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UK Onshore Scheme

Environmental Statement

Volume 2 Document ES-2-C.07

Chapter 23

**Archaeology & Cultural Heritage (Proposed
Converter Station)**

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Environmental Statement Volume 2			
ES Reference	Chapter	Chapter Title	
ES-2-A.01	Ch01	Introduction	
ES-2-A.02	Ch02	Development of the UK Onshore Scheme	
ES-2-A.03	Ch03	The UK Onshore Scheme	
ES-2-A.04	Ch04	Environmental Impact Assessment Methods	
ES-2-B.01	Ch05	The Proposed Underground DC Cable	
ES-2-B.02	Ch06	Intertidal Zone	
ES-2-B.03	Ch07	Geology & Hydrogeology	
ES-2-B.04	Ch08	Water Resources & Hydrology	
ES-2-B.05	Ch09	Agriculture & Soils	
ES-2-B.06	Ch10	Ecology	
ES-2-B.07	Ch11	Landscape & Visual Amenity	
ES-2-B.08	Ch12	Archaeology & Cultural Heritage	
ES-2-B.09	Ch13	Socio-economics & Tourism	
ES-2-B.10	Ch14	Traffic & Transport	
ES-2-B.11	Ch15	Noise & Vibration	
ES-2-B.12	Ch16	Register of Mitigation	
ES-2-C.01	Ch17	The Proposed Converter Station	
ES-2-C.02	Ch18	Geology & Hydrogeology	
ES-2-C.03	Ch19	Water Resources & Hydrology	
ES-2-C.04	Ch20	Agriculture & Soils	
ES-2-C.05	Ch21	Ecology	
ES-2-C.06	Ch22	Landscape & Visual Amenity	
ES-2-C.07	Ch23	Archaeology & Cultural Heritage	
ES-2-C.08	Ch24	Socio-economics & Tourism	
ES-2-C.09	Ch25	Traffic & Transport	
ES-2-C.10	Ch26	Noise & Vibration	
ES-2-C.11	Ch27	Register of Mitigation	
ES-2-D.01	Ch28	Cumulative Effects	
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- Figure 23.2 Heritage Receptors
- Figure 23.3 Aerial Photographic Analysis Results
- Figure 23.4 Trial Trenching Results

List of Appendices

The following appendices are referenced within this chapter and can be found in Volume 4 Part C Technical Appendices (ES-4-C.07).

- Appendix 23.1 Desk Based Assessment (DBA)
- Appendix 23.2 Geophysical Survey Report
- Appendix 23.3 Aerial Photograph and LiDAR Assessment
- Appendix 23.4 Trial Trench Evaluation Report
- Appendix 23.5 Archaeological Mitigation Strategy

Glossary & Abbreviations

Glossary of Terms	
Term	Meaning
Corieltavi/Coritani	A Celtic tribe that were an agriculturally orientated and centred on a swathe of territory stretching across Leicestershire, Nottinghamshire, and Lincolnshire. Since they were not warriors, the tribe appear to have put up little resistance to the Roman invasion and subsequently were absorbed by “romanisation”.
Cropmarks	Cropmarks are formed when the underlying moisture levels varies which effects the growth of agricultural produce (Ref: 23-1). This can be from an increase in moisture levels, from a negative feature such as a ditch or pit which produces a richer crop, or a reduced moisture level, from a positive feature such as a wall which results in a poorer yield. The best response for cropmarks is between June and July each year. This is however subject to many factors and the absence of cropmarks many not indicate the absence of archaeological features (Ref: 23-1).
Datum	Datum is an ordnance survey term for sea level.
Domesday Book	The Domesday Book is a manuscript record of the ‘Great Survey’ which was conducted in most of England and Wales and commissioned by William the Conqueror. The first draft was completed in August 1086 and written in Medieval Latin. Its original purpose was to establish what taxes had been owed during the reign of King Edward the Confessor, this helped William to reassert the right of the Crown and assess where the power lay in the land. The book contains the records of 13,418 settlements.
Drainage Dyke	A drainage ditch
Geld	The Domesday Book records the tax, or geld unit, to the King or Lord.
Geophysical survey	The earth produces magnetic (magnetometry) fields. Technology such as fluxgate gradiometers (for magnetometry) are scanned over the ground surface and pick up subtle variations in localised fields whilst removing the background of the earth’s magnetic field. The interference or anomalies can be manmade or natural in origin. Their interpretation can give indications into the archaeological potential for a site. If the ground is not susceptible to these anomalies i.e. the machine cannot detect the difference between archaeological features and back ground geology, the results may incorrectly indicate no archaeology present.
LiDAR	LiDAR (light detection and ranging), also known as Airborne Laser Altimetry, is used to produce accurate horizontal and vertical evaluation measurements. This data has considerable potential for archaeological investigation (Ref: 23-2).
Magnetometry	This geophysical survey technique relies on the variations in the soil magnetic susceptibility, which often results from past human activities, when compared to natural background levels.

Glossary of Terms	
Term	Meaning
Resistivity	This geophysical survey relies on variations in the electrical conductivity of the soil and subsoil which in general relate to soil moisture levels. Slower than magnetometry this technique is best suited to locating positive features such as buried walls that give rise to high resistance anomalies.
Rodgons	A roddon or rodham is a former watercourse that has dried out leaving its silt and clay river bed. The former river bed is raised in comparison to the surrounding peat soils that suffer greater shrinkage compared to the silt. This raised area is ideal for settlement in the area of the Fens.
Salterns	Are mounds of clay or silt left over from the salt making process. They are quite noticeable in the fenland landscape but most have been ploughed flat.
Sondage	A deep trench, usually dug to a great depth to establish stratigraphic layers.
Trial trenching	Trial trenching is an archaeological investigation technique and a form of archaeological evaluation. The trenches vary in length but can be placed over cropmarks or geophysical anomalies. The trenches are to test to see the amount, date, and complexity of the archaeological features in a particular area. The trial trenching results can inform as to whether further archaeological investigation is needed

List of Abbreviation	
Abbreviation	Meaning
AC	Alternating Current
AD	Anno Domini is Medieval Latin for "in the year of the Lord", AD is referred to the time after the birth of Christ
AOD	Above Ordnance Datum
BBC	Boston Borough Council
BC	Before Christ refers to the time before the birth of Christ
DBA	Desk Based Assessment
DC	Direct Current
EIA	Environmental Impact Assessment
ES	Environmental Statement
GPA	Good Practice Advice
HER	Historic Environment Record
HLC	Historic Landscape Character
IDB	Internal Draining Board
LB	Listed Building

List of Abbreviation	
Abbreviation	Meaning
LCC	Lincolnshire County Council
LPA	Local Planning Authority
NGVL	National Grid Viking Link
NPPF	National Planning Policy Framework
SM	Scheduled Monument
TCC	Temporary Construction Compound
TWA	Temporary Works Area
WHS	World Heritage Site

1 Introduction

- 1.1.1 This chapter has been prepared by Arcadis Consulting. 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 archaeology and cultural heritage. A detailed description of the proposed converter station, proposed AC cable route and permanent access road are contained in chapter 17 The Converter Station. below sets out the structure of the Environmental Statement (ES) with respect to Archaeology and Cultural Heritage. Reference should be made to other documents which form part of the ES as appropriate; Volume 2 chapter 12, Underground Cable and the technical appendices of this chapter.
- 1.1.2 This chapter considers the direct and indirect impact of the proposed converter station site on cultural heritage, including buried archaeological sites, historic buildings, and historic landscapes. It identifies the likely impacts on these 'heritage receptors' (considered to be anything which may provide additional understanding to human activity of the past) - in terms of the potential for direct physical disturbance and changes within the settings of the receptors - and it assesses the overall significance of effect.
- 1.1.3 Impacts on archaeology and cultural heritage are interrelated with visual impacts on the historic landscape character of the Lincolnshire Fens and where relevant reference has been made to chapter 22 Landscape and Visual Amenity chapter. In addition, changes in noise and traffic levels during construction and operation has the potential to impact on heritage receptors through changes in their setting. Where relevant, reference has been made to chapter 26 Noise and Vibration chapter, chapter 25 Traffic and Transport chapter, and chapter 28 Cumulative Effects chapter.

Table 23.1 Environmental Statement: Archaeology & Cultural Heritage			
ES Reference	ES Volume	ES Chapter	Content
ES-2-B.08	2	12	Main Report: Proposed Underground DC Cable
ES-2-C.07	2	23	Main Report: Proposed Converter Station
ES-3-B.01	3	12	Figures: Proposed Underground DC Cable
ES-3-C.01	3	23	Figures: Proposed Converter Station
ES-4-B.08	4	12	Technical Appendices: Proposed Underground DC Cable
ES-4-C.07	4	23	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 methodology used to establish the baseline conditions and the criteria used to establish impact and effect.
- 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 an outline of any relevant legislation and guidance protecting the archaeological receptors impacted by the proposed converter station.
- 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 archaeology and cultural heritage which may occur during 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 converter station.
- Section 8. Residual Effects. Reports the residual effects which remain considering 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 impacts resulting from the construction and operation of the proposed converter station site on archaeology and cultural heritage.

2.2 Summary of Consultation

Scoping Opinion Review

2.2.1 summarises the issues raised in the scoping opinion in relation to archaeology and cultural heritage and outlines how and where this has been addressed in subsequent chapters of the ES. A copy of the scoping opinion is included in Appendix 4.1.

Table 23.2 Scoping Opinion (Archaeology and Cultural Heritage)		
Consultee	Summary of Comment	How and where addressed
Historic England	General advice was received which highlighted that the EIA should contain a thorough assessment of the likely effects that the Scheme may have upon the significance of heritage receptors. The level of information needs to be proportional to the severity of potential issues that may arise from the Scheme.	The assessment has acknowledged the designations of heritage receptors in the approach to assigning value and considering significance. It is recognised that all designated heritage receptors are of National Significance.
Historic England	Assessment should consider mitigation measures. Geophysics, trial trenching and any additional fieldwork is recommended to be reported on prior to the submission of a planning application.	The results of the Desk Based Assessment (DBA), geophysical survey, LiDAR and aerial photographic assessment and trial trench evaluation are presented in appendices Volume 4 chapter 25.
Historic England	The use of LiDAR (light detection and ranging) in assessment is recommended.	A LiDAR and aerial photographic assessment has been carried out. The results of this assessment are presented in appendices Volume 4 chapter 25.

Table 23.2 Scoping Opinion (Archaeology and Cultural Heritage)		
Consultee	Summary of Comment	How and where addressed
Historic England	The approach to assessment should consider the sensitivity of individual receptors and groups of receptors.	The DBA has considered the sensitivity of receptors. This is presented in appendices Volume 4 chapter 25.
Historic England	The approach to the significance of designated heritage receptors should be reflective of the assessment criteria for the full designation process.	The significance of designated heritage receptors is detailed in the DBA which is presented in appendices Volume 4 chapter 25.
Historic Environment Officer for Lincolnshire County Council	There is an expectation that the EIA will include the results of the geophysical and fieldwalking surveys and these will inform any trial trenching strategy. These results should indicate the level of impact on underlying archaeological remains, it should also include a robust mitigation strategy.	The results of the DBA, geophysical survey, LiDAR and aerial photograph assessment and trial trench evaluation are presented in appendices in Volume 4 chapter 25 and the results of these assessments have been used to determine the archaeological potential and impacts of the Scheme. Mitigation proposals are outlined in section 7 of this chapter and detailed in the Archaeological Mitigation Strategy. The mitigation strategy is presented as a separate document: Appendix 25.5 Archaeological Mitigation Strategy: The Proposed Converter Station (Ref: 25-3)
Historic Environment Officer for Lincolnshire County Council	There is also a requirement to assess the visual impacts on the setting of heritage receptors within the EIA.	An assessment of the impacts on heritage receptors arising from changes in their setting (including visual where relevant) is presented in section 6 of chapter 25.
Historic Environment Officer for Lincolnshire County Council	An expectation that air photos and LiDAR data is included as part of the baselined data collection.	The results of the DBA, geophysical survey, LiDAR, and aerial photograph assessment are presented in appendices in Volume 4 chapter 25 (Appendix 25.3) and the results of these assessments have been used to determine the archaeological potential of the Scheme.
Heritage Lincolnshire	No specific comments were received	n/a

Additional Consultation

2.2.2 summarises additional consultation undertaken with relevant statutory and non-statutory consultees in relation to Archaeology and Cultural Heritage and outlines how and where this has been addressed in subsequent chapters of the ES.

