6 New Bridge Street
London EC4V 6AB
T: 020 7489 0213
F: 020 7248 4743
E: info@dwdllp.com
W: dwdllp.com

VICARAGE DROVE SOLAR FARM

LAND NORTH-WEST OF BICKER

PLANNING, DESIGN AND ACCESS STATEMENT

Date: September 2021
DWD Ref: 15349

September 2021
DWD Ref: 15349

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REVISION	DESCRIPTION	ORIGINATED	CHECKED	REVIEWED	AUTHORISED	DATE
1	Draft	LB	NB	NB	NB	14/07/21
2	Draft	LB	NB	NB	NB	16/08/21
3	Final	LB	NB	NB	NB	15/09/21
DWD Job Number: 15349						

EXECUTIVE SUMMARY

Renewable Connections Developments Ltd ('Renewable Connections') is seeking planning permission from Boston Borough Council for the construction and operation of a solar photovoltaic farm with battery storage and associated infrastructure on agricultural land located to the north-west of Bicker. The proposal is referred to collectively as the 'Proposed Development' and the project is known as 'Vicarage Drove Solar Farm'.

The primary purpose of this Planning, Design and Access Statement is to set out the planning case for the Proposed Development, including with reference to local and national planning policy. This statement should be read in conjunction with the other documents that comprise the planning application submission, including the numerous environmental and technical reports that have been produced.

The principle of renewable energy, such as solar power, is supported by local and national planning policy. It is also notable that Boston Borough Council has declared a climate emergency and the UK Government has committed to meeting a legally binding target of net-zero carbon emissions by 2050, which requires significant investment in the development of renewable energy infrastructure locally and throughout the UK.

The Applicant has carried out a meaningful pre-application consultation exercise in respect of the Proposed Development, primarily focused on the local community, but also including consultation with the Council and other stakeholders. The Applicant has listened to the views expressed by consultees and has made changes to the Proposed Development to help address and mitigate concerns. The changes include: an amendment to the proposed construction traffic route, additional screen planting and standoffs from sensitive features.

The Proposed Development complies with relevant planning policy and there are significant benefits associated with it. The environmental and technical reports that form part of the planning application submission demonstrate that there would be no unacceptable environmental impacts.

These factors, when combined with the significant need for renewable energy, mean that the planning balance (and, in particular, when considered in the context of the tests under Section 38(6) Planning and Compulsory Purchase Act 2004) is weighted significantly in favour of the Proposed Development.

1.0 INTRODUCTION

Overview

1.1 This Planning, Design and Access Statement ('PDAS') has been prepared in support of an application for full planning permission submitted to Boston Borough Council (the 'Council') under the provisions of the Town and Country Planning Act 1990 (as amended) on behalf of Renewable Connections Developments Ltd (the 'Applicant').

1.2 The proposal comprises the construction and operation of a solar photovoltaic ('PV') farm with battery storage and associated infrastructure including inverters, substation compound, security cameras, fencing, access tracks and landscaping. The proposal is referred to collectively as the 'Proposed Development' and the project is known as ' Vicarage Drove Solar Farm'. It is estimated that the solar panels would generate around 49.9 megawatts ('MW') of renewable energy – enough electricity to power approximately 14,000 homes annually.

1.3 The proposed site (the 'Site') comprises approximately 80.36 hectares ('ha') of agricultural land located to the north-west of Bicker. The Site comprises 80.46 ha with the access track. The Site is within an area already characterised by wind energy turbines, pylons and substations.

1.4 The majority of the Site comprises Grade 3a land (good quality) and a smaller proportion of Grade 2 land (very good quality). It follows that the Site is farmed as a unit of Grade 3a land and is classed as such for the purposes of this planning application.

1.5 The UK Government has committed to meeting a legally binding target of net-zero carbon emissions by 2050 and the Council has declared a climate emergency. This requires major investment in proven technologies, such as solar and wind, which is supported by planning policy at local and national level. The Proposed Development would help to address this need by generating clean and renewable energy without the need for subsidies.

1.6 Planning permission is being sought to operate for 40 years, at which point it would be decommissioned and the land returned to its previous state.

Renewable Connections

1.7 Renewable Connections Developments Ltd ('Renewable Connections') is one of the most experienced renewable energy teams in the UK having developed over 1GW of solar projects globally since 2010. Renewable Connections work in partnership with European Energy, one of the largest operators of renewable energy plants across Europe.

Pre-application consultation

1.8 The Applicant has carried out a comprehensive and meaningful pre-application consultation exercise in respect of the Proposed Development, primarily focused on the local community, but also including consultation with the Council and other key consultees.

1.9 The Applicant sought pre-application advice from the Council and a formal written pre-application advice letter was issued on 10 February 2021. The Council was supportive of the scheme in principle.

1.10 The Applicant gave a presentation to Bicker Parish Council on 13 May 2021 outlining the initial proposals, the expected timeline, the key findings from the technical assessments, the proposed construction traffic route followed by a 'questions and answers' session.

1.11 The Applicant also scheduled an online community information event, to be carried out through Zoom, at 7pm on 29 April 2021 for which residents could register their interest. However, this event was cancelled due to a lack of interest and written responses received prior to the scheduled date, although the Applicant encouraged consultees to attend the abovementioned Bicker Parish Council meeting and spoke to a number of local residents directly.

1.12 As set out in the Consultation Report, the Proposed Development received some interest from the local community, including positive feedback. The views expressed by consultees have been listened to, resulting in changes and additions to the Proposed Development, including, amongst other things:

- The construction traffic route was originally proposed to route from the A52 to site via Fendike Lane, Fore Lane, Longhedge Drove and Bicker Drove, however, following consultation with Bicker Parish Council and in order to address concerns raised by residents, the Applicant sought to secure an alternative delivery route across third party land utilising an existing haul route connecting the A52 directly with Ing Drove;
- a landscape scheme with native planting has been designed to establish new planting and reinforce existing perimeter planting; to develop the structure of the local landscape and to ensure the protection of visual amenities.
- standoffs from sensitive features including badger setts in the north west of the Site.

1.13 The approach taken to consultation was informed by the South East Lincolnshire Joint Strategic Planning Committee Statement of Community Involvement (2012).

Environmental Impact Assessment

1.14 The Applicant submitted a request for an Environmental Impact Assessment ('EIA') Screening Opinion from the Council on 8th March 2021. The Council issued its Screening Opinion on 26th March 2021 which confirmed that an EIA is not required.

Planning Application Submission

1.15 The application submission consists of the following documents:

- Application Cover Letter;
- Application Form and Certificates;
- Community Infrastructure Levy ('CIL') form;
- Planning, Design and Access Statement (this document);
- Consultation Report;
- Alternative Site Assessment;
- Plans (the full of list of plans is itemised at Appendix A of this report);
- Landscape and Visual Impact Assessment including photomontages;
- Cultural Heritage Assessment;
- Geophysical Survey;
- Flood Risk Assessment and Drainage Strategy;
- Transport Report;
- Ecological Assessment; and
- Agricultural Land Classification Survey.

1.16 The planning application has been submitted electronically via the Planning Portal and the requisite application fee has been paid to the Council.

The Purpose and Structure of this Document

1.17 The primary purpose of this PDAS is to demonstrate how the design of the Proposed Development is a suitable response to the Site and its setting, and to demonstrate that it can be adequately accessed. Furthermore, how the Applicant has taken account of relevant planning policy and the extent to which the Proposed Development is compliant with the Statutory Development Plan.

1.18 In doing so, this PDAS draws upon and cross-refers, where relevant, to the other documents that form part of the planning application submission.

1.19 The PDAS has been prepared in accordance with Article 9 of the Town and Country Planning (Development Management Procedure) (England) Order 2015. Article 9 requires that all applications for major development, such as the Proposed Development, are accompanied by a 'design and access statement' that should:

- explain the design principles and concepts that have been applied to the development;
- demonstrate the steps taken to appraise the context of the development and how the design of the development takes that context into account;
- explain the policy adopted as to access, and how policies relating to access in relevant local development documents have been taken into account;
- state what, if any, consultation has been undertaken on issues relating to access to the development and what account has been taken of the outcome of any such consultation; and
- explain how any specific issues which might affect access to the development have been addressed.

1.20 The above details are primarily set out in Sections 5 and 6 of this document.

Structure

1.21 The remainder of this document is structured as follows:

Section	Title	Overview
Section 2	Need	Sets out the significant need that exists for solar and other renewables.
Section 3	The Site and surrounding area	Describes the Site and its key features, the planning history of relevance that relates to it, any local planning designations and allocations that apply, and the Applicant's site selection process.
Section 4	The Proposed Development	Provides an overview of the Proposed Development, including use, amount, layout, appearance and access.
Section 5	Design approach	Outlines the approach taken to the design of the Proposed Development.
Section 6	Design components	Provides the design and access details of the Proposed Development, including layout, use, amount, scale, appearance, access and landscaping.
Section 7	Planning policy context	Sets out the legislative and policy framework for the determination of the planning application.
Section 8	Assessment of the Proposed Development	Provides an assessment of the Proposed Development against relevant policy at national and local level.
Section 9	Summary and conclusions	Sets out the conclusions of this PDAS in terms of the overall acceptability of the Proposed Development.

2.0 NEED

2.1 There is a significant and quantifiable need for the deployment of solar farms and other renewable energy generation, which is being driven by government at local and national level in the UK.

2.2 In June 2019 the Government raised the UK's ambition on tackling climate change by legislating for a net-zero greenhouse gas emissions target for the whole economy by 2050. Decarbonising the power sector is integral to achieving this goal and requires major investment in proven technologies, such as solar and battery storage, which are supported by planning policy at local and national level.

2.3 The Committee on Climate Change ('CCC') published a report[1] entitled 'Reducing UK emissions Progress Report to Parliament' in June 2020. The report assesses the progress in reducing UK emissions and identifies climate policy priorities. It notes that the delivery of renewable energy generation must continue to progress with urgency in order to meet the UK's next Carbon Budget and that consistent deployment of low-carbon generation is a crucial to achieving the Net Zero target.

2.4 At local level, Boston Borough Council ('BBC') voted to declare a climate emergency in January 2020, acknowledging that urgent action is required to limit the environmental impacts produced by the climate crisis. BBC's Environmental Policy published in February 2021 states that the Council will *"Promote and encourage the development and use of renewable energy solutions".*

2.5 The Proposed Development could significantly contribute to this target. This is demonstrated by 2019 figures from the Department for Business, Energy and Industrial Strategy published in September 2020. This details that Boston Borough Council have 83MW of renewables, of which 40MW is Solar. This Proposed Development would increase their current renewable energy capacity by approximately 60 percent.

2.6 The National Infrastructure Commission ('NIC'), official advisor to the Government on infrastructure, has subsequently produced a report[2] (in March 2020) setting out the infrastructure required in order to meet the 2050 target, including the amount of new renewable energy development that would need to be deployed.

