

Dalton Warner Davis (DWD)

Necton Greener Grid Park **Landscape and Visual** **Appraisal**

Final report
Prepared by LUC
August 2023



Dalton Warner Davis (DWD)

Necton Greener Grid Park
 Landscape and Visual Appraisal

Project Number
 122052

Version	Status	Prepared	Checked	Approved	Date
1.	Planning issue	T Glen, H Simeonov	R Knight	R Knight	11.08.2023
2.					

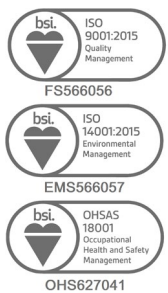
Bristol
 Cardiff
 Edinburgh
 Glasgow
 London
 Manchester

 landuse.co.uk

Land Use Consultants Ltd
 Registered in England
 Registered number 2549296
 Registered office:
 250 Waterloo Road
 London SE1 8RD

 100% recycled paper

Landscape Design
 Strategic Planning & Assessment
 Development Planning
 Urban Design & Masterplanning
 Environmental Impact Assessment
 Landscape Planning & Assessment
 Landscape Management
 Ecology
 Historic Environment
 GIS & Visualisation



Contents

Chapter 1		Chapter 7	
Introduction	2	Summary of Residual Effects	39
Purpose of the Report	2	Summary of Effects	39
Structure of the Report	2		
Chapter 2		Appendix A	
Scope and Methodology	4	LVA Methodology	A-1
Scope of the Assessment	4	Guidance	A-1
Planning Policy	5	Method for Assessing Landscape Effects	A-1
Consultation	6	Method for Assessing Visual Effects	A-5
Assessment Methodology	6		
Assumptions and Limitations	9	Appendix B	
Chapter 3		Methodology for creating Zones of Theoretical Visibility (ZTVs)	B-1
Baseline Conditions	10		
The Site and Study Area	10	Appendix C	
Landscape Character	11	ArcMedia Photography and Visualisation Methodology	C-3
Designated Landscapes	12		
Visual Receptors and views	12		
Cumulative Developments	14		
Chapter 4			
Potential Effects and Mitigation Measures	15		
The Proposed Development	15		
Future Baseline in the Absence of the Proposals	16		
Potential Sources of Effects	16		
Embedded Mitigation/ Enhancement Measures	16		
Chapter 5			
Effects on Landscape Receptors	17		
Effects on the Landscape of the Site	17		
Effects on Landscape Character outside the Site	18		
Chapter 6			
Effects on Visual Receptors	24		

Chapter 1

Introduction

Purpose of the Report

1.1 Statkraft UK Ltd is seeking full planning permission for a proposed Greener Grid Park (GGP) at Necton, in Breckland District. The Proposed Development comprises a series of buildings and structures up to 11.87m high, in a compound with a tree and scrub belt along the southern border. It will tie into an existing access track to the north, but have a dedicated temporary access track to the west during the construction period.

1.2 LUC has been appointed to undertake a landscape and visual appraisal (LVA) of the Proposed Development.

1.3 The LVA examines the effects of the Proposed Development on:

- The landscape as a resource in its own right, caused by changes to its constituent elements, its specific aesthetic or perceptual qualities, and its character; and
- Views and visual amenity as experienced by people, resulting from changes in the appearance of the landscape.

Structure of the Report

1.4 The LVA contains the following sections:

- **Chapter 2** presents the scope and approach to the assessment, policy and guidance, and the methodology, which is detailed in **Appendix A**;
- **Chapter 3** describes the baseline conditions against which the assessment is made, including details of landscape character, designated landscapes, and visual receptors;
- **Chapter 4** sets out the details of the Proposed Development, and the effects that it may have on the baseline environment, as well as proposed mitigation measures;
- **Chapter 5** presents the assessment of effects on landscape character across the study area;
- **Chapter 6** presents the assessment of effects on views as experienced by people across the study area; and
- **Chapter 7** presents a summary of the LVA.

1.5 The LVA is supported by the following appendices:

- **Appendix A** LVA methodology
- **Appendix B** ZTV methodology
- **Appendix C** Visualisation methodology
- **Appendix D** Annotated baseline photography and visualisations from representative viewpoints
- **Appendix E** [Landscape mitigation plan](#)

1.6 The LVA is supported and informed by the following figures ([in Appendix F](#)):

- **Figure 1** – Study area and location plan
- **Figure 2** – Site features
- **Figure 3** – Topography and green infrastructure
- **Figure 4** - Local character areas, with landscape-related designations;
- **Figure 5** – Zone of Theoretical Visibility (ZTV) and Viewpoint Locations; with PRoW
- **Figure 6** – Cumulative Scheme Plan (indicative locations)

Chapter 2

Scope and Methodology

2.1 This chapter sets out the scope of the assessment, key components of planning policy, an overview of the LVA methodology and details of consultation with Breckland Council.

Scope of the Assessment

2.2 Statkraft UK Ltd submitted a request for pre-application advice to Breckland Council, received July 2022. The 9 representative viewpoints, proposed visualisations from viewpoints 2, 3, 6 and 7, and a draft ZTV were provided via email on 13 December 2022. At the time of writing this report, no response to was received, and from professional judgement, the selection of viewpoints and proposed visualisations were considered appropriate for assessment purposes.

Effects Assessed in Full

2.3 This LVA considers the likely landscape and visual effects during construction and operation of the Proposed Development, namely:

- Direct effects on the physical landscape of the site;
- Indirect effects on landscape character and designated landscapes across the study area;
- Effects on visual receptor groups, with reference to representative viewpoints;
- Effects on receptors using roads and recreational routes (sequential effects); and
- Cumulative effects due to interaction between the Proposed Development and other Proposed Developments in the study area (scenario 1 – the Proposed Development plus consented schemes, scenario 2 – the Proposed Development plus consented and proposed¹ schemes).

Effects Scoped Out

2.4 On the basis of the desk based and field survey work undertaken, the professional judgement of the LVA team and experience from other relevant projects, the following effects have been 'scoped out' of detailed assessment:

¹ Proposals for which planning applications have been submitted

- Effects on landscape and visual receptors that are outside the study area, and/or that are outside the ZTV of the Proposed Development, as effects on these receptors will not occur;
- Effects on 'residential visual amenity', as due to the proximity of the Proposed Development to the closest residential receptors, no effects which breach the 'Residential Visual Amenity Threshold' are anticipated²; and
- Effects during decommissioning of the Proposed Development.

Planning Policy

2.5 Local planning policies relevant to landscape and visual matters are briefly reviewed below.

Breckland Local Plan 2019

2.6 The Breckland Local Plan was adopted on 28 November 2019. It is noted that Breckland Council are undertaking a review of the Adopted Local Plan 2019, the Partial Update was submitted for examination in November 2022. The Issues and Options consultation finished on 19 May 2023. The following policies are of relevance:

Policy ENV 01 Green Infrastructure

2.7 The Breckland local plan policy ENV 01 Green Infrastructure states: *"The network of green infrastructure in the district, including water bodies and the strategic green infrastructure corridors shown on the Policies Map, should be safeguarded, retained and, where opportunities arise, enhanced. Enhancement of the green infrastructure network will be sought through the promotion of positive action, and the development management process."*

The policy also states: *"New developments will be expected to exploit opportunities to incorporate green infrastructure and enhance existing connectivity; recognising the intrinsic value of the green infrastructure network and ensuring that the functionality of the network is not undermined as a result of development"*.

2.8 A strategic green infrastructure corridor runs north-south between North Pickenham and Little Dunham (to the west of the site), from where it heads east from Little Dunham along the dismantled railway corridor (see **Figure 3**). The proposed temporary access track will intersect with the strategic green infrastructure corridor just south of The Grove plantation.

Another corridor runs east from North Pickenham towards Shipdham, to the south of the site, and a 'woodland core area' lies to the south and east of the site.

Policy ENV 05 Protection and Enhancement of the Landscape

2.9 Policy ENV 05 states *"the landscape of the district is valued for its benefit to the rural character and in the interests of biodiversity, geodiversity and historic conservation. Development proposals will be expected to contribute to and where possible enhance the local environment by recognising the intrinsic character and beauty of the countryside. Development should have particular regard to maintaining the aesthetic and biodiversity qualities of natural and man-made features within the landscape, including a consideration of individual or groups of natural features such as trees, hedges and woodland or rivers, streams or other topographical features."*

2.10 It continues *"Development proposals will have regard to the findings of the Council's Landscape Character Assessment (LCA) and Settlement Fringe Landscape Assessment. Development should also be designed to be sympathetic to landscape character"*.

2.11 The policy also states that high protection will be given to the Brecks landscape and the river valleys and chalk rivers in Breckland as identified in the Landscape Character Assessment.

2.12 The Brecks landscape and the river valleys and chalk rivers in Breckland are located outside the study area/ ZTV for this appraisal.

Policy ENV 06 Trees, Hedgerows and Development

2.13 Policy ENV 06 Trees, Hedgerows and Development states *"Trees, hedges, and shrub masses should be retained as part of the development design. Unless their long-term survival is compromised by physical condition and/or age, or if there are exceptional benefits if they were to be lost."*

2.14 The next part of the policy *"Development that requires the loss of a protected tree or hedgerow will only be permitted where..."* is not relevant as there are no protected trees (Tree Preservation Orders) or protected hedgerows on site.

2.15 The last part of the policy states: *"Where a Proposed Development retains existing trees and hedgerows on-site or where development occurs within a tree root protection area, provision must be made for their care and protection"*

² Landscape Institute Technical Guidance Note 2/19 Residential Visual Amenity Assessment (RVAA). Although there is no detailed guidance on how to determine the Threshold, planning decisions quoted in the LI TGN 2/19 use terms such as 'overwhelming',

'unavoidable' and 'overbearing'. For properties experiencing a low or low to medium magnitude of change, it is considered that there is no potential for 'living conditions' to be affected.

throughout the duration of the development with mitigation measures being put in place to ensure that development works do not have a harmful impact on existing trees. To ensure that tree cover and habitat is retained, it is important that both the short term and long term impacts that a development may have on trees is evaluated at the earliest opportunity.”

2.16 No development is occurring in the root protection area of any trees.

Policy ENV 10 Renewable Energy Development

2.17 Policy ENV 10 states “Proposals will be considered having regard to the extent to which there are:

3. *adverse impacts on the local landscape, townscape or designated and non-designated heritage assets assessed in line with Policies ENV 05, ENV 07 and ENV 08 in the plan;*

ii. adverse effects on residential amenity by virtue of outlook / overbearing impact, traffic generation, noise, vibration, overshadowing, glare or any other associated detrimental emissions, during construction, operation and decommissioning;

iii. an irreversible loss of the highest quality agricultural land;

iv. cumulative impacts of renewable energy development on an area; and

v. adverse impacts upon designated wildlife sites; nature conservation interests; and biodiversity, assessed in line with Policies ENV 02 and ENV 03 in the plan.”

