



Dudgeon and Sheringham Shoal Offshore Wind Farm Extensions

Preliminary Environmental Information Report

Volume 3

Appendix 28.1 - Landscape and Visual Impact
Assessment Annexes

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Annexes to Chapter 28 – Landscape and Visual Impact Assessment
April 2021

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Chapter 28 - LVIA Annexes

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Annex 28.1. Landscape and Visual Impact Assessment Methodology

1.1. Introduction

This appendix contains additional detail regarding the assessment methodology, supplementing the information provided within the LVIA text. This appendix sets out a standard approach – specific matters in terms of the scope of assessment, study area and modifications to the standard approach for this assessment are set out within the LVIA.

The methodology has the following key stages, which are described in more detail in subsequent sections, as follows:

- Baseline – includes the gathering of documented information; agreement of the scope of the assessment with the EIA co-ordinator and local planning authority; site visits and initial reports to the EIA co-ordinator of issues that may need to be addressed within the design.
- Design – input into the design / review of initial design / layout / options and mitigation options.
- Assessment – includes an assessment of the landscape and visual effects of the scheme, requiring site based work and the completion of a full report and supporting graphics.
- Cumulative Assessment – assesses the effects of the proposal in combination with other developments, where required.

1.2. Baseline

The baseline study establishes the planning policy context, the scope of the assessment and the key receptors. It typically includes the following key activities:

- A desk study of relevant current national and local planning policy, in respect of landscape and visual matters, for the Site and surrounding areas.
- Agreement of the main study area radius with the local planning authority.
- A desk study of nationally and locally designated landscapes for the Site and surrounding areas.
- A desk study of existing landscape character assessments and capacity and sensitivity studies for the Site and surrounding areas.
- A desk study of historic landscape character assessments (where available) and other information sources required to gain an understanding of the contribution of heritage assets to the present day landscape.
- Collation and evaluation of other indicators of local landscape value such as references in landscape character studies or parish plans, tourist information, local walking & cycling guides, and references in art and literature.
- The identification of valued character types, landscape elements and features which may be affected by the proposal, including rare landscape types.

- Exchanging information with other consultants working on other assessment topics for the development as required to inform the assessment.
- Draft Zone of Theoretical Visibility (ZTV) studies to assist in identifying potential viewpoints and indicate the potential visibility of the proposed development, and therefore scope of receptors likely to be affected. The methodology used in the preparation of ZTV studies is described within Appendix 12.4.
- The identification of and agreement upon, through consultation, the scope of assessment for cumulative effects.
- The identification of and agreement upon, through consultation, the number and location of representative and specific viewpoints within the study area.
- The identification of the range of other visual receptors (e.g. people travelling along routes, or within open access land, settlements and residential properties) within the study area.
- Site visits to become familiar with the Site and surrounding landscape; verify documented baseline; and to identify viewpoints and receptors.
- Input to the design process.

The information gathered during the baseline assessment is drawn together and summarised in the baseline section of the report and reasoned judgements are made as to which receptors are likely to be significantly affected. Only these receptors are then taken forward for the detailed assessment of effects (ref. GLVIA 3rd edition, 2013, para 3.19).

1.3. Design

The design and assessment stages are necessarily iterative, with stages overlapping in parts. Details of any mitigation measures incorporated within the proposals to help reduce identified potential landscape and visual effects are set out within the LVIA.

1.4. Assessment

The assessment of effects includes further desk and site based work, covering the following key activities:

- The preparation of a ZTV based on the finalised design for the development.
- An assessment, based on both desk study and site visits, of the sensitivity of receptors to the proposed development.
- An assessment, based on both desk study and site visits, of the magnitude and significance of effects upon the landscape character, designated and recreational landscape and the existing visual environment arising from the proposed development.
- An informed professional judgement as to whether each identified effect is positive, neutral or adverse.
- A clear description of the effects identified, with supporting information setting out the rationale for judgements.

- Identification of which effects are judged to be significant based on the significance thresholds set out within the LVIA
- The production of photomontages from a selection of the agreed viewpoints showing the anticipated view following construction of the proposed development.

1.5. Site

The effect of physical changes to the Site are assessed in terms of the effects on the landscape fabric.

1.6. Landscape and Townscape Character Considerations

The European Landscape Convention (2000) provides the following definition:

“Landscape means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.”

And notes also in Article 2 that landscape includes *“natural, rural, urban and peri-urban areas. It includes land, inland water and marine areas”*.

An Approach to Landscape Character Assessment (Natural England, 2014) defines landscape character as:

“a distinct and recognisable pattern of elements, or characteristics, in the landscape that make one landscape different from another, rather than better or worse.”

The susceptibility of landscape character areas is judged based on both the attributes of the receiving environment and the characteristics of the proposed development as discussed under ‘susceptibility’ within the methodology section of the LVIA. Thus, the key characteristics of the landscape character types/areas are considered, along with scale, openness, topography; the absence of, or presence, nature and patterns of development, settlement, landcover, the contribution of heritage assets and historic landscape elements and patterns, and land uses in forming the character. The condition of the receiving landscape, i.e. the intactness of the existing character will also be relevant in determining susceptibility. The likelihood of material effects on the landscape character areas can be judged based on the scale and layout of the proposal and how this relates to the characteristics of the receiving landscape.

The introduction of any development into a landscape adds a new feature which can affect the ‘sense of place’ in its near vicinity, but with distance, the existing characteristics reassert themselves.

The baseline is informed by desk study of published landscape character assessments and field survey. It is specifically noted within An Approach to Landscape Character Assessment (Natural England, 2014) that:

“Our landscapes have evolved over time and they will continue to evolve – change is a constant but outcomes vary. The management of change is essential to ensure that we achieve sustainable outcomes – social, environmental and economic. Decision makers need to understand the baseline and the implications of their decisions for that baseline.”

At page 51 it describes the function of Key Characteristics in landscape assessment, as follows:

“Key characteristics are those combinations of elements which help to give an area its distinctive sense of place. If these characteristics change, or are lost, there would be significant consequences for the current character of the landscape. Key characteristics are particularly important in the development of planning and management policies. They are important for monitoring change and can provide a useful reference point against which landscape change can be assessed. They can be used as indicators to inform thinking about whether and how the landscape is changing and whether, or not, particular policies – for example - are effective and having the desired effect on landscape character.”

It follows from the above that in order to assess whether landscape character is significantly affected by a development, it should be determined how each of the key characteristics would be affected. The judgement of magnitude therefore reflects the degree to which the key characteristics and elements which form those characteristics will be altered by the proposals.

1.7. Landscape value - considerations

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

Paragraph 5.20 of GLVIA indicates information which might indicate landscape value, including:

- Information about areas recognised by statute such as National Parks, Areas of Outstanding Natural Beauty;
- Information about Heritage Coasts, where relevant;
- Local planning documents for local landscape designations;
- Information on features such as Conservation Areas, listed buildings, historic or cultural sites;
- Art and literature, identifying value attached to particular areas or views; and
- Material on landscapes of local or community interest, such as local green spaces, village greens or allotments.

An assessment of landscape value is made based on the following factors outlined in Box 5.1 of GLVIA3: Landscape quality (condition); scenic quality; rarity; representativeness; conservation interest; recreational value; perceptual aspects; and associations.

