Negligible	The development will form an inconspicuous element in the view and result in a barely perceptible change to the character and quality of the existing view and how it is perceived. Typically this would be where a development would be barely perceptible within a long distance panoramic view and/or where a very small proportion of the view is affected. The development would be barely discernible and likely to be visible only under certain weather or lighting conditions and is likely to be seen by very few people.

1.3.51 The assessment of magnitude in Table A6.1.8 was adjusted (either up or down) to reflect the duration of the visual change and whether it is likely to be reversible.

1.3.52 The assessment identified areas where no visual change is anticipated.

Determining Overall Significance

1.3.53 In accordance with the overall approach described in Chapter 4 ‘Approach and General Methodology’ (**DCO Document 6.4**) of this ES, the separate judgements about the sensitivity of the visual receptor and the magnitude of likely effect were combined to allow a final judgement to be made about whether or not the effect is considered significant using guidance presented in Table A67.1.9.

Table A6.1.9 – Judging Significance of the Visual Effect		
Less likely to be significant		More likely to be significant
The development is generally well accommodated in views and/or is small features within a view that does not have recognised value. The effects are more likely to be short term, temporary and reversible.		The development is dominant or prominent in views and the effect is typically large in scale, and/or within a view that is promoted or advertised. The effects are more likely to be short term, temporary and reversible.

1.3.54 The relationship between receptors and effects is not generally a linear one and there are no hard or fast rules about what makes an effect significant. Judgements are therefore supported by qualitative text to draw out the important issues, describe the effects and explain the underlying decision-making rationale. As explained in Chapter 4 ‘Approach and General Methodology’ (**DCO Document 6.4**) assigning each effect to standard significance categories (major, moderate, minor or negligible) enables different topic issues to be placed upon the same scale. This assists the decision-making process at whatever stage the project is at within that process. In arriving at the significance of effect, the assessor also considers whether the effect is direct, indirect, secondary, cumulative, short, medium or long-term, permanent or temporary, positive or negative. The different terms are as defined in Table A6.1.6 above.

1.3.55 In making a judgement about the significance of visual effects GLVIA3 notes:

- *‘Effects on people who are particularly sensitive to changes in views and visual amenity are more likely to be significant;*
- *Effects on people at recognised and important viewpoints or from recognised scenic routes are more likely to be significant; and*
- *Large-scale changes which introduce new, non-characteristic or discordant or intrusive elements into the view are more likely to be significant than small changes or changes involving features which are already present within the view.*

1.3.56 The final decision on the level of effect and therefore significance ultimately relies on professional judgement which has to be supported through clear and transparently explained text.

Approach to Mitigation

1.3.57 This is as outlined above, under landscape assessment, starting at paragraph 1.2.39.

1.4 RESIDENTIAL VISUAL AMENITY

1.4.1 The planning system is designed to act in the public interest and not to protect the interests of an individual. The planning system considers 'residential amenity' when making planning decisions.

1.4.2 The draft Technical Guidance Note on Residential Visual Amenity published by the Landscape Institute (TGN XX/2018)²⁰ sets out guidance on the need for an approach to assessing residential visual amenity. It explains that the residential visual amenity is a subset of residential amenity, which considers multiple potential effects of a development on residents at a residential property including: effects of noise; dust; access to daylight; vibration; outlook and visual amenity. It goes on to explain that no one has 'a right to a view' even when a resident's outlook is 'significantly affected' by a proposed development. The inspector on the Sixpenny Wood windfarm inquiry²¹ stated,

'There is no right to a view per se, and any assessment of visual intrusion leading to a finding of material harm must therefore involve extra factors such as undue obtrusiveness, or an overbearing impact, leading to a diminution of conditions at the relevant property to an unacceptable degree.'

There are, however, potential situations where the effect on outlook/visual amenity is so great that it is not in the public interest to permit such conditions occurring.

1.4.3 Whilst this is ultimately a planning issue, a judgement on the visual component of residential amenity is often needed from a landscape architect to inform the planning judgement and this is increasingly being undertaken within the EIA process.

1.4.4 There is no published guidance that sets out the criteria for establishing whether or not the visual presence of a development impacts unacceptably on living conditions although the issue has been considered at a number of public inquiries, principally in England. In considering these and other appeal decisions, TGN XX/2018 concludes that,

'...the visual impact of the development has to be commonly described as 'unacceptably overbearing', 'over powering', 'oppressive' or 'unpleasantly overwhelming and unavoidably present in main views' for there to be a potential unacceptable adverse impact on living conditions, and such impacts should also 'outweigh the wider public benefits which the Development is designed to achieve'.