Consultation

2.18 The scope and approach to undertaking the LVA was informed by the pre-application advice provided in July 2022. Relevant sections are:

“the layout of the site should consider the landscape impacts and the proximity to the nearby residential properties” (a later section of the pre-app advice notes that “the residential dwelling as shown on my mapping system is set some 450 metres (measured from maps and is an approximation) and as such detail will need to be provided to demonstrate that there will be no adverse impact on the residents of this dwelling by way of noise, light and odour”);

“You will need to demonstrate through a landscape visual impact assessment, required owing to the location being set

outside of the allocated site and the anticipated cumulative impact of the development with others, that there will be no detrimental impact on the area through visual impact and/or that this can be mitigated through screening. The cumulative impact will need to be very carefully assessed taking into account the Proposed Development, existing and the character of the area. This is highlighted at policy ENV10”;

“You have provided details which show an expanded red line to allow for trees and/or hedgerows to be planted to assist in mitigating your visual impact which is encouraged”.

2.19 An EIA screening request was submitted to Breckland Council on 11th May 2023. An EIA Screening Opinion received 13 July 2023 confirmed that the proposal does not fall within the scope of the EIA Regulations and an Environmental Statement is not required.

Assessment Methodology

Guidance

2.20 This assessment has been carried out in accordance with the principles contained within the Landscape Institute and the Institute of Environmental Management and Assessment (2013) Guidelines for Landscape and Visual Impact Assessment. 3rd Edition (‘GLVIA3’). However, this is not EIA development and therefore reporting of the significance of effects is not required. This report is an appraisal to assist in the determination of the planning application.

Information Sources

2.21 The following data sources have informed the assessment:

- Natural England’s National Character Area (NCA) Profiles³;
- Breckland District Landscape Character Assessment 2007 (for Breckland District Council by Land Use Consultants)⁴
- Ordnance Survey (OS) Landranger (1:50,000) and Explorer (1:25,000) maps;
- Aerial photography; and
- OS Terrain 5 height data used for the ZTV.

³ <https://www.gov.uk/government/publications/national-character-area-profiles-data-for-local-decision-making/national-character-area-profiles>

⁴ https://www.breckland.gov.uk/media/2069/Landscape-Character-Assessment/pdf/Landscape_Character_Assessment_-_May_2007_Final2.pdf

Field Survey

2.22 Field survey work was carried out in January 2022. The landscape of the study area was visited, including the representative viewpoints. Records were made in the form of field notes at viewpoints, and photos were taken. Additional photographs for the viewpoints 2, 3, 6 and 7 subject to photomontage were taken by MSA in September 2022.

Study Area

2.23 Based on field work and review of the ZTV, the study area for the LVA has been defined as a 4km radius from the Proposed Development (see **Figure 1**). The Proposed Development would not have any impacts on landscape or visual receptors beyond this distance.

Methodological Overview

2.24 The assessment has been carried out in line with GLVIA3 and a detailed methodology is set out in detail in **Appendix A**. The key steps for assessing landscape and visual effects are as follows:

- The landscape of the study area is analysed and landscape receptors identified;
- The area over which the Proposed Development will be theoretically visible is established through creation of a ZTV map;
- The visual baseline is recorded in terms of the different groups of people who may experience views of the development and the nature of their existing views and visual amenity (visual receptors);
- Viewpoints are selected (including representative viewpoints, specific viewpoints and illustrative viewpoints);
- Likely effects on landscape and visual resources are identified; and
- The level of landscape and visual effects are judged with reference to the sensitivity of the resource/receptor (its susceptibility and value) and magnitude of effect (a combination of the scale of effect and duration/reversibility).

Judging the Levels of Effects

2.25 The overall level of effect is determined through a standard method of assessment, considering both sensitivity and magnitude of change using the definitions provided in **Appendix A**.

2.26 The levels of effect used in this LVA are defined in **Table 2.1** for landscape effects and **Table 2.2** for visual effects. The

descriptions are provided as examples, and each effect is judged individually.

Table 2.1: Levels of Landscape Effect

Level	Effect Description
Major	The Proposed Development will result in an obvious change in landscape characteristics and character, such as introduction of overriding new key characteristics, likely affecting a highly-valued landscape with a medium or high susceptibility to that type of change.
Moderate	The Proposed Development will result in a noticeable change in landscape characteristics and character, potentially altering secondary key characteristics, likely affecting a landscape with a medium sensitivity to that type of change. This level of effect may also occur when a smaller scale of change acts on a higher sensitivity landscape or a larger scale of change acts on a lower sensitivity landscape.
Minor	The Proposed Development will result in a small change in landscape characteristics and character, likely affecting a landscape of lower sensitivity. This level of effect may also occur when a larger-scale of change occurs for a temporary period.
Negligible	The Proposed Development will not result in a noticeable change in landscape characteristics or character.

Table 2.2: Levels of Visual Effects

Level	Effect Description
Major	The Proposed Development will result in an obvious change in the visual amenity experienced by the receptor(s), who are likely to have medium or high susceptibility to that type of change or affecting a valued view.
Moderate	The Proposed Development will result in a noticeable change in the visual amenity experienced by the receptor(s), who are likely to be of medium susceptibility to that type of change or affecting a moderately valued view. This level of effect may also occur when a smaller scale of change acts on a higher susceptibility receptor/ high value view or when a larger scale of change acts on a lower susceptibility receptor/ lower value view.
Minor	The Proposed Development will result in a small change in the visual amenity experienced by the receptor(s), who may be of lower susceptibility to that type of change or affecting a view of lower value.
Negligible	The Proposed Development will not result in a noticeable change in the visual amenity experienced by the receptor(s).

Direction of Effects

2.27 The direction of effect (beneficial, adverse or neutral) is determined in relation to the degree to which the proposal fits with landscape character and the contribution to the landscape or visual amenity that the development makes. For the purposes of this assessment, the precautionary principle indicates that the Proposed Development should be considered an adverse change in the context of this rural landscape.

Assumptions and Limitations

2.28 No substantial information gaps have been identified during the preparation of baseline information or undertaking of the LVA, and it is considered that there is sufficient information to enable an informed decision to be taken in relation to the identification and assessment of likely effects on landscape, views and visual amenity.

2.29 The following planting heights have been assumed for the basis of assessing the extent of visual screening, included on [Appendix E Landscape Mitigation Plan](#).

Table 2.3: Planting heights

Tree mix	Latin name	% of planting mix	Tree planting heights (subject to local conditions)		
			Year 1	Year 5	Year 15
Scots pine	Pinus sylvestris	10	2-3m high	4-5m high	9m high with some trees up to 11m high
Penduculate oak	Quercus robur	20			
Field maple	Acer campestre	20			
Black poplar	Populus nigra	10			

Chapter 3

Baseline Conditions

The Site and Study Area

3.1 The site for the Necton Greener Grid is part of an arable field adjacent to the existing Necton substation, located east of the A47 road and north-east of Necton village (see **Figure 1 Study area and location plan**).

3.2 The site is relatively flat, occurring on the same plateau as the Necton substation, at 70m AOD. The land gently slopes to the east to a minor valley west of Necton Wood, before rising back up again. The land also drops south towards the River Wissey before rising back up to Hale Road and beyond (see **Figure 3 Topography and Green Infrastructure**).

3.3 The site lies in an area of non-irrigated arable land in an arable field. There is a species poor hedge (dominated by ash with hawthorn and pedunculate oak) crosses the red line boundary at the entrance of the temporary access track (see **Figure 2 Site features** and the **Extended Habitat Survey Results**). There are existing plantation woodlands to the east and west of the site. In the 4km study area are some deciduous woodland, including small clusters of ancient woodland (priority habitats), see **Figure 3 Topography and Green Infrastructure**. There are also some occurrences of other priority habitats such as lowland dry acid grassland, coastal and floodplain grazing marsh, lowland heathland, traditional orchard, and lowland fens in the wider study area, but none on or immediately surrounding the Site.



Species poor hedge bordering the north of the site and cutting across part of the site (looking west towards 'The Grove' priority habitat woodland off-site).



The flat arable field in which the site lies



Existing shelter belt to the east of the site.

3.4 The site lies within the 'Plateau Farmland' landscape character type, and within the narrow landscape character area E6 North Pickenham Plateau (see **Figure 4 Local character areas**). Other landscape character areas within the study area and ZTV are B5 River Wissey Tributary Farmland to the west, south and east, and E7 Beeston Settled Plateau to the north. More information about landscape character follows in the next section.

3.5 The night sky within the 4km study area is mostly in the 0.25-0.4 (the second darkest category) with some areas of <0.25 (the darkest category of night sky) and localised brighter areas at the villages of Necton and Little Fransham. The site itself is within the 0.25–0.4 category indicating the area has relatively little light pollution.

3.6 There are no public rights of way within or immediately adjacent to the site, and there are relatively few within the 4km study area/ ZTV (see **Figure 5** which shows public rights of way). The nearest is a Byway Open to All Traffic (BOAT) linking Ivy Todd to Lodge Farm to the south of the site.

3.7 The A47 crosses the study area, passing close to the site.

3.8 The nearest settlement to the site is the large village Necton, to the south-west of the site. There are also smaller villages/ hamlets of Holme Hale and Ivy Todd (within the study area and ZTV) and Sporle, Little Dunham and Bradenham (inside the study area but outside the ZTV). These settlements are linked by minor roads. The nearest isolated residential properties are:

- The Grove (on the opposite side of the A47, 65m from the access track);
- Redgates (located 355m from the red line boundary but the other side of the A47 and well enclosed by trees);
- Top Farm (815m from the red line boundary and on elevated land to the north-east, but appears to be nestled in trees);
- Lodge Farm (just over 1km from the red line boundary but the dwelling appears to no longer exist);
- Ivy Todd Farm (jut over 1km from the red line boundary and well enclosed by trees).

Landscape Character

National Character Areas

3.9 The site is situated in the **Mid Norfolk National Character Area (NCA)**. This is a landscape occupying the north of the east Anglian plain. The National Character Area profile quotes the area as “ancient countryside with a long-settled agricultural character, where arable land is enclosed by winding lanes and hedgerows, interspersed with woodland and heath and dissected by lush pastoral river” (page 3 of the profile⁵). The area as a whole is described as tranquil. The character area profile also refers to a dense network of public rights of way including bridleways, although the area in the vicinity of the site does not appear to have a particularly dense network.