In addition to the above list, consideration is given to any evidence that indicates whether the landscape has particular value to people that would suggest that it is of greater than Community value.

1.8. Viewpoints and Visual Receptors – considerations

A wide variety of visual receptors can reasonably be anticipated to be affected by the proposed development. Within the baseline assessment, the ZTV study and site visits are used to determine which visual receptors are likely to be significantly affected and therefore merit detailed assessment. In line with guidance (GLVIA, 3rd Edition, 2013); both representative and specific viewpoints may be identified to inform the assessment. In general, the majority of viewpoints will be representative – representing the visual receptors at the distance and direction in which they are located and of the type(s) that would be present at that location. The representative viewpoints have generally been selected in locations where significant effects would be anticipated; though some may be selected outside of that zone – either to demonstrate the reduction of effects with distance; or to specifically ensure the representation of a particularly sensitive receptor.

The types of visual receptors likely to be included with the assessment are:

- Users of walking routes or accessible landscapes including Public Rights of Way, National and Regional Trails and other long distance routes, Common Land, Open Access Land, permissive paths, land held in trust (e.g. Woodland Trust, National Trust) offering free public access, and other regularly used, permitted walking routes;
- Visitors to and residents of settlements;
- Visitors to specific valued viewpoints;
- Visitors to attractions or heritage assets for which landscape and views contribute to the experience; and
- Users of roads or identified scenic routes.

Visual receptors are grouped for assessment into areas which include all of the routes, public spaces and homes within that area. Groups are selected as follows:

- Based around settlements in order to describe effects on that that community – e.g. a settlement and routes radiating from that settlement; or
- An area of open countryside encompassing a number of routes, accessible spaces and individual dwellings; or
- An area of accessible landscape and the routes within and around it e.g. a country park; and
- such that effects within a single visual receptor group are similar enough to be readily described and assessed.

With the exception of specific viewpoints, each route, settlement or location will encompass a range of possible views, which might vary from no view of the development to very clear, close views. Therefore effects are described in such a way as to identify where views towards the development are likely to arise and what the scale, duration and extent of those views are likely to be. In some cases this will be further informed by a nearby viewpoint and in others it will be informed with reference to the ZTV, aerial photography and site visits. Each of these individual effects are then considered together in order to reach a judgement of the effects on the visual receptors along that route, or in that place.

The representative viewpoints are used as ‘samples’ on which to base judgements of the scale of effects on visual receptors. The viewpoints represent multiple visual receptors, and duration and extent are judged when assessing impacts on the visual receptors.

For specific viewpoints (key and sometimes promoted viewpoints within the landscape), duration and extent are assessed, with extent reflecting the extent to which the development affects the valued qualities of the view from the specific viewpoint.

1.9. Visual Receptor Sensitivity – typical examples

	High	Medium	Low
National / International	1	4	8
Local / District	2	5	8
Community	3	6	9
Limited	-	7	10

- 1) Visitors to valued viewpoints or routes which people might visit purely to experience the view, e.g. promoted or well-known viewpoints, routes from which views that form part of the special qualities of a designated landscape can be well appreciated; key designed views; panoramic viewpoints marked on maps.
- 2) People in locations where they are likely to pause to appreciate the view, such as from local waypoints such as benches; or at key views to/from local landmarks. Visitors to local attractions, heritage assets or public parks where views are an important contributor to the experience, or key views into/out of Conservation Areas.
- 3) People in the streets around their home, or using public rights of way, navigable waterways or accessible open space (public parks, open access land).
- 4) Users of promoted scenic rail routes.
- 5) Users of promoted scenic local road routes.
- 6) Users of cycle routes, local roads and railways.
- 7) Outdoor workers.
- 8) Users of A-roads which are nationally or locally promoted scenic routes.
- 9) Users of sports facilities such as cricket grounds and golf courses.
- 10) Users of Motorways and A-roads; shoppers at retail parks, people at their (indoor) places of work.

1.10. Preparation and use of Visuals

The ZTVs are used to inform the field study assessment work, providing additional detail and accuracy to observations made on site. Photomontages may also be produced in order to assist readers of the assessment in visualising the proposals, but are not used in reaching judgements of effect. The preparation of the ZTVs (and photomontages where applicable) is informed by the Landscape Institute’s Advice Note 01/11 – ‘Photography and

photomontage in landscape and visual impact assessment' and SNH 'Visual Representation of Wind Farms Best Practice Guidance' (both the 2007 and 2017 editions).

The following points should be borne in mind in respect of the ZTV study:

- Areas shown as having potential visibility may have visibility of the development obscured by local features such as trees, hedgerows, embankments or buildings.

A detailed description of the methods by which ZTVs and visualisations are prepared is included in Annex 2.

In addition to the main visualisations, illustrative views are used as appropriate to illustrate particular points made within the assessment. These are not prepared to the same standard as they simply depict existing views, character or features rather than forming the basis for visualisations.

1.11. Cumulative Assessment

Cumulative assessment relates to the assessment of the effects of more than one development. A search area from the proposal Site (typically of a similar scale to the study area) is agreed with the planning authority. For each of the identified cumulative schemes agreement is reached with the Planning Authority as to whether and how they should be included in the assessment.

Only operational and consented developments are considered, unless specific circumstances indicate that a development in planning should be included, with progressively decreasing emphasis placed on those which are less certain to proceed.

Typically, operational and consented developments are treated as being part of the landscape and visual baseline. i.e. it is assumed that consented schemes will be built except for occasional exceptions where there is good reason to assume that they will not be constructed.

The cumulative assessment examines the same groups of landscape and visual receptors as the assessment for the main scheme, though different viewpoints may be used in order to better represent the likely range of effects arising from the combination of schemes. The assessment is informed by cumulative ZTVs as necessary, showing the extent of visual effects of the schemes in different colours to illustrate where visibility of more than one development is likely to arise. Cumulative wirelines or photomontages may also be prepared if considered necessary.

In addition, the effects on users of routes through the area, from which developments may be sequentially visible as one passes through the landscape are also considered, if appropriate. This assessment is based on the desk study of ZTVs and aerial photography, and site visits to travel along the routes being assessed.

In relation to landscape and visual cumulative assessment, it is important to note the following:

- For each assessed receptor, combined cumulative effects may be the same as for the application scheme, or greater (where the influence of multiple schemes would

increase effects, or where schemes in planning other than the application scheme would have the predominant effects).

- For each assessed receptor, incremental cumulative effects may be the same as for the application scheme, or reduced (where the influence of other schemes in planning would be such that were they consented and considered to be part of the baseline, the incremental change arising from the addition of the application scheme would be less).
- Subject to the distance and degree of intervening landform, vegetation and structures there may be no cumulative effects.

The way in which the assessment is described and presented is varied depending on the number and nature of scenarios which may arise. This variation is needed in order to convey to the reader the key points of each assessment. For example, the three different cumulative combinations that may arise for an assessment in which there are two existing undetermined applications each can be assessed individually. A situation in which there are 10 applications cannot reasonably be assessed in this way and the developments may need to be grouped for analysis.