Table 23.3 Additional Consultation (Archaeology and Cultural Heritage)		
Consultee	Nature of additional consultation	How and where addressed
Historic England	Correspondence to agree the scope of assessment. Advised to include all heritage receptors regardless of period in assessment and to produce detailed site maps to assist in assessing the historic environment impacts of the proposed converter station site.	<p>The DBA (Volume 4, Chapter 23.1) presents details of all the heritage receptors within the zone of influence, of all periods, and details of all heritage receptors assessed in the ES are presented in the Baseline Conditions section (section 5) of Chapter 23. Detailed figures showing the location of heritage receptors in relation to the Scheme are included in Volume 3 of the ES.</p> <p>A proportionate approach was followed to site selection in which increasing levels of detail were considered. Archaeology was a consideration and results of the heritage assessments have informed (where possible) the selection of the converter station site and route of the AC cable and proposed permanent access road.</p>
Lincolnshire County Council	<p>Detailed desk top assessment combined with archaeological field walking and geophysical survey would be required to support the ES.</p> <p>Site monitoring meeting during the trial trenching. Indication that site works were being conducted appropriately.</p>	<p>The results of the DBA including site walkover, geophysical survey, trial trenching, LIDAR and aerial photographic assessment are presented in presented in appendices in Volume 4 Chapter 23 (Appendix 23.1 – 23.4) and the results of these assessments have been used to determine the archaeological potential of the Scheme.</p> <p>Site monitoring was carried out by LCC during the trial trenching.</p>

Table 23.3 Additional Consultation (Archaeology and Cultural Heritage)

Consultee	Nature of additional consultation	How and where addressed
Heritage Lincolnshire	No specific comment has been received from Heritage Lincolnshire that differs from the comments received from other consultees	n/a

2.3 Scope of Assessment

Aspects to be assessed

2.3.1 The archaeology and cultural heritage assessment seeks to identify, predict, and evaluate the significance of potential effects to designated and non-designated heritage receptors. The receptors to be assessed include:

- Designated/protected heritage sites
 - scheduled monuments, listed buildings, and registered parks and gardens; and
 - Conservation area designation plans and conservation area appraisals.
- Non-designated sites
 - Archaeological sites and events, grey literature reports of relevant previous archaeological investigations, and Historic Landscape Characterisation (HLC) data; and
 - Receptors identified through assessment work for the Scheme.
- Unknown archaeology
 - The potential for archaeological remains to be present within the application boundary.
- In addition, the aspects to be assessed include:
 - Direct impacts which are impacts that arise as straightforward consequences of a scheme. For archaeological receptors and historic buildings this could include physical impact to, or physical improvement of, the fabric of the heritage receptor but also includes impacts to the setting of heritage receptors; and
 - Indirect impacts which are impacts that arise where the connection between the scheme and the impact is complicated, unpredictable, or remote. For example, an indirect impact on the historic landscape could arise from an agricultural holding being severed leading to a change in farming regime resulting in an alteration in the historic land use pattern in areas away from the scheme. Indirect impacts are not necessarily less damaging than direct impacts.

2.3.2 Whilst the landscape and visual assessment in chapter 22 (Landscape and Visual Amenity) considers the contribution of historical elements and features to the character of the existing landscape and evaluates views it does not assess potential impacts on the cultural or historical value of these elements or consider effects on the historic context of locations.

Spatial Scope

- 2.3.3 The archaeology and cultural heritage assessment seeks to identify, predict, and evaluate the significance of potential effects on designated and non-designated heritage receptors.
- 2.3.4 A Zone of Influence of 3 km from the proposed converter station planning application boundary for designated heritage receptors and 1 km for non-designated heritage receptors has been identified. In addition, where the permanent access road and the proposed AC cable route extend beyond the extent of the 1 km Zone of Influence an extra 250 m Zone of Influence has been applied for non-designated heritage receptors in these locations. The Zone of Influence is displayed on Figure 23.1. The extent of the Zone of Influence has been informed by a review of the maximum parameters of the Scheme, desk based research, the options appraisal, approach to the DC cable route, knowledge of the area, consideration of other topics' approach and professional judgement and is focused on potential significant effects. This includes the extent of the Limits of Deviation.
- 2.3.5 The Zone of Influence falls within Boston Borough Council (BBC), South Holland District Council (SHDC) and North Kesteven District Council (NKDC).

Temporary Impacts

- 2.3.6 Temporary impacts upon heritage receptors will occur during the construction phase of the Scheme. These impacts have the potential to affect the setting of receptors during the construction phase of the Scheme and whilst temporary construction areas are in use.

Operational, longer term, and permanent impacts

- 2.3.7 Operational impacts to heritage receptors will primarily occur at the proposed converter station. The operation of the proposed converter station may change noise levels in the area which has the potential to influence the setting of nearby heritage receptors.
- 2.3.8 The setting of heritage receptors may be permanently affected by the presence of the proposed converter station. The design of the building and its associated structures could potentially be intervisible with nearby designated receptors. The impact of construction of the AC cable route and the permanent access road has the potential to include direct physical impacts on known and unrecorded archaeological remains.

2.4 Identification of Baseline Conditions

Desk Studies

- 2.4.1 The baseline is informed by collating data on known designated and non-designated heritage receptors from the following sources:
- National Heritage List for England;
 - Lincolnshire Historic Environment Record (HER);

- BBC (conservation areas within Boston Borough); and
- SHDC (conservation areas within SHDC).

2.4.2 To identify the potential archaeology and cultural heritage that may be affected by the Scheme, data has been collected from a variety of sources with regard to the guidance in the Chartered Institute for Archaeologists (CIfA) *Standard and Guidance for Historic Environment Desk Based Assessment* (Ref: 23-4). The data has been collected for the Zone of Influence, from the following sources:

- Designated Receptors:
 - National Heritage List for England – ArcGIS shapefiles and full descriptions of scheduled monuments, listed buildings and registered parks and gardens; and
 - Local Plans – conservation area designation plans and conservation area appraisals.
- Non-designated Receptors
 - Lincolnshire HER - ArcGIS shapefiles and long descriptions of archaeological sites and events, grey literature reports of relevant previous archaeological investigations, HLC data, National Mapping Programme (NMP) data.
- Cartographic Sources:
 - Historic Ordnance Survey editions obtained from Landmark Information Group; and
 - Pre-Ordnance Survey maps including tithe and or estate maps obtained from Lincolnshire Archives (Lincoln) and appropriate local studies libraries.
- Other data sources:
 - Background information on the general development of the historic environment from other sources held at county record offices and local studies libraries;
 - Historic England Archive;
 - Regional Research Frameworks;
 - Reports on recent archaeological investigations within the Zone of Influence that are not yet included in the HER (where available);
 - Detailed Aerial photographic assessment of the proposed converter station and the proposed AC cable route;
 - Detailed LiDAR assessment of the proposed converter station and the proposed AC cable route; and
 - Further assessment of Aerial Photographs and LiDAR for the permanent access road.

2.4.3 In undertaking a review of baseline data including the National Heritage List for England, Local Plans, HER data, historic mapping, and the regional research framework professional judgement has been used to assess the potential for unknown archaeology to be present.

Field Studies

2.4.4 Archaeological walk-over survey of the Scheme has been undertaken where access has been possible. This confirmed whether any surface based features or deposits identified during the

desk top review were visible and identified and examined the location of any features visible on the surface or deposits that had not previously been recorded. It also identified areas of Modern disturbance that may have impacted the presence or condition of known or unknown buried archaeological deposits.

- 2.4.5 Due to ground conditions and access arrangements within selected areas archaeological geophysical survey has only been undertaken on the proposed converter station. This was a magnetic survey (undertaken using magnetometers) to identify below ground anomalies that may be indicative of archaeological remains. The data returned by the geophysical survey has been processed and analysed and the anomalies categorised as either agricultural, geological, or archaeological in origin.
- 2.4.6 Archaeological evaluation trenching has been undertaken at the proposed converter station to ground truth the geophysical survey results, the results of the LiDAR and aerial photographic analysis and HER data. A total of 16 trenches were located to target the potential impacts from the base scheme design, more widely the converter station site and the entrance of the permanent access road into the converter station site. Trenching results concluded that likely second-fourth century Roman activity was located within the proposed converter station site, concentrated in the three most northern trenches. Further detail is provided in the converter station mitigation strategy, including a recommendation for further archaeological investigation following the findings of the trial trenching (Ref: 23-3).

2.5 Assessment Methodology

Assessment Guidance

- 2.5.1 There is no methodology consistently adopted by the archaeology and cultural heritage profession for assessing impacts on historic environment receptors as part of an EIA. In the absence of any industry accepted methodology, the archaeology and cultural heritage impact assessment has been carried out broadly in accordance with the methodology laid out in *Design Manual for Roads and Bridges* (DMRB) (Ref: 23-5). The DMRB provides a methodology for assigning value to receptors, magnitude of impact and significance of effects. The criteria outlined in this methodology are presented in Tables 23.4 to 23.6. Not all elements of DMRB are relevant to the Scheme, therefore in places the assessment has diverged from the DMRB methodology. Where a departure from the approach set out in the DMRB has occurred, explanation in text notes the deviation. This assessment has also considered the requirements of the National Planning Policy Framework (NPPF) to describe the significance of heritage receptors, including any contribution made by their setting. In addition, comments from Historic England have been considered when assessing the significance of heritage receptors.
- 2.5.2 To assess potential effects on the significance of heritage receptors in line with the requirement of the NPPF, it is necessary to consider potential impacts to the setting of those receptors. Guidance on assessing the setting and significance for heritage receptors is provided by Historic England (Ref: 23-6 and 23-7), and specific guidance on assessing impacts to views is provided in

Historic England's *Seeing the History in the View* (Ref: 23-8). The guidance provided in *The Setting of Heritage Assets Good Practice Advice* (GPA) (Ref: 23-7) outlines the approach to assessing and managing change within the settings of heritage receptors. This is achieved by considering whether, how and to what degree setting contributes to the significance of those receptors and to what extent, if any, a proposed development would affect that significance, through changes to setting.

2.5.3 The *Setting of Heritage Assets* GPA (Ref: 23-7) recommends the following broad approach to assessment, undertaken as a series of steps that apply proportionately to complex or more straightforward cases:

- Step 1 Identify which heritage receptors and their settings are affected.
- Step 2 Assess whether, how and to what degree these settings contribute to the significance of the heritage asset(s).
- Step 3 Assess the effects of the proposed development, whether beneficial or harmful, on that significance.
- Step 4 Explore the way to maximise enhancement and avoid or minimise harm.
- Step 5 Make and document the decision and monitor outcomes.

2.5.4 Current national guidance for the assessment of the significance of heritage receptors is provided by Historic England in the document *Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment* (Ref: 23-6) in which significance is weighed by consideration of the potential for the receptor to demonstrate the following value criteria:

- Evidential value. Deriving from the potential of a place to yield evidence about past human activity.
- Historical value. Deriving from the ways in which past people, events and aspects of life can be connected through a place to the present. It tends to be illustrative or associative.
- Aesthetic value. Deriving from the ways in which people draw sensory and intellectual stimulation from a place.
- Communal value. Deriving from the meanings of a place for the people who relate to it, or for whom it figures in their collective experience or memory. Communal values are closely bound up with historical (particularly associative) and aesthetic values, but tend to have additional and specific aspects.

Assessment Criteria

Sensitivity or Value of Receptors

2.5.5 Table 23.4 Receptor Value Criteria (Archaeology and Cultural Heritage) sets out the criteria for assessing the value of heritage receptors that are applied in this assessment. The values ascribed to heritage receptors are considered alongside their significance.

2.5.6 Grade II listed buildings are defined for EIA purposes as having medium value. All listed buildings are nationally important and have high significance. The valuation of Grade II listed buildings as having medium value is consistent with this as the valuation of medium recognises the 'lower

grading' of a Grade II listed building in comparison to a Grade II* or Grade I listed building. Although all listed buildings enjoy a national level designation, and a nationally significant, the category embraces receptors which in practice range from those of the highest worth and quality in Grades I and II* to those that are important but more numerous in Grade II. The valuation of Grade II listed buildings for EIA purposes as having medium value accords with this. Nevertheless, professional judgement is used when considering the value of all receptors on a case by case basis. In particular circumstances, the value of individual Grade II listed buildings could be elevated from medium to high when professional judgement is used.

