West Burton Solar Project

Environmental Statement

Appendix 5.1: Site Selection Assessment

Revision A

Prepared by: Lanpro Services Ltd

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West Burton
SOLAR PROJECT

Contents

Issue Sheet

Report Prepared for: West Burton Solar Project Ltd.
DCO Submission

ES Appendix 5.1: Site Selection Assessment
Revision A

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1 Introduction

1.1 Background

1.1.1 This Site Selection Assessment (SSA) has been prepared on behalf of West Burton Solar Project Limited ("the Applicant") for the West Burton Solar Project (hereafter referred to as 'the Scheme'). The report accompanies an application for a Development Consent Order (DCO) to be submitted under Section 37 of the Planning Act 2008 (the "Act") to the Secretary of State for the Department for Energy Security and Net Zero (ESNZ).

1.1.2 The DCO application is for the construction, operation (including maintenance) and decommissioning of the Scheme. The Scheme comprises a new solar energy generating station that will deliver electricity to the electricity transmission network using ground mounted solar photovoltaic (PV) panel arrays to generate electricity from the sun. These will be combined with an Energy Storage System (sometimes referred to as a 'BESS').

1.1.3 The Scheme is defined as a Nationally Significant Infrastructure Project (NSIP) and will require a Development Consent Order (DCO) from the Secretary of State for Energy Security and Net Zero, due to its generating capacity exceeding 50 megawatts (MW)

1.1.4 The Scheme comprises 3 combined sites (the Site/Sites) connected by a series of Cable Route Corridors and accessed by a number of access points. The Scheme's Order Limits, which include all land falling within the DCO application, cover an area of 886.44 hectares (ha). The three combined sites minus the Cable Corridors, but including Means of Access total 769.10ha. The constituent parts of the Scheme include:

- West Burton 1: this Site covers an area of 91.34ha. The developable area contains solar panels, substation, the BESS, and associated infrastructure. The remaining area is set aside for landscape and ecological mitigation.
- West Burton 2: this Site covers an area of 306.98ha. The developable area contains solar panels, substation, and associated infrastructure. The remaining area is set aside for landscape and ecological mitigation.
- West Burton 3: this Site covers an area of 370.78ha. The developable area contains solar panels, substation, and associated infrastructure. The remaining area is set aside for landscape and ecological mitigation.
- Cable Route Corridors: the remaining area covering 117.34ha includes the cable corridors.

1.1.5 The Sites are located approximately 7km southeast of Gainsborough. The majority of the Scheme is located within the administrative boundary of West Lindsey District Council (WLDC) and Lincolnshire County Council (LCC); with parts of the grid connection infrastructure located within the administrative boundary of Bassetlaw District Council (BDC) and Nottinghamshire County Council (NCC).

1.1.6 At an early stage of the project the original draft site area (referred to within this report as 'West Burton original draft site area') included a fourth site (West Burton 4) and a main substation site, which were later removed for reasons set out at paragraph 3.3.30 and Table 3.3 and do not form part of the final Scheme. The Site Selection process included the consideration of these original areas and they are therefore included within this assessment.

1.2 Purpose of this Report

1.2.1 The purpose of the SSA is to set out how other sites, which may be potentially suitable to accommodate the Scheme, perform relative to the sites where the scheme is to be located, taking into consideration a range of planning, environmental and operational factors.

1.2.2 Environmental Statement Chapter 5: Alternatives and Design Evolution **[EN010132/APP/WB6.2.5]** explains the legal and policy background to the consideration of alternatives.

1.2.3 The SSA report sets out the process, findings and conclusions of the SSA as follows:

- Section 2 describes the assessment methodology;
- Section 3 sets out the assessment results; and
- Section 4 draws conclusions from the assessment.

1.2.4 Supporting annexes include:

- Annex A: References.
- Annex B: Assessment Indicators and Evaluation Criteria.
- Annex C: Assessment Indicator Policy and Guidance Justification.
- Annex D: Assessment Mapping Results.
- Annex E: Potential Development Area Proformas.

1.2.5 A list of Figures is set out below:

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2 Assessment Methodology

2.1 Context

2.1.1 There is no standard methodology for the site selection of solar farms. However, the methodology used in this assessment has been informed by relevant planning policy which is set out in **Annex C**.

2.1.2 The Scheme is defined as a Nationally Significant Infrastructure Project as it generates more than 50MW. An Application for a DCO is therefore required to seek consent for its construction and operation. The Secretary of State will decide whether to grant a DCO following a public examination of the Scheme.

2.1.3 There is currently no NPS specifically for solar development. However, the National Policy Statements (NPS) for Energy including Overarching National Policy Statement for Energy (EN-1), National Policy Statement for Renewable Energy Infrastructure (EN-3) and National Policy Statement for Electricity Networks Infrastructure (EN-5) published in July 2011 as well as draft NPS EN-1, draft NPS EN3 both published in 2021 the National Planning Policy Framework (NPPF) published in July 2021; and up to date and relevant local planning policies are all considered important and relevant to the Secretary of State's decision. These national and local planning policies (see Annex A) have therefore been considered in the development of the SSA methodology.

2.1.4 NPS EN-1 4.4.3 states *"the consideration of alternatives in order to comply with policy requirements should be carried out in a proportionate manner."* The assessment of potential solar farm development areas is therefore high level and primarily desk based. This approach is considered reasonable and proportionate and complies with the aforementioned policy.

2.1.5 The assessment methodology used has been split into five stages which follow a logical and sequential approach. These stages are set out below. The sequential test has also been carried out as part of site selection and is set out within Appendix 10.6 Flood risk Sequential Test and Exception Test **[EN010132/APP/WB6.3.10.6]**.

Stage 1 – Identification of the Area of Search

2.1.6 Irradiation (sunlight) levels and topography are key factors when determining the location of solar development. Solar developments are currently found across the UK; however, their efficiency is determined by the levels of irradiation at their location. The whole of England is well located geographically for solar gains. The Applicant had no restrictions on where development should be located in relation to irradiation levels.

2.1.7 The preference is for a flat site or a site with a southerly aspect. If a site with another aspect is pursued there is likely to be a need to increase the overall development footprint as there would be an operational need to increase the distance between arrays to avoid overshadowing.

2.1.8 A viable grid connection is an essential material consideration for proceeding with a development and is instrumental in defining the search area. During discussions with National Grid in 2019, the Applicant was notified of grid capacity at West Burton, Cottam, and High Marnham Power Stations. This capacity was available at these locations due to the closures of the coal fired elements of those sites. Due to the immediate availability of these Points of Connection (POCs), the Applicant did not consider any further alternative grid connection points. Through further discussion with National Grid on the West Burton POC, National Grid advised at that stage that connection at West Burton would be preferred over connection at High Marnham because fewer upgrade works would be required at the POC and it would therefore be more straightforward, quicker to deliver and less costly. The Applicant therefore made a grid connection application to National Grid for connection at West Burton Power Station and an offer was made for 480MW.

2.1.9 IGP also made an application for a grid connection at Cottam Power Station for 600MW and as noted in the ES, this is the subject of a separate DCO application.

2.1.10 As the grid connection offer at West Burton POC was not site-specific, IGP proceeded to look at sites that could accommodate a solar project to support the grid capacity available at West Burton. A land area of approximately 75ha of solar panels and associated infrastructure (up to 100ha including landscaping and ecology mitigation land) is ideal to provide an NSIP solar scheme of 50MW. For a grid connection of 480MW, a site size of approximately 960 ha (excluding cable route) was preferred. The Applicant generally seeks to find a site which is around 10% larger than is needed for the grid connection offer (up to 1100 ha). This larger site size allows flexibility for the accommodation of additional mitigation measures and other constraints that may become known through the design development process. It was considered that it would be highly unlikely that a single site of this size would be available.

2.1.11 As shown in **Figure 5.1, Annex D** the search identified West Burton Power Station as a location which has the available capacity for the Scheme. It is also within sufficient proximity of lower grade agricultural land and land which is available to construct a large scale solar farm. It is therefore deemed to be a suitable location to be the POC. This narrowed down the area of search to the vicinity of West Burton for the location of the Scheme.

2.1.12 In addition to the broad considerations set out above, an initial search area was identified at a 5km radius from the POC, however this was later expanded with the clear preference of identifying land as close to the POC as possible, the search area was enlarged incrementally until suitable options were found within a 15km radius which is considered by the Applicant to be a viable cable connection distance for a solar project of this scale.

Stage 2 – Exclusion of Planning, Environmental and Spatial Constraints

Stage 2 of the SSA has included the mapping of planning, environmental and spatial constraints which have been identified through a review of relevant national

planning policies. The constrained areas have been excluded from the area of search identified at Stage 1 and are therefore not considered as suitable locations for the Scheme. The following spatial constraints have been mapped and excluded from further consideration. **Table 2.1** below sets out the constraints that were mapped and considered.

Table 2.1: Environmental Constraints Considerations

Consideration	Discussion
Agricultural Land Classification and Land type	Planning policy seeks to minimise impacts on the best and most versatile agricultural land (defined as grades 1, 2 and 3a). and preferably use land that is not classified as best and most versatile (grades 3b, 4 and 5) and where possible utilise previously developed land, brownfield land, contaminated land or industrial land (see **Table 2.2: PDL Sites from Brownfield Registers of Bassetlaw and West Lindsey** for previously developed land sites considered).
Designated international and national ecological and geological sites	The following designations were identified and any land covered by these designations was excluded: Sites of Special Scientific Importance (SSSI), Special Areas of Conservation (SAC), Special Protection Areas (SPA), SPA protection buffer, Ramsar sites and National Nature Reserves (NNR)
Nationally designated landscapes	The presence of any areas of Outstanding Natural Beauty or National Parks were considered and excluded from the area of search.
Proximity to sensitive human receptors	Consideration was given to the proximity of nearby sensitive human receptors which include residential dwellings, populated areas/villages.

2.1.13 Following the initial assessment of the 5km search area using the above constraints, it became clear that sites outside of this area would need to be assessed as insufficient land was available. As noted above, the Applicant's preference is for the land to be as close to the POC as possible, so the search area was enlarged incrementally until suitable options were found within a 15km radius.

Agricultural Land Classifications

2.1.14 Planning policy seeks to minimise impacts on the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification) and preferably use land that is not classified as best and most versatile (grades 3b, 4 and 5).

2.1.15 Solar farms are temporary structures and unlike most built development and other renewable energy proposals (such as energy from waste plants) they do not constitute significant permanent development resulting in the loss of agricultural land. Nevertheless, the site selection process has sought to exclude land that the

best available data identifies as being within an agricultural land classification category that is, or includes, best and most versatile land.

2.1.16 At stage 2, the sources that were relied upon were data from the Natural England Agricultural Land Classification (ALC). The Natural England maps do not differentiate between grades 3a and 3b. Therefore, at Stage 2 all land in Grades 1, 2 and 3 was excluded and the focus was on trying to identify suitable sites within areas of Grade 4, 5 or unclassified land outside of other identified planning and environmental constraints.

Stage 3 – Identifying Potential Solar Development Areas

2.1.17 Stage 3 of the SSA identifies potential alternative solar development areas for the location of the Scheme by applying the key operational criteria for large scale solar development – site size and land assembly; and topography. The use of previously developed (brownfield) land and alternative locations proposed through consultation have also been considered. The following sections explain the criteria applied to the unconstrained areas identified at Stage 2.

Site Size and Land Assembly

2.1.18 Large areas of land are required for large scale solar development as they have less vegetation to be removed for easy installation of the solar infrastructure. This also reduces the amount of buffering required for tree root protection, avoidance of shading compared to small fields and can reduce the solar development's impact on vegetation such as hedgerows and trees.

2.1.19 The Applicant's analysis regarding the minimum area for large scale solar to be economically viable identified a threshold of at least 40ha of contiguous land for an individual site. This is the minimum site size threshold considered by the Applicant to be viable (based upon the balance of costs of connecting infrastructure between individual sites and electricity losses from the multiple connection cabling necessary) to form part of a network of sites in close proximity covering an area of approximately 1100ha. This is the maximum approximate land area (excluding cable route) required to support the 480MW grid capacity available at West Burton as explained at paragraph 2.1.10 above.

2.1.20 The minimum individual site size and overall area threshold is based upon the Applicant's economic analysis of the MW output per ha to be achieved taking into consideration infrastructure costs including the grid connection and the need for a percentage of the land to provide appropriate environmental mitigation, if required. A smaller development area results in higher unit costs and an assessment was made as to the maximum cost and therefore minimum site area threshold that would be viable for the Scheme to hit the target financial metrics.

2.1.21 Areas of unconstrained land of at least 40ha were therefore taken forward to the Stage 4 assessment.

2.1.22 Where there were areas of unconstrained land that met the threshold of 40ha but were isolated and so not viable to join other areas to form an approximate 1100 ha area required, these were not taken forward to the Stage 4 assessment.

Previously Developed Land (PDL)

2.1.23 Opportunities for solar arrays on previously developed land (PDL)/brownfield land, commercial rooftops, and lower grade agricultural land were explored.

2.1.24 An assessment of PDL/brownfield land within the search area which includes parts of West Lindsey, Bassetlaw and Newark and Sherwood Districts identified no land of an adequate area to facilitate a large-scale solar project either individually or in combination with other sites. In 2017, it became a requirement for each Local Planning Authority to keep a register of PDL suitable for residential development. The latest data for the Councils in the search area is from 2021and 2022 is contained within the relevant brownfield registers (See references 24-28 at Annex A). **Table 2.2** below contains (in descending order of site size) details of all (11) brownfield sites within the search area that are 1ha and above in size. Sites smaller than 1ha and were immediately discounted due to their inability to provide a viable land parcel of 40ha in combination with other land due to inefficiencies in both layout and required connection between sites. No sites above 1 ha were identified within the Newark and Sherwood part of the search area.

2.1.25 Of the 11 sites over 1 ha in size, none are large enough to provide a viable land parcel of at least 40ha if it could be developed as part of a network of sites in close proximity to provide a total of approximately 1100ha to accommodate the Scheme. No sites were found over 3.98ha and therefore no individual brownfield site from the register provides an adequate area to facilitate a large NSIP scale solar project over 50MW.

2.1.26 A number of sites have planning permission for residential development and/or are allocated for residential/mixed use development. Within settlements like Gainsborough where there are a number of PDL sites, it is not viable to link these small sites together because they do not meet the minimum 40ha threshold. Even if this were feasible, they would still be insufficient to provide the minimum site size for a 50MW project or in combination, provide an alternative approximate 1100ha site for the Scheme.

Table 2.2: PDL Sites from Brownfield Registers of Bassetlaw and West Lindsey

LPA Site Ref	Location	Site Size (ha)	Comments
WL11 (West Lindsey)	Gateway Riverside Housing Zone, Gainsborough	3.98	Site has full planning permission for 220 dwellings plus A1 and A3 uses and is an allocated site. Application approved for the partial discharge of conditions. Site is within the built up area of Gainsborough.

LPA Site Ref	Location	Site Size (ha)	Comments
			Therefore, given the site size falling below the minimum threshold, the extant planning permission, the fact that the other brownfield land over 1ha within the town only total 16.34ha if combined together and the difficulties and prohibitive cost associated with cable laying within the built up area to link them, the site was not considered any further.
WL6 (West Lindsey)	Sinclairs, Ropery Road, Gainsborough	3.04	Site is allocated in CLLP for residential use. Site is within the built up area of Gainsborough and borders the river. Therefore, given the site size falling below the minimum threshold, the residential allocation, the fact that the other brownfield sites over 1ha within the town only total 16.34ha if combined together and the difficulties and prohibitive cost associated with cable laying within the built up area to link them, the site was not considered any further.
WL14 (West Lindsey)	Amp Rose Housing Zone, Gainsborough	2.28	Site is allocated in CLLP for residential use. Site is within the built up area of Gainsborough. Therefore, given the site size falling below the minimum threshold, the residential allocation, the fact that the other brownfield sites over 1ha within the town total less than 20 ha if combined together and the difficulties and prohibitive cost associated with cable laying within the built up area to link them, the site was not considered any further.
WL3 (West Lindsey)	West of Primrose Street, Gainsborough	2.25	Site is allocated in CLLP for residential use. Site is within the built up area of Gainsborough. Therefore, given the site size falling below the minimum threshold, the residential allocation, the fact that the other brownfield sites over 1ha within the town total less than 20 ha if combined together and the difficulties and prohibitive cost associated with cable laying within the built up area to link them, the site was not considered any further.