1.12. Residential Amenity

Paragraph 6.17 of GLVIA, 3rd edition notes that:

“In some instances it may also be appropriate to consider private viewpoints, mainly from residential properties.... Effects of development in private property are frequently dealt with mainly through ‘residential amenity assessments’. These are separate from LVIA although visual effects assessment may sometimes be carried out as part of a residential amenity assessment, in which case this will supplement and form part of the LVIA for a project. Some of the principles set out here for dealing with visual effects may help in such assessments but there are specific requirements in residential amenity assessment”

When dealing with effects on residential properties, the outlook from a private property is essentially a private matter. The difference between that private interest and what should be protected in the public interest has been the subject of particular focus at Public Inquiries in relation to wind farm cases and the lessons learnt from Inspector’s decisions have informed how effects on views from residential properties influence a planning decision. This is fully described and set out in paragraphs 209-211 of the decision regarding Spring Farm Ridge wind farm (APP/Z2830/A/11/2165035 – December 2014), which sets out the approach that in considering effects on private residential amenity – whether effects are visually significant is not relevant – effects which fall below the threshold of being “so unpleasant, overwhelming and oppressive that this would become an unattractive place to live” (known as the Lavender Test) “would not feature in the planning balance, irrespective of how many dwellings were so affected”. The Inspector’s report also makes clear that this is a separate exercise to “weighing in the balance, as a component of the character and appearance issue, the effects on the locality generally that would derive from visual effects on resident receptors”, which is covered within the assessment of effects on visual receptors.

The Spring Farm Ridge Inspector’s decision is for a wind farm but makes it clear that “the level of impact or threshold at which the public interest would be so engaged should be no different

for wind turbines than would be the threshold applicable to other types of development.” Wind farms are unusually tall developments with a greater chance that they could have such an effect. Most forms of development are unlikely to cause effects of such a high magnitude to render a property an unattractive place in which to live unless in very close proximity to the property and occupying a large proportion of views.

Residential properties closest to the Site are viewed on site and from aerial photography to consider whether a residential amenity assessment is required. Where such an assessment is required, it is provided as an appendix to the LVIA.

Annex 28.2. Visualisations and ZTV Studies Methodologies

1.13. ZTV Studies

ZTV studies are prepared using the ESRI ArcGIS Viewshed routine. This creates a raster image that indicates the visibility (or not) of the points modelled. LDA Design undertake a ZTV study that is designed to include visual barriers from settlements and woodlands (with heights derived from NEXTMAP 25 surface mapping data). If significant deviations from these assumed heights are noted during site visits, for example young or felled areas of woodland, or recent changes to built form, the features concerned will be adjusted within the model or the adoption of a digital surface model will be used to obtain actual heights for these barriers.

The model is also designed to take into account both the curvature of the earth and light refraction, informed by the SNH guidance. LDA Design undertake all ZTV studies with observer heights of 2m.

The ZTV analysis begins at 1m from the observation feature and will work outwards in a grid of the set resolution until it reaches the end of the terrain map for the project.

For all plan production LDA Design will produce a ZTV that has a base and overlay of the 1:50,000 Ordnance Survey Raster mapping or better. The ZTV will be reproduced at a suitable scale on an A1 template to encompass the study area in accordance with SNH guidance (2017). For printing purposes all A1 figures will be produced at 600 dpi to allow interpretation of the base map.

1.14. Ground model accuracy

Depending on the project and level of detail required, different height datasets may be used. Below is listed the different data products and their specifications:

Product	Distance Between Points	Vertical RMSE Error
LiDAR	50cm – 2m	up to +/- 5cm
Photogrammetrically Derived Heights	2m – 5m	up to +/- 1.5m
Ordnance Survey OS terrain 5	5 m	up to +/- 2.5m
NextMap25 DTM	25 m	+/- 2.06m
Ordnance Survey OS terrain 50	50 m	+/- 4m

Site-specific topographical survey data may also be used where available.

1.15. Photomontages and Wirelines

- 1) Verified / verifiable photomontages are produced in seven stages. Photowires are produced using the same overall approach, but only require some of the steps outlined below.
- 2) Photography is undertaken using a digital SLR camera and 50mm equivalent lens. A tripod is used to take overlapping photographs which are joined together using an industry standard application to create a single panoramic image for each viewpoint.

These are then saved at a fixed height and resolution to enable correct sizing when reproduced in the final images. The photographer also notes the GPS location of the viewpoint and takes bearings to visible landmarks whilst at the viewpoint.

- 3) Creation of a ground model and 3D mesh to illustrate that model. This is created using NextMap25 DTM point data (or occasionally other terrain datasets where required, such as site-specific topographical data or Photogrammetrically Derived Heights) and ground modelling software.
- 4) The addition of the proposed development to the 3D model. The main components of the proposed development are accurately modelled in CAD and are then inserted into the 3D model at the proposed locations and elevations.
- 5) Wireline generation – The viewpoints are added within the 3D CAD model with each observer point being inserted at 1.5m above the modelled ground plane. The location of the landmarks identified by the photographer may also be included in the model. The view from the viewpoint is then replicated using virtual cameras to create a series of single frame images, which also include bearing markers. As with the photographs, these single frame images are joined together using an industry standard application to create a single panoramic image for each viewpoint. These are then saved at a fixed height and resolution to ensure that they are the same size as the photographs.
- 6) Wireline matching – The photographs are matched to the wirelines using a combination of the visible topography, bearing markers and the landmarks that have been included in the 3D model.
- 7) For the photomontage, an industry standard 3D rendering application is used to produce a rendered 3D view of the proposed development from the viewpoint. The rendering uses materials to match the intended surface finishes of the development and lighting conditions according to the date and time of the viewpoint photograph.
- 8) The rendered development is then added to the photograph in the position identified by the wireline (using an image processing application) to ensure accuracy. The images are then layered to ensure that the development appears in front of and behind the correct elements visible within the photograph. Where vegetation is proposed as part of the development, this is then added to the final photomontage.

Annex 28.3. Extracts from relevant landscape character assessments

1.16. North Norfolk Landscape Character Assessment (November 2018)

1.16.1. LCT Coastal Shelf

LCT within which lies LCA CS1: Weybourne to Mundesley Coastal Shelf

Relevant key characteristics are as follows:

- *“...elevated, undulating land which meets the sea in a series of dramatic cliffs ...and is enclosed on the inland side by the generally steep scarp slope of the Wooded Ridge type... The topography is highly irregular and undulating, resulting in intimate areas often screened from one another by fingers of higher land...”*
- *Tourism has had a significant impact on this coastal area... Settlements which developed with nucleated cores (usually associated with the fishing industry) have subsequently expanded... There is a fairly extensive network of public rights of way, with the Norfolk Coast Path National Trail and a number of other footpaths linking the coast with the Wooded Ridge and further inland...*
- *Despite the concentration of settlement in this area, the presence of sizeable areas of predominantly arable farmland, together with isolated areas of deciduous and mixed woodland, heathland, dry acid grassland, meadows and traditional orchards help to soften settlement edges and maintain a degree of separation between settlements. Where farmed land remains this plays a vital role in maintaining rural gaps.*
- *Beyond Sheringham, Weybourne is the only settlement within the Coastal Shelf, with the surrounding land in almost wholly agricultural use. At this western end of the Coastal Shelf, large areas of woodland on the rising land of the Cromer Ridge limit views inland and enclose the settlements. The heritage steam railway running between Sheringham and Holt via Weybourne adds a traditional character to this area.*
- *The A149 coast road is the main route running throughout much of this landscape, which connects with the A148... These routes are busy and it is unusual to be far from road noise, but minor roads in some areas retain a stronger rural character and are associated with thick tall hedges / trees and biodiverse verges. Others have suffered loss of hedges / verges and have little character.*
- *Views within the Type vary significantly, depending on the degree of elevation and enclosure provided by landform and land cover, but there are many locations offering extensive panoramas either out to the sea, along the coastal cliffs or inland to the wooded ridge which provides a green backdrop to the busy coastal strip...”*