1.4.5 It is important to note that a significant effect on a resident's outlook from their property does not mean a proposal is necessarily unacceptable as significant changes are likely to be inevitable for the closest properties. A higher test is therefore needed to determine whether a development would be overbearing or dominant. For the purpose of this EIA, this is taken to mean that, for a development to be considered as materially harming residential amenity or living conditions, receptors would have to be assessed as experiencing a high magnitude of change and major adverse effect. As explained below, under identification of study area, for the Proposed Development this could only apply to properties in very close proximity.

Approach

1.4.6 The approach to assessing residential visual amenity followed established processes as per the methodology for the main LVIA set out above. It comprised the following steps:

- Identification of the study area and properties to be included in the residential visual amenity assessment;
- Description and evaluation of existing visual amenity (and views) as experienced by people in and around their private dwellings at all properties included in the residential visual amenity assessment; and

²⁰ <https://www.landscapeinstitute.org/technical-resource/rvaa/>

²¹ Windfarm at Bradwell-on-Sea, Essex, (APP/X1545/A/06/2023805)

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- Evaluation of the sensitivity of the receptor, magnitude of change and overall significance of effect on views and visual amenity at the property.

Identification of study area

1.4.7 There is no standard criterion that can be adopted to identify a study area. Based on common practice and work undertaken by Gillespies independently of this project and which won a Landscape Institute (Local Planning category) award in 2015²², a study area of 200m either side of the Order Limits was applied. The Gillespies study, which was undertaken on behalf of three North Wales local authorities, concluded that significant visual effects are only likely to arise if a structure (for example, a Trident wood pole) appears 7.5 cm high (or greater) when viewed at arms' length. Based on this work, a 12m Trident wood pole would have an apparent height of 7.5cm when seen from a distance of 98m. Therefore by selecting a study area of 200m, all significant effects should be identified (both moderate and major). This is a very precautionary approach as a residential property located 200m from the proposed overhead line is highly unlikely to experience an overbearing effect on visual amenity given that the apparent height of the poles in the view would be much less than 7.5cm (the apparent height would be 3.66cm). Whilst properties can be considered individually where they are scattered, or in groups where several properties are located in close proximity and have similar aspects or views, for this study each property within the study area was considered individually.

Evaluation of existing baseline and visual amenity

1.4.8 The next step involved describing and evaluating the baseline visual conditions at each property informed by desk study and field work. Visual amenity from a property is defined as the type, nature, extent, and quality of views that may be experienced from the property and its 'domestic curtilage' (domestic gardens and access drives). This may include a particular view or the outlook from internal rooms. The following aspects were considered:

- The nature and extent of all potentially available existing views from the property and its garden, including the proximity and relationship of the property to surrounding landform, landcover and visual foci. This includes main or principal views from the property or garden, as well as peripheral views; and
- Consideration of the scenic quality and value attached to the available views.

1.4.9 Field work was used to evaluate the general visual amenity of the properties within the scope of the assessment and aimed at identifying those properties that should be visited. The assessment was undertaken from the closest publicly accessible locations to the properties as well as via desktop use of satellite imagery and Google Earth Pro.

1.4.10 GLVIA3 (para 6.3.6) notes that when undertaking a residential visual amenity assessment, it is occupiers of rooms normally occupied during waking or daylight hours (assumed to be downstairs), that are likely to be more susceptible to changes in their visual amenity as views from these rooms are likely to be experienced for longer.

Evaluation and conclusions

1.4.11 Effects were examined in accordance with the main LVIA methodology i.e. consideration of the 'nature of the receptor' (susceptibility and 'sensitivity') with 'nature of effect'.

1.4.12 People at their place of residence mostly feel protective about their existing views and visual amenity and it can therefore be reasonably assumed, taking a precautionary approach, that they are sensitive to changes in their views and visual amenity.

1.4.13 A judgement is required to be made 'in the round' i.e. considering all available views and other factors. These factors include consideration of distance from the Proposed Development;

²² Gillespies (2014), Wind Turbines and Pylons: Guidance on the Application of Separation Distances from Residential Properties.

orientation, size and layout of the residence; the focus and context of the existing view, and if there are other directions in which residents can look that are not affected; the degree to which overall available views would be affected; the extent of the Proposed Development which would be seen and, availability of screening and other factors. Although a visual effect may be assessed as significant it should be reiterated that the presence of the Proposed Development in main views, does not in itself demonstrate material harm to living conditions, as explained above in paragraph 1.4.5.