LPA Site Ref	Location	Site Size (ha)	Comments
WL5	Middlefield School of Technology, Middlefield Lane, Gainsborough	1.77	Site is allocated in CLLP and has full planning permission (138733) for residential use. Therefore, given the site size falling below the minimum threshold, the residential allocation, the fact that the other brownfield sites over 1ha within the town total less than 20 ha if combined together and the difficulties and prohibitive cost associated with cable laying within the built up area to link them, the site was not considered any further.
WL12 (West Lindsey)	Town Centre Riverside Housing Zone A, Gainsborough	1.74	Site is allocated in CLLP for residential use. Site is within the built up area of Gainsborough and borders the river. Therefore, given the site size falling below the minimum threshold, the residential allocation, the fact that the other brownfield sites over 1ha within the town total less than 20 ha if combined together and the difficulties and prohibitive cost associated with cable laying within the built up area to link them, the site was not considered any further.
WL13 (West Lindsey)	Town Centre Riverside Housing Zone B, Gainsborough	1.6	Site is allocated in CLLP for residential use. Site is within the built up area of Gainsborough and borders the river. Therefore, given the site size falling below the minimum threshold, the residential allocation, the fact that the other brownfield sites over 1ha within the town total less than 20 ha if combined together and the difficulties and prohibitive cost associated with cable laying within the built up area to link them, the site was not considered any further.
WL33 (West Lindsey)	Riverside North Housing Zone (Japan Road / Bowling Green Road), Gainsborough	1.45	Full planning permission. Discharge of conditions applications submitted and approved. Site is allocated in CLLP for residential use. Site is within the built up area of Gainsborough. Therefore, given the site size falling below the minimum threshold, the extant planning permission and residential allocation, the fact that the

LPA Site Ref	Location	Site Size (ha)	Comments
			other brownfield sites over 1ha within the town total less than 20 ha if combined together and the difficulties and prohibitive cost associated with cable laying within the built up area to link them, the site was not considered any further.
LAA413 (Bassetlaw)	Former Elizabethan High School Leafield Retford	1.41	No existing planning permission or allocation. Too small to be developed on its own or in combination with other brownfield land within Retford to achieve a viable network of sites.
LAA489 (Bassetlaw)	Former Retford Oaks School Pennington Walk Retford	1.38	Outline permission 16/00363/OUT for residential development granted May 2018. Now expired. Too small to be developed on its own or in combination with other brownfield land within Retford to achieve a viable network of sites.
LAA138 (Bassetlaw)	Canal Turn Welham Road Retford	1.24	No existing planning permission or allocation. Too small to be developed on its own or in combination with other brownfield land within Retford to achieve a viable network of sites.

2.1.27 An assessment of commercial rooftops within the search area identified no rooftops or combined premises of an adequate area to facilitate a large-scale solar project or provide a viable network of sites in close proximity covering an area of approximately 1100ha.

2.1.28 Individual commercial rooftops do not meet the minimum 40 ha site threshold as described above. This is the minimum viable site size threshold (based upon the balance of costs of connecting infrastructure between individual sites and electricity losses from the multiple connection cabling necessary) to form part of a network of sites in close proximity.

2.1.29 The number of commercial rooftops required would mean multiple land ownerships and the legal complexities and costs involved in combining multiple sites of this nature is not viable.

2.1.30 The government has promoted financial incentives to encourage home owners to install solar PV systems, so rooftop solar is clearly desirable both on residential and commercial premises. However, this is not considered as an alternative to the Scheme. Commercial premises and houses are both consumers and generators of electricity, and therefore do not help provide low carbon and renewable alternatives

to conventional sources of electricity production at grid scale. In essence, roof-mounted solar panels should be deployed in addition to large scale solar farms, rather than instead of them.

2.1.31 There is a clear and urgent need for further renewable energy capacity, and this will likely include more distributed generation across the electricity distribution network, however the Scheme presents a single, large-scale generating asset which addresses the project aims of delivering clean, cheap electricity to the consumer whilst making a significant contribution to the fulfilment of the UK's legally binding climate change commitments. More, smaller-scale solar PV developments therefore are indeed required, however they do not represent an alternative to the Development. Larger scale solar projects provide increased decarbonisation benefits and commercial benefits to consumers as set out at section 10.4 of the Statement of Need **[EN010132/APP/WB7.11]**.

Topography

2.1.32 The development of large scale solar development requires flat land as this is ideal for construction and helps reduce visual intrusion. As mentioned earlier in this report flat land also limits the shading between arrays and enables the panels to be optimally configured for best production levels.

2.1.33 Topographical constraints within the unconstrained areas identified at Stage 2 have also been identified and mapped. All land with a 3% or less gradient which is considered to be very flat and optimal for solar generation has been considered potentially suitable to meet the Scheme's requirements of maximising energy generation and avoiding visual intrusion. This land has been taken forward to the Stage 4 assessment therefore identifying the flattest areas of land within the unconstrained area.

Stage 4 – Evaluation of Potential Solar Development Areas

Approach

2.1.34 Stage 4 then assesses the potential solar development areas which have been identified in Stage 3. These potential development areas (PDA's) have been subjected to a desktop assessment to further understand the development constraints of these particular areas. The evaluation has involved the assessment of the areas against a range of planning, environmental and operational considerations (see Annex B) which were developed having regard to relevant national and local planning policy and the optimal functionality of a large scale solar development.

2.1.35 Information sources which include GIS data, online mapping and planning policy documents (see list of references in **Annex A**) have been used to inform the assessment. The evidence has then been considered by planning professionals who have awarded a category of red, amber or green against each assessment indicator based on professional judgement. A statement setting out the justification for each categorisation has also been provided.

2.1.36 Areas have then been evaluated on their overall performance against the planning, environmental and operational considerations. Their performance is shown relative to the West Burton original draft site area location.

2.1.37 Ultimately, as explained in Section 3 below, following the evaluation stage, PDA 1 on Grade 4 and 5 agricultural land and unclassified land proved unsuitable for development due to significant constraints being identified. These constraints include land use, ecological and landscape factors and are detailed at paragraphs 3.2.8 – 3.2.13 below.

2.1.38 The assessment then proceeded to consider potential areas of Grade 3 Agricultural land as set out at Stage 5 below.

Stage 5 – Widening the Search to consider Grade 3 agricultural land

2.1.39 Following the discounting of PDA 1 on Grade 4 and 5 agricultural land and unclassified land, the site search focused on the areas of Grade 3 agricultural land within the search area. Residual Grade 3 areas were identified following the exclusion of the same high level constraints previously considered for the Grade 4,5 and unclassified land at stages 2 and 3 above.

2.1.40 There are a number of other NSIP projects located on Grade 3 land within the Search Area and these areas were discounted from further assessment because they are not available to accommodate the Scheme. These include Cottam Solar Project; Gate Burton Energy Park; and Tillbridge Solar. IGP is the developer progressing Cottam; Gate Burton and Tillbridge are separate developers. At the time of site selection not all the NSIPs were in the public domain, however, they were already subject to early work, discussions and agreement with landowners as not all were identified as potentially available land through enquiries with land agents.

2.1.41 Land agents were contacted regarding potentially willing landowners within the area. The availability of willing landowners is an important consideration because the use of compulsory acquisition should be a last resort. It is desirable to compile a site in as few land ownerships as possible to minimize legal complexities and project costs. For this reason and due to the land take required for the Scheme, land agents used their professional knowledge to provide details of potentially willing landowners with large scale land holdings within the area.

2.1.42 These were assessed against the same detailed range of planning, environmental and operational considerations (see Annex B) used to assess the Stage 4 PDA. Other areas of Grade 3 land either did not have willing land owners (sometimes due to early progression of other NSIP projects), were in smaller land ownerships which would add to project complexity and cost, or were shown to be subject to a range of constraints when the planning and environmental considerations were mapped over the land agent enquiry areas. They were not, therefore, investigated any further.

3 Assessment Results

3.1 Stages 1 and 2: Identification of the Area of Search and Unconstrained Land

3.1.1 The area of search identified for the Scheme is shown in **Figure 5.1, Annex D**. This illustrates the 5km, 10 km and 15km concentric circles from the proposed POC at West Burton Power Station which represent how the search area was incrementally expanded from the initial 5km search area in order to find a suitable site.

3.1.2 The results of Stage 2 are identified in **Figure 5.2, Annex D**. This figure maps the various high level national planning and environmental constraints identified within the 15km area of search. **Figure 5.3, Annex D** shows the output from this sift mapping, identifying areas of unconstrained land which have not been excluded from the Stage 1 and 2 sifting exercise.

3.2 Stages 3 and 4: Identifying Potential Development Areas and Further Evaluation

3.2.1 **Figures 5.4-8, Annex D** show the output following the application of the Stage 3 criteria.

3.2.2 **Figure 5.4** shows the brownfield land over 1 ha which has been identified using the brownfield register for the local planning authorities within the 15km area of search. As mentioned previously in this report and shown in **Figure 5.4** the brownfield sites are too small as they do not meet the minimum individual site size threshold of 40ha or an area of approximately 1100ha sought for a network of sites in close proximity.

3.2.3 **Figure 5.5, Annex D** illustrates the unconstrained Grade 4, 5 or unclassified land identified from the mapping at Stage 2 with a slope gradient of 3% or less.

3.2.4 **Figure 5.6, Annex D** uses the output shown in **Figure 5.5**.

3.2.5 **Figure 5.7, Annex D** shows the areas of land which were identified through the Stage 2 sift but do not meet the Stage 3 criteria and so have been discounted (see purple shaded areas). The reasons for this are that some areas are not within close proximity to other potential solar development areas and would therefore not be able to be part of a network of sites with an area of approximately 1100ha. Some areas are discounted due to inefficient site shape and/or because they do not meet the minimum site size threshold of 40ha.

Alternative Areas Proposed Through Consultation

3.2.6 As part of the pre application process for the DCO application, the Applicant has undertaken non-statutory and statutory consultations. The non-statutory consultation period was throughout November and December 2021 and the statutory consultation period was from 15 June 2022 to 27 July 2022. This was extended to 23rd August 2022 to share detailed ALC Assessment results and a further consultation on changes to West Burton 3 took place 25th November 2022 to 8th January 2023.

3.2.7 Feedback from both consultations included suggestions for alternative locations for the Scheme. These are summarised in **Table 3.1** below and discussion provided regarding how they have been considered in this assessment.

Table 3.1: Alternative Areas Proposed Through Consultation

Site Location	Site Size (ha)	Comments
RAF Scampton	275	The RAF base closed in December 2022. The site area excluding operational buildings is approximately 116 ha. It is potentially of a suitable size to provide a stand-alone large scale solar scheme if it becomes available for redevelopment, or as a land parcel to be connected to a wider scheme. It is not large enough to accommodate the whole Scheme. The Lincoln Ridge runs north-south just to the west of RAF Scampton. There are likely to be prominent views of the solar development from here, the impact of which would need to be carefully considered. The site is more than 15km from the POC at West Burton Power Station and is, therefore, further than the alternatives considered in this assessment. As it falls outside the site search area, it has not been included within the RAG assessment. The Applicant notes that West Lindsey District Council has submitted an expression of interest in acquiring the site for redevelopment and the site was allocated as an "opportunity area" in the Draft Local Plan. The Applicant therefore considered that this site would not be available for solar development.
Other non-specific brownfield sites	--	Available brownfield sites throughout the search area have been considered at Table 2.2.

Suitability of Potential Solar Development Areas (PDA's) Identified on Grade 4, 5 agricultural land and unclassified land

3.2.8 **Annex E: Table 1** provides the desktop assessment of the PDAs on Grade 4, 5 agricultural land and unclassified land against planning, environmental and operational criteria. The West Burton original draft site area is shown in the same table for comparison. One PDA which is described and evaluated below, has been identified as shown on **Figure 5.8, Annex D**.

3.2.9 Going into the stage 4 assessment, this area was the best potential location for a large scale solar scheme considered against the high level constraints assessed up

to this stage because it was located on Grade 4, 5 agricultural land or unclassified land. Following more detailed assessment of this PDA, it was discounted for the reasons set out below:

PDA 1 Gainsborough/Laughton

3.2.10 This cluster of four land parcels totals 1,170 ha which is larger than the Scheme's site search requirement (It is shown at **Figure 5.9 Annex D**). The northernmost land parcel includes Laughton Forest Forestry Commission leased woodland. This is primarily coniferous plantation woodland cropped on a rotational basis with some public recreational access. Although there is potential for solar development to follow the cropping regime and potentially improve biodiversity, loss of forest would potentially be very difficult from a public relations perspective. In addition, the majority of the PDA is designated as an 'Area of Great Landscape Value' within the Local Plan.

3.2.11 The land has significant constraints in terms of ecology and biodiversity because land parcels are located immediately adjacent Laughton Common SSSI, Scotton Common SSSI and within 1km of Scotton Beck Field SSSI and Scotton and Laughton Forest Ponds SSSI. A Local Nature Reserve is also included within the PDA together with RSPB Beckingham Marshes.

3.2.12 In addition, the majority of the four land parcels are located within Flood Zone 3 at high risk of fluvial flooding with only the most northerly parcel solely within flood zone 1. Depending upon flood depths this may be a constraint to development.

3.2.13 Furthermore, due to the heavily treed nature of the land parcels and their immediate surroundings, there are significant constraints in terms of the potential for solar shading. This PDA was, therefore, discounted.

3.3 Stage 5 – Widening the Search to consider Grade 3 agricultural land

3.3.1 Following the discounting of PDA 1 above, consideration was then given to Grade 3 agricultural land within the 15km search area.

3.3.2 **Figure 5.11** shows residual Grade 3 agricultural land identified following the exclusion of the same high level constraints previously considered for the Grade 4,5 and unclassified land at stages 2 and 3 above

3.3.3 **Figure 5.12** details other areas of Grade 3 land that were discounted because they are included within other known NSIP projects and are therefore unavailable for the Scheme. It also identifies areas which were originally part of the Scheme and which have been removed as a result of stakeholder engagement, ecological and heritage assessment and detailed Agricultural Land Classification assessment through the course of application preparation. These include:

Table 3.3: Areas Removed from the Scheme

Location	Details of land removed from the Scheme
West Burton 1	Area in M1 removed due to designation as River Till flood storage area (For field numbering please refer to field numbering plans at Figures 3.1 – 3.3 of Chapter 3 of the ES [EN010132/APP/WB6.2.3]).
West Burton 2	Fields N24-31, plus eastern portions of N19-20 and N22-23 excluded due to River Till flood storage area. Extent of mediaeval village archaeology measured by geophysical surveys. Part of field N20 removed. Panels were first removed from N14 as a result of further survey work and from N15- N18 as a result of responses to consultation identifying concerns regarding residential amenity impacts to adjacent properties. As a result of the removal of all panels from fields N14-N18, and the lack of ability to use the land for ecological mitigation due to the underlying heritage assets, these fields were then removed entirely from the Order limits. N11 and N17 were also excluded due to landscape impact on Ingleby Road.
West Burton 3	Q2 excluded due to landscape impact on Poplar Farm. An area in fields P1 and P4, to the north of the Bishop's Palace Scheduled Monument, was removed as a result of finding significant heritage remains associated with the scheduled monument.
West Burton 4	This site formed part of the land selected in the original site search but following detailed Agricultural Land Classification testing, it was confirmed to be 100% BMV land and was removed in its entirety from the Scheme.
West Burton Substation site	This site formed part of the land selected in the original site search. Following the removal of West Burton 4 from the Scheme, this site was no longer required and was also removed from the Scheme.

3.3.4 Further details of how the Scheme layout has evolved are provided in the Design and Access Statement **[EN010132/APP/WB7.6]** and the Chapter 5: Alternatives and Design Evolution of the ES **[EN010132/APP/WB6.2.5]**.

3.3.5 **Figure 5.13 Annex D** shows the large scale land ownerships identified by local land agents as being potentially willing to accommodate large scale solar development on their land.

3.3.6 **Figure 5.14 Annex D** shows the PDAs that were assessed in more detail following the discounting of land ownerships that were on primarily Grade 2 agricultural land. The PDAs also exclude land that had already been assessed at Stage 3 e.g. at Laughton/ Gainsborough and land that was considered too small and disconnected from other potential land to provide a viable site. The West Burton original draft site area was identified and assessed at this stage as well.