1.16.2. LCT Wooded Glacial Ridge

LCT within which lies LCA WGR1: Wooded Glacial Cromer Ridge

Relevant key characteristics are as follows:

- *“The Wooded Glacial Cromer Ridge is a terminal moraine...forms an important landmark which is visible on the horizon in many parts of the District. The north face of the ridge*

comprises a relatively steep scarp slope with irregular undulations. The south face of the Ridge slopes inland more gradually into a high level, expansive, plateau-like landscape within the neighbouring Tributary Farmland type, before gradually descending into lower-lying areas, including the River Valleys Type.

- *Woodland is the dominant land cover along the top of the ridge and its scarp slope, comprising ... conifer and mixed woodland ...and many areas of deciduous woodland. The wooded ridge forms a strong landscape backdrop to coastal settlements, ...and is an influential landscape feature within large areas of the Tributary Farmland Type to the south... Arable farmland occupies most of the flatter margins and lower slopes of the Ridge.*
- *...there are locations offering extensive panoramas either out to the sea over the Coastal Shelf type such as at Sheringham Park, or inland across the Tributary Farmland, e.g. views south from the A148 main tourist route...*
- *...historic estates and associated parkland and woodland are present within the Wooded Glacial Cromer Ridge, including Grade II* registered landscapes at Sheringham Park...*
- *... The A148 Holt to Cromer road travels along the general line of the ridge and is a busy tourist route... Intermittent long range panoramic views of the coast and inland are a feature of moving through this elevated landscape..."*

1.16.3. LCT Tributary Farmland

LCT within which lies LCA TF1: North Norfolk Tributary Farmland

Relevant key characteristics are as follows:

- *"... Undulating terrain dissected by small river valleys with elevated, and occasionally expansive, open plateau areas... Ponds are also a feature of the landscape. Historic airfields are present on some of the plateau areas.*
- *... A rural landscape in which arable land use predominates with pasture more common around the edges of villages and in proximity to the river valleys...*
- *Whilst fields are typically medium to large in scale, there is a greater presence of small fields around settlements than in other Types.*
- *... Hedgerows and mature hedgerow trees are frequent features within the landscape...*
- *... Woodland cover is locally prominent across the area in a variety of forms*
- *...historic parks ...older (some ancient) woodlands, plantation ..., younger geometric shelter belts ... game copses...Veteran trees and traditional orchards are also present.*
- *... Historic parks and estates are a distinctive feature of the Landscape Type*
- *... Settlement is typically rural villages with dispersed large houses and farmsteads in the wider landscape*
- *... The network of lanes ...linking the historic villages and often bounded by mature hedgerows. There are also main roads running through the Type which are key tourist routes.*
- *...Strong visual relationship between the valleys that dissect the landscape...*

- *contribute to the experience of moving across this landscape type...The elevated wooded horizon of the Wooded Glacial Ridge defines the majority of the northern boundary of the Tributary Farmland, and is an influential landscape feature, providing a degree of containment to the northern side of this large Type. “*

1.16.4. LCT River Valleys

LCT within which lies LCA RV2: River Bure and tributaries

Relevant key characteristics are as follows:

- *... “Typically shallow-sided valleys...Numerous smaller watercourse and drains...The North Norfolk Rivers IDB include River Bure...*
- *... A relatively small-scale pattern of varied land uses on valley floors...*
- *with pasture, arable, woodland, some fen and rough carr.... pasture, has led to a varied, small-scale landscape.*
- *... Larger arable fields on valley sides, distinct from valley floors ...The format of boundaries tend to be similar between the valley sides and the neighbouring landscape type but is distinctly different in the valley floor - becoming higher, thicker and more likely to contain informal hedgerow trees. Some fields have ‘ring boundaries’ dividing the valley floor from the sides...*
- *...Relatively high level of woodland cover ...a variety of woodland forms, primarily deciduous, and high hedgerows containing lots of trees... Valley floor woodlands are typically older than those on valley sides... often forms a boundary to the watercourse or field patterns.*
- *...settlement, associated with rivers... only minor roads along valleys, occasionally crossed by more major routes ...Most minor roads conform to the topography of the valleys ...The landscape type tends to be moderately quiet as a result...*
- *... one of the most diverse and ecologically valuable sets of habitats in the District, including some unimproved pastures, water meadows, varied woodland habitats and heathland. This is reflected in the area’s ecological designations ...on areas of land around the... Bure...*
- *...Contrast between valley floor containment and expansive views from valley crests. High hedges, woodland and smaller fields combine to create an intimate landscape, in which much built development is hidden from wider view. Views open out the higher one travels up the valley sides. The top plateaus of some valleys are very open with extensive views... “*

Characteristics unique to RV2:

- *“ ... Nucleated settlement pattern alongside the Bure...*
- *Road network not strongly valley-oriented ...often appears to be independent of it.*
- *Isolated and rural character ...There are more isolated small and medium farms near the valley sides than in other adjacent Areas. “*

1.16.5. LCT Rolling Heath and Arable

LCT within which lies LCA RHA1: Blakeney, Salthouse, Kelling

Relevant key characteristics are as follows:

- ...“features large areas of elevated land including the western extremity of the Cromer Ridge...
- ...a gently rolling and undulating landform, characterised by gentle slopes from the raised hinterland down towards the coastal marshes, with localised areas of steeper slopes such as the eastern scarp slope of Kelling Heath ...Subtle small, gentle hillocks ...contribute to the variation in landscape character, shaping and enclosing views ...
- ...An open, elevated character affording long views to the coast and inland ...arable fields, enclosed by low managed hedgerows and occasional coniferous shelterbelts, heathy margins ...
- ...Extensive heathlands and woodland blocks are prominent features ... isolated pockets of heath also occur throughout this landscape...
- ...strong rural character, with nature conservation interest and tourism land uses... fairly extensive network of public rights of way, including a small stretch of the Norfolk Coast Path National Trail,... and a number of other footpaths linking the coast with areas further inland...this Landscape Type is known for its dark night skies; Wiveton Downs and Kelling Heath Holiday Park ...The North Norfolk (heritage) Railway is a popular tourist attraction...
- ...The Kelling Estate is a significant land owner within the area...
- ...Characterful minor roads linking the busier A149 coast road and A148...These main routes are busy; however, many minor roads retain a stronger rural and scenic character and are associated with thick tall hedges / trees and biodiverse verges. Others have suffered loss of hedges / verges and have little character. “

1.16.6. LCT Drained Coastal Marshes

LCT within which lies LCA DCM2: Blakeney, Wiveton, Cley and Salthouse Drained Marshes

Relevant key characteristics are as follows:

- “A flat, open low lying landscape dominated by grazing marsh and drained farmland... arable fields divided into large geometric fields bordered by grassed banks, straight drainage ditches and low gappy hedges. Along the inland fringes is a smaller scale pattern of more textured and irregularly-shaped pastures. The grazing marsh is drained by meandering rivers and creeks, many of which have been diverted during the drainage process. The area around Cley is a nature reserve with brackish lagoons, pasture, reedbeds and dykes.
- ...Enclosed by natural (sand dunes, shingle banks) or man-made (clay) banks...The area is cut off from the sea by a shingle bank (at Cley)...
- ...A dynamic and changing landscape... Change has long been a characteristic feature of the Drained Coastal Marshes...
- ...A remote, peaceful landscape, but with some ‘honeypots’ of activity and built development...including the remains of... Blakeney Chapel in DCM2, but today the landscape is largely unsettled except for ‘honeypots’ of activity near ...Wells, Blakeney and Cley.
- ...Nature conservation interest... recognised by a nature conservation designations including National Nature Reserves (...Blakeney in DCM2), the North Norfolk Coast SSSI and North

Norfolk Coast SPA, SAC and Ramsar sites. The sites are internationally important for a variety of bird species and have distinct and rare wetland ecologies...

- ...Access provided by tracks and footpaths, and occasional roads. The Peddars Way long distance path and Norfolk Coast National Trail provide access along the seaward edge of the drained marshes... There are public footpaths across the marsh to the coast in the Cley/Salthouse area.
- ...Large skies and long views. The open and expansive sky is significant wherever one is within this landscape type... The proximity to the sea, and sea view opportunities are a feature of this Type, especially from the top of the banks than enclose the area. "

Characteristics unique to DCM2:

- "...The drained coastal marshes at Cley and Salthouse have been claimed from saltmarshes behind a shingle ridge...has a steeply sloping, constantly eroding beach on the other side...
- ...Land use is dominated by freshwater wetlands, reedbeds, small pastures, reed fringed ditches and open water scrapes...Around the grazed land are more naturalistic areas of brackish lagoons, reedbeds and dykes that have nature conservation interest. The outlying Weybourne section of DCM2 is mainly reedbed and dense bramble / willowherb fed by a small stream which filters out to sea beneath the shingle bank.
- ...Relatively little access and settlement ...There is relatively low level of public access to this area...restricted to two minor roads to the coast, foot access along the sea walls/ shingle bank and across the marsh to the coast, and some access to the NWT Reserve (although this is limited). The only settlement/buildings are the remains of Blakeney Chapel ... and Cley Windmill which lies on the edge of Cley next the Sea. "

1.17. Broadland District landscape Character Assessment (September 2013)

1.17.1. LCT River Valley

LCT within which lies LCA A1. River Wensum River Valley).

Relevant key characteristics are as follows:

- "Distinct valley landform of flat valley flood plain and adjacent gently sloping valley sides
- Strong presence of a river towards the centre of the floodplain;
- Willow pollards and lines of poplar flanking ditches and watercourses on valley floor, plus areas of reeds, marshes, meadowland and leys;
- Grazing on the valley floor
- Patchwork of small scale fields, often lined with strong hedgerow boundaries and hedgerow trees; and blocks of woodland dotted along the valley sides;
- River crossings, fords and bridges, which provide landscape features within the valley corridor;
- Remnants and reminders of historic settlement;
- Generally little development on the floodplain"

1.17.2. LCT Wooded Estatelands

LCT within which lies LCA E1. Blickling and Oulton Wooded Estatelands).

Relevant key characteristics are as follows:

- *“A pattern of small manor houses, isolated halls and larger estates, with associated parkland extending across much of the area:*
- *These buildings impart a strongly ordered and human influence over the surrounding landscape;*
- *Numerous copses, woodlands and small plantations associated with these estates, punctuating a landscape of underlying predominantly arable farmland;*
- *Strong historic dimension throughout the landscape;*
- *Woodland provides a sense of enclosure“*

1.17.3. LCT Tributary Farmland

LCT within which lies LCA D1. Cawston Tributary Farmland and LCA D2. Weston Green Tributary Farmland

Relevant key characteristics are as follows:

- *“Shelving and gently undulating landform, which is cut by small tributary valleys;*
- *Predominantly rural character throughout;*
- *Dispersed but evenly distributed settlement pattern*
- *...network of narrow, winding rural lanes often bounded by banks or ditches*
- *Medium to large scale arable farmland;*
- *Pockets of remnant parkland;*
- *Tributaries elusive- evident but usually hidden within the landscape by topography and trees“*

1.17.4. LCT Woodland Heath Mosaic

LCT within which lies LCA B1. Horsford Woodland Heath Mosaic

Relevant key characteristics are as follows:

- *“Generally flat, plateau landscape, covered with a pattern of large-scale woodland and plantations;*
- *Mixture of old deciduous woodland and more recent coniferous plantations, interspersed with small areas of remnant heathland contained within the woodland;*
- *Woodland is interspersed with relatively large arable fields;*
- *Presence of boundary oaks within hedgerows;*
- *...sporadic 20th century settlements that line straight roads, which cut across the landscape;*
- *Views are generally strongly contained by dense blocks of woodland;*

- *Woodland provides a strong sense of enclosure;*
- *Small pockets of Acid grassland."*

1.18. South Norfolk District Landscape Character Assessment (2001)

1.18.1. A3. Tas Rural River Valley.

Relevant key characteristics are as follows:

- *"Small intimate rural valley with confined valley form and restricted views...*
- *Small scale river channel only evident at the points where it is crossed by the Costessey – New Costessey Road and the Ringland Road.*
- *...areas of wooded common land ...*
- *Intricate sinuous topography accentuated by the wooded valley sides and relatively narrow open valley floor.*
- *Small-scale, very sparse settlement comprising occasional isolated farmsteads. The pastoral valley floor creates an important 'green' gap between the settlements of Costessey and New Costessey which extend onto the upper valley sides.*
- *Remote, very rural, character despite proximity to the City, ...with no roads or footpaths.*
- *Strongly wooded character ...large woodland blocks on the valley sides, plus long lines of poplar trees found in association with the river. Single trees and plantations of Scots pine are a distinctive feature.*
- *A wooded gateway to Norwich is created by the woodland present on the upper valley slopes. This is an important component of the landscape adjoining the North Southern Bypass;*
- *Distinctive agricultural landscape...*
- *Important views into the Tud valley from the Norwich Southern Bypass and views out of the area from the upper valley crest. "*

1.18.2. G1. Easton Fringe Farmland:

Relevant key characteristics are as follows:

- *"Undulating landscape sloping towards a distinct ridge top marking the boundary between the valleys of the Yare and Tud.*
- *... mineral extraction resulting in areas of derelict and degraded landscape.*
- *Highly developed ridge top with a strong urban fringe character including the presence of urban settlement, large retail superstores with their associated car parks plus a park and ride scheme.*
- *Recreational uses including the presence of a golf course and the Royal Norfolk Showground.*
- *Attractive arable and pastoral farmland context, somewhat marginalized by the development, but retaining a strong rural character.*
- *Absence of significant wooded areas.*

- *Major transportation through-route and gateway into South Norfolk due to the presence of the Norwich Southern Bypass. “*

1.18.3. B6. Yare Tributary Farmland:

Relevant key characteristics are as follows:

