

VikingLink

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UK Onshore Scheme

Environmental Statement

Volume 2 Document ES-2-C.06

Chapter 22

**Landscape & Visual Amenity (Proposed
Converter Station)**

VKL-08-39-G500-009

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Environmental Statement Volume 2			
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- Appendix 22.1 Landscape Character

Glossary & Abbreviations

Glossary of Terms	
Term	Meaning
Baseline	A description of the existing landscape character and visual resource of the study area, against which any future changes can be measured.
Base scheme design	The design of the UK Onshore Scheme for the purposes of the planning application.
Designated Landscape	Areas of landscape identified as being of importance at international, national, or local levels, either defined by statute or identified in development plans or other documents
Direct change	A change that is directly attributable to the proposed development i.e. physical alteration or removal of existing landscape components.
Elements	Individual components present within a landscape e.g. trees, hedges and buildings.
Feature	Particularly prominent or eye-catching elements in the landscape, such as tree clumps, church towers or wooded skylines; or a particular aspect of the project proposal
Indirect change	Change that result indirectly from the proposed project i.e. change to the perceptual qualities or impression of a landscape.
Key characteristics	Individual elements or combinations of elements which have a strong or defining influence on the character of the landscape, contributing to a distinctive sense of place.
Land cover	The surface cover of the land; usually expressed in terms of vegetation cover or lack of it and strongly linked to land use.
Landform	The shape and form of the land surface which has resulted from combinations of geology, geomorphology, slope, elevation and physical processes.
Landscape character	A distinct, recognisable and consistent pattern of natural and/or man-made elements that makes one landscape different from another, contributing to a sense of place.
Visual receptor	Viewer at a particular location or viewpoint who may experience views of the proposed development.

List of Abbreviation	
Abbreviation	Meaning
AGLV	Area of Great Landscape Value
AONB	Area of Outstanding Natural Beauty
BBC	Boston Borough Council
DC	Direct Current
ELDC	East Lindsey District Council

List of Abbreviation	
Abbreviation	Meaning
ELDLCA	East Lindsey District Landscape Character Assessment
ES	Environmental Statement
GLVIA	Guidelines for Landscape and Visual Impact Assessment
km	kilometre
kV	kilovolt
LCA	Landscape Character Area
LCABB	Landscape Character Assessment of Boston Borough
LCT	Landscape Character Type
LPA	Local Planning Authority
LVIA	Landscape and Visual Impact Assessment
LWCS	Lincolnshire Wolds Countryside Service
m	Metre
NCA	National Character Area
NCR	National Cycle Route
NGVL	National Grid Viking Link
NKDC	North Kesteven District Council
NKLCA	North Kesteven Landscape Character Assessment
PRoW	Public Right of Way
RLCT	Regional Landscape Character Type
RPG	Registered Historic Park and Garden
SHDC	South Holland District Council
SLCSSH	Strategy Landscape Capacity Study for South Holland
TCC	Temporary Construction Compound
TWA	Temporary Works Area
Zol	Zone of Influence
ZTV	Zone of Theoretical Visibility



1 Introduction

1.1 Introduction

1.1.1 This chapter has been prepared by AECOM. It reports the results of baseline studies and the assessment of the potential impacts of the proposed converter station (including the proposed Alternating Current (AC) cable route and proposed permanent access road) on landscape character and visual amenity. Table 22.1 below sets out the structure of the Environmental Statement (ES) with respect to Landscape and Visual Amenity. Reference should be made to other documents which form part of the ES as appropriate.

1.1.2 Impacts on landscape and visual amenity are interrelated with impacts on archaeology and cultural heritage and tourism; therefore reference should also be made to ES-2-C.07, Volume 2, Chapter 23: Archaeology and Cultural Heritage and ES-2-C.08, Volume 2, Chapter 24: Socio-economic and Tourism of this ES. In addition, reference should also be made to ES-2-D.01, Volume 2 Chapter 28: Cumulative Effects which considers the intra-project effects of the proposed converter station, permanent access road and proposed AC cable route in relation to the proposed DC cable route.

Table 22.1 Environmental Statement: Landscape & Visual Amenity			
ES Reference	ES Volume	ES Chapter	Content
ES-2-B.07	2	11	Main Report: Proposed Underground DC Cable
ES-2-C.06	2	22	Main Report: Proposed Converter Station
ES-3-B.01	3	11	Figures: Proposed Underground DC Cable
ES-3-C.01	3	22	Figures: Proposed Converter Station
ES-4-B.07	4	11	Technical Appendices: Proposed DC Underground Cable
ES-4-C.06	4	22	Technical Appendices: Proposed Converter Station

1.2 Chapter Structure

1.2.1 The remainder of this chapter is structured as follows:

- Section 2. Approach to Assessment. Sets out the approach and methodology which has been followed in undertaking the assessments of impacts.
- Section 3. Basis of Assessment. Sets out the key assumptions which have been made in undertaking the impact assessment.

- Section 4. Planning Policy and Legislative Considerations. Provides a summary of key planning policy and legislation of relevance to landscape and visual.
- Section 5. Baseline Conditions. Reports the results of desktop and field studies undertaken to establish existing conditions.
- Section 6. Potential Impacts. Identifies the potential impacts on landscape and visual amenity which may occur as result of construction and operation.
- Section 7. Mitigation. Identifies the mitigation which is proposed including measures which are incorporated into the siting, design and construction of the proposed converter station.
- Section 8. Residual Effects. Reports the residual effects which remain taking into account proposed mitigation and identifies whether these are significant or not.
- Section 9. Cumulative Effects. Identifies the inter-project cumulative effects which may occur in combination with other developments.
- Section 10. Summary of Assessment. Provides a summary of the key findings of the impact assessment.

2 Approach to Assessment

2.1 Introduction

2.1.1 This section describes the approach to the identification and assessment of landscape and visual impacts. It provides a summary of consultation, outlines the scope of the assessment, describes the approach to establishing the baseline conditions and details the methodology used in undertaking the assessment.

2.2 Summary of Consultation

Scoping Opinion Review

2.2.1 Table 22.2 summarises the issues raised in the scoping opinion of relevance to the proposed converter station, permanent access road and the AC route, in relation to landscape and visual amenity, and outlines how and where they have been addressed in this chapter of the ES. A copy of the scoping opinion is included in Volume 4, Appendix 4.1 (ES-4-A.04).

Table 22.2 Scoping Opinion (Landscape & Visual)		
Consultee	Summary of Comment	How and where addressed
Boston Borough Council	The scoping opinion requests that the Guidelines for Landscape and Visual Impact Assessment (GLVIA) (Ref:22-1) is referred to in carrying out the assessments.	As detailed in Section 2: Approach to Assessment, the landscape and visual assessments have been undertaken in accordance with the principles set out in GLVIA.
East Lindsey District Council	The scoping opinion requests that GLVIA is referred to in carrying out the assessments.	As detailed in Section 2: Approach to Assessment, the landscape and visual assessments have been undertaken in accordance with the principles set out in GLVIA.
Lincolnshire County Council	No comment relating to landscape and / or visual matters.	Not applicable.
Natural England	The scoping opinion requests that GLVIA is referred to in carrying out the assessments.	As detailed in Section 2: Approach to Assessment, the landscape and visual assessments have been undertaken in accordance with the principles set out in GLVIA.

Table 22.2 Scoping Opinion (Landscape & Visual)		
Consultee	Summary of Comment	How and where addressed
North Kesteven District Council	<p>The scoping opinion recommends consideration of the Zone of Influence (Zol) to include areas within North Kesteven outwith 3 km; however it notes that this is subject to professional judgement.</p> <p>The scoping opinion requests that representative viewpoint locations are agreed in conjunction with relevant local authorities.</p>	<p>The extent of the Zol has been informed by a review of the maximum design parameters of the proposed converter station, permanent access road and AC route (referred to as the base scheme design), initial desk based research, field based appraisal, knowledge of the area and professional judgement. This process is described in detail in Section 2.3.</p> <p>NGVL undertook consultation on the proposed converter station assessment viewpoints with relevant local authorities on 25th November 2016. A summary of comments and how they have been addressed is provided in Table 22.3</p>
South Holland District Council	<p>The scoping opinion requests that GLVIA is referred to in carrying out the assessments.</p>	<p>As detailed in Section 2: Approach to Assessment, the landscape and visual assessments have been undertaken in accordance with the principles set out in GLVIA.</p>

Additional Consultation

- 2.2.2 Table 22.3 summarises additional consultation undertaken with relevant statutory and non-statutory consultees of relevance to landscape character and visual amenity and outlines how and where they have been addressed in this chapter of the ES.

Table 22.3 Additional Consultation (Landscape & Visual)		
Consultee	Nature of additional consultation	How and where addressed
Boston Borough Council	<p>Additional consultation on the detailed scope of the landscape and visual assessments and viewpoint locations for the proposed converter station was undertaken on 25th November 2016. No response was received from Boston Borough Council.</p>	N/A

Table 22.3 Additional Consultation (Landscape & Visual)		
Consultee	Nature of additional consultation	How and where addressed
North Kesteven District Council	<p>Additional consultation on the detailed scope of the landscape and visual assessments and viewpoint locations for the proposed converter station was undertaken on 25th November 2016.</p> <p>Additional viewpoints were requested at Drove Farm (Little Hale Fen), Eau End Farm and Swaton Fen.</p>	<p>An additional viewpoint has been added at Swaton Fen (Viewpoint 10). The other two locations (Drove Farm and Eau End Farm) are at residential properties with no public access and so no additional viewpoints for these have been included. However, viewpoint 8 is located in close proximity to Drove Farm and Viewpoint 7 is in close proximity to Eau End Farm and as such these viewpoints are considered to be representative of views from these properties.</p>
South Holland District Council	<p>Additional consultation on the detailed scope of the landscape and visual assessments and viewpoint locations for the proposed converter station was undertaken on 25th November 2016.</p> <p>One additional viewpoint was requested at Shoff Road.</p>	<p>Viewpoint 9 has been added on Shoff Road and is representative of nearby residential properties.</p>

2.3 Scope of Assessment

Aspects to be assessed

2.3.1 The landscape and visual assessments seek to identify potential effects on the landscape character and visual amenity of the Zol resulting from the proposed converter station, permanent access road and AC route.

Landscape Character

2.3.2 The landscape character assessment considers potential effects on landscape designations and Landscape Character Areas (LCA).

2.3.3 Landscape designations are defined at a national, regional or local level in recognition of their importance, scenic interest or attractiveness, for example Areas of Outstanding Natural Beauty (AONB), Regional Parks and Gardens (RPG), and Areas of Great Landscape Value (AGLV).

2.3.4 LCAs are recognisable distinct areas of countryside based on characteristics such as landform, geology, soils, land use, ecological associations, historical associations and urban and industrial activity. LCAs have a unity of character due to particular combinations of landform, land cover and a consistent and distinct pattern of constituent elements.

- 2.3.5 Effects on landscape character can arise as a result of the removal of existing features or the introduction of new elements that are not in keeping with the existing landscape pattern and features. The scale and form of new development can prove intrusive in the context of existing landform, settlement and planting structure. Introduced elements may also result in the loss or fragmentation of important and distinctive landscape components. In some circumstances the introduction of new elements can reinforce or enhance the existing landscape character, therefore resulting in beneficial effects.
- 2.3.6 Whilst the landscape assessment considers the contribution of historical elements and features to the character of the existing landscape it does not assess potential impacts on the cultural or historical value of these elements. Potential cultural heritage impacts are assessed in ES-2-C.07, Volume 2, Chapter 23: Archaeology and Cultural Heritage.

Visual Amenity

- 2.3.7 Visual amenity relates to the way in which people visually experience the surrounding landscape. Adverse visual effects may occur through the intrusion of new elements into established views, which are out of keeping with the existing structure, scale and composition of the view. Visual effects may also be beneficial, where an attractive focus is created in a previously unremarkable view or the influence of previously detracting features is reduced. The significance of effects will vary, depending on the nature and degree of change experienced and the perceived value and composition of the existing view.
- 2.3.8 The visual assessment is based on a series of representative viewpoints which cover a range of receptor (viewer) types including settlements and residential properties, transport and recreational routes, and other outdoor locations. Representative viewpoints are located within publicly accessible locations and, as set out in Table 22.3, have been selected in consultation with the relevant Local Planning Authorities (LPAs).
- 2.3.9 It should be noted that the visual assessment is limited to evaluating the change to views and does not consider effects on tourism or the historic context of locations. Potential cultural heritage impacts are assessed in ES-2-C.07, Volume 2, Chapter 23: Archaeology and Cultural Heritage and potential tourism impacts are assessed in ES-2-C.08, Volume 2, Chapter 24: Socio-economic and Tourism.

Spatial Scope

- 2.3.10 A Zone of Influence (Zoi) of 3 km from the proposed converter station and 1 km from the proposed AC cable route and permanent access road has been identified for the landscape and visual assessments. The Zoi boundary is shown on Figure 22.1 and has been calculated as an offset from the proposed converter station site boundary, the AC route LoD and the permanent access road.
- 2.3.11 The extent of the Zoi has been informed by a review of the base scheme design, and on initial desk based research, field based appraisal, knowledge of the area and professional judgement.

- 2.3.12 The Zol has been reviewed and confirmed at the detailed assessment stage to ensure a proportionate approach, focused on potentially significant effects. It is acknowledged that some elements of the proposed converter station may be visible (but without being a likely significant effect) from locations beyond 3 km and as such it is important to note that the Zol defines the area within which potential effects could be significant, rather than defining the extent of visibility.

Temporal Scope and Long Term Effects

- 2.3.13 Landscape and visual effects change over time as the existing landscape external to the Scheme evolves and proposed mitigation planting establishes and matures. The assessments therefore report on potential effects during construction, at winter year one and at summer year 15 of operation. The assessments have been carried out, as is best practice, by assuming the worst case scenario, i.e. on a clear bright day, when haze would not interfere with the clarity of the view obtained. The following provides an overview of the type and duration of potential landscape and visual effects.

Temporary impacts

- Temporary physical change resulting from topsoil stripping, vegetation clearance and storage of material, such as along the proposed AC cable working width. These areas would be reinstated following completion of construction;
- Introduction of temporary elements and structures, such as fencing, lighting, site welfare and security facilities, Temporary Construction Compounds (TCCs) and Temporary Works Areas (TWAs). These elements would be removed following completion of construction;
- Potential change to the impression of the landscape character or visual amenity within the wider Zol as a result of visibility of construction activities and movement of machinery and vehicles; and
- Potential change resulting from partially built structures or AC cable installation in various stages of construction; and
- Potential temporary cumulative change resulting from the construction of the Scheme in combination with the construction of other similar nearby developments.

Longer term, operational and permanent impacts

- Physical change resulting from the removal of vegetation and landform re-profiling within the physical footprint of the proposed converter station site and permanent access road;
- Introduction of permanent above ground elements and structures, principally within the proposed converter station site and along the permanent access road;
- Potential change to the impression of the landscape character or visual amenity within the wider Zol as a result of visibility of permanent elements and structures;
- Potential cumulative change resulting from the permanent elements of the Scheme in combination with other similar nearby developments; and

- Anticipated influence of mitigation planting at summer year 15 of operation as an indication of potential longer term change.

2.4 Identification of Baseline Conditions

Desk Studies

- 2.4.1 Desk based research has been undertaken with the aid of various published documents, including landscape character assessments, designation citations, and policy documents, and computer tools/software, including Ordnance Survey maps / digital terrain models (DTM), the Multi-Agency Geographic Information for the Countryside website (Ref:22-2), Google Maps and ArcGIS.
- 2.4.2 In this instance a Zone of Theoretical Visibility (ZTV) diagram has not been generated to establish the theoretical extent of visibility of the proposed converter station. Since the landscape context of the proposed converter station site is relatively level and low-lying, the ZTV would not aid in the identification of receptor locations for the visual assessment.

Field Studies

- 2.4.3 Field survey visits have been undertaken during periods of clear visibility between November 2015 and May 2017. This has allowed the landscape character and visual amenity of the Zol to be experienced in a range of different conditions and takes into account seasonal variation.
- 2.4.4 The landscape of the Zol was surveyed to identify any particular features that contribute to its character or are important to the wider landscape setting.
- 2.4.5 The landscape character of the Zol was reviewed and the key characteristics of each area identified and mapped. Field surveys are an important part in the assessment process in order to verify the findings of the desk studies and identify the existing key perceptual and physical qualities which contribute to the definition of different character units.
- 2.4.6 The visual amenity of the Zol was surveyed to note the general characteristics and nature of existing views. This included identification of a comprehensive range of viewpoints that represent a cross section of locations, views and viewer types likely to experience views of the proposed converter station, permanent access road and/or the AC route. These viewpoints include locations at a variety of distances, aspects, elevations and visual extent and are representative of a range of receptor types, including residential areas and individual properties, principal transport routes, and recreational routes.
- 2.4.7 Field survey is essential to develop an understanding of the key characteristics of the existing landscape or view, in order to establish the baseline against which proposed change can be assessed.
- 2.4.8 A photographic record of the Zol, consisting of 360 degree digital photography from selected viewpoints, was collated as part of the field studies. .

2.5 Approach to Assessment

Assessment Guidance

- 2.5.1 The landscape and visual assessments have been undertaken in accordance with the principles set out in GLVIA (Ref:22-1).
- 2.5.2 The assessments are based on an evaluation of the sensitivity to change and the magnitude of change for each landscape or visual receptor. For clarity and in accordance with best practice, the assessment of potential effects on landscape character and visual amenity, although closely related, are undertaken separately.

Assessment Criteria

- 2.5.3 The following provides details of the process and classification criteria employed in undertaking the landscape and visual assessments. The criteria detailed in Table 22.4 to Table 22.13 are not intended to be prescriptive. Rather these examples are used to illustrate potential combinations of judgements which relate to the scales for value, susceptibility, sensitivity to change, magnitude of change and significance of effect as described subsequently.

Landscape Sensitivity to Change

- 2.5.4 The evaluation of landscape sensitivity to change involves consideration of the nature of the landscape and its ability to accommodate change without compromising its key elements or characteristics. Sensitivity to change has been defined through appraisal of landscape value, undertaken as part of the baseline study, and the susceptibility of the landscape to change.
- 2.5.5 Landscape value is frequently addressed by reference to international, national, regional and local designations, determined by statutory bodies and planning agencies. Absence of such a designation does not necessarily imply a lack of quality or value. Factors such as accessibility and local scarcity can render areas of nationally unremarkable quality, highly valuable as a local resource. The quality and condition has also been considered in the determination of the value of a landscape. The evaluation of landscape value has been undertaken with reference to a three point scale, as outlined in Table 22.4, below.

Table 22.4 Landscape Value	
Value	Classification Criteria
High	Protected by a statutory landscape designation, an iconic landscape contributing strongly to a sense of place, or an unspoilt landscape containing unique or scarce elements/features with few, if any, detracting elements/features.
Medium	Regionally or locally designated landscape or an undesignated landscape with locally important, but more commonplace, features and containing some detracting elements/features.

Table 22.4 Landscape Value	
Value	Classification Criteria
Low	Undesignated landscape with few, if any, notable elements/features, or containing several detracting elements/features.

- 2.5.6 The susceptibility to change is a measure of the ability of a landscape to “accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies” (Ref:22-1 para 5.40, GLVIA).
- 2.5.7 The guidance also refers to the fact that many existing assessments provide a valuation of landscape character areas/types for their ‘intrinsic’ or ‘inherent’ sensitivity, with no reference to specific development types. Paragraph 5.42 of GLVIA (Ref:22-1) states that “these cannot reliably inform assessment of the susceptibility to change since they are carried out without reference to any particular type of development and so do not relate to the specific development proposed”. Furthermore, it goes on to say “since landscape effects in LVIA are particular to both the specific landscape in question and the specific nature of the proposed development, the assessment of susceptibility must be tailored to the project. It must not be recorded as part of the landscape baseline but should be considered as part of the assessment of the effects”.
- 2.5.8 Landscape susceptibility has been appraised through consideration of the baseline characteristics of the landscape, and in particular, the scale or complexity of a given landscape. The evaluation of landscape susceptibility has been undertaken with reference to a three point scale, as outlined in Table 22.5, below.

Table 22.5 Landscape Susceptibility	
Susceptibility	Classification Criteria
High	Attributes that contribute to a landscape which is considered to be intolerant of even minor change without fundamentally altering key characteristics.
Medium	Attributes that contribute to a landscape which offers some opportunities to accommodate change without fundamentally altering the key characteristics.
Low	Attributes that contribute to a landscape which is considered to be tolerant of a large degree of change without fundamentally altering the key characteristics.

- 2.5.9 Landscape sensitivity to change has been determined by employing professional judgement to combine and analyse the identified value and susceptibility and has been defined with reference to the five point scale outlined in Table 22.6, below.

Table 22.6 Landscape Sensitivity to Change	
Sensitivity	Classification Criteria
Very High	Landscape of particularly highly valued character, considered very susceptible to relatively small change without fundamentally altering the key characteristics.
High	Landscape of national or regional value, considered to have a limited ability to absorb change without fundamentally altering the key characteristics.
Medium	Landscape of regional or local value, or rarity, exhibiting some distinct elements/features, considered tolerant of some degree of change without fundamentally altering the key characteristics.
Low	Landscape with few distinctive elements/features or valued characteristics and considered tolerant of a large degree of change without fundamentally altering the key characteristics.
Negligible	Landscape of limited value and considered resistant to change.

Visual Sensitivity to Change

- 2.5.10 Sensitivity to change has been defined through appraisal of the viewing expectation, or value placed on the view as identified in the baseline study, and its susceptibility to change.
- 2.5.11 Value of the view is an appraisal of the value attached to views and is often informed by the appearance on Ordnance Survey or tourist maps and in guidebooks, literature or art. Value can also be indicated by the provision of parking or services and signage and interpretation. The nature and composition of the view is also an indicator. Value of the view has been determined with reference to the three point scale and criteria outlined in Table 22.7, below.