3.3.7 **Figures 5.15 to 17 Annex D** show the mapping of constraints over the PDA's. **Figure 6.18** shows the detailed constraint mapping over the whole of the Grade 3 land area to show how land outside of the identified large scale land ownerships compares with the land chosen for the Scheme.

Suitability of Potential Solar Development Areas (PDA's) Identified on Grade 3 agricultural land

3.3.8 **Annex E**: **Table 2** provides the desktop assessment of the PDAs on Grade 3 land against planning, environmental and operational criteria. It also includes the West Burton Solar Project original draft site area, which was identified at this stage as part of the Grade 3 land assessment. Three PDAs are described and evaluated alongside the West Burton original draft site area and are shown on **Figure 5.14, Annex D**.

PDA 2 Wiseton/Clayworth

3.3.9 This site is 1401 ha in size and is shown on **Figure 5.15 Annex D**. It is larger than the land requirement for the Scheme. It comprises grade 3 agricultural land according to available Natural England mapping. Detailed agricultural land classification assessment (ALC) would need to be undertaken to confirm what proportion of this, if any, is BMV land. This may be a constraint to development on all or part of the site, especially given the results of further detailed ALC assessment in respect of West Burton 4 which neighbours this PDA, where it was confirmed the land is in fact 100% BMV land.

3.3.10 Following identification of the site through land agents, The RAG assessment highlighted SSSI's associated with the disused quarries in close proximity to the south west of the site, a Grade I listed Church and other grade II listed buildings at Clayworth that it was considered inappropriate to surround with development.

3.3.11 The north east land parcel was found to be highly visible on visiting the site and the landowner was unsure whether they wished to allow development on this area. The south eastern land parcel appeared to be fairly unconstrained but the landowner confirmed they did not wish to allow development on this area. The land did not perform better than the Scheme in the RAG assessment and it was therefore discounted.

PDA 3 Sturton Le Steeple

3.3.12 This site is 1608 ha in size and is shown on **Figure 5.16 Annex D**. It is larger than the land requirement for the Scheme. It comprises grade 3 agricultural land according to available Natural England mapping. Detailed agricultural land classification assessment (ALC) would need to be undertaken to confirm what proportion of this, if any, is BMV land. This may be a constraint to development on all or part of the site.

3.3.13 Following identification of the site by land agents, discussions were undertaken with the landowner who was not willing to allow solar development north of the Roman

road at the time of site selection, partly due to a large consented quarry to the east of the area and associated access through the land to the west.

3.3.14 The land south of the Roman road is partly under the same ownership, with the rest made up of much smaller land holdings. The complexity and costs associated with multiple land ownerships was prohibitive to taking this area forward for development.

3.3.15 A Local Wildlife Site is located within site boundary and adjacent to the site. Given the large amount of land available it would be possible to exclude this from the site if necessary.

3.3.16 Draft Central Lincolnshire Local Plan designated 'Area of Great Landscape Value' (Policy S62) is located immediately east of the site across the River Trent and views of the site from here are likely to require mitigation.

3.3.17 The site partly encompasses the West Burton Power Station Priority Regeneration Area allocated for mixed use development rather than renewable energy. The northern land parcel is very well located next to the POC for grid connection. However, the vast majority of both the northern and southern land parcels are within Flood Zone 3. Flooding is associated with the River Trent which is immediately adjacent. For these reasons the site was discounted.

PDA 4 Dunham, High Marnham

3.3.18 This site measures 1682 ha in size and is shown on **Figure 5.17 Annex D**. It is larger than the land requirement for the Scheme. It comprises grade 3 agricultural land according to available Natural England mapping. Detailed agricultural land classification assessment (ALC) would need to be undertaken to confirm what proportion of this, if any, is BMV land. This may be a constraint to development on all, or part of the site.

3.3.19 This site was considered primarily for a separate grid connection into High Marnham Power Station before National Grid advised that although there was capacity available at High Marnham, their preference was for a connection at the West Burton POC because fewer upgrade works to National Grid's transmissions assets would be required at the West Burton POC and it would therefore be more straightforward, quicker to deliver and more economical. A connection into West Burton could be provided from this site, but given its location immediately adjacent to High Marnham POC a connection here would prove more sensible in the longer term because a shorter cable connection could be provided, reducing cost and electricity losses along the length of the cable.

3.3.20 The site is adjacent to draft allocation, Policy ST51: Area of Best Fit for Renewable Energy Development' Bassetlaw Local Plan 2020-2037 Publication Version Addendum. Policy ST51 offers in principle support to development that generates, shares, transmits and/or stores zero carbon and/or low carbon renewable energy within the area of Best Fit but does not preclude solar development in other parts

of the District. The Area of Best Fit would not be large enough to accommodate the Scheme.

3.3.21 The majority of the northern land parcel is flood zone 3 with pockets of zone 1 and 2. Approximately a third of the southern land parcel adjacent to High Marnham POC is zone 3 with the remainder primarily in zone 1 with pockets of zone 2. Flooding is associated with the River Trent which is adjacent to both land parcels.

3.3.22 In other respects the land performs well in terms of the RAG assessment but on balance it is considered that this site would be better used with a connection at High Marnham POC and is, therefore, better brought forward as part of a different project. It is not considered to perform any better than the Scheme. The Scheme also has the benefit of detailed ALC assessment work having been undertaken which confirms that 73.76% of the land in not BMV whereas the proportion of BMV at this site is as yet unknown.

West Burton Original Draft Site Area including the Scheme

3.3.23 The RAG assessment was undertaken based upon the original draft site area of 1160 ha as shown in **Figure 5.10, Annex D**. There are no land use constraints relating to the West Burton original draft site area including the Scheme and willing landowners were identified. There is no registered Common Land within the land and no Local Plan allocations.

3.3.24 None of the West Burton original draft site area including the Scheme is within nationally or locally designated protected landscapes. The adopted Central Lincolnshire Local Plan 2017 designates the Lincoln Ridge to the east and areas around Gainsborough to the west as Areas of Great Landscape Value and the Sites sit outside of this.

3.3.25 There are no designated international and national ecological and geological sites within the original draft site area including the Scheme. The Humber Estuary SPA is situated approximately 28km from West Burton 3 and 32km from West Burton 1 and 2. This site is of International Importance. No designated sites were identified in proximity to West Burton 1. One statutory designated site (Doddington Clay Woods SSSI) (National Importance) was identified within 5km and three non-statutorily designated sites (County Importance) were identified within 2km of West Burton 2. Seven non-statutorily designated sites were identified within 2km of West Burton 3, several of which are the same as those returned for West Burton 2. These are all of County Importance.

3.3.26 The Flood Risk Assessment and Drainage Strategy for the Scheme (see Environmental Statement Chapter 10: Hydrology, Flood Risk and Drainage **[EN010132/APP/WB6.2.10]** and associated Appendices summarises the flood risk to the West Burton 1, 2 and 3 Sites as negligible to low. Fluvial risk across the Sites is associated with the River Till. The majority of the land is in Flood Zone 1 with the remainder within Zones 2 and 3. West Burton 4 is located within flood zone 1 at low risk of flooding.

3.3.27 In terms of construction access the West Burton original draft site area including the Scheme is well served by the primary road network as well as secondary roads. The land is within close proximity to the A1500, A156 and A57. No significant transport and access effects are identified in the Transport and Access ES chapter **[EN010132/APP/WB6.2.14]**. Nevertheless, a Public Rights of Way Management Plan and Construction Traffic Management Plan will be implemented for the Scheme.

3.3.28 The West Burton original draft site area including the Scheme does not contain any designated heritage assets. A total of 17 no. Scheduled Monuments are located within 5km of the Sites. Broxholme medieval settlement and cultivation remains (NHLE 1016797) directly abuts the south-western corner of West Burton 1, the western edge and south-eastern corners of the Deserted Village of North Ingleby (NHLE 1003570) directly abut the West Burton 2 Site. The Medieval bishop's palace and deer park, Stow Park (NHLE 1019229), abuts the West Burton 3 site. 25no. Grade I and Grade II* listed buildings are located within 5km of West Burton 1,2 and 3. A 2km study area has identified 54no. for Grade II listed buildings in the area surrounding the Sites.

3.3.29 **Figure 5.13 Annex D** shows the extent of the Scheme order limits overlaid on the large-scale land ownership boundaries provided by land agents. At an early stage, four sites; West Burton 1, West Burton 2, West Burton 3 and West Burton 4 were chosen through discussion with the landowners regarding areas of their land holdings that they were prepared to allow solar development on and following the RAG assessment work. The landowners' ongoing operational requirements for farming and other diversified uses within their land holdings meant that not all the land was suitable, or available, for solar development. The combined factors of constraints assessment and landowner feedback influenced the choice and configuration of the sites within the landholdings.

3.3.30 All of the land considered for the Scheme from an early stage was Grade 3 agricultural land according to the Natural England mapping. However, detailed ALC surveys were later undertaken to test these assumptions and helped to refine the chosen Site areas further. Following detailed assessment (see ES Appendix 19.1 Agriculture Baseline Report **[EN010132/APP/WB.6.3.19.1]**), the West Burton original draft site area was amended, most notably to omit West Burton 4, as the detailed ALC assessment work concluded this to comprise 100% best and most versatile land. **Figure 5.13 Annex D** shows the areas in purple, including West Burton 4, removed from the West Burton original draft site area. The removal of West Burton 4 ensured that the majority of the remaining 3 sites (73.76%) forming the Scheme were located on agricultural land that is not classified as best and most versatile.

3.3.31 The Applicant worked closely with the landowners in relation to BMV land to be included and excluded from the Order Limits, so that agricultural viability could be taken into account alongside the ALC survey. There has been effort made to exclude Grade 2 and 3a land from the proposed solar development, and to keep good quality land with the farming tenants. In terms of the specific areas of BMV land that are

retained within the Scheme (see **Table 2: ALC Grade Distribution** of **ES Appendix 19.1 [EN010132/APP/WB6.3.19.1]**), these are justified by factors related to their location and context within the Scheme, the wider landholdings, and in relation to adjacent and surrounding land.

3.3.32 Details of specific changes made to the Scheme to reduce the amount of BMV to a minimum following the detailed ALC assessments and discussion with farmers are set out in **Table 5.9: Stage 4 – Design Updates up to DCO Submission (August-November 2022)** of ES Chapter 5: Alternatives and Design Evolution **[EN010132/APP/WB6.2.5]**. Table 5.9 also sets out and explains the reasons for other changes that have been made to the scheme boundaries as the project has evolved up to submission.

3.3.33 The finalised Site areas for the scheme cover 769.08 hectares of the total 886.42 hectare Order Limits and comprise West Burton 1, West Burton 2 and West Burton 3. The Sites are within 4 land ownerships with willing landowners and as previously highlighted, this small number of landowners is advantageous in terms of minimising project complexity, legal complexity and cost.

Other Grade 3 agricultural land

3.3.34 The site selection process could not consider in detail every piece of unconstrained Grade 3 agricultural land identified on **Figure 5.12, Annex D** due to the large extent of land involved. Instead, the focus was on the large-scale landownerships which were identified by agents as having potentially willing landowners as shown on **Figure 5.13, Annex D**. As a result of this, suitable land for the Scheme was identified.

3.3.35 Details of all the constraints researched during the above process were, nevertheless, mapped over the whole of the 15km search area as shown on **Figure 5.18, Annex D** to sense check the chosen location for the Scheme. This shows that there are few extensive areas of Grade 3 land outside of the land already considered in the above assessment, that are constraint free. The general area east of Gainsborough and west of the Lincoln Ridge, where the Scheme is located, is clearly less constrained in terms of flood risk, gradient, the density of settlements, heritage assets, landscape and ecology designations than other parts of the Search Area. The location of a number of other NSIP scale projects within this area illustrates this. There are no other parts of the Search Area that would provide a materially better location for the siting of a 480MW solar project taking into account these constraints.

4 Conclusions

4.1.1 This site selection assessment has followed a five stage approach to evaluate the proposed West Burton Solar Project location against other potential areas for solar development identified in order to establish whether the proposed Scheme is in a suitable location for a proposed 480MW solar development.

4.1.2 Stage 1 identified the search area based upon the need to provide a viable cable connection distance and the clear preference of identifying land as close to the POC at West Burton Power Station as possible. The search area was enlarged incrementally until suitable options were found within a 15km radius. This is considered by the Applicant to be a viable cable connection distance for a solar project of this scale.

4.1.3 Stages 2 and 3 of the assessment have involved GIS mapping to exclude environmental and planning constraints including all Grade 1, 2, and 3 agricultural land and apply operational considerations such as development area and topography within the 15km area of search.

4.1.4 This resulted in the identification of 1 potential development area (PDA1) on Grade 4, 5 or unclassified land within the search area. The use of RAF Scampton was proposed through the pre-application consultation undertaken by the Applicant. However, this was beyond the 15km search area in which a suitable site was identified and therefore further from the grid connection point, so it was not considered further. The Applicant notes that West Lindsey District Council has submitted an expression of interest in acquiring the RAF Scampton site for redevelopment and the site is allocated as an “opportunity area” in the Draft Local Plan. The Applicant therefore considers that this site would not be available for solar development in any case.

4.1.5 PDA 1 was subject to further evaluation, as set out in Annex E, using readily available information sources, against assessment indicators to consider the suitability of the area for solar development. The conclusions of this evaluation indicate that the PDA has a number of land use, operational and environmental constraints which would mean it would be difficult to develop solar of the scale required at this location.

4.1.6 Given the assessment findings it was then necessary to consider Grade 3 agricultural land. Local agents provided information regarding potentially willing landowners with large-scale land holdings within the Grade 3 land area. This resulted in the identification of three potential development areas in addition to the West Burton original draft site area.

4.1.7 Similarly to the Stage 2 and 3 assessment, GIS mapping was used to exclude environmental and planning constraints from the Grade 3 land and apply operational considerations. This resulted in the choice of the West Burton original draft site area, which was subsequently refined into the Scheme order limits to address stakeholder consultation comments, and further technical assessment work including detailed ALC assessment. The West Burton original draft site area

including the Scheme, performed better than 3 of the other locations and equal to one (Site 4) within the RAG assessment. Site 4 is immediately adjacent to High Marnham Power Station where a grid connection was not preferred by National Grid at the time of Site Selection, but which would be the most sensible and cost effective POC for this land in the future. In addition, a detailed ALC assessment has not been undertaken for Site 4 so it may contain a higher proportion of BMV land than the Scheme.

4.1.8 It is considered that there are no obviously more suitable locations within the area of search than the proposed Sites for the Scheme. The Scheme's location is therefore assessed to be suitable for the scale of solar development proposed and the basis on which the Applicant has selected the Sites accords with the approach to the consideration of alternatives set out by paragraph 4.4.3 of NPS EN-1.

Annex A References

Ref.1 BRE (2013) Planning guidance for the development of large-scale ground mounted solar PV systems.

Ref.2 Department of Energy and Climate Change (2011) Overarching National Policy Statement for Energy (EN-1).

Ref.3 Department of Energy and Climate Change (2011) National Policy Statement for Renewable Energy (EN-3).

Ref.4 Department of Energy and Climate Change (2011) National Policy Statement for Electricity Networks Infrastructure (EN-5).

Ref.5 Draft Overarching National Policy Statement for Energy (EN-1) (Draft NPS EN-1),

Ref.6 Draft National Policy Statement for Renewable Energy (EN-3) (Draft NPS EN-3)

Ref.7 Draft National Policy Statement for Electricity Networks Infrastructure (EN-5) (Draft NPS EN-5).

Ref.8 Ministry of Housing, Communities & Local Government (2021) National Planning Policy Framework.

Ref.9 The Solar Design Company (2016) Introduction to Solar Shading.

Ref.10 UK Government (2008) Planning Act 2008.

Ref.11 Central Lincolnshire Local Plan 2012 – 2036 (Adopted 2017)

Ref.12 Emerging Draft Central Lincolnshire Local Plan (Proposed Submission) March 2022

Ref.13 Saxilby with Ingleby Neighbourhood Plan 2022

Ref.14 Sturton by Stow and Stow Neighbourhood Plan 2022

Ref.15 Sturton Ward Neighbourhood Plan (Review) 2021

Ref.16 Tresswell and Cottam Neighbourhood Plan 2019

Ref.17 Bassetlaw District Council Core Strategy (Adopted 2011)

Ref.18 Emerging Draft Bassetlaw Local Plan 2020-2037 (Publication Version) August 2021, Addendum January 2022 and Second Addendum May 2022

Ref.19 Nottinghamshire Minerals Local Plan (2021)

Ref.20 Lincolnshire Minerals and Waste Local Plan (Core Strategy & Development Management Policies (June 2016) and Site Locations (Dec 2017) documents.