- *“Gently undulating landform cut by small tributary valleys.*
- *Forms the transition between the Yare/Tiffany Rural River and higher ground...*
- *A landscape of both openness across arable fields and enclosure provided by tree cover particularly in association with settlement.*
- *Predominantly arable farmland, contained in medium to large sized fields, with some pasture and discrete isolated woodland blocks.*
- *Churches are an impressive feature...*
- *Settlement is dispersed and generally linear in form.*
- *Rural lane network*
- *Peaceful, intact character. “*

1.18.4. A2. Yare/Tiffany Rural River Valley:

Relevant key characteristics are as follows:

- *“ Narrow shallow valley-form ... The valley sides gently undulate creating a sense of defined openness.*
- *Meandering small rivers,...intermittently visible across the valley floor or from river crossings, but frequently screened by dense bankside vegetation.*
- *Presence of distinct areas of vegetation of valley floor with regular avenues of poplars flanking drainage ditches, particularly within the Yare Valley.*
- *Presence of attractive historic bridges over the river, ... some of which are Scheduled Ancient Monuments.*
- *Important buildings present....*
- *Pastoral valley floor with areas of damp hummocky pastureland...and arable valley sides.*
- *Patchwork of small valleyside woodland blocks and wooded bankside ...*
- *Tranquil rural character with strong visual diversity...*
- *...small attractive villages with strong vernacular qualities clustered around river crossings on the valley floor. Sparse farmsteads and isolated buildings are scattered across the valley sides.*
- *small rural roads which meander across the valley with sunken lanes ...*
- *Important internal views ...“*

1.18.5. B2. Tiffany Tributary Farmland:

Relevant key characteristics are as follows:

- *“ Flat, shelving to gently undulating landscape, incised by small hidden tributary streams and their small-scale shallow valleys.*
- *Pleasant rural working landscape of farmland with sparse settlement.*
- *Limited woodland cover creating wooded horizons...*
- *Large scale arable farmlands in large fields with sparse hedgerows and hedgerow trees with some pastoral farmland in the valleys.*
- *Framed and long-range views into adjoining Yare/Tiffey Rural River Valleys...,*
- *Water bodies of national ecological and historical importance...*
- *Sparse settlement comprising villages and isolated dwellings but connected by a dense network of rural lanes.*
- *Elements of vernacular interest including isolated churches...*
- *Presence of important transportation links including the A11 which makes the area an important gateway into South Norfolk.”*

1.18.6. D1. Wymondham Settled Plateau Farmland:

Relevant key characteristics are as follows:

- *“A settled landscape with large edge-of-plateau towns (including market towns and those of more modern origin) and villages plus smaller, nucleated settlements which are dispersed across the plateau.*
- *Large expanse of flat landform with little variation over long distances with strong open horizons – the archetypal ‘Norfolk’ landscape of popular imagination.*
- *Large scale open arable fields ... creating simple, often monotonous, character.*
- *Long views from plateau edge, including to Norwich from the northern plateau edge.*
- *•Poor hedgerows generally, which accentuates the openness of the landscape. The resulting wide verges beside roads often contain attractive wildflowers. Some mature hedgerow trees are found, particularly beside roads, which are a distinctive feature. Areas of more intact hedgerow network sometimes occur around settlements.*
- *Sparsely wooded but with occasional woodland blocks, sometimes associated with former parkland areas, creating a more wooded character and wooded horizons in parts of this generally open landscape.*
- *...Some isolated churches, sometimes hidden by dense screening churchyard vegetation. “*

1.18.7. C1. Yare Tributary Farmland with Parkland:

Relevant key characteristics are as follows:

- *“Shelving landform with a gently undulating topography created by the presence of small tributary stream valleys cutting through the landscape providing a variety of open/more intimate landscape settings and long/framed views.*

- *Transitional landscape occupying the mid ground between the upland plateau of the Wymondham-Hethersett settled plateau farmland and the principal Yare Valley and forming part of the transition between the rural and urban landscape.*
- *Peaceful farmland with small farm woodlands and intermittently wooded tributary valleys creating a quiet rural atmosphere.*
- *Presence of large parkland estates, particularly associated directly with the tributary valleys. Estate railings, boundary fences, tree-lined avenues and traditional wooded parkland contribute to landscape character.*
- *Sparsely settled landscape of small clusters of farmhouses, small villages and rural dwellings interspersed with large manorial buildings and halls.*
- *A sense of impenetrability and remoteness despite the presence of major transportation corridors. The Norwich Southern Bypass and A11 Wymondham Road trisect the landscape and the area is also traversed by the main Norwich London railway line. These routes create corridors of movement and noise in this otherwise peaceful landscape. Elsewhere, there is an intricate network of narrow rural roads and lanes.*
- *Yare Minor Tributaries Streams elusive - evident but usually hidden within the landscape by topography or trees noticeable only at fording points or at close-range.*
- *Arable and pastoral farmland... Fields surrounded by sparse hedges and hedgerow trees, with occasional mature/veteran oaks forming a distinctive feature alongside the lanes.*
- *... rural buildings and estate dwellings. More modern dwellings are found in the larger villages.*
- *... Intermittent long views towards the City of Norwich. "*

1.18.8. B1. Tas Tributary Farmland:

Relevant key characteristics are as follows:

- *"Open, gently undulating to flat and sloping landscape incised by shallow tributary valleys, the tributary streams of which are not prominent landscape features.*
- *Large open arable fields ...*
- *Framed open views across the countryside and into adjacent character areas.*
- *Small blocks of deciduous woodland of high ecological and visual quality. These create wooded horizons which add variety to and create intimacy within the landscape.*
- *Damp grasslands of ecological importance located within the tributary valleys.*
- *Scattered remnant hedgerow trees, particularly oak, sometimes including intact avenues lining the roads or marking former, denuded, field boundaries.*
- *Transportation corridors including main connecting roads.*
- *Network of recreational footpaths.*
- *Ditches, low banks and wide grass verges associated with the network of rural roads.*

- *Settlement characterised by a small number of large villages ...scattered farmhouses and agricultural buildings."*

Annex 28.4. Viewpoint Descriptions

Viewpoint descriptions describe the panoramic view from the location, not necessarily just the angle of view shown on the Figures.