Table 22.7 Value of the View	
Value	Classification Criteria
High	Nationally recognised view, a view with cultural associations (recognised in art, literature, or other medium), or a recognised high quality view of the landscape with very few, if any detracting elements.
Medium	Regionally or locally recognised view, or unrecognised but pleasing and well composed view, with few detracting elements.
Low	Typical or poorly composed view, often with numerous detracting elements.

- 2.5.12 Visual susceptibility relates to the importance of views to receptors at a certain location and is informed by the type of receptor and the activity with which they are engaged. This considers the extent to which receptors’ attention or interest is focused on the view or visual amenity. For example, residents in their home, walkers whose interest may tend to be focused on the landscape or a particular view, or visitors at an attraction where views are an important part of the

experience, may indicate a higher level of susceptibility. Whereas, receptors occupied in outdoor sport where views are not important or at their place of work could be considered less susceptible to change. Visual susceptibility has been determined with reference to the three point scale and criteria outlined in Table 22.8, below.

Table 22.8 Visual Susceptibility	
Susceptibility	Classification Criteria
High	Locations where the view is of primary importance and receptors are likely to notice even minor change.
Medium	Locations where the view is important but not necessarily the primary focus and receptors are tolerant of some change.
Low	Locations where the view is incidental or unimportant to receptors and tolerant of a high degree of change.

2.5.13 Visual sensitivity to change has been determined by employing professional judgement to combine and analyse the identified value and susceptibility and has been defined with reference to the five point scale outlined in Table 22.9, below.

Table 22.9 Visual Sensitivity to Change	
Sensitivity	Classification Criteria
Very High	Locations where receptors experience a highly valued, impressive or well composed view, with very few, if any, detracting features and where even minor change is likely to be noticed.
High	Locations where receptors experience an impressive or well composed view containing few detracting elements, with limited ability to absorb change.
Medium	Locations where receptors experience a valued view which generally represents a pleasing composition but may include some detracting features and is tolerant of a degree of change.
Low	Locations where the view is incidental or not important to the receptors and the nature of the view is of limited value or poorly composed with numerous detracting features and is tolerant of a large degree of change.
Negligible	Locations where the view is unimportant and considered resistant to change.

Landscape Magnitude of Change

2.5.14 Magnitude of landscape change refers to the extent to which the Scheme would alter the existing characteristics of the landscape. Changes to landscape characteristics can be both direct and indirect.

2.5.15 Landscape magnitude of change refers to the extent to which the proposed development would alter the existing characteristics of the landscape. It is an expression of the size or scale of change to the landscape, the geographical extent of the area influenced and its duration and reversibility. The variables involved are described below:

- The extent of existing landscape elements that would be lost, the proportion of the total extent that this represents and the contribution of that element to the character of the landscape;
- The extent to which aesthetic or perceptual aspects of the landscape are altered either by removal of existing components of the landscape or by addition of new ones;
- Whether the change alters the key characteristics of the landscape, which are integral to its distinctive character;
- The geographic area over which the change will be felt (within the application boundary itself, the immediate setting, at the scale of the landscape character area, on a larger scale influencing several landscape character areas); and
- The duration of the change (short term (up to 1 year), medium term (1 to 5 years) or long term (greater than 5 years)) and its reversibility (whether it is permanent, temporary or partially reversible).

2.5.16 Magnitude of landscape change has been evaluated with reference to the four point scale and criteria outlined in Table 22.10, below.

Table 22.10 Landscape Magnitude of Change	
Magnitude	Classification Criteria
High	The Scheme would result in considerable change over an extensive area, altering the key characteristics and the overall experience of the landscape.
Medium	The Scheme would result in noticeable change over a large area, or more intensive change over a limited area, altering some key characteristics and/or the experience of the landscape.
Low	The Scheme would result in a small change over a limited area affecting few characteristics, resulting in little or no change to the overall character.
Negligible	Introduction of development which would result in barely perceptible or not discernible change to the landscape character.

Visual Magnitude of Change

2.5.17 Visual magnitude of change relates to the extent to which the proposed development would alter the existing view and is an expression of the size or scale of change in the view, the geographical extent of the area influenced and its duration and reversibility. The variables involved are described below:

- The scale of the change in the view with respect to the loss or addition of features in the view and changes in its composition, including the proportion of the view occupied by the Scheme;
- The degree of contrast or integration of any new features or changes in the form, scale, composition and focal points of the view;
- The nature of the view of the Scheme in relation to the amount of time over which it will be experienced and whether views will be full, partial or glimpsed;
- The angle of view in relation to the main activity of the receptor, distance of the viewpoint from the Scheme and the extent of the area over which the changes would be visible; and
- The duration of the change (short term (up to 1 year), medium term (1 to 5 years) or long term (greater than 5 years)) and its reversibility (whether it is permanent, temporary or partially reversible).

2.5.18 Magnitude of visual change has been evaluated with reference to the four point scale and criteria outlined in Table 22.11, below.

Table 22.11 Visual Magnitude of Change	
Magnitude	Classification Criteria
High	The Scheme would result in very noticeable change, occupying a wide extent of the view and/or becoming a prominent feature and /or main focus of the view.
Medium	The Scheme would result in noticeable change, occupying a more limited but important parts of the view, distracting from the existing focus.
Low	The Scheme would result in a small change, occupying a limited or unimportant part of the view, unlikely to distract from the existing focus.
Negligible	The Scheme would result in barely perceptible or no discernible change to the view.

Significance of Landscape Effects

2.5.19 Determination of the level and significance of landscape effects has been undertaken by employing professional judgement to combine and analyse the magnitude of change, against the identified sensitivity to change. The assessment takes account of direct and indirect change on existing landscape elements, features and key characteristics and evaluates the extent to which these would be lost or modified, in the context of their importance in determining the existing baseline character.

2.5.20 The levels of landscape effects are described with reference to the four point scale outlined in Table 22.12, below.

2.5.21 For the purposes of this assessment, effects of Moderate or above are considered to be **significant**.

Table 22.12 Significance of Landscape Effects

Significance	Classification Criteria
Major	Considerable change over an extensive area of a more sensitive landscape, fundamentally affecting the key characteristics and the overall impression of its character.
Moderate	Small or noticeable change to a more sensitive landscape or more intensive change to a less sensitive landscape, affecting some key characteristics and the overall impression of its character.
Minor	Small change to a limited area of more sensitive landscape or a more widespread area of a less sensitive landscape, affecting few characteristics and not altering the overall impression of its character.
Negligible	Minimal change to the existing landscape character.

Significance of Visual Effects

- 2.5.22 Determination of the level and significance of visual effects has been undertaken by employing professional judgement to combine and analyse the magnitude of change against the sensitivity to change. The assessment takes into account likely changes to the visual composition, including the extent to which new features would distract or screen existing elements in the view or disrupt the scale, structure or focus of the existing view.
- 2.5.23 The levels of visual effects are described with reference to the four point scale outlined in Table 22.13, below.
- 2.5.24 For the purposes of this assessment, effects of Moderate or above are considered to be **significant**.

Table 22.13 Significance of Visual Effect

Significance	Classification Criteria
Major	The Scheme would become a prominent feature and would result in a very noticeable change to a more sensitive and well composed view.
Moderate	The Scheme would introduce some noticeable features to a more sensitive and well composed view, or would be prominent within a less well composed and less sensitive view, resulting in a noticeable deterioration of the existing view.
Minor	The Scheme would form a perceptible feature within a more sensitive view or would be a more prominent feature within a poorly composed view of lesser sensitivity, resulting in a small deterioration of the existing view.
Negligible	Minimal change to the existing view.

Cumulative

- 2.5.25 In addition to landscape and visual effects, it is also important to consider potential cumulative effects. For the purpose of this assessment two types of potential cumulative effects have been identified; intra-project and inter-project.
- 2.5.26 Significant intra-project cumulative effects may occur where different parts of the Scheme combine to increase the prevalence of development or change within a landscape or view to the extent that they become a defining characteristic. In this case potential intra-project cumulative effects may result from the proposed converter station, permanent access road and AC route in combination with the proposed DC cable route.
- 2.5.27 Significant inter-project cumulative effects may occur where a number of similar developments combine to increase the prevalence of that type of development within a landscape or view to the extent that they become a defining characteristic.
- 2.5.28 The assessment of landscape and visual inter-project cumulative effects follows a similar process to that for the non-cumulative assessments, as detailed previously. The key difference is that the inter-project cumulative assessment evaluates the additional change resulting from the Scheme in relation to a theoretical baseline scenario. For the purposes of the assessment of cumulative effects during construction, the cumulative baseline scenario assumes that all identified cumulative developments would also be under construction. The cumulative baseline scenario for the assessment of operational cumulative effects assumes that all other identified developments have been constructed.
- 2.5.29 The cumulative assessments consider the potential for combined effects from static locations which may be either simultaneous (where different developments would be visible at the same time) or successive (where an observer would be required to turn to experience multiple developments).
- 2.5.30 Volume 2 Chapter 28: Cumulative Effects (ES-2-D.01) provides details of the approach to the assessment of potential cumulative effects resulting from different environmental aspects on a common receptor, such as visual and noise impacts on a residential property.

Assessment Techniques

Photomontages

- 2.5.31 A series of photomontages of the proposed converter station have been produced to support the landscape and visual assessment and give an indication of how the proposed converter station would fit into the landscape and views. The following provides an overview of the methodology used to produce the photomontages.
- 2.5.32 Photographs were taken using a Canon EOS 5D Mk II with a 50 mm lens in accordance with the Landscape Institute Advice Note 01/11 (Ref:22-3) and current best practice guidance from Scottish Natural Heritage (SNH) (Ref:22-4). Each view has been produced using single photo

- view images which were prepared and then 'stitched' together using Photoshop Creative Cloud to create a single seamless panoramic image.
- 2.5.33 A three dimensional computer model of the proposed converter station has been produced, based upon two dimensional CAD drawing files of the proposed converter station and permanent access road.
- 2.5.34 Photomontage images were prepared in 3D Studio Max, replicating the focal length of the original image and setting the camera and target height to the correct level to correspond with the data recorded by the photographer. The image dimensions were used to ensure that the elements of the proposed converter station and permanent access road were represented at the correct size for the existing image and lighting settings adjusted to reflect the original conditions.
- 2.5.35 Further to the above, the elements of the proposed converter station and permanent access road were aligned in each image so that existing features from the master map (e.g. field boundaries, pylons, wind turbines etc.) were matched. A digital terrain model was also created using OS Terrain5. This enabled the creation of the elements of the proposed converter station and permanent access road to the correct ground level in the views.
- 2.5.36 Once the model was aligned and verified, each view was rendered and the images input into Adobe Photoshop to superimpose the proposed converter station and permanent access road onto the digital images of the site. The foreground details such as trees, buildings or signage were then overlaid as masks; ensuring the depth of the various items was represented correctly. If required, the rendered image was then further edited to accurately match the colour, saturation and environmental conditions shown in the photograph. This is a qualitative or subjective process, but effort is made to ensure it provides objectively accurate views of the proposed.
- 2.5.37 It is important to note that a photomontage or visualisation can never show exactly what a development will look like in reality due to factors such as: different lighting, weather and season conditions which vary through time, and the resolution of the image. Photomontages are intended to be a tool to aid the assessment and should be viewed in the field at the viewpoint location to form the best impression of the potential effects.
- 2.5.38 Two sets of photomontages have been produced, the first show the maximum parameters of the base scheme design, and the second show a more detailed impression of how the proposed converter station may look. The base scheme design photomontages are intended to demonstrate the potential worst case scenario and have been used to aid in the assessment process. The more detailed photomontages have been produced from a selection of four viewpoints and are intended to give a more detailed indication of how the converter station may appear in the landscape and views, based on an indicative layout and information relating to appearance as set out in the design code.

3 Basis of Assessment

3.1 Overview

- 3.1.1 As outlined in the approach to assessment, above, the assessment reports on potential effects during construction, at winter year one and summer year 15 of operation. This allows the identification of those effects which are temporary, longer term and permanent and also demonstrates how proposed mitigation planting is anticipated to help reduce effects over time.
- 3.1.2 The prominence of the proposed converter station site, permanent access road and the AC route in the landscape or view will vary according to the location of the viewpoint and prevailing weather conditions. The assessments have been carried out, as is best practice, by assuming the 'worst case' scenario, i.e. on a clear, bright day, when haze would not interfere with the clarity of the view obtained.
- 3.1.3 A full description of the construction and operation of the proposed converter station, permanent access road and the AC route is provided in ES-2-C.01, Volume 2, Chapter 17 of this ES. The following sections set out the key assumptions that have been made in undertaking the landscape and visual assessments.

3.2 The Converter Station

- 3.2.1 For the purposes of the application for planning permission NGVL has developed a 'Rochdale Envelope'. This establishes the base scheme design of the proposed converter station with which the Contractor's detailed design will comply. The base scheme design establishes parameters including details of the maximum size, layout and appearance of the proposed converter station. This approach strikes a balance, ensuring sufficient information to inform the EIA based on a realistic worst case whilst also providing some flexibility to the Contractor in finalising the detailed design of the proposed converter station.
- 3.2.2 This assumes that the structures within the building and outdoor electrical equipment zone would be up to the maximum heights of 24 m and 16 m above ground level respectively. The land in this zone would be reprofiled to an assumed finished ground level of 2.9 m AOD. Where specific elements could either be designed as an enclosed building or as outdoor equipment, the assessments assume that they would be in enclosed buildings. This is considered to be the worst case as enclosed buildings would appear of greater mass than outdoor equipment which would allow some visibility through elements. With regards to the permanent access road, the assessments assume that a small number of trees would be removed along the west side of the A52 to facilitate the construction of the widened carriageway at the junction.

3.3 Permanent Access Road

3.3.1 For the purposes of the landscape and visual assessments the worst case scenario of total vegetation clearance across the full width of the construction zone of the permanent access road during construction is assumed. Landform reprofiling would be undertaken along the permanent access road to allow a consistent assumed finish level of 2.7 m AOD, with the exception of the bridge over Hammond Beck. The bridge is assumed to be a low level structure, with a deck height less than 2 m above existing ground level and open type N2 parapets. Post and wire fencing would be installed along the length of the permanent access road, with field gates at a number of locations to landowner access. Secured field gates would also be installed immediately off the A52 and at North Ing Drove in order to prevent unauthorised access.

3.4 The AC Cable Route

3.4.1 For the purposes of the landscape and visual assessments the worst case scenario of total vegetation clearance within the proposed AC cable working width (50 m) during construction is assumed, although this would be reduced locally down to 25 m to minimise the extent of hedgerow removal. The assessments also assume the worst case alignment of the proposed AC cable working width within the Limits of Deviation (LoD), which would involve the maximum impact on existing hedgerows and trees. In reality it is likely that micro-siting within the LoD will help to minimise vegetation clearance as far as practical. Where removal of vegetation is unavoidable reinstatement planting, including hedgerows, will be undertaken except where prevented by operational requirements. The northern end of the AC route would connect to the existing Bicker Fen 400 kV Substation. Connection works would include installation of additional outdoor electrical equipment similar to the existing structures and within the existing footprint of the substation.

3.5 Design Mitigation

3.5.1 Landscape character and visual amenity were key considerations in identifying potential options and selecting the preferred location for the proposed converter station. The desire to reduce potential landscape and visual effects had a strong influence on the selection of the preferred converter station site, locating it away from settlements and within a locally less sensitive landscape. An overview of the site selection process is provided in ES-2-A.02, Volume 2, Chapter 2 and a detailed description of the proposed converter station is provided in ES-2-C.01, Volume 2, Chapter 17. In addition, a Design and Access Statement (Ref:22-5) and a Design Code (Ref:22-6) has also been prepared to provide further details on the design and appearance of the proposed converter station structures. The Design Code outlines the design requirements relating to a number of aspects, including the architectural form, orientation, façade design, materials and colours, and seeks to help minimise potential landscape and visual impacts.

3.5.2 The base scheme design incorporates measures to help reduce the potential for significant adverse effects on the landscape and visual resource. Landscape and visual design mitigation measures are outlined below:

- During construction, the outline Construction Environment Management Plan (CEMP) will identify a number of measures and restrictions on the working areas in order to avoid, reduce or offset environmental effects of the construction works, including those related to the landscape and visual resource;
- The enclosed buildings will have simple monolithic forms, avoiding unnecessary complexity, in order to ensure a clean and unbroken silhouette (see design code principles F1.1 to F1.3);
- The enclosed buildings will be clad in appropriate material and colours designed to respond to those found in the surrounding context to help integrate the buildings into the landscape and views (see design code elements F5 to F7);
- The location and orientation of the proposed converter station zone has been designed to respond to the existing geometric landscape pattern of drains and roads (see design code principles F2.1 and F4.2);
- Lighting will be direction controlled and designed to minimise light spillage and/or glare (see design code principle F10.1);
- Woodland and woodland edge planting around the perimeter of the proposed converter station site. This landscape zone will have a nominal depth of 20 to 40 m and will help to soften the appearance of the proposed converter station and reduce its prominence within the landscape and views. The planting will consist of a mix of predominantly native species, increasing the habitat potential and local biodiversity. Details of the proposed planting is provided on Figure 22.2;
- Landform embankments will be incorporated into the landscape zone to further enhance the screening effect of proposed planting;
- Proposed planting will be undertaken in advance of the operation of the proposed converter station, where possible, to help ensure mitigation measures begin to take effect as early as possible during the operation of the Scheme; and
- Vegetation along the AC route and in other areas temporarily disturbed by construction would be reinstated, where possible. Most of these areas are expected to be returned to arable farming during the next available planting season following completion of construction. In addition, hedgerows temporarily removed along the AC route will be reinstated and road verges and other areas temporarily affected, seeded with a wildflower or grass seed mix.

3.6 Any other assumptions

3.6.1 The proposed landscape mitigation planting includes a range of plant and seed mixes, with woodland proposed to provide screening and wildflower grass mixes to provide additional biodiversity and habitat enhancement. As outlined within Section 2, the assessment of landscape and visual effects is undertaken at three stages; construction, year 1 of operation and year 15 of operation. This helps to demonstrate how the magnitude of change and levels of effect change over time, and give an indication of how the proposed mitigation is anticipated to influence the perception of change. The year 15 assessment makes assumptions as to the height of the

mitigation planting, based on informed assumptions as to likely growth rate of the selected species. For the purpose of this assessment we have assumed an average height of 8m at year 15.

4 Planning Policy and Legislative Considerations

4.1 National Planning Policy Considerations

National Planning Policy Framework

- 4.1.1 The National Planning Policy Framework (NPPF) (Ref:22-7) was published in March 2012 and sets out national planning policies that reflect priorities of the Government for operation of the planning system and the economic, social and environmental aspects of the development and use of land. The NPPF has a strong emphasis on sustainable development, with a presumption in favour of such development.
- 4.1.2 The NPPF outlines 12 core planning principles, one of which is to contribute to conserving and enhancing the natural environment. This is of relevance to landscape and visual considerations as it sets out the requirement to protect and enhance valued landscapes.

4.2 Local Planning Policy Considerations

South Holland District

- 4.2.1 The adopted development plan within South Holland District is the South Holland Local Plan (SHLP) (2006) (Ref:22-8). Following a Direction by the Secretary of State in July 2009, a number of policies contained within the 2006 Local Plan were deleted. The remaining Local Plan policies have been saved and comprise the current development plan for the area.
- 4.2.2 The plan contains a number of general policies which are relevant to landscape and/or visual matters within the Zol, as follows:
- SG1: General Sustainable Development; specifically, this broad policy aims to conserve natural resources and South Holland's essential character and main environmental assets;
 - SG4: Development in the Countryside; this general policy seeks a landscape character approach in the consideration of applications for planning permission;
 - SG14: Design and Layout of New Development: this broad policy seeks to ensure that the design of new development makes a positive contribution to the visual quality of its surroundings and will avoid an adverse effects on the character and appearance of the locality;
 - SG17: Protection of Residential Amenity; this general policy considers a number of criteria which will be taken into account to protect the amenity of existing residents, including potential overbearing or overshadowing effects; and
 - SG18: Landscaping of New Development: This general policy seeks to protect existing trees, hedgerows and other attractive landscape features, while ensuring that landscape proposals improve the setting of development within the wider landscape and also consider habitat value.

Boston Borough Council

- 4.2.3 The statutory development plan for Boston Borough Council currently comprises the 'saved' parts of the Boston Borough Local Plan (BBLP) (Ref:22-9) and the Boston Borough Interim Plan (Non-Statutory Development Control Policy) 2006 (Ref:22-10). The BBLP was originally adopted in 1999; the policies were then reviewed in 2007 and either 'saved' where relevant or deleted where not.
- 4.2.4 The following policies are of most relevance to the Scheme and landscape and visual considerations:
- Policy G1 Amenity: This policy sets out protection against development that would substantially harm the amenity of other nearby land users or residents, or the broader character of an area as a result of its nature, scale, density, layout or appearance;
 - Policy G2 Wildlife and Landscape Resources. This policy provides further protection against development which would have a significant adverse impact upon existing landscape, wildlife and vegetation resources.

Emerging South East Lincolnshire Local Plan

- 4.2.5 The South East Lincolnshire Joint Strategic Planning Committee is a partnership of South Holland District Council (SHDC), Boston Borough Council (BBC) and Lincolnshire County Council (LCC). The planning committee is in the process of jointly preparing the South East Lincolnshire Local Plan 2011-36 (SELLP) (Ref:22-11), which will guide growth and development across South East Lincolnshire up to 2036. The SELLP is currently at publication (pre-submission) consultation stage and once adopted will progressively replace the saved policies of the SHLP and BBLP.
- 4.2.6 The draft SELLP contains a suite of overarching policies that set out the approach to delivering sustainable development. Those relevant to landscape and/or visual matters include:
- Policy 3 (Development Management): This policy considers, *inter alia*, the size, scale, layout, density and impact on the amenity, trees, character and appearance of the area and the relationship to existing development and land uses; quality of design and orientation; impact upon neighbouring land uses by reason of, *inter alia*, visual intrusion; and impact or enhancement of areas for natural habitats; and
 - Policy 4 (Design of New Development): this policy seeks a landscape character approach in the consideration of applications for planning permission; creating sense of place through complementing and enhancing, *inter alia*, scale, landmarks, views, and massing of neighbouring buildings and the surrounding area.
- 4.2.7 The Pre-Submission draft includes policies that cover the natural environment. The general aim of these policies is to protect and enhance important natural features, and the relationship of development sites to other natural and built environmental sites. Few of these policies relate directly to the present landscape and/or visual amenity of the Scheme. However, both Policy 24 (The Natural Environment) and Policy 25 (The Historic Environment) are closely related.