Table 23.4 Receptor Value Criteria (Archaeology and Cultural Heritage)	
Value	Description
Very High	<ul style="list-style-type: none"> World Heritage Sites (WHS) (including nominated sites) Receptors of acknowledged international importance Receptors that can contribute significantly to acknowledged international research objectives Other buildings of recognized international importance Historic landscapes of international value, whether designated or not Extremely well preserved historic landscapes with exceptional coherence, time-depth, or other critical factor(s)
High	<ul style="list-style-type: none"> Scheduled monuments (including proposed sites) Non-designated receptors of schedulable quality and importance Receptors that can contribute significantly to acknowledged national research objectives Grade I and Grade II* listed buildings Other listed buildings that can be shown to have exceptional qualities in their fabric or historical associations not adequately reflected in the listing grade Conservation Areas containing very important buildings Non-designated structures of clear national importance Non-designated historic landscapes of outstanding interest Non-designated historic landscapes of high quality and importance, and of demonstrable national value Well preserved historic landscapes, exhibiting considerable coherence, time-depth or other critical factor(s)

Table 23.4 Receptor Value Criteria (Archaeology and Cultural Heritage)	
Value	Description
Medium	<p>Designated or non-designated receptors that contribute to regional research objectives</p> <p>Grade II listed buildings</p> <p>Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical associations</p> <p>Conservation Areas containing buildings that contribute significantly to its historic character</p> <p>Historic townscape or built up areas with important historic integrity in their buildings, or built settings (e.g. including street furniture and other structures)</p> <p>Non-designated historic landscapes that would justify special historic landscape designation, landscapes of regional value</p> <p>Averagely well-preserved historic landscapes with reasonable coherence, time-depth or other critical factor(s)</p>
Low	<p>Designated and non-designated receptors of local importance</p> <p>Receptors compromised by poor preservation and/or poor survival of contextual associations</p> <p>Receptors of limited value, but with potential to contribute to local research objectives</p> <p>'Locally listed' buildings</p> <p>Historic (unlisted) buildings of modest quality in their fabric or historical association</p> <p>Historic townscape or built up areas of limited historic integrity in their buildings or built settings (e.g. including street furniture and other structures)</p> <p>Robust non-designated historic landscapes</p> <p>Historic landscapes with importance to local interest groups</p> <p>Historic landscapes whose value is limited by poor preservation and/or poor survival of contextual associations</p>
Negligible	<p>Receptors with very little or no surviving archaeological interest</p> <p>Buildings of no architectural or historical note; buildings of intrusive character</p> <p>Landscapes with little or no significant historical interest</p>
Unknown	<p>The importance of the resource has not been ascertained</p> <p>Buildings with some hidden (i.e. inaccessible) potential for historic significance</p>

2.5.7 In addition to determining the value of heritage receptors this chapter will also consider the significance of each receptor as directed by the NPPF. The significance of a heritage receptor contributes to its value.

Magnitude of Impacts

2.5.8 Table 23.5 sets out the criteria for assessing the magnitude of impacts to heritage receptors that are applied in this assessment.

Table 23.5 Impact Magnitude Criteria (Archaeology & Cultural Heritage)	
Magnitude	Description
High	<p>Change to most or all key archaeological materials, such that the resource is totally altered</p> <p>Comprehensive changes to setting</p> <p>Change to key historic building elements, such that the resource is totally altered or lost</p> <p>Comprehensive changes to the setting of historic buildings</p> <p>Change to most or all key historic landscape elements, parcels, or components; extreme visual effects; gross change of noise or change to sound quality; fundamental changes to use or access; resulting in total change to historic landscape character unit.</p>
Medium	<p>Changes to many key archaeological materials, such that the resource is clearly modified</p> <p>Considerable changes to setting that affect the character and significance of the receptor</p> <p>Change to many key historic building elements, such that the resource is significantly modified</p> <p>Changes to the setting of an historic building, such that it is significantly modified and its significance is affected</p> <p>Changes to many key historic landscape elements, parcels or components, visual change to many key aspects of the historic landscape, noticeable differences in noise or sound quality, considerable changes to use or access; resulting in moderate changes to historic landscape character.</p>
Low	<p>Changes to key archaeological materials, such that the receptor is slightly altered</p> <p>Slight change to setting that affects its significance</p> <p>Change to key historic building elements, such that the receptor is slightly different</p> <p>Change to setting of an historic building, such that it is noticeably changed and its significance is affected</p> <p>Changes to few key historic landscape elements, parcels or components, slight visual changes to few key aspects of historic landscape, limited changes to noise levels or sound quality; slight changes to use or access; resulting in limited changes to historic landscape character.</p>
Negligible	<p>Very minor changes to archaeological materials, or setting</p> <p>Slight changes to historic building elements or setting that hardly affect it</p> <p>Very minor changes to key historic landscape elements, parcels or components, virtually unchanged visual effects, very slight changes in noise levels or sound quality;</p>

Table 23.5 Impact Magnitude Criteria (Archaeology & Cultural Heritage)

Magnitude	Description
	very slight changes to use or access; resulting in a very small change to historic landscape character.
No Change	No change to archaeological receptors No change to fabric or setting of historic buildings No change to elements, parcels, or components of the historic landscape; no visual or audible changes; no changes arising from amenity or community factors.

- 2.5.9 Impacts to heritage receptors can be both direct and indirect. Direct impacts are those that arise as straightforward consequences of a scheme. For archaeological receptors and historic buildings this could include physical damage to, or physical improvement of, the fabric of the receptor but also includes impacts to the setting of heritage receptors as stated in the Historic England guidance (Ref: 23-6 and 23-7) on the setting of heritage receptors.
- 2.5.10 Indirect impacts are impacts that arise where the connection between the Scheme and the impact is complicated, unpredictable, or remote. For example, an indirect impact on the historic landscape could arise from an agricultural holding being severed, leading to a change in farming regime, resulting in an alteration in the historic land use pattern in areas away from the Scheme. Indirect impacts are not necessarily less damaging than direct impacts.
- 2.5.11 Where the significance of a heritage receptor is informed by its relationship with another heritage receptor (e.g. a direct impact on one heritage receptor could also result in an indirect impact on another heritage receptor if it results in a change in the relationship between the two receptors), the relationship has been considered as part of the assessment. This will aid in informing shared, indirect, or cumulative impacts on receptors.

Assessing the Significance of Effects

- 2.5.12 Table 23.6 illustrates how information on the value of the heritage receptor and the magnitude of impact is combined to arrive at an assessment of the level of effect arising from the Scheme. The matrix in Table 23.6 is not intended to 'mechanise' judgement of the significance of effect but to act as a check to ensure that judgements regarding value, magnitude of impact and significance of effect are reasonable and balanced.
- 2.5.13 To allow for professional judgement in some cases the individual attributes of a specific receptor, along with any relevant site specific factors and consideration of other influencing elements, have been considered in assessing whether the significance of effect suggested by the matrix is the most appropriate.
- 2.5.14 Based on professional judgement and the guidance set out in the *Historic Environment Good Practice Advice in Planning Note 2* (Ref: 23-9), a 'significant' effect is considered of moderate significance or above and/or one where it can be said that a receptor would experience substantial harm.

Magnitude of Impact	Sensitivity or Value of Receptor				
	Very High	High	Medium	Low	Negligible
High	Major	Major	Moderate	Moderate	Minor
Medium	Major	Moderate	Moderate	Minor	Negligible
Low	Moderate	Moderate	Minor	Negligible	Negligible
Negligible	Minor	Minor	Negligible	Negligible	Negligible

2.6 Assumptions and Limitations

- 2.6.1 This assessment was compiled using heritage data obtained from third party sources and the prediction of effects is based on the accuracy of that data. Whilst the data from these sources is generally valid, there can be instances where data is mislabelled, placed in the wrong geographical location, or omitted altogether.
- 2.6.2 The conclusion of further data collection and other methods of archaeological investigation allows the potential for the presence of currently unknown heritage receptors to be assessed and reported in detail in the DBA and other technical appendices and the potential effects of the Scheme on this resource are assessed based on the information contained in these sources.
- 2.6.3 Due to the nature of archaeological remains, their identification and assessment necessarily requires an element of assumption. The nature, extent, survival, and even the precise location, of buried archaeological remains are often uncertain, as many of such sites have never been subject to archaeological investigation to Modern standards. Assessment of the value of such sites (as part of the assessment process) is often, therefore, heavily reliant on informed extrapolation from limited data, comparison with similar receptors in similar contexts and, ultimately, on professional judgement.
- 2.6.4 An archaeological walkover has been carried out over the Scheme where access has been made available. Permission to carry out the walkover has been sought for the whole of the Scheme and access was taken for all areas where this was granted and the land was deemed surveyable. This land came to a total of 83% of the total number of fields which intersected with the planning application boundary. A small area (17%) of the total area was not accessed due to either access not being granted, or the land was unsuitable for survey.

3 Basis of Assessment

3.1 Introduction

- 3.1.1 The following section outlines the basis under which this assessment has been carried out. The approach taken has been to assume a realistic worst-case scenario in terms of effects on heritage receptors.
- 3.1.2 The assessment takes account of mitigation that has been incorporated within the Scheme design, i.e. the stated effects are those that will occur with the designed-in mitigation in place. The design mitigation measures include the following:
- Materials and finishes;
 - Landscape planting; and
 - Archaeological fieldwork to be carried out in advance of construction.
- 3.1.3 Due to the commitment to embed mitigation through archaeological fieldwork in advance of construction into the Scheme design it is possible that the residual effects reported in section 8 of this chapter remain unchanged from those reported in section 6 Potential Effects.
- 3.1.4 Multiple assessment methods have been used to either ground truth the third-party data, or gather new data on previously unrecorded heritage receptors. These include a walkover survey, Aerial Photographic interpretation, a geophysical survey, and an archaeological evaluation. Professional judgement, based on the existing baseline, has been used to assess the potential for currently unknown archaeological remains to be present.

3.1 The Converter Station

- 3.1.1 The assessment of potential impact has been established through the study of the base scheme design of the proposed converter station, located within SHDC. A realistic worst-case design is considered to detail the maximum amount of impact the proposed converter station will have on any heritage receptors. The base scheme design considers all elements of the proposed converter station which comprise;
- a converter station with a height of 24 m and a footprint of 4.8 ha;
 - Temporary Construction Compounds (TCC) for the storage of plant and material as well as site offices and welfare facilities for staff with an area of 2 ha; and
 - Landscaping of the proposed converter station site.
- 3.1.2 The proposed converter station is considered for its impact on heritage receptors through a 3 km Zone of Influence for designated receptors, and a 1 km Zone of Influence for non-designated receptors.
- 3.1.3 This assessment has also taken into account that during the construction phase it is considered likely that the whole converter station site (30 ha) will be used for construction activities including

topsoil storage, site re-profiling, temporary works areas, construction compounds, and temporary and permanent access roads.

- 3.1.4 The impacts from construction of the converter station will introduce changes in the setting of heritage receptors which may lead to impacts. Impacts arising from changes in setting of heritage receptors will also be experienced from the presence of the proposed converter station zone. Impacts on below ground archaeological remains within the footprint of construction activity at the proposed converter station site will also be experienced.

3.2 The AC Cable Route

- 3.2.1 Assessment has been made utilising a Limit of Deviation (LoD) for the proposed AC cable route and the associated connection works at Bicker Fen 400 kV Substation. The LoD provides a 50 m buffer either side of the 50 m working width of the AC route. Therefore, a 150 m working corridor is produced for the potential impact of receptors from the physical impact of the proposed AC cable route development. For the connection works a similar working width has been assessed, which falls entirely within the footprint of the existing substation. The proposed AC cable working width will create a worst-case scenario and subsequently consider the greatest potential for heritage receptors to be impacted.
- 3.2.2 The proposed AC cable route is considered for its impact on heritage receptors through a 250 m buffer either side creating a Zone of Influence for non-designated receptors, and a 3 km Zone of Influence for designated receptors.
- 3.2.3 The proposed AC cable route is 2.34 km and routed through SHDC and BBC. The connection works into Bicker Fen 400kV Substation pass below Vicarage Drove into the footprint of the existing substation.
- 3.2.4 The proposed AC cable working width is typically 50 m wide and comprises the following:
- Trench in which the AC cables are laid and then backfilled;
 - Temporary drainage/water management measures;
 - Access track including laybys for offloading cable drums; and
 - Areas for temporary top and sub-soil storage.
- 3.2.5 As part of the AC cable installation there is also a requirement for temporary construction facilities to be established including:
- Temporary Works Areas (TWA); and
 - Access including formation of new bellmouth junctions and upgrades to existing roads as well as the establishment of temporary accesses to the proposed AC cable working width. This temporary access will be achieved through the proposed converter station site to prevent further traffic flow from the east.
- 3.2.6 The impacts from the proposed AC cable working width, including stripped areas and soil storage areas would form a linear change within the setting of heritage receptors throughout the route. However, once the construction phase and reinstatement have been completed the impacts

would be reversed. Additionally, TCCs and TWAs would have a similar effect. Impacts on below ground archaeological remains within the AC cable working width will also be experienced.