Ref.21 Lincolnshire Biodiversity Action Plan

Ref.22 Lincolnshire Local Transport Plan and local transport strategies

Ref.23 Joint Lincolnshire Flood Risk and Drainage Management Strategy

Ref.24 Bassetlaw District Council (2021). Bassetlaw Brownfield Register. Available at: https://data.bassetlaw.gov.uk/brownfield-register/

Ref.25 West Lindsey District Council (2022). Brownfield Register. Available at www.west-lindsey.gov.uk/planning-building-control/planning/planning-policy/evidence-base-monitoring/brownfield-register

Ref.26 Newark and Sherwood District Council 2022 Brownfield Register, Available at: https://www.newark-sherwooddc.gov.uk/brownfieldlandregister/

Annex B Assessment Indicators and Evaluation Criteria

B1 Land Use

Assessment Indicator: Does the potential development area have any existing land uses/development allocations/ safeguarded areas/extant planning permissions which would potentially conflict with the proposed development having regard to the following evaluation criteria?

- Type of existing land uses within and adjacent to the potential development area
- Extant planning permissions within the potential development area
- Local plan/ emerging local plan development allocations within the potential development area
- Number and location of public rights of way within the potential development area

	The potential development area has the potential to conflict with existing land uses, extant planning permissions and policy allocations which would be difficult to avoid.
	The potential development area has the potential to conflict with existing land uses, extant planning permissions and policy allocations which can be avoided.
	The potential development area has no land use conflicts

B.2 Deliverability of Grid Connection

Is the potential development area's grid connection likely to encounter constraints e.g. crossing of roads, rivers and railway and sensitive environmental designations and require significant land take?

- Type and number of constraints and designations
- Length of connection

	The potential development area has potential to have significant constraints to achieve its grid connection which would be very difficult to mitigate/overcome.
	The potential development area has potential to have some constraints to achieve its grid connection.
	The potential development area is unlikely to encounter any constraints to achieve its grid connection

B.3 Ecology and Biodiversity

Assessment Indicator: Is the potential development area likely to adversely impact any internationally, nationally or locally designated site of ecological, biological or geological importance, (b) habitats identified as being of principal importance for the conservation of biodiversity having regard to the following evaluation criteria?:

- Proximity of designated sites
- Level of designation and sensitivity of those designated sites
- Potential for provision of mitigation measures

	The potential development area has potential to have a significant adverse impact on (a) an internationally, nationally or locally designated site of ecological, biological or geological importance, (b) protected species, (b) habitats identified as being of principal importance for the conservation of biodiversity, which may be difficult to mitigate.
	The potential development area has potential for some adverse impact on (a) an internationally, nationally or locally designated site of ecological, biological or geological importance, (b) protected species, (b) habitats identified as being of principal importance for the conservation of biodiversity, which could be mitigated through appropriate buffers and management measures.
	The potential development area is unlikely to impact upon on (a) an internationally, nationally or locally designated site of ecological, biological or geological importance, (b) habitats identified as being of principal importance for the conservation of biodiversity.

B.4 Landscape and Visual

Assessment Indicator: Is the potential development area likely to adversely impact a locally or nationally designated landscape, or sensitive viewpoints, having regard to the following evaluation criteria?

- Proximity of the potential development area from locally or nationally designated landscape, or sensitive viewpoints
- Sensitivity and number of locally or nationally designated landscape, or potentially sensitive viewpoints such as from public rights of way or other public locations
- Proximity of the potential development area from local community receptors
- Potential for provision of screening or other mitigation measures

	The potential development area has the potential to have a significant adverse impact on a locally or nationally designated landscape, or important/sensitive viewpoints, which may be difficult to mitigate.
	The potential development area has potential to have some adverse impact on a locally or nationally designated landscape, or important/sensitive viewpoints, which may be difficult to mitigate.
	The potential development area is unlikely to have an adverse impact on a locally or nationally designated landscape, or important/sensitive viewpoints, other than one which is unlikely to be difficult to mitigate

B.5 Cultural Heritage

Assessment Indicator: Is the potential development area likely to adversely impact designated heritage assets, having regard to the following evaluation criteria?

- Proximity to designated heritage assets
- Level and sensitivity of designated heritage assets
- Potential for screening the potential development area from the asset

	The potential development area has potential to have harm to a large number of designated heritage assets, which may be difficult to avoid and mitigate.
	The potential development area has potential to have harm to a large number of designated heritage assets but could incorporate mitigation e.g. buffers/screening or has potential to have harm to a small number of designated heritage assets which may be difficult to mitigate/avoid.
	The potential development area is likely to cause harm to a small number of designated assets and can accommodate appropriate buffers/mitigation measures to reduce impacts.

B.6 Access for Construction Traffic

Assessment Indicator: Is the local road network, from the primary road network to the potential development area, suitable for HGV access, having regard to the following evaluation criteria?

- General suitability of the public highway
- Distance to the primary road network
- Sensitivity of land uses along the route to the primary road network
- Physical or engineering constraints (bridges, level crossings, visibility, access points etc.)
- Access to fields without having to remove hedgerows

	The local road network has significant constraints to HGV access
	The local road network has some constraints to HGV access.
	The local road network is suitable for HGV access.

B.7 Flood Risk

Assessment Indicator: Is the potential development area likely to be constrained by the risk of flooding?

- Proximity to nearby watercourses
- Proportion of the potential development area within Flood Zone 2 or 3

	The majority of the development area is within an area with moderate or significant risk of flooding.
	The majority of the development area is within an area with no or a low risk of flooding, but part of the area is within an area with a moderate or significant risk of flooding.
	The development area is entirely within an area with no or a low risk of flooding.

B.8 Solar Array Shading

Assessment Indicator: Is the potential development area likely to be constrained by features which would result in shading having regard to the following factors?

- Type and coverage (number) of features that might shade e.g. trees/woodland

	The potential development area has field boundary features which are likely to significantly constrain the solar array design
	The potential development area has field boundary features which are likely to moderately constrain the solar array design.
	The potential development area has field boundary features which are unlikely to constrain the solar array design.

B.9 Topography

Is the potential development area affected by an undulating terrain of multiple gradients?

- Proportion of the potential development area that is undulating/has varied topography

	The potential development area has significant undulation which is likely to significantly constrain the solar array design.
	The potential development area has undulation which is likely to moderately constrain the solar array design.
	The potential development area has insignificant undulation which is unlikely to constrain the solar array design.

Annex C Assessment Indicator Policy and Guidance Justification

Stage 2: Spatial Mapping Constraints/Stage 4 Assessment Indicator	Justification	Relevant National Planning Policy	Relevant Local Planning Policy
Land Use	Planning policy expects developments to minimise the loss of the best and most versatile agricultural land (grades 1, 2 and 3a Agricultural Land Classification) and preferably use land that is not classified as best and most versatile (grades 3b, 4 and 5). Policies also encourage the use of previously developed land unless there are no reasonable alternative sites for development. Planning policy aims to protect the following land uses/designations: **Local amenity** – avoiding amenity impacts from development on local residents and users of an area **Mineral resources** – by avoiding development permanently sterilising mineral resource	**NPS EN-1** Paragraph 5.10.2 Paragraph 5.10.5 Paragraph 5.10.6 Paragraph 5.10.8 Paragraph 5.10.9 Paragraph 5.10.15 Paragraph 5.10.24 **Draft NPS EN-1** Paragraph 5.11.8 Paragraph 5.11.9 Paragraph 5.11.14 Paragraph 5.11.21 **Draft NPS EN-3** Paragraph 2.48.13	**Central Lincolnshire Local Plan 2012 – 2036 (Adopted 2017)** LP1: Presumption in Favour of Sustainable Development LP2: The Spatial Strategy and Settlement Hierarchy LP13: Accessibility and Transport LP26: Design and Amenity LP55: Development in the Countryside **Emerging Draft Central Lincolnshire Local Plan (Proposed submission) March 2022** S1: The Spatial Strategy and Settlement Hierarchy S2: Growth Levels and Distribution S5: Development in the Countryside S46: Accessibility and Transport S52: Design and Amenity **Saxilby with Ingleby Neighbourhood Plan** Policy 16: Existing and New Non Vehicular Routes Policy 17: Traffic and Movement around the Village

	Public rights of way **Existing and proposed development uses** – from conflicting development types	Paragraph 2.48.15 **NPPF** Paragraph 84 Paragraph 92 Paragraph 93 Paragraph 95 Paragraph 212	**Sturton Ward Neighbourhood Plan (Review)** Policy 12: Energy efficiency, renewable energy and climate change **Bassetlaw District Council Core Strategy (2011)** CS1: Settlement Hierarchy DM3: General Development in the Countryside DM10: Renewable and Low Carbon Energy DM4: Design and Character **Emerging Bassetlaw District Council Local Plan (2020-2038)** ST1: Bassetlaw's Spatial Strategy Policy 48: Protecting Amenity ST51: Renewable Energy Generation **Nottinghamshire Minerals Local Plan (2021)** SP1: Minerals Provision SP7: Minerals Safeguarding, Consultation Areas and Associated Minerals Infrastructure **Lincolnshire Minerals and Waste Local Plan (2016)** M11: Safeguarding of Mineral Resources M12: Safeguarding of Existing Mineral Sites and Associated Minerals Infrastructure **Newark and Sherwood Core Strategy (2019)** Spatial Policy 3: Rural Areas

			Core policy 9: Sustainable Design Spatial Policy 10: Climate Change **Newark & Sherwood DPD (2013)** Policy DM4: Renewable and Low Carbon Energy Generation Policy DM8: Development in the Open Countryside **Epperstone Neighbourhood Plan (2019)** Policy EP 10: Renewable Energy and Low Carbon Technologies. **Southwell Neighbourhood Plan (2016)** Policy E6: Climate Change and Carbon Emissions
Grid Connection	With increased distance from the connection point comes increased potential for environmental impact associated with construction of a longer connection infrastructure and potential for increased complexity if multiple land owners and/or requirements to cross other features in the landscape (roads, railways etc.) are involved.	**Relevant Guidance The Solar Design Company** https://www.solardesign.co.uk/shading-intro.php (accessed June 2021) **BRE: Planning guidance for the development of large scale ground mounted solar PV systems** https://www.bre.co.uk/filelibrary/pdf/other_pdfs/KN5524_Planning_Guidance_reduced.pdf (accessed June 2021)	
Ecology and Biodiversity	Planning policy aims to protect designated sites of ecological, biological or geological importance, protected species, habitats or other species identified as being of principal importance for the conservation of	**NPS EN-1** Paragraph 2.50.10 Paragraph 4.3.1 Paragraph 5.3.3	**Central Lincolnshire Local Plan (2017)** LP21: Biodiversity and Geodiversity **Emerging Draft Central Lincolnshire Local Plan (Proposed submission) March 2022** S60: Protecting Biodiversity and Geodiversity

	biodiversity. This includes ancient woodland and veteran trees. National policy expects consents to be refused if significant harm to biodiversity resulting from a development cannot be avoided adequately mitigated, or, as a last resort, compensated for.	Paragraph 5.3.4 Paragraph 5.3.6 Paragraph 5.3.7 Paragraph 5.3.8 Paragraph 5.3.9 Paragraph 5.3.10 Paragraph 5.3.11 Paragraph 5.3.13 Paragraph 5.3.14 Paragraph 5.3.18 Paragraph 5.3.20 **Draft NPS EN-1** Paragraph 5.4.3 Paragraph 5.4.6 Paragraph 5.4.7 Paragraph 5.4.8, Paragraph 5.4.9, Paragraph 5.9.10 Paragraph 5.4.12 **Draft NPS EN-3** Paragraph 2.50.8	S61: Biodiversity Opportunity and Delivering Measurable Net Gains **Saxilby with Ingleby Neighbourhood Plan** Policy 11: Minimising the impact of development on the natural environment **Sturton Ward Neighbourhood Plan (Review)** Policy 2b: Enhancing Biodiversity **Bassetlaw District Council Core Strategy (2011)** DM9: Green Infrastructure; Biodiversity & Geodiversity; Landscape; Open Space & Sports Facilities **Emerging Bassetlaw District Council Local Plan (2020-2038)** ST40: Biodiversity and Geodiversity **Nottinghamshire Minerals Local Plan (2021)** SP2: Biodiversity-Led Restoration DM4: Protection and Enhancement of Biodiversity and Geodiversity **Lincolnshire Minerals and Waste Local Plan (2016)** DM7: Internationally designated sites of Biodiversity Conservation Value DM9: Local Sites of Biodiversity Conservation Value

		NPPF Paragraph 174 Paragraph 180 Paragraph 181 Paragraph 185	
Landscape and Visual	Planning policy affords the highest protection to nationally designated landscapes such as National Parks, the Broads and Areas of Outstanding Natural Beauty) and also aims to avoid impacts on sensitive visual receptors. Outside nationally designated areas, there are local landscapes that may be highly valued locally and protected by local designation. Paragraph 5.9.14 of the NPS EN-1 expects the consideration of local policies for DCO applications where a local development document in England has policies based on landscape character assessment. . Paragraph 5.9.18 of NPS EN-1 states that it will need to be determined whether the visual effects on sensitive receptors such as local residents outweigh the	**NPS EN-1** Paragraph 5.9.5 Paragraph 5.9.6 Paragraph 5.9.7 Paragraph 5.9.8 Paragraph 5.9.9 Paragraph 5.9.12 Paragraph 5.9.14 Paragraph 5.9.15 Paragraph 5.9.16 Paragraph 5.9.17 Paragraph 5.9.18 Paragraph 5.9.21 Paragraph 5.9.22 Paragraph 5.9.23 **Draft NPS EN-1**	**Central Lincolnshire Local Plan (2017)** LP17: Landscape, Townscape and Views **Emerging Draft Central Lincolnshire Local Plan (Proposed submission) March 2022** S53: Design and Amenity **Bassetlaw District Council Core Strategy (2011)** DM9: Green Infrastructure; Biodiversity & Geodiversity; Landscape; Open Space & Sports Facilities **Emerging Bassetlaw District Council Local Plan (2020-2038)** ST37: Landscape Character **Nottinghamshire Minerals Local Plan (2021)** DM5: Landscape Character **Lincolnshire Minerals and Waste Local Plan (2016)** DM6: Impact on Landscape and Townscape **Newark and Sherwood Core Strategy (2019)** Core Policy 12: Biodiversity and Green Infrastructure.

	benefits of the proposed development. NPS EN-1 suggests that adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within that site, design including colours and materials, and landscaping schemes.	5.10.5 5.10.9 5.10.16 5.9.17 5.10.18 **NPS EN-5** Paragraph 2.2.5 Paragraph 2.8.8 Paragraph 2.8.9 Paragraph 2.8.10 Paragraph 2.8.11 **Draft NPS EN-5** Paragraph 2.2.4 Paragraph 2.11.13 Paragraph 2.11.14 Paragraph 2.11.15 Paragraph 2.11.16 Paragraph 2.11.17 Paragraph 2.11.18 Paragraph 2.11.19 Paragraph 2.11.20	Core Policy 13: Landscape Character ShAP 1: Sherwood Area and Sherwood Forest Regional Park **Newark & Sherwood DPD (2013)** Policy DM5: Design Policy DM7: Biodiversity and Green infrastructure **Farnsfield Neighbourhood Plan (2017)** FNP9: Access to the Countryside **Fiskerton-cum-Morton Neighbourhood Plan (2019)** FCM6: Views and Vistas **Kings Clipstone Neighbourhood Plan (2019)** NP 3: Protecting the Landscape Character of Kings Clipstone Parish