5 Baseline Conditions

5.1 Zone of Influence

- 5.1.1 As outlined in section 2, above, a Zol of 3 km from the proposed converter station and 1 km from the AC route and permanent access road has been identified for the landscape and visual assessments. The Zol boundary is shown on Figure 22.1 and has been calculated as an offset from the proposed converter station site boundary, the AC route LoD and the permanent access road.
- 5.1.2 The Zol covers an area of flat agricultural fenland, from Little Hale Fen and Bicker Fen in the north, Donington Shoff in the south, Donington and Bicker in the east, and Helpringham Fen in the west. The South Forty Foot Drain cuts north-south across the western half of the Zol and is a strong linear feature in the landscape. The majority of settlement within the Zol is located along the eastern edge, although smaller settlements and scattered farms are present throughout. There is also a prevalence of electrical infrastructure within the Zol, including the existing Bicker Fen Wind Farm, 400 kV and 132 kV overhead lines and Bicker Fen 400 kV Substation.

5.2 Site Location and Context

- 5.2.1 The proposed converter station site is located c.680 m to the east of South Forty Foot Drain, approximately 1.7 km west of the closest notable settlement at Northorpe, and approximately 200 m north west of the closest individual property, although the built structures would be more distant at approximately 600 m. The proposed converter station site occupies part of a single large arable field; field boundaries have been removed and the fields amalgamated as a result of intensive agricultural practices.
- 5.2.2 The topography of the site has been shaped by historic land reclamation and drainage practices, and by contemporary intensive agriculture. As a result of these factors the landform of the site is level and low lying, and reflective of the wider landscape context.
- 5.2.3 The proposed converter station site boundary adjoins open arable land to the east. Mill Drain forms the northern boundary and includes a low embankment, slightly raised above the surrounding landscape. North Ing Drove forms the southern boundary to the site, at grade with the surrounding landscape and is bound by drainage ditches on both sides. The western boundary is formed by a drainage ditch, but is otherwise open.
- 5.2.4 The proposed converter station site's visual character is open and exposed, containing few features which restrict or filter distant views to the surrounding fenland and huge skies, other than subtle undulations, low embankments and limited vegetation cover.
- 5.2.5 The proposed permanent access road extends westwards from the A52 to the west of Donington. The route generally follows field boundaries as it crosses the landscape towards the southern

boundary of the proposed converter station site. As with the wider fenland context, the field boundaries tend to be open or weakly defined by fragments of extant hedgerow or occasional trees.

- 5.2.6 The AC route would pass through a small number of large scale fields used for intensive arable agriculture. In contrast to the majority of the fenland context of this part of the Zol, these field parcels are often bounded by hedgerows. The AC route would enter into the eastern side of the existing Bicker Fen 400 kV Substation through semi-mature woodland planting.
- 5.2.7 Overall, the physical landscape within the footprint of the proposed converter station site, permanent access road, and the AC route is relatively homogenous, comprised of large scale fields subject to intensive agricultural practices.
- 5.2.8 On this basis the value of the physical landscape character of the proposed converter station site, AC route and proposed permanent access road is considered to be **Low**.

5.3 Landscape Character

Landscape Designations

- 5.3.1 Landscapes can be given international, national, regional or local designations in recognition of their importance, outstanding scenic interest or attractiveness. There are no designated landscapes within the Zol of the proposed converter station, permanent access road and AC cable route.
- 5.3.2 The closest designated landscapes to the proposed converter station site are the Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB) and locally designated Area of Great Landscape Value (AGLV) situated approximately 35 km and 26 km to the north east respectively.
- 5.3.3 The locations of designated landscapes in relation to the Zol are shown on Figure 22.3.

Landscape Character Areas

- 5.3.4 Landscape character is a composite of physical and cultural elements. Landform, hydrology, vegetation, land cover, land use pattern, cultural and historic features and associations combine to create a common 'sense of place' and identity which can be used to categorise the landscape into definable units. The level of detail and size of unit can be varied to reflect the scale of definition required. It can be applied at a national, regional and local level.
- 5.3.5 A series of studies have been undertaken by Natural England and Planning Authorities which identify the following national, regional and local landscape character units within the Zol:
- National Character Areas (NCA):
 - NCA 46: The Fens (Ref:22-12);
 - Regional Landscape Character Types (RLCT) (Ref:22-13):
 - RLCT 2A: Settled Fens and Marshes;
 - RLCT 2B: Planned and Drained Fens and Carrlands;

- South Holland Landscape Character Types (LCT) (Ref:22-14):
 - Peaty Fens LCT;
 - Settled Fens LCT;
- Boston Borough Landscape Character Areas (LCA) (Ref:22-15):
 - LCA A1: Holland Reclaimed Fen;
 - LCA B1: Bicker to Wyberton Settled Fen;
- North Kesteven Landscape Character Sub Area (LCSA) (Ref:22-16);
 - Fenland LCSA;
- South Kesteven LCA (Ref:22-17).
 - The Fens LCA.

5.3.6 A detailed baseline description of these character units is provided in ES-4-C.06, Volume 4, Appendix 22.1 and the location of national and local character units shown on Figures 22.4 and 22.5.

5.3.7 The fact that such a large number of landscape character studies are available for the Zol is a result of it being located within a number of local authority boundaries. While each of the published assessments describes individual ‘Key Characteristics’ of each landscape character unit, the boundaries of these units are not necessarily so distinct in practice and the landscape of the Zol in fact shares a number of common characteristic elements/features.

5.3.8 In broad terms, the majority of land within the Zol is low-lying and level fenland, which in general is more open to the west of the Zol, while exhibiting a wider range of settlement and enclosure to the east. Therefore for the purposes of this assessment the identified local landscape character units, referred to hereafter as Landscape Character Areas (LCA), have been consolidated into two groups. The first of which comprises the following: Peaty Fens LCA; Holland Reclaimed Fen LCA; Fenland LCA; and The Fens LCA, and the second comprises the following: Settled Fens LCA; and Bicker to Wyberton Settled Fen LCA.

5.3.9 The extent and location of these LCAs are shown on Figure 22.5 and the key characteristics described below.

Peaty Fens LCA, Holland Reclaimed Fen LCA, Fenland LCA, and The Fens LCA

5.3.10 Collectively, these character areas cover the central and western portion of the Zol. Generally they share a combination of the following key characteristics:

- Man-made largely low-lying landform interrupted only by raised embankments along main drains;
- Open and large-scale landscape with wide horizons, extensive views and huge skies;
- Rigid and planned geometric/linear pattern of fields, roads, main drains and drainage ditches;
- Field boundaries are generally open, and tend to be defined by ditches and occasional fragments of extant hedgerow or planting on embankments;

- Very sparsely populated with scattered farmsteads and occasional small clusters of housing along roads. Occasional derelict farm buildings;
- Intensive arable agricultural land use across extensive swathes of fenland. This is clearly a man-made working landscape;
- Wind turbines, (100 m to blade tip) and associated sub-station, wood pole mounted overhead lines and 400 kV and 132 kV overhead lines on towers are prominent features of these LCA; and
- Local sense of isolation and remoteness.

5.3.11 None of these LCAs are designated for their landscape value. Taking into account the strong human influence that has shaped the landscape character, prevailing intensive arable agricultural land use and prominent presence of a number of large scale infrastructure features the value of these LCAs is considered to be **Low**.

Settled Fens LCA, and Bicker to Wyberton Settled Fen

5.3.12 These character units broadly cover the eastern extent of the Zol. Together they exhibit the following key characteristics:

- Man-made low lying and level landform;
- Rigid and planned geometric/linear pattern of fields, roads, drainage ditches, with more organic patterns within/surrounding settlements;
- Medium scale field pattern immediately surrounding settlement, with large scale fields in more open areas of fenland;
- Nucleated and small linear settlements;
- Mature vegetation around larger settlements, shelterbelt planting and linear planting occasionally found along linear features such as ditches and roads;
- Church spires act as landmarks;
- Large scale agricultural building, and light industrial buildings on settlement margins and road junctions are conspicuous elements in the landscape;
- Major 'A' roads and traffic bisect these character units;
- Variable scale, complexity and pattern of the landscape;
- Locally strong influence of built development in adjacent character units to the west;
- Extensive views shortened or interrupted by vegetation, creating varied skylines; and
- Less remote than character units within the centre and western portions of the Zol.

5.3.13 None of these LCAs are designated for their landscape value. Taking into account the strong human influence that has shaped the landscape character, and presence of a number of modern man-made elements and features the value of these LCAs is considered to be **Low**.

5.4 Visual Amenity

5.4.1 Visual amenity is defined by GLVIA (Ref:22-1) as the overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the

enjoyment of activities of the people living, working, recreating, visiting or travelling through an area.

- 5.4.2 The character of the Zol has been described in detail in the previous sections. As noted above, this is a relatively sparsely settled area, largely dedicated to intensive agricultural activity. Nevertheless, the Zol supports a network of roads, railways, footpaths and systems of waterways/watercourses.
- 5.4.3 The Zol is characterised by low lying and level topography, within a large scale open landscape. Long distance, low level, open views are available from parts of the Zol, with local containment provided by the raised embankment of the South Forty Foot Drain, some limited woodland cover and extant hedgerows, particularly in the west.

Representative Viewpoints

- 5.4.4 A series of 10 representative viewpoint locations have been selected to form the basis of the visual assessment. These have been identified to provide a representative cross section of visual receptors within the Zol and have been selected in consultation with relevant local authorities. The locations of the viewpoints are provided on Figure 22.6 and details of each, including a description of the baseline view and its value are provided in Table 22.14 to Table 22.23. Figures 22.7 to 22.16 provide panoramic photography of the baseline view from each of the viewpoint location.

Table 22.14 Viewpoint 1: Baseline Description				
Reference	Description	Easting	Northing	Reason for Selection
VP01	Bicker Gauntlet	521142	339344	Residential receptors in Bicker Gauntlet
Baseline Description				Value
Views from this location and adjacent residential properties tend to be orientated to the south and are partially restricted by roadside planting to the east, and linear shelterbelts to the south west. The foreground is characterised by small enclosed parcels of pastoral land along the settlement edge. In the middle ground the woodland enclosing Bicker Fen 400 kV Substation breaks up the open vista to produce a varied skyline punctuated by occasional tree and hedgerow planting. Large-scale built elements, including Bicker Fen Wind Farm and 400 kV and 132 kV overhead lines introduce a series of prominent detracting elements.				Low

Table 22.15 Viewpoint 2: Baseline Description				
Reference	Description	Easting	Northing	Reason for Selection
VP02	Bicker – Bishop Way	522052	337973	Residential receptors on western edge of Bicker
Baseline Description				Value
Views from the settlement of Bicker are variable, with a relatively small number of properties gaining open views west, as represented by this viewpoint. The foreground of the view is characterised by open fenland, comprising large geometric arable fields. In the middle ground the woodland enclosing Bicker Fen 400 kV Substation breaks up the open vista to produce an articulated skyline of occasional tree and hedgerow planting. Large-scale built elements, including Bicker Fen Wind Farm and a series of high and lower voltage overhead lines introduce a series of relatively prominent detracting elements.				Low

Table 22.16 Viewpoint 3: Baseline Description				
Reference	Description	Easting	Northing	Reason for Selection
VP03	North Ing Drove	519571	336779	Users of the public right of way (PRoW) (along Hammond Beck) and nearby residential receptors
Baseline Description				Value
Views from this location are open and expansive, across the flat farmland of the fens. Views from nearby residential properties tend to be more restricted and enclosed. The man-made character of the fenland is perceptible in the engineered South Forty Foot Drain which spans the view to the west, providing the only notable change in the level landform. The Bicker Fen Wind Farm and 400 kV and 132 kV overhead lines are prominent large-scale vertical elements that create a varied skyline punctuated by built elements which act as a focus to the view.				Low

Table 22.17 Viewpoint 4: Baseline Description				
Reference	Description	Easting	Northing	Reason for Selection
VP04	Northorpe - Day's Lane	520807	336794	Residential receptors in Northorpe
Baseline Description				Value
Views from residential properties along Day's Lane tend to be orientated towards the north west or north, and are typically open and expansive. The flat, open fenland is punctuated by sporadic tree and hedge planting typical of the settled fen landscape. The complex arrangement of 400 kV and 132 kV overhead lines and Bicker Fen Wind Farm punctuate the skyline and balance the horizontal emphasis of the wider view, forming a distant focus beneath the huge skies.				Low

Table 22.18 Viewpoint 5: Baseline Description				
Reference	Description	Easting	Northing	Reason for Selection
VP05	A52 Donington	520342	335846	Users of A52 and PRoW, and residential receptors in Donington
Baseline Description				Value
<p>Views west from this location tend to be relatively open and expansive, with views east more restricted and enclosed. Views from the settlement of Donington tend to be largely enclosed and restricted by mature trees between the settlement edge and the A52. Within the views west, distant shelterbelts and woodland around settlement and isolated properties interrupt the broadly level horizon. The horizontal emphasis of the view is interrupted by the Bicker Fen Wind Farm, and to a lesser extent, the 400 kV and 132 kV overhead lines. The cluster of large-scale vertical elements forms a focus in the otherwise open and uniform view.</p>				Low

Table 22.19 Viewpoint 6: Baseline Description				
Reference	Description	Easting	Northing	Reason for Selection
VP06	Westdale Drove	518005	335701	Residential receptors and users of local roads
Baseline Description				Value
<p>Views from this location are generally open and expansive, although views south are partially restricted by trees and buildings. Views from adjacent residential properties tend to be variable and partially restricted by trees and other vegetation, or outbuildings. The openness of the level fenland in the view north is broken by scattered trees, and occasional extant hedgerows. Large-scale built elements, including Bicker Fen Wind Farm and 400 kV and 132 kV overhead lines introduce a series of noticeable detracting elements, which provide a focus to the view.</p>				Low

Table 22.20 Viewpoint 7: Baseline Description				
Reference	Description	Easting	Northing	Reason for Selection
VP07	South Forty Foot Drain near Bank End Farm	517813	337536	Residential receptors and users of the South Forty Foot PRoW
Baseline Description				Value
<p>Views from this location on the eastern embankment of the South Forty Foot Drain are slightly elevated and expansive, looking across the flat fenland to the east. Views west are partially restricted by trees and vegetation on the western bank of the South Forty Foot Drain. Views from adjacent residential properties are varied, with those to the west of the drain being more restricted and enclosed by topography and vegetation. Views from Bank End Farm are less elevated, but relatively open and orientated to the north and east. The openness of the fenland across much of the fore and middle ground is punctuated by a combination of wood pole mounted overhead lines, 400 kV and 132 kV overhead lines, and the Bicker Fen Wind Farm. The woodland and settlement (Bicker and Donington) in the background preclude more distant views and, together with other man-made structures within the view, produce a varied skyline. The church spire of St. Mary and the Holy Rood at Donington is a conspicuous element on the skyline. The cluster of large-scale vertical elements around Bicker Fen Wind Farm forms a focus in an otherwise open view.</p>				Low

Table 22.21 Viewpoint 8: Baseline Description				
Reference	Description	Easting	Northing	Reason for Selection
VP08	Little Hale Drove	518154	339994	Residential receptors to the north west and west of the South Forty Foot Drain
Baseline Description				Value
<p>There are 360°, low level, open and expansive views from this location. The man-made character of the fenland landscape is emphasised by the engineered embankments of the South Forty Foot Drain which forms the near horizon of views east. The Bicker Fen Wind Farm and 400 kV and 132 kV overhead lines are prominent large-scale vertical elements in views north and east, creating a varied skyline punctuated by built elements. Views from the residential property of Drove Farm, for which the viewpoint is representative, are more restricted by mature vegetation, although with some open views across the fenland landscape to the north. This view is heavily influenced by existing large scale electrical infrastructure.</p>				Low

Table 22.22 Viewpoint 9: Baseline Description				
Reference	Description	Easting	Northing	Reason for Selection
VP09	Shoff Road, off Ing Drove	519746	334100	Residential receptors and local road users to the south east of the Zol
Baseline Description				Value
Views from this location are low level, open and expansive. Views from nearby residential properties are partially restricted and enclosed. The view across the open fenland is interrupted by planting along the line of the A52 in northward views. Bicker Fen Wind Farm is a notable feature beyond the intervening tree line, and provides a focus to the view, while the settlement edge of Donington is visible beyond the middle-ground to the north east, providing further enclosure to the landscape.				Low

Table 22.23 Viewpoint 10: Baseline Description				
Reference	Description	Easting	Northing	Reason for Selection
VP10	Swaton Fen	516483	336781	Residential receptors and local road users at Swaton Fen, to the west of the South Forty Foot Drain.
Baseline Description				Value
Views from this location and nearby residential properties tend to be variable, with open expansive views in some directions and more restricted views in others. The openness of the fenland is compartmented by several extant hedgerows, in addition to linear vegetation along the railway to the north and the South Forty Foot Drain to the east. These elements help to emphasise the geometric man-made pattern of the fenland landscape. The Bicker Fen Wind Farm is a notable vertical built feature along the skyline, and acts as a focus to the view.				Low

6 Potential Impacts

6.1 Overview

- 6.1.1 The following section provides an assessment of how the proposed converter station site, permanent access road and the AC route could potentially influence the landscape character and visual amenity of the Zol during the construction phase, operation and in the longer term.
- 6.1.2 Interactions between the Scheme and landscape receptors would potentially occur in two ways:
- through direct loss of landscape elements which alter the landscape character; and
 - through additions which change the perceptual qualities of landscape character.
- 6.1.3 In relation to visual amenity the Scheme has the potential to change people's visual experience and views. The extent of potential change is influenced by a number of factors, including the existing context, the scale, form, colour and texture of the proposals, the nature of activity associated with the development, and the distance, nature and angle of the available view.

6.2 Temporary Construction Impacts

- 6.2.1 The potential for temporary impacts on the landscape and visual resource of the Zol may arise from:
- Topsoil stripping and vegetation clearance;
 - Stockpiling of materials;
 - Security fencing (e.g. Heras or similar) to secure the construction site;
 - Temporary lighting;
 - Site welfare and security facilities;
 - Introduction of TCCs and TWAs; and
 - The storage and use of machinery to facilitate the construction of the permanent access road, proposed converter station site and the AC route.
- 6.2.2 Construction of the permanent access road would be undertaken first, followed by construction of the proposed converter station and the AC route. No overlap is anticipated with the construction of the permanent access road and the other elements. Further details of the construction programme and phasing for the proposed converter station, permanent access road and the AC route are provided within Volume 2, Chapter 17 (ES-2-C.01).

Landscape Character

- 6.2.3 This section contains the assessment of potential temporary impacts on landscape character associated with construction of the proposed converter station, permanent access road and the

AC route. The information presented here should be read in conjunction with ES-3-C.01, Volume 3, Chapter 22 Figures.

Table 22.24 Temporary Impacts: Physical Site Landscape		
Receptor		
Physical site landscape		
Value	Susceptibility to Change	Sensitivity
Low	<p>The landscape of the proposed converter station site, permanent access road and the AC route largely comprises land used for intensive, large scale arable agriculture. The topography is characterised by low-lying reclaimed fenland with very flat relief. The boundaries of these areas are generally defined by a network of drains, ditches and roads, and occasional hedgerows laid out in a strong geometric pattern.</p> <p>Taking the existing land use, lack of valued landscape features and influence of human intervention into account, the site is considered tolerant of change, indicating an overall Low susceptibility to change.</p>	Low
Magnitude of Change		
<p>Temporary change would arise from the removal of vegetation, topsoil stripping and land reprofiling within the proposed converter station site, along the permanent access road, at TCCs and TWAs, and along the working width of the AC route. This would result in a change in land use and land cover and therefore landscape character and also introduce construction activity and temporary structures. Areas temporarily affected and not required during operation would be reinstated at the conclusion of the construction phase.</p> <p>Although temporary in nature, direct change would be intensive within the physical site areas and therefore the magnitude of change to the physical landscape is anticipated to be High.</p>		
Level of Effect		
Moderate adverse (Significant)		

Table 22.25 Temporary Impacts: Peaty Fens LCA, Holland Reclaimed Fen LCA, Fenland LCA, and The Fens LCA		
Receptor		
Peaty Fens LCA, Holland Reclaimed Fen LCA, Fenland LCA, and The Fens LCA		
Value	Susceptibility to Change	Sensitivity
Low	<p>Together, these character units comprise a large scale, open landscape with a low-lying level topography, strong geometric pattern of roads, ditches and tracks, and an intensive agricultural land use. A number of prominent built features are also present which have a strong influence on the impression of the character of the landscape. These include: Bicker Fen Wind Farm, 400 kV and 132 kV overhead lines, Bicker Fen 400 kV Substation and large-scale agricultural buildings.</p> <p>Overall, the attributes of this LCA are considered to be tolerant of a large degree of change with a Low susceptibility to the type of development proposed.</p>	Low
Magnitude of Change		
<p>Within these landscape units temporary movement of large-scale agricultural machinery is commonplace throughout the year. Construction of the proposed converter station, permanent access road and the AC route would result in an intensification of this activity, influencing the local sense of remoteness experienced in parts of this landscape. The introduction of temporary structures and activity associated with the construction of permanent elements would add to the impression of change.</p> <p>Potential change would vary throughout the LCA as a result of the screening effect of occasional vegetation and/or man-made embankments, with those areas to the west of South Forty Foot Drain (Fenland LCA and Fens LCA) experiencing a reduced sense of change. The existing intensive agricultural land use, together with the presence of existing large scale electrical infrastructure, including Bicker Fen Wind Farm, 400 kV and 132 kV overhead lines, and Bicker Fen 400 kV Substation, provide a context to the potential change.</p> <p>Taking these factors into account, the magnitude of change on the landscape character is assessed as Medium, reflecting the relatively limited geographical extent of the change across these character units, the temporary nature of construction activity and its short to medium duration.</p>		
Level of Effect		
Minor adverse (Not significant)		

Table 22.26 Temporary Impacts: Settled Fens LCA, and Bicker to Wyberton Settled Fen		
Receptor		
Settled Fens LCA, and Bicker to Wyberton Settled Fen		
Value	Susceptibility to Change	Sensitivity
Low	<p>These character units share the characteristics of a man-made low-lying reclaimed fenland with very flat relief as identified with the adjacent LCAs to the west. However, there is a greater concentration of settlement and associated built features within these character units, resulting in a more variable pattern, scale and complexity. Elements such as the 400 kV and 132 kV overhead lines, light industrial development and traffic on the A52 have a strong local influence on this landscape. Although located outwith this LCA, Bicker Fen Wind Farm also has a strong influence in the impression of this landscape.</p> <p>Taking the existing land use, strong influence of human intervention and varying scale and complexity into account, the LCA is considered to be tolerant of a large degree of change, with an overall Low susceptibility to the type of development proposed.</p>	Low
Magnitude of Change		
<p>The majority of construction activity would be located outwith these LCAs and therefore change within the landscape would tend to be indirect. Potential direct change would be limited to a short section of the permanent access road.</p> <p>The impression of this change would vary throughout the LCAs as a result of a combination of distance and/or screening, with many areas anticipated to be largely unaffected. The existing intensive agricultural activity and large-scale electrical infrastructure in the adjacent Peaty Fens and Holland Reclaimed Fen LCAs provide a context to potential change.</p> <p>Due to the limited nature of direct effects, existing influence from adjacent development and the temporary and short to medium duration of change, the magnitude is anticipated to be Low.</p>		
Level of Effect		
Minor adverse (Not significant)		

Visual Amenity

6.2.4 This section contains the assessment of potential temporary impacts on visual amenity associated with construction of the proposed converter station, permanent access road and the AC route. The information presented here should be read in conjunction with ES-3-C.01, Volume 3, Chapter 22 Figures.