Drawing conclusions

- 1.4.14 The final step made an overall conclusion with respect to change in views and visual amenity from the property. This focused on the effect of the development on visual amenity at the property 'in the round'. The conclusions are based on transparent and logical reasoning and may for example focus on whether or not the development is 'dominant', 'overwhelming'; and/or 'inescapably present' and as such causes the property to become widely regarded as an 'undesirable place to live'.

1.5 CUMULATIVE EFFECTS METHODOLOGY

Introduction to Cumulative Impact Assessment

- 1.5.1 An approach to assessing cumulative effects for NSIPs is set out in Advice Note 17²³. Cumulative effects occur when individual sources of effects add together to have an overall greater effect on receptors. For the purpose of this EIA they have been defined under the two categories identified in the IEMA 2011 Special Report on 'The State of Environmental Impact Assessment in the UK'. These are inter-project effects and intra-project effects. These two types of cumulative effects are explained below.

- Inter-Project Effects: The combined effects of the Proposed Development with other developments (including projects for which consent has been sought or granted, as well as those already in existence²⁴). These projects may be acceptable when considered on an individual basis but together may give rise to a significant effect. Inter-project landscape and visual effects are assessed in this Chapter 6 'Landscape and Visual' (**DCO Document 6.6**) and in the Cumulative Effects Assessment (CEA) for LVIA in Appendix 6.4 (**DCO Document 6.6.4**).
- Intra-Project Effects: The interrelationship between topics considered within the ES. An example would be where a local resident is affected by dust, noise and a loss of visual amenity during the installation of the overhead line, with the result being a greater nuisance than each individual effect alone. Intra-project effects are assessed and presented in Chapter 12 'Cumulative Effects' (DCO Document 6.12) and Appendix 12.1 (**DCO Document 6.12.1**).

- 1.5.2 Advice Note 17 sets out the following a four-stage approach to the assessment of cumulative effects.

- Stage 1 – Establish the NSIP's zone of influence and identify a 'long list' of 'other development' with the potential to give rise to significant effects;
- Stage 2 - Identify shortlist of 'other development' by reference to planning applications, relevant development plans and any other available sources including stakeholder consultations, in particular with the relevant local planning authority;
- Stage 3 - Gather available information regarding the shortlisted 'other development'; and

²³ The Planning Inspectorate (2015) Advice note seventeen: Cumulative effects assessment relevant to Nationally Significant Infrastructure Projects

²⁴ Where other projects are expected to be completed before construction of the proposed NSIP and the effects of those projects are fully determined, effects arising from them should be considered as part of the baseline and may be considered as part of both the construction and operational assessment. The ES should clearly distinguish between projects forming part of the baseline and those in the cumulative effects assessment.

- Stage 4 - Applicant reviews each of the 'other developments' in turn to assess whether cumulative effects may arise. Consider the apportionment of effect between the proposed NSIP and the 'other development' e.g. is the contribution to the effect demonstrably related to one development or is there an equal contribution from either development. This requires professional judgement.

1.5.3 The recommended four stage process focuses on cumulative effects with 'other development' i.e. inter-project effects.

Cumulative Landscape and Visual Impact Assessment (CLVIA)

1.5.4 The cumulative landscape and visual assessment (CLVIA) deals with the effects of the Proposed Development interacting with the effects of other proposed projects in the area (inter-project effects). This is in recognition that the combined landscape and visual effects of a number of similar developments concentrated in one area may be greater than the sum of the effects from the same development if considered individually.

1.5.5 GLVIA3 (par 7.3) described cumulative effects as follows:

- **Cumulative effects** 'the additional changes caused by a proposed development in conjunction with other similar developments or as the combined effects of a set of developments taken together' (SNH²⁵, 2012: 4);
- **Cumulative landscape effects** as effects that 'can impact on either the physical fabric or character of the landscape, or any special values attached to it' (SNH, 2012: 10); and,
- **Cumulative visual effects** as effects that can be caused by combined visibility, which 'occurs where the observer is able to see two or more developments from one viewpoint' and/or sequential effects which 'occur when the observer has to move to another viewpoint to see different developments' (SNH, 2012: 11).

1.5.6 *In combination* cumulative visual effects occur where several developments are seen in the same field of view. *In succession* cumulative visual effects occur where the observer has to turn to see the different developments.