		NPPF Paragraph 130 Paragraph 174 Paragraph 176	
Cultural Heritage	Protection and conservation of designated and undesignated heritage assets. The higher the significance of the asset, the greater the presumption in favour of its conservation. Some heritage assets have a level of significance that justifies official designation. Categories of designated heritage assets are: a World Heritage Site; Scheduled Monument; Protected Wreck Site; Protected Military Remains, Listed Building; Registered Park and Garden; Registered Battlefield; Conservation Area. However paragraph 5.8.4 of the NPS EN-1 also states that there are heritage assets with archaeological interest that are not currently designated as scheduled monuments, but which are demonstrably of equivalent significance and therefore in some cases should	**NPS EN-1** Paragraph 5.8.2 Paragraph 5.8.3 Paragraph 5.8.4 Paragraph 5.8.5 Paragraph 5.8.6 Paragraph 5.8.8 Paragraph 5.8.9 Paragraph 5.8.10 Paragraph 5.8.12 Paragraph 5.8.13 Paragraph 5.8.14 Paragraph 5.8.15 Paragraph 5.8.16 Paragraph 5.8.17 Paragraph 5.8.18 Paragraph 5.8.20	**Central Lincolnshire Local Plan (2017)** LP25: The Historic Environment LP29: Protecting Lincoln's Setting and Character **Emerging Draft Central Lincolnshire Local Plan (Proposed submission) March 2022** S57: The Historic Environment **Sturton Ward Neighbourhood Plan (Review)** Policy 6: Protecting the Historic Environment **Bassetlaw District Council Core Strategy (2011)** DM8: The Historic Environment **Emerging Bassetlaw District Council Local Plan (2020-2038)** ST42: The Historic Environment policy 43: Heritage Assets **Nottinghamshire Minerals Local Plan (2021)** DM6: Historic Environment **Lincolnshire Minerals and Waste Local Plan (2016)** DM4: Historic Environment

	also be subject to the same policy considerations as those that apply to designated heritage assets. There is a desirability for new development to make a positive contribution to the character and local distinctiveness of the historic environment. Paragraphs 199 to 203 of the NPPF introduce the concept that heritage assets can be harmed or lost through alteration or destruction or development within their setting. This harm ranges from less than substantial through to substantial. With regard to designated assets such as listed buildings, paragraph 199 states that great weight should be given to an asset's conservation and 'the more important the asset, the greater the weight should be'. This is irrespective of the level of harm to its significance as a result of any proposals. Distinction is drawn between those assets of exceptional interest (e.g. grade I and grade II* listed buildings), and those of special interest (e.g. grade II listed buildings). NPPF paragraph	Paragraph 5.8.21 Paragraph 5.8.22 **Draft NPS EN-1** Paragraph 5.9.10 Paragraph 5.9.11 Paragraph 5.9.12 Paragraph 5.9.13 Paragraph 5.9.21 Paragraph 5.9.23 Paragraph 5.9.24 **NPPF** Paragraph 194 Paragraph 199 Paragraph 200 Paragraph 201 Paragraph 202 Paragraph 203 Paragraph 205	**Newark and Sherwood Core Strategy (2019)** Core Policy 14: Historic Environment

	200 requires any harm or loss of heritage significance to have clear and convincing justification, and substantial harm or loss should be wholly exceptional with regard to those assets of greatest interest. NPPF paragraph 201 explains that in instances where development would cause substantial harm to or total loss of significance of a designated asset, consent should be refused unless that harm or loss is "necessary to achieve substantial public benefits that outweigh that harm or loss". In instances where development would cause less than substantial harm to the significance of a designated asset, paragraph 202 states 'this harm should be weighed against the public benefits of the proposal including where appropriate, securing its optimum viable use'. Significance with regard to heritage planning policy is defined in the Glossary of the NPPF as: 'The value of a heritage asset to this and future generations because of its heritage interest. The interest may		

	be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting.'		
Traffic and Access	Planning policy expects the impacts of traffic from development to be minimised. Accessibility to land areas is important to allow construction without significant traffic management or alterations to the road network 'A new energy NSIP may give rise to substantial impacts on the surrounding transport infrastructure and NPS EN-1 expects the Secretary of State to therefore ensure that the applicant has sought to mitigate these impacts, including during the construction phase of the development.	**NPS EN-1** Paragraph 5.13.1 Paragraph 5.13.3 Paragraph 5.13.4 Paragraph 5.13.6 Paragraph 5.12.7 Paragraph 5.13.8 Paragraph 5.13.9 Paragraph 5.13.10 Paragraph 5.13.11 **Draft NPS EN-1** Paragraph 2.54.1 Paragraph 2.54.2 Paragraph 5.14.1 Paragraph 5.14.2 Paragraph 5.14.11	**Central Lincolnshire Local Plan (2017)** LP13: Accessibility and Transport **Emerging Draft Central Lincolnshire Local Plan (Proposed submission) March 2022** S47: Accessibility and Transport **Bassetlaw District Council Core Strategy (2011)** DM4: Design and Character **Emerging Bassetlaw District Council Local Plan (2020-2038)** ST54: Transport Infrastructure and Improvements Schemes **Nottinghamshire Minerals Local Plan (2021)** DM7: Public access **Lincolnshire Minerals and Waste Local Plan (2016)** DM14: Transport by Road DM13: Sustainable Transport Movements **Newark and Sherwood Core Strategy (2019)** Spatial Policy 7: Sustainable Transport **Bulcote Neighbourhood Plan (2019)**

		NPPF Paragraph 104 Paragraph 113	NPP 7 Improving Access to the Countryside **Southwell Neighbourhood Plan (2016)** Policy E4: Public rights of way and wildlife corridors.
Flood Risk	Planning policy expects the avoidance of Flood Zones 2 and 3 for development demonstrating a sequential approach to locating development with respect to flood risk has been followed. NPS EN-5 expects electrical connection infrastructure to be resilient to flooding.	**NPS EN-1** Paragraph 5.7.4 Paragraph 5.7.5 Paragraph 5.7.7 Paragraph 5.7.9 Paragraph 5.7.10 Paragraph 5.7.12 Paragraph 5.7.13 Paragraph 5.7.14 Paragraph 5.7.16 Paragraph 5.7.18 Paragraph 5.7.19 Paragraph 5.7.21 Paragraph 5.7.22 Paragraph 5.7.23 Paragraph 5.7.24 Paragraph 5.7.25 Paragraph 5.15.2	**Central Lincolnshire Local Plan (2017)** LP14: Managing Water Resources and Flood Risk **Emerging Draft Central Lincolnshire Local Plan (Proposed submission) March 2022** S21: Flood Risk and Water Resources **Sturton Ward Neighbourhood Plan (Review)** Policy 4: Reducing the Risk of Flooding **Bassetlaw District Council Core Strategy (2011)** DM12: Flood Risk, Sewerage and Drainage **Emerging Bassetlaw District Council Local Plan (2020-2038)** ST52: Flood Risk and Drainage **Nottinghamshire Minerals Local Plan (2021)** DM2: Water Resources and Flood Risk **Lincolnshire Minerals and Waste Local Plan (2016)** DM15: Flooding and Flood Risk

		Paragraph 5.15.3 Paragraph 5.15.5 Paragraph 5.15.6 Paragraph 5.15.8 **Draft NPS EN-1** Paragraph 5.8.4 Paragraph 5.8.5 Paragraph 5.8.6 Paragraph 5.8.11 Paragraph 5.8.12 Paragraph 5.8.13 Paragraph 5.8.14 Paragraph 5.8.15 Paragraph 5.8.16 Paragraph 5.8.17 Paragraph 5.8.18 Paragraph 5.8.19 Paragraph 5.14.11 **NPS EN-5** Paragraph 2.4.1 Paragraph 2.4.2	

		Paragraph 2.6.1 Paragraph 2.6.2 **NPPF** Paragraph 159 Paragraph 163 Paragraph 164 Paragraph 167 Paragraph 169 Paragraph 174	
Solar Array Shading	Shading can have impacts on solar thermal and photovoltaic system outputs. Accounting for shading factors is therefore a very important aspect of solar energy system design.	**Relevant Guidance The Solar Design Company** https://www.solardesign.co.uk/shading-intro.php (accessed June 2021) **BRE: Planning guidance for the development of large scale ground mounted solar PV systems** https://www.bre.co.uk/filelibrary/pdf/other_pdfs/KN5524_Planning_Guidance_reduced.pdf (accessed June 2021)	
Topography	Flat land which does not undulate significantly is preferred for solar PV energy generation optimisation and makes it easier to visually screen the development	**Relevant Guidance The Solar Design Company** https://www.solardesign.co.uk/shading-intro.php (accessed June 2021) **BRE: Planning guidance for the development of large scale ground mounted solar PV systems** https://www.bre.co.uk/filelibrary/pdf/other_pdfs/KN5524_Planning_Guidance_reduced.pdf (accessed June 2021)	

Annex D Assessment Mapping Results

Island GREEN POWER

Lanpro

Key

West Burton Power Station

Area of Search

Layers: National Grid, 2023; Lanpro, 2023

Base map: Contains OS data © Crown copyright and database right 2023

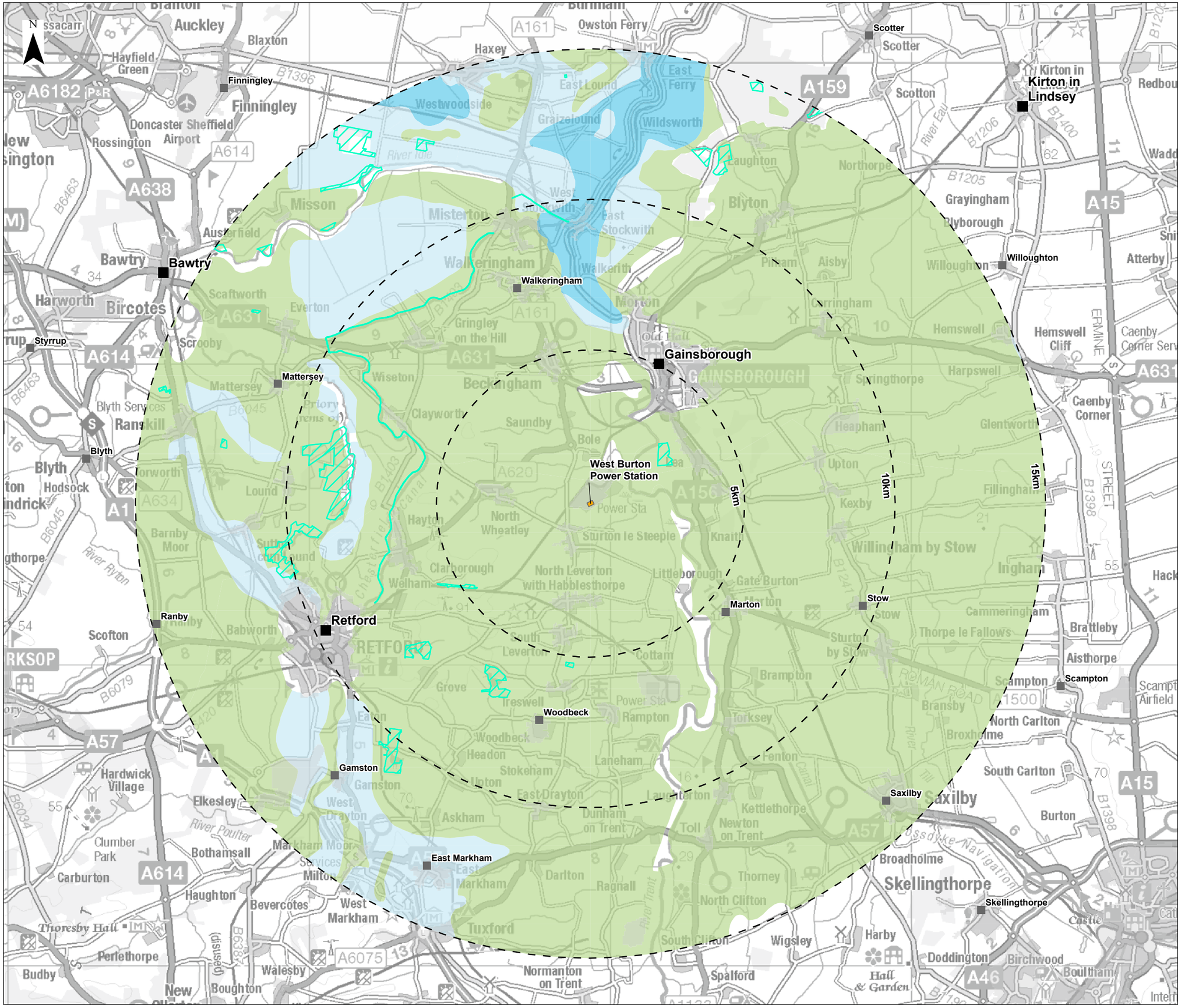
0 2 4 6 km

Scale: 1:120,000@ A3

APFP Regulation: 5(2)(a)	Application Doc No. WB6.4.5.1
Ref: P2983_LPR_ZZ_ON_DR_Z_0217	Date: 24/01/2023
Drawn by: AZ	Checked by: BR

Figure 5.1
West Burton
Search Area

WEST BURTON SOLAR PROJECT
Alternatives and Design Evolution
Environmental Statement (ES)



Island GREEN POWER

Lanpro

Key

- West Burton Power Station
- Area of Search
- Special Area of Conservation (SAC)
- Site of Special Scientific Interest (SSSI)
- Built-up Area

Agricultural Land Class (ALC)

- Grade 1
- Grade 2
- Grade 3

Layers: Natural England, 2023; National Grid, 2023; Lanpro, 2023
Base map: Contains OS data © Crown copyright and database right 2023

0 2 4 6 km
Scale: 1:120,000@ A3

APFP Regulation: 5(2)(a)	Application Doc No. WB6.4.5.2
Ref: P2983_LPR_ZZ_ON_DR_Z_0218	Date: 24/01/2023
Drawn by: AZ	Checked by: BR

Figure 5.2
West Burton
Planning and Environmental Constraints

WEST BURTON SOLAR PROJECT
Alternatives and Design Evolution
Environmental Statement (ES)

Island GREEN POWER

Lanpro

Key

- West Burton Power Station
- Area of Search
- Unconstrained Land

Layers: Natural England, 2023; National Grid, 2023; Lanpro, 2023
Base map: Contains OS data © Crown copyright and database right 2023

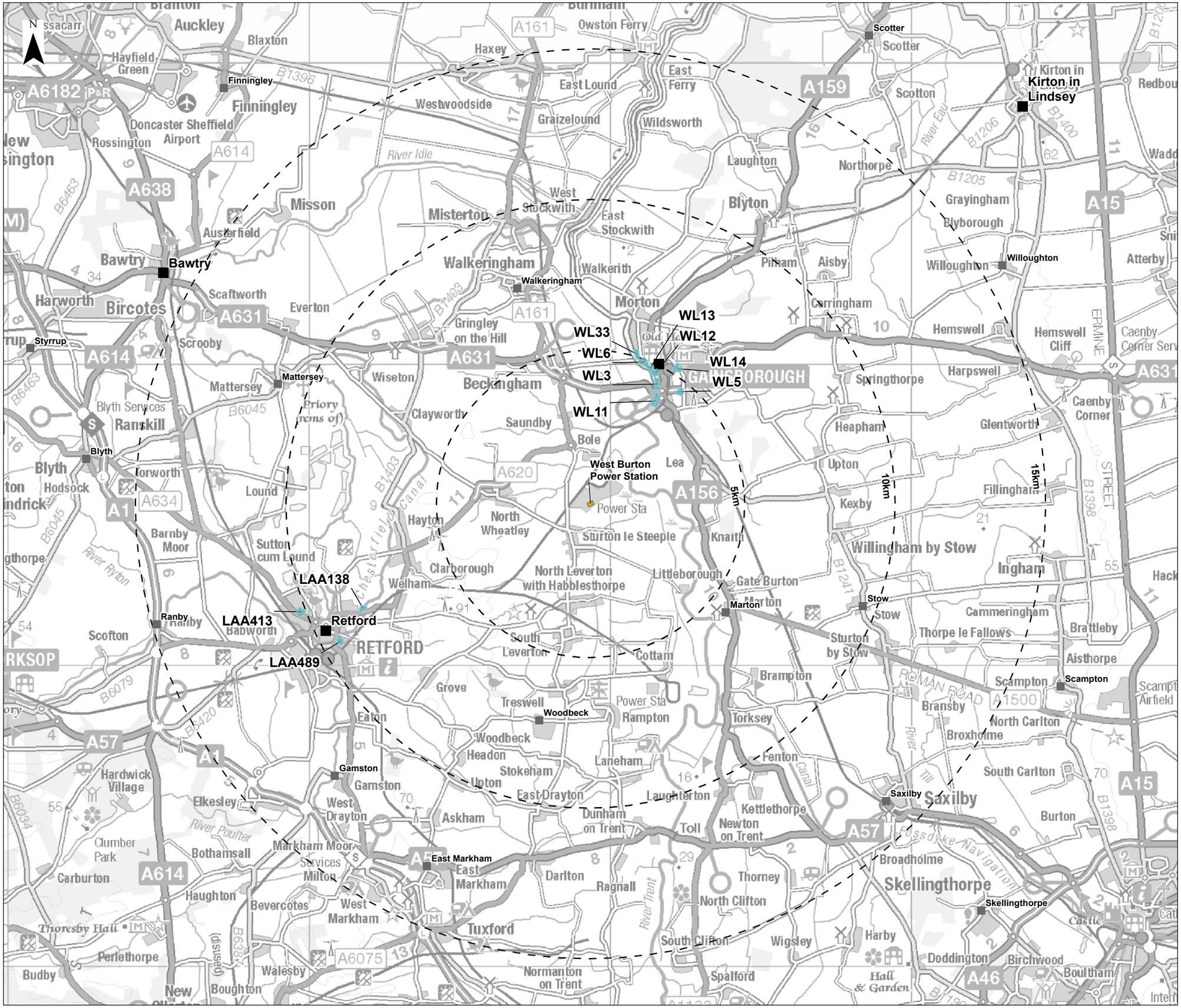
0 2 4 6 km

Scale: 1:120,000@ A3

APFP Regulation: 5(2)(a)	Application Doc No. WB6.4.5.3
Ref: P2983_LPR_ZZ_ON_DR_Z_0219	Date: 24/01/2023
Drawn by: AZ	Checked by: BR