Table 22.27 Temporary Impacts: Viewpoint 1				
Viewpoint Location		Easting	Northing	Bearing
VP01: Bicker Gauntlet		521142	339344	232° SW
Value	Susceptibility to Change		Sensitivity	
Low	This viewpoint is representative of open views from residential receptors at Bicker Gauntlet for whom the view is generally considered important and even minor changes are likely to be noticed. The susceptibility to change is assessed as High .		Medium	
Magnitude of Change				
<p>Activities associated with the construction of the proposed converter station site would be partially screened by intervening fragments of hedgerow and trees, and planting around the existing Bicker Fen 400 kV Substation. The combination of the screening effect of existing landscape features and separation distance of approximately 3 km would tend to limit visibility to taller construction equipment, seen above extant landscape features and beyond the wind turbines and overhead lines. Construction of the AC route may be seen in closer proximity to this location, but is likely to be partially screened by existing hedgerow to the south of this location. Removal of vegetation around Bicker Fen 400 kV Substation to facilitate the AC route would result in a small increase of existing infrastructure within the view. Construction activity associated with connection works at the existing Bicker Fen 400 kV Substation would also be partially visible.</p> <p>The prominent focus of the Bicker Fen Wind Farm, 400 kV and 132 kV overhead lines would remain and the scale and man-made nature of these elements would provide a context to potential change resulting from the proposed converter station. Change relating to temporary views of construction activity would be short term, reversible and would cover a relatively small extent of the panorama. Overall, taking the relative proximity, nature of change to the view and its duration into account the magnitude of change is anticipated to be Low.</p>				
Level of Effect				
Minor adverse (Not significant)				

Table 22.28 Temporary Impacts: Viewpoint 2				
Viewpoint Location		Easting	Northing	Bearing
VP02: Bicker – Bishop Way		522052	337973	260° SW
Value	Susceptibility to Change		Sensitivity	
Low	This viewpoint is representative of residential receptors with open views available from the western extents of Bicker for whom the view is generally considered important and even minor changes are likely to be noticed. The susceptibility to change is assessed as High .		Medium	
Magnitude of Change				
<p>Construction activity associated with the proposed converter station site would be partially screened by built form adjacent to Ing Road and limited roadside planting. Construction activities, including the use of cranes, vehicle movement, and construction compound would be apparent, albeit relatively distant features.</p> <p>Construction of the AC route would extend across approximately half the panorama, but is likely to be partially screened by existing hedgerows and roadside planting to the west of this location. There may also be some partial visibility of construction activity associated with connection works at the existing Bicker Fen 400 kV Substation.</p> <p>Construction of the permanent access road would largely be screened by intervening buildings and vegetation and as such this element would contribute little to the apparent change.</p> <p>The prominent focus of the Bicker Fen Wind Farm, 400 kV and 132 kV overhead lines within the view would remain unaffected.</p> <p>Considering the separating distances involved, the context of large agricultural buildings, and large scale electrical infrastructure, and the temporary nature of the change, the magnitude is anticipated to be Low.</p>				
Level of Effect				
Minor adverse (Not significant)				

Table 22.29 Temporary Impacts: Viewpoint 3				
Viewpoint Location		Easting	Northing	Bearing
VP03: North Ing Drove		519571	336779	304° NW
Value	Susceptibility to Change		Sensitivity	
Low	This viewpoint is representative of users of the local rights of way network and nearby residential receptors, for whom the view is generally considered important and even minor changes are likely to be noticed. The susceptibility to change is assessed as High .		Medium	
Magnitude of Change				
<p>Users of PRoWs</p> <p>This is a close proximity viewpoint with unobstructed views of construction activity on the proposed converter station site, along the AC route and parts of the permanent access road. TCC, cranes and machinery, vehicle movement, storage of material and clearance of vegetation would be relatively prominent and extend across much of the view. The removal of vegetation around Bicker Fen 400 kV Substation, to facilitate construction of the AC route would increase the visibility of the existing substation structures. Construction activity associated with connection works at the existing Bicker Fen 400 kV Substation would also be partially visible.</p> <p>Changes in the view would be seen in the context of the existing wind turbines, overhead lines and substation, but would occupy a larger extent of the view.</p> <p>Although temporary in nature and of short to medium duration, due to the close proximity of construction activity and the open nature of the view, the magnitude of change is anticipated to be High.</p>				
<p>Nearby residential receptors</p> <p>Views from nearby residential properties tend to be more orientated to the south and north, with views west towards the proposed converter station site and the AC route partially restricted and filtered by trees and other buildings. In some cases, visibility of construction activity and movement of vehicles on the permanent access road would be greater than from the PRoW. On balance, the magnitude of change for nearby residential properties is anticipated to be Medium.</p>				
Level of Effect				
Users of PRoW: Moderate adverse (Significant)				
Nearby residential receptors: Moderate adverse (Significant)				

Table 22.30 Temporary Impacts: Viewpoint 4				
Viewpoint Location		Easting	Northing	Bearing
VP04: Northorpe - Day's Lane		520807	336794	285° WNW
Value	Susceptibility to Change		Sensitivity	
Low	This viewpoint is representative of residential receptors with open views available from the northern extents of Northorpe, for whom the view is generally considered important and even minor changes are likely to be noticed. The susceptibility to change is assessed as High .		Medium	
Magnitude of Change				
<p>Construction activity associated with the proposed converter station site would be visible to the west, oblique to the main orientation of the view. Intervening hedgerow trees would provide a degree of filtering of some of the construction activity.</p> <p>Construction of the AC route would extend across approximately half the view, but is likely to be partially screened by fragments of existing hedgerow to the west of this location. Removal of vegetation around Bicker Fen 400 kV Substation to facilitate the AC route would result in an increase in visibility of existing infrastructure. Construction activity associated with connection works at the existing Bicker Fen 400 kV Substation would also be partially visible.</p> <p>TCC, cranes and machinery, vehicle movement, storage of material and clearance of vegetation would extend across a relatively large part of the view, but would be partially screened and fragmented by vegetation and would also be seen within the context of a view already heavily influenced by electrical infrastructure.</p> <p>Due to the temporary and short term nature of the change resulting from construction, the partial screening from vegetation and oblique nature of the view, magnitude of change is anticipated to be Low.</p>				
Level of Effect				
Minor adverse (Not significant)				

Table 22.31 Temporary Impacts: Viewpoint 5				
Viewpoint Location		Easting	Northing	Bearing
VP05: A52 Donington		520342	335846	312° NW
Value	Susceptibility to Change		Sensitivity	
Low	<p>This viewpoint is representative of open views available from the A52 and PRoW, and also views from the western edge of Donington. The view from the PRoW and residential properties is generally considered important and even minor changes are likely to be noticed. The susceptibility to change is assessed as High. Users of the A52 are considered to be of low susceptibility to change as views are generally incidental or unimportant. For the purpose of this assessment the more sensitive receptor (users of the PRoW) has been used.</p>		Medium	
Magnitude of Change				
<p>Users of the A52 and PRoW</p> <p>Given the open nature of the view and close proximity to the permanent access road, construction activity of this element of the Scheme would be prominent. A TCC would be located at the junction of the permanent access road and the A52, adjacent to this viewpoint, and as such would be a prominent feature in the foreground. Views of construction operations would extend across the panorama to the west and north west, albeit receding into the distance. Construction operations within the proposed converter station site would be partially screened by intervening shelter belt planting around a small group of buildings at North Ing Drove/Northorpe Road to the north, above which some taller construction operations would be visible.</p> <p>Construction of the AC route would be relatively distant and largely screened by intervening vegetation and buildings, but would extend across the view from the proposed converter station site to the existing Bicker Fen Wind Farm.</p> <p>Although construction activity would be temporary and of short to medium duration, the close proximity of the TCC at the permanent access road is anticipated to result in a Medium magnitude of change.</p>				
<p>Residential receptors in Donington</p> <p>Mature trees between the A52 and the settlement of Donington restrict or heavily filter the majority of views from residential properties. Views of construction activity from residential properties in Donington would therefore generally be more restricted than in views from the A52, although there may be some glimpsed views of the TCC and construction activity from some properties. On balance the magnitude of change on residential properties in Donington is anticipated to be Low.</p>				
Level of Effect				
Users of the A52 and PRoW: Moderate adverse (Significant)				
Residential receptors in Donington: Minor adverse (Not significant)				

Table 22.32 Temporary Impacts: Viewpoint 6				
Viewpoint Location		Easting	Northing	Bearing
VP06: Westdale Drove		518005	335701	20° NNE
Value	Susceptibility to Change		Sensitivity	
Low	<p>This viewpoint is representative of open views available from the local road network, and also views from nearby residential properties. Views from local roads are generally considered incidental and unimportant and therefore of Low susceptibility to change.</p> <p>Views experienced by residential receptors are generally considered important as even minor changes are likely to be noticed, and are therefore of High susceptibility to change.</p>		<p>Users of local roads: Low</p> <p>Residential receptors: Medium</p>	
Magnitude of Change				
<p>Users of local roads</p> <p>Temporary construction activity associated with the proposed converter station site, permanent access road and the AC route would be partially screened by low vegetation along the railway line to the north. Taller construction operations associated with the proposed converter station site would be a noticeable feature in the view, albeit viewed in the context of the large-scale vertical features of Bicker Fen Wind Farm and overhead lines beyond.</p> <p>Considering the partial screening by landform and vegetation associated with the railway and the existing balance of tall built structures and man-made elements in the view it is anticipated that the magnitude of change would be Medium.</p>				
<p>Nearby residential receptors</p> <p>Views from the nearby residential properties tend to be orientated to the east and west or south and are partially contained by trees and other vegetation. Views north, towards the proposed converter station site, permanent access road and the AC route would be largely restricted and filtered by vegetation and other buildings. Where visible, construction activity would be seen in the same part of the view as the existing wind farm and overhead lines. On balance, the magnitude of change is anticipated to be Low.</p>				
Level of Effect				
Users of local roads Minor adverse (Not significant)				
Nearby residential receptors Minor adverse (Not significant)				

Table 22.33 Temporary Impacts: Viewpoint 7				
Viewpoint Reference		Easting	Northing	Bearing
VP07: South Forty Foot Drain, Bank End Farm		517813	337536	98° E
Value	Susceptibility to Change		Sensitivity	
Low	This viewpoint is representative of views from the PRoW along the South Forty Foot Drain and nearby residential properties. The view from the PRoW and residential properties is generally considered important and even minor changes are likely to be noticed. The susceptibility to change is assessed as High .		Medium	
Magnitude of Change				
<p>Users of PRoW and residential receptors at Bank End Farm</p> <p>There would be close proximity and open, largely unobstructed views of construction activity at the proposed converter station site, along the AC route, and to a lesser extent the permanent access road, from this location. Construction activities, including the use of cranes and machinery, vehicle movement, TCC and TWA, storage of material and clearance of vegetation would extend across a relatively large proportion of the view. This part of the view is already strongly influenced by the existing wind turbines, substation and overhead lines.</p> <p>Due to the close proximity and extent of the view affected, construction activity is likely to become a focal element of the view and therefore the magnitude of change is anticipated to be High.</p>				
<p>Residential properties to west of South Forty Foot (River Farm, Eau End Farm)</p> <p>Residential properties on the west of South Forty Foot Drain (including River Farm and Eau End Farm) have views towards the proposed converter station site, although construction activity is largely screened by landform, vegetation and other buildings. It is therefore anticipated the magnitude of change from these properties would be Low.</p>				
Level of Effect				
Users of PRoW and residential receptors at Bank End Farm: Moderate adverse (Significant)				
Residential properties to west of South Forty Foot Drain: Minor adverse (Not significant)				

Table 22.34 Temporary Impacts: Viewpoint 8				
Viewpoint Location		Easting	Northing	Bearing
VP08: Little Hale Drove		518154	339994	169° S
Value	Susceptibility to Change		Sensitivity	
Low	This viewpoint is representative of views from residential dwellings to the north west of South Forty Foot Drain for whom the view is generally considered important and even minor changes are likely to be noticed. The susceptibility to change is assessed as High .		Medium	
Magnitude of Change				
<p>There are 360 degree views from this location. However, views from the nearby residential property, for which this viewpoint is representative, are more restricted by mature vegetation. Temporary construction activity associated with the proposed converter station site, permanent access road and the AC route would largely be screened by foreground vegetation and intervening topography and vegetation along the South Forty Foot Drain to the east. Taller construction operations associated with the proposed converter station zone and connection works at the existing Bicker Fen 400 kV Substation would be visible across a small extent of the view above these landscape features, but would be considerably less prominent than the existing overhead lines and wind turbines visible to the east.</p> <p>Due to the screening effect of landform and vegetation, and the relative distance to the proposed converter station site, the magnitude of change is anticipated to be Low.</p>				
Level of Effect				
Minor adverse (Not significant)				

Table 22.35 Temporary Impacts: Viewpoint 9				
Viewpoint Location		Easting	Northing	Bearing
VP09: Shoff Road, off Ing Drove		519746	334100	341° NNW
Value	Susceptibility to Change		Sensitivity	
Low	This viewpoint is representative of views from residential dwellings and local road users to the south of the A52. Views from residential receptors are generally considered important and even minor changes are likely to be noticed. The susceptibility to change is assessed as High .		Medium	
Magnitude of Change				
<p>Trees along the A52 and within the intervening landscape between this viewpoint and the proposed converter station site, permanent access road and the AC cable route would screen views of the majority of the construction activity. Taller construction operations associated with the proposed converter station zone would be visible above these features, occupying a relatively small and distant extent of the view.</p> <p>Considering the separation created by distance and partial screening provided by intervening vegetation and buildings it is anticipated that the magnitude of change would be Low.</p>				
Level of Effect				

Table 22.35 Temporary Impacts: Viewpoint 9

Minor adverse (Not significant)

Table 22.36 Temporary Impacts: Viewpoint 10

Viewpoint Location		Easting	Northing	Bearing
VP10: Swaton Fen		516483	336781	73° ENE
Value	Susceptibility to Change			Sensitivity
Low	This viewpoint is representative of views available from residential dwellings and local roads around Swaton Fen. Views experienced by residential receptors are generally considered important as even minor changes are likely to be noticed. The susceptibility to change is assessed as High .			Medium
Magnitude of Change				
<p>Temporary construction activity associated with the proposed converter station site, permanent access road and the AC route would largely be screened by intervening vegetation along surrounding field parcels, the railway and South Forty Foot Drain to the north. Taller construction operations associated with the proposed converter station zone would be visible across a small extent of the view above these landscape features, in proximity to the cluster of large-scale vertical elements including Bicker Fen Wind Farm and overhead lines.</p> <p>Considering the separation created by distance and partial screening provided by intervening vegetation and landform it is anticipated that the magnitude of change would be Low.</p>				
Level of Effect				
Minor adverse (Not significant)				

6.3 Long Term, Operational and Permanent Impacts

6.3.1 The potential for long term, operational and permanent impacts on the landscape resource of the Zol may arise from:

- Change in landscape character through intensification of land use on site from arable agriculture to electrical infrastructure or a permanent access road;
- Removal of existing landscape features or introduction of new elements which strongly influence the impression of the landscape character; and
- Potential positive change through the creation of new landscape features, including planting and habitat enhancement as part of any landscape mitigation proposals.

6.3.2 The potential for long term, operational and permanent impacts on views and the visual amenity of the Zol may arise from:

- Change in nature or composition of views through introduction of the proposed converter station zone structures, security fencing, lighting, areas of hardstanding and permanent access roads;
- Obstruction or removal of existing features or elements within the view; and
- Permanent loss of vegetation, opening up views to existing or proposed developed elements.

Landscape Character

6.3.3 This section contains the assessment of long term, operational and permanent impacts of the proposed converter station, permanent access road and the AC route on landscape character. The information presented here should be read in conjunction with ES-3-C.01, Volume 3, Chapter 22 Figures.

Table 22.37 Long Term, Operational and Permanent Impacts: Physical Site Landscape	
Receptor	Sensitivity
Physical site landscape	Low
Winter Year 1 (Operation)	
Magnitude of Change	
<p>At winter year 1 of operation, areas used temporarily during construction, such as TCCs, material storage areas, working zones along the permanent access road and the proposed AC cable route working width would be reinstated, therefore reducing the extent of apparent direct change.</p> <p>The most notable reduction in direct change would be along the length of the AC route, with landform and vegetation reinstated over the underground cables, and the land returned to its previous agricultural land use. At winter year 1 reinstatement planting would not yet have fully established and therefore areas of bare earth would potentially be visible in those areas which were temporarily occupied during construction. This would not appear out of character with common agricultural practices within this largely rural landscape. It is anticipated that proposed grass seeding on verges and cropping of arable fields would occur in the first growing season. Hedgerows would be reinstated where possible, but gaps would still be apparent until replanting has established and matured.</p> <p>Direct change would occur where landform and land use would be altered or new structures or elements installed within the proposed converter station zone, along the permanent access road and in limited areas along the AC route, where permanent junction boxes are required. It is anticipated that the magnitude of direct change on the site landscape at winter year 1 of operation would be Medium.</p>	
Level of Effect	
Moderate adverse (Significant)	
Summer Year 15 (longer term and permanent)	
Magnitude of Change	
<p>The extent of direct change on the site landscape at summer of year 15 and in the longer term would be largely the same as that experienced at winter year 1 of operation. The exception would be where hedgerow planting has fully established along the AC cable route, slightly reducing the apparent extent of direct change. On balance, the magnitude of direct change on the site landscape at summer year 15 of operation would be Medium.</p>	
Level of Effect	
Moderate adverse (Significant)	

Table 22.38 Long Term, Operational and Permanent Impacts: Peaty Fens LCA, Holland Reclaimed Fen LCA, Fenland LCA, and The Fens LCA	
Receptor	Sensitivity
Peaty Fens LCA, Holland Reclaimed Fen LCA, Fenland LCA, and The Fens LCA	Low
Winter Year 1 (Operation)	
Magnitude of Change	
<p>At winter year 1 the scale of activity within the landscape would be considerably reduced, particularly along the permanent access road and the AC route, resulting in a reduction in the apparent level of change.</p> <p>The primary indirect change would be on the Peaty Fens LCA and the Holland Reclaimed Fens LCA as a result of the introduction of the proposed converter station built form, including both enclosed and external electrical equipment up to 16 and 24 m in height. In addition, there would be localised change resulting from the removal of sections of hedgerow and introduction of junction boxes along the AC route. At winter year 1 reinstatement planting would not yet have fully established and therefore areas of bare earth would potentially be visible in those areas which were temporarily occupied during construction. This would not appear out of character with common agricultural practices within this largely rural landscape. It is anticipated that proposed grass seeding on verges and cropping of arable fields would occur in the first growing season. Hedgerows would be reinstated along the AC route where possible, but these would not be fully established at winter year 1.</p> <p>The proposed converter station built form would introduce a new element into the Peaty Fens LCA, an area already strongly influenced by the presence of the existing Bicker Fen Wind Farm, substation, and 400 kV and 132 kV overhead lines.</p> <p>The large-scale, open and man-made geometric landscape context, together with the presence of large-scale infrastructure would tend to reduce the perception of the scale of the proposed converter station. Overall, the proposed converter station site would contribute to a relatively small increase in the extent of an existing cluster of electrical infrastructure within these LCAs. As at construction, the impression of change on those LCAs to the west of the South Forty Foot Drain (Fenland LCA and The Fens LCA) would be lower than that experienced to the east.</p> <p>Taking the scale, localised extent, nature and permanence of these effects into account the magnitude of change is anticipated to be Low.</p>	
Level of Effect	
Minor adverse (Not Significant)	

Summer Year 15 (longer term and permanent)	
Magnitude of Change	
<p>At summer year 15, mitigation planting would be expected to have reached a height which would provide partial screening of external electrical equipment and buildings up to 16 m, reducing the influence of these elements on the aesthetic and perceptual aspects of this LCA.</p> <p>Enclosed and external equipment up to 24 m would still be visible above the mitigation planting but would not be incongruous as large-scale electrical infrastructure forms the immediate context to this part of these character units.</p> <p>The landscape mitigation would serve to limit the influence of the proposed converter station through enhancing its setting, and in part softening the appearance of the built form within the wider extent of these character units and would introduce landscape features with a higher intrinsic value than currently exist within the site. Hedgerow reinstatement planting along the AC route would also help to reduce the apparent extent of change on the character of the landscape.</p> <p>On balance, the magnitude of change at winter year 15 and in the longer term is anticipated to be Low.</p>	
Level of Effect	
Minor adverse (Not significant)	

Table 22.39 Long Term, Operational and Permanent Impacts: Settled Fens LCA, and Bicker to Wyberton Settled Fen	
Receptor	Sensitivity
Settled Fens LCA, and Bicker to Wyberton Settled Fen	Low
Winter Year 1 (Operation)	
Magnitude of Change	
<p>The proposed converter station site, the AC route and majority of the permanent access road would be located outwith this LCA and therefore potential change would primarily be indirect.</p> <p>The proposed converter station would introduce a locally notable feature within an adjacent LCA, adding to the existing cluster of large-scale infrastructure. Intervisibility across this LCA is partially restricted or foreshortened by a combination of shelterbelts, woodland and mature hedgerows, reducing the extent of influence of the proposed converter station with distance.</p> <p>A short section of the permanent access road would pass through this LCA but since linear roads are an existing characteristic of this landscape the change arising from this element of the Scheme would be minimal in the context of this assessment.</p> <p>Considering scale, the presence of existing infrastructure features within a large-scale landscape, and the largely indirect nature of change, the apparent influence of the proposed converter station, on the impression of this landscape would be reduced.</p> <p>On balance, the magnitude of change on the character of this LCA is anticipated to be Low.</p>	
Level of Effect	
Minor adverse (Not significant)	

Summer Year 15 (longer term and permanent)
Magnitude of Change
Proposed mitigation planting would be expected to have reached a height which would provide partial screening of external electrical equipment and buildings up to 16 m. Much of the enclosed and external equipment up to 24 m would still be visible, resulting in indirect change on parts of this LCA. However, the influence of the proposed converter station site would be minimal within the overall LCA, when considering the existing context of electrical infrastructure. Overall the magnitude of change at summer year 15 and in the longer term is anticipated to be Negligible .
Level of Effect
Negligible (Not significant)

Visual Amenity

6.3.4 This section contains the assessment of long term, operational and permanent impacts of the proposed converter station, permanent access road and the AC route on visual amenity. The information presented here should be read in conjunction with ES-3-C.01, Volume 3, Chapter 22 Figures. Baseline photographs of each viewpoint and photomontages showing the base scheme design at year 1 and year 15 from a selection of viewpoints are provided in Figures 22.7 to 22.16. In addition, Figures 22.18 to 22.22 provide more detailed indicative photomontages of how the final Scheme could look at year 15.

