



MERIDIAN SOLAR FARM PEIR VOLUME I CHAPTER 6: CULTURAL HERITAGE

6. Cultural Heritage

6.1. Introduction

- 6.1.1. This chapter presents the results of an assessment of the likely significant effects on Cultural Heritage during the construction, operation (including maintenance) and decommissioning phases of the Scheme. This assessment considers the potential for physical impacts of the Scheme on the significance of recorded and unrecorded heritage assets within the Site and the impacts on the significance of heritage assets as a result of changes to their setting.
- 6.1.2. The chapter also presents an overview of the baseline Cultural Heritage assessment and identifies potential measures to mitigate any identified impacts on Cultural Heritage.
- 6.1.3. The assessment is based on the Scheme design as outlined within PEIR Volume I Chapter 2: The Scheme.
- 6.1.4. This chapter is supported by the following figures:
- PEIR Volume II Figure 6-1: Designated Heritage Assets PV Area and Inter-Array Areas;
 - PEIR Volume II Figure 6-2: Non-Designated Heritage Assets PV Area and Inter-Array Areas;
 - PEIR Volume II Figure 6-3: Previous Archaeological Investigations PV Area and Inter-Array Areas;
 - PEIR Volume II Figure 6-4: Historic Landscape Character PV Area and Inter-Array Areas;
 - PEIR Volume II Figure 6-5: Designated Heritage Assets Grid Connection Corridor;
 - PEIR Volume II Figure 6-6: Non-Designated Heritage Assets Grid Connection Corridor;
 - PEIR Volume II Figure 6-7: Previous Archaeological Investigations Grid Connection Corridor; and
 - PEIR Volume II Figure 6-8: Historic Landscape Character Grid Connection Corridor.
- 6.1.5. This chapter is supported by the following appendices:
- PEIR Volume III Appendix 6-1: Historic Environment Desk-Based Assessment;
 - PEIR Volume III Appendix 6-2: Summary of PV Area Heritage; and
 - PEIR Volume III Appendix 6-3: Summary of Heritage Setting Assessment.

6.2. Legislation, Policy and Guidance

- 6.2.1. The following legislation, policy and guidance has been identified as relevant to the assessment of Cultural Heritage.

Legislation

Ancient Monuments and Archaeological Areas Act 1979

- 6.2.2. Scheduled Monuments are designated by the Secretary of State for Digital, Culture, Media and Sport (SoS) as selective examples of nationally important archaeological remains. Part 1, Sections 1 and 2 of the Ancient Monuments and Archaeological Areas Act 1979¹ set out guidelines for the process of selection of sites to be included in the protected schedule. Part 1, Section 2 provides legal protection for Scheduled Monuments; it states that it is an offence to damage, disturb, or alter a Scheduled Monument without permission of the SoS. Although the Act does protect the ground below Scheduled Monuments, it does not protect the wider setting of the monument.

The Planning (Listed Buildings and Conservation Areas) Act 1990

- 6.2.3. The Planning (Listed Buildings and Conservation Areas) Act 1990² sets out guidelines for designation, control of works and enforcement measures concerning Listed Buildings and Conservation Areas. Section 1 states that the SoS shall compile lists, or approve lists compiled by Historic England, of buildings of special architectural or historic interest in order to guide local authorities in carrying out the functions set out by the Act. Section 66 of the Act states that when the Local Planning Authority (LPA), or in certain cases, the SoS, are considering whether to grant planning permission to developments affecting a Listed Building or its setting, they shall pay special regard to the desirability of preserving the building or its setting, or any features of special architectural or historic interest which it may possess.
- 6.2.4. Regarding Conservation Areas, Section 69 states that LPAs shall designate areas of special architectural or historic interest, the appearance of which should be preserved. Section 72 states that when considering developments affecting Conservation Areas, special attention should be paid to the benefit of preserving or enhancing the area's character or appearance.

National Policy

Overarching National Policy Statement for Energy (EN-1)

- 6.2.5. The Overarching National Policy Statement for Energy (EN-1) (January 2024)³ outlines national policy for energy infrastructure. The statement provides the definition of the historic environment and information on appropriate levels of assessment of energy proposals that have the potential to impact upon the historic environment. Paragraph 5.9.12 states that the applicant should ensure that the extent of the potential impact on

¹ Ancient Monument and Archaeological Areas Act 1979 (as amended). Available at: <https://www.legislation.gov.uk/ukpga/1979/46/data.pdf>.

² Planning (Listed Buildings and Conservation Areas) Act 1990. Available at: <https://www.legislation.gov.uk/ukpga/1990/9/data.pdf>.

³ Department for Energy Security and Net Zero (2024) *Overarching National Policy Statement for energy (EN-1)* (E03028327). London: HMSO Available at: <https://assets.publishing.service.gov.uk/media/65bbfbd709fe1000f637052/overarching-nps-for-energy-en1.pdf>.

the significance of any heritage asset as a result of the scheme must be adequately understood from the application. The applicant is also encouraged where opportunities exist to make a positive contribution to the historic environment through options such as sensitive design, public benefits and enhanced access or interpretation (paragraph 5.9.13).

- 6.2.6. EN-1 states (paragraph 5.9.17) "*Where the loss of the whole or part of a heritage asset's significance is justified, the Secretary of State will require the applicant to record and advance understanding of the significance of the heritage asset before it is lost (wholly or in part). The extent of the requirement should be proportionate to the asset's importance and significance and the impact.*" Where deemed appropriate the SoS will impose requirements on the Development Consent Order to ensure that the required works are undertaken in accordance with a written scheme of investigations and the National Policy Statement (NPS) policies. The scope of this work is to be agreed with the LPA (paragraph 5.9.18).

National Policy Statement for Renewable Energy Infrastructure (EN-3)

- 6.2.7. Within the NPS for Renewable Energy Infrastructure (EN-3) (January 2024)⁴ when considering the impact on the historic environment and whether it is satisfied that the substantial public benefits would outweigh any loss or harm to the significance of a designated heritage asset, the SoS should take into account the positive role that large-scale renewable projects play in the mitigation of climate change, the delivery of energy security and the urgency of meeting the national targets for renewable energy supply and emissions reductions.

National Policy Statement for Electricity Networks Infrastructure (EN-5)

- 6.2.8. The National Policy Statement for Electricity Networks Infrastructure (EN-5) (January 2024)⁵ outlines the Government's policy statement in regard to electricity networks infrastructure. The document requires that the potential effects of heritage assets as a result of overhead lines and buried cables contribute of the consideration of the options. Paragraph 2.9.25 also determines that an overhead line will take preference over a buried cable unless it can be demonstrated that the benefit of a buried option clearly outweighs the extra economic, social or environmental impacts it presents.

National Planning Policy Framework

- 6.2.9. The National Planning Policy Framework (December 2024)⁶ sets out guidelines for achieving sustainable development, based on the core objectives: economic, social, and environmental. Protecting and enhancing the historic environment is just one element contributing to the realisation of these objectives. Section 16 details the policies for

⁴ Department for Energy Security and Net Zero (2024) *National Policy Statement for Renewable Energy Infrastructure (EN-3)* (E03028327). London: HMSO Available at: <https://assets.publishing.service.gov.uk/media/65a7889996a5ec00d731aba/nps-renewable-energy-infrastructure-en3.pdf>.

⁵ Department for Energy Security and Net Zero (2024) *National Policy Statement for electricity networks infrastructure (EN-5)* (E03028327). London: HMSO Available at: <https://assets.publishing.service.gov.uk/media/65a78a5496a5ec00d731abb/nps-electricity-networks-infrastructure-en5.pdf>.

⁶ Department for Levelling Up, Housing and Communities (2024) *National Planning Policy Framework*. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

protecting and enhancing the historic environment during planning procedure and decision making.

- 6.2.10. It states that any development decisions affecting heritage assets should be made with a thorough understanding of their significance, including any contribution made by their setting, with a level of detail proportional to their significance. In the case of a development affecting archaeological remains, a desk-based assessment and, where necessary, a field evaluation will be required (paragraph 200).
- 6.2.11. In the case of designated assets, substantial harm or loss to heritage assets and their settings should be exceptional for designated assets, including Grade II Listed Buildings and Grade II registered parks and gardens. Substantial harm to assets of the highest significance, including World Heritage Sites, Scheduled Monuments, Protected Wrecks, Registered Battlefields, Grade I and II* Registered Parks and Gardens, and Grade I and II* Listed Buildings, should be wholly exceptional (paragraph 206) and exceptional for other designated assets (including Grade II Listed Buildings and Grade II Registered Parks and Gardens) (paragraph 206). Harm to these assets must be weighed against the public benefit of development (paragraph 207).
- 6.2.12. For non-designated heritage assets, a balanced judgement regarding the scale of harm or loss to the asset and its significance must be made (paragraph 209). Where development results in loss or harm to a heritage asset, developers will be required to record and advance understanding of the significance of the asset (paragraph 211).

National Planning Practice Guidance

- 6.2.13. The National Planning Practice Guidance (NPPG)⁷ provides further advice and guidance that expands the policy outlined in the NPPF. It expands on terms such as ‘significance’ and its importance in decision making and also provides advice on how proposals can avoid or minimise harm to the significance of a heritage asset. The Guidance also covers the setting of heritage assets, how the setting can contribute towards the significance of a heritage asset and how the proposed scheme can interact with the setting of an asset. The guidance also provides advice on various other matters including;
- Whether the deteriorated state of a heritage asset should be taken into account in reaching a decision on an application;
 - What is the optimum viable use for a heritage asset and how is it taken into account in planning decisions; and
 - How can the possibility of harm to a heritage asset be assessed.

⁷ Department for Levelling Up, Housing and Communities (2024) *Planning Practice Guidance*. Available at: <https://www.gov.uk/government/collections/planning-practice-guidance>

Local Policy

South East Lincolnshire Local Plan (SELLP) 2011-2036

6.2.14. The following policies within the South East Lincolnshire Local Plan (SELLP) 2011-2036⁸ are relevant to this Cultural Heritage assessment:

- Policy 2: Development Management;
- Policy 3: Design of New Development;
- Policy 29: The Historic Environment;
- Policy 30: Pollution; and
- Policy 31: Climate Change and Renewable and Low Carbon Energy.

Lincolnshire County Council (2019) Archaeology Handbook

6.2.15. The Lincolnshire County Council Archaeology Handbook (2019)⁹ seeks to provide practical guidance to enable a consistent approach to the historic environment within the planning process within Lincolnshire. It details principles of modern historic environment resource management relevant to Lincolnshire, aiming to establish effective long-term management of the county's archaeological and built heritage.

Guidance

Chartered Institute for Archaeologists (CIfA) (2020) Standards and Guidance for Historic Environment Desk-based Assessments

6.2.16. CIfA 'Standards and Guidance for Historic Environment Desk-based Assessments' (2020)¹⁰ outlines good practice measures for the reporting and completion of historic environment desk-based assessments.

CIfA (2022) Code of Conduct

6.2.17. The CIfA Code of Conduct (2022)¹¹ outlines principles to be adhered to by archaeologists, including, but not limited to, maintaining high standards of ethical and responsible behaviour, the respective responsibility for the conservation of the historic environment, and making available the results of archaeological works.

⁸ South East Lincolnshire Joint Strategic Planning Committee (2019) *South East Lincolnshire Local Plan 2011-2036*. Available at: <https://www.southeastlincslocalplan.org/wp-content/uploads/2019/02/Local-Plan-text-March-2019.pdf>

⁹ Lincolnshire County Council (2019) *Archaeology Handbook*. Available at: <https://www.lincolnshire.gov.uk/downloads/file/2204/archaeology-handbook-pdf>.

¹⁰ CIfA (2020) *Standard and guidance for historic environment desk-based assessment*. Available at: https://www.archaeologists.net/sites/default/files/CIfAS%26GDBA_4.pdf.