- 3.2.7 The impacts of the Bicker Fen 400 kV Substation connection works would be the same as for the proposed AC cable route.
- 3.2.8 Other bases of assessment made for the proposed converter station remain applicable for the study of impacts from the proposed AC cable route.

3.3 Permanent Access Road

- 3.3.1 The permanent access road will be considered based upon its 3 km route from the proposed converter station site, across the Hammond Beck and to the new junction with the A52 to the north west of Donnington within SHDC.
- 3.3.2 It is considered for its impact on heritage receptors through a 250 m buffer either side creating a Zone of Influence for non-designated receptors and a 3 km zone of influence for designated receptors.
- 3.3.3 The permanent access road has been designed to be located close to existing track ways and field boundaries to avoid unnecessary new visual impacts to the landscape and breaks to existing cohesive field systems. If the proposed permanent access road was not constructed both construction traffic during construction and regular daily work traffic would be routed through small villages and minor roads causing disruption and potential damage to the local environment.
- 3.3.4 The permanent access road will comprise the following:
- Permanent access road;
 - Bridge crossing of Hammond Beck; and
 - TWA at junction with A52.
- 3.3.5 The impacts from the permanent access road would represent a change within the setting of heritage receptors. Impacts on below ground archaeological remains (if present) within the permanent access road working width will also be experienced.
- 3.3.6 Other bases of assessment made for the proposed converter station remain applicable for the study of impacts from the permanent access road.

3.4 Any other assumptions

- 3.4.1 The assessment of archaeology and cultural heritage receptors looks to identify how particular parts of a place and different periods in its evolution contribute to, or detract from, identified heritage significance associated with the converter station site. This approach considers the present character of the proposed converter station site based on the chronological sequence of events that produced it, and allows management strategies to be developed that sustain and enhance the significance of heritage receptors, in line with the requirements of the NPPF.

4 Planning Policy and Legislative Considerations

4.1 Relevant Legislation

- 4.1.1 The relevant parliamentary act which provides the legislative framework for development is the Town and Country Planning Act 1990. The Planning (Listed Buildings and Conservation Areas) Act 1990 and the Ancient Monuments and Archaeological Areas Act 1979 provides the statutory framework for legal protection of historic buildings, conservation areas and designated archaeological remains respectively.
- 4.1.2 The Planning (Listed Buildings and Conservation Areas) Act 1990 applies special protection to buildings and areas of special architectural or historic interest.
- 4.1.3 Section 66 (1) of the act states that *“In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses”*.
- 4.1.4 The Ancient Monuments and Archaeological Areas Act 1979 gives statutory protection to any structure, building or work which is of historic or archaeological interest and regulates any activities which may affect such areas. Under the Act any work that is carried out on a Scheduled Monument must first obtain Scheduled Monument consent.

4.2 Relevant National Policy

- 4.2.1 The current national policy applicable to the ES chapter comprises section 12, Conserving and Enhancing the Historic Environment of the NPPF. This section sets out policy and provides guidance in respect of the conservation and investigation of heritage receptors and requires local authorities to take the following into account: -
- *The desirability of sustaining and enhancing the significance of heritage receptors and putting them to viable uses consistent with their conservation;*
 - *The wider social, cultural, economic, and environmental benefits that conservation of the historic environment can bring;*
 - *The desirability of new development making a positive contribution to local character and distinctiveness; and opportunities to draw on the contribution made by the historic environment to the character of a place.*
- 4.2.2 The NPPF details the policy further with relevant paragraphs 131- 135 presented here.
- 131. In determining planning applications, local planning authorities should take account of:*

- *the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation*
- *the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality*
- *the desirability of new development making a positive contribution to local character and distinctiveness*

132. *When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.*

133. *Where a proposed development will lead to substantial harm to or total loss of significance of a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:*

- *the nature of the heritage asset prevents all reasonable uses of the site*
- *no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation*
- *conservation by grant-funding or some form of charitable or public ownership is demonstrably not possible*
- *the harm or loss is outweighed by the benefit of bringing the site back into use*

134. *Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing its optimum viable use.*

135. *The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.*

4.3 Relevant Local Policy

Boston Borough Council

- 4.3.1 The statutory development plan for BBC currently comprises the 'saved' parts of the Boston Borough Local Plan (BBLP) and the Boston Borough Interim Plan (Non-Statutory Development Control Policy) 2006 (Ref: 23-11). The BBLP was originally adopted in 1999, with the policies then being reviewed in 2007 and either 'saved' where relevant or deleted where not. In the

circumstances where the policies within the Local Plan are not consistent with the NPPF then that they should be afforded reduced weight or no weight.

- 4.3.2 The 2006 Boston Borough Interim Plan was produced as a replacement for the BBLP but had to be withdrawn from the statutory adoption process in February 2006. Boston Borough Council subsequently adopted a revised version of the Interim Plan for development control purposes. However, due to significant objection received during the production of the plan, the policies contained within the Interim Plan are judged not to carry weight and therefore will not be considered within this Planning Statement.
- 4.3.3 BBC, SHDC, and LCC are in the process of preparing a new local plan, the South-East Lincolnshire Local Plan (SELLP), which will guide development in the area until 2036 and act as a replacement for the BBLP. The Plan is currently (May 2017) at draft stage and therefore is considered a material consideration in the determination of the planning applications. It is anticipated that the plan will be adopted in Spring 2018.
- 4.3.4 The policies from both the BBLP (2007 saved policies) and the SELLP which are of relevance to the Scheme have been summarised and are outlined in the following sections.

Boston Borough Local Plan, Adopted 1999 (Saved Policies, 2007)

- 4.3.5 Policy CO1 (Development in the Countryside) states that development will not be permitted in the countryside unless other local plan policies support it. The policy goes on to state that the plan makes allowance for development which benefits economic activity, or which meets social needs, while maintaining or enhancing the environment.

South East Lincolnshire Local Plan 2011-2036 (Publication Version, March 2017)

- 4.3.6 Policy 3 (Development Management) is a strategic policy relating to new development advising that proposals requiring planning permission for development will be permitted provided that sustainable development considerations are met, specifically in relation to:
1. *“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;*
 2. *quality of design and orientation;*
 3. *maximising the use of sustainable materials and resources;*
 4. *access and vehicle generation levels;*
 5. *the capacity of existing community services and infrastructure;*
 6. *impact upon neighbouring land uses by reason of noise, odour, disturbance or visual intrusion;*
 7. *sustainable drainage and flood risk; and*
 8. *impact or enhancement for areas of natural habitats and historical buildings and heritage assets.”*

- 4.3.7 Policy 25 (The Historic Environment) seeks to respect the historical legacy, varied character, and appearance of South East Lincolnshire's historic environment. Development proposals will conserve and enhance the character and appearance of designated and non-designated heritage assets, such as important archaeology, historic buildings, conservation areas, monuments, street patterns, streetscapes, landscapes, parks, river frontages, structures, and their settings through high-quality sensitive design.
- 4.3.8 Policy 26 (Pollution) advises that proposals will not be permitted where, individually, or cumulatively, there are adverse impacts on light, noise, odour, fumes, vibration, and waste materials and therefore have adverse impacts upon:
1. *“health and safety of the public;*
 2. *the amenities of the area; and*
 3. *the natural, historic, and built environment;*
- by way of:*
1. *air quality, including odour;*
 2. *background noise and light levels;*
 3. *land quality and condition; and*
 4. *surface and groundwater quality.”*
- 4.3.9 Furthermore, policy 26 states that an Air Quality Assessment should accompany Major planning applications to demonstrate significance of the proposed development's effect on air quality and suitable mitigation measures, if required. Exceptions will be made where it can be clearly demonstrated that the wider social and economic benefits of the development outweigh the adverse environmental impact.
- 4.3.10 The policy also explains that development proposals on contaminated land, or where there is reason to suspect contamination, must include an assessment of the extent of contamination and any possible risks. Proposals will not be considered favourably unless the land is, or can be made, suitable for the proposed use.

South Holland District Council

- 4.3.11 The statutory development plan for SHDC currently comprises the 'saved' parts of the South Holland Local Plan (SHLP) (Ref 23.12). The SHLP was originally adopted in 2006, and the policies were then reviewed in 2009 and either 'saved' where relevant or deleted where not. If the policies within the Local Plan are not consistent with the NPPF then policy dictates that they should either be given reduced or no weight.
- 4.3.12 BBC, SHDC, and LCC are in the process of preparing a new local plan, the SELLP, which will guide development in the area until 2036 and act as a replacement for the SHLP. The Plan is currently (May 2017) at draft stage and therefore is considered a material consideration in the determination of planning applications. It is expected the plan will be adopted in Spring 2018.

- 4.3.13 The policies from the SHLP which are of relevance to the Scheme have been summarised and are outlined in the following sections. The relevant policies from the SELLP can be found in section 4.5 and are therefore not repeated here.

South Holland Local Plan 2006 (Saved Policies, 2009)

- 4.3.14 Policy SG14 (Design and Layout of New Development) states that new development should be designed to ensure that it makes a positive contribution to the architectural and visual quality of its surroundings. It should normally respect the vernacular architecture of the area in which it is located although high quality contemporary design will be supported in appropriate contexts. In assessing the design and layout of new development the following matters will be taken into consideration:
1. *“local distinctiveness;*
 2. *the choice of materials;*
 3. *the historic pattern of development in the locality;*
 4. *the relationship of the development to the character, form and scale of existing buildings nearby;*
 5. *the scale, form, and height of the proposed development;*
 6. *architectural detailing;*
 7. *the effect of the development on the amenity of nearby residents in terms of noise, smell, general disturbance, overlooking and loss of light;*
 8. *planting and measures to promote biodiversity;*
 9. *the layout of vehicular access, parking and manoeuvring facilities and the provision of facilities for cyclists and pedestrians;*
 10. *the needs of disabled persons;*
 11. *the use of sustainable materials and methods of construction;*
 12. *measures to reduce the potential for crime and disorder.”*
- 4.3.15 Development that would have an adverse effect on the character and appearance of the locality, or which would prejudice the comprehensive development or redevelopment of an area, will not be permitted.

5 Baseline Conditions

5.1 Introduction

- 5.1.1 The following section presents the baseline conditions for heritage receptors that have the potential to experience effects from the proposed converter station site, the proposed AC cable route or the permanent access road. This document presents an assessment of the impacts to heritage receptors located within the base scheme design. In addition, where nearby heritage receptors have been identified which may have their setting affected by the Scheme these have been included for assessment. Where the DBA has identified that a receptor has no potential to be affected by the Scheme it has not been carried forward into this chapter for assessment.
- 5.1.2 Heritage receptors are split between designated and non-designated receptors. All designated receptors are considered for impacts arising from changes in their setting. In addition, some non-designated heritage receptors are considered for impacts arising from changes in their setting where the assessment has identified that the receptor has a setting that extends beyond the boundary of the receptor.
- 5.1.3 Figures 23.2 and 23.3 detail the receptors that fall within the Zones of Influence as outlined in section 2 and which may potentially be impacted by the proposed converter station site, the AC route or the permanent access road. Each receptor is labelled with their project I.D. which is noted in bold text when introduced.
- 5.1.4 A detailed account of the known archaeological, built heritage and historic landscape baseline within the Zone of Influence is provided in the Archaeology and Cultural Heritage DBA (ES Appendix 23.1).