Local Character Areas

3.10 Breckland’s Landscape Character Assessment (2007) describes, assesses, and evaluates the character of the landscape within Breckland.

3.11 **Figure 4 Local character areas** shows that the site is located in **E6 North Pickenham Plateau** (a ‘Plateau Farmland landscape type). This is an open arable plateau landscape with some areas of woodland and historic Scots Pine dominated windbreaks providing some localised enclosure. Marl pits are a feature and the landscape is generally strongly rural, although relatively large farm buildings are present (and overhead power lines). The elevated landform means the area forms skylines in views; the edges of the plateau are visually sensitive. Landscape features of value include hedgerows, veteran trees, woodland, Scots pine shelterbelts, heathland and grassland.

3.12 The overall management objective for this landscape character area, which can include useful information to inform mitigation, is “*to conserve the peaceful and rural character of the plateau and to support opportunities to recover semi natural habitats such as heathland. Key features that should be conserved include the veteran trees and the historic scots pine shelterbelts. Enhancement opportunities predominantly relate to succession planting of new hedgerow trees and reinforcement of field boundary hedgerows, which, with appropriate landscape management, would improve the integrity of the landscape and strengthen its character. There are also opportunities to restore elements that have been lost such as areas of heathland.*”

3.13 The site is also in close proximity to the **B5 River Wissey Settled Tributary Farmland** (a ‘Settled Tributary Farmland landscape type) to the east, west and south. This is a gently undulating farmland landscape draining into the River Wissey. It comprises medium to large fields bounded by hedgerows and hedgerow trees of variable condition, and includes small plantation blocks and scattered villages (including Necton and Bradenham). The undulating landscape, woodlands and hedgerows provide some enclosure and restrict views. Landscape features of value include hedgerows, veteran trees, woodland, heathland, wetland and grassland. The church tower at Necton is noted as a distinctive element of views.

3.14 The overall management objective for this landscape character area is “*to enhance the landscape of the minor tributary watercourses that thread through the agricultural land, with the aim being both to conserve the more intimate, small scale wetland character associated with these*

⁵ Natural England (2014) NCA Profile 84 Mid Norfolk Available at: <https://publications.naturalengland.org.uk/publication/4560839075954688?category=587130>

watercourses and to create stronger links with the adjacent river valley landscapes. Opportunities should also be sought to enhance biodiversity value through new native field boundary hedgerow planting and through woodland and grassland creation.”

3.15 The northern half of the study area is covered by **E7 Beeston Settled Plateau** (a 'Plateau Farmland landscape type), 700m north of the site boundary. This is a semi enclosed, gently undulating plateau landscape with medium large scale arable fields and frequent blocks of mature mixed oak and ash dominated woodland that lend a sense of historical integrity to the area. There is a network of small villages centred on crossroads or key road junctions.

3.16 The overall management objective for this landscape character area is *“to conserve and enhance the existing Enclosure field boundary pattern, and area of broadleaf ancient woodland, farm coverts and other over mature tree cover. Consideration should also be given to new native tree planting and woodland creation, in addition to set asides to cereal field margins (a BAP priority habitat). Opportunities should be also explored for the sensitive restoration/after use design of mineral extraction sites.”*

Designated Landscapes

3.17 There are no national landscape designations within the study area or with views of the site.

3.18 At a local authority level, Policy ENV05 of the adopted Local Plan states that high protection will be given to the Brecks Landscape Character Areas, and the undeveloped character of the River Valleys and Chalk Rivers in Breckland; however none of these occur within the study area.

Visual Receptors and views

Analysis of Visibility

3.19 The Zone of Theoretical Visibility (ZTV) in **Figure 5** was generated based on all vertical elements in the Proposed Development, namely the HV yard (11.87m), HISC building (11m), circuit breakers and transformers (10m) and SC building (7m).

3.20 The ZTV is based on Ordnance Survey OS Terrain 5 digital terrain model (DTM) edited to create an indicative Digital Surface Model (DSM) that incorporates existing woodland based on the 'Assumed woodland', 'Broadleaved', 'Conifer', 'Mixed mainly broadleaved' and 'Mixed mainly conifer' categories of the Forestry Commission NFI data set,

with an assumed height of 15m. A height of 5m was assumed for 'young trees/low density' woodland. Hedgerows, hedgerow trees and smaller woodlands are not included in the model, so actual visibility will be less than shown on the map.

Key visual receptors

3.21 Potential visual receptors were identified by overlaying the ZTV onto an OS map and identifying potential receptors. Some ground truthing was also undertaken to examine actual visibility in the field. The following receptors were identified:

- The Grove (single property);
- Properties on the north-east edge of Necton (views from rear of properties on St Andrew's Way – see VP1);
- Properties along St Andrew's Lane near Ivy Todd Road (see VP2);
- People using the Lodge Lane (the track to Lodge Farm, see VP4)
- Travellers along St Andrew's Road on the north-east edge of Necton (see VP1);
- Travellers on the A47(T) where gaps in vegetation allow (see VP6 and VP8);
- Travellers on Ivy Todd Road between Necton and Bradenham (see VP3 and 5);
- Travellers on Hale Road between Bradenham and Holme Hale (relatively distant views, see VP9 and 10).

N.B. There are some glimpsed views of the existing substation infrastructure from the Moor Lane public footpath (to the north-west), at the field gate gap in the hedge, but this is a small gap and any impact arising from a GGP on the site would be minimal. Lodge Farm appears to be no longer present. The residential part of Top Farm appears to be nestled within trees and therefore screened (there is no public access). Views from Ivy Todd Farm and hamlet are screened by outbuildings and vegetation and have therefore been scoped out of the detailed assessment. Views from Dunham Road are also obscured and development on this site is likely to go unnoticed (see VP7 through a gap in the hedge).

Selection of Representative Viewpoints

3.22 Representative viewpoints have been identified to illustrate the change in views which will be experienced by the different receptors across the study area, as described in **Table 3.1** below and shown on **Figure 5**.

Table 3.1: Representative Viewpoints

No.	Name	Eastings	Northings	Distance from site boundary of GGP (not incl BNG area)	Reason for selection
1	St Andrews Lane	587955	310112	560m	Viewpoint selected to represent views experienced by residents on the north edge of Necton and motorists on St Andrews Lane.
2	St Andrews Lane	588606	309689	700m	Viewpoint selected to represent views experienced by residents on the north-east edge of Necton (properties along St Andrew's Lane) and motorists on St Andrews Lane.
3	Ivy Todd Road	589112	309640	613m	Viewpoint selected to represent views experienced by motorists on Ivy Todd Road between Necton and Ivy Todd.
4	Ivy Todd Road	590212	309475	1.4km	Viewpoint selected to represent views experienced by motorists on Ivy Todd Road between Ivy Todd and West End.
5	A47 at end of farm track opposite Spicers Corner	589290	311428	688m	Viewpoint selected to represent views experienced by motorists on the A47. At the track to Top Farm.
6	A47 at entrance to Necton substation	588441	310740	0m	Viewpoint selected to represent views experienced by motorists on the A47, at the entrance to the existing substation.
7	A47 outside Necton at bottom of Dunham Road	587838	310304	480m	Viewpoint selected to represent views experienced by motorists on Dunham Road, close to the northern edge of Necton.
8	Station Road/Hale Road	589024	307078	3.2km	Viewpoint selected to represent longer distance views experienced by motorists on Hale Road, just outside Holme Hale.
9	Hale Road, east of Holme Hall	590929	307998	3km	Viewpoint selected to represent longer distance views experienced by motorists on Hale Road. The point is also representative of the types of view that are likely to be experienced by scattered properties in the area.

Cumulative Developments

3.23 The Proposed Development has the potential to result in cumulative interactions with the developments listed in **Table 3.2** below. These developments are considered in the landscape and visual assessments in Chapters 5 and 6 respectively, as shown indicatively on Figure 6.

Table 3.2: Cumulative developments

No	Name (Planning Application Ref)	Status	Description	Scoped in to cumulative assessment
1.	Norfolk Vanguard Offshore Wind Farm Order 2022, as amended by The Norfolk Vanguard Offshore Wind Farm Order 2022 (Amendment)	Permission	The substation associated with the Norfolk Vanguard Offshore Windfarm, to be located next to the Norfolk Boreas substation (NB this will also require an extension of the west of the existing Necton substation). ⁶	Yes
2.	Norfolk Boreas Offshore Wind Farm Order 2021, as amended by The Norfolk Boreas Offshore Wind Farm (Amendment) Order 2022	Permission	The substation associated with the offshore Norfolk Boreas Offshore Windfarm, to be located just south of Necton Wood (NB this will also require an extension to the east of the existing Necton substation). ⁷	Yes
3.	3PL/2022/1003/F	Undecided	Proposed extension to the eastern end of the existing Necton 400kV substation. Installation of new bus coupler. ⁸	Yes
4	3PL/2019/1183/F	Permission	Erection of 27 dwellings, with associated access, parking and surface water attenuation (land off North Pickenham Road, Necton). ⁹	No. It is located on the other side of Necton settlement and has limited intervisibility with the Proposed Development.
5	3PL/2019/1184/D	Permission	Reserved matters for erection of 46 dwellings, provision of open space and surface water attenuation (at Erne Farm on west side of Necton) ¹⁰	No. It is located on the other side of Necton settlement and has limited intervisibility with the Proposed Development.

⁶ Relevant location plans on sheets 40, 41 and 42 available at: [EN010079-001322-2.02 Onshore Land Plans.pdf \(planninginspectorate.gov.uk\)](#)

⁷ Relevant location plans on sheets 40, 41 and 42 available at: [EN010087-000181-2.2 Land plan \(Part 2 of 2, Onshore\).pdf \(planninginspectorate.gov.uk\)](#)

⁸ Location plan available at: [A1Frame \(breckland.gov.uk\)](#)

⁹ Location plan available at: [Search Planning Applications - Breckland](#)

¹⁰ Location plan available at: [Search Planning Applications - Breckland](#)

Chapter 4

Potential Effects and Mitigation Measures

4.1 This chapter describes the key components of the Proposed Development, the potential sources of effect on landscape and visual receptors during construction and operation, and proposed mitigation measures.