¹¹ CIfA (2022) *Code of Conduct: Professional Ethics in Archaeology*. Available at: <https://www.archaeologists.net/sites/default/files/Code%20of%20conduct%20revOct2022.pdf>.

Historic England (2017) Good Practice in Planning Advice Note 3: The Setting of Heritage Assets

- 6.2.18. Historic England 'Good Practice in Planning Advice Note 3: The Setting of Heritage Assets' (2017)¹² provides guidance on understanding the setting of heritage assets and how this may contribute to the significance of the respective asset. The guidance also advises as to how views contribute to setting.

Historic England (2019) Advice Note 12: Statements of Heritage Significance

- 6.2.19. Historic England 'Advice Note 12: Statements of Heritage Significance' (2019)¹³ provides guidance on the methods to describe heritage significance and how this can support the design process. This includes how archaeological desk-based assessments and field evaluations can support effective, consistent and timely design decisions.

Historic England (2021) Advice Note 15: Commercial Renewable Energy Development and the Historic Environment

- 6.2.20. Historic England 'Advice Note 15: Commercial Renewable Energy Development and the Historic Environment' 2021¹⁴ outlines potential impacts on the historic environment as a result of renewable energy development including utility-scale solar PV generation, supporting the identification of potential heritage related issues.

Historic England (2016) Preserving Archaeological Remains: Decision-taking for Sites Under Development

- 6.2.21. Historic England 'Preserving Archaeological Remains: Decision-taking for Sites under Development' (2016)¹⁵ describes measures to retain and protect archaeological remains beneath or within development, including the information necessary to ensure these have been fully considered as part of the cultural heritage impact assessment.

IEMA, ClfA and Institute of Historic Building Conservation (IHBC) (2021) Principles of Cultural Heritage Impact Assessment in the UK

- 6.2.22. IEMA, ClfA and IHBC 'Principles of Cultural Heritage Impact Assessment in the UK' (2021)¹⁶ outlines a series of guiding principles and good practice measures for cultural heritage impact assessment in a variety of settings.

¹² Historic England (2017) *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3 (Second Edition)*. Available at: <https://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/heag180-gpa3-setting-heritage-assets/>.

¹³ Historic England (2019) *Statements of Heritage Significance: Analysing Significance in Heritage Assets Historic England Advice Note 12*. Available at: <https://historicengland.org.uk/images-books/publications/gpa2-managing-significance-in-decision-taking/gpa2/>.

¹⁴ Historic England (2021) *Commercial Renewable Energy Development and the Historic Environment: Historic England Advice Note 15*. Available at: <https://historicengland.org.uk/images-books/publications/commercial-renewable-energy-development-historic-environment-advice-note-15/heag302-commercial-renewable-energy-development-historic-environment/>.

¹⁵ Historic England (2016) *Preserving Archaeological Remains: Decision-taking for Sites under Development*. Available at <https://historicengland.org.uk/images-books/publications/preserving-archaeological-remains/heag100a-preserving-archaeological-remains/>

¹⁶ IEMA, ClfA, and IHBC (2021) *Principles of Cultural Heritage Impact Assessment in the UK*. Available at: https://www.archaeologists.net/sites/default/files/j30361_iema_principlesofchia_v8.pdf.

6.3. Scoping Opinion and Additional Engagement

- 6.3.1. To establish the methodology and approach to assessment for the Scheme, a scoping exercise was completed in Spring 2024. The results of this were formally presented within the Scoping Report submitted to the Planning Inspectorate on 30 May 2024.
- 6.3.2. A Scoping Opinion was received from the Planning Inspectorate on 10 July 2024. A review of the key comments raised in the Scoping Opinion is provided in Table 6-1 below. This also outlines how the Scoping Opinion comments have been addressed within this PEIR or will be addressed within the ES.

Table 6-1 Responses to EIA Scoping in relation to Cultural Heritage

Consultee	Summary of Response in EIA Scoping Opinion	Response/Action
Planning Inspectorate	The Inspectorate comments that the potential for likely significant effects on all relevant conservation areas should be assessed within the ES.	All Conservation Areas potentially affected by the Scheme have been considered as part of the assessment. Tools such as the Zone of Theoretical Visibility (ZTV) and Site visits have been used to determine setting and the extent of intervisibility.
	The Inspectorate comments that heritage trial trenching should make effort to agree the need for intrusive investigations with relevant consultation bodies. Trenching should be undertaken prior to submission of DCO. Lincolnshire County Council (LCC) comments trial trenching will be required to test 'blank areas' (i.e. where archaeology is not identified through desk-based assessment or geophysical surveys). It states that trial trenching blank areas on other Nationally Significant Infrastructure Projects (NSIP) has resulted in the identification of significant areas of archaeology. Whilst the LCC appreciates there will be challenges for any large scheme, for example land access, they strongly recommend that field evaluation be undertaken at the earliest opportunity to allow the work to be undertaken and the results to be available in good time to inform the baseline information and the subsequent agreed mitigation. Sufficient field evaluation is an essential aspect of effective project management, particularly as unevaluated areas of unknown archaeological potential leaves a high degree of risk to the development given the potential for archaeology to have significant impacts on work programmes and budgets.	A programme of evaluation trenching is planned as part of the assessment phase of the Scheme. The results of this will be used to inform the impact assessment and development of a mitigation strategy. Archaeological trenching will be guided by the results of the desk-based research, aerial assessment and geophysical survey. All efforts will be made to gain access to support the assessment. The mitigation strategy will be developed in recognition of any shortfalls.
	Inspectorate comments that the ES should consider potential impacts including noise, visual, vibration, landscaping, lighting. All elements of the Proposed Development should be considered including haul roads and construction compounds. Both below ground and above ground impacts should be assessed.	All potential impacts on heritage assets as a result of all elements of the Scheme will be assessed in the ES as appropriate.
	Inspectorate comments that the ES should identify and assess any likely significant indirect effects on the historic environment, for example, changes in drainage patterns or compression of the ground from infrastructure which could affect below ground heritage assets or lead to subsidence of above ground buildings and monuments.	Potential indirect effects on the historic environment will be considered as part of the ES.

Consultee	Summary of Response in EIA Scoping Opinion	Response/Action
Lincolnshire County Council	LCC comments that the figures should show the location of non-designated assets in relation to the red line boundary with identifying labels.	These figures form part of the desk-based assessment (DBA) (Appendix 6-1) and will also be included in the ES.
	LCC comments that a full competent LiDAR and air photo analysis is required.	This has been produced for the PV Area and is ongoing for the preferred Grid Connection Corridor to inform the assessment presented in the ES.
	LCC comments that a Study Area, 1km is not sufficient. We recommend Historic Environment Record (HER) data for a 2km radius is required from the main site boundary and any proposed connection route options.	A study area of 1km from the boundary of the Site has been used to collect HER and other data in support the production of the DBA. This is considered to be sufficient and proportionate to understand the nature of previously recorded heritage assets within the Site and the surrounding area. A more flexible approach has been taken to understanding of the wider historic landscape and the setting of heritage assets between 1km and 5km from the Site. Detailed information on the study area is provided in detail in section 6.4.
	LCC comments (on the scoping report) that the Decommissioning Phase states that <i>"Decommissioning impacts are likely to be similar to any temporary impacts identified in relation to the construction phase of the Scheme. It is not anticipated that these effects would be significant."</i> The Council does not agree, there are of course no temporary impacts on archaeology, it is a non-renewable resource. There is no information on the specific ground impacts of how infrastructure and the solar arrays will be removed or information regarding the impacts of refits throughout the 40-year lifetime of the Scheme.	A preliminary assessment of decommissioning phase effects has been undertaken as part of this PEIR and will be updated as part of the impact assessment in the ES.
	LCC comments that areas where archaeology will be mitigated through preservation in situ must be fenced off and subject to a programme of monitoring throughout the construction, operation and the decommissioning phases, and there will be no ground disturbance whatsoever which may disturb or affect the archaeological remains, including plant movement or storage. Fencing will need to remain in place and be maintained throughout the lifetime of the scheme including decommissioning and refits. There will need to be an Archaeological Clerk of Works and the management strategy for the preservation in situ areas will need to be included in the Construction and Environmental Management Plan (CEMP) to ensure the protection measures stay in place throughout the development.	A mitigation strategy will be developed using the data gathered from the desk-based and field evaluation phases. The requirement for a management strategy and an Archaeological Clerk of Work will be informed by the results of the evaluation and the detailed understanding of the significance and extent of the archaeology within the Site. Such measures will be included in the CEMP.
Historic England	Historic England (HE) comments that The PV Area has complex soils and require a suit of investigative approaches grounded in a sound Desk Based Assessment. Multi-technique geophysical survey, aerial,	A detailed DBA has been produced to support the assessment of potential impacts.

Consultee	Summary of Response in EIA Scoping Opinion	Response/Action
	lidar and cartographic sources and deposit modelling should inform a programme of trial trenching (with regards to which we refer you also to the expertise of the local government archaeological officers/advisors).	The results of the DBA will be supported by appropriate surveys and will also be used to inform a programme of evaluation trenching.
	HE comments that <i>"Of key concern in respect of this scheme is to develop a sophisticated understanding of the former estate of the Abbey of Crowland including the scheduled and grade I listed abbey itself, Trinity bridge, former hermitage/chapel sites and the estate boundary markers/crosses including Kenulph's stone. Because the features relating to the Abbey form a group impact upon parts of the estate should to a degree be considered in respect of the whole and artificial limits of consideration should not bisect the estate."</i> Furthermore, <i>"Detailed understanding of the impact of the proposed scheme on the experience of the historic landscape both in its own right and as setting to the Abbey of Crowland and other associated assets is of critical importance in order for the scheme proposals to respond effectively and manage impacts through design."</i>	Considerations of the potential effects on the Abbey of Crowland and its associated landscape form part of this preliminary assessment.
	HE comments that <i>"The deposition of alluvial soils and peat formation can conceal upstanding archaeological features such as pre-historic burial mounds, such features should be considered in any modelling exercise in which depth of cover is considered since they may be particularly exposed to risk."</i> In addition, <i>"The modelling of past patterns (sic) of wet and dry land will aid not only in understanding the character of this (sic) landscape but also (through deposit modelling) in the prediction of areas of greatest archaeological risk. This was a much wetter landscape at times in the past, a rich source of wetland resources with areas of dry land set within marsh and channel, hence the crucial importance of deposit modelling to understand the context in which remains may survive across differing periods and in association with different spaces within that landscape."</i>	A programme of archaeological evaluation will be undertaken using a combination of evaluation trenches and test pits which will be designed based on the data collected to date, and the mitigation through design work undertaken. The evaluation will be appropriate and proportionate to support the assessment of potential impacts to support the EIA process.
	HE comments that <i>"Given the relatively flat topography the visual impact of large structures may need to be considered in respect of the setting of prominent listed churches and towers etc over considerable distances and should not be constrained by fixed radii."</i>	The understanding of the wider historic landscape and the setting of heritage assets within it will be informed by tools such as the ZTV and Site visits will be used to determine setting and the extent of intervisibility.
Cowbit Parish Council	Cowbit Parish Council comments that the project will disrupt the cultural heritage of the Meridian Stone on Langary Gate Road, and protective measures should be taken to ensure this and the surrounding area remains unaffected.	The Meridian Stone was noted and recorded during the initial Site visit. Potential impacts on its historic significance and location have been considered as part of the assessment.
Deeping St James Parish Council	Deeping St James Parish Council comments that the historic character of the landscape should not be destroyed by industrial development.	Understanding of the potential impact of the Scheme on the wider historic landscape and the setting of heritage assets within it form part of the assessment.
Boston Borough Council	The project will disrupt the cultural heritage of the Meridian Stone.	The Meridian Stone was noted and recorded during the initial Site visit. Potential impacts on its

Consultee	Summary of Response in EIA Scoping Opinion	Response/Action
		historic significance and location have been considered as part of the assessment.