1.5.7 Cumulative visual effects can also be *sequential*. These occur when the observer is moving through the landscape and are typically assessed from roads, footpaths, etc. Sequential effects may be *frequently sequential* (features or developments appear regularly and with short time lapses between) to *occasionally sequential* (long time lapses between appearances), depending on factors such as the speed of travel and the distances between viewpoints.

Methodology – Introduction

1.5.8 The process and procedures for identifying and judging cumulative landscape and visual effects is essentially the same as for the main LVIA, in that the degree of effects is determined by combining an evaluation of the sensitivity of the landscape or visual receptor and the magnitude of change likely to arise.

Assessment of Cumulative Landscape Effects

1.5.9 The assessment of cumulative landscape effects is concerned with the totality of potential effects on the landscape, taking into consideration the overall combination of effects from the Proposed Development when seen together with other projects in the landscape. These effects may result from changes in the character and content of views experienced in particular places, arising from the introduction of new elements or from the removal or damage to existing ones.

²⁵SNH (March 2012) 'Assessing the Cumulative Impact of Onshore Wind Energy Developments' Scottish Natural Heritage Guidance

1.5.10 The identification and assessment of the significance of cumulative landscape effects follows the same approach as that taken in the LVIA. The emphasis of the assessment, however, is always on the Proposed Development and whether it would combine with other developments (projects) being considered to increase the degree of landscape effect identified in the LVIA.

1.5.11 In making judgements, the assessment considered:

- The susceptibility of the landscape to the Proposed Development (as recorded in the LVIA);
- The value attached to the landscape, reflecting its designated status and other valued components of the landscape (as recorded in the LVIA); and,
- The nature and magnitude of effects, both in terms of size and geographical area. This is where there is likely to be a difference from the magnitude of effects identified in the LVIA.

1.5.12 The significance of any cumulative landscape effects was then assessed through the application of professional judgement.

1.5.13 Any identified significant cumulative effects are considered long-term.

Assessment of Cumulative Visual Effects

1.5.14 The assessment of cumulative visual effects is concerned with the identification and assessment of the additional effects on peoples' views arising from the Proposed Development when seen together with other projects in the landscape. These effects may result from changes in the character and content of views experienced due to the introduction of new elements or from the removal or damage to existing ones.

1.5.15 The identification and assessment of the significance of cumulative visual effects follows the same approach as that taken in the LVIA. The emphasis of the assessment, however, is always on the Proposed Development and whether it would combine with other developments (projects) being considered to increase the degree of visual effect identified in the LVIA.

1.5.16 The cumulative visual assessment is based on the viewpoints and visual receptors identified in the LVIA for the Proposed Development.

1.5.17 In making judgements, the assessment considered:

- The susceptibility of the visual receptors to the Proposed Development (as recorded in the LVIA);
- The extent, nature, characteristics and value attached to the view (as recorded in the LVIA);
- The characteristics of the other projects considered;
- The potential for in-combination, successive or sequential views of the Proposed Development and other projects; and,
- The nature and magnitude of effects, both in terms of size and geographical area. This is where there is likely to be a difference from the magnitude of effects identified in the LVIA.

1.5.18 The significance of any cumulative visual effects was then assessed through the application of professional judgement.

1.5.19 Any identified significant cumulative effects would be considered long-term.

Spatial Scope of Study Area

1.5.20 The initial task in establishing a survey area, was to consider the zone of influence of the Proposed Development (see below) and identify all proposals which would potentially interact with

the Proposed Development to cause significant landscape and visual effects. This accords with the EIA Regulations²⁶, which require the identification of the 'likely significant effects of the proposed development on the environment' (Schedule 4 Part 1 Para 20).

1.5.21 In line with the LVIA, a survey area of 5km was considered appropriate as explained below. A review of planning applications and proposed developments, within this 5km survey area was undertaken to identify the developments that were considered to be relevant to the cumulative assessment. This was deemed to be any development of 10 residential properties or greater; or another development of comparable size or appearance.

Zone of Influence for the Proposed Development

1.5.22 As noted earlier in this appendix, computer generated Zone of Theoretical Visibility' (ZTV) maps were not produced because the general pattern of visibility within the study area is such that this tool would not provide meaningful results.

1.5.23 The zone of influence for the Proposed Development was considered to be 1km from the route of the proposed overhead line. As explained in section 1.2 Landscape Assessment Methodology, and section 1.3 Visual Assessment Methodology, of this Appendix, significant landscape and visual effects are only likely to occur within a distance of 1km from the proposed overhead line. This is because:

- At a distance of 1km, a Trident wood pole, which on average would be 12m high, would appear approximately 7mm high in the view, which is highly unlikely to give rise to significant effects; and,
- Throughout much of the study area the layering effect of intervening mature trees on field boundaries, along with generally low-lying landform, would reduce the wider visibility of a wood pole line.