Figure 5.3
West Burton
Unconstrained Land

WEST BURTON SOLAR PROJECT
Alternatives and Design Evolution
Environmental Statement (ES)



Island GREEN POWER

Lanpro

Key

- West Burton Power Station
- Area of Search
- Brownfield Site (>1ha)

Layers: North Kesteven Council, 2023; Lincoln City Council, 2023; West Lindsey District Council, 2023; Bassetlaw District Council, 2023 ; National Grid, 2023; Lanpro, 2023
Base map: Contains OS data © Crown copyright and database right 2023

0 2 4 6 km
Scale: 1:120,000@ A3

APFP Regulation: 5(2)(a)	Application Doc No. WB6.4.5.4
Ref: P2983_LPR_ZZ_ON_DR_Z_0220	Date: 24/01/2023
Drawn by: AZ	Checked by: BR

Figure 5.4
West Burton
Brownfield Sites

WEST BURTON SOLAR PROJECT
Alternatives and Design Evolution
Environmental Statement (ES)

Island GREEN POWER

Lanpro

Key

- West Burton Power Station
- Area of Search
- Unconstrained Land

OS Terrain 50 Slope

- >=3% Gradient

Layers: Ordnance Survey, 2023; National Grid, 2023; Lanpro, 2023
Base map: Contains OS data © Crown copyright and database right 2023

0 2 4 6 km

Scale: 1:120,000@ A3

APFP Regulation: 5(2)(a)	Application Doc No. WB6.4.5.5
Ref: P2983_LPR_ZZ_ON_DR_Z_0221	Date: 24/01/2023
Drawn by: AZ	Checked by: BR

Figure 5.5
West Burton
Topographic Gradient

WEST BURTON SOLAR PROJECT
Alternatives and Design Evolution
Environmental Statement (ES)

Island GREEN POWER

Lanpro

Key

- West Burton Power Station
- Area of Search
- Residual Unconstrained Land <3% Gradient Topography

Layers: Ordnance Survey, 2023; National Grid, 2023; Lanpro, 2023
Base map: Contains OS data © Crown copyright and database right 2023

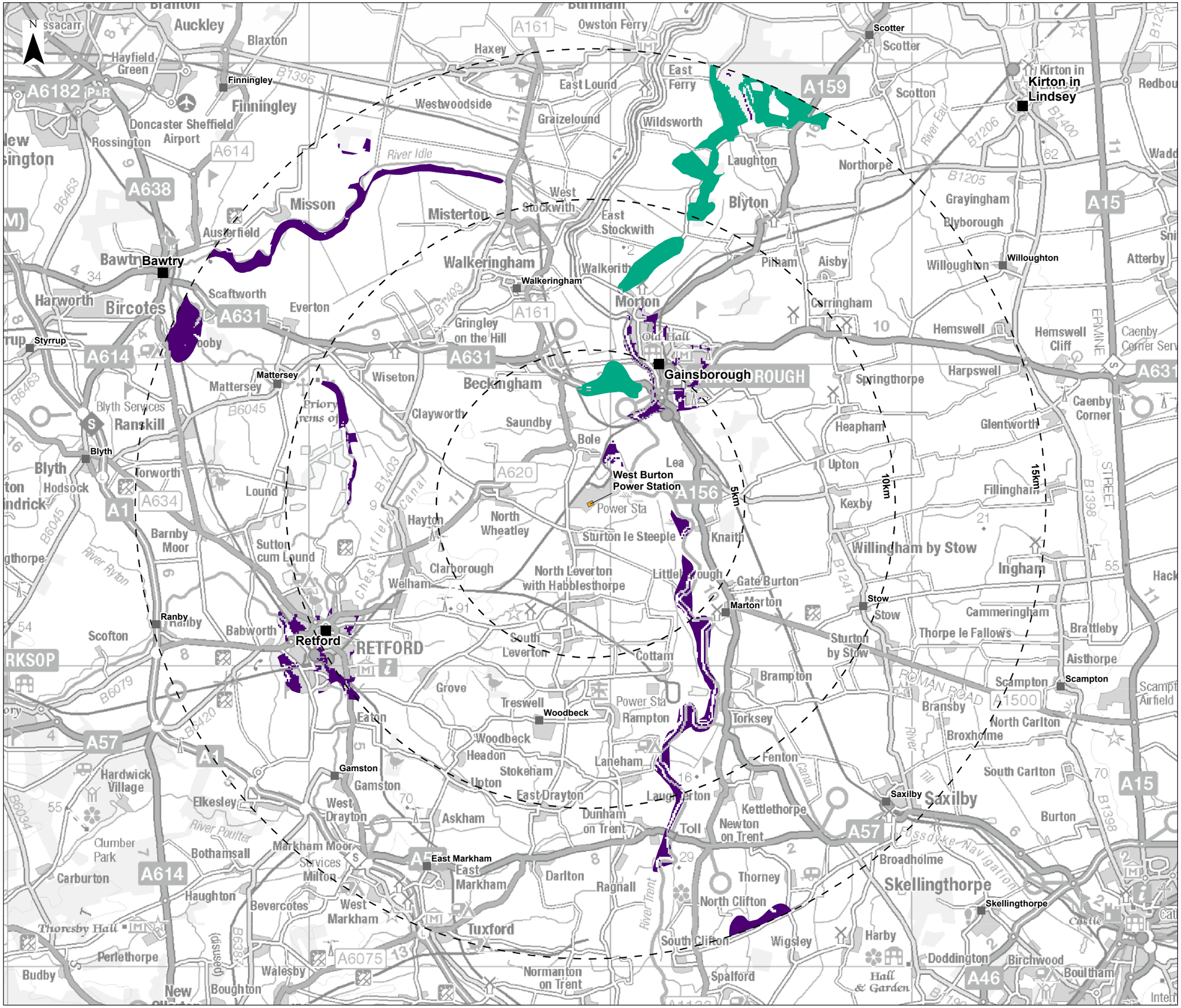
0 2 4 6 km

Scale: 1:120,000@ A3

APFP Regulation: 5(2)(a)	Application Doc No. WB6.4.5.6
Ref: P2983_LPR_ZZ_ON_DR_Z_0222	Date: 24/01/2023
Drawn by: AZ	Checked by: BR

Figure 5.6
West Burton
Residual Unconstrained Land

WEST BURTON SOLAR PROJECT
Alternatives and Design Evolution
Environmental Statement (ES)



Island GREEN POWER

Lanpro

Key

- West Burton Power Station
- Area of Search
- Area not suitable due to proximity, shape and or size
- Residual Unconstrained Land <3% Gradient Topography

Layers: Ordnance Survey, 2023; National Grid, 2023; Lanpro, 2023
Base map: Contains OS data © Crown copyright and database right 2023

0 2 4 6 km

Scale: 1:119,931@ A3

APFP Regulation: 5(2)(a)	Application Doc No. WB6.4.5.7
Ref: P2983_LPR_ZZ_ON_DR_Z_0223	Date: 24/01/2023
Drawn by: AZ	Checked by: BR

Figure 5.7
West Burton
Selected Residual Unconstrained Land

WEST BURTON SOLAR PROJECT
Alternatives and Design Evolution
Environmental Statement (ES)

Island GREEN POWER

Lanpro

Key

- West Burton Power Station
- Area of Search
- West Burton Original Site Area
- Area not suitable due to proximity, shape and or size
- Residual Unconstrained Land <3% Gradient Topography

Potential Development Area

- PDA 1 - Gainsborough / Laughton

Layers: Ordnance Survey, 2023; National Grid, 2023; Lanpro, 2023
Base map: Contains OS data © Crown copyright and database right 2023

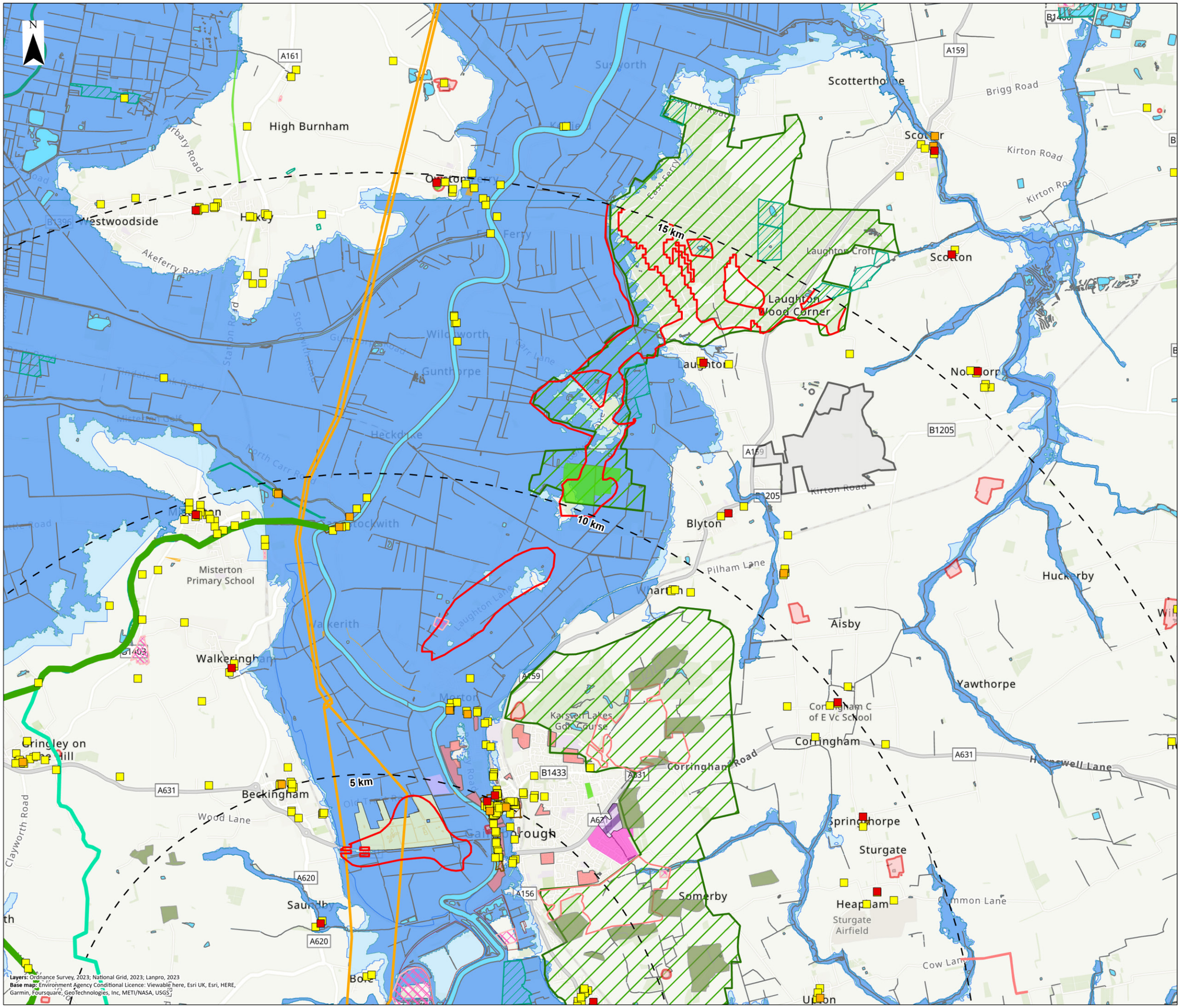
0 2 4 6 km

Scale: 1:120,000@ A3

APFP Regulation: 5(2)(a)	Application Doc No. C6.4.5.8
Ref: P2981_LPR_ZZ_ON_DR_Z_0228	Date: 24/01/2023
Drawn by: AZ	Checked by: BR

Figure 5.8
West Burton
Potential Development Areas

WEST BURTON SOLAR PROJECT
Alternatives and Design Evolution
Environmental Statement (ES)



Layers: Ordnance Survey, 2023; National Grid, 2023; Lanpro, 2023
Base map: Environment Agency Conditional Licence: Viewable here, Esri UK, Esri, HERE, Garmin, Foursquare, GeoTechnologies, Inc, METI/NASA, USGS

Island GREEN POWER

Lanpro

Key

- Potential Development Area
- Area of Search
- Land offered following agent enquiry

Listed Building

- Grade I
- Grade II*
- Grade II
- Scheduled Monument
- Ancient Woodland
- Historic Landfill Site
- Authorised Landfill Site
- Site of Special Scientific Interest (SSSI)
- Local Nature Reserve (LNR)
- Local Wildlife Site (LWS)
- RSPB Boundary
- CRoW Conclusive Registered Common Land
- Water body
- Flood Zone 3
- Flood Zone 2

National Grid

- 400kV Overhead Line

Local Plan Constraints

- Allocated Sustainable Urban Extension
- Allocated Residential Site
- Area of Great Landscape Value
- Existing Employment
- Important Established Employment Area
- Strategic Employment Site
- Main Green Corridor
- Minor Green Corridor

0 1 2 3 km

Scale: 1:60,000@ A3

APFP Regulation: 5(2)(a)	Application Doc No. WB6.4.5.9
Ref: P2983_LPR_ZZ_ON_DR_Z_0239	Date: 27/01/2023
Drawn by: AZ	Checked by: BR

Figure 5.9
West Burton
PDA 1 - Gainsborough / Laughton Constraints

WEST BURTON SOLAR PROJECT
Alternatives and Design Evolution
Environmental Statement (ES)

Island GREEN POWER

Lanpro

Key

- Potential Development Area
- Area of Search
- Cottam Power Station
- Land offered following agent enquiry
- Excluded from scheme as a result of stakeholder engagement and Best and Most Versatile (BMV) land assessment

Listed Building

- Grade I
- Grade II*
- Grade II
- Scheduled Monument
- Registered Park and Garden
- Ancient Woodland
- Historic Landfill Site
- Authorised Landfill Site
- Site of Special Scientific Interest (SSSI)
- Local Nature Reserve (LNR)
- Local Wildlife Site (LWS)
- RSPB Boundary
- CRoW Conclusive Registered Common Land
- National Cycle Network
- Water body
- Flood Zone 3
- Flood Zone 2

National Grid

- 400kV Overhead Line

Local Plan Constraints

- Allocated Sustainable Urban Extension
- Allocated Residential Site
- Area of Great Landscape Value
- Existing Employment
- Green Gaps
- Green Wedge
- Important Established Employment Area
- Strategic Employment Site
- Main Green Corridor
- Minor Green Corridor

0 1 2 3 4 5 km

Scale: 1:80,000@ A3

APFP Regulation: 5(2)(a)	Application Doc No. WB6.4.5.9
Ref: P2983_LPR_ZZ_ON_DR_Z_0247	Date: 30/01/2023
Drawn by: AZ	Checked by: BR

Figure 5.10
West Burton
Original Site Area Constraints

WEST BURTON SOLAR PROJECT
Alternatives and Design Evolution
Environmental Statement (ES)