6.3.3. Table 6-2 below presents the scope of assessment presented within the Scoping Report, updated as a result of ongoing consultation and feedback received within the Scoping Opinion.

Table 6-2 Scope of Assessment in Relation to Cultural Heritage

Topic	Construction Phase	Operational Phase	Decommissioning Phase	Notes
Physical effects on heritage assets	<p>Scoped In Physical effects on designated and non-designated assets within the Site which may be affected by the Scheme during construction, including but not limited to, construction of the ground mounted solar PV panels, power control infrastructure and cabling, connector infrastructure, compounds and access tracks. Heritage assets located within the Site may range in date from the Iron Age through to the Post-medieval period, and include Iron Age/Romano-British settlement and salt making sites, medieval drove roads and field systems and post-medieval farmsteads.</p> <p>Indirect effects on designated and non-designated assets within the 1km study area as a result of changes in drainage patterns or compression of ground above buried archaeological remains as a result of the addition of the Scheme.</p>	<p>Scoped out No additional physical effects on designated and non-designated assets within the Site are anticipated during the operation of the Scheme outside of those experienced during construction.</p>	<p>Scoped In Physical effects on designated and non-designated assets within the Site which may be affected by the Scheme during decommissioning. Unlikely to be further effects on assets already impacted during the construction phase. Changes to the location of construction compounds may cause additional effects outside of those experienced during construction.</p>	<p>The baseline will evolve as further surveys are undertaken including archaeological trial trenching in all areas of the Site. Geophysical survey and aerial photo survey have been undertaken for the PV Area. Further surveys will be completed within the Grid Connection Corridor and Inter-Array Areas. Further surveys will provide more information on the significance and scale of heritage assets within the Site and identify previously unrecorded buried archaeological deposits.</p>
Effects on the significance of heritage assets due to changes in their setting	<p>Scoped In Direct effects on the cultural significance of heritage assets within 5km of the Site due to changes in their setting as a result of construction activities.</p> <p>Scoped Out Direct effects on the cultural significance of heritage assets located outside of the 5km study area as this is considered a sufficient distance for the Site to lie outside of the setting of these assets.</p>	<p>Scoped In Direct effects on the cultural significance of heritage assets within the 1km study area due to changes in their setting as a result of the presence of the Scheme.</p> <p>Scoped Out Direct effects on the cultural significance of heritage assets located outside of the 1km study area as this is considered a sufficient distance for the Site to lie outside of the setting of these assets.</p>	<p>Scoped In Direct effects on the cultural significance of heritage assets within the 1km study area due to changes in their setting as a result of decommissioning activities.</p> <p>Scoped Out Direct effects on the cultural significance of heritage assets located outside of the 5km study area as this is considered a sufficient distant for the Site to lie outside of the setting of these assets.</p>	<p>All assets located within 1km of the Site have been scoped into the setting assessment. In addition, A ZTV for the Site and a Site visit has been utilised to consider setting impacts on assets of the high and very high high importance (e.g. Grade I Listed Buildings, Scheduled Monuments) outside the 1km Study Area but within 5km of the Site. A setting assessment survey will be undertaken by a heritage professional at a future stage to assess the setting of each asset and determine whether the site lies within the setting of said asset.</p>

Additional Engagement

6.3.4. Engagement has been undertaken and is ongoing with key stakeholders with specific focus on the historic environment, specifically LCC and HE. Table 6-3 below summarises the discussions:

Table 6-3 Additional Engagement in relation to Cultural Heritage

Consultee	Date	Format	Summary of Discussion	Key Actions
HE and LCC	13/05/2024	Microsoft Teams Meeting	Introduction to the Scheme. Presentation of the Scheme, research undertaken to date, geophysical survey and planned work.	Keep all parties updated with the progress with the surveys and programme.
HE	08/01/2025	Microsoft Teams Meeting	Update on evaluation works – including geophysical survey, aerial photograph and LiDAR survey and evaluation trial trenching; The significance of the historic landscape; The development of the design within the PV Area; and The development of the design within the Grid Connection Corridor and Inter-Array Areas.	Include consideration of setting effects on Crowland Abbey and its relationship with Guthlac’s Cross.
LCC	09/01/2025	Microsoft Teams Meeting	Update on evaluation works – including geophysical survey, aerial photograph and LiDAR survey and evaluation trial trenching; The significance of the historic landscape; The development of the design within the PV Area; and The development of the design within the Grid Connection Corridor and Inter-Array Areas.	LCC recommended that consideration be given to innovative methodologies or techniques when formulating the specification of works for the archaeological evaluation. Further meeting to be held once the archaeological contractor is appointed.

6.3.5. Engagement will continue through the ongoing phases of evaluation works, the ES stage and the development of any required mitigation strategies.

6.4. Assessment Methodology

6.4.1. The following scope and methodology have been used to set out the preliminary assessment of the likely significant effects of the Scheme in relation to Cultural Heritage.

Study Area

6.4.2. A study area of 1km from the Site, which is defined in PEIR Volume I Chapter 2: The Scheme, has been used to consider data sources to inform understanding of the historic environment. This area was informed by the nature of the Scheme and the landscape to allow appropriate understanding of the heritage baseline of the Site through identification of assets which may extend into the Site and its surrounding landscape. Professional judgement, topography of the landscape and nature of the anticipated effects has also been utilised. A study area of 1km is considered appropriate and proportionate in order to assess the importance and cultural significance of the archaeology and heritage baseline within and surrounding the Site, although the heritage baseline (Appendix 6-1) has also placed these results within the wider local and regional archaeological context where appropriate.

6.4.3. The settings of designated heritage assets of high and very high importance (Scheduled Monuments, Grade I and Grade II* Listed Buildings) outside of the 1km study area have also been considered, up to approximately 5km. Assets beyond this distance may also be considered, where identified as necessary using professional judgement or by statutory consultees. This will also be guided by the Scheme's ZTV and will consider physical and historical connectivity and relationships with other monuments and the wider landscape. This approach is considered appropriate as the potential for impacts to the settings and cultural significance of heritage assets as a result of the Scheme reduces with distance from the Site. Significant effects beyond 5km are considered highly unlikely.

Baseline Development

6.4.4. Data sources that have been consulted for this assessment comprise:

- National Heritage List for England (NHLE)¹⁷;
- LCC Historic Environment Record (HER)¹⁸;
- LCC Historic Landscape Character (HLC)¹⁹;
- British Geological Survey (BGS) Geology of Britain Viewer²⁰;
- BGS Borehole Records²¹;

¹⁷ Historic England (2025) National Heritage List for England. Available at: <https://historicengland.org.uk/listing/the-list/>.

¹⁸ Lincolnshire County Council (2025) Historic Environment Record.

¹⁹ Lincolnshire County Council (2025) Historic Landscape.

²⁰ British Geological Survey (2025) Geology Viewer. Available at: <https://geologyviewer.bgs.ac.uk/>.

²¹ British Geological Survey (2025) Borehole Record. Available at: <https://www.bgs.ac.uk/information-hub/borehole-records/>.

- National Library of Scotland (NLS) Historic Map Viewer²²;
- NLS 1st Edition OS maps²³;
- Published and unpublished literature;
- Aerial Photography and LiDAR Assessment for the PV areas²⁴;
- Geophysical Survey for the PV areas²⁵; and
- Relevant plans, maps, journals and books belonging to the Lincolnshire archives.

6.4.5. Heritage assets referred to within this assessment are succeeded by a number in brackets. This refers to the list entry number, primary reference number or other reference number for that asset as listed in the data sets consulted. The detail of these can be found in PEIR Volume III Appendix 6-1: Historic Environment Desk-Based Assessment. The Gazetteer in Appendix B of the DBA divides heritage assets into designated and non-designated assets and also contains records of heritage events.

Surveys

6.4.6. An initial Site survey and setting assessments were conducted for the Scheme and the surrounding study area on the following dates;

- 8-9 November 2023; and
- 21-22 February 2024.

6.4.7. The purpose of the Site visits was to identify known archaeological sites within the Site, consider areas of likely archaeological potential and to establish the nature of the landscape which would inform setting of heritage assets within the study area.

6.4.8. An aerial photography and LiDAR assessment has been completed for the PV Area in order to identify cropmark evidence of possible archaeological remains, thought to date from the Iron Age onwards. A summary of this study can be found in PEIR Volume III Appendix 6-1: Historic Environment Desk-Based Assessment.

6.4.9. A geophysical survey currently underway for the PV Areas will provide further information on the nature of archaeological remains within the Site. A summary of the results and interpretation to date can be found in PEIR Volume III Appendix 6-1: Historic Environment Desk-Based Assessment and have been used to inform this assessment. Details in relation to the full results of the geophysical survey will be incorporated into the ES.

6.4.10. Aerial Photography and LiDAR assessment are currently underway for the Grid Connection Corridor and Inter-Array Areas. Geophysical survey will be undertaken for the Inter-Array Areas as the design develops. It is proposed for the Grid Connection

²² National Library of Scotland (2025) Map viewer. Available at: <https://maps.nls.uk/>.

²³ National Library of Scotland (2024) 1st Edition OS Maps.

²⁴ Alison Deegan (2024) Air Photo and LiDAR mapping and interpretation.

²⁵ AOC (2024) Archaeological Geophysical Survey – Draft Interpretation.

Corridor once preliminary pylon locations have been identified. The available data and research undertaken to date have been used to assess the likely significant effects within this chapter in relation to the Grid Connection Corridor.

Assessment Methodology

- 6.4.11. This section sets out the approach to preliminary assessment of the likely significant effects of the Scheme on designated and non-designated heritage assets. The objective of the assessment is to identify any effects upon Cultural Heritage assets or their setting that are likely to arise from construction, operation and maintenance, and decommissioning of the Scheme. The assessment presented within this chapter is based on the baseline information and design details available at the time of writing. A further, more detailed assessment will be set out in the ES.
- 6.4.12. EN-1^{Error! Bookmark not defined.} defines the value of heritage assets (described as cultural significance throughout this chapter) as “*value to this and future generations because of their historic, archaeological, architectural or artistic interest*”. The NPPF^{Error! Bookmark not defined.} Glossary defines a heritage asset as “*A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. It includes designated heritage assets and assets identified by the local planning authority (including local listing).*”.
- 6.4.13. National planning policy and guidance emphasise the need to understand the cultural significance of heritage assets, including their setting, reflecting that the primary purpose is to sustain and enhance the cultural significance of heritage assets and the positive contribution they can make to economic vitality, local character and distinctiveness rather than no change. Both NPPF and EN-1 relate impacts affecting the cultural significance (value in EN-1) of heritage assets with harm. There is a requirement to determine whether the level of harm amounts to ‘substantial harm’ or ‘less than substantial harm’.
- 6.4.14. The basis for assessing impacts on the historic environment is an understanding of the cultural significance of heritage assets that might be affected by a proposal and evaluating the consequences of change. This process can be broken down into distinct stages as outlined in Principles of Cultural Heritage Impact Assessment in the UK¹⁶ and Historic England Advice Note 12¹³.

Assessment of Cultural Significance and Importance -Stages 1-3: Understanding Cultural Heritage Assets

Stage 1: Describing the Asset

- 6.4.15. Research and investigations are undertaken leading to a factual statement that establishes the location, nature and setting of the asset.

Stage 2: Ascribing Cultural Significance

- 6.4.16. Analysis is undertaken of what is valued about the asset and the contribution made by its setting, leading to a statement of cultural significance. Cultural significance is not scaled but can be expressed in terms of four key ‘heritage interests’ as outlined in NPPF

Annex 2, Glossary. These interests include archaeological, architectural, artistic and historic:

- Archaeological: where a heritage asset holds, or potentially holds evidence about past human activity worthy of expert investigation;
- Architectural: interests in the design of a place. This can arise from conscious design or fortuitously from how the heritage asset has evolved. Architectural interest can lie in the art or science of the design, construction, craftsmanship and decoration of the building or structure;
- Artistic: where other human creative skills contribute to the interest of the asset. This can arise directly or fortuitously from an association e.g. depicted in a work of art or literature; and
- Historic: the ways in which past people, events and aspects of life can be connected through a place to the present. Heritage assets can either illustrate, or be associated with, past people and events. Heritage assets with historic interest provide a material record as well as providing meaning for communities with collective experience and can embody aspects of local and cultural identity.