5.2 Background

- 5.2.1 The site of the proposed converter station is located within the Lincolnshire Fens Landscape, a historic landscape character (HLC) area, with a vast range of archaeological receptors.
- 5.2.2 The bedrock of the proposed converter station site is an Oxford Clay formation made predominantly of Mudstone, formed approximately 156 to 165 million years ago. The superficial deposit on the other hand, is a Tidal Flat deposit formed up to 3 million years ago as a deposit of clay and silt. Both the bedrock and superficial deposit are the dominant deposits within the Donington area and subsequently no variation is experienced either along the permanent access road location, or proposed AC cable route.
- 5.2.3 The Lincolnshire Fens are archaeologically rich in their nature, with a large range of artefactual examples from the Prehistoric period. Nothing of Mesolithic (10,000 BC - 4,000 BC) date has been recorded within the Zone of Influence, with Mesolithic activity concentrated on higher

- ground. This Neolithic activity stretches into the edges of the Fen landscape with examples of flint scatters, particularly in and around East and West Keal and near Stickford.
- 5.2.4 The presence of the River Witham within the Lincolnshire Fens provided an important arterial route into the Fens and in the Iron Age (800 BC - AD43) was exploited and venerated by the local tribe Corieltavi. Consequently, significant areas of the Fens seem to have been occupied in the Iron Age and there are significant examples of Prehistoric cropmarks mapped in an area to the north-west of Donington.
- 5.2.5 The Roman invasion of Britain in AD 43 brought the establishment of military infrastructure including a fort at Lincoln (Lindum). Whilst Lincoln developed into a colonia, with a road network including Ermine Street and Fosse Way, rural settlements continued in use from the Iron Age into the Roman period (AD 43 - 410). Significant trade routes were established for the continuation of the salt-making industry with routeways such as Salter's Way connecting Donington with the Roman settlement of Saltersford and beyond. A rare example of Roman salt works (**SM1**) are present in the Zone of Influence for designated receptors within 3 km of the proposed converter station. The Romans continued to exploit the Fens with evidence for Roman occupation provided through cropmarks.
- 5.2.6 Occupational continuity of the fens continued into the Early Medieval (AD 410 -1066) period with evidence for Saxon settlements, such as Stickford with Roman origins. While the Wolds are particularly populated with examples of Early Medieval settlement sites, there are limited examples for the presence of Early Medieval sites within the immediate vicinity of the proposed converter station site.
- 5.2.7 The Medieval (AD 1066 -1540) period sees a similar pattern in Lincolnshire as the previous periods, with examples for settlement activity continuing throughout the Wolds and Fens. Key examples of early fenland settlements are Swineshead and Boston which prosper and developed into towns seen in the present era. A key feature of the Early Medieval period is the presence of ridge and furrow dotted around nucleated settlements; a feature not seen in the Zone of Influence of the proposed converter station site.
- 5.2.8 The Lincolnshire Fens continued to offer a rich source of food, fuel, and pasture in the Post-Medieval (AD 1540 - 1901) period. However, the landscape changed dramatically with the coming of the Industrial Revolution. The need for increased agricultural production saw a 1762 Act of Parliament authorising major drainage works in the River Witham. Due to the Fens low lying landscape, flooding presented a risk for the area, and the construction of pumping stations, seen on mapping by the demolished nineteenth century unnamed farm (**18**) on the route of the permanent access road, looked to remove excess water back to the higher ground of the River. The area around the proposed converter station site is represented by a large presence of agricultural farms within the Zone of Influence.

5.3 Designated Heritage Receptors

- 5.3.1 The following section contains baseline information for all designated heritage receptors which have been identified within the DBA as having settings that extend to the Scheme. The designated heritage receptors are organised by what element of the Scheme they interact with (proposed converter station, proposed AC cable route or permanent access road). They are then further organised by period.
- 5.3.2 Table 23.7 at the bottom of this section lists all designated heritage assets that have been discussed in this chapter and Figure 23.2 illustrates their location.

Proposed Converter Station

- 5.3.3 There are no designated heritage receptors dating to any period within the planning application boundary or Zone of Influence of the proposed converter station that have settings that extend to within the application boundary for the proposed converter station site.

Proposed AC Cable Route

- 5.3.4 There are no designated heritage receptors dating to any period within the planning application boundary or Zone of Influence of the proposed AC cable route that have settings that extend to the proposed AC cable route.

Proposed Permanent Access Road

- 5.3.5 There are no designated heritage assets dating to the Prehistoric, Roman, Early Medieval, Medieval, or Modern periods within the Zone of Influence of the permanent access road. There is one designated heritage receptor dating to the Post-Medieval period within the Zone of Influence of the permanent access road.

Post-Medieval (AD 1540 - 1901)

- 5.3.6 The Park (**LB22**) is 1.3 km to the south-east of the planning application boundary to proposed converter station site. It is located on the western most end of Donington Conservation Area (**CA2**), the house dates to the early eighteenth century; altered and re-fronted in circa 1815. The setting of this receptor is primarily influenced by its location on the outskirts of Donington Conservation Area, and its surrounding gardens. The rural fenland landscape to the north-east of the asset places it in context and contributes to its setting. This receptor has **evidential** and **historical** significance and is of **medium** value.

Summary of Designated Heritage Receptors

Table 23.7 Designated Heritage receptors within the Zone of Influence						
Project ID.	Name	Period	Grade	Value	Scheme Element	Distance from the proposed converter station site
LB22	The Park	Post-Medieval	II	Medium	Permanent access road	1.9 km

5.4 Non-Designated Receptors.

5.4.1 Non-designated receptors are considered in the ES for any physical impact they may receive from any element of the Scheme. Receptors are considered below by impact from the proposed converter station, the proposed AC cable route, and the permanent access road, and subsequently assessed by period. The results of the archaeological evaluation at the proposed converter station site are also discussed within this section. The locations of all non-designated heritage receptors described in this chapter are displayed on Figure 23.2 and Figure 23.3. Table 23.8 contains a summary of all non-designated heritage receptors discussed in this section.

Proposed Converter Station

5.4.2 There are four heritage receptors of Roman date impacted by the proposed converter station site. There are no heritage receptors of Prehistoric, Early Medieval, Medieval, or Modern date identified within the proposed converter station site. It is considered that there is a negligible potential for currently unrecorded remains dating to these time periods. There are no heritage receptors dating to the Post-Medieval period within the proposed converter station site. However, the presence of several Post-Medieval farms within the Zone of Influence indicates a general potential for remains associated with Post-Medieval agricultural activity.

Roman (AD 43 – 410)

5.4.3 Situated within the proposed converter station site is the probable cropmark of an Iron Age/Roman settlement (20). The cropmarks can be seen from aerial photography, accessed through Google Maps, and are described as a complex series of enclosure ditches, boundary ditches, ring ditches (possibly round houses), rectilinear ditched enclosures and a possible trackway following and partially cut by an old river course. To the north west of this cropmark and overlapping the site is an additional probable cropmark, which has a broad date of Neolithic to Roman (21).

5.4.4 Trial trenching conducted within the proposed converter station site (Appendix 23.4) has provided further evidence that largely supports the cropmark analysis. Trial trenching at this location

identified second-fourth century Roman remains. A series of ditch systems were excavated, with further evidence of human activity through the excavation of a large waste pit and very limited evidence for structural receptors with the excavation of a single post-hole. The settlement seems to be concentrated to the north/north-west region of the proposed converter station site, and towards the area of the proposed AC cable route entry point. Limited evidence for activity identified through cropmarks (**21**) in the south-west of the proposed converter station site was present during trial trenching. A range of artefacts were recovered, including Roman pottery dated predominately between the second and fourth centuries, and evidence for farming through a wealth of deposited animal bones and environmental samples uncovering agricultural activity. These receptors which are indicative of a Roman settlement which had trade links to sites across Lincolnshire and Peterborough have **historical** and **evidential** significance and are of **medium** value.

- 5.4.5 Associated with this complex of Roman activity are a series of field boundaries and roddon systems (**367** and **369**). This receptor has been identified through analysis of aerial photographs and LiDAR data. This asset has **evidential** significance and is of **low** value.
- 5.4.6 The presence of these assets indicates that there is a moderate to high potential for further archaeological remains dating to the Roman period within the proposed converter station site.

Post-Medieval (AD 1540 – 1901)

- 5.4.7 Fifteen non-designated Post-Medieval farms are recorded within the 1 km Zone of Influence. These are discussed in detail in the DBA. The farms survive to varying extents, three are extant (**5, 7, 17**), three partially extant (**15, 16, 19**), five redeveloped (**8, 10, 11, 13, 14**), and four demolished (**6, 9, 12, 18**). These farms have **historical** significance and are of **low** value. None of these farms are located within the converter station site.
- 5.4.8 The establishment of farms within this area within the Post-Medieval period reflects the reclamation of fenland within the eighteenth and nineteenth centuries with the establishment of drainage within the region. This is reflected within the HLC data which marks the proposed converter station site and the majority of the 1 km buffer to be located within the Eastern Fens landscape character area (Ref: 23-17). This zone is characterised by the planned enclosure landscapes of the eighteenth and nineteenth centuries. This enclosure relates to the reclamation of the fenland landscape where new drainage channels were cut and pumping stations were constructed to overcome the challenges of the drainage of this area. The land was separated into rectilinear fields which were enclosed by drains rather than hedges. The nature of these field boundaries has meant that these boundaries have remained and could not be significantly consolidated to expand field sizes, which occurred elsewhere in the county. The East Midlands Research Framework highlights that fieldwork is required to investigate the nature of the improvements to farmland within this period (Ref: 23-18).
- 5.4.9 According to the historic mapping the proposed converter station site itself was agricultural land in the Post-Medieval period. The 1888 Ordnance Survey 1:10,560 scale map (Ref: 23-19) depicts

that the proposed converter station site was split into several different parcels of land by field boundaries. The proposed converter station site's southern boundary is marked by North Ing Drove whilst the northern boundary is marked by Mill Drain. Middle Fen Drove is located on the eastern end of Mill Drain. The proposed converter station site continues to be shown containing several fields. However, there is a small building depicted at the southern end of the site in the 1906 1:10,560 scale Ordnance Survey map (Ref: 23-20) and there is very little change in the remainder of the Zone of Influence. However, the drain to the north of Mill Drain is now recorded as the rural district boundary.

- 5.4.10 Within both the 3 km and 1 km buffer zones of the Zone of Influence are two further HLC zones. 640 m to the west of the proposed converter station site is the Witham Fens HLC area. This area, as with the Eastern Fens, is characterised by the extensive survival of the planned enclosure from the reclamation of the fenland. The area 1.5 km to the east of the proposed converter station site is the Townlands within The Wash Character area, this region is predominantly agricultural however it encompasses several nucleated settlements such as Donington. The eastern extent of the permanent access road extends into this character area. As with the other HLC zones within this Zone of Influence, this area also had drains inserted within the Post-Medieval period to help drain the fens. According to the HLC, this region experienced a considerable boundary loss within the second half of the twentieth century. Unlike the other regions within this 3 km Zone of Influence, this region has a more irregular field boundary morphology and exhibits 'island-like' colonisation that prospered due to the exploitation of the surrounding marsh and fen.
- 5.4.11 The 1783 plan of the lands in Donington (Ref: 23-21) shows the proposed converter station site comprising five separate fields which are all in separate land ownership. North Ing is marked to the south of the proposed converter station site, to the north of the proposed converter station site is Middle Fen.
- 5.4.12 The 1888 Ordnance Survey 1:10,560 map (Ref:23-19) characterises this wider area as agricultural land which is defined by rectilinear field boundaries. A single drain is marked to the north of Mill Drain. Running from north to south is the South Forty Foot Drain. The Great Northern & Great Eastern Joint railway is marked to the south of the proposed converter station site and runs from west to southeast. Several farms are also shown within this area including Vicarage Farm (6), Duckhall Farm (9) and Northorpe Farm (16), whilst Blotoft House (19) is also marked on this map. The increased appearance of settlement within this region indicates that the drainage of this area and the reclamation of the fenland contributed significantly to this increase.
- 5.4.13 This evidence suggests that there is a moderate potential for archaeological remains associated with agricultural activity dating to the Post-Medieval period to be present within the proposed converter station site. If present these remains are likely to have **evidential** significance and be of **low** value.

Proposed AC Cable Route

- 5.4.14 There is one non-designated heritage receptor of Prehistoric date and one of Roman date within the application boundary for the proposed AC cable route. There is one Post-Medieval receptor within the proposed AC cable route and a small number of Post-Medieval farms within the Zone of Influence. In addition, there is a generalised potential for Post-Medieval agricultural activity within the proposed AC cable route. There are no non-designated heritage receptors dating to the Early Medieval, Medieval, or Modern periods within the proposed AC cable route. Based on this evidence there is a negligible potential for currently unrecorded remains dating to these periods.

Prehistoric (10-000 BC – 43 AD)

- 5.4.15 During an archaeological evaluation prior to the construction of three temporary structures and two permanent transmission towers associated with the Bicker Fen Substation a large Neolithic discoidal flint scraper was discovered close to a geotechnical borehole (396).
- 5.4.16 Overall it is considered that there is a low potential for archaeological remains dating to the Prehistoric period within the proposed AC cable route and Bicker Fen Substation.