The Proposed Development

4.2 Statkraft drawings 'Site overview' and 'Site layout' provide details of the site layout, and building details. The key components of the Proposed Development are as follows:

- a communications house (7 x 13 x 3.5m tall)
- emergency generator (3.5 x 12.95 x 3.5m tall)
- offices (3.1 x 9.8 x 3.5m tall)
- stores (2.4 x 6.1 x 2.6m tall)
- noise attenuating walls (4m tall)
- coolers 1 (8.2 x 2.8 x 2.5m tall)
- coolers 2 (9.7 x 12.9 x 2.63m tall)
- SC building (15 x 12.5 x 7m tall)
- auxiliary transformer (3 x 2 x 3.6m tall)
- control containers (16 x 21 x 5.2m tall)
- HISC building (18 x 28 x 11m tall)
- HV yard (42.2m x 78.6 x 11.87m tall)
- circuit breaker and auxiliary transformer (18.4 x 12.5 x 10m tall)
- a permanent road along the north side of the hedgerow to the road
- a temporary construction access along the south side of the hedgerow to the road
- access gates and perimeter fence (3.4m high)
- landscape mitigation plating (13-42m deep)
- scrub planting for habitat creation (12,700m²)
- water detention basin to the east of the compound.
- porous stone aggregate between the proposed structures
- CCTV and lighting columns (6m high) adjacent to the GGP perimeter fence and security gates

- drainage pipe running east from the GGP across the adjoining field

Future Baseline in the Absence of the Proposals

4.3 In the absence of the Proposed Development it is likely that the site will remain in agricultural use.

Potential Sources of Effects

4.4 Potential sources of effects have been identified with reference to interactions between the Proposed Development and landscape and visual receptors during the construction and operational phases of the project, as follows.

Sources of Construction Phase Effects

- Transport of materials to the site, movement of construction machinery on site and storage of materials; see **Transport Statement & Construction Traffic Management Plan**
- Removal of 31,200m² arable landcover across the site;
- Removal of 12,700m² arable landcover for proposed scrub habitat
- Construction activity and the presence of partially constructed buildings and infrastructure; and
- Landscape works including planting of trees/ hedgerows and re-seeding.

Sources of Operational Phase Effects

- Presence of proposed access track, lighting columns and proposed infrastructure/ buildings;
- Additional human activity at the site, including occasional vehicles on the access track and occasional people (2 staff per day for maintenance)
- Occasional security lighting if the maintenance team are on site after dark.

Embedded Mitigation/ Enhancement Measures

4.5 Landscape mitigation/ enhancement measures have been embedded into the design process and are considered in the assessment of landscape and visual effects during construction and operation (years 1 and 15). The landscape proposals are shown on the [Appendix E Landscape Mitigation Plan](#).

Construction Phase

- Woodland and trees near the site boundaries will be fenced and protected in accordance with best practice during the construction period.
- Materials and machinery will be stored tidily during the works. Machinery will not be left in place for longer than required for construction purposes, in order to minimise its impact in views.
- Lighting of compounds and works sites will be restricted to agreed working hours and that which is necessary for security.
- On completion of construction, all remaining construction materials and equipment will be removed from the site, and any disturbed areas surrounding the site, including temporary storage areas will be restored.
- On completion of construction, the temporary access track will be removed and reinstated to arable land, and access will be attained by use of the existing substation access track.

Operational Phase

- The energy management buildings will have a pitched roof and will be painted in moss green (or a recessive colour scheme to be agreed with the LPA via condition) so that they have an agricultural appearance.
- Proposed tree and shrub planting (approximately 5,000m²) to the southern site boundary will aid screening of the proposals from Necton (see Appendix E Mitigation Plan)
- Proposed area of scrub for habitat creation. (12,700m²)

Chapter 5

Effects on Landscape Receptors

5.1 This chapter describes the potential effects upon the landscape of the site and landscape character within the study area which will result from the Proposed Development during the construction phase and at years 1 and 15 of operation. Potential cumulative effects are also reported.

Effects on the Landscape of the Site

Sensitivity

5.2 The baseline condition of the site and its constituent landscape elements is described in **Chapter 3**. The site is characterised by a relatively flat arable field, bounded by tall hedgerows and a shelterbelt to the east of the field. The site is adjacent to an existing substation and is relatively large scale due to the large field size. The susceptibility of the site to a development of this type is judged to be medium due to a combination of higher and lower susceptibility indicators (higher susceptibility indicated by elevated location, lower susceptibility indicated by located next to an existing substation and sense of enclosure provided by existing plantations).

5.3 The site is not within a designated landscape and does not provide any recreational value, but is of community value for the role it plays in forming part of the rural landscape of the District.

5.4 Weighing up the judgements regarding susceptibility and value, the sensitivity of the site to development of the nature proposed is judged to be **medium-low**.

Effects during Construction

5.5 During construction, there will be some activity associated with ground clearance to accommodate the Proposed Development. This will involve the removal of approximately 31,200m² of arable land, 25 linear metres of hedgerow (to facilitate the temporary access track).

5.6 Construction of the energy management buildings, infrastructure and access track will result in increased activity at the site, including excavation in the western edge of the compound area, and built-up levels to the eastern edge of the compound to level the site. The scale of change at the site level will be **large** as the construction activity will result in the loss of arable landcover and addition of new elements which will contrast with the rural nature of the site. Effects will be

short-term and **reversible**. This will result in a **medium-high** magnitude of change overall. Given the **medium-low** sensitivity of the site, construction effects are judged to result in a **moderate** effect on the landscape of the site. Effects will be adverse.

Effects at Year 1

5.7 The Proposed Development will sit within the northern part of the site, to help integrate it within its landscape surroundings. The temporary access track will have returned to its previous use as arable land. The energy management buildings will have a pitched roof and will be painted in moss green (or a recessive colour scheme to be agreed with the LPA via condition) so that they have an agricultural appearance and blend in with their surroundings.

5.8 The retention of existing trees and hedgerows on the site boundaries (with the exception of **25 linear m of hedgerow**) will help to preserve the character of the site. Landscape proposals will include approximately 5,000m² of tree and scrub belt to the southern boundary of the compound and a perimeter hedgerow around the Proposed Development (not including along the access track), there will also be a scrub area to the south-east of the main development to a total of 12,300m² for habitat creation purposes.

5.9 In year 1 the scale of change at the site level will remain large. Effects will be long-term. This will result in a **high** magnitude of change overall. The operational effects at year 1 are therefore judged to be **moderate-major**. Effects will be both adverse, relating to the introduction of new buildings and infrastructure, and beneficial, relating to the landscape and ecological enhancements within the site.

Effects at Year 15

5.10 In year 15 new planting will have matured, helping to integrate the Proposed Development with its surroundings and reduce intervisibility with surrounding areas. However, the scale of change at the site level will remain large. Effects will be long-term. This will result in a **high** magnitude of change overall. The operational effects at year 15 are therefore judged to be **moderate-major**. Effects will be a combination of adverse and beneficial as described above.

Effects on Landscape Character outside the Site

5.11 Baseline information for the local landscape character areas is described in **Table 5.1** below, along with an assessment of effects on character during construction and operation years 1 and 15. Cumulative effects on landscape character as a result of the addition of the Proposed

Development to other consented or Proposed Developments are also assessed.

5.12 The Proposed Development, and where relevant any cumulative developments, are described and assessed where they directly affect the landscape within an LCA's boundary. The Proposed Development and any cumulative developments outside of an LCA's boundary are described and assessed where indirect effects to landscape character arise from the intervisibility with an LCA.

5.13 The cumulative developments included in this assessment are as noted in Table 3.2. Scenario 1 consists of the consented schemes 1 and 2. Scenario 2 consists of the consented schemes 1 and 2 and the submitted scheme 3.

Table 5.1: Assessment of Effects on Landscape Character within the Study Area

Name	Key characteristics	Sensitivity (susceptibility and value)	Assessment of effects			
			Construction	Year 1	Year 15	Cumulative
E6 North Pickenham Plateau	<ul style="list-style-type: none"> ■ Open arable elevated plateau landscape ■ Some areas of woodland and historic Scots Pine dominated windbreaks ■ Former marl pits ■ Relatively large farm buildings and overhead power lines ■ Large scale fields ■ Remote, strongly rural character with little movement 	<p>The generally open and elevated nature of the North Pickenham Plateau indicates higher susceptibility. However, the large-scale fields and general lack of landscape features of note indicate lower susceptibility. Overall, the susceptibility to a development of this type is judged to be medium.</p> <p>The LCA is not within a designated landscape. However, it is valued at a community level for the countryside it provides including some recreational interest for the local community.</p> <p>Overall the sensitivity is judged to be medium.</p>	<p>The construction compound and majority of the temporary access track will lie within the E6 North Pickenham Plateau. This will result in loss of some arable land and hedgerow and introduction of construction activity into a relatively localised part of this LCA (affecting a small part of the plateau up to the A47). The effects will be short term and construction activity will be reversible.</p> <p>The overall magnitude of change is judged to be medium.</p> <p>The effect during construction will be moderate and adverse.</p>	<p>At year 1, the areas affected by disturbance during construction will be restored. The temporary access track will be returned to arable use, with a connection to an existing access track in the adjacent field to the north.</p> <p>The greener grid park will occupy a location adjacent to other similar buildings and nested between existing woodlands with newly planted trees to the south. The new development will affect a relatively localised part of this LCA (affecting a small part of the plateau up to the A47).</p> <p>The effect will be long term.</p> <p>The overall magnitude of change is judged to be medium.</p>	<p>At year 15 of operation proposed tree and scrub planting around the site boundaries will have matured, reinforcing the enclosure. This will reduce the scale of change on landscape character to small given the additional screening which will reduce the visual influence of the development on wider character of the plateau.</p> <p>The effect will be long term.</p> <p>The overall magnitude of change is judged to be small by year 15.</p> <p>The effect during year 15 will be minor-moderate and adverse.</p>	<p>Scenario 1: The extension to Necton substation as a result of the Norfolk Vanguard Offshore Wind Farm (scheme 1 in Table 3.2) will be located in E6 North Pickenham Plateau, increasing the size of the existing substation to the west and introducing planting along the existing access track to the Proposed Development. The extension to Necton substation as a result of the Norfolk Boreas Offshore Wind Farm (scheme 2 in Table 3.2) will be located on the eastern boundary of the E6 North Pickenham Plateau (see Figure 6). The introduction of the Proposed Development in this context will extend the influence of energy infrastructure to the eastern edge of the LCA, but the magnitude of change relating to this proposal will be no different from the change already reported in the LVA non-cumulative situation i.e. moderate adverse effect at year 1 and a minor-moderate adverse effect at year 15. The planting associated with the substation extensions (particularly the planting along the existing access road) will also help integrate this development into the landscape. There will be no additional</p>