1.5.24 It is considered unlikely that a wood pole overhead line could have a significant effect on a landscape more than 1km from the line, since:

- Any direct losses of landscape features generally occur within the construction corridor and are therefore localised; and,
- Effects on landscape character as a result of the introduction of a wood pole overhead line, in this case within a generally low-lying and gently undulating rural landscape with high numbers of hedgerows and woodland belts, are generally felt locally due to the screening from intervening vegetation and topography.

1.5.25 There are rare occasions where longer distance views of a wood pole overhead line may result in significant visual effects, particularly where the poles are seen above the horizon – i.e. on the skyline. As agreed with Shropshire Council and explained in the Scoping Report a wider initial survey area up to 5km from the Order Limits was considered in the LVIA, as shown on the 'Landscape and Visual Impact Assessment (LVIA) Study Area' Figure 6.1 (**DCO Document 6.14**).

Zone of Influence for the Projects Included in the Cumulative Assessment

1.5.26 As noted above, a wider initial survey area up to 5km from the Order Limits was considered in the LVIA. As a precautionary measure, this wider survey area of 5km was applied when establishing which projects could be considered in the CLVIA. This allowed for the potentially higher magnitude of change resulting from the introduction of the Proposed Development in addition to other new projects. This is shown in Figure 4.2 (**DCO Document 6.14**). The list of projects to be considered in this cumulative assessment is shown in Table 4.5 of Chapter 4

²⁶The Planning Inspectorate (PINS) (2009), Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended).

'Approach and General Methodology' (DCO Document 6.4) of the ES and Table A6.4.1 in Appendix 6.4 (DOC Document 6.6.4).

- 1.5.27 The zone of influence for projects considered in a cumulative assessment varies depending on the type of development being proposed. In the absence of ZTVs, the zone of influence of projects is derived from information contained within documents associated with the planning application, and where relevant, reference is made to any landscape or visual appraisal or assessment included within the relevant planning application.
- 1.5.28 For each project identified from the local planning portal, consideration is given to a number of factors, including the baseline conditions, the nature and scale of the proposal, the intervening distances between the Proposed Development and the project, the nature of the intervening landscape (including landform and land use) and the extent of any screening, and the nature and extent of any likely loss of landscape features as a result of the introduction of the proposed project. A shortlist of projects to be included in the cumulative assessment is then drawn up. As per the reasons outlined in the CLVIA Appendix 6.7 (DCO Document 6.6.7) for this assessment no projects were considered likely to give rise to an additional inter-project cumulative landscape and/or visual effect when their interaction with the Proposed Development was taken into account. No projects were therefore taken forward for inclusion in the cumulative assessment.
- 1.5.29 If a shortlist of projects is established, a review of each of the projects in turn is carried out to assess whether cumulative effects would arise, and professional judgement is applied to establish at what distance the interaction of the Proposed Development with the project would give rise to significant cumulative landscape and visual effects. Consideration is given to the apportionment of effect between the proposed NSIP and the 'other development' e.g. is the contribution to the effect demonstrably related to one development or is there an equal contribution from either development. This requires professional judgement. As noted above, no projects were taken forward to this stage of the cumulative assessment.

List of Projects to be considered in the Cumulative Assessment

- 1.5.30 For baseline environment considered for the LVIA was the existing landscape and visual baseline at the point the assessment was undertaken. For the CLVIA, the baseline was more uncertain and speculative. This is because it included developments which were awaiting decisions and were at various stages in the planning process.
- 1.5.31 Paragraph 7.5 of GLVIA3 acknowledges that cumulative landscape and visual assessment is complex and approaches to it are evolving, noting also that the:
- 'challenge is to keep the task reasonable and in proportion to the nature of the project under consideration.....It is always important to remember that the emphasis in EIA is on likely significant effects rather than on comprehensive cataloguing of every conceivable effect that might occur...'*
- 1.5.32 These projects were identified by a search of the Shropshire Council planning portal. Minor developments were not considered relevant for the Cumulative Assessment i.e. residential developments of less than ten homes were not considered. The list of projects to be considered was emailed to the planning officers at Shropshire Council for input and comment on 26 February 2018 and 23 April 2018.