Stage 3: Attributing Importance

6.4.17. The attribution of importance is a measure of the degree to which the cultural significance of the asset is sought to be protected. A judgement on importance is scaled and can be attributed in accordance with the criteria set out in Table 6-4 below. As well as the criteria providing guidance, professional judgement, regional variation and individual qualities are also considered in all cases to determine the importance of each asset. Not all the component parts of the asset may have the same importance, and this should be discussed where appropriate in the accompanying text.

Table 6-4 Criteria for Attributing Importance

Importance	Examples
Very High	World Heritage Sites Places of international importance due to their 'outstanding universal value'.
High	Scheduled Monuments Grade I or II* Listed Buildings Grade I or II* Registered Parks and Gardens Registered Battlefields Places or structure of national importance Non-designated heritage assets of equivalent national importance or potential to contribute significantly to national research objectives
Medium	Grade II Listed Buildings Grade II Registered Parks and Gardens Conservation Areas Non-designated assets of regional or high local importance with potential to contribute significantly to regional and local research objectives. This includes assets which have particular regional associations or may have important associations at a local level (e.g.

Importance	Examples
	they have significance to local population or embody something of the special identity of a locality)
Low	Locally Listed Buildings Non-designated assets which are relatively poorly preserved or have limited importance at a local level and low potential to add to local and regional research objectives.
Negligible	Assets that have very limited or no archaeological, historical or cultural importance.
Uncertain	Sites where there is evidence that a heritage asset may exist, but where there is insufficient information to determine its nature, extent and degree of survival given current knowledge.

Magnitude of Impact - Stages 4 – 5: Evaluating Consequences of Change

6.4.18. Having understood the cultural significance and importance of each asset, the next step is to understand the degree of the proposed change(s) as a result of the Scheme and the impact they would have on cultural significance. The process of evaluating the consequences of change can be usefully broken down into analytical stages.

Stage 4: Understanding Change

6.4.19. This requires a factual statement of how a proposal would change an asset or its setting including the physical change, visual appearance, scale, nature and duration of changes.

Stage 5: Assessing impact

6.4.20. An impact is any change which would increase or decrease the cultural significance of an asset. Impact is scaled and the magnitude of impact reflects the extent to which the cultural significance of an asset is changed by a proposal. These impacts may be beneficial or adverse; direct or indirect; permanent or temporary; and/or cumulative. The impact may also arise at the construction, operation, maintenance or decommissioning phases of the Scheme. The magnitude of impact should take account of mitigation measures which have been embedded within the development proposal as part of the design and optioneering process.

6.4.21. A judgement of magnitude of impact can be made based on the following criteria in Table 6-5.

Table 6-5 Criteria for Assessing Magnitude of Impact

Magnitude of Impact	Criteria
Major Adverse	Causes destruction, or change to most key elements, of the asset, resulting in substantial loss of integrity and cultural significance. Comprehensive change to the setting of the asset where this is a critical aspect of the assets cultural significance. Any such change would not normally be reversible.
Moderate Adverse	Causes change to, or loss of many key elements of, the asset, which results in moderate loss of integrity and cultural significance. Moderate changes to the setting of the asset where this makes an important contribution to the cultural significance of the asset.
Minor Adverse	Change to some elements of the asset, which lead to a limited loss of integrity and cultural significance Change to the setting of the asset where this makes a limited contribution to the cultural significance of the asset.
Negligible/No Change	No appreciable change to the cultural significance of the asset or its setting.
Minor Beneficial	Change to some elements which leads to limited improvement in integrity and cultural significance of the asset, better reveals its cultural significance or arrests decline. Change to the setting of the asset where this makes a limited contribution to the cultural significance of the asset.
Moderate Beneficial	Causes change to many key elements which result in a moderate enhancement to integrity and cultural significance of the asset, better reveals its cultural significance or reverses decline in some areas. Moderate changes to the setting of the asset where this makes an important contribution to the cultural significance of the asset.
Major Beneficial	Causes substantive change to most key elements of the asset that results in substantial enhancement of cultural significance, better reveals cultural significance or has widespread reversal of decline. Comprehensive change to the setting of the asset where this is a critical aspect of the assets cultural significance.

Significance of Effect - Stage 6: The resulting significance of effect

Stage 6: Determining the Significance of Effect

6.4.22. The significance of effect, also referred to as the weighting of the effect, is a conclusion regarding the magnitude of the impact when considered in relation to the importance of the affected heritage asset. This is a critical stage of the assessment process as this determines the weight that should be given to the matter in either influencing the design of the proposal, the development of proportionate mitigation, or ultimately in the test as to whether the proposal will be acceptable and permitted. The matrix in Table 6-6 pairs the importance (i.e. sensitivity/significance) of an asset with and magnitude of impact to determine significance of effect. Where there are two options for a level of effect, it is a matter of professional judgement which should be articulated in the text description as to the level of effect appropriate.

Table 6-6 Significance of Effect

Value/ Sensitivity	Magnitude of Impact (degree of change)				
	No Change	Negligible	Minor	Moderate	Major
Very High	Neutral	Slight	Moderate or Large	Large or Very Large	Very Large
High	Neutral	Slight	Moderate	Moderate or Large	Large or Very Large
Medium	Neutral	Neutral or Slight	Slight or Moderate	Moderate	Moderate or Large
Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Moderate or Slight
Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

- 6.4.23. This assessment considers that very large, large or moderate effects are significant in accordance with standard EIA practice and for the purposes of the EIA Regulations²⁶. Decisions regarding the acceptability of a proposal will also need to be articulated within the parameters of relevant legislative or policy tests which may use their own specific language and terminology.
- 6.4.24. Following the identification of an effect, additional mitigation measures can be used to offset, reduce or compensate for adverse effects. Following the identification of additional mitigation, the effect can be reassessed to determine the level of residual effect to an asset.
- 6.4.25. Within NPPF and NPS EN-1, impacts affecting cultural significance are considered in terms of harm. There is a requirement to determine whether the level of harm amounts to ‘substantial harm’ or ‘less than substantial harm’. There is no direct correlation between the significance of effects identified and the level of harm caused to heritage cultural significance. Professional judgement will be used to assess harm arising from the Scheme as part of the Planning Statement. Details will be included within the ES as appropriate.

Confidence in Prediction of the Significance of Effects

- 6.4.26. Following on from the identification of whether an effect is deemed significant or non-significant, the confidence in the prediction of the significance of effects is given a rating

²⁶ The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. Available at: <https://www.legislation.gov.uk/uksi/2017/572/data.pdf>.

of high, moderate or low and a justification provided. Definitions of high, moderate and low confidence levels are provided in Table 6-7.

Table 6-7 Confidence levels and criteria

Confidence Level	Criteria
High	<p>A high level of confidence in the prediction of significant effects could be justified through:</p> <ul style="list-style-type: none"> • The consideration of, and routing and/or siting of the Scheme away from designated assets and high sensitivity receptors; • Complete baseline data to inform the prediction; • The application of committed mitigation; and/or • A thorough understanding of proposed Scheme activities.
Moderate	<p>A moderate level of confidence in the prediction of significant effects could be justified through:</p> <ul style="list-style-type: none"> • Particular surveys or assessments are incomplete at this stage, but it is possible to extrapolate results; • Mitigation measures will continue to be developed up to the submission of the application for consent; and/or • A general understanding of the proposed Scheme activities and the associated impacts based on other projects, while more detailed information will be provided later.
Low	<p>A low level of confidence in the prediction of significant effects could be justified through:</p> <ul style="list-style-type: none"> • Only extremely limited baseline data is available at this stage; and/or • Exact proposed Scheme activities are unknown; and <p>Where this is the case, a precautionary, worst-case approach is taken.</p>

Assessing Cumulative Effects

- 6.4.27. Potential cumulative effects have been assessed based on the short list of other developments discussed in PEIR Chapter 15: Cumulative Effects. A full assessment of the likely cumulative effects on Cultural Heritage as a result of the Scheme will be completed in the ES stage. A preliminary and precautionary assessment has been made based on the information available at this time, as outlined in Section 6.11 of this chapter.
- 6.4.28. To assess Cultural Heritage cumulative effects, consideration has been given to the likely significant effects identified by the assessments of other committed developments within 5km of the Site, as presented within their DCO or planning applications. This information is then compared to the potential significant effects identified in this chapter. Where this information has not been available, a qualitative review of potential implications has been considered based on-site scale and location, and professional experience.

6.5. Assumptions and Limitations

6.5.1. This chapter forms an assessment based on the available information at the time of writing. It represents a worst case and precautionary approach based on the approach set out in PEIR Volume I Chapter 2: Scheme. The findings reported in this chapter may be subject to change as the design of the Scheme is developed and refined as part of the EIA process and consultation with relevant parties.

6.5.2. The following assumptions about Scheme specifications have been considered for this assessment:

- A maximum depth of 3m for the mounting frames for the solar panels;
- Low voltage on-Site electric cabling will be required. These cables will be buried within ducts which will be 0.8m in width and located at 1.2m depth;
- Within the Inter-Array Areas, a scenario of an overhead line (OHL), single pole 132kV 'trident' OHL with a standard height of approximately 15m above ground with a pole located approximately every 120m. Consideration has also been given to potential underground cable connections through the Inter-Array Areas. If underground, work for 132kV cables would be completed at a working width up to approximately 25m wide (to accommodate the trench, access and spoil storage), with trenches actual cable trench at a depth between 1 and 1.2m deep. The trench would be reinstated once the cable is installed;
- Within the Grid Connection Corridor, an approximate 13km OHL would connect the on-Site substation within the PV area to the proposed National Grid Weston Marsh Substation. Steel lattice pylons with a standard height of approximately 50m would be used and located approximately every 350m;
- All individual finds recorded on the HER within the study area were removed when found and are therefore no longer *in situ*. The location of findspots have been considered when assessing the cultural significance of archaeological sites in their vicinity; and
- It has been assumed that compounds and access points would be located in the same locations during the construction and decommissioning phases.

6.5.3. Details will be updated within the ES as appropriate where the design of the Scheme is subject to further refinement. The assessment will be developed and refined following statutory consultation, and as additional information becomes available, including desk-based research, further survey and the results of field evaluation, with a final assessment presented within the ES.

6.5.4. This assessment is based on the research undertaken to date. The baseline and impact assessment presented within this chapter has been largely based on the Cultural Heritage DBA that is currently in progress.

- 6.5.5. An aerial photography and LiDAR assessment has been completed and used to inform the baseline and impact assessment of the PV Area.
- 6.5.6. Geophysical survey is currently ongoing of the PV Area, but summary results have been incorporated where available. The full results of this work will be included within the ES.
- 6.5.7. The assessment of the potential effects of the Grid Connection has been informed by the desk-based research and will be updated as part of the ES.
- 6.5.8. No intrusive archaeological evaluation works have been commenced at the time of writing, and any results from this work will be included in the ES. If unforeseen circumstances occur and the results from archaeological evaluation therefore cannot be incorporated into the ES, then the assessment of archaeological potential will be based on other available, already completed research and surveys undertaken as part of the Scheme and by others, as summarised in Section 6.6. The significance of archaeological deposits within the Site is therefore subject to a level of uncertainty at this stage and will be better understood as further investigation work is completed.
- 6.5.9. It is assumed that all data provided by third parties is accurate at the time of reporting.

6.6. Baseline Conditions

- 6.6.1. The following provides a summary of the historic environment at the Site. The baseline assessment was informed by various data sources including searches of the local historic environment record, HE national datasets, historic mapping, documentary sources, a Site visit, an aerial photograph and LiDAR assessment and a geophysical survey. Full details can be found in PEIR Volume III Appendix 6-1: Historic Environment Desk-Based Assessment.