Roman (AD 43 – 410)

- 5.4.17 Aerial photograph evidence has demonstrated that there is a complex of cropmarks relating to enclosures, field boundaries and trackways at Middle Fen within the application boundary for the AC route (370). These receptors have **evidential** and **historical** significance and are of **medium** value. The evidence suggests that there is a moderate potential for further archaeological remains dating to the Roman period within the AC route.

Post Medieval (AD 1540 – 1901)

- 5.4.18 Several non-designated receptors are located within 1 km of the proposed AC cable route. Duckhall farm (9), a demolished nineteenth century unlisted farmstead located to the west of Vicarage Drove, is noted as being part of the increase in settlement in the region. Located to the south-west of Duckhall Farm is an unnamed farm (8). This receptor is a redeveloped nineteenth century farm with a regular L-shape courtyard. The proximity of both receptors to the existing Bicker Fen Substation informs their settings. These receptors have **historical** and **evidential** significance and are of **low** value.
- 5.4.19 Further Post-Medieval farmsteads, are the nineteenth century farmsteads of an unnamed farm (19), Northorpe dairy farm (14), and a second unnamed farm (15), all to the south-east of the proposed AC route; and the location of Middle Fen (5), Vicarage Farm (6), and Eau End Farm (7). These receptors have **historical** and **evidential** significance and are of **low** value.
- 5.4.20 A watching brief was undertaken during the groundworks associated with the existing Bicker Fen Substation. This identified Post-Medieval flood defence ditches which pre-date the existing

drainage dyke (392). The existing draining dyke is thought to date to the eighteenth century. This asset has **historical** and **evidential** significance and is of **low** value. An archaeological evaluation was also undertaken at this site in advance of the construction of three temporary structures and two permanent transmission towers associated with the substation which comprised five evaluation trenches. No archaeological features or deposits were identified within the trenches.

- 5.4.21 The evidence relating to presence of Post-Medieval farms within the Zone of Influence suggests that there is a moderate potential for archaeological remains associated with agricultural activity dating to the Post-Medieval period to be present within the proposed AC cable route. If present these remains are likely to have **evidential** significance and be of **low** value.

Undated

- 5.4.22 There are no undated recorded designated or non-designated receptors within proposed AC cable route or Zone of Influence. Several archaeological investigations have been undertaken within this area. A watching brief was carried out during the ground works of wind turbines 265 m to the north. No archaeological features, deposits, or finds were identified during this work. A sequence typical of fenland was revealed which comprised naturally deposited sands and gravels, peat deposits and undated alluvial deposits.
- 5.4.23 There is a negligible potential for previously unrecorded undated archaeological remains within the proposed AC cable route and Bicker Fen Substation.

Permanent Access Road

- 5.4.24 There is one non-designated heritage receptor of Roman date and one of Medieval date within the site of the permanent access road. There are two non-designated Post-Medieval receptors and a generalised potential for Post-Medieval agricultural activity within the permanent access road. There are two non-designated undated receptors within the site of the permanent access road. There are no non-designated heritage receptors dating to the Prehistoric, Early Medieval, or Modern periods within the permanent access road. Based on this evidence there is a negligible potential for currently unrecorded remains dating to these periods.

Roman (AD 43 – 410)

- 5.4.25 One non-designated heritage receptor of Roman origin is located on the route of the permanent access road. Located to the west of the proposed bridge over Hammond Beck. A Roman boundary ditch and pit (4) were excavated during work by the Black Sluice Internal Drainage Board (IDB). These features were interpreted as remains of the Roman farmsteads and hamlets, drove ways, and associated field systems known from the area of the fens from aerial photography. This receptor has **evidential** significance and is of **low** value.

- 5.4.26 Based on the general level of Roman activity within the Zone of Influence there is moderate potential for further unrecorded archaeological remains dating to this period to be located within the permanent access road, predominantly in the area closest to the proposed converter station site.

Medieval (AD410 – 1540)

- 5.4.27 The proposed permanent access road crosses the route of Old Hammond Beck (**455**). This receptor is thought to be a straightening of a natural watercourse to facilitate drainage and agricultural activity in the fens. Some sources suggest that it may have Roman origins. This receptor has **evidential** significance and is of **low** value.

Post Medieval (AD 1540 – 1901)

- 5.4.28 The eastern end of the permanent access road passes through Park House park, Donington (**393**). This is a historic park which was recorded on the first edition Ordnance Survey map of c.1880 and again the 1905 map (Ref: 23-19 and 23-20). This receptor has **historical** and **evidential** significance and is of **low** value.
- 5.4.29 Several farmsteads are considered within a 1 km area of the permanent access road. One receptor, is a demolished unnamed nineteenth century farm (**18**) that has the potential to be physically impacted by the permanent access road. Although HER data lists the farm as demolished, historic mapping evidence has shown that the farmstead was still recorded as present into the mid-twentieth century, with an associated pumping station. The location of the receptor is, within the planning application boundary, at the point the permanent access road turns east and heads east towards Hammond Beck and Donington. The receptor has **evidential** significance and is of **low** value.
- 5.4.30 The evidence relating to presence of Post-Medieval farms within the Zone of Influence suggests that there is a moderate potential for archaeological remains associated with agricultural activity dating to the Post-Medieval period to be present within the permanent access road. If present, these remains are likely to have **evidential** significance and be of **low** value.

Undated

- 5.4.31 The permanent access road crosses two areas of cropmarks identified from aerial photography analysis (**457**, **458**). The first of these two areas (**457**) is located between 171 m and 850 m along the length of the permanent access road close to the site of the demolished unnamed nineteenth century farm (**18**). The receptor comprises a series of small linear cropmarks and evidence of a roddon. It is likely that these cropmarks relate to the similar features within the converter station zone to the north and are of similar date. The second cropmark area (**458**) is located to the east of the bridge crossing of Hammond Beck and comprises a series of agricultural cropmarks. It is likely that these would be of Medieval to Modern date. These receptors offer **evidential** significance and are of **low** value.

Summary of Non-Designated Heritage Receptors

Table 23.8 Non-Designated Heritage Receptors				
Project ID	Name	Period	Value	Scheme Element
20	Probable cropmark Prehistoric or Roman settlement, Donington	Roman	Medium	Proposed converter station site
21	Probable cropmark Prehistoric or Roman evidence, Donington	Roman	Medium	Proposed converter station site
367	Roddon System to the north-east of North Ing Drove	Roman	Low	Proposed converter station site
369	Field Boundaries and Sinuous Roddon	Roman	Low	Proposed converter station site
5,7,17	Extant farms	Post- Medieval	Low	Proposed converter station site, proposed AC cable route, permanent access road
15,16,19	Partially extant farms	Post- Medieval	Low	Proposed converter station site, proposed AC cable route, permanent access road
8,10,11,13,14	Re-developed farms	Post- Medieval	Low	Proposed converter station site, proposed AC cable route, permanent access road
6,9,12	Demolished farms	Post- Medieval	Low	Proposed converter station site, proposed AC cable route, permanent access road
370	Cropmark enclosures, field boundaries and trackway at Middle Fen	Roman	Medium	Proposed AC cable route
396	Neolithic flint scraper found on land at Bicker Fen	Prehistoric	Low	Proposed AC cable route

Table 23.8 Non-Designated Heritage Receptors				
Project ID	Name	Period	Value	Scheme Element
392	Flood defence ditches, Bicker Fen	Post-Medieval	Low	Proposed AC cable route
4	Boundary ditch and pit near North Ing	Prehistoric	Low	Permanent access road
18	Demolished farm	Post-Medieval	Low	Permanent access road
393	Park House, Donington	Post-Medieval	Low	Permanent access road
455	Old Hammond Beck	Medieval	Low	Permanent access road
457	Linear Features and associated paleochannel	Undated	Low	Permanent access road
458	Agricultural cropmarks, south of Northorpe House	Undated	Low	Permanent access road
n/a	Potential for currently unrecorded Roman activity	Roman	Low to medium	Proposed converter station site, proposed AC cable route, permanent access road
n/a	Potential for currently unrecorded Post-Medieval activity	Post-Medieval	Low	Proposed converter station site, proposed AC cable route, permanent access road

5.4.32 Based on the available data none of the identified non-designated heritage receptors are 'demonstrably of equivalent significance to scheduled monuments' (para 139 NPPF) (Ref: 23-10) and therefore not subject to designated heritage asset policies.

6 Potential Impacts

6.1 Overview of Potential Impacts

- 6.1.1 For the ES, impacts on heritage receptors can be temporary or permanent. In relation to the heritage receptors discussed in this chapter temporary impacts are considered to occur only during the construction phase and are restricted to impacts arising from changes in the setting of heritage receptors due to construction activity. An example of a temporary impact could be an impact arising from a change in a receptor's setting due to construction activity associated with the proposed AC cable route. This impact would be reversed once reinstatement of the cable trench is complete and the disturbed vegetation has regrown. In some cases, if the proposed AC cable route were to sever an important relationship between two receptors then the impact may not be considered as temporary. Permanent impacts can occur at either the construction or operation phase of the Scheme and are not reversible. Examples of permanent impacts include direct physical impacts on below ground archaeological remains which occur during the construction phase and impacts to designated heritage receptors arising from a change in their setting due to the presence of elements of the Scheme such as the proposed converter station site.
- 6.1.2 Where a receptor will experience impacts arising through changes in their setting that are both temporary, (from construction activity) and permanent (from the presence of elements of the Scheme) the impacts will be discussed in the Permanent Impacts section as these are the longer lasting impacts. Where a receptor will experience impacts from more than one element of the Scheme the impacts will only be discussed once to avoid double counting. However, when the impacts are discussed all elements of the Scheme causing impacts will be referred to.
- 6.1.3 The likely impacts on heritage receptors from the Scheme are described below.

6.2 Temporary Impacts

Designated Heritage Receptors (Figure 23.2)

- 6.2.1 There are no designated heritage receptors that will experience temporary impacts from the Scheme.

Non-designated Heritage Receptors (Figure 23.2)

Proposed Converter station

- 6.2.2 There are no non-designated heritage receptors that will experience temporary impacts as a result of the proposed converter station.

Proposed AC Cable Route

- 6.2.3 There are no non-designated heritage receptors dating to the Prehistoric, Roman, Early Medieval, Medieval, or Modern periods that will experience temporary impacts due to the proposed AC cable route.

Post-Medieval (AD 1540 – 1901)

- 6.2.4 The unnamed redeveloped nineteenth century farm (8) and the site of Duckhall farm (9) will experience impacts arising from changes in their setting due to construction activity associated with the proposed AC cable route. The impact on these low value receptors will be **negligible** resulting in a significance of effect of **negligible adverse**.

Permanent Access Road

- 6.2.5 There are no non-designated heritage receptors that will experience temporary impacts as a result of the permanent access road.

6.3 Longer Term, Operational and Permanent Impacts

Designated Heritage Receptors (Figure 23.2)

Proposed Converter Station

- 6.3.1 There are no designated heritage receptors that will experience permanent impacts as a result of the proposed converter station.

Proposed AC Cable Route

- 6.3.2 The Post-Medieval flood defence ditches which pre-date the existing drainage dyke (392) were identified during ground works for the existing Bicker Fen Substation. This receptor is of **low** value and has potential to be affected by the connection works at Bicker Fen Substation. However, it is likely that this receptor and any other potential unrecorded heritage within the footprint of the substation were significantly affected or totally removed by the construction of the substation. Therefore, this **low** value receptor will experience **negligible** impact resulting in a significance of effect of **negligible**.
- 6.3.3 It is likely that all other heritage receptors within the connection works at Bicker Fen Substation were removed by the construction of the substation.

Permanent Access Road

- 6.3.4 There are no designated heritage receptors dating to the Prehistoric, Roman, Early Medieval, Medieval, or Modern periods that will experience permanent impacts as a result of the permanent access road.

Post-Medieval (AD 1540 – 1901)

- 6.3.5 The Park (**LB 22**) will experience effects from the base scheme design due to its proximity to the new junction of the permanent access road with the A52. The rural setting of the building overlooking the historic Lincolnshire fens landscape will experience permanent change through the introduction of the permanent access road crossing the fen landscape and the presence of traffic using the new access road. However, aerial photography and walkover indicated that there is tree screening to the rear of the property. Overall this **medium** value asset will experience **low** impacts resulting in a significance of effect of **minor adverse**.

Non-designated Receptors (Figure 23.2)

Proposed Converter Station

- 6.3.6 There are no non-designated heritage receptors dating to the Prehistoric, Early Medieval, Medieval, or Modern periods that will experience permanent impacts as a result of the proposed converter station site.