[1] https://www.theccc.org.uk/publication/reducing-uk-emissions-2020-progress-report-to-parliament/
[2] https://www.nic.org.uk/publications/net-zero-opportunities-for-the-power-sector/

2.7 Importantly, the NIC recommends the generation mix is up to around 90% renewables. At page 18 the report recommends that across all scenarios significant solar, onshore wind, and offshore wind, with between 129–237 gigawatts ('GW') of renewable capacity is in operation by 2050, including:

- 56–121 GW of solar;
- 18 –27 GW of onshore wind; and
- 54 – 86 GW of offshore wind.

2.8 The above requires a monumental increase in installed capacity, including up to 9x more solar than is currently installed in the UK, which is presently around 13 GW according to Green Match[3].

2.9 Taking the above figures and applying them to the number of local authority areas in the UK leads to some astonishing numbers, as follows:

- there are approximately 382 local authorities across England, Scotland, Wales and Northern Ireland;
- if current installed solar capacity (13 GW) in subtracted from the NIC's upper figure for solar (121 GW), this leaves up to 108 GW of new solar needed;
- this would mean that each local authority in the UK hypothetically needs to provide approximately 283MW of solar capacity which equates to approximately 6 solar farms the size of the Proposed Development to meet the target; and
- the amount of solar farms required within 'developable' local authority areas increases exponentially when National Parks and other local authorities where solar farms arguably might not be viable are removed from the equation.

2.10 The above figures go a significant way to demonstrating the amount of new infrastructure that is required. The need is compelling and undeniable, and the amount of new infrastructure means that the responsibility is shared throughout the UK. There is simply too much for it not to be shared nationally, not to mention that climate change is a national and global issue.

2.11 It is wholly reasonable therefore to consider that every local planning authority area where there is developable land should be delivering a significant amount of capacity, taking in a mixture of landscapes and terrains.

[3] https://www.greenmatch.co.uk/blog/2019/09/uk-solar-capacity

3.0 THE SITE AND SURROUNDING AREA

3.1 This section describes the location and key features of the Site and surrounding area, identifies any relevant planning and environmental designations, and explains the Applicant's site selection process.

Location, description and use

3.2 The Site comprises approximately 80.36 ha of agricultural land located north-west of the village of Bicker. The Site comprises 80.46 ha with the access track. The Site is delineated in red on the submitted Site Location Plan (Reference: RNC004-SP-01).

3.3 The Site is located approximately 2.5km to the north west of Bicker village. It is located within the administrative area of Boston Borough Council however it abuts South Holland District Council boundary to the south.

3.4 The submitted Agricultural Land Classification Report confirms the majority of the Site comprises Grade 3a land (good quality) and a smaller proportion of Grade 2 land (very good quality). It follows that the Site is farmed as a unit of Grade 3a land and is classed as such for the purposes of this planning application.

3.5 Renewable energy generation is already a component in the area as the Site is adjacent to an existing operational 13 turbine wind farm (known as Bicker Fen), approved in 2004 (LPA ref. B/03/0189) and constructed in 2008. A sub-station is also situated adjacent to the western boundary.

3.6 The Site is bound to the north by Bicker Drove and beyond this to the north is a substation associated with the Triton Knoll offshore wind farm. The main construction and commissioning works are now complete for the Triton Knoll Onshore Substation with the works related to the Viking Link Converter Station continuing.

3.7 The South Forty Foot Drain, a designated Local Wildlife Site, runs adjacent to the western boundary. The North Kesteven District Council boundary is adjacent to the west of the South Forty Foot Drain.

3.8 In addition to the existing wind farm and substation complex, the skyline surrounding the Site is also broken up by the many electricity pylons which cross the landscape. The surrounding area is predominantly agricultural but which is also characterised by existing industrialised elements.

3.9 The closest residential properties to the Site are isolated dwellings located within farmsteads, approximately 300 m from the Site. These are currently not occupied. There is also a farmstead 600m to the west and a property 750m to the southwest.

3.10 There are few PRoWs in the locality. The Cross Britain Way, a National Trail, crosses the landscape to the south of the Site along North Ing Drove and then along part of the South Forty Foot Drain embankment to the south. The footpath continues as a ProW along the embankment. A local footpath passes to the east of the Site along the Hammond Beck.

Planning and environmental designations

3.11 A review of Council's Interactive Policies Map (online) and the Government's MAGIC mapping system has confirmed that the Site is not covered by any environmental or heritage designations. A MAGIC map extract is included as Figure 3.1 below.

3.12 The South Forty Foot Drain, which runs along the Site's western boundary, is designated as a Local Wildlife Site in the South East Lincolnshire Local Plan 2011 – 2036 Policies Map. There are no landscape designations in the immediate surrounding area.

3.13 No above-ground heritage assets have been identified within or adjacent the Site. The closest designated heritage assets consist of a Scheduled Monument, known as Roman saltern in Helpringham Fen, which is located approximately 1km west of the Site on the other side of the South Forty Foot Drain. There are also a number of Grade II Listed Buildings and a Grade I Listed Church located east and north-east of the Site in Bicker and Bicker Gauntlet, with the closest located approximately 2.35 km from the Site.

3.14 As identified in Figure 3.2 below, the site is predominantly within Flood Zones 2 and 3, classified by the Environment Agency as land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (Flood Zone 2) and land having a 1 in 200 or greater annual probability of sea flooding (Flood Zone 3).

Figure 3.1: MAGIC map extract – environmental and heritage designations

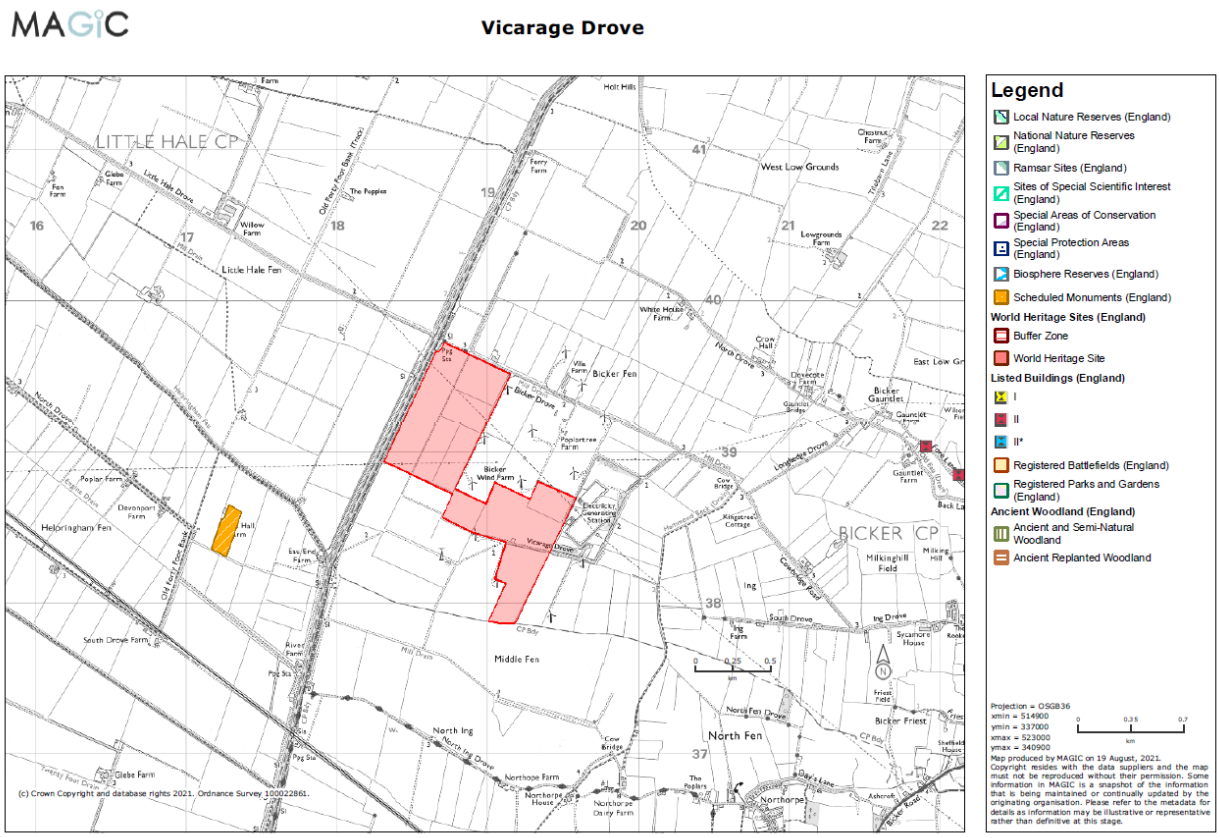
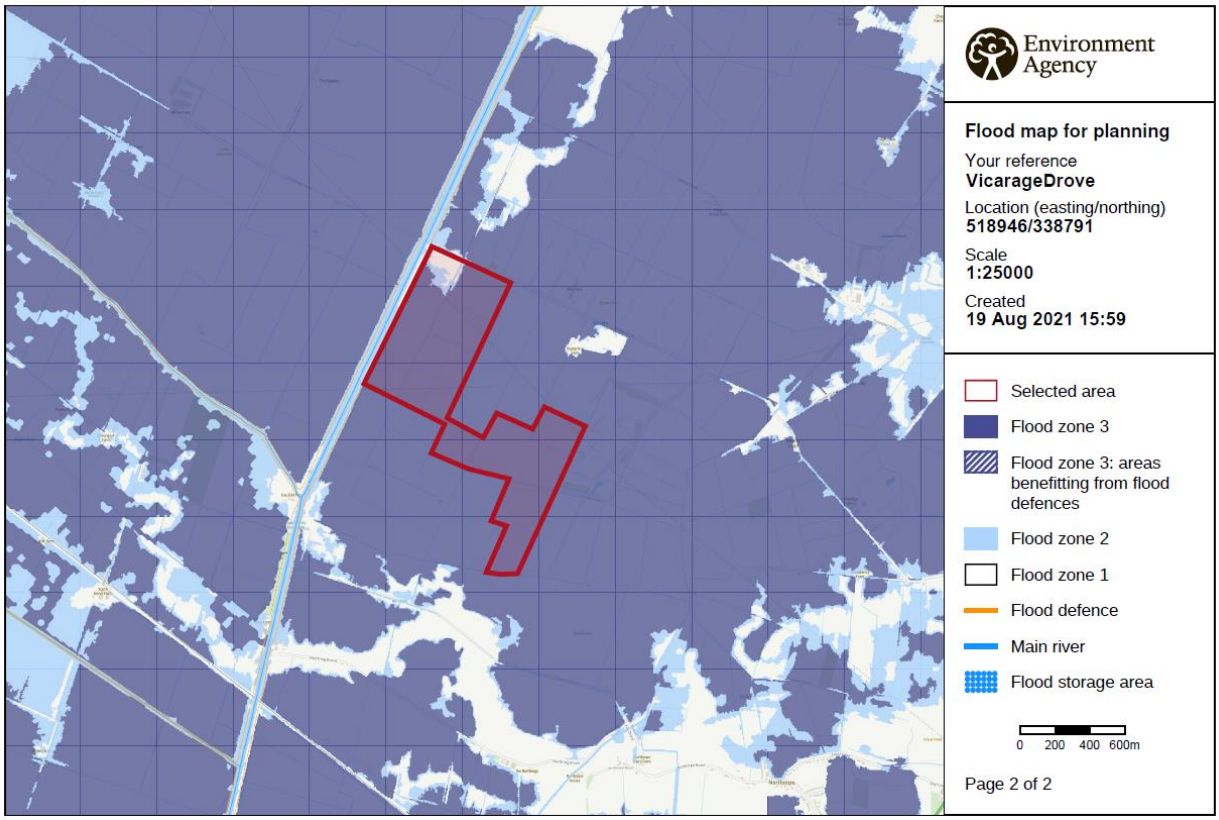


Figure 3.2: EA Flood Zones map extract



Site selection

3.15 The identification of the Site is the result of a methodical site selection exercise undertaken by the Applicant. This applied a number of important criteria, including technical feasibility, environmental and planning constraints, and land availability. The criteria were determined with reference to relevant planning policy.