Table 22.40 Long Term, Operational and Permanent Impacts: Viewpoint 1				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP01: Bicker Gauntlet	521142	339344	232° SW	Medium
Winter Year 1 (Operation)				
Magnitude of Change Description				
<p>The proposed converter station site would be partially screened by existing intervening trees and hedgerows, with the tops of the taller structures within the proposed converter station zone potentially visible. The permanent access road would not be perceptible from this location. The proposed converter station site would occupy a small part of the view and would be seen beyond the more prominent Bicker Fen Wind Farm and overhead lines.</p> <p>The removal of vegetation around Bicker Fen 400 kV Substation to facilitate the construction of the AC route would continue to result in a very small increase of existing electrical infrastructure within the view. The tops of additional electrical equipment associated with the connection works at the existing Bicker Fen 400 kV Substation may also be partially visible, but would have little influence on the view.</p> <p>Due to the relatively limited nature of potential change, the existing context of closer and more prominent electrical infrastructure and the relative distance of the proposed converter station from this viewpoint, the magnitude of change is anticipated to be Low.</p>				

Level of Effect
Minor adverse (Not significant)
Summer Year 15 (longer term and permanent)
Magnitude of Change Description
<p>Mitigation planting within the proposed converter station site would be partially mature by year 15, and would help strengthen the screening effect of existing intervening trees and hedgerows. The tops of taller structures within the proposed converter station zone would remain partially visible, although to a lesser extent than at winter year 1.</p> <p>Due to the limited visibility of the proposed converter station, the magnitude of change at summer year 15 and in the longer term is anticipated to be Negligible.</p>
Level of Effect
Negligible (Not significant)

Table 22.41 Long Term, Operational and Permanent Impacts: Viewpoint 2				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP02: Bicker – Bishop Way	522052	337973	260° SW	Medium
Winter Year 1 (Operation)				
Magnitude of Change Description				
<p>The proposed converter station site would be partially screened by built form adjacent to Ing Road and limited roadside planting, and would occupy a relatively small part of the wide view available. The existing view includes a number of more prominent elements, including Bicker Fen Wind Farm and overhead lines.</p> <p>Traffic on the permanent access road would be a very minor and a largely imperceptible element in the view. Similarly, the AC route would be reinstated and the junction boxes predominantly screened and as such would contribute little to the apparent extent of change.</p> <p>Due to the relatively limited nature of potential change, affecting a small part of the view west, the existing context of other more prominent electrical infrastructure and the relative distance of built form within the proposed converter station zone from this viewpoint, the magnitude of change is anticipated to be Low.</p>				
Level of Effect				
Minor adverse (Not significant)				

Summer Year 15 (longer term and permanent)
Magnitude of Change Description
<p>Mitigation planting within the proposed converter station site would be partially mature by year 15. Planting would provide partial screening of external electrical equipment and buildings up to 16 m. The unenclosed structures up to 24 m would remain visible above mitigation planting at this stage, but would be partially screened by vegetation and built form within the intervening landscape and would occupy a small part of the view. Potential change would be experienced in the context of other more prominent electrical infrastructure within the view west.</p> <p>Due to the partial screening provided by mitigation planting and existing features, the distant nature and small extent of the view potentially affected, the magnitude of change would be Negligible.</p>
Level of Effect
Negligible (Not significant)

Table 22.42 Long Term, Operational and Permanent Impacts: Viewpoint 3				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP03: North Ing Drove	519571	336779	304° NW	Medium
Winter Year 1 (Operation)				
Magnitude of Change Description				
Users of PRow				
<p>This is an open and close proximity view and therefore the scale of built form within the proposed converter station site would introduce noticeable man-made features into the view. At this location, both external equipment and enclosed buildings would be seen in the context of other large-scale infrastructure, namely the Bicker Fen Wind Farm and 400 kV and 132 kV overhead lines, within the wider view, but would be perceived as a separate, large scale feature.</p> <p>Potential change resulting from the permanent access road and the AC route would be relatively minor at this stage and would contribute little to the overall impression of change in the view. This would reduce the extent of the view affected and in combination with the reduced levels of activity within the proposed converter station site would contribute to a reduction in the level of change. The tops of additional electrical equipment associated with the connection works at the existing Bicker Fen 400 kV Substation may be partially visible, but would have little influence on the view.</p> <p>Although the extent of the view affected would be reduced the proposed converter station would remain a noticeable feature within the fore to mid-ground of the view and as such the magnitude of change at winter year 1 is anticipated to be Medium.</p>				
Nearby residential receptors				
<p>Views from nearby residential properties towards the proposed converter station site tend to be partially restricted by trees and other buildings. However, where visible the proposed converter station is likely to be a noticeable feature and as such the magnitude of change would be Medium.</p>				
Level of Effect				
Users of PRow: Moderate adverse (Significant)				
Nearby residential receptors: Moderate adverse (Significant)				

Table 22.42 Long Term, Operational and Permanent Impacts: Viewpoint 3	
Summer Year 15 (longer term and permanent)	
Magnitude of Change Description	
<p>Users of PRow</p> <p>Mitigation planting would be partially mature by year 15 and would provide some additional screening of external equipment up to 16 m within the proposed converter station site. The structures within the proposed converter station zone up to 24 m would remain visible above mitigation planting at this stage, albeit gradually reducing over time as the mitigation planting continues to grow.</p> <p>Mitigation planting would contribute to a reduction in the visibility of some of the structures within the proposed converter station site, softening their appearance. However, due to the close proximity those parts of structures still visible are likely to remain noticeable and therefore the magnitude of change at year 15 is anticipated to remain Medium. As mitigation continues to mature the magnitude of change is likely to reduce further in the longer term.</p>	
<p>Nearby residential receptors</p> <p>Mitigation planting is anticipated to provide some additional screening of external equipment up to 16 m within the proposed converter station zone. When considering this in conjunction with the typically restricted or filtered nature of views from residential receptors, the magnitude of change at year 15 is anticipated to be Low.</p>	
Level of Effect	
Users of PRow: Moderate adverse (Significant)	
Nearby residential receptors: Minor adverse (Not significant)	

Table 22.43 Long Term, Operational and Permanent Impacts: Viewpoint 4				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP04: Northorpe - Day's Lane	520807	336794	285° WNW	Medium
Winter Year 1 (Operation)				
Magnitude of Change Description				
<p>The proposed converter station site would be visible to the west, oblique to the main view from receptors at this location, and would occupy a relatively small part of the wide view available. The existing view includes a number of more prominent elements, including Bicker Fen Wind Farm and overhead lines.</p> <p>Traffic on the permanent access road would be a very minor and largely imperceptible element in the view. Similarly, the AC route would be reinstated and the junction boxes predominantly screened and as such would contribute little to the apparent extent of change. However, the removal of vegetation around Bicker Fen 400 kV Substation to facilitate the construction of the AC route may result in a very small increase in views of existing electrical infrastructure within the view. The tops of additional electrical equipment associated with the connection works at the existing Bicker Fen 400 kV Substation may also be partially visible, but would have little influence on the view.</p> <p>Due to the oblique nature and small part of the view affected, combined with the existing context of other more prominent features, the magnitude of change is anticipated to be Low.</p>				

Table 22.43 Long Term, Operational and Permanent Impacts: Viewpoint 4
Level of Effect
Minor adverse (Not significant)
Summer Year 15 (longer term and permanent)
Magnitude of Change
<p>Mitigation planting within the proposed converter station site would be partially mature by year 15. The planting would contribute to a reduction in the magnitude of change as a result of softening the appearance of built form, and reinforcing the screening effect of other vegetation within the wider landscape. At this stage planting would provide partial screening of external electrical equipment and buildings up to 16 m. However, the structures up to 24 m would remain visible above mitigation planting.</p> <p>Due to the reduction in visibility of the proposed converter station, the anticipated magnitude of change at summer year 15 and in the longer term is anticipated to be Negligible.</p>
Level of Effect
Negligible (Not significant)

Table 22.44 Long Term, Operational and Permanent Impacts: Viewpoint 5				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP05: A52 Donington	520342	335846	312° NW	Medium
Winter Year 1 (Operation)				
Magnitude of Change				
<p>Users of the A52 and PRow</p> <p>From this location the permanent access road would be a noticeable addition in the fore and middle-ground of the view, receding to the background. Roads following field boundaries across the fens are not uncharacteristic of views from the A52, reducing the apparent magnitude of change.</p> <p>Views of the proposed converter station zone would be partially screened by intervening vegetation and built form around a small group of buildings at Northing Ing Drove / Northorpe Road to the north of this location. Any potential change associated with the AC route is unlikely to be perceptible from this location.</p> <p>On balance, the magnitude of change at winter year 1 of operation on users of the A52 and PRow is anticipated to be Low.</p>				
<p>Residential receptors in Donington</p> <p>Due to screening from mature trees between Donington and the A52, views of the permanent access road, proposed converter station and the AC route would be heavily restricted. Magnitude of change on residential receptors in Donington is anticipated to be Negligible.</p>				
Level of Effect				
Users of the A52 and PRow: Minor adverse (Not significant)				
Residential receptors in Donington: Negligible (Not significant)				

Summer Year 15 (longer term and permanent)
Magnitude of Change
<p>Users of the A52 and PRow</p> <p>Mitigation planting within the proposed converter station site would be partially mature by year 15. The planting would help reinforcing the screening effect of other vegetation within the wider landscape.</p> <p>Potential change resulting from the proposed converter station zone, the AC route and majority of the permanent access road would have a limited influence on the overall impression of the view and therefore the magnitude of change is anticipated to be Negligible</p>
<p>Residential receptors in Donington</p> <p>Mitigation planting and other existing vegetation and built form would limit potential views at year 15 and in the longer term, and therefore the magnitude of change is anticipated to be Negligible.</p>
Level of Effect
Users of the A52 and PRow: Negligible (Not significant)
Residential receptors in Donington: Negligible (Not significant)

Table 22.45 Long Term, Operational and Permanent Impacts: Viewpoint 6				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP06: Westdale Drove	518005	335701	20° NNE	Road users: Low Residential: Medium
Winter Year 1 (Operation)				
Magnitude of Change				
<p>Users of local roads</p> <p>The proposed converter station site would be visible to the north, and although partially screened by intervening vegetation and landform, built form within the proposed converter station zone is likely to be a noticeable new feature within the view, albeit occupying a small part of the wider panorama. Existing elements such as Bicker Fen Wind Farm and overhead lines are more prominent features, occupying a slightly wider portion of the view.</p> <p>Any potential change associated with the AC route and permanent access road is unlikely to be perceptible from this location due to screening by landform and vegetation along the railway.</p> <p>On balance, the magnitude of change at winter year 1 of operation is anticipated to be Medium.</p>				
<p>Nearby residential receptors</p> <p>Views from nearby residential properties tend to be orientated to the east, west or south, away from the proposed converter station site. Views north tend to be partially restricted by trees and buildings. Due to the increased level of screening and the orientation of the main view from properties, the magnitude of change from nearby residential receptors is anticipated to be Low.</p>				
Level of Effect				
Users of local roads: Minor adverse (Not significant)				
Nearby residential receptors: Minor adverse (Not significant)				

Table 22.45 Long Term, Operational and Permanent Impacts: Viewpoint 6
Summer Year 15 (longer term and permanent)
Magnitude of Change
<p>Users of local roads</p> <p>Mitigation planting within the proposed converter station site would be partially mature by year 15. Planting would provide partial screening of external electrical equipment and buildings up to 16 m. However, structures up to 24 m would remain visible above mitigation planting at this stage, and therefore visibility would largely be similar to that experienced at winter year 1. Magnitude of change is therefore anticipated to be Medium.</p>
<p>Nearby residential receptors</p> <p>Mitigation planting at the proposed converter station site would further limit potential views of the proposed converter station at year 15 and in the longer term, reinforcing the screening effect of other vegetation and built form in the intervening landscape. The magnitude of change is anticipated to be Negligible.</p>
Level of Effect
Users of local roads: Minor adverse (Not significant)
Nearby residential receptors: Negligible (Not significant)

Table 22.46 Long Term, Operational and Permanent Impacts: Viewpoint 7				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP07: South Forty Foot Drain, Bank End Farm	517813	337536	98° E	Medium
Winter Year 1 (Operation)				
Magnitude of Change Description				
<p>Users of PRoW and residential receptors at Bank End Farm</p> <p>This is an open and close proximity view and therefore the proposed converter station site would introduce man-made features into the view that would be noticeable from this location. At this location, the built form within the proposed converter station zone would be seen in the context of other large-scale infrastructure, namely the Bicker Fen Wind Farm and 400 kV and 132 kV overhead lines.</p> <p>Potential change resulting from the permanent access road and the AC route would be relatively minor at this stage and would contribute little to the overall impression of change in the view. This would reduce the extent of the view affected and in combination with the reduced levels of activity within the proposed converter station site would contribute to a reduction in the level of change. The additional electrical equipment associated with the connection works at the existing Bicker Fen 400 kV Substation may be partially visible, but would have little influence on the view.</p> <p>Although the extent of the view affected would be reduced the proposed converter station would remain a noticeable feature within the fore to mid-ground of the view and as such the magnitude of change at winter year 1 is anticipated to be Medium.</p>				

<p>Residential properties to west of South Forty Foot Drain (River Farm, Eau End Farm) Views from residential properties on the west of South Forty Foot Drain towards the proposed converter station site would be largely screened by intervening landform, vegetation and other buildings. It is anticipated the magnitude of change from these properties would be Low.</p>
<p>Level of Effect</p>
<p>Users of PRow and residential receptors at Bank End Farm: Moderate adverse (Significant)</p>
<p>Residential properties to west of South Forty Foot: Minor adverse (Not significant)</p>
<p>Summer Year 15 (longer term and permanent)</p>
<p>Magnitude of Change Description</p>
<p>Users of PRow and residential receptors at Bank End Farm Mitigation planting within the proposed converter station site would be partially mature by year 15. Planting would provide partial screening of external electrical equipment and buildings up to 16 m. However, the structures would remain visible above mitigation planting at this stage, and other elements, such as security fencing, would be visible through the gap in planting where the proposed DC cable route would enter the proposed converter station site. Due to the close proximity those parts of structures still visible are likely to remain noticeable and therefore the magnitude of change at year 15 is anticipated to remain Medium.</p>
<p>Residential properties to west of South Forty Foot (River Farm, Eau End Farm) Mitigation planting would further limit potential views of the proposed converter station at year 15 and in the longer term, and therefore the magnitude of change is anticipated to be Negligible.</p>
<p>Level of Effect</p>
<p>Users of PRow and residential receptors at Bank End Farm: Moderate (Significant)</p>
<p>Residential properties to west of South Forty Foot Drain: Negligible (Not significant)</p>

Table 22.47 Long Term, Operational and Permanent Impacts: Viewpoint 8				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP08: Little Hale Drove	518154	339994	169° S	Medium
Winter Year 1 (Operation)				
Magnitude of Change				
<p>Views of the proposed converter station site from this location would be restricted by foreground vegetation which surrounds this residential property and landform and vegetation along the South Forty Foot Drain. However, the tops of taller structures within the proposed converter station zone and additional electrical equipment associated with the connection works at the existing Bicker Fen 400 kV Substation would potentially be visible above these intervening features, occupying a small part of the wider view which includes a number of other existing, and more prominent electrical infrastructure.</p> <p>Potential change resulting from the permanent access road and the AC route would not be perceptible and as such would not contribute to the overall impression of change in the view.</p> <p>Due to the screening effect of intervening landform and vegetation, the small proportion of the view affected and the existing context, the magnitude of change at winter year 1 is anticipated to be Negligible.</p>				
Level of Effect				
Negligible (Not significant)				
Summer Year 15 (longer term and permanent)				
Magnitude of Change				
<p>Mitigation planting within the proposed converter station site would be partially mature by year 15 and may provide a slight increase in the level of screening of the proposed converter station. However, visibility of the proposed converter station would largely be similar to that experienced at winter year 1, and as such the magnitude of change is anticipated to be Negligible.</p>				
Level of Effect				
Negligible (Not significant)				

Table 22.48 Long Term, Operational and Permanent Impacts: Viewpoint 9				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP09: Shoff Road, off Ing Drove	519746	334100	341° NNW	Medium
Winter Year 1 (Operation)				
Magnitude of Change				
<p>Views of the proposed converter station site would be largely screened from this location by trees along the A52 and within the intervening landscape. There may be some relatively distant partial views of upper portions of built form within the proposed converter station zone, although these would be heavily filtered through trees and would occupy a small proportion of the wider panorama. Any change resulting from the permanent access road or the AC route would not be perceptible.</p> <p>It is therefore anticipated that the magnitude of change at winter year 1 of operation would be Negligible.</p>				

Table 22.48 Long Term, Operational and Permanent Impacts: Viewpoint 9	
Level of Effect	
Negligible (Not significant)	
Summer Year 15 (longer term and permanent)	
Magnitude of Change	
Mitigation planting within the proposed converter station site would be partially mature by year 15 and may provide a slight increase in the level of screening of the proposed converter station. However, visibility of the proposed converter station would largely be similar to that experienced at winter year 1, and as such the magnitude of change is anticipated to be Negligible .	
Level of Effect	
Negligible (Not significant)	

Table 22.49 Long Term, Operational and Permanent Impacts: Viewpoint 10				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP10: Swaton Fen	516483	336781	73° ENE	Medium
Winter Year 1 (Operation)				
Magnitude of Change				
Views of the proposed converter station site would be partially screened by intervening extant hedgerow along field boundaries to the north east, the railway, and by the raised embankment and planting along the South Forty Foot Drain. Any change resulting from the permanent access road or the AC route would not be perceptible.				
A small proportion of the upper levels of external equipment and enclosed buildings within the proposed converter station zone would be seen across a small extent of the view, within an open and large scale landscape. The presence of the prominent large scale Bicker Fen Wind Farm provides a context to the view.				
On this basis it is therefore anticipated that the magnitude of change at winter year 1 of operation would be Low .				
Level of Effect				
Minor (Not significant)				
Summer Year 15 (longer term and permanent)				
Magnitude of Change				
Mitigation planting within the proposed converter station site would be partially mature by year 15 and may provide a slight increase in the level of screening of external equipment and buildings up to 16 m. However, visibility of built form within the proposed converter station zone up to 24 m would largely be similar to that experienced at winter year 1, and as such the magnitude of change is anticipated to be Low .				
Level of Effect				
Minor (Not significant)				

6.4 Decommissioning Impacts

- 6.4.1 Effects arising from the process and activities associated with decommissioning have not been considered in detail as they are of a similar nature to temporary impacts during construction (albeit in reverse), and would generally be less intrusive, of a smaller scale and shorter duration.

7 Mitigation

7.1 Design Mitigation

- 7.1.1 As detailed in Section 3.4, above, mitigation measures associated with the form and appearance of the proposed converter station structures and proposed screen and reinstatement planting has been developed as part of the base scheme design. These design measures are intended to help reduce the potential for long term adverse landscape and visual effects. No further mitigation measures have been identified beyond those included in the base scheme design.

8 Residual Effects

8.1.1 Design mitigation measures have been incorporated into the base scheme design, and as such are considered in the assessment of Potential Impacts (Section 6). No additional mitigation measures are proposed and as such the assessment of residual effects would remain the same as reported for Potential Impacts. Anticipated residual effects are summarised below, with further details provided in Table 22.77, below, and in Section 6, above.