Baseline Overview and Historic Landscape Context

- 6.6.2. The Site lies entirely within the fenland basin of South Lincolnshire, the largest single area of wet lowland in the United Kingdom²⁷. The fenland is generally separated into the silt fens in the north mainly in Lincolnshire, and peat fens to the south mainly in Cambridgeshire²⁸, although peat fens do occur in South Lincolnshire, primarily in Crowland, the Deeping and Bourne Fens²⁹. Marine alluvium overlies this peat, mostly comprising clay, within which are silty features known as roddons. Roddons are the remains of former creeks that form dendritic networks through the fens, and are

²⁷ English Heritage (1994) *Fenland Survey: An Essay in landscape and persistence*. David Hall and John Coles.

²⁸ Pryor, F (2019) *The Fens: Discovering England's Ancient Depths*. Apollo.

²⁹ Lane T. (1988) Pre-Roman origins for settlement on the Fens of South Lincolnshire. *Antiquity* Vol. 62 pp. 314-21.

generally higher than the surrounding clay, meaning that remains of settlements and saltern sites almost exclusively sit on the top or sides of roddons³⁰.

PV Area and Inter-Array Areas

- 6.6.3. The baseline of the PV Area and Inter-Array Areas have been discussed together as their adjacent locations require a holistic understanding of the historic landscape and archaeological deposits. However, at this time, the air photo and lidar assessment and geophysical survey have not been carried out within the Inter-Array Areas. These surveys will be undertaken to inform the ES stage.

Designated Assets

- 6.6.4. There are no World Heritage Sites, Conservation Areas, Registered Parks and Gardens, Registered Battlefields or Protected Wreck Sites in the 1km study area.
- 6.6.5. The locations of designated assets within the study area are shown on Figure 6-1 within PEIR Volume II: Figures.
- 6.6.6. There are eight Scheduled Monuments within the 1km study area around the PV and Inter-Array Areas.
- 6.6.7. The Scheduled 'Settlement W (west) of Cate's Cove Corner' (1004979) and 'Settlement NE of Whitebread Farm' (1004978) are located within the Site and comprise the remains of prehistoric and Romano-British settlement sites. The Scheduled 'medieval boundary earthworks at Queen's Bank, 100m southeast of Providence House' (1009980) lies adjacent to the north of the 'settlement W (west) of Cate's Cove Corner' and borders the Site. This monument contains earthwork banks and ditches which are the remains of part of the northern boundary of the monastic lands of Crowland Abbey, located on the boundary between the parishes of Crowland and Moulton.
- 6.6.8. The remaining Scheduled Monuments comprise:
- "Settlement in Moulton West Fen" (1002944) is located approximately 500m north of Land Parcel C-2;
 - "Romano-British settlement S [south] of Shell Bridge" (1004982) is located approximately 300m west of D-3-01. Trial trenching (ELI231) was undertaken in 1983 as part of the Fenland Project to assess the damage to the Scheduled Monument as a result of ploughing. Archaeological monitoring undertaken adjacent to the monument also identified Roman briquetage and burnt stone (MLI97511, ELI9788). Both these events support the dating of the Scheduled Monument to the Romano-British period;

³⁰ East Anglian Archaeology (1992) *The Fenland Project Number 5: Lincolnshire Survey, The South-West Fens*. P.P. Hayes and T.W. Lane.

- Saint Guthlac's Cross (1005052) is located 600m east of land parcel A-1-12, a boundary cross dating to c.1200 marking the boundary of land formerly owned by Crowland Abbey. The cross is additionally protected as a Grade II Listed Building (1359254);
- The Scheduled Monument 'Settlement between Broadgate Farm and Lower Delgate Farm' (1004963) is located at TF 27643 16891, approximately 800m north of the Site; and
- A second Scheduled Monument is just to the south-east of the above monument, 'settlement SE of Lower Delgate Farm' (1002945).

6.6.9. There are five Listed Buildings within the 1km study area (including St Guthlac's Cross mentioned above). None are located within the Site and all are Grade II.

6.6.10. The closest Listed Building to the Site is the 'Windmill' (1147706) located approximately 500m south-east of C-1-07. The Windmill is a tower mill of late 18th century date constructed of red brick.

6.6.11. Other Listed Buildings in the study area comprise:

- Gedney Hill Mill (1146795) – located approximately 900m south of D-5-02. A tower mill, now house, known to be in use from c. 1824. Constructed of red brick;
- Church of St John the Baptist (1147611) – located over 1km from the Site, between C-1 and D-6. Constructed in 1821 of red brick with ashlar dressing; and
- Yarwood House (1204813) – located approximately 1km to the east of D-4. A cottage of late 17th or early 18th century, constructed of red brick with corrugated iron roofs.

Archaeological and Historic Overview

6.6.12. Generally, across Lincolnshire there is a lack of records of Palaeolithic date, and the few records of Mesolithic date are typically focused on upland limestone and chalk ridges. In South Lincolnshire, settlements of Neolithic date are typically found on upland areas as well as the fen edge. In Crowland, monument building activity would have been restricted to the gravel peninsula on which Crowland town sits, which would have been elevated above the surrounding boggy, inhospitable landscape³¹. Bronze Age settlements are similarly found along the fen edges; excavation of a site at Billingborough found four phases of occupation during the early to mid-Bronze Age, with the site being later abandoned³². Evidence for Iron Age activity similarly typically occurs along the fen edge,

³¹ East Anglian Archaeology (1992) The Fenland Project Number 5: Lincolnshire Survey, The South-West Fens. P.P. Hayes and T.W. Lane.

³² Membrey, S. (1998 East Midlands Archaeological Research Framework – 2000) An Archaeological Resource Assessment of the Neolithic and Early Bronze Age in Lincolnshire (c.4,000-28,000).

with most of the evidence relating to salt production sites³³. One of the densest concentrations is recorded in the parish of Cowbit, within which the west side of the Scheme sits. In this area excavations and surveys have yielded both briquetage and domestic pottery of Iron Age date, found amongst salterns of a similar date. Two records of Iron Age salterns have been recorded within the Site (MLI23196, MLI23166).

- 6.6.13. The evidence of settlement continues with significant evidence relating to Romano-British activity sites within the study area, with eighty records in the study area dated to this period. These settlement sites generally comprise areas enclosed by ditches and are often found in association with salt production sites comprising the remains of salterns as well as pottery scatters. Settlements are typically identified from cropmarks seen on aerial photographs, and an assessment of aerial imagery and LiDAR and geophysical survey within the site, identified numerous features dated to the Roman period including settlements, salt production sites, boundaries, trackways, drove road and field systems. Within the Site these settlements flank a trackway that runs through the centre of a broad roddon that runs through the Site. There is a concentration in settlement evidence within land parcels B-1-09, B-1-10, B-1-13, B-1-14, C-1-06, C-1-07, C-1-08 and C-2-02. Settlement evidence within land parcels C-1-01, C-1-03, C-2-01, C-2-03 overlaps with scheduled area of monuments 1004978 and 1004979. In area D potential settlement evidence is seen within land parcels D-6, D-5-01, D-2-01, D-1-01 and D-1-02. It is likely that features identified close to the Scheduled Monuments are related to features recorded within the Scheduled Monuments, and therefore of a similar cultural significance and importance.
- 6.6.14. There is a dearth of evidence relating to the early medieval period within the study area, with finds of medieval pottery within a Romano-British settlement site only tentatively evidencing a continuation of use throughout this period. The Abbey of Crowland lies some 2.5km to the south of the Site, a monastery founded in the early eighth century at the site of the hermitage of the Anglo-Saxon saint Guthlac. The Scheme lies within the historic boundaries of land owned by Crowland Abbey.
- 6.6.15. In the medieval period the fenland would have continued to be exploited and salt making remained a major industry³⁴. Wide scale drainage of the fens would have taken place during this period, and the enclosure of marginal meadow and grazing land enabled the ploughing of marsh and silt fen³⁵. Within the study area medieval settlements are known from documentary sources and pottery scatters. The Scheduled 'medieval boundary earthworks at Queen's Bank, 100m southeast of Providence House' (1009980) contains earthworks that form the northern boundary of Crowland's monastic lands, and a linear

³³ Membery, S. (1998 – 2000) An Archaeological Resource Assessment of the Later Bronze and Iron Ages (First Millennium BC) in Lincolnshire. East Midlands Archaeological Research Framework.

³⁴ English Heritage (1994) Fenland Survey: An Essay in landscape and persistence. David Hall and John Coles.

³⁵ Lord, J and MacIntosh A. (2011) The Historic Character of the County of Lincolnshire. English Heritage Project No. 4661 Main. The Historic Landscape Character Zones. Lincolnshire County Council.

feature identified during the aerial photograph survey aligns with this monument and the Scheduled Guthlac's Cross, known to lie on the boundary of the lands of Crowland Abbey.

- 6.6.16. From the post-medieval period onwards widespread enclosure of open fields took place, with the open landscape being divided by ditches and hedges³⁶. The fens may have remained more open during this period, being dominated primarily by open pasture farming. Following the industrial revolution fens were drained on a larger scale than previously and were then fully enclosed, changing in use from pastoral farming to intensive arable farming³⁷. Within the study area the post-medieval period is primarily represented by isolated rural farmsteads of 19th century date. Many of these still survive and are in use as operational farms, but many have been lost. Historic Ordnance Survey (OS) maps of the PV Area and Inter-Array Areas show that land was previously more enclosed than present, with historic field boundaries having been lost as fields were enlarged to reflect modern agricultural practices.
- 6.6.17. The Site lies within the Eastern Fens Historic Landscape Character (HLC) area. This landscape is described as containing some nucleated settlements and linear settlement, with all other settlements being either isolated farmsteads or ragged linear settlements located along the main roads. It is mentioned that 'it is quite possible to see several farmsteads or other houses in every direction from any position within the character zone'. Much of the planned enclosure landscape survives within the character area, partly due to the necessity of retaining field boundary drains. Throughout the character area there is a strong feeling of openness as there are few hedgerows demarcating fields. The HLC for the site is shown on Figure 6-4 in PEIR Volume II: Figures.

Grid Connection Corridor

Designated Heritage Assets

- 6.6.18. There are no World Heritage Sites, Registered Parks and Gardens, Registered Battlefields or Protected Wreck Sites within the 1km study area for the Grid Connection Corridor.
- 6.6.19. There are four Scheduled Monuments within the 1km study area. Wykeham Chapel, a moated monastic grange and retreat house (1019096), sits on the north-west edge of the Grid Connection Corridor and whose scheduled area partly overlaps with the Site. The monument includes a medieval monastic grange, together with the remains of a retreat house and chapel at Wykeham. The Scheduled 'Settlement between Broadgate Farm and Lower Delgate Farm' (1004963) is located adjacent to the Site at TF 27643 16891. A second Scheduled Monument 'Settlement SE of Lower Delgate Farm'

³⁶ Historic England (2015) Greater Lincolnshire Farmstead Character Statement: A guide to historic farm buildings in the landscape.

³⁷ Wright, NR (1998-2000) An Archaeological Resource Assessment of Modern Lincolnshire 1750-1960.

(1002945) is located just to the southeast of this. The final Scheduled Monument is the Churchyard Cross, St Mary's Churchyard (1013529), located within Weston.

- 6.6.20. There are 21 Listed Buildings within the 1km study area, two of which are Grade I, the Church of St Mary and The Wykeham Chapel of St Nicholas. There is also one building which is Grade II* Listed and the rest Grade II. The Grade II* Listed Building is the Chapel of St James (1359293), an 18th century chapel located within Moulton Chapel. All other Grade II Listed Buildings are located outside of the Grid Connection Corridor. These buildings are listed in PEIR Volume III Appendix 6-1: Historic Environment Desk-Based Assessment.
- 6.6.21. The boundary of one Grade II Listed Building is located on the eastern extent of the Grid Connection Corridor. Broadgate House Farmhouse (1308515) is located at TF 28350 23872 by the side of Broadgate. All other Grade II Listed Buildings are located outside of the Grid Connection Corridor. These buildings are listed in PEIR Volume III Appendix 6-1: Historic Environment Desk-Based Assessment.