3.16 The site selection process was broadly split into the following sequence of activities:

- definition of a search area;
- analysis of previously development land;
- analysis of lower grade agricultural land;
- establishment of a long-list;
- long-list filtering to create a short-list of sites; and
- assessment of the short-list.

3.17 The Alternative Site Assessment ('ASA') report that forms part of the planning application submission demonstrates the process that the Applicant applied to identify the Site. The overall

aim of the assessment is to demonstrate that the Applicant gave due consideration to the benefits and constraints associated with the Site when selecting it for development.

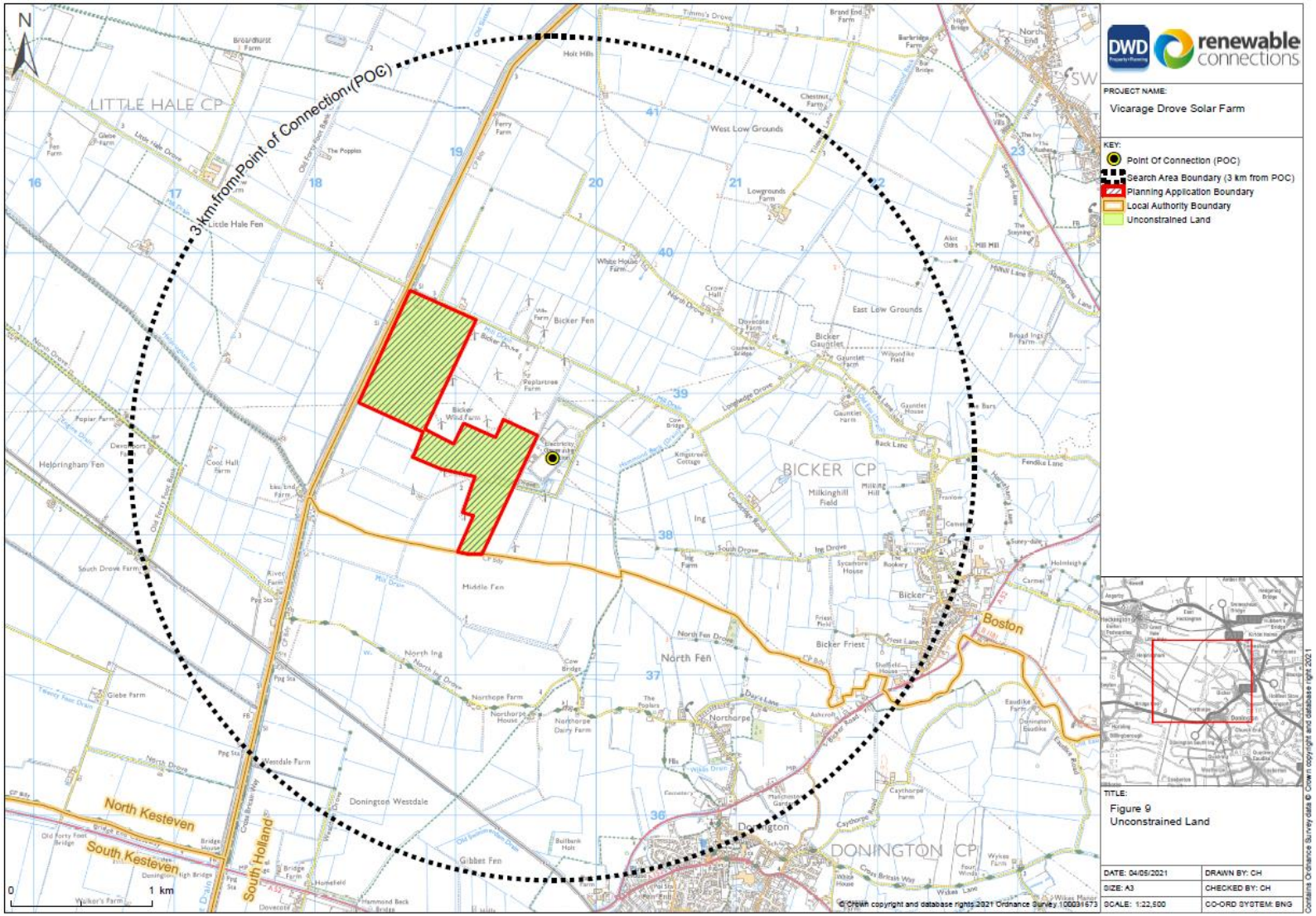
3.18 The Search Area is significantly constrained due to the agricultural land comprising a mixture of Grade 1 and Grade 2 according to the Government's Provisional ALC survey data, which is of a higher grade than the Proposed Site which is farmed as Grade 3a land. As a result, no alternative agricultural sites could be identified on lower or equal grade agricultural and none were added to the long-list or short-list.

3.19 With regards to brownfield sites and those allocated for development, only one site was identified and added to the long-list. This is because the search area is predominantly rural and with regards to built-up areas, it only takes in part of two small villages.

3.20 The Proposed Site demonstrably complies with the main criteria, as outlined in Table 5.2 of the ASA. Although it is located on BMV land, it is of a lower grade than agricultural land in the surrounding area based on the information that is currently available.

3.21 It is therefore concluded that there are no sites which comprise a more feasible alternative to the Proposed Site.

Figure 3.3: Unconstrained land



4.0 PROPOSED DEVELOPMENT

4.1 This section provides a description of the Proposed Development, including its main components, construction and operation.

Development summary

4.2 The Proposed Development comprises the construction and operation of a solar photovoltaic ('PV') farm with battery storage and associated infrastructure. The Proposed Development includes the following equipment:

- rows of solar photovoltaic ('PV') panels;
- inverters within containers;
- battery storage units within containers;
- substation compound, including:
    - DNO Control Room and Customer Switchroom;
- internal access tracks;
- perimeter fence; and
- CCTV cameras.

4.3 The point of connection to the electricity grid is a direct connection to the Bicker Fen substation which houses both transmission and Western Power Distribution infrastructure. The proposed onsite substation will facilitate the connection.

4.4 It is estimated that the solar panels would generate around 49.9 MW, enough to power approximately 14,000 homes annually.

4.5 The Indicative Site Layout Plan (Reference: RNC004-PL-01) that forms part of the planning application submission illustrates an example layout.

Design flexibility

4.6 Construction work on the Proposed Development, assuming planning permission is granted, would not commence until a final investment decision has been made by the Applicant and a contractor appointed. Following the award of the contract, the appointed contractor would carry out a number of detailed studies to inform the technology selection for the Proposed Development and also to optimise its layout and design before starting work at the Site.

4.7 It follows that it has not been possible for the Applicant to fix all of the design details of the Proposed Development at this stage. The Applicant has therefore sought to incorporate sufficient design flexibility. This relates to the dimensions and layout of structures forming part of the Proposed Development, including the precise layout of the Site and the height of the solar panels.

4.8 In order to ensure a robust assessment of the likely significant environmental effects of the Proposed Development, the assessments that form part of the planning application have been undertaken adopting the principles of the 'Rochdale Envelope'.

4.9 The approach involved assessing the maximum (and where relevant, minimum) parameters for the elements where flexibility is required. For example, the solar panels have been assessed for the purposes of landscape and visual impact as being maximum of 2.75 m high, which is the worst-case scenario, however it is actually possible that the panels would be at a height of around 2.6 m. As a general design principle for the ground mounted solar, the layout will be based on bifacial panels fixed onto a fixed or tracking mounting system, running north to south but orientated east or west.

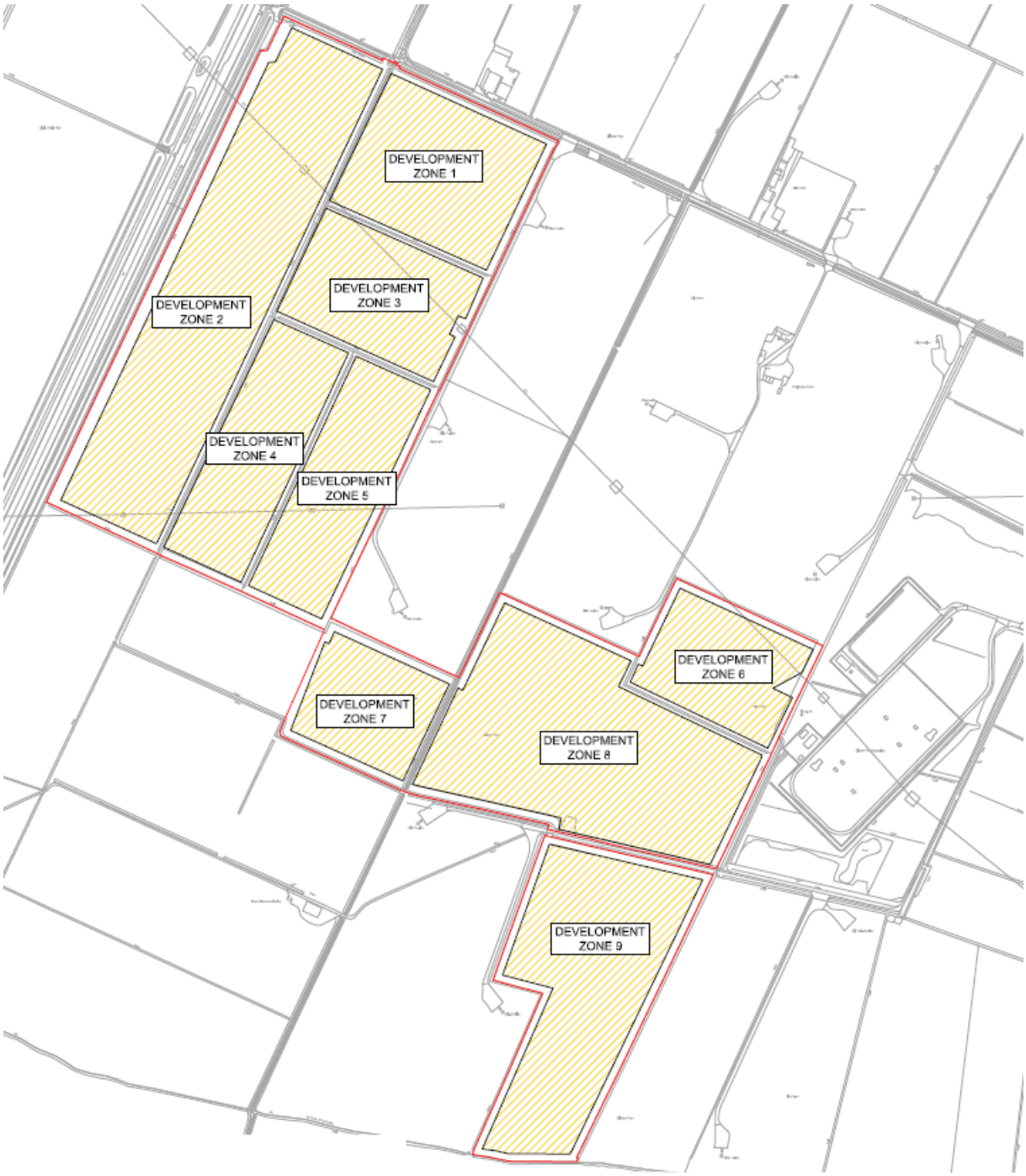
4.10 The approach also involved defining development zones, rather than having a defined layout. This would allow the future contractor to optimise the layout of the solar farm following any grant of planning permission, rather than being bound to a precise layout.