Island GREEN POWER

Lanpro

Key

- West Burton Power Station
- Area of Search
- Unconstrained Grade 3 Land

0 2 4 6 km

Scale: 1:120,000@ A3

APFP Regulation: 5(2)(a)	Application Doc No. WB6.4.5.10
Ref: P2983_LPR_ZZ_ON_DR_Z_0240	Date: 27/01/2023
Drawn by: AZ	Checked by: BR

Figure 5.11
West Burton
Grade 3 Unconstrained Land

WEST BURTON SOLAR PROJECT
Alternatives and Design Evolution
Environmental Statement (ES)

Island GREEN POWER

Lanpro

Key

- West Burton Power Station
- Area of Search
- Excluded from scheme as a result of stakeholder engagement and Best and Most Versatile (BMV) land assessment
- Excluded from the scheme as identified as a cumulative development
- Unconstrained Grade 3 Land

0 2 4 6 km

Scale: 1:120,000@ A3

APFP Regulation: 5(2)(a)	Application Doc No. WB6.4.5.11
Ref: ?2983_LPR_ZZ_ON_DR_Z_0241	Date: 27/01/2023
Drawn by: AZ	Checked by: BR

Figure 5.12
West Burton
Grade 3 Unconstrained Land with Excluded Areas

WEST BURTON SOLAR PROJECT
Alternatives and Design Evolution
Environmental Statement (ES)

Island GREEN POWER

Lanpro

Key

- West Burton Power Station
- Area of Search
- Order Limits
- Excluded from scheme as a result of stakeholder engagement and Best and Most Versatile (BMV) land assessment
- Excluded from the scheme as identified as a cumulative development
- Land identified by land agent enquiry
- Unconstrained Grade 3 Land

West Burton Power Station

5km

10km

15km

Layers: Ordnance Survey, 2023; National Grid, 2023; Lanpro, 2023
Base map: Contains OS data © Crown copyright and database right 2023

0 2 4 6 km

Scale: 1:120,000@ A3

APFP Regulation: 5(2)(a)	Application Doc No. WB6.4.5.12
Ref: P2983_LPR_ZZ_ON_DR_Z_0242	Date: 27/01/2023
Drawn by: AZ	Checked by: BR

Figure 5.13
Large Scale Land Ownerships Identified by Local Agents

WEST BURTON SOLAR PROJECT
Alternatives and Design Evolution
Environmental Statement (ES)

Island GREEN POWER

Lanpro

Key

- West Burton Power Station
- Area of Search
- Excluded from scheme as a result of stakeholder engagement and Best and Most Versatile (BMV) land assessment
- Excluded from the scheme as identified as a cumulative development
- Land identified by land agent enquiry
- Order Limits
- Unconstrained Grade 3 Land

Grade 3 Potential Development Area

- PDA 2 Wiseton and Clayworth
- PDA 3 Sturton Le Steeple
- PDA 4 Dunham High Marnham

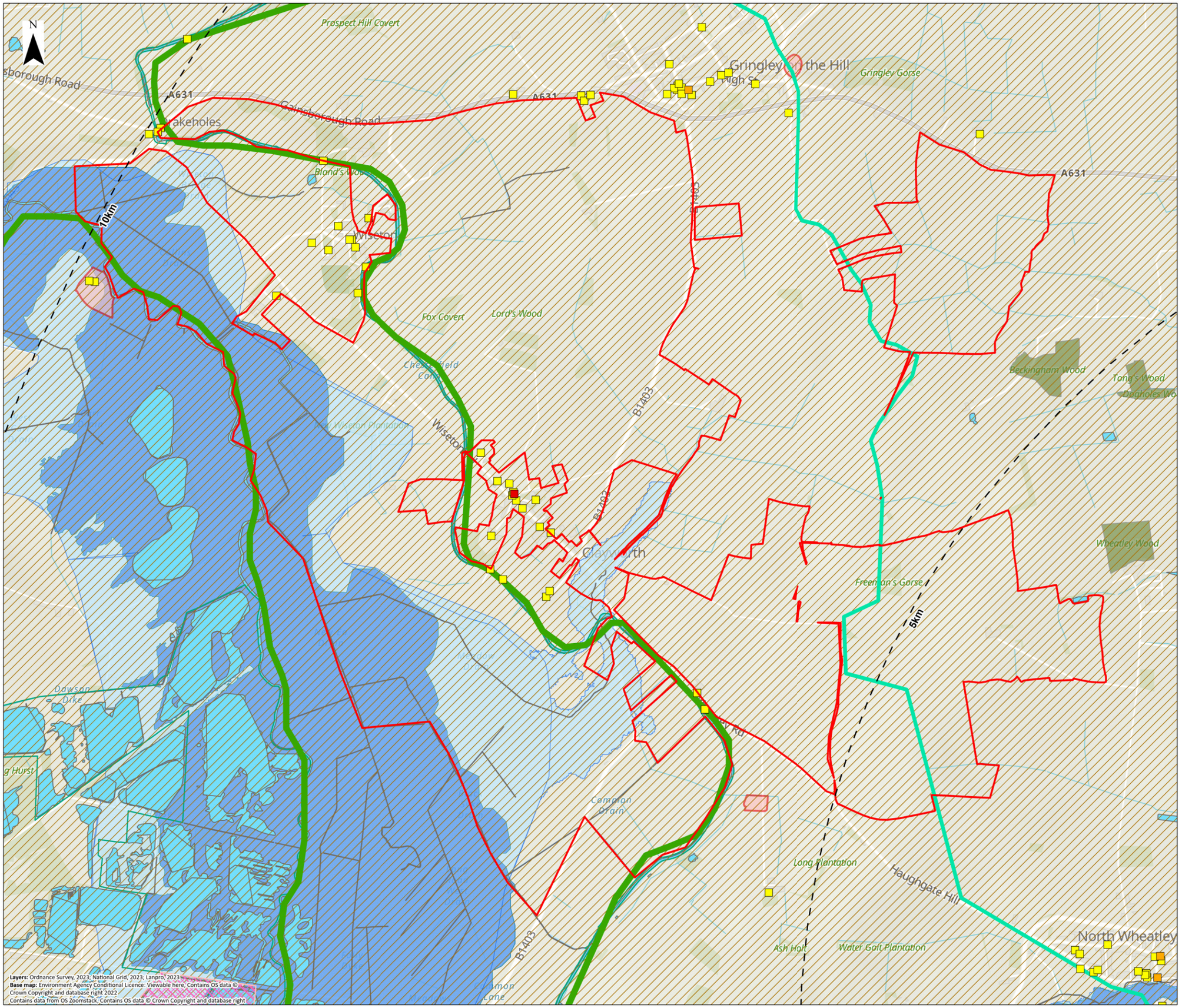
Layers: Ordnance Survey, 2023; National Grid, 2023; Lanpro, 2023
Base map: Contains OS data © Crown copyright and database right 2023

0 2 4 6 km
Scale: 1:120,000@ A3

APFP Regulation: 5(2)(a)	Application Doc No. WB6.4.5.13
Ref: P2983_LPR_ZZ_ON_DR_Z_0243	Date: 27/01/2023
Drawn by: AZ	Checked by: BR

Figure 5.14
West Burton
Grade 3 Land Potential Development Areas

WEST BURTON SOLAR PROJECT
Alternatives and Design Evolution
Environmental Statement (ES)



Island GREEN POWER

Lanpro

Key

- Area of Search
- Grade 3 Land Potential Development Area

Listed Building

- Grade I
- Grade II*
- Grade II
- Conservation Area
- Scheduled Monument
- Ancient Woodland
- Historic Landfill Site
- Site of Special Scientific Interest (SSSI)
- Water body
- Flood Zone 3
- Flood Zone 2
- Main Green Corridor
- Minor Green Corridor

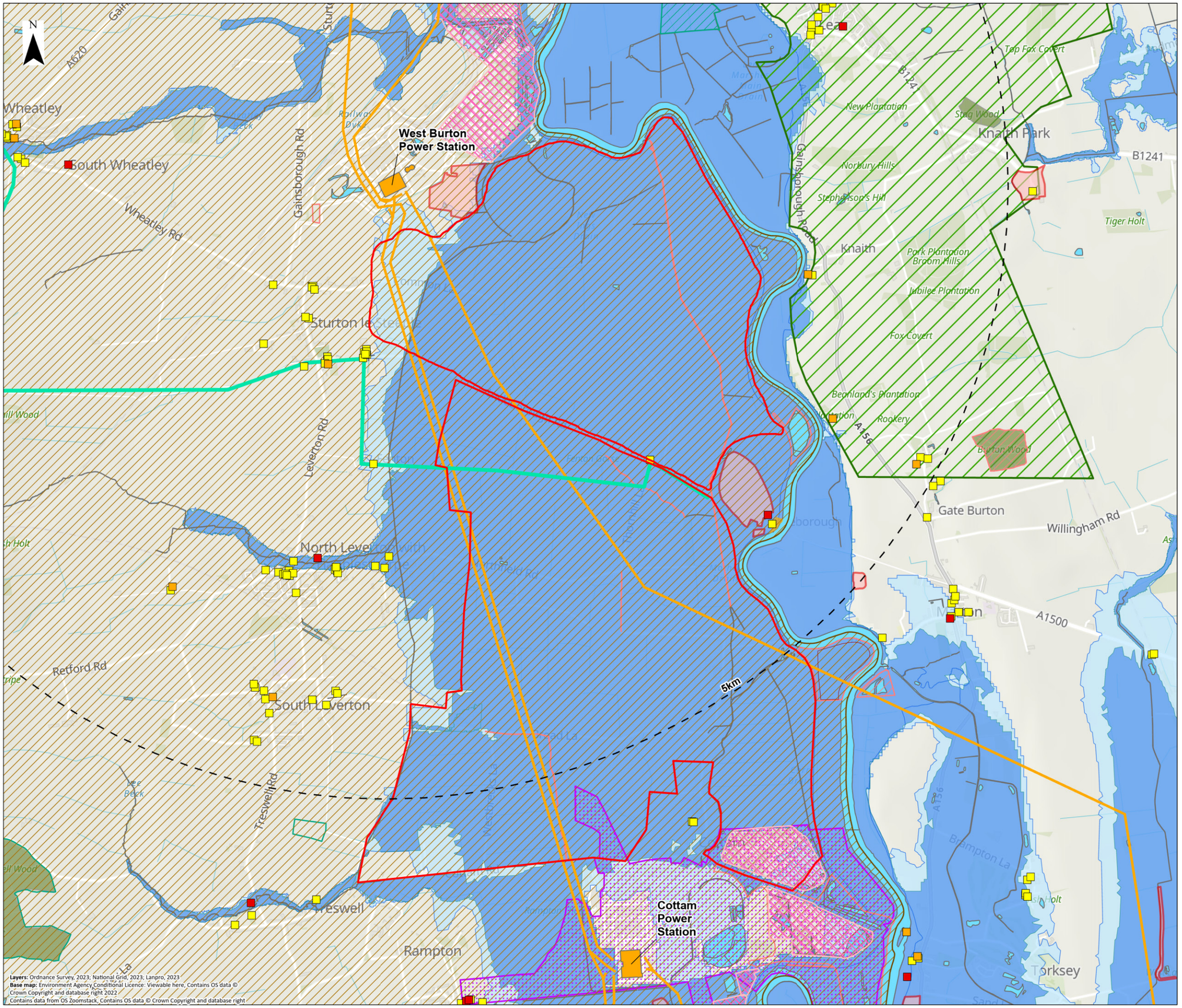
0 500 1,000 Metres

Scale: 1:20,000@ A3

APFP Regulation: 5(2)(a)	Application Doc No. WB6.4.5.15
Ref: P2983_LPR_ZZ_ON_DR_Z_0245	Date: 21/03/2023
Drawn by: AZ	Checked by: BR

Figure 5.15
West Burton
Grade 3 Land - PDA 2 Wiseton and Clayworth Constraints

WEST BURTON SOLAR PROJECT
Alternatives and Design Evolution
Environmental Statement (ES)



Island GREEN POWER

Lanpro

Key

- Power Station
- Area of Search
- Grade 3 Land Potential Development Area

Listed Building

- Grade I
- Grade II*
- Grade II
- Conservation Area
- Scheduled Monument
- Ancient Woodland
- Historic Landfill Site
- Authorised Landfill Site
- Site of Special Scientific Interest (SSSI)
- Local Wildlife Site (LWS)
- CRoW Conclusive Registered Common Land
- Water body
- Flood Zone 3
- Flood Zone 2

National Grid

- 400kV Overhead Line

Local Plan Constraints

- Area of Great Landscape Value
- Cottam Power Station Priority Regeneration Area
- Minor Green Corridor

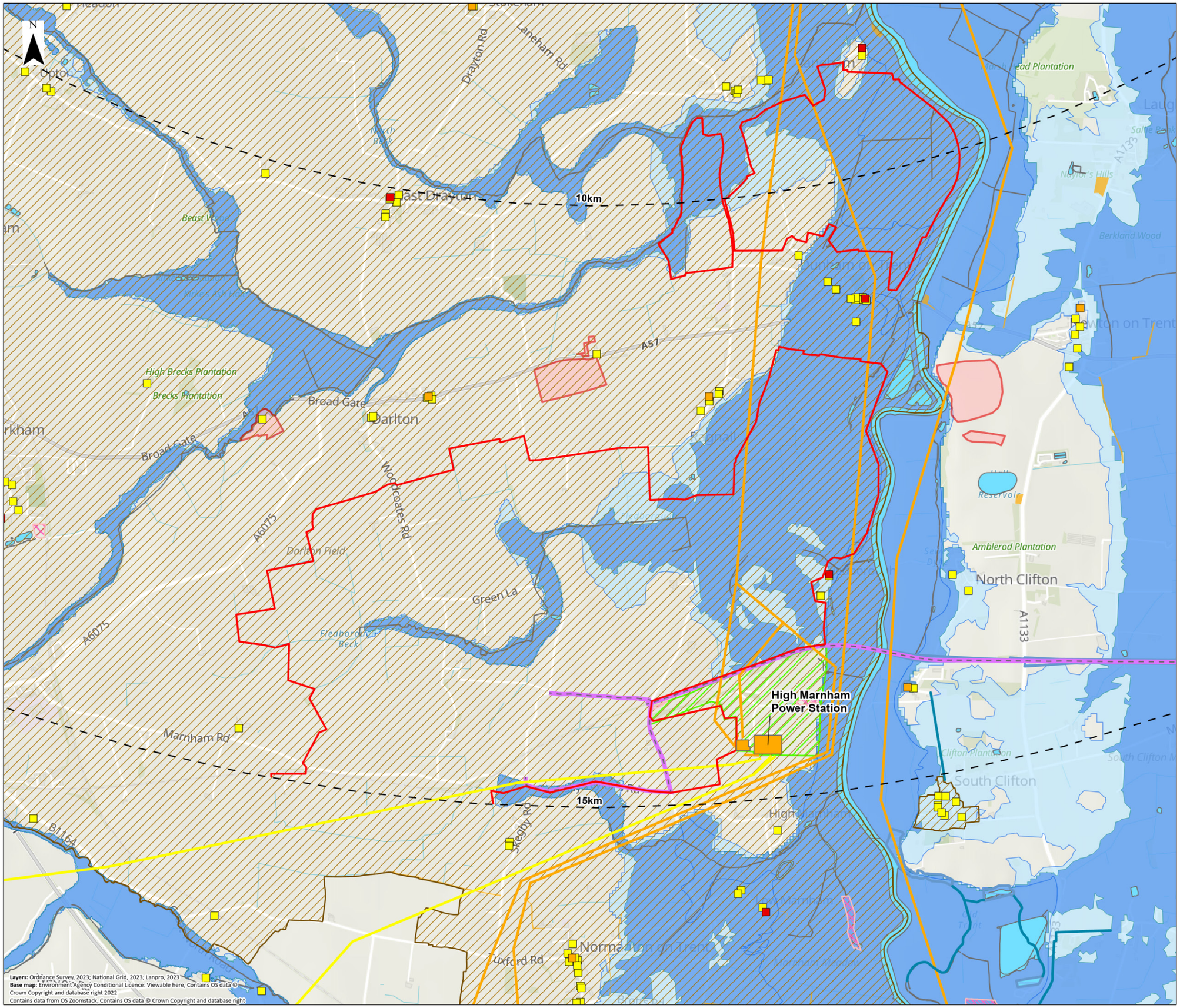
0 500 1,000 1,500 Metres

Scale: 1:30,000@ A3

APFP Regulation: 5(2)(a)	Application Doc No. WB6.4.5.16
Ref: P2983_LPR_ZZ_ON_DR_Z_0245	Date: 21/03/2023
Drawn by: AZ	Checked by: BR