Archaeological and Historic Overview

- 6.6.22. No records of assets of prehistoric periods, pre-Iron Age, are recorded within the study area for the Grid Connection Corridor. Within the study area, the Iron Age is represented primarily by saltern sites, one of which belongs to a group of three major Iron Age saltern groups which have produced briquetage and domestic pottery of recognised Middle Iron Age style. Iron Age settlement sites have also been identified within the study area, identified from cropmarks of ditches.
- 6.6.23. When compared with earlier periods there is an increase assets of Romano-British date recorded within the study area, the vast majority located in the area close to Cowbit and across the Grid Connection Corridor. Large areas of cropmarks are evidence of Romano-British occupation and are common across the south of the study area, from within which scatters of Roman artefacts including pottery and briquetage have been recovered³⁸.
- 6.6.24. The settlements of Cowbit and Weston are recorded as being of early medieval date, although only Weston is recorded in the Domesday Book³⁹ and scatters of pottery of potential early medieval date have been recovered. During the medieval period there was an expansion of settlement within the fens as reclamation took place, with occupation taking place alongside sea banks, such as the one located within the north part of the Site (MLI98445). This 'medieval sea bank', referred to as a 'Roman Bank' on historic maps, crosses through the site to the north of Weston. Various other features of medieval date have been recorded within the study area, including field systems and enclosures.

³⁸ JBA Consulting (2024) Meridian Solar Historic Environment Desk-Based Assessment.

³⁹ Open Domesday Book (2024). *Open Domesday Book*. Available at: opendomesday.org

- 6.6.25. The majority of records of post-medieval date relate to historic isolated rural farmsteads, which sit within a landscape of fields that were more enclosed compared to present. There was also an increase in the size of settlements such as Spalding and Moulton. The only records of modern date within the study area relate to houses built within the Low Fulney Estate.
- 6.6.26. The Connection Corridor crosses through three Historic Landscape Character areas. The south half of the corridor lies within the eastern fens character area, discussed in section 6.6.17 above. Most of the north half of the study area is located within the 'Townlands within The Wash' character area. This character area is mostly agricultural, but encompasses some nucleated settlements. The very north edge of the Site lies within the 'Reclaimed Wash Farmlands within The Wash' Character Area. The land use in this area is primarily agricultural, with a number of large-scale farmsteads.

Future Baseline

- 6.6.27. It is considered there will be no change to the future baseline for Cultural Heritage. The baseline details as presented above (including changes to settings of the assets) are not anticipated to change in the absence of the Scheme as the cultural significance of the asset will not be affected.

6.7. Embedded Mitigation

Measures Embedded into the Scheme Design

- 6.7.1. The layout of solar PV modules within the PV Area has been designed to avoid works within the scheduled areas of two Scheduled Monuments located within the Site (1004979, 1004978). The current anticipated layout of solar PV modules has also been designed to avoid impacts on dense groupings of buried archaeological remains that have been identified within the PV Area. The assessment of aerial photographs and geophysical survey identified a concentration of likely Romano-British settlement remains within the eastern sections of Land Parcel C, and it is proposed that solar PV modules and supporting infrastructure will not be installed in these areas. Solar PV modules have also been removed from the north of Field C-2, where the aerial assessment has also identified a density of Romano-British remains. The potential effects on the historic environment will continue to influence the development of the Scheme design, including the alignment for the Grid Connection and the Inter-Array Areas on which the ES will be based.

6.8. Preliminary Assessment of Likely Significant Effects

Potential Impacts during the Construction Phase

- 6.8.1. During the construction phase of the Scheme there may be temporary and short-term impacts on heritage assets arising from activities including:

- Presence and movement of construction and plant equipment within the Site;
- Presence and activities associated with construction compounds and access routes to the Site;
- An increase in noise, lighting and dust across the Site; and
- Increased traffic around the Site due to use of traffic management measures and an increase in the amount of traffic using the road network.

6.8.2. These construction activities have the potential to impact on the cultural significance of heritage assets within the vicinity of the Site through changes in their setting.

6.8.3. Permanent impacts will also potentially result from construction of the Scheme. Lasting beyond the construction phase, these impacts could include:

- Physical impacts on known heritage assets previously recorded within the LCC HER or identified through research and surveys undertaken in support of the assessment of the Scheme, including the aerial photo and LiDAR assessment, geophysical survey and archaeological evaluation. These impacts would occur during groundbreaking activities associated with the Scheme, such as mounting of the solar PV modules, excavations of trenches for cabling, construction of steel pylons, and stripping of ground to facilitate construction compounds, battery storage system (BESS), access tracks and other supportive infrastructure. These impacts could result in the partial or complete loss of the heritage assets;
- Physical impacts on previously unknown buried archaeological remains that survive within the Site as a result of construction activities through disturbance or compaction, or partial or total removal;
- Physical impacts on the cultural significance of the historic landscape as a result of construction activities, through the loss of key elements of the landscape that contribute towards its overall cultural significance; and
- Impacts on the cultural significance of heritage assets throughout the 40-year lifespan of the Scheme, arising from the introduction of permanent physical elements into the setting of those assets where setting contributes towards that significance.

Potential Impacts during the Operational Phase

6.8.4. During the construction phase, the Scheme will introduce physical changes to the landscape that will change the setting of heritage assets until the Scheme is decommissioned.

6.8.5. During the operational phase of the Scheme, intermittent, temporary impacts arising from increased traffic movement on the local road network due to maintenance vehicles may increase visual and noise disturbance that impacts the settings and cultural significance of heritage assets.

- 6.8.6. No permanent effect upon heritage assets as a result of the operation of the Scheme is anticipated.
- 6.8.7. Potential impacts during the operational phase of the Scheme will continue to be assessed as the design of the Scheme is further developed during the ES stage. Details will be outlined in the ES as appropriate.

Potential Impacts during the Decommissioning Phase

- 6.8.8. The temporary impacts experienced during decommissioning are likely to be of a similar magnitude to those identified during the construction phase. These impacts may include the following:
- Presence and movement of construction and plant equipment within the Site, which may impact on the significance of heritage assets through changes to their setting;
 - Presence and activities associated with construction compounds and access routes to the Site, which may impact on the significance of heritage assets through changes to their setting; and
 - Increased traffic around the Site due to the use of traffic management measures and an increase in the amount of traffic using the road network, which may impact on the significance of heritage assets through changes to their setting.
- 6.8.9. No additional permanent impacts are anticipated during decommissioning, as the decommissioning works should be contained to the same already-disturbed footprint as the construction phase, and as such, there would be no direct physical impact upon any additional archaeological remains. If Site compounds and access points are located in alternative locations to those used during the construction and operation phases, the impacts on buried archaeological remains would be of the same magnitude as those described within the construction phase.
- 6.8.10. Upon completion of the decommissioning phase, the Site would be restored to its original baseline condition, with the exception of physical effects that have already occurred, and the long-term effects on the setting of heritage assets as a result of the Scheme would cease.

Summary of Likely Impacts and Effects

- 6.8.11. Taking into account the embedded mitigation measures as defined in Section 6.7 the potential for effects on Cultural Heritage as a result of the Scheme has been assessed using the methodology as detailed in Section 6.4. The effects have been assessed following the consideration of the potential impacts outlined in Section 6.8.
- 6.8.12. The ongoing Cultural Heritage impact assessment will be reported in full in the ES, including ongoing asset evaluation work and design mitigation measures. The findings of the preliminary assessment presented below are subject to change and confirmation.

- 6.8.13. The introduction of the Scheme would change the character of land parcels within the wider setting of a number of designated heritage assets, potential resulting in significant effects. A preliminary assessment has been undertaken and the list of assets where there is a potential for effects on their setting can be found in PEIR Volume III Appendix 6-3: Setting Assessment Summary. At this time the details of the setting of these assets and the key historical relationships with land within the Site has not yet been established. A detailed assessment will be undertaken at the ES stage.
- 6.8.14. The following is a proportionate and precautionary assessment of likely significant effects on Cultural Heritage within the Site. As such only those assets which are considered to have the potential to experience a likely significant effect as a result of the Scheme, as informed by the baseline data gathered to date, are discussed. Those assets which will not experience a likely significant impact to their cultural significance/interest (as defined in Section 6.4), either physically or through changes to their setting, are omitted. Details of heritage assets within the Site and study area, but not significantly impacted by the Scheme or impacted at all, are presented in PEIR Volume III Appendix 6-1: Historic Environment Desk-Based Assessment.

Construction Phase

PV Area

- 6.8.15. There are 47 heritage assets recorded within the PV Area that have the potential to be subject to physical impacts as a result of the construction of the Scheme. The details of these assets are presented in Table 1 in PEIR Volume III Appendix 6-2: Summary of PV Area Heritage. Assets where a potential significant effect may arise are discussed below.
- 6.8.16. There are two Scheduled Monuments located within the PV Area, the 'Settlement NE of Whitebread Farm' (1004978) and 'Settlement W of Cate's Cove Corner' (1004979). The monuments contain the remains of Iron Age or Romano-British settlement or salt production sites, and assessment of aerial photographs and geophysical survey of the monuments has shown them to contain enclosures, trackways and boundaries. The cultural significance of these monuments is derived from their archaeological and historic interests. Archaeological remains within the monuments have the potential to contribute towards our understanding of how the fenlands were exploited during the Iron Age and Roman periods. The potential for evidence of salt production and settlement in this area of The Fens also has the potential to contribute towards national understanding of how salt production was undertaken during this period, and how the salt was used and transported from where it was sourced. These Scheduled Monuments are of high importance. Research and survey undertaken in support of this assessment have determined that archaeological features relating to these Scheduled Monuments extend outside the Scheduling Boundary and into the PV Area. These features are considered to form part of the same salt protection complex and contribute to their archaeological and historic interests. As a result, they are also considered to be of high importance.

6.8.17. The developing design of the Scheme includes the installation of Solar PV modules and other supporting infrastructure in the following parcels of land where archaeological deposits of potentially high importance have been identified:

- B-1-10;
- B-1-13;
- B-1-14;
- C-1-01;
- C-1-03;
- C-1-04;
- C-1-05;
- C-1-07;
- C-1-08;
- C-2-02; and
- C-2-05.

6.8.18. Whilst the current Scheme design avoids the full extents of the Scheduled Monuments, a proportion of the potentially high importance archaeological deposits within other areas of the PV Area would be impacted by solar PV modules and other supporting infrastructure, resulting in direct, adverse impacts on their archaeological and historic interest. As a realistic worst case, an assessment of a moderate magnitude of impact as a result of the construction of the Scheme has been determined. On these high importance assets this would result in a large adverse effect, which would be significant. This assessment has a moderate confidence rating. Further evaluation will be undertaken to confirm the importance of these archaeological deposits and the ultimate significance of the effect.

6.8.19. The Scheduled Monument 'Medieval boundary earthworks at Queen's Bank, 100m southeast of Providence House' (1009980) sits adjacent to the Site. The monument includes low lying earthworks and banks which are the likely remains of the northern boundary of the monastic lands of Crowland Abbey. The cultural significance of this Scheduled Monument is derived from its archaeological and historic interests. Our understanding of Crowland Abbey and how the landscape was exploited during that time could be improved by surviving features within the monument. The monument also has historic interest, related to the history of Crowland Abbey and how the monastic lands grew and changed over time in relation to the power and wealth of the Abbey. This Scheduled Monument is of high importance. The aerial survey records a linear feature in field B-5 which is hypothesised to be another section of the Queen's Bank boundary. The same feature is noted on the HER as a dyke or drove road (MLI20346). As a result, this feature is also potentially of high importance. However, further investigation is required to test this assumption.