Name	Key characteristics	Sensitivity (susceptibility and value)	Assessment of effects			
			Construction	Year 1	Year 15	Cumulative
				The effect during year 1 of operation will be moderate and adverse .		cumulative effect over and above that already reported for the Proposed Development. Scenario 2: The submitted proposal to extend the eastern end of the existing Necton substation (scheme 3 in Table 3.2) will slightly increase the footprint of the infrastructure already consented in Scenario 1. This will make negligible difference to the assessment of effect arising from the Necton Greener Grid Park proposal in cumulative Scenario 1 above. There will be no additional cumulative effect over and above that already reported for the Proposed Development.
B5 River Wissey Settled Tributary Farmland	<ul style="list-style-type: none"> ■ Gently undulating farmland landscape draining into the River Wissey ■ Medium to large fields bounded by hedgerows and hedgerow trees of variable condition ■ Small plantation blocks and scattered villages 	The LCA is characterised by medium to large scale arable fields with some smaller scale intact field patterns around villages. The susceptibility of the River Wissey Settled Tributary Farmland to a development of this type is judged to be medium as a result of a combination of higher susceptibility features	Approximately 150m of the temporary access track is proposed in this character area, adjacent to the A47. This will result in the removal of short section of hedgerow to create a temporary access track onto the A47 road, and presence of construction vehicles moving in and out of the site.	At year 1, the areas affected by disturbance during construction will be restored. The temporary access track will be returned to arable use, and the roadside hedgerow and ditch replanted. The greener grid park will be located outside this character area although will be visible from part of it	At year 15 of operation proposed tree and scrub planting around the site boundaries will have matured, reinforcing the enclosure provided by existing woodland and limiting the influence of the development on the character of the wider landscape.	Scenario 1: The approved Norfolk Vanguard onshore project substation (scheme 1 in Table 3.2) and their associated planting will be in this character area where the proposals will introduce electricity grid infrastructure and woodland into the farmland landscape (see Figure 6). The approved Norfolk Boreas onshore project substation (scheme 2 in Table 3.2) crosses the northern boundary of this LCA into E7 Beeston Settled Plateau. The Proposed Development will be in an adjacent

Name	Key characteristics	Sensitivity (susceptibility and value)	Assessment of effects			
			Construction	Year 1	Year 15	Cumulative
	<ul style="list-style-type: none"> Views within and across the character area mostly contained by field boundary hedgerows to medium range contained within the wider valley Scattered small villages 	<p>(presence of water courses, woodlands and hedgerows, open character in some areas) and lower susceptibility features (generally contained nature of views, presence of existing settlement and infrastructure) .</p> <p>The LCA is not within a designated landscape. However, it is valued at a community level for the countryside it provides including some recreational interest for the local community.</p> <p>Overall the sensitivity is judged to be medium.</p> <p>The sensitivity is therefore medium.</p>	<p>Part of the area (north-east of Necton) will also be affected by the presence of construction activity located in the adjacent LCA E6. The construction activity will be visible across a relatively localised area north-east of Necton, north of Ivy Todd Road and south of Top Farm. The effect will be short term and construction activity will be reversible.</p> <p>The overall magnitude of change is judged to be small.</p> <p>The effect during construction will be minor-moderate and adverse.</p>	<p>at year 1, resulting in a small scale of change to character in a localised area north-east of Necton, north of Ivy Todd Road and south of Top Farm. Trees at year 1 will provide some integration of the buildings into the landscape (the woodland mix with include some semi-mature trees of up to 3m tall to provide immediate effect). The effect on character will be long term as this is a permanent development.</p> <p>The overall magnitude of change to character is judged to be small.</p> <p>The effect during year 1 operation will be minor-moderate and adverse</p>	<p>By year 15 the magnitude of change to the character of the River Wissey Settled Tributary Farmland will be small to negligible.</p> <p>The effect is judged to be minor and adverse.</p>	<p>landscape character area and the presence of the Norfolk Vanguard and Norfolk Boreas onshore project substations will not change the effect arising from the Proposed Development on this landscape character area as already reported in the LVA non-cumulative situation i.e. minor-moderate adverse effect at year 1 and a minor adverse effect at year 15.</p> <p>Scenario 2: The submitted proposal to extend the eastern end of the existing Necton substation (scheme 3 in Table 3.2) is in close proximity to this LCA. This will slightly increase the footprint of the infrastructure already consented in Scenario 1, but this will make negligible difference to the assessment of effect arising from the Necton Greener Grid Park proposal in cumulative Scenario 1 above.</p>
E7 Beeston Settled Plateau	<ul style="list-style-type: none"> Semi-enclosed gently undulating plateau Medium-large scale arable fields 	<p>The susceptibility of the River Wissey Settled Tributary Farmland is judged to be medium due to the a mixture of higher</p>	<p>The Proposed Development is located outside this LCA (approximately 700m away at the nearest point which</p>	<p>At year 1, the areas affected by disturbance during construction will be restored. The greener grid park will be located the</p>	<p>At year 15 of operation change to landscape character and key characteristics will remain imperceptible.</p>	<p>Scenario 1: The approved Norfolk Boreas onshore project substation (scheme 2 in Table 3.2) and its associated planting will be mostly in this character area where it will introduce infrastructure into the</p>

Name	Key characteristics	Sensitivity (susceptibility and value)	Assessment of effects			
			Construction	Year 1	Year 15	Cumulative
	<ul style="list-style-type: none"> ■ Frequent blocks of mature mixed oak and ash ■ Network of small villages 	<p>susceptibility indicators (presence of woodlands and hedgerows, open character in some areas) and lower susceptibility indicators (semi-enclosed nature, presence of existing settlement and infrastructure) .</p> <p>The LCA is not within a designated landscape. However, it is valued at a community level for the countryside it provides including some recreational interest for the local community.</p> <p>Overall the sensitivity is judged to be medium.</p>	<p>will host the construction of the underground cable corridor to the point of connection of the substation, and 1.2km from the construction site entrance). Although the ZTV shows some theoretical visibility in this area, in reality the visibility of construction activity is unlikely due to intervening vegetation between the site and this character area, and therefore change to landscape character and key characteristics is predicted to be imperceptible.</p> <p>Negligible.</p>	<p>other side of the existing substation to the character area, therefore change to landscape character and key characteristics is likely to be imperceptible.</p> <p>The level of effect will be negligible.</p>	<p>The effect during year 15 will be negligible.</p>	<p>farmland landscape, it also slightly crosses into the B5 River Wissey Tributary Farmland, where the approved Norfolk Vanguard onshore substation (scheme 1 in Table 3.2) is located (see Figure 6). The Proposed Development will be in an adjacent landscape character area and the presence of the Norfolk Boreas and Norfolk Vanguard onshore substations will not change the effect arising from the Proposed Development on this landscape character area as already reported in the LVA non-cumulative situation i.e. negligible.</p> <p>Scenario 2</p> <p>N/a as there are no submitted cumulative developments within the LCA.</p>

Chapter 5
Effects on Landscape Receptors

Necton Greener Grid Park
July 2023

Chapter 6

Effects on Visual Receptors

6.1 This chapter sets out the assessment of the predicted visual effects that will occur as a result of the Proposed Development. The relevant visual receptors are identified in Chapter 3.

6.2 For each visual receptor, the Proposed Development and where relevant, cumulative developments, are described and assessed to the extent of their visibility within stationary and sequential views, with a worst case taken in winter.

6.3 Judging the level of visual effects requires consideration of the nature of the visual receptors (sensitivity) and the nature of the effect on those receptors (magnitude).

6.4 To help inform the assessment, visualisations have been prepared from four of the nine representative viewpoint locations. A list of proposed LVA viewpoints was sent to Breckland Council on 13 December 2022.

6.5 The cumulative developments included in this assessment are as noted in Table 3.2. Scenario 1 consists of the consented schemes 1 and 2. Scenario 2 consists of the consented schemes 1 and 2 and the submitted scheme 3.

Chapter 6
Effects on Visual Receptors

Necton Greener Grid Park
July 2023

Table 6.1: The Grove (individual property)

The Grove (individual property)			
Representative Viewpoint	VP6	Figure Number	Appendix D Figure D18 VP6 Baseline Figure D19 Photomontage Year 0 Figure D20 Photomontage Year 5 Figure D21 Photomontage Year 15 Figures D22-D24 Wirelines
Landscape Character Area	E6 North Pickenham Plateau	Designated Landscape	None
Direction of View to Proposed Development	South-east	Distance (to site boundary at closest point)	65m
<p>Baseline view and sensitivity of receptors:</p> <p>The local community on the A47 is considered to be of high susceptibility as views contribute to the landscape setting enjoyed by residents. Views are not protected or highlighted as particularly important in any planning documents, nevertheless they are appreciated by the local community. The overall sensitivity of this receptor is judged to be medium-high.</p> <p>From the Grove (individual property), there are enclosed, filtered views through roadside vegetation across the A47 towards the existing Necton substation to the south-west. The location from viewpoint 6 was taken represents a more open view in absence of that roadside vegetation as a worst case. Longer distance views to the south-west comprise large arable fields over flat landform with an overhead line (with clear view of a pylon) on the skyline to the east and north.</p>			
<p>Construction:</p> <p>During construction existing vegetation is likely to heavily filter views of construction activity on the site itself (except perhaps construction of the HISC building, HV yard, circuit breakers and transformers where gaps in vegetation allow), although there are likely to be views of the construction vehicles moving in and out of the site along the temporary access track to the east and south-east. In views south along the A47, there will be 25m of hedgerow cleared for the temporary access track. The construction activity will be visible, partially filtered, to the right of views from the property/ driveway. The construction works will be visible for a duration of 12-18 months.</p> <p>There will be a small change in view for the duration of construction, largely filtered by intervening vegetation. The effect will be short-term and reversible. The overall magnitude of change will be low.</p> <p>The level of effect will be minor-moderate and adverse.</p>			
<p>Operation Year 1:</p> <p>Upon completion, the temporary access track will be restored to arable use. Views of the GGP will be heavily filtered by existing vegetation close to the house and along the A47. It is possible there will be glimpses of the HISC building, HV yard, circuit breakers and transformers above the existing hedgerow where gaps in vegetation near to the house allows views through. The change will be long-term.</p> <p>The overall magnitude of change to views from this residential receptor will be low at the most.</p> <p>The overall level of effect will be minor-moderate and adverse at year 1 of operation.</p>			
<p>Operation Year 15:</p>			