4.11 The zones are shown in the Development Zones Plan (Reference: RNC004-DZ-01) that forms part of the planning application submission. The plan is reproduced in Figure 4.1.

4.12 The zones define where certain infrastructure should be located within the Site, but there is flexibility in terms of the layout within each zone. The infrastructure that is permitted to only be located within each zone is as follows:

- Development Zone 1 –5: solar panels, inverters and associated infrastructure;
- Development Zone 6: solar panels, substation compound, battery storage and associated infrastructure;
- Development Zone 7-9: solar panels, inverters and associated infrastructure.

Figure 4.1: Development zones layout



Main Components

Solar Panels

4.13 As a general design principle for the ground mounted solar, the layout will be based on bifacial panels fixed onto either a fixed or tracking mounting system, running north to south but orientated east or west. If a tracking system is used, then the panels would track the sun through the day to capture the maximum amount of solar irradiation possible.

4.14 The total height of the panels will be no more than 2.75 m above the ground with a gap of more than 0.8m above the ground at its minimum, however it is actually possible that the panels would be at a height of around 2.6 m.

4.15 The panels are typically mounted in four horizontal rows, with one row fixed directly above the other. There would be a gap of approximately 2 m between each row of arrays. Each array would be mounted on a frame, to be installed using spiked foundations of approximately 1-2 m deep.

4.16 Indicative dimensions of the panels and frame are shown on the drawings (Reference: SD-01 and SD-10) that form part of the planning application submission.

Inverters

4.17 The inverters would comprise small cabin type structures. Each unit would measure approximately 12 m long, 2.5 m wide and 2.9 m high. Each unit would be placed on a hardcore base

4.18 The inverters would convert the direct current ('DC') generated by the solar panels into alternating current ('AC'). Transformers, contained within the inverter cabins, convert the low voltage output from the inverters to high voltage suitable for feeding into the local electricity distribution network.

4.19 Indicative elevations and dimensions of the inverter cabins and associated infrastructure are shown in the Inverter Elevations and Dimensions Layout (Reference: SD-06).

Batteries

4.20 The batteries would be contained within shipping containers or a similar cabin type structure. Each cabin would measure up to approximately 12m long, 2.6 m wide and 2.9 m high. Each cabin would be placed on a hardcore base.

4.21 Each battery would be located adjacent to heating, ventilation and cooling ('HVAC') units; and a battery power conversion system, which performs a similar role to the inverters (see the 'Inverters' sub-section above for more detail).

4.22 The batteries would charge at off-peak times and then supply electricity to the local electricity distribution network at times of peak energy demand and/or when solar irradiation levels are lower, and the solar panels are generating electricity. This means that the Proposed Development can supply electricity to the local distribution network at all times.

4.23 Indicative elevations and dimensions of the battery cabins and associated infrastructure are shown in the 40ft Battery Container (HVAC on ground) Standard Detail (Reference: SD-13) that forms part of the planning application submission.

Substation compound

4.24 The point of connection to the electricity grid is a direct connection to the Bicker Fen substation which houses both transmission and Western Power Distribution infrastructure. The proposed on-site substation (Development Zone 6) will facilitate the connection and allow for the voltage step-up from 33kV to 132kV connection via a buried cable into the Western Power Distribution substation.

4.25 The substation compound would measure approximately 28m by 55m and be surrounded by a palisade. This would become partly adopted by the DNO for their assets. This would consist of overhead electrical busbars and other electrical infrastructure along with a DNO control building and a customer switch room. The customer switchroom would measure up to approximately 10m long, 4m wide and 3m high and the DNO control room 6.5m long, 5.4 m wide and 3.6m high. From the substation compound, a cable would be installed to a customer switchroom on-site. Each would be placed on a concrete base.

4.26 The solar panels would feed DC electricity into the inverters. This would be converted to AC electricity to be transferred through the switchrooms, through the meters, to the substation compound before stepping up the voltage to feed into the grid via an underground cable into the Western Power Distribution substation at Bicker Fen. The substations, inverters and solar panels would be connected by underground electrical cables

4.27 Indicative elevations and dimensions are shown in the Substation Compound Plan (Reference: SD-15), Pallisade Fencing- Standard Drawings (Reference: SD-16) and Customer Substation Elevations and Dimensions Layout (Reference: SD-02).

Security

4.28 The Proposed Development would need to be secure. It is envisaged that stock-proof fencing (mesh with wooden posts or similar) to a height of approximately 2 m would be installed along the outer edges of the Site in order to restrict access.

4.29 This would be sited inside the outermost hedges/trees/vegetation, ensuring that the fence is visually obscured, and access is available for hedge trimming and maintenance. Gates would be installed at the access point for maintenance access. These would be the same design, material and colour as the fencing.

4.30 The perimeter of the Site would be protected by a system of CCTV cameras and/or infra-red cameras (facing into the Site to protect privacy), which would provide full 24-hour surveillance around the entire perimeter of the array enclosures. An intelligent sensor management system would manage the cameras. The cameras would be on poles of up to approximately 3-4m high, spaced at intervals along the security fence. There would be no lighting within the Site at night-time.

Construction

4.31 The primary construction phase of the Proposed Development is expected to last for approximately 16-24 weeks. During this period, initial site setup works including access maintenance and improvements would be undertaken where considered to be beneficial to the use of the access, followed by construction of the internal access route(s), ground works, the installation of the solar panels and other infrastructure.

4.32 Facilities would be provided on site for construction workers, including provision of a site office and welfare facilities (including toilets, changing and drying facilities, and a canteen). Fencing would be installed around the perimeter of the site, as discussed, and temporary parking would be provided for the construction workers.

4.33 During the construction period, it is proposed that construction working hours would be as follows:

- 08:00 – 18:00 Monday to Friday; and
- 08:00 – 13:00 Saturday.

4.34 Should work be required to be undertaken outside of these times, this would be agreed in writing in advance with the Council.

4.35 At the end of each day, mobile plant would be returned to a secure overnight plant storage, where drip trays can be utilised under the various types of plant, if required.

Operation

4.36 Once operational, occasional maintenance of the solar panels and other infrastructure would be required. The solar panels would also need to be periodically cleaned, most likely using simple soap and water, to ensure the efficient running of the system.

4.37 It is expected that under normal circumstances no more than 4 cars/vans would visit the Site each week (generally less than 1 per day).

4.38 The Site would be retained in agricultural use for the life of the Proposed Development. The majority of the Site would be planted with a combination of grassland/meadow, which would enable grazing (sheep). This would include land between and underneath panels.

Decommissioning and restoration

4.39 At the end of the operational lifespan (i.e. circa 40 years), the solar panels and other infrastructure would be removed, and the Site restored back to full agricultural use. The small quantity of foundations, hard surfacing and heavy infrastructure, in combination with retaining the majority of the site as grassland, means that the land would be easier to restore than other more intrusive development, e.g. large buildings requiring significant foundations.

4.40 The restoration process is intended to ensure that the land is restored to the same quality as it was previously, and it is envisaged this would be secured through a suitable condition attached to any planning permission.

5.0 DESIGN APPROACH

5.1 This section sets out the approach that the Applicant has taken to the design of the Proposed Development and how the design has evolved through the pre-application process.

Design principles

5.2 The main design principles adopted by the Applicant are set out below:

- Design Principle 1: position the main components to minimise environmental impact;
- Design Principle 2: seek opportunities for the management and enhancement of biodiversity;
- Design Principle 3: provide a functional design that makes the best use of the location and provides for efficient generation of electricity;
- Design Principle 4: seek to assimilate the Proposed Development into the local landscape as far as possible;
- Design principle 5: ensure safe and efficient access to the public highway; and
- Design Principle 6: ensure the approach to design is inclusive.

5.3 These principles are referenced where applicable in the remainder of this section.

Design approach

5.4 The approach taken to the design of the Proposed Development has been informed by the context within which it would be situated, in addition to the opportunities and constraints presented by the Site.

5.5 The immediate and wider context within which the Site sits is largely formed by agricultural land and agricultural buildings; although, there are humanising influences in the area, including the village of Bicker, electricity pylons, substations and wind turbines. However, given the Site's largely agricultural context, the Proposed Development has been designed to be sympathetic to its surroundings (in accordance with Design Principles 1, 2 and 4), whilst being practical in terms of technical and engineering considerations (in accordance with Design Principles 3 and 5).

5.6 Key elements of the design approach have included the following:

- preserving existing trees and hedgerows, and maintaining suitable stand-offs from sensitive ecological features within the Site, e.g. badger setts (in accordance with Design Principle 2);
- orientating the rows of solar panels to benefit from maximum solar irradiation (in accordance with Design Principle 3);

- locating and designing the essential infrastructure to ensure it remains operational during a 1000-year plus climate change flood risk uplift event (in accordance with Design Principle 1);
- providing additional screen planting to reduce potential visual impact, including where there are gaps, or no hedgerows exist (in accordance with Design Principle 4);
- providing significant habitat improvements within the Site, including conversion of arable to higher value grassland/pasture and the provision of new hedgerow and trees (in accordance with Design Principle 2); and
- securing an alternative delivery route across third party land utilising an existing haul route connecting the A52 directly with Ing Drove to respond to feedback received during consultation (in accordance with Design Principle 5);

5.7 The infrastructure related to the Proposed Development is functional in appearance and has been situated in such a way to avoid any environmentally sensitive areas and mitigation has been included to reduce any other impacts. The approach that has been taken to the design of the Proposed Development is considered appropriate given its context and purpose – to generate and export electricity to the local distribution network.