6.8.20. The developing design indicates land parcel B-5 is proposed to be used to accommodate a substation, compound and other infrastructure. Depending on the layout of the design there is the potential of a direct, adverse effect on these features, both physically and on their setting. As a worst case, an assessment of a major magnitude of impact as a result of the construction of the Scheme has been determined. On these high importance assets this would result in a large adverse effect, which would be significant. This assessment

has a moderate confidence rating. Further evaluation will be undertaken to confirm the importance of these features and the ultimate significance of the effect.

- 6.8.21. In land parcel D-6 the aerial survey identified field boundaries and a potential trackway of Iron Age or Roman date. The geophysical survey identified additional features including sub-rectangular enclosures as well as circular features, indicating a potential settlement or salt production site. Enclosures, trackways and boundaries were also identified within D-5-01 with features here likely representing an Iron Age or Romano-British enclosed settlement site. The cultural significance of these features is derived from their archaeological and historic interests due to their association with salt production. Research indicates that these features may relate to the Scheduled Monument of a Romano-British settlement south of Shell Bridge (1004982). As a result, this feature is also potentially of high importance. However, further investigation is required to test this assumption.
- 6.8.22. The developing Scheme design includes the installation of solar PV modules, BESS and other supporting infrastructure in land parcels D-6 and D-5-01. As a worst case, the construction of the Scheme would result in a direct, moderate magnitude adverse impact. On these high importance assets this would result in a large adverse effect, which is significant. Further evaluation will be undertaken to confirm the importance of these archaeological deposits and the ultimate significance of the effect.
- 6.8.23. The aerial and geophysical surveys have also identified archaeological features, the form of which indicate they could be a settlement of Iron Age or Roman date in land parcels D-1-01, D-1-02 and D-2-01. Further survey is required to determine the cultural significance of these features, but it is considered they may be associated with the settlement and salt production in the wider landscape and would hold similar archaeological and historic cultural significance. As a result, these features are also potentially of high importance.
- 6.8.24. The developing Scheme design includes the installation of solar PV modules and other supporting infrastructure in land parcels D-1-01, D-1-02 and D-2-01. As a worst case, construction of the Scheme would result in a direct, moderate adverse magnitude of impact. On these high importance assets this would result in a large adverse effect, which is significant. This assessment has a moderate confidence rating. Further evaluation will be undertaken to confirm the importance of these archaeological deposits and the ultimate significance of the effect.
- 6.8.25. As detailed above the assessment of potential effects on setting will be progressed at the next stage. However, it is anticipated that construction activities, plant, compounds, Solar PV modules and other supporting infrastructure would have an adverse impact on the setting of certain designated heritage assets located within the Study Area. As a result, the significance of the effects could range from neutral to large. There is potential for these effects to be significant.

- 6.8.26. The setting assessment summary provided within PEIR Volume III Appendix 6-4: Setting Assessment Summary lists out assets potentially impacted by the Scheme. Likely significant effects on designated assets are summarised below.
- 6.8.27. Scheduled Monuments located either within or within close vicinity of the Scheme (1002944, 1004978, 1004979, 1004982, 1009980) are of high importance, and their settings are likely to experience significant effects as a result of the Scheme. This assessment has a moderate confidence rating.
- 6.8.28. There are likely to be significant effects on the Scheduled and Grade II Listed St Guthlac's Cross (1005052, 1359254), which is of high importance, due to the construction of the Scheme between it and Crowland Abbey. The relationship between the Abbey and the Cross contributes to its setting, which may be interrupted by elements of the Scheme. This assessment has a moderate confidence rating.
- 6.8.29. There is potential to be a significant effect on the Grade II Listed Windmill (1147706) due to its proximity to the Site and prominence in the landscape. The Windmill's setting is agricultural in nature and the introduction of the Scheme would potentially impact this relationship. This assessment has been made with a moderate confidence rating. There are unlikely to be significant effects on the Grade II Listed Church of St John the Baptist (1147611) and Yarwood House (1204813). This assessment has a moderate confidence rating.

Grid Connection Corridor

- 6.8.30. At this PEIR stage, design is still developing for the Grid Connection and the Inter-Array Areas, therefore potential impacts on Cultural Heritage assets are precautionary and have been based on the associated corridors. The Grid Connection Corridor will require approximately 13km of cabling between an on-Site substation and a point of connection at the proposed National Grid Weston Marsh Substation. Overhead lines will be supported by steel lattice pylons with a standard height up to approximately 50m, located approximately every 350m. The height of pylons and the distance between them could increase and decrease dependent on the proposed routing of the OHL and this will be reflected in the ES.
- 6.8.31. At the location of each pylon, and where other construction elements, haul roads, construction compounds or access tracks are required, construction works have the potential to impact archaeological deposits. The cultural significance of these deposits is undetermined at this stage but based on assessment to date their importance could range from negligible to high. Non-designated assets previously recorded within the Grid Connection Corridor primarily occur at the south end of the route close to the PV Area. Assets within the route include undated cropmarks (MLI20338, MLI20339, MLI20341, MLI20342), Roman pottery and saltmaking debris (MLI20332, MLI22110), linear features and enclosures (MLI20343, MLI20337), and a medieval grange (MLI22093). The magnitude of the impacts from the construction of the Grid Connection Corridor may range from minor adverse to major adverse depending on the location of the pylons. As

a result, the significance of the effects could range from neutral to large, some of which would be considered significant. This assessment has a low confidence rating.

- 6.8.32. It is anticipated that the introduction of pylons into the landscape could result in an adverse impact on the setting of certain designated assets within the area. As a result, the significance of the effects could range from neutral to large and for some could be considered significant. Assets potentially impacted by the proposal are listed in the setting assessment provided within PEIR Volume III Appendix 6-4: Setting Assessment Summary. Consideration of likely significant effects and the confidence rating for each asset is presented within this summary. Assets of high importance (Scheduled Monuments, Grade I and II* Listed Buildings) as well as Conservation Areas have been considered up to a distance of 5km of the Site. There are no assets of very high importance within 5km of the Site.
- 6.8.33. The assessment has identified potentially significant effects on the setting of fifteen heritage assets within 1km. These are Scheduled Monuments located within close vicinity of the Grid Connection Corridor as well as Listed Buildings that have uninterrupted views of the Grid Connection Corridor and for which the rural landscape makes a strong contribution towards their setting. These are listed in Table 6-8 below. These assets have been identified as it considered that the Grid Connection Corridor will make a change to some or many key elements of the assets cultural heritage significance.
- 6.8.34. No likely significant effects have been identified for assets over 1km and up to 5km from the Grid Connection Corridor. This assessment has a low confidence rating.

Table 6-8 Designated Assets where Likely Significant Effects have been Identified

ID	Name	Type
1064467	Windmill	Grade II Listed Building
1064469	Church Of St John The Evangelist	Grade II Listed Building
1064470	The Poplars Farmhouse	Grade II Listed Building
1064471	The Wykeham Chapel Of St Nicholas	Grade I Listed Building
1064472	Gate Piers To Chapel Farmhouse	Grade II Listed Building
1147482	Beech House (Snowdrop House On OS Map)	Grade II Listed Building
1147513	Chapel Farmhouse	Grade II Listed Building
1308515	Broadgate House Farmhouse	Grade II Listed Building
1359267	Austendike Hall	Grade II Listed Building
1359269	Barn To Rear Of Holly Cottage	Grade II Listed Building
1002945	Settlement SE of Lower Delgate Farm	Scheduled Monument
1004963	Settlement between Broadgate Farm and Lower Delgate Farm	Scheduled Monument

ID	Name	Type
1019096	Wykeham Chapel: a moated monastic grange and retreat house	Scheduled Monument
1002944	Settlement in Moulton West Fen	Scheduled Monument
1002945	Settlement SE of Lower Delgate Farm	Scheduled Monument

Inter-Array Areas

- 6.8.35. Within the Inter-Array Areas, cabling will be required to allow electrical transmission between land parcels within the PV Area. If via overhead lines, this will be via single circuit, single pole 'trident' 132kV overhead line up to approximately 15m in height. A pole is expected to be located approximately every 120m, though this is subject to refinement as the design of the Scheme progresses. If underground, work for 132kV cables would be completed at a working width of approximately 20-25m wide, with trenches at a depth between 1 and 1.2m deep.
- 6.8.36. Non-designated assets recorded within the Inter-Array Areas primarily date to the Roman period and include settlement sites and associated features (MLI20388, MLI20424, MLI22043, MLI22044, MLI22172, MLI22213, MLI22262, MLI23171, MLI23172, MLI23173, MLI23174, MLI22040, MLI23203, MLI20246, MLI20444, MLI20238) but also include later features including a post-medieval fleet decoy (MLI23224). The roddons identified by the aerial photo and LiDAR assessment within land parcels B, C and D likely continues across the Inter-Array Area between parcels C and D. There is therefore potential that similar features identified on the roddons within the PV Areas, could also exist in this area. There are no non-designated assets recorded within the Inter-Array Area between land parcels A and B. Works have the potential to impact archaeological deposits, the cultural significance of which is undetermined at this stage, and which may range in importance from negligible to high.
- 6.8.37. The magnitude of the impacts from these works will vary dependant on the method of construction. Should an above ground option be pursued, the impact on the archaeological deposits will be limited to the working footprint of the single pole. It is anticipated that the effect may be significant in some locations. This assessment has a low confidence rating.
- 6.8.38. If the cable is to be laid underground, the potential effect on buried archaeological deposits may be extensive depending on the location of the trenching. It is considered that the impact of the underground cable on the archaeological deposits would be significant. This assessment has a low confidence rating.
- 6.8.39. Potential effects on setting as a result of the Inter Array Connection will be re-assessed at the next stage. It is anticipated that the introduction of overhead lines into the landscape may result in an adverse impact on the setting of certain designated assets within the study area. However, due to the limited height and narrow profile of the

wooden poles, any effect is likely to be not significant. This assessment has a low confidence rating.

Operational Phase

PV Area, Grid Connection Corridor and Inter-Array Area

- 6.8.40. Impacts during the operation of the Scheme would be as a result of elements such as security lights, operational and maintenance noise (PEIR Volume I Chapter 11), traffic movement and maintenance activities (PEIR Volume I Chapter 13), and glint and glare (PEIR Volume I Chapter 14). These elements have the potential to affect an asset's setting. It is anticipated these assets would be the same as those identified above. However, it is anticipated that any impacts identified would be limited to the lifespan of the Scheme operation or during sporadic periods of maintenance and would not be significant. No additional, or increase of, significant effects are considered likely through the operational phase. This finding will be verified at the next stage once further details of the Scheme design and embedded mitigation are available. This assessment has a low confidence rating.

Decommissioning Phase

PV Area

- 6.8.41. It is anticipated that the decommissioning phase would include the removal of all solar PV modules and other supporting infrastructure in accordance with the relevant statutory process at the time. It is also expected that the method would have due regard to environmental impact and the historic environment and conform with the Decommissioning Environmental Management Plan. The decommissioning works would not have any impact beyond the already disturbed footprint of the Scheme and would take account of archaeological deposits that have been preserved in situ. As a result, decommissioning activities would not have a direct, physical impact upon archaeological remains.
- 6.8.42. There is potential for impacts to the setting of designated heritage assets during decommissioning. It is anticipated that the significance of these effects would be similar in nature to those during the construction phase and would be temporary. No additional, or increase of, significant effects are considered likely through the decommissioning phase. This assessment has a high confidence rating; however, further detailed assessment of setting will verify this at the ES stage.