8.2 Landscape Character

8.2.1 **Moderate adverse** (significant) residual effects are anticipated on the physical site landscape during construction. During operation the extent of direct change on the physical site landscape would reduce slightly, particularly along the AC route. However, it is anticipated that the overall level of residual effect on the physical site landscape would remain **Moderate adverse** (significant).

8.2.2 Outwith the site landscape, residual effects on the Peaty Fens LCA, Holland Reclaimed Fen LCA, Fenland LCA and The Fens LCA group is anticipated to be **Minor adverse** at both construction and operation. Although the magnitude of change would reduce from **Medium** at construction to **Low** during operation, the reduction wouldn't be sufficient to change the overall level of residual effect.

8.2.3 The Settled Fens LCA and Bicker to Wyberton Settled Fen LCA group is anticipated to experience **Minor adverse** (not significant) effects at construction and winter year 1 of operation, reducing to **Negligible** at year 15 and in the longer term.

8.3 Visual Amenity

8.3.1 Receptors at the majority of viewpoints would experience **Minor or less** (not significant) residual effects. However, it is anticipated that receptors at three of the 10 viewpoints: Viewpoint 3 (North Ing Drove); Viewpoint 5 (A52 Donington); and Viewpoint 7 (South Forty Foot Drain, Bank End Farm) would experience **Moderate adverse** (significant) effects during construction. The extent of change at each of these viewpoints would be reduced at the operational phase. However, due to the close proximity of the proposed converter station and open nature of the view from Viewpoint 3 (North Ing Drove) and Viewpoint 7 (South Forty Foot Drain, Bank End Farm), the level of residual effect during operation would remain at **Moderate adverse** (significant).

9 Cumulative Effects

9.1 Inter-project Cumulative Effects

Scope of Assessment

- 9.1.1 In order to ensure all developments with the potential to result in significant cumulative effects with the proposed converter station, permanent access road and AC route on receptors within the Zol where identified, an initial area of search of 5 km from the proposed converter station site was used. This search identified the following consented and application stage developments for inclusion in the cumulative assessment:
- Triton Knoll Electrical Systems at Bicker Fen (consented); and
 - Heckington Fen Wind Farm 132 kV overhead line (pre-application).
- 9.1.2 The scope of the cumulative assessments, including the above list of cumulative developments was agreed in consultation with the LPA.
- 9.1.3 The cumulative assessments consider the addition of the proposed converter station, permanent access road and the AC route to the cumulative baseline scenario. For the purposes of the assessment of cumulative effects during construction, the cumulative baseline scenario assumes that all identified cumulative developments would also be under construction. The cumulative baseline scenario for the assessment of operational cumulative effects assumes that all other identified developments, including those which are consented and at the application stage, have been constructed. The locations of the identified cumulative developments are shown on Figure 22.17.
- 9.1.4 The assessment considers the potential for combined impacts to static views within the landscape which may be either simultaneous (where developments would be observable at the same time) or successive (where an observer would be required to turn to experience multiple developments).
- 9.1.5 Cumulative landscape effects may result where a number of developments combine, increasing the prevalence of such development within a landscape to an extent where they may become a defining characteristic. The likely significance of these effects relates to the number of developments affecting the landscape, their scale, their inter-relationship and the sensitivity and ability of the particular landscape to accommodate this type of development.
- 9.1.6 Cumulative visual effects may result where a number of developments combine to increase the appearance and dominance within a particular view. The likely significance of these effects relates to the number of developments visible and their scale, location and inter-relationship to each other within the view.

Temporary Cumulative Effects

Landscape Character

9.1.7 This section provides an assessment of potential temporary cumulative impacts on landscape character associated with the construction of the proposed converter station, permanent access road and the AC route in addition to construction of identified cumulative developments. No temporary cumulative effects are anticipated on the physical site landscape. The information presented here should be read in conjunction with ES-3-C.01, Volume 3, Chapter 22 Figures.

Table 22.50 Temporary Cumulative Impacts: Peaty Fens LCA, Holland Reclaimed Fen LCA, Fenland LCA, and The Fens LCA	
Receptor	Sensitivity
Peaty Fens LCA, Holland Reclaimed Fen LCA, Fenland LCA, and The Fens LCA	Low
Cumulative Magnitude of Change	
<p>The cumulative developments would be located to the north of the existing Bicker Fen Wind Farm and 400 kV Substation, within these LCAs. Construction of the cumulative developments would involve vegetation clearance, land re-profiling, the introduction of temporary structures and construction activity associated with permanent elements. Construction of the proposed converter station, permanent access road and the AC route would involve similar types of construction activity and machinery but mainly to the south of Bicker Fen 400 kV Substation, within the Peaty Fens LCA and Holland Reclaimed Fen LCA, therefore extending the influence of construction activity within these LCAs.</p> <p>Temporary cumulative change would result in an intensification of a similar type and scale of construction activity within these character units, influencing the local sense of remoteness experienced in parts of these LCAs. This is a large scale landscape and in this context the scale of cumulative change would tend to be reduced. Potential cumulative change would be experienced locally within parts of those areas to the east of the South Forty Foot Drain (Peaty Fens LCA and Holland Reclaimed Den LCA), with potential cumulative change on areas to the west (Fenland LCA and The Fens LCA) limited by the separation and screening effect provided by the landform and vegetation along the South Forty Foot Drain.</p> <p>On balance, the magnitude of cumulative change on these LCAs, and particularly the Peaty Fens LCA and Holland Reclaimed Fen LCA, is anticipated to be Medium.</p>	
Level of Effect	
Minor adverse (Not significant)	

Table 22.51 Temporary Cumulative Impacts: Settled Fens LCA, and Bicker to Wyberton Settled Fen	
Receptor	Sensitivity
Settled Fens LCA, and Bicker to Wyberton Settled Fen	Low
Cumulative Magnitude of Change	
<p>Construction activity associated with the identified cumulative developments and the proposed converter station, permanent access road and the AC route would largely be located outwith these LCAs, with the exception of a small section of the permanent access road.</p> <p>Potential cumulative change on the landscape character would therefore be indirect, and would arise from the influence of additional construction activity on the aesthetic and perceptual qualities of these LCAs.</p> <p>The addition of the proposed converter station, permanent access road and the AC route into the cumulative scenario would result in an increase in the influence of construction activity within the wider landscape. As noted in the landscape baseline views across these LCAs can be foreshortened by built form, shelterbelts, woodland and mature hedgerows which would assist in reducing the extent of potential cumulative change. Accordingly the impression of change arising from the introduction of cumulative construction activity would vary throughout these LCAs. Where visible, the cumulative developments would generally be perceived as a cluster of construction operations, which the proposed converter station, permanent access road and the AC route would add to and extend further to the south and west of the existing Bicker Fen Wind Farm.</p> <p>Cumulative construction effects would be temporary and reversible. Considering also the large scale, man-made nature of the landscape, and influence of existing intensive agricultural activity and electrical infrastructure, the magnitude of cumulative landscape change would be Low.</p>	
Level of Effect	
Minor adverse (Not significant)	

Visual Amenity

- 9.1.8 This section provides an assessment of potential temporary cumulative impacts on visual amenity associated with the construction of the proposed converter station, permanent access road and the AC route in addition to construction of identified cumulative developments. The information presented here should be read in conjunction with ES-3-C.01, Volume 3, Chapter 22 Figures.

Table 22.52 Temporary Cumulative Impacts: Viewpoint 1				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP01: Bicker Gauntlet	521142	339344	232° SW	Medium
Cumulative Magnitude of Change				
<p>Construction activity and machinery associated with the cumulative developments would be visible in relative close proximity to this location, seen to the north of the existing Bicker Fen 400 kV Substation and extending across much of the horizontal extent of the view to the west towards the South Forty Foot Drain. Removal of vegetation adjacent to the existing Bicker Fen 400 kV Substation may be required as part of the construction works for the cumulative developments, increasing the visibility of this existing electrical infrastructure.</p> <p>The addition of construction activity associated with the proposed converter station, permanent access road and the AC route would be seen in combination with the cumulative developments but would occupy a smaller extent of the view and be seen at a smaller scale as a result of being more distant from this location and partially screened by intervening landscape features. Overall, potential cumulative change during construction would be temporary and reversible, resulting in a Low magnitude of change.</p>				
Level of Effect				
Minor adverse (Not significant)				

Table 22.53 Temporary Cumulative Impacts: Viewpoint 2				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP02: Bicker – Bishop Way	522052	337973	260° SW	Medium
Cumulative Magnitude of Change				
<p>Views of construction activity associated with the cumulative developments would be partially screened by intervening built form and vegetation along Cowbridge Road and within the wider landscape.</p> <p>The addition of construction activity associated with the proposed converter station and AC route would be seen in combination (succession) with the cumulative developments and would extend construction activity within the view. However, since there would be limited and distant visibility of cumulative developments from this location the cumulative magnitude of visual change would not be greater than for the proposed converter station and AC route in isolation, which would be Low.</p>				
Level of Effect				
Minor adverse (Not significant)				

Table 22.54 Temporary Cumulative Impacts: Viewpoint 3				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP03: North Ing Drove	519571	336779	304° NW	Medium
Cumulative Magnitude of Change				
<p>From this location, views of construction activity associated with the cumulative developments would be partially screened by vegetation around Bicker Fen 400 kV Substation and within the wider landscape, and fragmented by Bicker Fen Wind Farm and existing electrical infrastructure at Bicker Fen 400 kV Substation. Removal of vegetation adjacent to the existing Bicker Fen 400 kV Substation may be required as part of the construction works for the cumulative developments, increasing the visibility of the existing electrical infrastructure.</p> <p>Construction activity associated with the proposed converter station site, permanent access road and the AC route would be prominent in the fore and middle ground of the panorama extending the influence of these activities across the view and also bringing them in relatively close proximity to this viewpoint, therefore appearing at a larger scale. As a result, the cumulative magnitude of change would be High.</p>				
Level of Effect				
Moderate adverse (Significant)				

Table 22.55 Temporary Cumulative Impacts: Viewpoint 4				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP04: Northorpe - Day's Lane	520807	336794	285° WNW	Medium
Cumulative Magnitude of Change				
<p>The cumulative developments would potentially be visible to the north east, although largely screened by intervening vegetation surrounding Bicker Fen 400 kV Substation and within the wider landscape. This activity would be relatively distant and within part of the view already affected by the existing Bicker Fen Wind Farm and Bicker Fen 400 kV Substation.</p> <p>Similar construction activity associated with the proposed converter station site, the AC route and permanent access road would be visible to the west, oblique to the main view from adjacent properties and partially screened by intervening vegetation. Construction activity associated with the proposed converter station and AC route would occupy an additional portion of the view, increasing the extent of the view affected.</p> <p>However, due to the limited and distant visibility of the cumulative developments, and the temporary, reversible nature of the additional change, the cumulative magnitude of visual change is anticipated to be similar to that of the proposed converter station and AC route in isolation, which would be Low.</p>				
Level of Effect				
Minor adverse (Not significant)				

Table 22.56 Temporary Cumulative Impacts: Viewpoint 5				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP05: A52 Donington	520342	335846	312° NW	Medium
Cumulative Magnitude of Change				
<p>The cumulative developments would potentially be visible to the north east, although they would be largely screened by intervening vegetation surrounding Bicker Fen 400 kV Substation and within the wider landscape. This activity would be relatively distant and within part of the view already affected by the existing Bicker Fen Wind Farm and Bicker Fen 400 kV Substation.</p> <p>Construction activity associated with the permanent access road would be prominent in the foreground of the view with construction operations of the proposed converter station and AC route extending across the panorama to the west and north west, albeit receding into the distance.</p> <p>The addition of the proposed converter station, the AC route and permanent access road along with the cumulative developments would extend construction activity within the view and in closer proximity. However, given the limited and distant nature of visibility of the cumulative developments, there is likely to be a limited perception of cumulative change. Therefore the magnitude of cumulative change is considered to be Low.</p>				
Level of Effect				
Minor adverse (Not significant)				

Table 22.57 Temporary Cumulative Impacts: Viewpoint 6				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP06: Westdale Drove	518005	335701	20° NNE	Medium
Cumulative Magnitude of Change				
<p>Visibility of construction activity associated with the cumulative developments would be limited by intervening vegetation around Bicker Fen 400 kV Substation and within the wider landscape. Taller operations may be visible above the vegetation, but would be distant. This construction activity would occupy a small extent of the view, beyond the existing Bicker Fen Wind Farm and Bicker Fen 400 kV Substation.</p> <p>Construction activity associated with the proposed converter station site, the AC route and permanent access road would be partially screened by intervening low vegetation along the railway line to the north. It would bring construction activity in closer proximity and occupy a similar, but slightly larger extent of the view to that associated with the cumulative developments. This part of the view is already strongly influenced by existing electrical infrastructure, providing a context to potential change.</p> <p>The distant and limited nature of visibility of construction activity associated with the cumulative developments, and the similar portion of the view affected would mean that it would generally be perceived as part of the construction of the proposed converter station and AC route. Therefore the cumulative magnitude of visual change is anticipated to be Low.</p>				
Level of Effect				
Minor adverse (Not significant)				

Table 22.58 Temporary Cumulative Impacts: Viewpoint 7				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP07: South Forty Foot Drain, Bank End Farm	517813	337536	98° E	Medium
Cumulative Magnitude of Change				
<p>The construction operations of the cumulative developments would be visible to the north and north east in views along the South Forty Foot Drain.</p> <p>Similar construction activities associated with the proposed converter station, permanent access road and the AC route would be prominent in the fore to middle ground of the view occupying a similar but wider extent of the view as that of the cumulative developments, therefore extending the influence of construction to a wider extent of the view.</p> <p>Due to the closer proximity and the increased extent of the view affected, the magnitude of cumulative visual change is anticipated to be High.</p>				
Level of Effect				
Moderate adverse (Significant)				

Table 22.59 Temporary Cumulative Impacts: Viewpoint 8				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP08: Little Hale Drove	518154	339994	169° S	Medium
Cumulative Magnitude of Change				
<p>Views from the residential property of Drove Farm, for which the viewpoint is representative, are restricted by mature vegetation. Where glimpsed views to the east are possible, construction activity associated with the cumulative developments would occupy a relatively wide extent of the view, from East Heckington to Bicker Fen 400 kV Substation. The landform and planting along the South Forty Foot Drain would offer additional screening of some activity.</p> <p>Construction activity associated with the proposed converter station, permanent access road and AC route in combination with the cumulative developments would increase the extent of the view affected, but would not have a strong presence within the view as a result of the screening effect of the foreground vegetation, intervening embankments, and the existing context of larger scale electrical infrastructure. It is therefore anticipated that the magnitude of cumulative change would be Low.</p>				
Level of Effect				
Minor adverse (Not Significant)				

Table 22.60 Temporary Cumulative Impacts: Viewpoint 9

Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP09: Shoff Road, off Ing Drove	519746	334100	341° NNW	Low
Cumulative Magnitude of Change				
<p>Visibility of construction operations associated with the cumulative developments would be limited by a combination of built form and vegetation. Taller operations may be visible above the intervening screening features, but would be distant and largely imperceptible.</p> <p>Construction activity associated with the proposed converter station site, the AC route and permanent access road would similarly be largely screened by intervening vegetation along the A52 to the north. Due to the limited nature of combined visibility of the proposed converter station and cumulative developments, it is anticipated that there would be limited or no perception of cumulative change. Therefore the magnitude of cumulative change is considered to be Negligible.</p>				
Level of Effect				
Negligible (Not Significant)				

Table 22.61 Temporary Cumulative Impacts: Viewpoint 10

Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP10: Swaton Fen	516483	336781	73° ENE	Low
Cumulative Magnitude of Change				
<p>Visibility of construction operations associated with the cumulative developments would be limited by a combination of landform and vegetation in views north west from this location. Similarly construction activity associated with the proposed converter station site, permanent access road and the AC route would be largely screened by intervening vegetation along surrounding field parcels, the railway and South Forty Foot Drain to the north. Taller construction operations associated with the both the proposed converter station zone and cumulative developments would be visible across a small extent of the view above these intervening landscape features.</p> <p>Construction activity associated with the proposed converter station in combination with the cumulative developments would increase the extent of the view affected, but would be a minor feature within the view which is already influenced by larger scale electrical infrastructure. It is therefore anticipated that cumulative magnitude of change would be Low.</p>				
Level of Effect				
Minor adverse (Not Significant)				

Long Term, Operational and Permanent Cumulative Impacts

Landscape Character

9.1.9 This section provides an assessment of potential long term, operational and permanent cumulative impacts on landscape character associated with the addition of the proposed converter station, permanent access road and the AC route to the identified cumulative developments. No cumulative effects are anticipated on the physical site landscape. The information presented here should be read in conjunction with ES-3-C.01, Volume 3, Chapter 22 Figures.

Table 22.62 Long Term, Operational and Permanent Cumulative Impacts: Peaty Fens LCA, Holland Reclaimed Fen LCA, Fenland LCA, and The Fens LCA	
Receptor	Sensitivity
Peaty Fens LCA, Holland Reclaimed Fen LCA, Fenland LCA, and The Fens LCA	Low
Cumulative Magnitude of Change	
<p>The cumulative developments are located in close proximity to the north of the existing Bicker Fen Wind Farm, substation and 400 kV and 132 kV overhead lines.</p> <p>The addition of the proposed converter station would increase the geographic extent of large scale infrastructure to the south of these existing developments, within the Peaty Fens LCA, slightly extending and reinforcing the impression of a cluster of development within this landscape. The AC route would be reinstated and the permanent access road would appear similar to other minor roads within the Zol and therefore would have limited cumulative influence on the landscape character.</p> <p>Considering the large scale nature of the landscape, the existing context and cumulative developments, the addition of the proposed converter station, permanent access road and AC route would result in a Low cumulative magnitude of change.</p>	
Level of Effect	
Minor adverse (Not Significant)	

Table 22.63: Long Term, Operational and Permanent Cumulative Impacts: Settled Fens LCA, and Bicker to Wyberton Settled Fen	
Receptor	Sensitivity
Settled Fens LCA, and Bicker to Wyberton Settled Fen	Low
Cumulative Magnitude of Change	
<p>The cumulative developments would be located outwith these LCAs and adjacent to other existing large scale electrical infrastructure.</p> <p>The proposed converter station would add further to the existing cluster of electrical infrastructure in the adjacent LCAs. The AC route would be largely imperceptible from these LCAs and would have little if any influence on the impression of their landscape character. A short section of the permanent access road would be on the edge of these LCAs, adjacent to the A52 where roads and traffic are existing features.</p> <p>The addition of the proposed converter station site in combination with the cumulative developments</p>	

Table 22.63: Long Term, Operational and Permanent Cumulative Impacts: Settled Fens LCA, and Bicker to Wyberton Settled Fen

would increase the influence of existing large scale infrastructure that provides the existing context to the wider landscape. Within this cluster Bicker Fen Wind Farm would remain as the most prominent influence on account of its scale, extent and high level of intervisibility.

Overall, this is a large scale, man-made landscape already strongly influenced by existing large scale infrastructure. The addition of the proposed converter station to the cumulative developments would therefore reinforce existing characteristics, but the aesthetic and perceptual qualities of the landscape would still be appreciable. Taking the scale/extent, nature and permanence of these effects into account the cumulative magnitude of change is anticipated to be **Low**.

Level of Effect

Minor adverse (Not Significant)

Visual Amenity

- 9.1.10 This section provides an assessment of potential long term, operational and permanent cumulative impacts on visual amenity associated with the addition of the proposed converter station, permanent access road and the AC route to the identified cumulative developments. The information presented here should be read in conjunction with ES-3-C.01, Volume 3, Chapter 22 Figures.