Viewpoint Reference	Distance, Direction	Scale of Effect (substation)		Viewpoint Description – Existing View
		Site 1	Site 2	
<p>Viewpoint 1A - Bridleway (Swardeston BR9) - Site 1 <i>Figure 28.18</i></p>	600m W	Small	Large	<p>This view looks east from the northern section of the bridleway running between the woodland to the north and Gowthorpe Lane to the south.</p> <p>The view looks across an arable field bounded by hedgerows, mature trees and woodland blocks, which limit long-range views. A row of pylons and overhead cables cross the view as they head to Norwich Main substation, which lies beyond the woodland to the left of the view.</p> <p>This viewpoint is specific to potential visibility of onshore substation Site 1. The majority of the proposed buildings and electrical equipment would be screened to the right of the view by intervening vegetation and landform, with the upper parts of the buildings and electrical equipment visible to the left. The scale of effect would be Small.</p> <p>Whilst onshore substation site 2 is not illustrated on the wireframes from this viewpoint location, it would be clearly visible in the foreground. The scale of effect would be Large.</p> <p>There is an immature hedge in the foreground to the substation Sites which is likely to filter or obscure views of substation 1 and 2 as it matures, reducing these effects.</p>

<p>Viewpoint 1B - Bridleway (Swainsthorpe BR7) - Site 2 <i>Figure 28.19</i></p>	<p>200m SW</p>	<p>Negligible</p>	<p>Large</p>	<p>This view looks north from the southern part of the bridleway running between the woodland to the north and Gowthorpe Lane to the south.</p> <p>The view looks through a gap in the hedgerow that borders the eastern edge of the PRow across an arable field delineated by hedgerows, mature trees and woodland blocks, which limit long-range views. Two lines of pylons and overhead cables cross the view as they head to Norwich Main substation, which lies beyond the woodland to the centre of the view.</p> <p>This viewpoint is specific to the potential visibility of onshore substation Site 2. The southern part of Site 2 would lie within the field in the foreground. The scale of effect would be Large.</p> <p>Whilst onshore substation Site 1 is not illustrated from this viewpoint location, it would be screened by the hedgerow east of the viewpoint. The scale of effect would be Negligible.</p>
<p>Viewpoint 2 - Permissive Bridleway west of A140 – Site 1 <i>Figure 28.20</i></p>	<p>150m E</p>	<p>Large</p>	<p>Medium – Small</p>	<p>This view looks west from the new footpath and bridleway located between the Bridleway (Stoke Holy Cross BR3) and Hickling Lane, within a field to the west of the A140.</p> <p>The view looks across a series of arable fields bounded by hedgerows, mature trees and woodland blocks, which limit long-range views. A row of pylons and overhead cables cross the view as they head to Norwich Main substation, which lies beyond the woodland to the right of the view. The Norwich-Ipswich Railway Line (with overhead power cables) also crosses the view, running upon an embankment lined with shrubs and occasional trees.</p> <p>Clear views would be possible to the upper parts of the proposed buildings and electrical equipment to onshore substation Site 1, seen just beyond and above the intervening vegetation and embankment of the Norwich-Ipswich Railway Line, although the pylons and cables crossing the view would be prominent. The scale of effect would be Large.</p>
<p>Viewpoint 2 – Permissive Bridleway west of A140 - Site 2 <i>Figure 28.21</i></p>	<p>600m E</p>	<p>Large</p>	<p>Medium – Small</p>	<p>Views to onshore substation Site 2 would be possible to the upper parts of the proposed buildings and electrical equipment seen above and beyond vegetation in the intervening landscape, although the existing pylons and cables crossing the view would remain the most prominent infrastructure. The scale of effect would be Medium – Small.</p>

<p>Viewpoint 3A - Bridleway (Stoke Holy Cross BR3) - Site 1 <i>Figure 28.22</i></p>	<p>200m N</p>	<p>Large</p>	<p>Small</p>	<p>This view looks south from the bridleway running between the A140 (Ipswich Road) and bridleway Swardeston BR9, located approximately 25m south of Norwich Main substation, where there is a substantial break in the vegetation that runs along the majority of the southern side of the PRoW and allow views towards onshore substation Site 1.</p> <p>The view looks across an arable field bounded by hedgerows and mature trees which limit long-range views. A row of pylons and overhead cables crosses the view as they head to Norwich Main substation to the right of the view.</p> <p>This viewpoint is specific to the potential visibility of onshore substation Site 1. The various components of the proposed onshore substation Site would be seen clearly in the foreground of the view. The existing pylons to the right of the view would remain prominent infrastructure visible from this location. The scale of effect would be Large.</p> <p>Whilst onshore substation Site 2 is not illustrated on visualisations from this viewpoint location, it would be partially screened by vegetation in the intervening landscape to the right of the view, albeit that visibility would remain possible. The scale of effect would be Small.</p>
<p>Viewpoint 3B - Bridleway (Swardeston BR12) - Site 2 <i>Figure 28.23</i></p>	<p>100m NE</p>	<p>Small</p>	<p>Large</p>	<p>This view looks south-west from the bridleway running between the A140 (Ipswich Road) and Gowthorpe Manor, located approximately 100m south west of Norwich Main substation, where a gap in the vegetation along the course of the PRoW allows views towards onshore substation Site 2.</p> <p>The view looks across an arable field bounded by hedgerows and mature trees which limit long-range views. A row of pylons and overhead cables crosses the view as they head to Norwich Main substation, lying just out-of-view within this photograph to the left (but visible from this viewpoint location).</p> <p>This viewpoint is specific to the potential visibility of onshore substation Site 2. The various components of the proposed onshore substation Site would be seen clearly in the foreground of the view. The existing pylons, just out of shot to the left, would remain prominent infrastructure visible from this location. The scale of effect would be Large.</p> <p>Whilst onshore substation Site 1 is not illustrated on visualisations from this viewpoint location, it would be partially screened by vegetation in the intervening landscape to the left of the view, albeit that some visibility would remain possible. The scale of effect would be Small.</p>

<p>Viewpoint 4 – Footpath (Swardeston FP6) - Site 1 <i>Figure 28.24</i></p>	<p>1.5km SW</p>	<p>Negligible</p>	<p>Negligible</p>	<p>This view looks north-east from footpath east of Swardeston. The view looks across a series of arable fields bounded by hedgerows and mature trees which limit long-range views. A row of pylons and overhead cables can be seen beyond a line of trees to the left of the view.</p> <p>Partial visibility to the electrical equipment that forms part of onshore substation 2 would be possible to the centre of the view where there is a lower point in the woodland vegetation, although it is likely that visibility of these components would be difficult to discern at this distance and be barely perceptible within the context of the wider view. Views to onshore substation Site 1 would be obscured by intervening vegetation and landform. The scale of effect for either onshore substation Sites would be Negligible.</p>
<p>Viewpoint 4 – Footpath (Swardeston FP6) - Site 2 <i>Figure 28.25</i></p>	<p>900m SW</p>	<p>Negligible</p>	<p>Negligible</p>	
<p>Viewpoint 5 - Footpath (Mulbarton FP8) - Site 1 <i>Figure 28.26</i></p>	<p>2.1km SW</p>	<p>Negligible</p>	<p>Negligible</p>	<p>This view looks north-east from a footpath north-east of Mulbarton. The view looks across arable fields bounded by hedgerows and mature trees which limit long-range views. Pylons and overhead cables can be seen in the distance, beyond hedges and trees.</p> <p>Partial visibility to the electrical equipment of either onshore substation site would be possible in between and above the existing vegetation, although it is likely that visibility of these components would be difficult to discern at this distance and be barely perceptible within the context of the wider view. Views to the buildings within either onshore substation Site would be obscured by intervening vegetation and landform. The scale of effect for both onshore substation Sites would be, at most, Negligible.</p>
<p>Viewpoint 5 - Footpath (Mulbarton FP8) - Site 2 <i>Figure 28.27</i></p>	<p>1.6km SW</p>	<p>Negligible</p>	<p>Negligible</p>	