The Grove (individual property)
<p>As the tree belt is located to the south of the Proposed Development, the visual impact at year 15 will be the same as year 1. i.e. low.</p> <p>The level of effect will be minor-moderate and adverse at year 15 of operation.</p>
<p>Cumulative effects:</p> <p><i>Scenario 1</i></p> <p>The consented western extension to the Necton substation as a result of the Norfolk Vanguard Offshore Wind Farm (scheme 1 in Table 3.2) will be located closer to this receptor than the Proposed Development and will be visible where vegetation close to the receptor allows, see Figure 6. The planting associated with the substation extensions (particularly the planting along the existing access road to Necton substation) will provide additional filtering to views from this receptor. The consented eastern extension to the Necton substation as a result of the Norfolk Boreas Offshore Wind Farm (scheme 2 in Table 3.2) will be visible behind the existing Necton substation and partially screened by intervening infrastructure. The addition of the Proposed Development will be to the right of these developments in views, and slightly extend the influence of energy infrastructure in the view. The Proposed Development will be a less noticeable addition in the context of these consented developments, and therefore the magnitude of change relating to the introduction of the Proposed Development will be lower than the change already reported in the LVA non-cumulative situation i.e. minor adverse effect.</p> <p><i>Scenario 2</i></p> <p>The submitted proposal to extend a small section of the eastern end of the existing Necton substation (scheme 3 in Table 3.2) will not be visible from this location due to being screened by the intervening infrastructure within the existing Necton substation. The addition of the Proposed Development will not change the Scenario 1 assessment.</p>

Table 6.2: Effect on Properties on the north edge of Necton

Properties on the north edge of Necton			
Representative Viewpoint	VP1	Figure Number	Appendix D Figure D1 VP1 Baseline
Landscape Character Area	B5 River Wissey Tributary Farmland	Designated Landscape	None
Direction of View to Proposed Development	North-east	Distance (to site boundary at closest point)	573m
<p>Baseline view and sensitivity of receptors:</p> <p>The local community on the north/ north-eastern edge of Necton is considered to be of high susceptibility as views contribute to the landscape setting enjoyed by residents. Views are not protected or highlighted as particularly important in any planning documents, nevertheless they are appreciated by the local community. The overall sensitivity of these receptors is judged to be medium-high.</p> <p>From the northern edge of Necton, there are open views to the north and north-east across large arable fields with Grove Planation and overhead line (with clear view of a pylon) on the skyline.</p>			
<p>Construction:</p> <p>During construction activity on the site will be obscured by topography and a hedgerow on the skyline at ground level (although there may be some glimpses from private upper storey windows). However, there are likely to be views of construction vehicles</p>			

Properties on the north edge of Necton
<p>along the temporary access track to the north and north-east. The construction works will be visible for a duration of 12-18 months.</p> <p>There will be a small change in view for the duration of construction, largely arising from the construction traffic crossing the field on the skyline. The effect will be short-term and reversible. The overall magnitude of change will be low.</p> <p>The level of effect will be minor-moderate and adverse.</p>
<p>Operation Year 1:</p> <p>Upon completion, the temporary access track will be restored to arable use. The very tops of the HISC building, HV yard and circuit breakers and transformers may just be visible, filtered behind trees in winter (particularly from upper storey windows). The rest of the components are likely to be screened by topography and vegetation on the skyline. The change will be long-term.</p> <p>The overall magnitude of change to views from this local community will be low and will affect just a few properties close to VP1.</p> <p>The overall level of effect will be minor-moderate and adverse at year 1 of operation.</p>
<p>Operation Year 15:</p> <p>After 15 years, the mixed tree and scrub belt along the south of the greener grid park will have matured, screening and filtering views of most of the Proposed Development, except for the tallest components (the HV yard and HISC building), the top of which may still just be seen on the skyline in winter. The overall magnitude of change to views from this local community will be low and will affect just a few properties close to VP1.</p> <p>The level of effect will be minor-moderate at year 15 of operation.</p>
<p>Cumulative effects:</p> <p><i>Scenario 1</i></p> <p>The extensions to Necton substation as a result of the Norfolk Vanguard (scheme 1 in Table 3.2) and Boreas (scheme 2 in Table 3.2) Wind Farms will be barely visible behind and above hedgerow to the north-east in views from this community and will not change the effect arising from the introduction of the Proposed Development on this visual receptor as already reported in the LVA non-cumulative situation, i.e. minor-moderate adverse at year 1 and year 15.</p> <p><i>Scenario 2</i></p> <p>No submitted developments are expected to be visible due to screening by intervening landform, therefore no cumulative effects are anticipated under Scenario 2 over and above those anticipated under Scenario 1.</p>

Table 6.3: Effect on Properties on the north-east edge of Necton (properties along St Andrews Lane)

Properties on the north-east edge of Necton (properties along St Andrews Lane)			
Representative Viewpoint	VP2	Figure Number	Appendix D Figure D2 VP2 Baseline Figure D3 Photomontage Year 0 Figure D4 Photomontage Year 5 Figure D5 Photomontage Year 15 Figures D6-D8 Wirelines
Landscape Character Area	B5 River Wissey	Designated Landscape	None

Properties on the north-east edge of Necton (properties along St Andrews Lane)			
	Tributary Farmland		
Direction of View to Proposed Development	North	Intervening Distance (to site boundary at closest point)	739m
<p>Baseline view and sensitivity of receptors:</p> <p>The local community is considered to be of high susceptibility as views contribute to the landscape setting enjoyed by residents. Views are not protected or highlighted as particularly important in any planning documents, nevertheless they are appreciated by the local community. The overall sensitivity of these receptors is judged to be medium-high.</p> <p>From this part of Necton there are open views to the north across large arable fields with an existing plantation woodland and overhead line (with pylons on the skyline).</p>			
<p>Construction:</p> <p>During construction there is likely to be some construction activity visible on the skyline, in front of the existing substation. The construction activity will be visible on the skyline in mid-range view to the north-east. The construction works will be visible for a duration of 12-18 months.</p> <p>There will be a noticeable by small change in view for the duration of construction, largely arising from the construction activity on the skyline. The effect will be short-term and reversible. The overall magnitude of change will be low.</p> <p>The level of effect will be minor-moderate and adverse.</p>			
<p>Operation Year 1:</p> <p>Upon completion, views of the greener grid park will be partially filtered by existing hedgerow vegetation, however it is likely that the larger / taller components such as the SC building, HV yard and HISC building will be visible on the skyline resulting in a noticeable but small change to views.</p> <p>The overall magnitude of change to views from this local community will be low and will affect just a few properties close to VP2.</p> <p>The overall level of effect will be minor-moderate and adverse at year 1 of operation.</p>			
<p>Operation Year 15:</p> <p>After 15 years, the mixed tree and scrub belt along the south of the greener grid park will have matured, screening and filtering views of the majority of the Proposed Development, particularly in summer, and forming a new positive feature on the skyline. There may be some glimpses of top of the tallest building (the HISC) and structure (HV yard), particularly in winter. The new woodland belt will screen the lower parts of the existing pylons which will be beneficial. Overall, these changes will result in a noticeable but small change which is positive in direction as a result of the introduction of the new woodland feature on the skyline.</p> <p>The level of effect will be minor-moderate and beneficial at year 15 of operation.</p>			
<p>Cumulative effects:</p> <p>No cumulative developments are expected to be visible due to screening by intervening landform and vegetation, therefore no cumulative effects are anticipated under Scenario 1 or 2.</p>			

Table 6.4: People using the Lodge Lane byway (the track to Lodge Farm)

People using the Lodge Lane byway (the track to Lodge Farm)			
Representative Viewpoint	VP4	Figure Number	None
Landscape Character Area	B5: River Wissey Tributary Farmland	Designated Landscape	None
Direction of View to Proposed Development	North-west	Intervening Distance (to site boundary at closest point)	990m
<p>Baseline view and sensitivity of receptors:</p> <p>People engaged in outdoor recreation are considered to be of higher susceptibility because their interest is likely to be focussed on the landscape. This is a byway rather than a footpath and does not link up to other footpaths, but may still be accessed for recreational purposes. Views from this byway are not protected or highlighted as particularly important in any planning documents, nevertheless they are likely to be appreciated by the local community. The overall sensitivity of these receptors is judged to be medium.</p> <p>From this byway there are views across the arable landscape punctuated by woodlands. The existing substation and overhead line (with pylons) are visible on the skyline.</p>			
<p>Construction:</p> <p>There are likely to be some views of construction visible to the left of the plantation in front of the existing Necton substation. This will be visible for a duration of approximately 12-18 months.</p> <p>The construction is likely to be clearly perceptible (medium magnitude of change) although short term, resulting in an overall magnitude of change of low-medium.</p> <p>The effect will be minor-moderate and adverse during construction.</p>			
<p>Operation Year 1:</p> <p>Upon completion, there will be views of the taller components of the greener grid park to the left of the existing plantation woodland on the skyline (including the HISC building and HV yard which will be the most prominent elements), especially from the southerly parts of the byway where the existing plantation does not screen the site. This will be seen in the context of the existing Necton substation infrastructure which is also visible although the HISC building and HV yard will be nearer. This will result in a discernible (medium) change in the existing view.</p> <p>The overall magnitude of change will be medium.</p> <p>The level of effect will be moderate and adverse at year 1.</p>			
<p>Operation Year 15:</p> <p>After 15 years, the mixed tree and scrub belt along the south of the greener grid park will have matured, screening and filtering views of the Proposed Development. There may be some filtered views of the HISC building, HV yard, circuit breakers and transformers in winter but views are likely to be fully screened in summer. The planting will form a new woodland block to the left of the existing plantation.</p> <p>The scale of change will be small and comprise both adverse (new infrastructure) and beneficial (woodland) elements. The overall magnitude of change will be low.</p> <p>The level of effect will be minor-moderate and comprise both adverse and beneficial elements.</p>			

People using the Lodge Lane byway (the track to Lodge Farm)
<p>Cumulative effects:</p> <p>Scenario 1</p> <p>The Norfolk Vanguard substation extension (scheme 1 in Table 3.2) infrastructure will be seen behind the existing substation. The Norkolk Boreas substation extension (scheme 2 in Table 3.2) will be seen in front of the existing substation. The new Norfolk Vanguard and Norfolk Boreas infrastructure will be located on the skyline to the right of the existing substation, and nearer to the viewer than the existing substation (as shown in Vattenfall's ES for the Norfolk Vanguard proposal, Viewpoint 2 and 3). The planting from the consented schemes will create a more wooded outlook from this visual receptor. Belts of trees and hedgerow will be introduced to field boundaries to the east of the Proposed Development's location, making the introduction of the Proposed Development into this baseline less noticeable in the view, and therefore the magnitude of change relating to the Proposed Development will be lower than the change already reported in the LVA non-cumulative situation i.e. minor adverse effect.</p> <p>Scenario 2</p> <p>The submitted proposal to extend a small section of the eastern end of the existing Necton substation will be nearer in the view than the existing substation and the Norfolk Vanguard and Norfolk Boreas substation extension. However, the new Norfolk Vanguard and Norfolk Boreas infrastructure and associated planting will have a greater influence on views from this BOAT and the effect will be the same as recorded in Scenario 1.</p>