Table 22.64 Long Term, Operational and Permanent Cumulative Impacts: Viewpoint 1

Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP01: Bicker Gauntlet	521142	339344	232° SW	Medium
Cumulative Magnitude of Change				
<p>The cumulative developments would be visible in relative close proximity to the west of this location adding to the existing context of large scale electrical infrastructure which has a strong influence on the view.</p> <p>The addition of built form within the proposed converter station zone would have limited presence in the view due to the screening effect of intervening vegetation and as such would be perceived as a small and more distant increase to the existing electrical infrastructure context. It is therefore anticipated that the cumulative magnitude of change would be Low.</p>				
Level of Effect				
Minor adverse (Not significant)				

Table 22.65 Long Term, Operational and Permanent Cumulative Impacts: Viewpoint 2				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP02: Bicker – Bishop Way	522052	337973	260° SW	Medium
Cumulative Magnitude of Change				
<p>The cumulative developments would largely be screened by intervening built form and vegetation along Cowbridge Road and within the wider landscape. As such they would be largely imperceptible in the context of the other existing large scale electrical infrastructure.</p> <p>The proposed converter station would be relatively distant to the west and partially screened by built form. It would further contribute to the existing context of large scale electrical infrastructure, but would be a less prominent feature than the Bicker Fen Wind Farm. The AC route and permanent access road would be largely imperceptible from this location and would not contribute to visual change.</p> <p>On balance, the magnitude of additional change is considered to be Low.</p>				
Level of Effect				
Minor adverse (Not significant)				

Table 22.66 Long Term, Operational and Permanent Cumulative Impacts: Viewpoint 3				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP03: North Ing Drove	519571	336779	304° NW	Medium
Cumulative Magnitude of Change				
<p>The cumulative developments would be partially screened by intervening vegetation from this location, although the tops of taller structures may be visible. This would represent a small and relatively distant element within a view which includes the existing, more prominent Bicker Fen Wind Farm.</p> <p>The proposed converter station would extend the influence of large scale electrical infrastructure further south, occupying a new part of the view in closer proximity than the cumulative developments. The permanent access road and the AC route would largely be imperceptible at this stage and therefore the extent of additional change would be reduced.</p> <p>On balance, the cumulative magnitude of change is anticipated to be Medium.</p>				
Level of Effect				
Moderate adverse (Significant)				

Table 22.67 Long Term, Operational and Permanent Cumulative Impacts: Viewpoint 4

Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP04: Northorpe - Day's Lane	520807	336794	285° WNW	Medium
Cumulative Magnitude of Change				
<p>The cumulative developments would largely be screened by intervening built form and vegetation associated with the existing Bicker Fen 400 kV Substation and within the wider landscape. As such they would be largely imperceptible in the context of the other existing large scale electrical infrastructure.</p> <p>The addition of the proposed converter station which would be visible to the west and oblique to the main view would further contribute to the existing context of large scale electrical infrastructure, but would be a less prominent feature than the Bicker Fen Wind Farm. The AC route and permanent access road would be largely imperceptible from this location and would not contribute to visual change.</p> <p>On balance, the magnitude of additional change is considered to be Low.</p>				
Level of Effect				
Minor adverse (Not significant)				

Table 22.68 Long Term, Operational and Permanent Cumulative Impacts: Viewpoint 5

Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP05: A52 Donington	520342	335846	312° NW	Medium
Cumulative Magnitude of Change				
<p>The cumulative developments would largely be screened by intervening built form and vegetation associated with the existing Bicker Fen 400 kV Substation and within the wider landscape. As such they would be largely imperceptible in the context of the other existing large scale electrical infrastructure.</p> <p>The addition of the proposed converter station to the west would slightly extend the influence of electrical infrastructure within the view. The permanent access road would be in the foreground of this view, although would be seen in the context of the A52. The AC route would be largely imperceptible from this location and would not contribute to visual change.</p> <p>Given the limited and distant nature of visibility of the cumulative developments, the addition of the proposed converter station, permanent access road and AC route would result in a limited perception of cumulative change. Therefore the magnitude of cumulative change is considered to be Low.</p>				
Level of Effect				
Minor adverse (Not significant)				

Table 22.69 Long Term, Operational and Permanent Cumulative Impacts: Viewpoint 6

Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP06: Westdale Drove	518005	335701	20° NNE	Medium
Cumulative Magnitude of Change				
<p>The cumulative developments would largely be screened by vegetation within the intervening landscape. As such they would be largely imperceptible in the context of the other existing large scale electrical infrastructure.</p> <p>The proposed converter station would be visible to the north, partially screened by low vegetation along the railway embankment and occupying the same part of the view as the larger scale Bicker Fen Wind Farm. The AC route and permanent access road would be largely imperceptible from this location and would not contribute to visual change.</p> <p>Given the limited and distant nature of visibility of the cumulative developments, the addition of the proposed converter station, permanent access road and AC route would result in a limited perception of cumulative change. Therefore the magnitude of cumulative change is anticipated to be Low.</p>				
Level of Effect				
Minor adverse (Not significant)				

Table 22.70 Long Term, Operational and Permanent Cumulative Impacts: Viewpoint 7

Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP07: South Forty Foot Drain, Bank End Farm	517813	337536	98° E	Medium
Cumulative Magnitude of Change				
<p>The cumulative developments would be visible to the north and north east in views along the South Forty Foot Drain. These views are generally open, although include the existing wind farm, substation and other electrical infrastructure.</p> <p>The proposed converter station would occupy an additional part of the view, in closer proximity than the cumulative developments. The permanent access road and the AC route would be largely imperceptible at this stage and therefore the extent of additional change would be reduced. This part of the view is already strongly influenced by existing electrical infrastructure, which provides a context to potential change.</p> <p>On balance, the cumulative magnitude of change is anticipated to be Medium.</p>				
Level of Effect				
Moderate adverse (Not significant)				

Table 22.71 Long Term, Operational and Permanent Cumulative Impacts: Viewpoint 8				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP08: Little Hale Drove	518154	339994	169° S	Low
Cumulative Magnitude of Change				
<p>Where glimpsed views to the east are possible beyond the mature foreground vegetation, the cumulative developments would occupy a relatively wide extent, from East Heckington to Bicker Fen 400 kV Substation. However, they would be largely screened by foreground vegetation and landform and planting along the South Forty Foot Drain.</p> <p>The proposed converter station would also be largely screened by the foreground vegetation and intervening embankment of the South Forty Foot Drain, with only the taller structures potentially visible, occupying a small part of the view. The AC route and permanent access road would be largely imperceptible from this location and would not contribute to visual change</p> <p>The proposed converter station in combination with the cumulative developments would slightly extend the visibility of infrastructure in the view. However, it would not have a strong presence within the view within which wind turbines and overhead lines are prominent. It is therefore anticipated that the magnitude of cumulative change would be Low.</p>				
Level of Effect				
Minor adverse (Not significant)				

Table 22.72 Long Term, Operational and Permanent Cumulative Impacts: Viewpoint 9				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP09: Shoff Road, off Ing Drove	519746	334100	341° NNW	Low
Cumulative Magnitude of Change				
<p>Due to screening from trees and vegetation, and the relative distance, the cumulative developments are not anticipated to be visible from this location during the operation and in the long term. Therefore no cumulative effects on receptors at this location are anticipated.</p>				
Level of Effect				
No cumulative effect				

Table 22.73 Long Term, Operational and Permanent Cumulative Impacts: Viewpoint 10				
Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP10: Swaton Fen	516483	336781	73° ENE	Medium
Cumulative Magnitude of Change				
<p>The cumulative developments would largely be screened by landform along the South Forty Foot Drain and vegetation within the wider landscape. As such they would be largely imperceptible in the context of the other existing large scale electrical infrastructure.</p> <p>The proposed converter station would be partially visible to the north east and would occupy a small part of the view, slightly extending the visibility of infrastructure. However, given the largely imperceptible cumulative developments and the existing prominence of wind turbines and overhead lines in the view, the magnitude of cumulative change would be Low.</p>				
Level of Effect				
Minor adverse (Not significant)				

9.2 Intra-project Cumulative Effects

Scope of Assessment

- 9.2.1 In addition to potential inter-project cumulative effects it is also important to understand the potential for intra-project effects. For the purpose of this assessment, potential intra-project cumulative effects are those which may arise from the proposed converter station, permanent access road and AC route in combination with the proposed DC cable route.
- 9.2.2 As with inter-project cumulative effects, the assessment of potential intra-project cumulative effects is carried out on those landscape and visual receptors within the 3 km ZoI. In order to ensure the assessment is focused on potential significant cumulative effects it has been limited to those receptors which are within 1 km of the proposed DC cable route.
- 9.2.3 For the purposes of the assessment of cumulative effects during construction it is assumed that both parts of the Scheme would be constructed simultaneously. The assessment of operational effects assumes that all parts of the development would be completed and in operation.

Temporary Intra-project Cumulative Effects

Landscape Character

- 9.2.4 One LCA group (Peaty Fens LCA, Holland Reclaimed Fen LCA, Fenland LCA, and The Fens LCA) is located within the ZoI for the proposed converter station and within 1 km of the proposed DC cable route. Table 22.74, below, provides an assessment of temporary intra-project cumulative impacts on this LCA group.

Table 22.74 Temporary Intra-project Cumulative Impacts: Peaty Fens LCA, Holland Reclaimed Fen LCA, Fenland LCA, and The Fens LCA	
Receptor	Sensitivity
Peaty Fens LCA, Holland Reclaimed Fen LCA, Fenland LCA, and The Fens LCA	Low
Cumulative Magnitude of Change	
<p>Approximately 15.6 km of the proposed DC cable route would be located within this LCA group, with approximately 1 km within Peaty Fens LCA, 9.8 km within Holland Reclaimed Fen LCA, and 4.8 km within Fenland LCA.</p> <p>Construction of the proposed converter station, permanent access road and AC route in combination with the proposed DC cable route would result from a slight increase in the extent of temporary direct change within the Peaty Fens LCA and Holland Reclaimed Fen LCA resulting from additional removal of vegetation, earthworks operations and installation of temporary tracks and surfacing. The majority of direct change resulting from the proposed DC cable route would be located in excess of 4 km to the north of the AC route and therefore would not contribute to the impression of in-combination change. However, an approximately 1.3 km section of the proposed DC cable route within the Holland Reclaimed Fen LCA and approximately 1 km within the Peaty Fens LCA would be in relatively close proximity to the proposed converter station and AC route. Potential direct change resulting from the construction of the proposed DC cable route would be of short duration.</p> <p>The extent of indirect change would largely be the same as that experienced for the proposed converter station, permanent access road and AC route in isolation, although there would be a slight increase in the intensity of construction activity locally and for a short duration.</p> <p>Potential in-combination change would be experienced locally within parts of those areas to the east of the South Forty Foot Drain (Peaty Fens LCA and Holland Reclaimed Den LCA), with potential cumulative change on areas to the west (Fenland LCA and The Fens LCA) limited by the separation and screening effect provided by the landform and vegetation along the South Forty Foot Drain.</p> <p>On balance, the level of change resulting from the construction of the proposed converter station, permanent access road and AC route in combination with the proposed DC cable route would be largely similar to that experienced as a result of the proposed converter station, permanent access road and AC route in isolation. It is therefore anticipated that the in-combination magnitude of change would be Medium.</p>	
Level of Effect	
Minor adverse (Not significant)	

Visual Amenity

- 9.2.5 Two of the 10 representative viewpoint locations identified within the Zol (VP7 South Forty Foot Drain, Bank End Farm and VP8 Little Hale Drove) are within 1 km of the proposed DC cable route and are therefore considered to have the potential to experience significant intra-project impacts.

Table 22.75 Temporary Intra-project Cumulative Impacts: Viewpoint 8

Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP07: South Forty Foot Drain, Bank End Farm	517813	337536	98° E	Medium
Cumulative Magnitude of Change				
<p>The proposed DC cable route and the proposed converter station, permanent access road and AC route would occupy a similar extent of the view from these receptors. The proposed DC cable route would be in slightly closer proximity to this viewpoint. However, construction activity associated with this element would be of a short duration and involve smaller scale equipment, not entirely dissimilar to the agricultural machinery commonly used in this area.</p> <p>It is therefore anticipated that the proposed magnitude of change resulting from the construction of the proposed converter station, permanent access road and AC route in combination with the construction of the proposed DC cable route would be largely similar to that experienced for the proposed converter station, permanent access road and AC route in isolation.</p> <p>The in-combination magnitude of change is therefore anticipated to be High.</p>				
Level of Effect				
Moderate adverse (Significant)				

Table 22.76 Temporary Intra-project Cumulative Impacts: Viewpoint 8

Viewpoint Location	Easting	Northing	Bearing	Sensitivity
VP08: Little Hale Drove	518154	339994	169° S	Medium
Cumulative Magnitude of Change				
<p>There are 360 degree views from this location, although those from the nearby residential property of Drove Farm, for which the viewpoint is representative, are more restricted by mature vegetation, except to the north.</p> <p>The proposed DC cable route would be in closer proximity to this viewpoint and receptor location than the proposed converter station, permanent access road and AC route. However, screening from mature vegetation would limit views to a more distant part of the proposed DC cable route to the north, and glimpsed views of the proposed converter station and AC route to the south east.</p> <p>There may be a slight increase in the impression of change from this receptor for a short duration. However, it is anticipated that the overall level of in-combination change during construction would largely be the same as that experienced for the construction of the proposed converter station, permanent access road and AC route in isolation.</p> <p>The in-combination magnitude of change is therefore anticipated to be Low.</p>				
Level of Effect				
Minor adverse (Not Significant)				

Long Term, Operational and Permanent Intra-project Cumulative Effects

- 9.2.6 Following the completion of construction, the proposed DC cable route would be reinstated, although vegetation would not yet be fully established. There may therefore be some visibility of bare earth along the proposed DC cable route, although this would not be out of character with existing intensive agricultural practices within this area. Due to the limited impression of change resulting from the proposed DC cable route at year 1 and year 15 of operation, the in-combination impacts would be the same as those experienced of the proposed converter station, permanent access road and AC route in isolation.

10 Summary of Assessment

10.1 Summary

Overview of Baseline Conditions

Landscape Character

- 10.1.1 No landscape designations were identified within the Zol. The nearest are the Lincolnshire Wolds AONB and East Lindsey AGLV, located approximately 35 km and 26 km away respectively and therefore considered unlikely to be significantly affected.
- 10.1.2 A review of published landscape character assessments identified a large number of local level landscape character units within the Zol as a result of it being partially located in four local planning boundaries. A review of published data and observations in the field lead to the rationalisation of these LCAs into two groups on which the assessment is based.
- 10.1.3 The first group (Peaty Fens LCA, Holland Reclaimed Fen LCA, Fenland LCA and The Fens LCA) covers the central and west of the Zol and is defined by a low-level, largely flat, large scale and open, man-made landscape. There are a number of large scale electrical infrastructure developments within this landscape that have a strong influence on its impression.
- 10.1.4 The second group (Settled Fens LCA and Bicker to Wyberton Settled Fen LCA) cover the eastern part of the Zol and exhibit similar characteristics to that of the western area, although with a greater concentration of built form, including the settlement of Donington.

Visual Amenity

- 10.1.5 In general, much of the Zol is relatively sparsely settled, with the exception of the eastern edge which includes the larger settlement of Donington and the edge of the smaller settlements of Northorpe, Bicker and Bicker Gauntlet. There is also a sparse network of roads and PRow within the Zol.
- 10.1.6 A series of 10 viewpoint locations have been identified within the Zol, forming the basis of the visual assessment. These viewpoint locations have been selected in consultation with LPAs and are intended to provide a representative cross section of visual receptors found within the Zol and include settlements and residential properties, recreational routes, and major and minor roads.

Overview of Residual Effects

Landscape Character

- 10.1.7 As identified within Table 22.77, below, **Moderate adverse** (significant) residual effects are anticipated on the physical site landscape during construction. During operation the extent of

- direct change on the physical site landscape would reduce slightly, particularly along the AC route. However, it is anticipated that the overall level of residual effect on the physical site landscape would remain **Moderate adverse** (significant).
- 10.1.8 Outwith the site landscape, residual effects on the Peaty Fens LCA, Holland Reclaimed Fen LCA, Fenland LCA and The Fens LCA group is anticipated to be **Minor adverse** (not significant) at both construction and operation. Although the magnitude of change would reduce from **Medium** at construction to **Low** during operation, the reduction wouldn't be sufficient to change the overall level of residual effect.
- 10.1.9 The Settled Fens LCA and Bicker to Wyberton Settled Fen LCA group is anticipated to experience **Minor adverse** (not significant) effects at construction and winter year 1 of operation, reducing to **Negligible** at year 15 and in the longer term.
- 10.1.10 Potential landscape effects would largely be temporary and of short to medium duration, relatively localised within the Zol, and experienced in the context of the existing Bicker Fen Wind Farm, which is larger scale and more prominent, and other electrical infrastructure elements which have a strong influence on the baseline character. On balance, it is therefore considered that the residual effect of the proposed converter station, permanent access road and the AC route on the landscape resource of the Zol and wider context would not be significant in the long term.

Visual Amenity

- 10.1.11 As identified within Table 22.77, below, receptors at the majority of viewpoints would experience **Minor or less** not significant residual effects. However, it is anticipated that receptors at three of the 10 viewpoints: Viewpoint 3 (North Ing Drove); Viewpoint 5 (A52 Donington); and Viewpoint 7 (South Forty Foot Drain, Bank End Farm) would experience **Moderate adverse** (significant) effects during construction. The extent of change at each of these viewpoints would be reduced at the operational phase. However, due to the close proximity of the proposed converter station and open nature of the view from Viewpoint 3 (North Ing Drove) and Viewpoint 7 (South Forty Foot Drain, Bank End Farm), the level of residual effect during operation would remain at **Moderate adverse** (significant).
- 10.1.12 In summary, potential significant visual effects are limited to select receptor locations within 1 km of the proposed converter station. Due to the flat nature of the landscape, the level and significance of effect quickly reduces with distance such that receptors beyond 1 km would not be significantly affected. Therefore it is considered that although there are likely to be localised significant effects on a small number of receptors, the proposed converter station, permanent access road and the AC route would not significantly affect the overall visual amenity of the Zol or its wider context.

Cumulative Effects

- 10.1.13 As with the non-cumulative assessment, the extent of potential inter-project cumulative landscape and visual effects is anticipated to be limited to a small number of receptors.
- 10.1.14 There are anticipated to be **Moderate adverse** (significant) cumulative visual effects on receptors at two locations: Viewpoint 3 (North Ing Drove) and Viewpoint 7 (South Forty Foot Drain, Bank End Farm). In both cases the proposed converter station would be in closer proximity than the cumulative developments and would increase the extent of the view affected by electrical infrastructure.
- 10.1.15 The remaining landscape and visual receptors are anticipated to receive **Minor adverse or Negligible** (not significant) cumulative effects as a result of the addition of the proposed converter station, permanent access road and AC route to the cumulative baseline scenario.
- 10.1.16 Intra-project effects, resulting from the proposed converter station, permanent access road and AC route in combination with the proposed DC cable route would be limited to a small number of landscape and visual receptors. In each case the in-combination effects are anticipated to be largely similar and of the same overall level as those for the proposed converter station, permanent access road and AC route in isolation.

Residual Effects in South Holland District Council

Landscape Character

- 10.1.17 The proposed converter station, permanent access road and part of the AC route would be located within the SHDC area. **Moderate adverse** (significant) residual effects are anticipated on the physical site landscape during construction and operation. Residual effects on the character of the Peaty Fens LCA are anticipated to be **Minor adverse** (not significant) at both construction and operation. Although there would be a reduction in the magnitude of change from **Medium** at construction to **Low** at operation on this LCA the overall level of effect would remain similar. The Settled Fens LCA is anticipated to receive **Minor adverse** (not significant) effects at construction and winter year 1 of operation, reducing to **Negligible** at year 15 and in the longer term.

Visual Amenity

- 10.1.18 There would be localised significant adverse visual effects experienced by receptors within 1 km of the proposed converter station and permanent access road, including at Viewpoint 3 (North Ing Drove), Viewpoint 5 (A52 Donington), and Viewpoint 7 (South Forty Foot Drain, Bank End Farm). Visual effects on receptors at Viewpoint 5 would be temporary as a result of construction activity on the permanent access road and associated TCC, and would reduce to **Minor adverse** (not significant) at operation and in the longer term. Visual receptors at locations beyond 1 km from the proposed converter station, including Viewpoint 4 (Northorpe, Day's Lane), Viewpoint 6 (Westdale Drove), and Viewpoint 9 (Shoff Road, off Ing Drove) are not anticipated to be significantly affected.

Cumulative Effects

- 10.1.19 The extent of potential inter-project cumulative landscape and visual effects is anticipated to be limited to a small number of receptors. There are anticipated to be **Moderate adverse** (significant) cumulative visual effects on receptors at two locations: Viewpoint 3 (North Ing Drove) and Viewpoint 7 (South Forty Foot Drain, Bank End Farm). In both cases the proposed converter station would be in closer proximity than the cumulative developments and would increase the extent of the view affected by electrical infrastructure.
- 10.1.20 The remaining landscape and visual receptors within the SHDC area are anticipated to experience **Minor adverse or Negligible** (not significant) inter-project cumulative effects.
- 10.1.21 Intra-project effects, resulting from the proposed converter station, permanent access road and AC route in combination with the proposed DC cable route would be limited to one LCA (Peaty Fens LCA) and one viewpoint (Viewpoint 7: South Forty Foot Drain, Bank End Farm) within the SHDC area. In both cases the in-combination effects are anticipated to be largely similar and of the same overall level as those for the proposed converter station, permanent access road and AC route in isolation.

Residual Effects in Boston Borough Council

Landscape Character

- 10.1.22 The AC route would be partially located within the BBC area. **Moderate adverse** (significant) residual effects are anticipated on the physical site landscape during construction. At operation, the AC cable route would largely be reinstated and as such the extent of direct and indirect effects reduced. As such, the level of residual effect on this part of the physical site landscape would be reduced to **Minor adverse** (not significant) during operation. Residual effects on the Holland Reclaimed Fen LCA are anticipated to be **Minor adverse** (not significant) during construction and operation. Although the magnitude of change on this LCA would reduce from **Medium** at construction to **Low** at operation, the overall residual effect would remain at the same level. The Bicker to Wyberton Settled Fen LCA is anticipated to receive **Minor adverse** (not significant) effects at construction and winter year 1 of operation, reducing to **Negligible** at year 15 and in the longer term.

Visual Amenity

- 10.1.23 Due to the screening effect of the vegetation within the intervening landscape, and the relative distance from the proposed converter station, no significant effects are anticipated on visual receptors at any of the viewpoint locations identified within BBC area. However, there may be some localised and temporary significant effects during construction on receptors within close proximity to the AC route and associated TCCs.

Cumulative Effects

- 10.1.24 The extent of potential inter-project cumulative landscape and visual effects is anticipated to be limited, with all landscape and visual receptors within the BBC area anticipated to receive **Minor adverse** (not significant) cumulative effects.
- 10.1.25 Similarly, no significant intra-project effects, resulting from the proposed converter station, permanent access road and AC route in combination with the proposed DC cable route are anticipated on landscape and visual receptors within the BBC area.

Residual Effects in North Kesteven District Council

Landscape Character

- 10.1.26 The proposed converter station, permanent access road and the AC route would be located outwith the NKDC area and as such potential landscape change would be indirect. The separation and partial screening provided by landform and vegetation along the South Forty Foot Drain would help to limit the influence of indirect change on the Fenland LCA, and therefore residual effects would not be significant.

Visual Amenity

- 10.1.27 Due to the screening effect of the landform and vegetation along the South Forty Foot Drain, no significant effects are anticipated on visual receptors at any of the viewpoint locations identified within NKDC area.

Cumulative Effects

- 10.1.28 As with the non-cumulative assessment, the separation and screening provided by landform and vegetation along the South Forty Foot Drain would help to limit the influence of the proposed converter station, permanent access road and AC route on landscape and visual receptors to the west of the waterway. Therefore no significant inter-project cumulative landscape and visual effects resulting from the addition of the proposed converter station, permanent access road and AC route to the cumulative baseline scenario are anticipated on receptors within the NKDC area.
- 10.1.29 Similarly, no significant intra-project effects, resulting from the proposed converter station, permanent access road and AC route in combination with the proposed DC cable route are anticipated on landscape and visual receptors within the NKDC area.