<p>Viewpoint 6 - Norwich Road, Stoke Holy Cross - Site 1 <i>Figure 28.28</i></p>	<p>1.8km SE</p>	<p>Negligible</p>	<p>Negligible</p>	<p>This view is located on Norwich Road in the southern part of Stoke Holy Cross, at one of the few locations within the settlement where there are clear views towards the onshore substation Sites. The view looks north-west across arable and pasture fields that form part of the River Tas valley, bounded by small woodlands, trees and hedgerows which limit long-range views. A row of pylons and cables can be seen beyond a line of trees in the distance.</p>
<p>Viewpoint 6 - Norwich Road, Stoke Holy Cross - Site 2 <i>Figure 28.29</i></p>	<p>2.3km SE</p>	<p>Negligible</p>	<p>Negligible</p>	<p>Partial visibility to the upper parts of the proposed buildings and electrical equipment of both onshore substation Sites would be possible, seen above woodland on the skyline at a location where pylons and overhead cables are currently visible, although the onshore substation Sites may be difficult to discern. The majority of both onshore substation Sites would be screened by intervening vegetation. The existing pylons and overhead cables would be higher on the skyline than substations at Site 1 or 2. The scale of effect for either onshore substation Sites would be, at most, Negligible.</p>
<p>Viewpoint 7 - Venta Icenorum - Site 1 <i>Figure 28.30</i></p>	<p>2km NE</p>	<p>Negligible</p>	<p>Negligible</p>	<p>This view is from an informal path along the top of the eastern embankment at the historic Roman settlement site. The view looks across the River Tas valley, towards elevated land west of the valley, beyond which lies the onshore substation Sites. The valley primarily comprises large fields bounded by hedgerows. On the far side of the valley a railway, running on an embankment, can be seen beneath a row of pylons which span the view. Traffic and street lights on the A140 can be seen running along the elevated ground to the right of view against a back drop of woodland.</p>
<p>Viewpoint 7 - Venta Icenorum - Site 2 <i>Figure 28.31</i></p>	<p>2.1km NE</p>	<p>Negligible</p>	<p>Negligible</p>	<p>Both of the proposed onshore substation Sites would be largely screened by an intervening woodland located on the high ground on the far side of the river valley. Partial visibility to the tops of the electrical equipment of onshore substation Site 2 would be potentially possible above the intervening vegetation, although it is likely that they be difficult to discern at this distance and be barely perceptible within the context of the wider view. Views to the buildings within either onshore substation Site would be completely obscured by intervening vegetation and landform. The scale of effect for either onshore substation Site would be, at most, Negligible.</p>

<p>Viewpoint 8 – Bridleway (Keswick BR3) - Site 1 <i>Figure 28.32</i></p>	<p>3.7km NW</p>	<p>Negligible</p>	<p>Negligible</p>	<p>This view is from a bridleway between Intwood Lane and Cantley Lane. The view looks south-east across a shallow valley, covered by fields bounded by hedgerows and mature trees, with a small number of houses within the valley visible at Lower East Carleton. In the distance a double row of pylons can be seen running across the horizon with two masts at Poringland visible beyond. The layering effect vegetation, combining to give a heavily vegetated appearance to the landscape, is evident from this viewpoint. The proposed onshore substation Site 2 would be largely screened, although views to the tops of the buildings and electrical equipment would be potentially possible above the intervening vegetation seen below the existing power lines. However, it is likely that they would be difficult to discern at this distance and be barely perceptible within the context of the wider views. Views to the lower elements of the onshore substation would be completely obscured by intervening vegetation and landform. Views to onshore substation Site 1 would be screened by the aforementioned vegetation and landform located in the intervening vegetation. The scale of effect for either onshore substation Site would be, at most, Negligible.</p>
<p>Viewpoint 8 – Bridleway (Keswick BR3) - Site 2 <i>Figure 28.33</i></p>	<p>3.1km NW</p>	<p>Negligible</p>	<p>Negligible</p>	
<p>Viewpoint 9 - Marston Marshes - Site 1 <i>Figure 28.34</i></p>	<p>3.6km N</p>	<p>Negligible</p>	<p>Negligible</p>	<p>This view is taken from within Marston Marshes nature reserve on the southern edge of Norwich. It looks out across a flat area of marshland, punctuated with trees. In the middle distance, as the ground starts to rise, the tree cover becomes more extensive and prevents views beyond although some pylons can be seen above trees in the distance. The proposed onshore substation Sites would be screened from view, lying beyond the vegetation and rising landform in the intervening landscape.</p>
<p>Viewpoint 9 - Marston Marshes - Site 2 <i>Figure 28.35</i></p>	<p>3.3km N</p>	<p>Negligible</p>	<p>Negligible</p>	<p>The scale of effect for either onshore substation Site would be, at most, Negligible.</p>

Annex 28.5. Summary of Potential Impacts during the Construction and Decommissioning Phases – Onshore Substation Site Options

Potential impact	Receptor	Sensitivity	Scale of Effect	Extent	Duration	Magnitude	Pre-mitigation impact	Mitigation measures proposed	Residual impact
Construction & Decommissioning									
<i>Onshore Substation Site 1</i>									
Landscape Character	B1. Tas Tributary Farmland <i>Within immediate context of onshore substation Sites</i>	Medium – Low	Large	Limited	Medium – term	Medium	Moderate Adverse	None	Moderate Adverse
Landscape Character	B1. Tas Tributary Farmland <i>Overall</i>	Medium – Low	Negligible	Limited	Medium – term	Negligible	Minimal Neutral	None	Minimal Neutral
Visual amenity	A140 <i>Within immediate context of onshore substation Sites</i>	Low	Large	Limited	Medium – term	Medium	Slight Adverse	None	Slight Adverse
Visual amenity	Norwich-Ipswich Railway Line <i>Within immediate context of onshore substation Sites</i>	Medium	Large	Limited	Medium – term	Medium	Moderate Adverse	None	Moderate Adverse
Visual amenity	PRoWs, permissive bridleway and Gowthorpe Lane within the ZVI <i>Within immediate context</i>	High – Medium	Large	Localised	Medium – term	High	Major Adverse	None	Major Adverse

Potential impact	Receptor	Sensitivity	Scale of Effect	Extent	Duration	Magnitude	Pre-mitigation impact	Mitigation measures proposed	Residual impact
	<i>of onshore substation Sites</i>								
<i>Onshore Substation 2</i>									
Landscape Character	B1. Tas Tributary Farmland <i>Within immediate context of onshore substation Site</i>	Medium – Low	Large	Limited	Medium – term	Medium	Moderate Adverse	None	Moderate Adverse
Landscape Character	B1. Tas Tributary Farmland <i>Overall</i>	Medium – Low	Negligible	Limited	Medium – term	Negligible	Minimal Neutral	None	Minimal Neutral
Visual amenity	A140 <i>Within immediate context of onshore substation Site</i>	Low	Medium - Small	Limited	Medium – term	Low – Negligible	Slight – Minimal Adverse	None	Slight – Minimal Adverse
Visual amenity	Norwich-Ipswich Railway Line <i>Within immediate context of onshore substation Site</i>	Medium	Medium – Small	Limited	Medium – term	Low – Negligible	Slight Adverse	None	Slight Adverse
Visual amenity	PRoWs, permissive bridleway and Gowthorpe Lane within the ZVI <i>Within immediate context of onshore substation Site</i>	High – Medium	Large	Limited	Medium – term	Medium	Major – Moderate Adverse	None	Major – Moderate Adverse