Roman Period (AD 43 - 410)

- 6.3.7 Direct physical impacts will be experienced by receptors of Roman origin located within the proposed converter station site. Three of these receptors comprise a probable second-fourth century Roman settlement (with potential Iron Age origins) (**20**) established through trial trenching. A potential Roman settlement (and potential Prehistoric activity) (**21**), with limited remains found through trial trenching, and associated field boundaries and roddons (**367**, **369**). These receptors will experience impacts as a result of construction activity. The magnitude of impact will be **medium** resulting in a significance of effect of **moderate adverse** for **20** and **21**, as they are of **medium** value, and **minor adverse** for **367** and **369** as they are of **low** value.
- 6.3.8 This assessment has identified a potential for previously unrecorded archaeological remains dating to the Roman period within the proposed converter station site, proposed AC cable route, and permanent access road. If present these remains would experience impacts from construction activity.

Post-Medieval (AD 1540 – 1901)

- 6.3.9 A range of nineteenth century farmsteads will experience permanent impacts from the proposed converter station. Farmsteads in the nearby area include **5**, **6**, **7**, **10**, **11**, **12**, **13**, **14**, **15**, **16**, **17** and **19**. These receptors will experience changes in their settings from the presence of the proposed converter station. The impact on these receptors from this change will be **low** resulting in a significance of effect of **negligible adverse**.
- 6.3.10 This assessment has identified a potential for previously unrecorded archaeological remains dating to the Post-Medieval period within the proposed converter station site, proposed AC cable

route and permanent access road. If present these remains will experience impacts from construction activity.

Proposed AC Cable Route

- 6.3.11 There are no non-designated heritage receptors dating to the Early Medieval, Medieval, or Modern periods that will experience permanent impacts as a result of the proposed AC cable route.

Prehistoric (10,000 BC – 43 AD)

- 6.3.12 A Neolithic flint scraper was recovered within the proposed AC cable route working width during excavation of a geotechnical borehole (396). As this is an isolated spot find that is no longer present at the site it will experience impacts of **no change**.

Roman (43 AD – 410)

- 6.3.13 The enclosure, field boundaries and trackway that have been identified at Middle Fen through aerial photograph analysis (370) will experience impacts from construction activity associated with the proposed AC cable route. The magnitude of impact on these **medium** value receptors will be **low** resulting in a significance of effect of **minor adverse**.

Post-Medieval (AD 1540 - 1901)

- 6.3.14 The flood defence ditches at Bicker Fen (392) have the potential to be impacted by construction activity associated with the proposed AC cable route. This **low** value receptor will experience **low** impacts resulting in a significance of effect of **negligible adverse**.

Permanent Access Road

- 6.3.15 There are no non-designated heritage receptors dating to the Roman, Early Medieval, or Modern periods that will experience permanent impacts as a result of the proposed permanent access road.

Prehistoric (10,000 BC – 43 AD)

A boundary ditch and pit (4) believed to be associated with a Roman farmstead is located within the working width of the permanent access road and will be impacted by construction activity. This **low** value asset will experience **medium** impacts resulting in a significance of effect of **minor adverse**.

Medieval (AD410 – 1540)

- 6.3.16 The route of Old Hammond Beck (**455**) will be crossed by a bridge carrying the permanent access road. This will represent a change in the setting of this **low** value asset. However, the beck is already crossed by other road bridges and a rail bridge so the level of change will not be great. This **low** value receptor will experience **low** impacts resulting in a significance of effect of **negligible adverse**.

Post-Medieval (AD 1540 - 1901)

- 6.3.17 Part of an unnamed demolished nineteenth century farmstead (**18**) falls within the carriageway of the permanent access road. This receptor will experience a direct physical impact from this element of the Scheme. However, this is one of several Post-Medieval farmsteads in this area. This **low** value receptor will experience a **medium** magnitude of impact resulting in a significance of effect of **minor adverse**.
- 6.3.18 Park House park (**393**) will experience a change in its setting as a result of the introduction of the permanent access road into its western extent. However, this portion of the park has already seen considerable change as a result of the expansion of Donington and the presence of the A52. Therefore, the impact experienced by the **low** value asset will be **low** resulting in a significance of effect of **negligible adverse**.

Undated

- 6.3.19 The two cropmark areas (**457, 458**) fall within part within the carriageway of the permanent access road. These receptors will experience a direct physical impact from this element of the Scheme over part of their area. It is likely that these receptors will have been impacted by Modern agricultural activity. These **low** value receptors will experience a **medium** magnitude of impact resulting in a significance of effect of **minor adverse**.

6.4 Decommissioning Impacts

- 6.4.1 The decommissioning phase of the scheme will reverse any impacts to heritage receptors arising from changes in their setting. However, direct physical impacts on archaeological remains will not be reversed and will remain after decommissioning.

7 Mitigation

7.1 Design Mitigation

- 7.1.1 Design mitigation for the proposed converter station site and associated elements of development, dealt with in this ES chapter, will ensure that the location of the proposed converter station, proposed AC cable route, and proposed permanent access road avoid all designated heritage receptors.
- 7.1.2 Landscaping and screening around the proposed converter station site could act to screen the proposed converter station and limit impact to the setting of both designated and non-designated receptors within the 1 km and 3 km zone of influence of the site.
- 7.1.3 Design mitigation will ensure that no important relationships between designated heritage receptors will be severed by the proposed AC cable route.
- 7.1.4 It is considered that the implementation of the design mitigation such as screening would result in **no significant effects** on designated heritage assets.

7.2 Construction Mitigation

- 7.2.1 Viking Link and their appointed contractors will follow government guidance and best practice for all disciplines. For cultural heritage and archaeology that includes following UK heritage policy as defined in the NPPF (Ref: 23-10), and current national guidance for the assessment of the significance of heritage receptors as provided by Historic England (formally English Heritage) in the document *Conservation Principles, Policies, and Guidance for the Sustainable Management of the Historic Environment* (Ref: 23-6).
- 7.2.2 General construction activity that has the potential to impact heritage receptors may be partially mitigated through the general construction measures outlined in the CEMP. These measures could include:
- Keeping the working width of the proposed AC cable route to a minimum in all areas and ensuring that all construction areas are kept tidy and in good order;
 - Screening of key views and the placement of spoil bunds to obscure construction activity where possible (although this may be restricted by the volume of spoil available); and
 - Control of routes for traffic travelling to and from the proposed converter station site.
- 7.2.3 The detailed mitigation strategy for archaeology and cultural heritage, impacted by the proposed converter station, is outlined in Appendix 23.5 Archaeological Mitigation Strategy: The Proposed Converter Station (Ref: 23-3).
- 7.2.4 Any adopted mitigation measures for the proposed converter station site, proposed AC cable route, and proposed permanent access road would take a structured approach. This approach comprises three levels of mitigation:

- Archaeological Watching brief;
- Strip, Map, and Sample; and
- Detailed Archaeological Excavation.

- 7.2.5 These measures could mitigate the permanent impacts of the proposed converter station site, proposed AC cable route, and permanent access road through preservation by record. A series of reports and site archives would be produced during and as a result of the mitigation which would be deposited with the appropriate local repository, in consultation with the archaeological advisor to the Local Planning Authority (LPA). Following the completion of the reports, the findings of the archaeological mitigation would be disseminated to the public in an appropriate manner.
- 7.2.6 Each element of the Scheme may be subject to one or more of the levels of mitigation as outlined above in advance of the commencement of construction. The implementation of such mitigation could also be phased to co-ordinate with the phasing of the construction of the Scheme.

Proposed Converter Station Site.

- 7.2.7 The presence of Roman activity (**20**) and associated roddons and field boundaries (**367, 369**) may require mitigation of the northern area of the proposed converter station through open area excavation.
- 7.2.8 Where fewer receptors were located to the south-west of the proposed converter station site in the location of a possible Roman cropmark (**21**) and potential for further Roman and Post-Medieval activity, a programme of strip, map, and sample could be undertaken to mitigate impacts.
- 7.2.9 Due to the location of the Roman receptors within the proposed converter station site and general archaeological potential of the area, any other area that requires a top or sub soil strip during construction could be mitigated through archaeological watching brief.

Proposed AC Cable Route.

- 7.2.10 The proposed AC cable route passes through an area of enclosures, field boundaries, and trackways (**370**). This area could be mitigated through strip, map, and sample.
- 7.2.11 The remaining area of the proposed AC cable route could be mitigated through an archaeological watching brief due to the known presence of previously recorded flood defence ditches at the northern end of the proposed AC cable route (**392**) and potential for previously unrecorded archaeological remains dating to the Roman and Post-Medieval periods.
- 7.2.12 No mitigation is proposed for the connection works at Bicker Fen Substation due to previous impacts having removed the archaeological potential within the substation footprint.

Permanent Access Road

- 7.2.13 The proposed permanent access road would be mitigated through applying the principles of the three levels of mitigation outlined above. The level of mitigation applied would be suitable to the receptors that are anticipated to be present and the impact from construction activity.
- 7.2.14 The non-designated receptor of a demolished nineteenth century unnamed farm (**18**) would be impacted by the permanent access road. This would be mitigated through watching brief.
- 7.2.15 The remaining area of the permanent access road would be subject to a watching brief due to the known presence of a previously recorded boundary ditch and pit (**4**), the two areas of cropmark activity (**457, 458**), and the potential for previously unrecorded archaeological remains dating to the Roman and Post-Medieval periods.

8 Residual Effects

8.1 Introduction

8.1.1 Due to the embedding of design mitigation and construction mitigation into the base scheme design the residual effects of the proposed converter station, the proposed AC cable route and the proposed access road will remain unchanged from the potential effects outlined in section 6 above. This is because all design mitigation and construction mitigation has been considered when assessing potential effects. Therefore, the individual assessment of effects on each heritage receptor will not be repeated here. However, where this document has assessed a significant effect on a heritage asset this will be reported below.

8.2 Temporary Impacts

8.2.1 All temporary impacts on designated and non-designated heritage assets remain unchanged from the potential effects assessed above. There are no significant temporary effects anticipated on heritage receptors.

8.3 Operational, Longer Term and Permanent Effects

Designated Heritage Receptors (Figure 23.2)

8.3.1 All permanent impacts on designated heritage receptors remain unchanged from the potential effects assessed above (see 6.2.6). There are no significant temporary effects anticipated on designated heritage receptors.

Non-Designated Receptors (Figure 23.2)

8.3.2 All permanent impacts on non-designated heritage receptors remain unchanged from the potential effects assessed above (see 6.2.7-10).

8.3.3 Two non-designated heritage receptors have been assessed as experiencing significant effects. Direct physical impacts will be experienced by receptors of Roman origin located within the proposed converter station site. These receptors comprise a probable second-fourth century Roman settlement (20) established through trial trenching, and Roman activity (21) with limited remains found through trial trenching. These **medium** value receptors will experience impacts from construction activity. The magnitude of impact will be **medium** resulting in a significance of effect of **moderate adverse**.

9 Cumulative Effects

9.1 Introduction

9.1.1 This section will consider inter-project and intra-project cumulative effects on heritage only. The standalone cumulative assessment chapter which will also identify the developments to be considered within the assessment is found at chapter 28 Cumulative Effects.

9.2 Inter-Project Cumulative Effects

Scope of Cumulative Assessment

9.2.1 The cumulative developments identified by this assessment in the vicinity of the proposed converter station site that have the potential to have cumulative effects on heritage receptors are:

Table 23.9 Summary of developments identified under cumulative impact assessment			
Name of Development	Reference Number	Type of Development	Detail
Land off Town Dam Lane Donington Spalding	H04-0333-17	Residential	Erection of 81 dwellings with associated garaging, roads, and sewers. Archaeological evaluation recommended.
Former Red Cow Hotel 8 High Street Donington	PE11 4TA. H04-0314-16	Residential	Demolition of the Tap Bar; refurbishment of the Red Cow Hotel High Street frontage and easterly block to form 18 flats; erection of a 2-storey high residential development in the centre of the site providing 4 flats and; erection of a 3-storey high residential development in the north-eastern corner of the site to provide a further 9 flats.
Land off Malting Lane Donington	H04-0244-16	Residential	Residential development of approximately 73 dwellings (Class C3).
Malting Lane Donington Spalding Lincolnshire	PE11 4XA. H04-0892-14	Residential	Erection of 39 houses and 12 apartments, with associated vehicular access, parking, and public open space (outline application H04-0512-13). Approved.
Land off St Swithins Close, Bicker	B/16/0463	Residential	Proposed residential development of up to 40 dwellings. 2-storey buildings.
Triton Knoll	N/A	Utilities	Including underground cable, access

Table 23.9 Summary of developments identified under cumulative impact assessment

Name of Development	Reference Number	Type of Development	Detail
Electrical System			road, and substation north of the Bicker Fen 400kV Substation.