Table 22.77 Summary of Assessment: Landscape & Visual Amenity (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
Physical site landscape	Low	Construction Temporary direct, intensive change through removal of vegetation, re-profiling of landform, introduction of temporary structures, result in a High magnitude of change.	Adverse, Moderate	Yes
		Operation (year 1 and 15) Direct intensive change within the proposed converter station site and along the permanent access road resulting from a change of land use and land cover. Medium magnitude of change.	Adverse, Moderate	Yes
Peaty Fens LCA, Holland Reclaimed Fen LCA, Fenland LCA, and The Fens LCA	Low	Construction Existing context and strong influence of large scale electrical infrastructure. Intensification of activity and movement of large machinery and equipment within these LCAs, although over a relatively limited area, of the Peaty Fens LCA and Holland Reclaimed Fen LCA. Medium magnitude of change.	Adverse, Minor	No
		Operation (year 1) Reduction in level of activity, particularly along the permanent access road and the AC route, reducing the impression of change. Introduction of structures within the proposed converter station site would result in a locally increased impression of electrical infrastructure, particularly within the Peaty Fens LCA. Low magnitude of change.	Adverse, Minor	No
		Operation (year 15) Slight reduction in the impression of change as a result of mitigation planting. However, magnitude anticipated to remain Low .	Adverse, Minor	No

Table 22.77 Summary of Assessment: Landscape & Visual Amenity (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
		<p>Cumulative (Inter-project)</p> <p>The cumulative developments would be located to the north of the existing Bicker Fen Wind Farm and substation, within the Holland Reclaimed Fen LCA is landscape.</p> <p>The proposed converter station, permanent access road and AC route would be located to the south of Bicker Fen 400 kV Substation, therefore extending the influence of such activity to a slightly larger extent of this LCA group. Medium magnitude of cumulative change.</p>	Adverse, Minor	No
		<p>Cumulative (Intra-project)</p> <p>Change resulting from the proposed converter station, permanent access road and AC route in combination with the proposed DC cable route is anticipated to be largely similar, and of the same level as the proposed converter station, permanent access road and AC route in isolation. Medium in-combination magnitude of change.</p>	Adverse, Minor	No
Settled Fens LCA, and Bicker to Wyberton Settled Fen LCA	Low	<p>Construction</p> <p>Variable, but generally limited impression of change due to local containment from built form and vegetation. Some influence from activity within this and the adjacent LCAs, resulting in a Low magnitude of change.</p>	Adverse, Minor	No
		<p>Operation (year 1)</p> <p>Reduction in level of activity on the edge of these and adjacent LCAs resulting in slight reduction in impression of change, although magnitude of change would remain Low.</p>	Adverse, Minor	No

Table 22.77 Summary of Assessment: Landscape & Visual Amenity (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
		<p>Operation (year 1) Further reduction in impression of change due to partial screening of proposed converter station by mitigation planting. Negligible magnitude of change.</p>	Negligible	No
		<p>Cumulative (Inter-project) The cumulative developments and the proposed converter station, permanent access road and the AC route would largely be located outwith these LCAs, with the exception of a small section of the permanent access road. The addition of the proposed converter station would result in a slight increase in the influence of electrical infrastructure within the wider landscape. However, the impression of change would vary throughout these LCAs, with many areas not affected. Low magnitude of cumulative change.</p>	Adverse, Minor	No
VP01: Bicker Gauntlet	Medium	<p>Construction Existing view characterised by large scale electrical infrastructure. Construction activity partially screened by vegetation within the intervening landscape, and relatively distant. Low magnitude of change.</p>	Adverse, Minor	No
		<p>Operation (year 1) Reduction in activity, particularly along the AC route, but largely similar level of apparent change within the view to that experienced during construction. Low magnitude of change.</p>	Adverse, Minor	No

Table 22.77 Summary of Assessment: Landscape & Visual Amenity (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
		<p>Operation (year 15) Further reduction in visibility of the proposed converter station due to mitigation planting and vegetation within the intervening landscape. Negligible magnitude of change.</p>	Negligible	No
		<p>Cumulative (Inter-project) The cumulative developments would be visible in relative close proximity to the west, extending across much of the horizontal extent of the view. Removal of vegetation adjacent to the existing Bicker Fen 400 kV Substation may be required to facilitate construction of Triton Knoll. The combination of the screening effect of existing landscape features, and separating distance of approximately 3 km would limit visibility to taller structures within the proposed converter station site, beyond the existing wind turbines and overhead lines on towers. These elements would occupy a smaller extent of the view and be seen at a smaller scale than the cumulative developments. Low cumulative magnitude of change.</p>	Adverse, Minor	No
VP02: Bicker, Bishop Way	Medium	<p>Construction Views of construction activity would be distant and partially screened by built form and vegetation. Change would be seen in the context of existing large scale development. Low magnitude of change.</p>	Adverse, Minor	No
		<p>Operation (year 1) Slight reduction in the extent of the view affected due to a reduction of activity on the permanent access road and the AC route. Low magnitude of change.</p>	Adverse, Minor	No

Table 22.77 Summary of Assessment: Landscape & Visual Amenity (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
		<p>Operation (year 15) Mitigation planting would provide additional screening, reinforcing the effect of existing built form and vegetation such that the proposed converter station would result in little perceptible change in the view. Negligible magnitude of change.</p>	Negligible	No
		<p>Cumulative (Inter-project) Views of the cumulative developments would be partially screened by intervening built form and vegetation along Cowbridge Road and within the wider landscape. Although the proposed converter station and AC route would occupy a larger extent of the view and extend the influence of electrical infrastructure further south, the limited nature of visibility of the cumulative developments would result in limited perception of cumulative change. Low cumulative magnitude of change.</p>	Adverse, Minor	No
VP03: North Ing Drove (users of PRow)	Medium	<p>Construction Close proximity and largely open view towards the proposed converter station and the AC route, with activity on the permanent access road partially screened. High magnitude of change.</p>	Adverse, Moderate	Yes
		<p>Operation (year 1) Reduction in extent of view affected due to reduced activity on the permanent access road and limited perception of change on the AC route. However, the proposed converter station would remain a noticeable feature, resulting in a Medium magnitude of change.</p>	Adverse, Moderate	Yes

Table 22.77 Summary of Assessment: Landscape & Visual Amenity (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
		<p>Operation (year 15) Mitigation planting would help to partially screen the proposed converter station, softening the built form within the view. Although this would represent a reduction in the apparent change, the level of magnitude is anticipated to remain Medium.</p>	Adverse, Moderate	Yes
		<p>Cumulative (Inter-project) From this location, views of the cumulative developments would be partially screened by vegetation and existing electrical infrastructure. Removal of vegetation adjacent to the existing Bicker Fen 400 kV Substation may increase the visibility of this existing electrical infrastructure. The proposed converter station site would be prominent in the fore and middle ground of the panorama. Removal of additional vegetation around Bicker Fen 400 kV Substation to facilitate construction of the AC route would result in a small increase of existing infrastructure within the view. The proposed converter station would extend the influence of electrical infrastructure to a wider extent of the view and in closer proximity to this location. The cumulative magnitude of change would be High.</p>	Adverse, Moderate	Yes
VP03: North Ing Drove (nearby residential receptors)	Medium	<p>Construction Partially restricted and filtered views, although in close proximity to the proposed converter station site. Where visible construction activity likely to be noticeable feature, resulting in a Medium magnitude of change.</p>	Adverse, Moderate	Yes

Table 22.77 Summary of Assessment: Landscape & Visual Amenity (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
		<p>Operation (year 1) Potential for a slight reduction of apparent change due to a general reduction in levels of activity, particularly along the permanent access road and the AC route. However, level of magnitude of change would remain Medium.</p>	Adverse, Moderate	Yes
		<p>Operation (year 15) Proposed mitigation planting would enhance the levels of screening provided by existing vegetation and built form, reducing the level of magnitude of change to Low.</p>	Adverse, Minor	No
VP04: Northorpe, Day's Lane	Medium	<p>Construction (Inter-project) Partially restricted and oblique views of construction activity at the proposed converter station construction, with more widespread visibility of activity on the AC route. Change experienced within portion of the view already strongly influenced by large scale electrical infrastructure. Low magnitude of change.</p>	Adverse, Minor	No
		<p>Operation (year 1) Slight reduction in the extent of the view affected due to a reduction of activity on the permanent access road and the AC route. Low magnitude of change.</p>	Adverse, Minor	No
		<p>Operation (year 15) Mitigation planting would provide additional screening, reinforcing the effect of existing vegetation such that the proposed converter station would result in little perceptible change in the view. Negligible magnitude of change.</p>	Negligible	No

Table 22.77 Summary of Assessment: Landscape & Visual Amenity (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
		<p>Cumulative (Inter-project) Views of the cumulative developments would be partially screened by intervening built form and vegetation surrounding Bicker Fen 400 kV Substation and within the wider landscape. This activity would be relatively distant and within part of the view already affected by the existing Bicker Fen Wind Farm and substation.</p> <p>Although the proposed converter station would occupy a larger extent of the view and extend the influence of electrical infrastructure further south, the limited nature of visibility of the cumulative developments would result in limited perception of cumulative change. Low cumulative magnitude of change.</p>	Adverse, Minor	No
VP05: A52 Donington (users of A52 and PRow)	Medium	<p>Construction Open and close proximity views of construction activity on the permanent access road and associated TCC. More distant and largely restricted views of construction activity at the proposed converter station site and the AC route. Medium magnitude of change.</p>	Adverse, Moderate	Yes
		<p>Operation (year 1) Reinstatement of TCC area and considerable reduction in activity on the permanent access road. Proposed converter station substantially screened by intervening vegetation and built form. Low magnitude of change.</p>	Adverse, Minor	No

Table 22.77 Summary of Assessment: Landscape & Visual Amenity (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
		<p>Operation (year 15) Mitigation planting would provide additional screening, reinforcing the effect of existing vegetation such that the proposed converter station would result in little perceptible change in the view. Negligible magnitude of change.</p>	Negligible	No
		<p>Cumulative (Inter-project) The cumulative developments would potential be visible to the north east, although largely screened by intervening vegetation surrounding Bicker Fen 400 kV Substation and within the wider landscape. This activity would be relatively distant and within part of the view already affected by the existing Bicker Fen Wind Farm and substation. The addition of the proposed converter station, the AC route and permanent access road would extend the influence of electrical infrastructure within the view. However, given the limited and distant nature of visibility of the cumulative developments, there is likely to be a limited perception of cumulative change. Low cumulative magnitude of change.</p>	Adverse, Minor	No
VP05: A52 Donington (residential receptors in Donington)	Medium	<p>Construction Views from nearby residential receptors largely contained by adjacent built form and mature vegetation along the east of the A52. Potential for some glimpsed views of construction activity along the permanent access road and at the associated TCC. Low magnitude of change.</p>	Adverse, Minor	No

Table 22.77 Summary of Assessment: Landscape & Visual Amenity (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
		Operation (year 1) Reinstatement of TCC area and considerable reduction in activity on the permanent access road, and the limited visibility of the proposed converter station. Negligible magnitude of change.	Negligible	No
		Operation (year 15) Mitigation planting would further reinforce the existing screening provided by built form and mature vegetation. Negligible magnitude of change.	Negligible	No
VP06: Westdale Drove (users of local road)	Low	Construction Construction activity would be partially screened by landform and low vegetation along the railway line to the north. Construction of the proposed converter station is likely to be a noticeable feature within the view; albeit within the portion of the view already strongly influenced by electrical infrastructure. Medium magnitude of change.	Adverse, Minor	No
		Operation (year 1) Reduction in the level of activity within the view would result in a slight reduction in the apparent extent of change. However, the proposed converter station would remain a noticeable feature and the level of magnitude of change would remain Medium .	Adverse, Minor	No
		Operation (year 15) Mitigation planting would provide partial screening of the proposed converter station. However, taller structures would remain visible above the mitigation and screening from the railway and as such the level of magnitude of change would remain Medium .	Adverse, Minor	No

Table 22.77 Summary of Assessment: Landscape & Visual Amenity (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
		<p>Cumulative (Inter-project)</p> <p>Visibility of the cumulative developments would be limited by intervening vegetation around Bicker Fen 400 kV Substation and within the wider landscape, therefore occupying a small and distant extent of the view. The addition of the proposed converter station would be in closer proximity to this viewpoint, slightly increasing the prominence of development, albeit in the context of the existing Bicker Fen Wind Farm. However, given the limited and distant nature of visibility of the cumulative developments, there is likely to be a limited perception of cumulative change. Low cumulative magnitude of change.</p>	Adverse, Minor	No
VP06: Westdale Drove (nearby residential receptors)	Medium	<p>Construction</p> <p>Views towards construction activity would largely be screened or filtered by built form and mature vegetation. Views from these receptors tend to be orientated in other directions and therefore the change tends to be in a less important part of the view. Low magnitude of change.</p>	Adverse, Minor	No
		<p>Operation (year 1)</p> <p>The reduction in levels of activity would result in a slight reduction in the visibility and extent of apparent change. However, it is anticipated that the level of magnitude of change would remain Low.</p>	Adverse, Minor	No
		<p>Operation (year 15)</p> <p>Mitigation planting would further reinforce the existing screening provided by built form and mature vegetation. Negligible magnitude of change.</p>	Negligible	No

Table 22.77 Summary of Assessment: Landscape & Visual Amenity (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
VP07: South Forty Foot Drain, Bank End Farm (users of PRow and residential receptors at Bank End Farm)	Medium	<p>Construction</p> <p>Close proximity and largely open view towards the proposed converter station and the AC route, with activity on the permanent access road partially screened. High magnitude of change.</p>	Adverse, Moderate	Yes
		<p>Operation (year 1)</p> <p>Reduction in extent of view affected due to reduced activity on the permanent access road and limited perception of change on the AC route. However, the proposed converter station would remain a noticeable feature, resulting in a Medium magnitude of change.</p>	Adverse, Moderate	Yes
		<p>Operation (year 15)</p> <p>Mitigation planting would help to partially screen the proposed converter station, softening the built form within the view. Although this would represent a reduction in the apparent change, the level of magnitude is anticipated to remain Medium.</p>	Adverse, Moderate	Yes
		<p>Cumulative (Inter-project)</p> <p>The cumulative developments would be visible to the north and north east in views along the South Forty Foot Drain. These views are generally open, although include the existing wind farm, substation and other electrical infrastructure.</p> <p>The proposed converter station site would be prominent in the fore and middle ground of the panorama, extending the influence of electrical infrastructure to a wider extent of the view and bringing it closer to this location. The cumulative magnitude of change would be High.</p>	Adverse, Moderate	Yes

Table 22.77 Summary of Assessment: Landscape & Visual Amenity (Converter Station)				
Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
		<p>Cumulative (Intra-project)</p> <p>Change resulting from the proposed converter station, permanent access road and AC route in combination with the proposed DC cable route is anticipated to be largely similar, and of the same level as the proposed converter station, permanent access road and AC route in isolation. High in-combination magnitude of change during construction, Medium during operation.</p>	Adverse, Moderate	Yes
VP07: South Forty Foot Drain, Bank End Farm (residential properties to west of South Forty Foot Drain)	Medium	<p>Construction</p> <p>Construction activity would largely be screened from residential properties to the west of the South Forty Foot Drain by a combination of landform, mature vegetation and built form. Low magnitude of change.</p>	Adverse, Minor	No
		<p>Operation (year 1)</p> <p>There may be a slight reduction in the level of activity visible from these locations. However, due to the restricted nature of visibility the level of magnitude of change would remain Low.</p>	Adverse, Minor	No
		<p>Operation (year 15)</p> <p>Mitigation planting would further reinforce the existing screening provided by landform, mature vegetation and built form, resulting in a reduction in the apparent level of change. Negligible magnitude of change.</p>	Negligible	No
VP08: Little Hale Drove	Medium	<p>Construction</p> <p>Construction activity would largely be screened by foreground vegetation and landform and vegetation along the South Forty Foot Drain. Taller operations and equipment may be visible above these elements but would occupy a small and distant part of the view. Low magnitude of change.</p>	Adverse, Minor	No

Table 22.77 Summary of Assessment: Landscape & Visual Amenity (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
		<p>Operation (year 1) The permanent access road and the AC route would not be visible from this location. The tops of taller structures within the proposed converter station site would potentially be visible but occupy a small part of the view and would therefore represent a largely imperceptible change. Negligible magnitude of change.</p>	Negligible	No
		<p>Operation (year 15) Mitigation planting may provide a slight increase in screening. However visibility and level of change would be similar to that at year 1. Negligible magnitude of change.</p>	Negligible	No
		<p>Cumulative Where glimpsed views are possible beyond the foreground vegetation the cumulative developments would occupy a relatively wide extent of the view east, from East Heckington to Bicker Fen 400 kV Substation. The landform and planting along the South Forty Foot Drain would offer additional screening of this activity. The addition of the proposed converter station would increase the extent of the view affected, but would not have a strong presence within the view as a result of the screening effect of foreground vegetation and the intervening embankments, and the existing context of larger scale electrical infrastructure. Low cumulative magnitude of change.</p>	Adverse, Minor	No

Table 22.77 Summary of Assessment: Landscape & Visual Amenity (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
		<p>Cumulative (Intra-project) Change resulting from the proposed converter station, permanent access road and AC route in combination with the proposed DC cable route is anticipated to be largely similar, and of the same level as the proposed converter station, permanent access road and AC route in isolation. Low in-combination magnitude of change during construction, Negligible during operation.</p>	Adverse, Minor	No
VP09: Shoff Road, off Ing Drove	Medium	<p>Construction Construction activity largely screened by mature vegetation along the A52, occupying a small and distant part of the view. Low magnitude of change.</p>	Adverse, Minor	No
		<p>Operation (year 1) Reduction in activity, including the use of cranes etc. at the proposed converter station site, further reducing the visibility of the proposed converter station such that it would be largely imperceptible. Negligible magnitude of change.</p>	Negligible	No
		<p>Operation (year 15) Mitigation planting would further reinforce the existing screening provided by mature vegetation along the A52. Negligible magnitude of change.</p>	Negligible	No

Table 22.77 Summary of Assessment: Landscape & Visual Amenity (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
		<p>Cumulative (Inter-project)</p> <p>Visibility of the cumulative developments would be limited by a combination of built form and vegetation. Taller structures may be visible above the intervening screening features, but would nonetheless be distant and largely imperceptible.</p> <p>The proposed converter station would also be largely screened by intervening vegetation along the A52 to the north, occupying a relatively small extent of the panorama and seen in the context of the existing large-scale vertical infrastructure at Bicker Fen Wind Farm.</p> <p>Due to the limited nature of potential visibility of the cumulative developments, it is anticipated that there would be limited or no perception of cumulative change. Negligible cumulative magnitude of change.</p>	Negligible	No
VP10: Swaton Fen	Medium	<p>Construction</p> <p>Construction activity would largely be screened by landform and vegetation along the railway and South Forty Foot Drain. Taller operations and equipment would be visible above these elements but would occupy a relatively small part of the view. Low magnitude of change.</p>	Adverse, Minor	No
		<p>Operation (year 1)</p> <p>There may be a slight reduction in the level of activity visible within the proposed converter station site. However, the tops of structures would be visible and the level of change would be broadly similar to that experienced during construction. Low magnitude of change.</p>	Adverse, Minor	No

Table 22.77 Summary of Assessment: Landscape & Visual Amenity (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
		<p>Operation (year 15) Mitigation planting may provide a slight increase in screening. However visibility and level of change would be similar to that at year 1. Low magnitude of change.</p>	Adverse, Minor	No
		<p>Cumulative (Inter-project) Visibility of the cumulative developments would be limited by a combination of landform and vegetation in views north west from this location. Taller structures may be visible, but would be distant and occupy a relatively small extent of the view. The addition of the proposed converter station would increase the extent of the view affected, but would be largely screened and would appear as a minor feature within the view which is already influenced by larger scale electrical infrastructure. Low cumulative magnitude of change.</p>	Adverse, Minor	No

11 References

- Ref: 22-1: Landscape Institute and the Institute of Environmental Management and Assessment, (2013), Guidelines for Landscape and Visual Impact Assessment, Third Edition;
- Ref: 22-2: The Multi-Agency Geographical Information for the Countryside Website (MAGIC) website managed by Natural England, www.magic.defra.gov.uk, 20/05/2016;
- Ref: 22-3: Landscape Institute, (2011), Advice Note 01/11 Photography and photomontage in landscape and visual impact assessment;
- Ref: 22-4: Scottish Natural Heritage, (2017), Visual Representation of Wind Farms Guidance, Version 2.2;
- Ref: 22-5: National Grid Viking Link, (2017), Document VKL-08-39-G500-011: Design and Access Statement;
- Ref: 22-6: National Grid Viking Link, (2017), Document VKL-08-39-G500-012: Design Code;
- Ref: 22-7: Communities and Local Government, (2012), National Planning Policy Framework;
- Ref: 22-8: South Holland District Council, (2006), South Holland Local Plan; Adopted July 2006;
- Ref: 22-9: Boston Borough Council, (1999), Boston Borough Local;
- Ref: 22-10: Boston Borough Council, (2006), Boston Borough Interim Plan (Non-Statutory Development Control Policy);
- Ref: 22-11: South East Lincolnshire Joint Strategic Planning Committee, (2017), South East Lincolnshire Local Plan 2011-2036, publication version March 2017;
- Ref: 22-12: Natural England, (2015), National Character Area profile: 46. The Fens;
- Ref: 22-13: Prepared for East Midlands Landscape Partnership by LDA Design, (2010), The East Midlands Regional Landscape Character Assessment;
- Ref: 22-14: Prepared for South Holland District Council by John Campion Associated Ltd (2003) Strategic Landscape Capacity Study;
- Ref: 22-15: Prepared on behalf of Boston Borough Council by ECUS Ltd (2009) Landscape Character Assessment of Boston Borough;
- Ref: 22-16: Prepared for North Kesteven District Council by David Tyldesley and Associates (2007) North Kesteven Landscape Character Assessment;
- Ref: 22-17: Prepared for South Kesteven District Council by FPCR, (2007), South Kesteven Landscape Character Assessment;

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