Grid Connection Corridor

- 6.8.43. The decommissioning phase of the Grid Connection Corridor would include removal of all pylons and other supporting infrastructure in accordance with the relevant statutory process at the time.
- 6.8.44. It is also expected that the method would have due regard to environmental impact and the historic environment and conform with the Decommissioning Environmental

Management Plan. The decommissioning works would not have any impact beyond the already disturbed footprint of the Scheme and would take account of archaeological deposits that have been preserved in situ. As a result, decommissioning activities would not have a direct, physical impact upon archaeological remains.

- 6.8.45. There is potential for impacts to the setting of designated heritage assets during decommissioning. It is anticipated that the significance of these effects would be similar in nature to those during the construction phase and would be temporary. No additional, or increase of, significant effects are considered likely through the decommissioning phase. This assessment has a high confidence rating; however, further detailed assessment of setting will verify this at the ES stage.

Inter-Array Area

- 6.8.46. The decommissioning phase of the Inter-Array Area would include removal of all overhead lines and other supporting infrastructure in accordance with the relevant statutory process at the time. If an underground option is taken forward, it is assumed that all underground cabling would be left in situ.
- 6.8.47. It is also expected that the method would have due regard to environmental impact and the historic environment. The decommissioning works would not have any impact beyond the already disturbed footprint of the Scheme and will take account of archaeological deposits that have been preserved in situ. As a result, decommissioning activities would not have a direct, physical impact upon archaeological remains.
- 6.8.48. There is potential for impacts to the setting of designated heritage assets during decommissioning. It is anticipated that the significance of these effects would be similar in nature to those during the construction phase and would be temporary. No additional, or increase of, significant effects are considered likely through the decommissioning phase. This assessment has a high confidence rating; however, further detailed assessment will verify this at the ES stage.

6.9. Additional Mitigation and Enhancement Measures

Construction Phase and Decommissioning Phase

- 6.9.1. The additional mitigation developed in response to the Scheme is designed to reduce potential impacts. The potential effects on the historic environment will continue to influence the development of the Scheme design. The following are examples of embedded mitigation currently being considered for adoption:
- Further refinement of Scheme design to avoid heritage assets, where practicable to do so;
 - Potential adoption of non-intrusive installation techniques for solar PV modules in locations where archaeological potential has been identified;

- Use of track matting to minimise the effect of temporary access tracks in areas of high archaeological potential and a risk of ground disturbance or rutting is identified; and
- The sympathetic use of fencing and landscaping to reduce the visual effects on Cultural Heritage assets and the historic landscape.

6.9.2. Where embedded mitigation measures are insufficient to avoid significant effects, additional mitigation measures will be required. If required, this would likely take the form of archaeological mitigation in advance of construction. The exact nature of this archaeological mitigation will be determined following archaeological evaluation trenching to determine the nature, extent and significance of the buried archaeological deposits identified during the desk-based assessment. This further investigation will be undertaken at the next stage to inform the ES. The mitigation strategy is likely to require specific areas of archaeological excavation and recording. The methodology for the archaeological mitigation would be detailed within an overarching Scheme design and an archaeological mitigation strategy, approved by or in consultation with LCC, South Holland District Council (SHDC) and HE.

6.9.3. To minimise the visual intrusion of the Scheme on the setting of heritage assets, consideration will be given, where practicable, to use of sensitive screening. However, due to the character of the historic landscape and the scale of the infrastructure, options for this type of mitigation may be limited.

6.9.4. The archaeological evaluation works could lead to a greater understanding of the archaeology and history of the Lincolnshire Fens. This information could be shared with the wider community through engagement activities (e.g. open days, temporary exhibitions, presentations, school visits), publication and information boards positioned in appropriate and accessible locations.

Operational Phase

6.9.5. No additional, or increase of, significant effects are considered likely through the operational phase, therefore no additional mitigation measures are proposed specifically for the operational phase at this stage.

Monitoring

6.9.6. A requirement for ongoing archaeological monitoring during the operational phase to mitigate any effects on Cultural Heritage has not been identified at this stage.

6.10. Likely Significant Residual Effects

6.10.1. Assuming implementation of the embedded and additional mitigation measures detailed above, the preliminary assessment has identified the following likely residual effects:

- Likely significant residual effects on the setting of heritage assets as a result of the introduction of solar panel and grid connection or inter-array infrastructure into the landscape; and
- Likely significant residual effects on buried archaeological remains identified within the Site, either through complete loss or partial disturbance.

6.10.2. A summary of the significant residual effects of the Scheme in relation to Cultural Heritage identified by the preliminary assessment are outlined in Table 6-10.

6.11. Cumulative Effects

6.11.1. Developments in the vicinity of the Scheme that have the potential to generate cumulative effects have been shortlisted, taking account of the scale of the development and its potential to generate significant environmental effects, the location of the development in relation to the Scheme, and how the development's programme relates to that of the Scheme. A list of the shortlisted committed developments within the Cultural Heritage study area is outlined in Table 6-9 below.

Table 6-9 Potential Cumulative Effects in relation to Cultural Heritage

ID and Application Reference	Applicant and Description	Distance from Scheme (Closest Point)	Status	Overlap in Temporal Scope?	Cumulative Effect in relation to Cultural Heritage
Nationally Significant Infrastructure Projects					
DCO-001 EN020036	National Grid Electricity Transmission Grimsby to Walpole The project will be a new c140km long 400kv overhead line and 5 new substations stretching from a new substation to the west of Grimsby in the north to a new substation at Walpole near Wisbech in the south. Three further substations will be built, two to the south west of Mablethorpe and one to the north east of Spalding.	Within Grid Connection Corridor and PV Area	Pre-application, application expected Q2 2027	Yes, assuming consent is granted, overlap in construction phase (2029-2033)	There is potential for significant cumulative effects on the setting of heritage assets and buried archaeological deposits when the Grimsby to Walpole project is considered in combination with the Scheme. Together, the schemes will also have an adverse effect on the historic landscape due to the introduction of industrial elements into the agricultural landscape. This cumulative effect may be significant.
DCO-002 EN010130	GT R4 Limited (trading as Outer Dowsing Offshore Windfarm) Outer Dowsing Offshore Wind (Generating Station) The Outer Dowsing Offshore Wind project comprises an offshore wind farm and associated offshore and onshore infrastructure including offshore and onshore high voltage electricity cables, onshore and offshore electricity substation(s), connection(s) to the National Grid and ancillary and temporary works.	Adjacent to Scheme	Pre-examination, application accepted 16-04-2024	Yes, assuming consent is granted, overlap in construction phase (2026-2030).	There is potential for significant cumulative effects on the setting of heritage assets and buried archaeological deposits when the Outer Dowsing Offshore Wind (Generating Station) project is considered in combination with the Scheme. Together, the schemes will have an adverse effect on the historic landscape due to the introduction of industrial elements into the agricultural landscape. This cumulative effect may be significant.
Planning Applications					
APP-SHDC-001 H09-0501-23	G Sly Holdings Ltd. Erection of Agricultural Machinery Assembly Facility, Research and Training	Adjacent to Scheme	Approved, decided 17-06-2024	Yes, assuming construction phase begins within 3 years of application approval	There is potential for significant cumulative effects on buried archaeological deposits when the Agricultural Machinery Assembly Facility project is considered in combination with the Scheme.

ID and Application Reference	Applicant and Description	Distance from Scheme (Closest Point)	Status	Overlap in Temporal Scope?	Cumulative Effect in relation to Cultural Heritage
	Facility, Ground Mounted Solar Array and Associated Infrastructure.			(2024-2027). Duration of works not disclosed.	Together, the schemes will have an adverse effect on the historic landscape due to the loss of elements of the agricultural landscape. This cumulative effect may be significant.
APP-SHDC-025 H20-1007-24	Integrum SPV 21004 Limited Construction and operation of a solar farm and battery energy storage system (BESS), vehicular access, internal access tracks, landscaping, boundary treatment, cabling and associated infrastructure	Approximately 570m east of PV Area	Undecided, decision due 14-05-2025	Yes, assuming overlapping construction phases if approved. Duration of works not disclosed.	There is potential for significant cumulative effects on the setting of heritage assets and buried archaeological deposits when the Integrum SPV 21004 project is considered in combination with the Scheme. Together, the schemes will have an adverse effect on the historic landscape due to the introduction of industrial elements into the agricultural landscape. This cumulative effect may be significant.

- 6.11.2. Based on this list of committed developments, with the exception of the Grimsby to Walpole project, cumulative effects are unlikely to elevate any of the residual effects identified in assessment of the Scheme. In relation to the Grimsby to Walpole project, when considered in combination with the Scheme, there is potential that the significant adverse effects identified may be intensified. At worst, the cumulative effect is expected to be large adverse, for example if construction phases of any committed developments overlap with the Scheme or if they have setting effects and are within 500m of the Scheme. This assessment will be reviewed and refined at the ES stage once further details of the significance of the buried archaeological deposits and Scheme design is more refined.

6.12. Conclusions and Next Steps

- 6.12.1. The information provided within this PEIR Chapter is preliminary, with final assessment of likely significant effects to be presented in the ES stage. The preliminary assessment has been completed based on likely worse-case parameters against a series of assumptions and limitations. The final assessment within the ES will be refined in respect of any revision to the Scheme design, comments and information received through stakeholder engagement, and further evaluation surveys.
- 6.12.2. The desk-based research and surveys undertaken to date have determined there is a high likelihood for the survival of archaeological remains of potentially high importance within the Site. These archaeological remains likely date from the Romano-British period onwards, though there is some potential for remains of earlier date to survive.
- 6.12.3. The preliminary assessment of effects has identified the potential for adverse impacts on the cultural significance of heritage assets, physically and on the setting of heritage assets. These impacts would be both permanent and temporary.
- 6.12.4. The specific impacts on the Cultural Heritage of the area will be assessed in more detail within the ES. Further work is required to understand the significance of the Cultural Heritage assets that will potentially be impacted by the Scheme. Further research, survey and archaeological evaluation excavation will be undertaken to support this assessment at the ES stage. This work will be undertaken in consultation with the archaeological advisor from LCC and Historic England.
- 6.12.5. Table 6-10 summarises the potentially significant residual effects in relation to Cultural Heritage.

Table 6-10 Summary of Likely Significant Residual Effects in relation to Cultural Heritage

Receptor	Development Phase	Environmental Effect	Classification of Effect	Confidence rating	Additional Mitigation Requirements	Significance of Residual Effect	Nature of Effect
Archaeological deposits associated with the two Scheduled Monuments (1004978 and 1004979)	Construction	Adverse impacts on the cultural significance as a result of the partial or total loss of archaeological deposits	Large adverse	Moderate	Archaeological mitigation in the form of excavation and recording	Moderate adverse	Permanent
Archaeological deposits associated with Scheduled Monument (1009980)	Construction	Adverse impacts on the cultural significance as a result of the partial or total loss of archaeological deposits	Large adverse	Moderate	Archaeological mitigation in the form of excavation and recording	Moderate adverse	Permanent
Archaeological deposits in land parcels D-6 and D-5-01. Potentially associated with Scheduled Monument (1004982)	Construction	Adverse impacts on the cultural significance as a result of the partial or total loss of archaeological deposits	Large adverse	Moderate	Archaeological mitigation in the form of excavation and recording	Moderate adverse	Permanent
Archaeological deposits within land parcels D-1-01, D-1-02 and D-2-01.	Construction	Adverse impacts on the cultural significance as a result of the partial or total loss of archaeological deposits	Large adverse	Moderate	Archaeological mitigation in the form of excavation and recording	Moderate adverse	Permanent
Heritage assets for which the Scheme forms part of their setting	Construction, operational and/or decommissioning phase	Adverse impacts on the significance of these assets through changes to their setting	Likely neutral to large adverse	Moderate	None currently identified	Likely neutral to moderate adverse	Temporary, long-term, reversible (for the duration of the lifetime of the Scheme)
Buried archaeology that lies within the construction footprint of the Site	Construction	Partial or total loss of archaeological deposits	Likely neutral to moderate adverse	Moderate	Archaeological mitigation in the form of excavation and recording	Likely neutral to moderate adverse	Permanent