Table 6.5: Effect on motorists along St Andrews Lane

Motorists along St Andrews Lane			
Representative Viewpoint	VP1, VP2	Figure Number	Appendix D D1 VP1 Baseline Figure D2 VP2 Baseline Figure D3 Photomontage Year 0 Figure D4 Photomontage Year 5 Figure D5 Photomontage Year 15 Figures D6-D8 Wirelines
Landscape Character Area	B5	Designated Landscape	None
Direction of View to Proposed Development	North	Distance (to site boundary at closest point)	644m
<p>Baseline view and sensitivity of receptors:</p> <p>Road users on St Andrews Lane are considered to be of medium susceptibility as they have a passing interest in their surroundings. Views from this road are not protected or highlighted as particularly important in any planning documents, nevertheless they are appreciated by the local community. The overall sensitivity of these receptors is judged to be medium-low.</p> <p>Views from St Andrews Lane tend to be screened by houses and associated garden vegetation and fences, and in other locations by hedgerows with occasional views to large arable fields. Longer distance views through openings in hedgerows and properties comprise arable fields with a pylon overhead line crossing the view on the skyline. The Grove Plantation is visible to the north.</p>			

Motorists along St Andrews Lane
<p>Construction:</p> <p>Views of construction activity will be screened from motorists from the majority of the route due to intervening buildings and vegetation. However, from more open sections of the road there will be some views of construction activity on the skyline. The construction works will be visible for a duration of 12-18 months.</p> <p>The scale of change will be small due to the limited and sequential visibility. Effects will be short term and reversible. The overall magnitude of change will be low.</p> <p>The effect will be minor and adverse during construction.</p>
<p>Operation Year 1:</p> <p>Upon completion, the temporary access track will be restored to arable use. From some open sections of the road there will be views to the taller buildings on the skyline - the comms house, SC building (7m tall), top of the HV yard (11.87m tall) the upper elements of the circuit breaker and auxiliary transformer (10m tall) and the HISC building (11m tall). The change will be long-term.</p> <p>The scale of change will be small due to the limited and sequential visibility i.e., a low magnitude of change.</p> <p>The overall level of effect will be minor and adverse.</p>
<p>Operation Year 15:</p> <p>After 15 years, the mixed tree and scrub belt along the south of the greener grid park will have matured, screening and filtering views of all but the tallest (HISC) building and tallest structure (HV yard) that might just be glimpsed above the treeline in winter. The planting will form a new woodland block to the left of the existing plantation on the skyline where it will be a positive addition to views. The scale of change will be small and comprise both adverse (new infrastructure) and beneficial (woodland) elements. The overall magnitude of change will be low.</p> <p>The level of effect will be minor and comprise both adverse and beneficial elements.</p>
<p>Cumulative effects:</p> <p>No cumulative developments are expected to be visible due to screening by intervening landform and vegetation, therefore no cumulative effects are anticipated under Scenario 1 or 2.</p>

Table 6.6: Effect on motorists on Ivy Todd Road

Motorists on Ivy Todd Road			
Representative Viewpoint	VP3, VP4	Figure Number	Appendix D Figure D9 VP3 Baseline Figure D10 Photomontage Year 0 Figure D11 Photomontage Year 5 Figure D12 Photomontage Year 15 Figures D13-15 Wirelines Appendix D Figure D16 VP4 Baseline
Landscape Character Area	B5	Designated Landscape	None
Direction of View to Proposed Development	North-west	Intervening Distance (to site boundary at closest point)	714m

Motorists on Ivy Todd Road

Baseline view and sensitivity of receptors:

Road users on Ivy Todd Road are considered to be of medium susceptibility as they have a passing interest in their surroundings. Views from this road are not protected or highlighted as particularly important in any planning documents, nevertheless they are appreciated by the local community. The overall sensitivity of these receptors is judged to be **medium-low**.

Views from Ivy Todd Road tend to be open to the south and screened by a hedgerow to the north side, with glimpsed views across arable fields available through gates and at road junctions e.g. at VP3. The overhead line and pylons are visible on the skyline. The energy infrastructure of Necton substation is occasionally visible where the landform in the middle ground dips e.g. at VP3¹¹.

Construction:

Views of construction activity will be screened from motorists from the majority of the route due to intervening buildings and vegetation. Even where there are brief gaps in vegetation any change in views from motorists are likely to be **small**. Construction activity will be visible for a duration of approximately 12-18 months. Effects will be short term. The overall magnitude of change will be small.

The effect will be **minor** and **adverse** during construction.

Operation Year 1:

Upon completion, views of the greener grid park will be partially filtered by existing vegetation, as well as the new planting which includes semi-mature size trees up to 3m tall on planting. Where there are gaps in vegetation and views to the skyline it is likely that the HV yard and HISC building will be visible on the skyline, and the roof of the SC building just visible above the proposed tree planting, resulting in a small change to views. Effects will be long-term and the overall magnitude of change will be **low**.

The level of effect will be **minor** and **adverse**.

Operation Year 15:

After 15 years, the mixed tree and scrub belt along the south of the greener grid park will have matured, screening and filtering views of the Proposed Development. Change to views from the road is unlikely to be noticeable = **imperceptible**.

The level of effect will be **negligible** at year 15 of operation.

Cumulative effects:

Scenario 1

There are only glimpses of the Necton substation in sequential views from Ivy Todd Road. Where there are these glimpses, the Norfolk Boreas substation extension infrastructure (scheme 2 in Table 3.2) will be barely visible and will be seen in front of the existing substation. The new Norfolk Vanguard and Norfolk Boreas infrastructure will be located behind vegetation on the skyline to the right of the existing substation, and nearer to the viewer than the existing substation or the proposed GGP, see Figure 6 (as shown in Vattenfall's ES for the Norfolk Vanguard proposal, Viewpoints 7 and 12). The planting from the consented schemes will also create additional screening for the Proposed Development. The introduction of the Proposed Development into this baseline will be no different to the scale of change recorded in the LVA for motorists on Ivy Todd Road i.e. minor and adverse at Year 1 and negligible at Year 15.

Scenario 2

¹¹ Viewpoint selected to test visibility of the development, none found at this location.

Motorists on Ivy Todd Road

The submitted proposal to extend the eastern end of the existing Necton substation will slightly increase the footprint of the infrastructure already consented in Scenario 1, but this will make negligible difference to the assessment of effect arising from the Necton Greener Grid Park proposal in cumulative Scenario 1 above.

Table 6.7: Effect on motorists on the A47

Motorists on the A47			
Representative Viewpoint	VP5, VP6	Figure Number	Appendix D Figure D17 VP5 Baseline Figure D18 VP6 Baseline Figure D19 Photomontage Year 0 Figure D20 Photomontage Year 5 Figure D21 Photomontage Year 15 Figures D22-D24 Wirelines
Landscape Character Area	Traverses B5 and E6	Designated Landscape	None
Direction of View to Proposed Development	Varies along road (north-east, east, and south)	Distance (to site boundary at closest point)	0-1000m
<p>Baseline view and sensitivity of receptors:</p> <p>Motorists on the A47 are considered to be of low susceptibility to changes in view as they are likely to be focussed on the road, more likely to be travelling at speed than on local roads. Views from this road are not protected or highlighted as particularly important in any planning documents. The overall sensitivity of these receptors is judged to be low.</p> <p>Views from the A47 tend to be screened by tall dense hedgerows, mature hedgerow trees and woodland, with occasional views through gaps in vegetation across large arable fields. There are some views through openings in hedgerows close to the site (e.g. viewpoint 5) including the site entrance (viewpoint 6) where the existing substation infrastructure is visible.</p>			
<p>Construction:</p> <p>Views of construction activity will be screened from motorists from the majority of the route due to intervening hedgerow and trees. However, the temporary access track will result in removal of 25 m of hedgerow so that motorists will see construction traffic accessing the site and on the temporary access track. This will also open up views towards the site compound and construction site. There will also be views along the Necton substation access track towards the site (viewpoint 6). Sequential glimpsed views towards the site will be available at intervals over a distance of approximately 2km along the A47 although partially screened by the existing Necton substation for southbound motorists, and by intervening hedgerows for northbound motorists. Construction activity will be visible for a duration of approximately 12-18 months.</p> <p>The scale of change will be small due to the limited and sequential visibility through gaps in vegetation. Effects will be short term. The overall magnitude of change will be low.</p> <p>The effect will be minor and adverse during construction.</p>			
<p>Operation Year 1:</p> <p>Upon completion, the temporary access track opening will be restored, and the roadside hedgerow and ditch replanted and reseeded. However, there will be views of some of the GGP infrastructure when passing the site entrance (viewpoint 6) and barely visible from further north (viewpoint 5). Sequential glimpsed views towards the GGP will be available at intervals over</p>			

Motorists on the A47
<p>approximately 2km along the A47 although partially screened by the new planting and existing Necton substation for southbound motorists, and by intervening hedgerows for northbound motorists.</p> <p>The scale of change will be small due to the limited and sequential visibility through gaps in vegetation. Effects will be short term. The overall magnitude of change will be low.</p> <p>The effect will be minor and adverse.</p>
<p>Operation Year 15:</p> <p>After 15 years, the mixed tree and scrub belt along the south of the greener grid park will have matured, however there will be views of some of the GGP infrastructure when passing the site entrance (viewpoint 6). Sequential glimpsed views towards the GGP will be available at intervals over approximately 2km along the A47 although partially screened by the new planting and existing Necton substation for southbound motorists, and by intervening hedgerows for northbound motorists.</p> <p>The scale of change will be small due to the limited and sequential visibility through gaps in vegetation. Effects will be short term. The overall magnitude of change will be low.</p> <p>The effect will be minor and adverse.</p>
<p>Cumulative effects:</p> <p><i>Scenario 1</i></p> <p>The extensions to Necton substation as a result of the Norfolk Vanguard (scheme 1 in Table 3.2) and Norfolk Boreas (scheme 2 in Table 3.2) Offshore Wind Farms will be visible intermittently through gaps in hedgerow in views from the A47 in both directions. The infrastructure and proposed planting along the existing access track will introduce additional screening for southbound motorists on the A47. The addition of the Proposed Development will slightly extend the influence of energy infrastructure in the view, however, will be a less noticeable addition in the view than without the cumulative developments in place, and therefore the magnitude of change relating to the Proposed Development will be lower than the change reported in the LVA non-cumulative situation i.e. negligible effect for south bound motorists on the A47. The magnitude of change for north-bound motorists on the A47 will not change from that already reported in the LVA non-cumulative situation i.e. minor adverse effect.</p> <p><i>Scenario 2</i></p> <p>The submitted proposal to extend a small section of the eastern end of the existing Necton substation (scheme 3 in Table 3.2) will not be visible from this location due to being screened by the intervening infrastructure within the existing Necton substation. The addition of the Proposed Development is not expected to result in any cumulative effects in addition to the Scenario 1 assessment.</p>