Design evolution

5.8 The design process for the Proposed Development has been an iterative one. As part of the design process a number of options have been considered for the design and layout of the Proposed Development, as set out in the 'Design approach' section of this report. The approach and options considered are not repeated here.

5.9 The main changes to the Proposed Development, in terms of its design, include the following:

- Incorporating standoffs into the site layout from the boundary habitats and wildlife sites;
- Locating and designing the essential infrastructure to ensure it remains operational during a 1000-year plus climate change flood risk uplift event; and
- Amendment to the proposed construction traffic route.

Design through consultation

5.10 The Applicant carried out a comprehensive pre-application consultation exercise in respect of the Proposed Development (in accordance with Design Principle 6). This included emails and telephone calls to key consultees and local stakeholders (e.g. Parish Councils, District Councillors, County

Councillors and the local MP); letters and leaflets sent to residential properties and businesses in the surrounding area; and a consultation website.

5.11 The exercise would usually have included a number of face to face meetings and a public exhibition at a venue close to the Site. However, this was not possible owing to the circumstances brought about by COVID-19. The website was utilised to fill the gap left by the inability to carry out a public exhibition. The website allows consultees to review a significant amount of information about the Proposed Development, make comments on specific aspects and complete a feedback form. In addition, an address was setup to provide postal feedback, whilst a dedicated email address and a telephone line was set up and manned by the Applicant, to allow for interested parties to email or call, ask questions and leave comments.

5.12 The Applicant gave a presentation to Bicker Parish Council on 13 May 2021 outlining the initial proposals, the expected timeline, the key findings from the technical assessments, the proposed construction traffic route followed by a 'questions and answers' session.

5.13 Following consultation with Bicker Parish Council and in order to address concerns raised by residents, the Applicant amended the construction traffic route. The original route was proposed to route from the A52 to site via Fendike Lane, Fore Lane, Longhedge Drove and Bicker Drove however the Applicant secured an alternative delivery route across third party land utilising an existing haul route connecting the A52 directly with Ing Drove.

5.14 The Applicant scheduled an online community information event, to be carried out through Zoom, at 7pm on 29 April 2021 for which residents could register their interest. This event was, however, cancelled due to a lack of interest, although the Applicant encouraged consultees to attend the abovementioned Bicker Parish Council meeting and spoke to a number of local residents directly.

5.15 The objective of the consultation was to introduce the Proposed Development, including elements of the design approach and proposed management measures. Examples of the consultation materials produced, including leaflets and extract from website, are appended to the Consultation Report that forms part of the planning application submission.

5.16 The points raised by consultees have been considered and the Applicant subsequently made a number of changes and additions to the Proposed Development, as summarised in Section 1 of this document.

6.0 DESIGN COMPONENTS

6.1 This section describes the key design components of the Proposed Development. This includes in relation to use, the quantum of development, layout, the scale of the main structures, appearance and the approach taken to landscaping.

Use

6.2 It is proposed that the use of the Site would be for the operation of a renewable energy installation, comprising a solar farm with battery storage and other associated infrastructure. The Site currently comprises agricultural land (arable) within a predominantly rural setting but which is also characterised by existing industrialised elements.

6.3 In order to maintain the agricultural use, it is proposed to graze the Site once the Proposed Development is operational, thereby retaining agriculture in conjunction with the generation of renewable electricity. It is proposed to maintain the grazing use for the lifetime of the Proposed Development, after which time it is envisaged that all infrastructure associated with the Proposed Development would be removed and the land returned to its previous state.

6.4 Given the Site's largely agricultural context, the Proposed Development has been designed to be sympathetic to its surroundings (including a comprehensive landscaping and biodiversity scheme), whilst being practical in terms of technical and engineering considerations. It is therefore considered that, on balance, the proposed use is compatible with the surrounding area.

Amount

6.5 The Proposed Development would consist primarily of solar panels mounted on a treated metal (aluminium or similar) framework. The Proposed Development includes the following main equipment:

- rows of solar photovoltaic ('PV') panels;
- inverters within containers;
- battery storage units within containers;
- substation compound, including:
    - DNO Control Room and Customer Switchroom;
- internal access tracks;
- perimeter fence; and

- CCTV cameras.

6.6 This is considered the minimal level of development necessary to ensure that the site performs effectively with regard to its main purpose of generating electricity. A landscape scheme with native planting has been designed to establish new planting and reinforce existing perimeter planting in addition to wildflower margins and enhanced low-intensity grazed pasture in and around the panels.

Layout

6.7 The solar panels and other infrastructure would be set within the existing field pattern, with field margins, ditches and boundary vegetation retained. The fencing around the Site would be situated inside the outer-boundary vegetation, ensuring that access is available for hedge trimming and maintenance and the fencing is not outwardly visible.

6.8 As a general design principle for the ground mounted solar, the layout will be based on bifacial panels fixed onto a fixed or tracking mounting system, running north to south but orientated east or west.

6.9 The inverters will be set within the rows of panels to reduce visual impact. The substation compound is proposed within Development Zone 6, where there is already significant built infrastructure.

6.10 The initial design was assessed by planning and environmental specialists in terms of, amongst other matters, landscape and visual, cultural heritage, ecology, hydrology and traffic considerations. Each specialist visited the Site and identified the presence or absence of potential environmental constraints and opportunities.

6.11 The constraints and opportunities analysis then informed various meetings attended by environmental specialists and design engineers. Although there are factors that limit the extent to which the layout and design of the solar farm can be adjusted, these design iterations have ensured that the Proposed Development has as little impact on the local environment as possible. Furthermore, the protection of existing landscape features and valuable habitat has been a central consideration in the preparation of the layout.

6.12 The approach involved defining development zones, to ensure that, amongst other matters, the field pattern is adhered to and appropriate stand-offs from sensitive features are maintained. The zones are shown in the Development Zones Plan (Reference: DZ-01) that forms part of the planning application submission. The plan is reproduced in Figure 4.1 earlier in this report. The zones define

where certain infrastructure should be located within the Site, but there is flexibility in terms of the layout within each zone.

6.13 The Indicative Site Layout Plan (Reference: PL-01) that forms part of the planning application submission illustrates an example layout.

Scale

6.14 The scale of development at the Site has been determined by the equipment necessary to generate electricity sufficiently.

6.15 All of the buildings at the Site would be single storey, ensuring that it would not be significantly visible from most viewpoints outside of the Site. Even when viewed from nearby vantage points, the scale of development would not be overbearing due to its low profile. This would be further improved when proposed screen planting matures, which, in addition to the significant existing screening around the Site, would effectively assimilate the Site into the local landscape over time.

6.16 The highest structures associated with the Proposed Development would be transformers within the substation compound, at approximately 6.0m high plus an additional approximate 0.5-0.8m increase in height required for flood risk purposes. It is proposed that the majority of the other structures, including the solar panels, would be no more than 2.75m high; the height of a mature hedgerow. It is therefore considered that the scale of the Proposed Development is appropriate to the location.

Appearance

6.17 The most visible components of the Proposed Development would be the solar panels. These would be mounted on a metal frame and constructed from non-reflective glass.

6.18 It is notable that the solar panels are designed to absorb sunlight, therefore there would be no significant issues associated with glint and glare. The metal frame is treated to avoid any significant issues associated with glint and glare. The panels will also be orientated east towards the National Grid substation or west towards the South Forty Foot Drain.

6.19 Furthermore, the tracking system aims to reduce reflections by keeping the angle of incidence with the sun as close to 0 degrees as possible. As the angle of incidence increases, reflections increase.

6.20 The metal frame is necessary because it is durable and is sufficiently strong to hold the panels in position; a functional design requirement.

6.21 It is envisaged that the containers/cabins and other small buildings would be appropriately coloured or clad to minimise any visual impact and comply as far as practicable with the local vernacular. The structures would however be functional in appearance, reflecting their purposes, which is for the generation of electricity.

6.22 The substation and batteries would also be situated next to the existing substation. The new structures would therefore not be out of keeping with the existing built infrastructure.

6.23 Cabling between rows of panels, inverters and the grid connection point would be underground at a prescribed depth, meaning that there would be no requirement for over ground cabling and/or additional pylons, and therefore there would be no visual impact associated with this approach (following initial construction).

Access

6.24 The proposed construction and operational access will utilise the existing highways access at Vicarage Drove to the east of the Site which is used by farming vehicles. This is an existing National Grid road so is of high specification and will require no additional highway improvements. The vehicle tracking exercise has demonstrated that it is fit for purpose. Please refer to the Transport Statement that forms part of the planning application for more detail including a Site Access Visibility Splay Plan in Appendix A.

6.25 The construction traffic route will be via the A52 Donington Road and then utilising an existing haul road on private land connecting directly to Ing Drove passing through Cowbridge Road, Bicker Drove and then onto Vicarage Drove. A secondary operational access is also located at the north of the site off Bicker Drove.

Landscaping and Biodiversity

A Landscape and Visual Impact Assessment ('LVIA') has been produced (by a qualified landscape architect) and forms part of the planning application submission. The assessment considers the effects of the Proposed Development on both the landscape (landscape impact) and on representative viewpoints from around the Site (visual impact), including from PRoWs. A landscape strategy is proposed for the Site, which comprises:

- Retaining and gapping up existing boundary and internal hedges using native indigenous species;
- Planting additional native hedgerow trees to increase form and structure; and
- Establishing species rich grassland under panels.

6.26 The landscaping and planting proposals associated with the Proposed Development would bring about significant ecological benefit when compared to the present situation at the Site, including upgrading lower-value, biodiversity-poor, arable land to higher value habitats.

6.27 For more detail, please refer to the LVIA submitted as part of the planning application which includes an indicative Landscaping Proposals plan.

7.0 PLANNING POLICY CONTEXT

7.1 This section provides a brief overview of the relevant planning policy and guidance at local and national level. The design of the Proposed Development has been influenced by these policies and the proposals are assessed against them in Section 8 of this report.

7.2 The planning application will be determined in accordance with section 70(2) of the Town and Country Planning Act 1990 (as amended), which states that in dealing with applications, local planning authorities shall have regard to the provisions of the statutory development plan and to other material considerations.

Statutory Development Plan

7.3 The Statutory Development Plan comprises the South East Lincolnshire Local Plan 2011 – 2019 (adopted March 2019) (the 'Local Plan') which was prepared by Boston Borough Council in partnership with South Holland District and Lincolnshire County Councils.