Figure 5.16
West Burton
Grade 3 Land - PDA 3 Sturton Le Steeple Constraints

WEST BURTON SOLAR PROJECT
Alternatives and Design Evolution
Environmental Statement (ES)



Island GREEN POWER

Lanpro

Key

- Power Station
- Area of Search
- Grade 3 Land Potential Development Area

Listed Building

- Grade I
- Grade II*
- Grade II
- Conservation Area
- Scheduled Monument
- Historic Landfill Site
- CRoW Conclusive Registered Common Land
- Water body
- Flood Zone 3
- Flood Zone 2
- National Cycle Network

National Grid

- 400kV Overhead Line
- 275kV Overhead Line

Local Plan Constraints

- Site of Importance for Nature Conservation
- Area best of fit for renewable energy generation
- Site of Interest in Nature Conservation

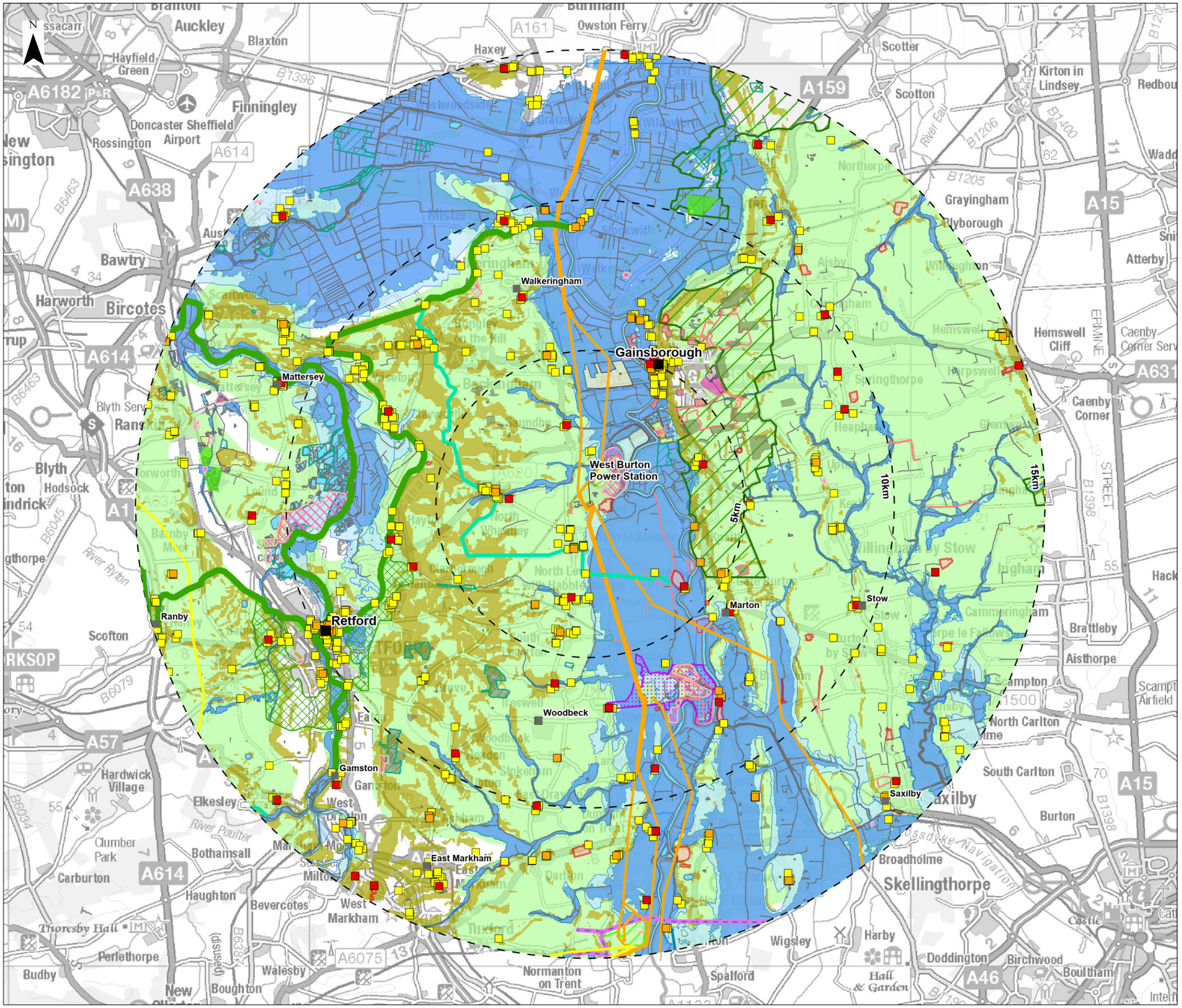
0 500 1,000 1,500 Metres

Scale: 1:30,000@ A3

APFP Regulation: 5(2)(a)	Application Doc No. WB6.4.5.17
Ref: P2983_LPR_ZZ_ON_DR_Z_0245	Date: 21/03/2023
Drawn by: AZ	Checked by: BR

Figure 5.17
West Burton
Grade 3 Land - PDA 4 Dunham High Marnham Constraints

WEST BURTON SOLAR PROJECT
Alternatives and Design Evolution
Environmental Statement (ES)



Island GREEN POWER

Lanpro

Key

- West Burton Power Station
- Area of Search

Listed Building

- Grade I
- Grade II*
- Grade II
- Conservation Area
- Scheduled Monument
- Registered Park and Garden
- Ancient Woodland
- Historic Landfill Site
- Authorised Landfill Site
- Site of Special Scientific Interest (SSSI)
- Local Nature Reserve (LNR)
- Local Wildlife Site (LWS)
- RSPB Boundary
- CRoW Conclusive Registered Common Land
- Water body
- Flood Zone 3
- Flood Zone 2
- Unconstrained Grade 3 Land

OS Terrain 50 Slope

- >=3% Gradient
- National Cycle Network

National Grid

- 400kV Overhead Line
- 275kV Overhead Line

Local Plan Constraints

- Allocated Sustainable Urban Extension
- Allocated Residential Site
- Apleyhead Junction
- Area of Great Landscape Value
- Existing Employment
- Green Gaps
- Green Wedge
- Important Established Employment Area
- New Employment
- Strategic Employment Site
- Site of Importance for Nature Conservation
- Lincolnshire Showground
- Area best of fit for renewable energy generation
- Cottam Power Station Priority Regeneration Area
- Main Green Corridor
- Minor Green Corridor
- Site of Interest in Nature Conservation

Layers: Ordnance Survey, 2022; National Grid, 2022; Lanpro, 2022
Base map: Environment Agency Conditional Licence: Viewable here

0 2 4 6 km

Scale: 1:120,000@ A3

APFP Regulation: 5(2)(a)	Application Doc No. WB6.4.5.17
Ref: P2983_LPR_ZZ_ON_DR_Z_0246	Date: 01/12/2022
Drawn by: AZ	Checked by: BR

Figure 5.18
West Burton
Overall Constraints

WEST BURTON SOLAR PROJECT
Alternatives and Design Evolution
Environmental Statement (ES)

Annex E Potential Development Area Proformas

Table 1: PDAs on Grades 4, 5 agricultural land and unclassified land

	Site 1 Gainsborough/Laughton		West Burton original draft site area (for comparison)	
Size (ha)	**1170**		**1160**	
Indicator	**RAG**	**Justification**	**RAG**	**Justification**
Land use		Laughton Forest Forestry Commission leased woodland included within the site boundary. This is primarily coniferous plantation woodland cropped on a rotational basis with some public recreational access. Although there is potential for solar development to follow the cropping regime and potentially improve biodiversity, loss of forest would potentially be difficult		Primarily agricultural land. Excludes 100% Best and Most Versatile (BMV) agricultural land according to Natural England mapping. No Registered Common Land within the Sites. No SSSIs within the Sites. No Ancient Woodland within the Sites No Local Plan allocations within the Sites. No designated heritage assets within the site.

		from a public relations perspective. Excludes 100% Best and Most Versatile (BMV) agricultural land according to Natural England mapping.		The site has willing landowners and no land use conflicts.
Grid Connection		Land parcels located within 0-15 km from POC Requirement to cross River Trent. Requirement to cross A631. Requirement to cross Doncaster-Lincoln rail line. Requirement to cross Sheffield-Lincoln rail line.		Land parcels are located within 5-15km of POC. Requirement to cross River Trent. Requirement to cross A156 Requirement to cross Sheffield-Lincoln rail line.
Ecology and Biodiversity		Land parcels located immediately adjacent Laughton Common		No international, national or locally designated sites

		SSSI, Scotton Common SSSI and within 1km of Scotton Beck Field SSSI and Scotton and Laughton Forest Ponds SSSI. A Local Nature Reserve is also included within the site and RSPB Beckingham Marshes.		either within or adjoining the land parcels.
Landscape and Visual		Central Lincolnshire Local Plan designation 'Area of High Landscape Value LP17' covers the majority of this PDA.		No National Parks and AONBs within or adjacent to the Order Limits. Area of great landscape value designated approx. 1.5km north of West Burton 3 and 2km east of West Burton 1.
Cultural Heritage		Southern two land parcels located 0.5-1km of a range of Grade II, II* and 1 Listed buildings.		No listed buildings, Historic Parks and Gardens or Conservation Areas within the site. No Scheduled Monuments within the order Limits but Broxholme medieval settlement and cultivation remains (NHLE 1016797) directly abuts the south-western corner of West

				Burton 1, the western edge and south-eastern corners of the Deserted Village of North Ingleby (NHLE 1003570) directly abut the West Burton 2 Site. The Medieval bishop's palace and deer park, Stow Park (NHLE 1019229), abuts the West Burton 3 site. A number of Grade II listed buildings within close proximity to the sites.
Access for Construction Traffic		Sites within close proximity of A159. Constraints on local roads may require mitigation.		Sites within close proximity to A1500, A156 and A57 and A631. No significant transport and access effects are identified in the **Transport and Access ES chapter EN010132/APP/WB6.2.14].** Nevertheless, a Public Rights of Way Management plan and Construction Traffic Management Plan will be implemented.
Flood Risk		Majority of the four land parcels are		Majority of land parcels are within flood zone 1

		within Flood Zone 3. Only the most northerly parcel is solely flood zone 1.		with remainder in zone 2 and 3.
Solar Array Shading		With the exception of the southern land parcel, all are constrained by woodland cover either within or adjacent to the land parcels.		Site is largely unconstrained by trees either within or on boundaries of site.
Topography		Less than 3% gradient.		Less than 3% gradient.

Table 2: PDAs on Grade 3 agricultural land

	Site 2 Wiseton/Clayworth		Site 3 Sturton Le Steeple		Site 4 Dunham/High Marnham		West Burton original draft site area	
Size (ha)	1401		1608		1682		1160	
Indicator	**RAG**	**Justification**	**RAG**	**Justification**	**RAG**	**Justification**	**RAG**	**Justification**
Land use		Primarily agricultural land. Identified as Grade 3 agricultural land according to Natural England mapping. May include Best and Most Versatile (BMV) agricultural land. Proportion unknown. Meetings with landowners confirmed unwilling to pursue solar		Primarily agricultural land. Identified as Grade 3 agricultural land according to Natural England mapping. May include Best and Most Versatile (BMV) agricultural land. Proportion unknown. Discussions undertaken with landowner who was not willing		Primarily agricultural land. Identified as Grade 3 agricultural land according to Natural England mapping. May include Best and Most Versatile (BMV) agricultural land. Proportion unknown. Adjacent to recent draft allocation ST51 Area of Best Fit		Primarily agricultural land. Excludes 100% Best and Most Versatile (BMV) agricultural land according to Natural England mapping. No Registered Common Land within the Sites. No SSSIs within the Sites. No Ancient Woodland within the Sites No Local Plan allocations within the Sites. No designated heritage assets within the site.

		development on south east land parcel at this time and unsure about north east land parcel which was also visually prominent so was discounted.		to allow solar development north of the Roman Road at that time, partly due to large consented quarry to the east of the area and associated access through the land to the west. Land south of the Roman road is partly under the same ownership, but also made up of much smaller land holdings. The complexity and costs associated with multiple land ownerships was prohibitive. Partly encompasses		for Renewable Energy Development' Bassetlaw Local Plan 2020-2037 Publication Version Addendum.		The site has willing landowners and no land use conflicts.

				Cottam Power Station Priority Regeneration Area, Policy ST6, Bassetlaw Draft Local Plan where mixed use development is proposed.				
Grid Connection		Majority of land located within 5-10km of POC Requirement to cross A620. Requirement to cross Retford-Gainsborough rail line.		Majority of land within 0-5km of the POC. Large area adjacent to POC.		Majority of land within 10-15km of POC. Requirement to cross A57. Better located for connection to High Marnham POC which is adjacent. National Grid preference for connection at Cottam POC at time of site selection.		Land parcels are located within 5-15km of POC. Requirement to cross River Trent. Requirement to cross A156 Requirement to cross Sheffield-Lincoln rail line.

Ecology and Biodiversity		Main and Minor Green Corridor Local Plan designation crosses site. No international, national or locally designated sites either within or adjacent the site. Ancient woodlands within 1km.		No international, or nationally designated sites either within or adjacent the site. Local Wildlife Site located within site boundary and adjacent.		No international, national or locally designated sites either within or adjacent the site.		No international, national or locally designated sites either within or adjoining the land parcels.
Landscape and Visual		No national or local landscape designations. The north east land parcel was found to be highly visible following a site visit.		No national or local landscape designations. Views from Area of Great Landscape Value located immediately east of the site across River Trent likely to require mitigation.		No national or local landscape designations.		No National Parks and AONBs within or adjacent to the Order Limits. Area of great landscape value designated approx. 1.5km north of West Burton 3 and 2km east of West Burton 1.

Cultural Heritage		Grade II listed buildings within the site and Grade I and II adjacent. Scheduled ancient monuments immediately adjacent and within close proximity to the site. Scope to adjust site boundary to exclude Listed buildings from site. Considered inappropriate to surround Grade 1 listed Church and other listed buildings at Clayworth with solar development.		Immediately adjacent scheduled monument (Roman Fort, south of Littleborough Lane). Scattered listed buildings within the vicinity.		Scattered listed buildings including Grade I adjacent and Three Ancient Monuments within 1km.		No listed buildings, Historic Parks and Gardens or Conservation Areas within the site. No Scheduled Monuments within the order Limits but Broxholme medieval settlement and cultivation remains (NHLE 1016797) directly abuts the south-western corner of West Burton 1, the western edge and south-eastern corners of the Deserted Village of North Ingleby (NHLE 1003570) directly abut the West Burton 2 Site. The Medieval bishop's palace and deer park, Stow Park (NHLE 1019229), abuts the West Burton 3 site. A number of Grade II listed buildings within close proximity to the sites.

Access for Construction Traffic		Site adjoins A631. No obvious access constraints.		Site adjacent A1500. No obvious access constraints.		Site within close proximity to A57. No obvious access constraints.		Sites within close proximity to A1500, A156 and A57 and A631. No significant transport and access effects are identified in the **Transport and Access ES chapter [EN010132/APP/WB6.2.14]**. Nevertheless, a Public Rights of Way Management plan and Construction Traffic Management Plan will be implemented.
Flood Risk		Majority of Site within flood zone 1 with areas of flood zone 2 and 3.		Vast majority of the Site is within Flood Zone 3 with small pockets around periphery within flood zones 2 and 1. Flooding is associated with the River Trent which is immediately adjacent.		Majority of northern land parcel is flood zone 3 with pockets of zone 1 and 2. Approximately a third of southern land parcel is zone 3. Remainder is primarily zone 1 with pockets of zone 2. Flooding is associated with		Majority of land parcels are within flood zone 1 with remainder in zone 2 and 3.

						the River Trent which is adjacent.		
Solar Array Shading		Site is largely unconstrained by trees either within or on boundaries of site.		Site is largely unconstrained by trees either within or on boundaries of site.		Site is largely unconstrained by trees either within or on boundaries of site.		Site is largely unconstrained by trees either within or on boundaries of site.
Topography		Less than 3% gradient.		Less than 3% gradient.		Less than 3% gradient.		Less than 3% gradient.