Cumulative Effects

- 9.2.2 The planning application for a residential development at Town Dam Lane (H04-0333-17) is in keeping with its adjacent plots in terms of scale and massing. Whilst there may be below ground impacts to potential archaeological remains from the development, these remains would not be impacted by the Scheme. In addition, this development would not contribute to the impacts to setting of any of the identified receptors in this assessment. Therefore, **no cumulative effect** is noted.
- 9.2.3 The redevelopment of the former Red Cow Hotel (H04-0314-16) into residential flats on Donington High Street will not interact with any receptors that this assessment has identified as being impacted by the Scheme. Therefore, **no cumulative effect** is noted.
- 9.2.4 Two residential developments (H04-0244-16 & H04-0892-14) both off Malting Lane, Donington lie close to the limits of the former Park House park (393). However, they do not impact this receptor and do not impact on any receptors that have been assessed as being impacted by the Scheme. Therefore, **no cumulative effect** is noted.
- 9.2.5 The planning application at St Swithins Close (B/16/0463) is a residential development which in terms of scale and massing is in keeping with its adjacent plots. Whilst there may be some below ground impacts to potential archaeological remains from the development these remains would not be impacted by the Scheme. This development would not contribute to the impacts to setting of any of the identified receptors in this assessment. Therefore, **no cumulative effect** is noted.
- 9.2.6 The planning application for Triton Knoll Electrical System, located near the Scheme, includes an underground cable that enters the north of Bicker Fen 400kV Substation, an access road and a substation located to the north of Villa Farm, off Bicker Drove 750m north west of the Bicker Fen 400kV Substation. There are no physical impacts from the cable, road or substation that impact any identified receptors of this assessment. There is likely to be temporary impacts during construction and a permanent impact to the setting of the receptor of an unnamed farm (8) and Duckhall farm (9). The effect on these receptors from the Scheme has been assessed as **negligible** and temporary. Therefore, cumulative effects on the receptors will be temporary and reversible.
- 9.2.7 There are several surviving farm houses (7, 5, 10, 11, 19) located along South Forty Foot Drain. This assessment has identified a permanent effect to their setting from the proposed converter station as negligible. Once the cumulative effect of the Triton Knoll substation is accounted for the impact to the setting of these **low** value receptors is **minor** resulting in a **minor** effect which is not significant.

9.3 Intra-Project Cumulative Effects

Scope of Cumulative Assessment

- 9.3.1 The intra-project cumulative effects identified by this assessment which have the potential to have cumulative effects on heritage receptors are works associated with the proposed DC cable route in Route Section 4 River Witham to the Proposed Converter Station.

Cumulative Effects

- 9.3.2 The proposed DC cable route within route section 4 approaches the proposed converter station site from the west and would have direct physical impacts on two receptors (**20, 21**) which are of **medium** value. The magnitude of this impact would be **low** resulting in a **minor adverse** significance of effect. This effect is not significant.
- 9.3.3 The two receptors (**20, 21**) are areas of cropmark activity which have been identified as being permanently and physically impacted by the proposed converter station. This impact has been assessed as **medium** magnitude of impact resulting in a significance of effect of **moderate adverse**.
- 9.3.4 The cumulative effect of the two impacts on these **medium** value receptors is therefore **moderate** resulting in a **moderate** effect.

10 Summary of Assessment

10.1 Introduction

10.1.1 The following section presents a summary of the baseline conditions and residual effects of the proposed converter station site, proposed AC cable route, and permanent access road on heritage receptors. The summary of the baseline conditions and the residual effects is presented for the whole proposed converter station development, and the residual effects are then presented again in **Table 29.10**.

10.2 Summary

Overview of Baseline Conditions

10.2.1 There is one designated receptor that is relevant to this assessment. This receptor is a listed buildings of **medium** value (**LB21**).

10.2.2 There are 27 non-designated receptors within the proposed converter station site, proposed AC cable route and permanent access road and Zone of Influence. There are four receptors located within the proposed converter station site (**20, 21, 367, 369**). All are of Roman date. Within the proposed AC cable route there is one spot find of a Prehistoric flint scraper (**396**), a Roman complex of enclosures, field boundaries and trackways (**370**), and a Post-Medieval flood defence ditch (**392**). Within the proposed permanent access road there is a Roman boundary ditch (**4**), an unnamed Post-Medieval farmstead (**18**), a Post-Medieval park (**393**), two areas of undated cropmarks (**457, 458**), and a Medieval watercourse (**455**). In addition, there are 14 non-designated farmsteads dating to the nineteenth century within the Zone of Influence.

10.2.3 There is also potential for previously unrecorded heritage receptors associated with archaeological remains of Roman and Post-Medieval date within the proposed converter station site, proposed AC cable route, and permanent access road.

Overview of Residual Effects

10.2.4 Overall most of heritage receptors will experience residual effects of **minor** or **negligible adverse** with the application of the embedded design and construction mitigation.

Residual Effects in South Holland District Council

10.2.5 Most receptors lie within the boundaries of SHDC. The listed building (**LB22**) and many of the non-designated farmsteads (**5, 11,12, 13, 14, 15, 16, 17, 18,**) are within the boundary of SHDC. Residual effect on **LB22** has been assessed as **minor adverse** due to impacts arising from changes to the receptors setting. Residual effects on all the non-designated farmsteads, except

- 18**, have arisen due to changes in their setting. Residual effects for **18** have been assessed as **minor adverse** due to impacts from construction of the proposed permanent access road. Receptors **5, 11, 12, 13, 14, 15, 16 and 17** have been assessed as experiencing residual effects of **negligible adverse** arising from changes to their setting.
- 10.2.6 The site of the proposed converter station directly impacts four receptors. These receptors (**20, 21, 367, 369**) will experience direct physical impacts from construction activity. The residual effects for **20** and **21** have been assessed as **moderate adverse**. The residual effects for **367** and **369** have been assessed as **minor adverse**.
- 10.2.7 A complex of enclosures, field boundaries and trackways (**370**), a Post-Medieval flood defence ditch (**392**), and a Roman boundary ditch (**4**) will experience impacts from the construction of the proposed AC cable route. Residual effect on these receptors have been assessed as **minor adverse** for **370** and **4**, and as **negligible adverse** for **392**.
- 10.2.8 The two areas of cropmark activity (**457, 458**) will experience impact from being crossed by the carriageway of the proposed permanent access road. Residual effects on this receptor have been assessed as **minor adverse**.
- 10.2.9 Old Hammond Beck (**455**) will experience impact from being crossed by a bridge carrying the proposed permanent access road. Residual effects on this receptor have been assessed as **negligible adverse**.
- 10.2.10 Park House park (**393**) in Donington will experience impacts arising from changes in its setting from the proposed permanent access road. Residual effects on this asset have been assessed as **negligible adverse**.

Residual Effects in Boston Borough Council

- 10.2.11 Three non-designated farmsteads (**6, 8, 9**) lie within BBC. Residual effects for all three are concerned with impact to setting and assessed as **negligible adverse**.

Residual Effects in North Kesteven District Council

- 10.2.12 Three non-designated farmstead receptors (**7, 10, 19**) lie within NKDC. Residual effects for all three are concerned with impact to setting and assessed as **negligible adverse**.

Table 23.10 Summary of Assessment: Archaeology & Cultural Heritage (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
The Park (LB22)	Medium	Permanent impact on the receptor arising from a change in its setting as result of the permanent access road	Minor Adverse	No
Roman settlement (20)	Medium	Permanent impact on the receptor arising from changes to archaeological material due to construction activity associated with the proposed converter station site	Moderate Adverse	Yes
Roman cropmarks (21)	Medium	Permanent impact on the receptor arising from changes to archaeological material due to construction activity associated with the proposed converter station site	Moderate Adverse	Yes
Roddon System to the north-east of North Ing Drove (367)	Low	Permanent impact on the receptor arising from changes to archaeological material due to construction activity associated with the proposed converter station site	Minor Adverse	No
Field Boundaries and Sinuous Roddon (369)	Low	Permanent impact on the receptor arising from changes to archaeological material due to construction activity associated with the proposed converter station site	Minor Adverse	No
Potential for currently unrecorded Roman activity	N/A	Permanent impact on the receptor arising from changes to archaeological material due to construction activity associated with the proposed converter station site, proposed AC cable route and permanent access road	N/A	No
Potential for currently unrecorded Post-medieval activity	N/A	Permanent impact on the receptor arising from changes to archaeological material due to construction activity associated with the proposed converter station site, proposed AC cable route and permanent access road	N/A	No

Table 23.10 Summary of Assessment: Archaeology & Cultural Heritage (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
Middle Fen (5)	Low	Permanent impact on the receptor arising from a change in its setting as result of the converter station	Negligible Adverse	No
Vicarage Farm (6)	Low	Permanent impact on the receptor arising from a change in its setting as result of the converter station	Negligible Adverse	No
Eau End Farm (7)	Low	Permanent impact on the receptor arising from a change in its setting as result of the converter station	Negligible Adverse	No
Not Named (Farm) (8)	Low	Temporary impact on the receptor arising from a change in its setting as result of construction activity associated with the proposed AC cable route	Negligible Adverse	No
Duckhall Farm (9)	Low	Temporary impact on the receptor arising from a change in its setting as result of construction activity associated with the proposed AC cable route	Negligible Adverse	No
River Farm (10)	Low	Permanent impact on the receptor arising from a change in its setting as result of the converter station	Negligible Adverse	No
Not Named (Farm) (11)	Low	Permanent impact on the receptor arising from a change in its setting as result of the converter station	Negligible Adverse	No
Demolished Farm (12)	Low	Permanent impact on the receptor arising from a change in its setting as result of the converter station	Negligible Adverse	No
Not Named (Farm) (13)	Low	Permanent impact on the receptor arising from a change in its setting as result of the converter station	Negligible Adverse	No
Northorpe Dairy Farm (14)	Low	Permanent impact on the receptor arising from a change in its setting as result of the converter station	Negligible Adverse	No

Table 23.10 Summary of Assessment: Archaeology & Cultural Heritage (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
Not Named (Farm) (15)	Low	Permanent impact on the receptor arising from a change in its setting as result of the converter station	Negligible Adverse	No
Northorpe House (Northorpe Farm) (16)	Low	Permanent impact on the receptor arising from a change in its setting as result of the converter station	Negligible Adverse	No
The Old Barn (17)	Low	Permanent impact on the receptor arising from a change in its setting as result of the converter station	Negligible Adverse	No
Partially extant farm (19)	Low	Permanent impact on the receptor arising from a change in its setting as result of the converter station	Negligible Adverse	No
Neolithic flint scraper (396)	Low	No effect as isolated spot find no longer present at site	n/a	No
Cropmark enclosures, field boundaries and trackway at Middle Fen (370)	Medium	Permanent impact on the receptor arising from changes to archaeological material due to construction activity associated with the proposed AC cable route	Minor Adverse	No
Post-Medieval Flood Defence Ditches, Bicker Fen (392)	Low	Permanent impact on the receptor arising from changes to archaeological material due to construction activity associated with the proposed AC cable route	Negligible Adverse	No
Boundary Ditch and pit near North Ing (4)	Low	Permanent impact on the receptor arising from changes to archaeological material due to construction activity associated with the permanent access road	Minor Adverse	No
Not Named (Farm) (18)	Low	Permanent impact on the receptor arising from changes to archaeological material due to construction activity associated with the permanent access road	Minor Adverse	No

Table 23.10 Summary of Assessment: Archaeology & Cultural Heritage (Converter Station)

Description of Receptor	Value / Sensitivity	Description of Residual Effect	Significance	Significant
Linear Features and associated paleochannel (457)	Low	Permanent impact on the receptor arising from changes to archaeological material due to construction activity associated with the permanent access road	Minor Adverse	No
Agricultural cropmarks, south of Northorpe House (458)	Low	Permanent impact on the receptor arising from changes to archaeological material due to construction activity associated with the permanent access road	Minor Adverse	No
Park House Park, Donington (393)	Low	Permanent impact on the receptor arising from a change in its setting as result of the permanent access road	Negligible Adverse	No
Old Hammond Beck (455)	Low	Permanent impact on the receptor arising from a change in its setting as result of the permanent access road	Negligible Adverse	No

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