7.4 The following policies are considered to be of most relevance:

- Policy 1 'Spatial Strategy'
- Policy 2 'Development Management'
- Policy 3 'Design of New Development'
- Policy 4 'Approach to Flood Risk'
- Policy 28 'The Natural Environment'
- Policy 29 'The Historic Environment'
- Policy 30 'Pollution'
- Policy 31 'Climate Change and Renewable and Low Carbon Energy'

National planning policy

7.5 The National Planning Policy Framework ('NPPF') was adopted in March 2012 and last updated in July 2021. It sets out the Government's planning policies for England and how these are to be applied. The policies contained within the NPPF are expanded upon and supported by National Planning Practice Guidance ('NPPG'), which was first published in March 2014 and has been periodically updated since.

7.6 NPPG considered most relevant to the Proposed Development includes:

- Climate Change;
- Historic Environment;
- Natural Environment;
- Open Space, sports and recreation facilities, public rights of way and local green space; and
- Renewable and low carbon energy.

7.7 The National Policy Statements ('NPSs') make up the planning policy framework for examining and determining Nationally Significant Infrastructure Projects ('NSIPs'). As the Proposed Development is not a NSIP, the NPSs are not directly relevant; however, they do form material considerations in the determination of the planning application.

7.8 The following NPSs are relevant:

- Overarching NPS for Energy ('EN-1');
- NPS for Renewable Energy Infrastructure ('EN-3'); and
- NPS for Electricity Networks Infrastructure ('EN-5').

Other

7.9 In June 2019 the Government raised the UK's ambition on tackling climate change by legislating for a net-zero greenhouse gas emissions target for the whole economy by 2050. Decarbonising the power sector is integral to achieving this goal and requires major investment in proven technologies, such as solar and battery storage, which are supported by planning policy at local and national level.

7.10 The National Infrastructure Commission ('NIC'), official advisor to the Government on infrastructure, has recommended that in order to meet the 2050 target the energy generation mix is up to around 90% renewables, including 56–121 GW of solar, which is up to 9x that currently installed.

7.11 In addition, whilst not planning policy documents, the following, also form material considerations:

- Department of Energy and Climate Change – Solar PV Strategy Part One: Roadmap to a Brighter Future (2013);
- Department of Energy and Climate Change – UK Solar PV Strategy Part Two: Delivering a Brighter Future (2014);

- National Infrastructure Commission – Net Zero Opportunities for the Power Sector (2020); and
- The Committee on Climate Change ('CCC') - Reducing UK emissions Progress Report to Parliament (June 2020).

7.12 There are also numerous documents produced by National Grid and others that are relevant in terms of the need that exists for the Proposed Development and proposals of its kind.

8.0 ASSESSMENT OF THE PROPOSED DEVELOPMENT

8.1 This section of the statement provides an assessment of the application proposals, in order to demonstrate how the Proposed Development has been influenced by and is compliant with relevant planning policy. The key assessment topics are as follows:

- Principle of development;
- Site selection;
- Scale, appearance and design;
- Land-use and development in the countryside;
- Landscape and visual;
- Cultural heritage;
- Flood risk;
- Biodiversity;
- Traffic and transport; and
- Amenity and impact on local community.

8.2 The above topics have been influenced by a review of the local planning policy, the consideration of advice given by the Council in the aforementioned pre-application advice, and comments received from the local community as part of pre-application consultation process.

Principle of development

Policy summary

8.3 The NPPF sets out its support for renewable energy development in Chapter 14 (Meeting the challenge of climate change, flooding and coastal change). Paragraph 152 states that:

"The planning system should support the transition to a low carbon future. It should help to … support renewable and low carbon energy and associated infrastructure."

8.4 Paragraph 158 goes on to state:

"When determining planning applications for renewable and low carbon development, local planning authorities should not require applicants to demonstrate the overall need for renewable or low carbon energy and [should] approve the application if its applications are (or can be made acceptable)."

8.5 Policy 31 'Climate Change and Renewable and Low Carbon Energy' of the Local Plan outlines that with the exception of Wind Energy the development of renewable energy facilities, associated infrastructure and the integration of decentralised technologies on existing or proposed structures will be permitted provided, individually, or cumulatively, there would be no significant harm to:

- visual amenity, landscape character or quality, or skyscape considerations;
- residential amenity in respect of: noise, fumes, odour, vibration, shadow flicker, sunlight reflection, broadcast interference, traffic;
- highway safety (including public rights of way);
- agricultural land take;
- aviation and radar safety;
- heritage assets including their setting; and
- the natural environment.

Assessment

8.6 The principle of the Proposed Development is heavily supported by both local and national policy, including adopted local policy support for renewable energy generation provided there are no unacceptable impacts. There is also a significant and demonstrable need for the Proposed Development as set out in Section 2 of this document. Furthermore the Proposed Development could significantly contribute to this need. This is demonstrated by 2019 figures from the Department for Business, Energy and Industrial Strategy published in September 2020. This demonstrates that Boston Borough Council have 83MW of renewables, of which 40MW is Solar. This Proposed Development would increase their current renewable energy capacity by approximately 60 percent.

8.7 The remainder of this section demonstrates that there are no unacceptable impacts associated with the Proposed Development and that the planning balance weighs heavily in favour of it. The potential impacts are addressed in more detail below.

Site selection

Policy Summary

8.8 Paragraph 158 of the NPPF, which sets out that local planning authorities should not require applicants to demonstrate the overall need for renewable or low carbon energy. Moreover,

applications should be approved if the impacts are (or can be made) acceptable. Paragraph 158 follows that once suitable areas for renewable and low carbon energy have been identified in plans, local planning authorities should expect subsequent applications for commercial scale projects outside of these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas.

8.9 Policy 1 'Spatial Strategy' of the Local Plan details that in the Countryside development will be permitted that is necessary to such a location and/or where it can be demonstrated that it meets the sustainable development needs of the area in terms of economic, community or environmental benefits.

8.10 There are numerous other policies at local and national level that relate to specific environmental topics, such as landscape, cultural heritage, ecology and best and most versatile agricultural land – see Section 7 of this report for individual policies. These policies advocate not locating development on/within designated sites and assets when selecting sites.

Assessment

8.11 The Alternative Site Assessment ('ASA') report that forms part of the planning application submission demonstrates the process that the Applicant went through to identify the Site, including the consideration of previously developed land and lower grade agricultural land. The overall aim of the assessment is to demonstrate that the Applicant has given due consideration to the benefits and constraints associated with the Site when selecting it for development.

8.12 The assessment concludes that there are no alternative sites that are more suitable than the Site for the Proposed Development, when considered relative to the applied criteria, including avoiding designated sites, higher grade agricultural land, heritage constraints etc. as required by planning policy. Please refer to 'Site Selection' in Section 3 of this report for further detail.

8.13 The pre-application consultation exercise carried out is also relevant to site selection, particularly as it requested specific comments on the Proposed Development at the Site. The consultation exercise received a great deal of interest from the local community including a number of positive comments in respect of the Proposed Development at this Site.

8.14 It is therefore considered that the Proposed Development complies with relevant planning policy relating to site selection.

Scale, appearance and design

Policy Summary

8.15 Policy 2 'Development Management' of the Local Plan notes that Proposals requiring planning permission for development will be permitted provided that sustainable development considerations are met, specifically in relation to factors, including:

- size, scale and layout; and
- quality of design.

8.16 Policy 3 'Design of New Development' of the Local Plan encourages high quality design which is not inappropriate to the local area.

8.17 Policy 31 'Climate Change and Renewable and Low Carbon Energy' of the Local Plan details that renewable energy schemes should take into account visual amenity.

8.18 Assessment

8.19 The 'Design approach' and 'Design components' associated with the Proposed Development are covered in more detail in Sections 5 and 6 of this report, respectively.

8.20 The Proposed Development has been designed so as to practically fulfil its purpose of generating electricity. However, it has also been designed as far as possible to avoid adverse impacts by ensuring sensitive siting and layout which is compatible within its location, together with improving the quality of the area by introducing landscape and biodiversity enhancements.

8.21 The views expressed by consultees have been listened to, resulting in changes and additions to the Proposed Development. These include changes to the site layout, such as additional screen planting; standoffs from sensitive features; and amendments to the proposed access route.

8.22 Also, where necessary, specific mitigation measures which have been proposed to reduce anticipated impacts to an acceptable level. For these reasons, the Proposed Development is acceptable and complies with planning policy in terms of scale, appearance and design.

Land-use and development in the countryside

Policy Summary

8.23 Policy 1 'Spatial Strategy' of the Local Plan details that in the Countryside development will be permitted that is necessary to such a location and/or where it can be demonstrated that it meets

the sustainable development needs of the area in terms of economic, community or environmental benefits.

8.24 Policy 31 'Climate Change and Renewable and Low Carbon Energy' of the Local Plan details that renewable energy schemes should consider agricultural land take.