Table 6.8: Effects on motorists on Hale Road

Motorists on Hale Road			
Representative Viewpoint	VP8, VP9	Figure Number	Appendix D Figure D32 VP8 Baseline Figure D33 VP9 Baseline
Landscape Character Area	B5	Designated Landscape	None
Direction of View to Proposed Development	North-west	Distance (to site boundary at closest point)	3km
Baseline view and sensitivity of receptors:			

Motorists on Hale Road
<p>Road users on Hale Road are considered to be of medium susceptibility as they have a passing interest in their surroundings. Views from this road are not protected or highlighted as particularly important in any planning documents, nevertheless they are appreciated by the local community. The overall sensitivity of these receptors is judged to be medium-low.</p> <p>Views from Hale Road tend to be partially enclosed by low to medium height hedgerow and hedgerow trees, with some open longer distance view where vegetation is absent. Where longer distance views are available, these comprise an agricultural landscape of irregular fields punctuated by woodlands and scattered farms/ properties. The Necton Substation is visible but backclothed against woodland and the overhead line and pylons are prominent on the skyline.</p>
<p>Construction:</p> <p>Where there are open views (through gaps in vegetation) construction will be partially screened by the existing plantation woodland that lies to the east of site and intervening hedgerow field boundaries to the south-east of the site. Views of construction traffic on the temporary access track will be gained crossing the field where the view is not screened by the tree belt, but at this distance will be a small feature in the view. Construction activity will be visible for a duration of approximately 12-18 months.</p> <p>The scale of change will be small due to the limited and sequential visibility from the road. Effects will be short term and reversible. The overall magnitude of change will be low.</p> <p>The effect will be minor and adverse during construction.</p>
<p>Operation Year 1:</p> <p>Upon completion, the temporary access track will be restored to arable use. Views of the greener grid park will be partially filtered by new planting which includes planting of some semi-mature size trees up to 3m tall. Elements most likely to be visible from here are the 7m tall SC building, HV yard (11.87m tall) and HISC building (11m tall). The Proposed Development will be visible across approximately 5-10 degrees of views to the north-west.</p> <p>Passing glimpsed views of the Proposed Development will result in a small change in view. The overall magnitude of change will be low.</p> <p>The level of effect will be minor and adverse.</p>
<p>Operation Year 15:</p> <p>After 15 years, the mixed tree and scrub belt along the south of the greener grid park will have matured, screening and filtering views of the Proposed Development. The planting will form part of the horizon to the north. In winter, there may be glimpses of the Proposed Development through the trees, but this change is likely to be unnoticeable. The scale of change will be barely noticeable, and the overall magnitude of change will be imperceptible.</p> <p>The level of effect will be negligible at year 15 of operation.</p>
<p>Cumulative effects:</p> <p><i>Scenario 1</i></p> <p>When travelling from east to west, several other consented developments will be visible from Hale Road. The Norfolk Vanguard (scheme 1 in Table 3.2) and Norfolk Boreas (scheme 2 in Table 3.2) substation extensions will be next to the Necton substation, backclothed against woodland and will be intermittently visible in sequential views. There will also be views of the Norfolk Vanguard and Norfolk Boreas onshore substations. There will be an increase in woodland cover in the background of views from the introduction of tree screening belts. Given the higher degree of tree cover associated with the consented developments, the addition of the Proposed Development may result in lesser impact than in the non-cumulative scenario, but the magnitude of change will remain low and the effect minor.</p> <p><i>Scenario 2</i></p>

Motorists on Hale Road
The submitted proposal to extend a small section of the eastern end of the existing Necton substation (scheme 3 in Table 3.2) is not likely to be noticeable or affect the result of the Scenario 1 assessment.

Table 6.9: Effects on scattered properties on the rising slopes between Necton and Bradenham (near Hale Road)

Scattered properties on the rising slopes between Necton and Bradenham (near Hale Road)			
Representative Viewpoint	VP9	Figure Number	Appendix D Figure D33 VP9 Baseline
Landscape Character Area	B5	Designated Landscape	None
Direction of View to Proposed Development	North-west	Distance (to site boundary at closest point)	3km
<p>Baseline view and sensitivity of receptors:</p> <p>Residents of scattered properties on the rising slopes between Necton and Bradenham (near Hale Road) are considered to be of high susceptibility as their views contribute to the landscape setting enjoyed by residents. Views are not protected or highlighted as particularly important in any planning documents, nevertheless they are appreciated by the local community. The overall sensitivity of these receptors is judged to be medium-high.</p> <p>Views are typically across an agricultural landscape of fields with woodlands, other scattered properties and a pylon line prominent on the skyline. The Necton Substation is visible but backclothed against woodland.</p>			
<p>Construction:</p> <p>Construction will be partially screened by the existing plantation woodland that lies to the east of site. Views of construction traffic on the temporary access track may be gained crossing the field where the view is not screened by vegetation, but at this distance will be a small feature in the view. Construction activity will be visible for a duration of approximately 12-18 months.</p> <p>The scale of change will be small, effects will be short term and overall magnitude of change will be low.</p> <p>The effect will be minor-moderate and adverse during construction.</p>			
<p>Operation Year 1:</p> <p>Upon completion, the temporary access track will be restored to arable use, and would not be visible at this distance. Views of the greener grid park will be partially filtered by new planting which includes planting of semi-mature size trees up to 3m tall. Elements most likely to be visible from here are the SC building (7m tall) and HISC building (11m tall) and HV yard (11.87m tall). The Proposed Development will be visible across approximately 5-10 degrees of views to the north-west, against a wooded background. The magnitude of change will be low.</p> <p>The overall effect will be minor-moderate and adverse.</p>			
<p>Operation Year 15:</p> <p>After 15 years, the mixed tree and scrub belt along the south of the greener grid park will have matured, screening and filtering views of the Proposed Development. The planting will form part of the horizon to the north. In winter, there may be glimpses of the Proposed Development through the trees, but this change is likely to go unnoticed. The scale of change will be barely noticeable, and the overall magnitude of change will be imperceptible.</p> <p>The level of effect will be negligible at year 15 of operation.</p>			
<p>Cumulative effects:</p> <p><i>Scenario 1</i></p>			

Scattered properties on the rising slopes between Necton and Bradenham (near Hale Road)

The Norfolk Vanguard (scheme 1 in Table 3.2) and Norfolk Boreas (scheme 2 in Table 3.2) substation extensions will be next to the Necton substation, backclothed against woodland and will be intermittently visible in sequential views. There will also be views of the Norfolk Vanguard and Norfolk Boreas onshore substations. There will be an increase in woodland cover in the background of views from the introduction of tree screening belts. Given the higher degree of tree cover associated with the consented developments, the addition of the Proposed Development may result in lesser impact than in the non-cumulative scenario, but the magnitude of change will remain low and the effect minor.

Scenario 2

The submitted proposal to extend a small section of the eastern end of the existing Necton substation (scheme 3 in Table 3.2) is not likely to be noticeable or affect the result of the Scenario 1 assessment.

Chapter 7

Summary of Residual Effects

7.1 The LVA has assessed the potential effects of the Proposed Development on landscape and visual receptors, taking into account embedded mitigation.

Summary of Effects

7.2 Table 7.1 presents a summary of the construction phase, year 1 operational phase and year 15 operational phase landscape and visual effects as presented in this LVA. Cumulative landscape and visual effects are also recorded.

Table 7.1: Summary of landscape and visual effects

Receptor	Sensitivity	Construction Phase Effects	Year 1 Operational Phase Effects	Year 15 Operational Phase Effects	Cumulative Effect arising from the Proposed Development (assuming other cumulative schemes are present)
Effects on the landscape of the site					
Landscape of the Site	Medium	Moderate adverse	Moderate-major adverse	Moderate-major adverse	N/A
Effects on landscape character within the study area					
E6 North Pickenham Plateau	Medium	Moderate adverse	Moderate adverse	Minor-moderate adverse	Same level of effect as for the non-cumulative situation (no additional cumulative effect)
B5 River Wissey Settled Tributary Farmland	Medium	Minor-moderate adverse	Minor-moderate adverse	Minor adverse	Same level of effect as for the non-cumulative situation (no additional cumulative effect)
E7 Beeston Settled Plateau	Medium	Negligible	Negligible	Negligible	Same level of effect as for the non-cumulative situation (no additional cumulative effect)
Effects on visual receptors					

Receptor	Sensitivity	Construction Phase Effects	Year 1 Operational Phase Effects	Year 15 Operational Phase Effects	Cumulative Effect arising from the Proposed Development (assuming other cumulative schemes are present)
The Grove (residential property)	Medium-high	Minor-moderate adverse	Minor-moderate adverse	Minor-moderate adverse	Minor adverse for Scenarios 1 and 23
Properties on north edge of Necton	Medium-high	Minor-moderate adverse	Minor-moderate adverse	Minor-moderate adverse	Same level of effect as for the non-cumulative situation (no additional cumulative effect)
Properties along St Andrews Lane	Medium-high	Minor-moderate adverse	Minor-moderate adverse	Minor-moderate beneficial	Minor-moderate beneficial for Scenarios 1 and 2
Recreational users of Lodge Lane byway	Medium	Minor-moderate adverse	Moderate adverse	Minor-moderate, comprising both adverse and beneficial elements	Minor adverse for Scenarios 1 and 2
Motorists on St Andrews Lane	Medium-low	Minor adverse	Minor adverse	Minor, comprising both adverse and beneficial elements	N/A
Motorists on Ivy Todd Road	Medium-low	Minor adverse	Minor adverse	Negligible	Same level of effect as for the non-cumulative situation (no additional cumulative effect)
Motorists on the A47	Low	Minor adverse	Minor adverse	Minor adverse	Minor adverse for Scenarios 1 and 2
Motorists on Hale Road	Medium-low	Minor adverse	Minor adverse	Negligible	Minor and combination of adverse and beneficial elements for Scenarios 1 and 2
Scattered properties on the rising slopes between Necton and Bradenham	Medium-high	Minor-moderate adverse	Minor-moderate adverse	Negligible	Minor and combination of adverse and beneficial elements for Scenarios 1 and 2