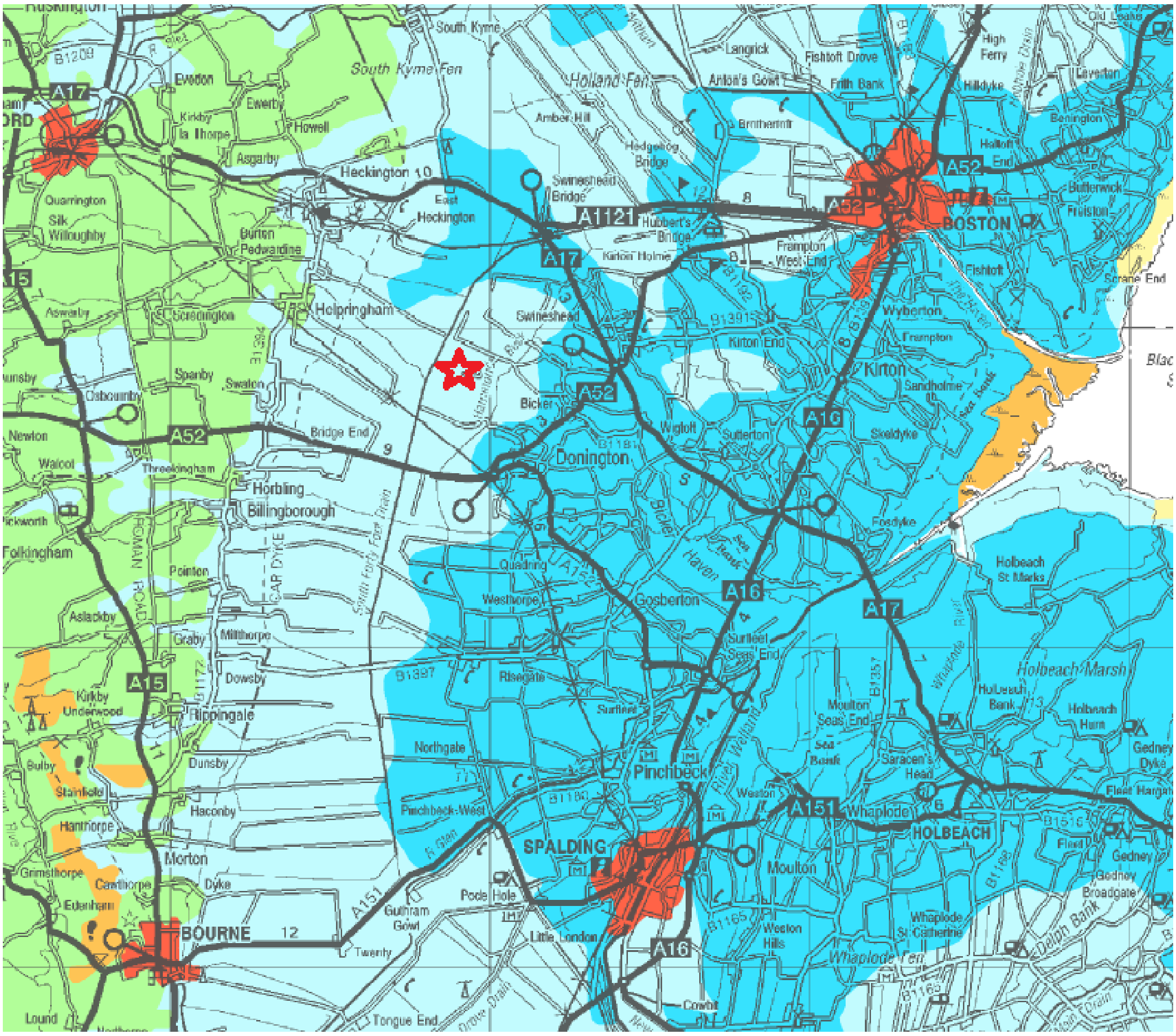
Assessment

8.25 The site is in a countryside location, however it is generally accepted that solar farms are a use that may be appropriate in countryside locations. Sites large enough to accommodate the proposed MW output and that make a significant contribution to meeting the challenging 2050 target are extremely difficult to find in settlements and/or on previously development land, as is demonstrated by the ASA.

8.26 The other applicable criteria in local planning policy include avoiding unacceptable environmental impacts, such as in respect of ecology and the local landscape. The impact on the local landscape and other environmental impacts is considered later in this section, and it is ultimately concluded that there would be no unacceptable impacts, particularly when considering the significant landscape mitigation and biodiversity enhancement measures that are proposed.

8.27 The submitted Agricultural Land Classification Survey confirms that the Site comprises Grade 3a (good quality) and Grade 2 agricultural land (very good quality). It follows that the Site is farmed as a unit of Grade 3a land and is classed as such for the purposes of this planning application. According to the Government's Provisional ALC survey data, as shown in Figure 8.1 below, the wider surrounding area (including the entirety of Boston) comprises a combination of Grade 1 (mid blue) and Grade 2 (light blue) agricultural land which is of a higher grade than the Proposed Site. As a result, the Proposed Development does not result in the loss of higher grades of agricultural land (i.e. Grades 1 and 2). Furthermore, the ASA demonstrates that there are no more suitable alternative sites located on lower grade land in the area and the development of the Site would mean that the area's high-quality agricultural land is preserved.

Figure 8.1: Extract from the Natural England ALC data



8.28 It is therefore considered that the Proposed Development complies with relevant planning policy relating to land use and development with the countryside.

Landscape and visual

Policy Summary

8.29 Policy 3 ‘Design of New Development’ of the Local Plan details that development should consider the landscape character of the location.

8.30 Policy 31 'Climate Change and Renewable and Low Carbon Energy' of the Local Plan details that renewable energy schemes should take into account visual amenity, landscape character or quality, or skyscape considerations.

Assessment

8.31 The planning application is accompanied by a LVIA, photomontages and indicative planting proposals; and the design of the Proposed Development has been subject to significant input from a chartered landscape architect, as set out in Section 6 of this document. This has involved a review of national and local planning policies (to identify any landscape designations or sensitive locations), a field survey to gather photography from selected viewpoints and a computer generated 'zone of theoretical visibility' map to identify locations with potential views of the development.

8.32 The assessment acknowledges that the Proposed Development would, at Year 1, have a significant adverse effect of moderate on the on-site land use; however these effects reduce when considered in the wider context to slight/negligible effects on all landscape elements. This is because of the distance, the existing landscape pattern of topography and established vegetation patterns.

8.33 The assessment notes that in the long term (15 years) mitigation planting would create linear hedge lines around the Site which would not be out of keeping with the current pattern of vegetation to the east of the Site. The assessment recognises that the proposals would enclose the long distance views between and under the wind turbines but this would only affect a localised area. In addition, by grouping the solar panels around the Bicker windfarm the apparent industrialisation is contained visually.

8.34 Furthermore, the Proposed Development would not affect the historic environment, listed buildings, registered parks and gardens or the historic landscape character.

8.35 The assessment therefore finds in the long term (year 15) that the proposed development with suitable mitigation would not have a significant adverse effect on the local landscape character.

8.36 With regards to visual receptors, significant visual intrusion of the Proposed Development at Year 1 would be limited to receptors in the immediate surroundings. In addition, after 15 years for the majority of receptors and at a wider distance, the development would have become a recognisable feature of the view, softened by the developing soft landscaping.

8.37 It is therefore considered that the Proposed Development complies with relevant planning policy relating to landscape and visual impact.

Cultural Heritage

Policy Summary

8.38 Chapter 16 of the NPPF is concerned with 'Conserving and enhancing the historic environment'. It identifies heritage assets as 'an irreplaceable resource' and notes that they should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations.

8.39 The NPPF states that where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate-desk based assessment and, where necessary, a field evaluation (Paragraph 194).

8.40 Policy 2 'Development Management' of the Local Plan outlines that schemes should consider their impact on and enhancement of the historic environment.

8.41 Policy 29 'The Historic Environment' of the Local Plan states that distinctive elements of the South East Lincolnshire historic environment will be conserved and, where appropriate, enhanced.

8.42 To respect the historical legacy, varied character and appearance of South East Lincolnshire's historic environment, development proposals will conserve and enhance the character and appearance of designated and non-designated heritage assets through high-quality sensitive design.

8.43 Policy 31 'Climate Change and Renewable and Low Carbon Energy' of the Local Plan details that renewable energy schemes should consider heritage assets and their settings.

Assessment

8.44 The Cultural Heritage Assessment (CHA) that forms part of the planning application submission covers the matter of cultural heritage, including above-ground built heritage and archaeology.

8.45 Regarding above ground built heritage and setting effects, the CHA confirms that in terms of setting impacts, the majority of the designated assets are located to the east of the Site, from where views towards the Site are across an arable landscape towards a skyline dominated by the wind farm, its substation, the Triton Knoll substation and numerous overhead power lines, all of which are against the backdrop of the 3m high embankment for the South Forty Foot Drain.

8.46 The CHA confirms that the nearest designated assets are the Grade II Listed Fore Lane Farmhouse and Stable and the Grade II Listed Gauntlet House. However, site visits established that there would

be little or no visibility of the Proposed Development from these Listed Buildings due to intervening, buildings, structures and vegetation. It is therefore considered that the proposed development would not materially change the settings of these assets and that any harm to their settings, if it occurs at all, would be considerably less than substantial.

8.47 A geophysical survey was undertaken in order to provide a deeper insight into any remains or deposits that may be present on the Site. A report detailing the results of the geophysical survey has been prepared and accompanies this planning application. This will inform a WSI that will be submitted to the Heritage Trust of Lincolnshire (HTL) prior to the determination of the application and will set out how any predicted impacts on archaeological remains will be managed and mitigated during the development process.

8.48 Overall, the Proposed Development is anticipated to cause at most considerably less than substantial harm to the settings of nearby heritage assets. As a result no further mitigation for indirect effects beyond the screening set out by the Proposed Development is considered necessary.

8.49 It is therefore considered that the Proposed Development complies with relevant planning policy relating to cultural heritage and archaeology.

Flood Risk

Policy Summary

8.50 Paragraph 159 of the NPPF outlines that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future).

8.51 Paragraph 161notes that all plans should apply a sequential, risk- based approach to the location of development- taking into account the current and future impacts of climate change- so as to avoid, where possible, flood risk to people and property. The paragraph details that the sequential test should be applied, and if necessary, the exception test. Paragraph 162 explains that the aim of the sequential test is to steer new development to areas with the lowest risk of flooding.

8.52 Policy 2 ‘Development Management’ of the Local Plan encourages schemes to consider flood risk and sustainable drainage.

8.53 Policy 4 ‘Approach to Flood Risk’ of the Local Plan states that development proposed within an area at risk of flooding (Flood Zones 2 and 3 of the Environment Agency’s flood map or at risk during a

breach or overtopping scenario as shown on the flood hazard and depths maps in the Strategic Flood Risk Assessment) will be permitted, where:

- It can be demonstrated that there are no other sites available at a lower risk of flooding (i.e. that the sequential test is passed).
- It can be demonstrated that essential infrastructure in FZ3a & FZ3b, highly vulnerable development in FZ2 and more vulnerable development in FZ3 provide wider sustainability benefits to the community that outweigh flood risk.
- The application is supported with a site-specific flood risk assessment, covering risk from all sources of flooding including the impacts of climate change and which:
    - Demonstrates that the vulnerability of the proposed use is compatible with the proposed flood zone.
    - Identify the relevant predicted flood risk (breach/overtopping) level, and mitigation measures that demonstrate how the development will be made safe.
    - Propose appropriate flood resistance and resilience measures.
    - Incorporates the use of Sustainable Drainage Systems (SuDS) (unless it is demonstrated that this is not technically feasible) and confirms how these will be maintained/managed for the lifetime of development.
    - Demonstrates that the proposal will not increase risk elsewhere and that opportunities through layout, form of development and green infrastructure have been considered as a way of providing flood betterment and reducing flood risk overall.
    - Ensures suitable access is safeguarded for the maintenance of water resources, drainage and flood risk management infrastructure.

Assessment

8.54 A Flood Risk Assessment ('FRA') and Drainage Strategy forms part of the planning application submission. Infrastructure associated with solar farms is defined as 'Essential Infrastructure'.

8.55 The Site is situated across Flood Zones 1-3. Although the site is not directly at risk of coastal or fluvial flood risk due to the presence of an embankment along the South Forty Foot Drain, areas of the site are predicted to fall within the 100-year, 1000-year and 1000-year plus climate change

uplift floodplains. Additionally, parts of the site are at risk in the occurrence of a breach in the SFF Drain flood defence embankment.

8.56 As Essential Infrastructure, construction is permitted within flood zones 1 and 2, however an Exception Test is necessary for development within Flood Zones 3a and 3b. The Exception Test is applied when there are no reasonably available sites in Flood Zone 1 and in some cases Flood Zone 2 when the proposed development provides wider sustainability benefits to the community that outweigh flood risk, and that it will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall.

8.57 The Environment Agency confirmed they would not object to the development on the grounds of flood risk if Essential Infrastructure remains operational during the 1000-year plus climate change uplift event. The layouts have been designed to ensure that inverters across the site are outside the combined floodplain. The substation compound would be raised to at least 2.55 m above current ground levels to provide a 600 mm freeboard above the 1000-year plus climate change uplift floodplain.

8.58 The risk from surface water flooding is low. Nevertheless, finished floor levels are proposed to be set above local ground levels to prevent surface water flooding.

8.59 Furthermore, a swale will be constructed along the boundaries of the substation compound and surface water will be discharged at greenfield runoff rates. Enhanced swales will be implemented to allow for infiltration from the invertors. It has been found that during an exceedance event, runoff from the swales will remain in site, resulting in no predicted increase in risk downstream of the development.

8.60 The proposed drainage measures are set out in the drainage strategy that form part of the FRA and are considered more than sufficient for the Proposed Development.

Exception Test

8.61 The Proposed Development would provide a number of wider sustainability benefits to the community. In summary, these are:

- a contribution to the need for renewable energy to assist in combating climate change and reducing carbon emissions, and an associated tangible contribution to legally binding targets to reduce carbon emissions and increase renewable energy consumption.
- Combating climate change through renewable energy has the benefit of actually reducing flood risk;

- a tangible contribution towards increasing domestic energy security and providing economic benefits arising from construction; and
- a comprehensive landscape scheme and biodiversity enhancements.

8.62 It follows that the Proposed Development complies with relevant planning policy.

Biodiversity

Policy Summary

8.63 Policy 28 'The Natural Environment' of the Local Plan states that a high quality, comprehensive ecological network of interconnected designated sites, sites of nature conservation importance and wildlife-friendly greenspace will be achieved by protecting, enhancing and managing natural assets.

8.64 In addition, it outlines that development proposals that would directly or indirectly adversely affect locally-designated sites and protected or priority habitats and species will not be permitted unless:

- there are no alternative sites that would cause less or no harm;
- the benefits of the development at the proposed site, clearly outweigh the adverse impacts on the features of the site and the wider network of natural habitats; and
- suitable prevention, mitigation and compensation measures are provided.

8.65 The policy also details that development proposals shall provide an overall net gain in biodiversity, by:

- protecting the biodiversity value of land, buildings and trees (including veteran trees) minimising the fragmentation of habitats;
- maximising the opportunities for restoration, enhancement and connection of natural habitats and species of principal importance;
- maximising opportunities to enhance green infrastructure and ecological corridors, including water space; and
- conserving or enhancing biodiversity or geodiversity conservation features that will provide new habitat and help wildlife to adapt to climate change.

8.66 Policy 31 'Climate Change and Renewable and Low Carbon Energy' of the Local Plan details that renewable energy schemes should take into account the natural environment. Similarly Policy 2 'Development Management' of the Local Plan encourages schemes to consider their impact on and enhance natural habitats.

Assessment

8.67 The Site and land directly adjacent to it is not subject to any international, statutory or regional wildlife designation. The Site is not subject to any non-statutory wildlife designations. Six non-statutory designated sites lie within 2km of the Site, including South Forty Foot Drain adjacent to the western boundary.

8.68 The impact of the Proposed Development on biodiversity is considered in the Ecological Assessment submitted as part of the planning application. This includes a Phase 1 Habitat Survey and was supplemented by surveys of Badgers, Water Voles, the drains and Great Crested Newts.

8.69 The Proposed Development would mainly affect agricultural land, which is of negligible value. The boundary drains, along with poor semi-improved grassland along the banks are of low ecological value at a local scale. As recommended by the assessment, the arable habitats below proposed solar arrays and boundary habitats are, wherever possible, enhanced to provide a net gain in biodiversity.

8.70 In addition, the Site has been identified as having the potential to support protected species. The assessment therefore makes recommendations for a pre-commencement badger survey and various measures to protect these species. Recommendations are also made to enhance their habitats.

8.71 The assessment makes a number of recommendations regarding mitigation by design, such as buffer zones, which have been factored into the design, and a construction ecological management plan secured through a planning condition. Furthermore, various enhancement measures are proposed, which the Applicant is proposing to implement, such as a planning condition for a Biodiversity Management Plan.

8.72 It is considered that there would be no significant impacts on biodiversity and there would in fact be a number of benefits as a result of the new habitat that is proposed resulting in a significant biodiversity net gain. It follows that the Proposed Development complies with relevant planning policy.

Traffic and transport

Policy Summary

8.73 Policy 2 'Development Management' of the Local Plan notes that schemes should consider access and vehicle generation levels.

8.74 Policy 31 'Climate Change and Renewable and Low Carbon Energy' of the Local Plan details that renewable energy schemes should take into account highway safety (including public rights of way).

Assessment

8.75 The assessment and consideration of the transport arrangements for the Proposed Development is set out in the Transport Statement that forms part of the planning application submission.

8.76 The number of vehicle trips during the construction phase is expected to be relatively limited, with approximately 8-10 two-way trips for commercial vehicles per day, over an approximately 24 week period.

8.77 It is considered the increase of vehicle trips is small, and will have a *de minimis* impact on highway capacity. Furthermore, the Transport Statement includes a framework Construction Traffic Management Plan ('CTMP') and it is proposed that a detailed plan could be secured by planning condition. The CTMP would be sufficient to adequately manage the limited transport impacts associated with the Proposed Development during construction.

8.78 During the operational phase, traffic movements are expected to amount to up to four two-way trips for commercial vehicles per week. Traffic volumes of this magnitude would be imperceptible on a daily basis.

8.79 The Applicant has carried out a comprehensive and meaningful pre-application consultation exercise in respect of the Proposed Development, primarily focused on the local community. The Applicant has listened to the views expressed by the local community and the Parish Council and has made a number of changes and additions to the Proposed Development. Following consultation and consideration of highway access options for the Site, it has been concluded that the proposed access will be via the A52 Donington Road and then utilising an existing haul road on private land connecting directly to Ing Drove passing through Cowbridge Road, Bicker Drove and then onto Vicarage Drove. The route is shown within Figure 3.2 of the Transport Statement. The proposed route would avoid the village of Bicker and also the use of Fore or Back Lanes, which were areas of concern for local residents.

8.80 It is therefore considered the proposal would not have an adverse impact on the local highway network and would provide safe access/egress in line with local and national planning policy.

Amenity and impact on local community

Policy Summary

8.81 Policy 2 'Development Management' of the Local Plan notes that proposals should consider impact upon neighbouring land uses by reason of noise, odour, disturbance or visual intrusion.

8.82 Policy 30 'Pollution' of the Local plan details that Development proposals will not be permitted where, taking account of any proposed mitigation measures, they would lead to unacceptable adverse impacts upon:

- health and safety of the public;
- the amenities of the area; or
- the natural, historic and built environment;

by way of:

- air quality, including fumes and odour;
- noise including vibration; and
- light levels.

8.83 Policy 31 'Climate Change and Renewable and Low Carbon Energy' of the Local Plan details that renewable energy schemes should take into account residential amenity in respect of: noise, fumes, odour, vibration, shadow flicker, sunlight reflection, broadcast interference, traffic.

Assessment

8.84 The nature of the Proposed Development is such that it is not likely to cause any form of pollution during its operational stage. This is because there are no significant noise sources, traffic would be very low and it would not be lit at night. The Proposed Development includes no plans to divert or close any PRoWs.

8.85 The Proposed Development would be passive in operation and therefore would not generate any significant operational noise, other than that associated with occasional visits by maintenance/service vehicles. The noise associated with such activities would be negligible and less than that associated with farming activities in the area. There will be some temporary noise during the construction phase, which is anticipated to last approximately 16-24 weeks. This would include the following activities: vehicle movements along access tracks and haulage routes associated with the delivery and removal of construction materials; equipment delivery; site and ground

preparation activities; erection of panels using construction machinery; and material hauling. The construction activities may increase noise levels within the vicinity of the Site; however, it is considered that noise impacts during construction would be intermittent, localised and temporary in nature.

8.86 The development would not result in any emissions to air during its operation other than those from vehicles associated with periodic maintenance/inspection visits to the Site. Emissions associated with the construction phase would relate to construction vehicles and it is considered would not be of a level to cause harm to the environment or residential amenity. It is considered that emissions would be more than offset by the benefits of generating renewable energy at the Site.

8.87 It is also notable that the solar panels are designed to absorb sunlight, therefore there would be no significant issues associated with glint and glare. The metal frame is treated to avoid any significant issues associated with glint and glare. The panels will also be orientated east towards the National Grid substation or west towards the South Forty Foot Drain.

8.88 Furthermore, the tracking system aims to reduce reflections by keeping the angle of incidence with the sun as close to 0 degrees as possible. As the angle of incidence increases, reflections increase.

8.89 In light of the above, the Proposed Development is considered to be acceptable in terms of its impact upon residential amenity and accords with relevant planning policy.

9.0 SUMMARY AND CONCLUSIONS

9.1 The Proposed Development comprises the construction and operation of a solar PV farm with battery storage and other associated infrastructure.

9.2 The principle of renewable energy, such as solar power, is supported by local and national planning policy. Furthermore, the Council has declared a climate emergency and the UK Government has committed to meeting a legally binding target of net-zero carbon emissions by 2050. There is therefore a significant and demonstrable need for the Proposed Development, as set out in Section 2 of this document.

9.3 The Applicant has carried out a meaningful pre-application consultation exercise in respect of the Proposed Development, primarily focused on the local community, but also including consultation with the Council and other stakeholders. The Applicant has listened to the views expressed by consultees and has made changes to the Proposed Development to help address and mitigate concerns.

9.4 It has been demonstrated that the Proposed Development complies with planning policy and there are significant benefits associated with it. The environmental and technical reports that form part of the planning application submission demonstrate that there would be no unacceptable environmental impacts, and there are a number of added benefits, including habitat creation and biodiversity gains.

9.5 These factors, when combined with the significant need for renewable energy, mean that the planning balance (and, in particular, when considered in the context of the tests under Section 38(6) Planning and Compulsory Purchase Act 2004) is weighted significantly in favour of the Proposed Development.

9.6 The Applicant therefore respectfully requests that planning permission is granted for the Proposed Development.

APPENDIX A: LIST OF PLANS

No.	Reference	Title
1	RNC004-SD-01	Tracking Panel Cross Section Detail
2	RNC SD-02	Customer Substation Elevations and Dimensions Layout
3	RNC SD-03	Security Fence and CCTV Standard Details
4	RNC SD-04	Access Gate Elevation
5	RNC SD-05	Access Track Cross Section
6	RNC SD-06	Inverter Elevations and Dimensions Layout
7	RNC SD-09	Customer Substation Floorplan
8	RNC SD-10	Fixed Panel Cross Section Detail
9	RNC004 SD-13	40ft Battery Container (HVAC on Ground) Standard Detail
10	RNC004 SD-14	Inverter Floor Plan
11	RNC006 SD-15	132KV Circuit (Underground) – Plan- Standard Detail
12	RNC004 SD-16	Palisade Fencing- Standard Drawings
13	RNC004-SP-01	Site Location Plan
14	RNC004-PL-01	Indicative Site Layout Plan
15	RNC004-DZ-01	Development Zones Plan
16	Figure 08	Landscaping Proposals Plan