

## Appendices to Proof Of Evidence.

## **Evidence of Nigel Cussen.**

Land to the West of Wood Lane and Stocking Lane, Kingston Estate, Gotham.

On behalf of Renewable Energy Systems (RES) Ltd. Date: March 2024 | Pegasus Ref: P24-0106

Appeal Ref: PO340/W/23/3329235 | LPA Ref: 22/00319/FUL

Author: Nigel Cussen





# Document Management.

Version	Date	Author	Checked/ Approved by:	Reason for revision
V1	23/04/2024	NC	NC	Final

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# Appendix 1 – Kingston Solar Farm Capacity Note

Appellant's Response to Kingston Planning Inspector - Kingston Solar Farm Capacity

- 1. The Appellant has been asked to submit a concise written statement why its proposed development falls within the Town and Country Planning Act 1990 (TCPA90) and is not a Nationally Significant Infrastructure Project governed by the Planning Act 2008 (PA08).
- 2. S15 PA08 provides that an onshore generating station is an NSIP when it has a capacity of more than 50 megawatts (MW).
- PA08 provides no further definition of generating capacity, however NPS EN-3 provides guidance on how that figure should be calculated (para 2.10.53) together with further guidance on capacity and size of solar developments (paras 2.10.50 to 2.10.58 and 2.10.17 – attached overleaf)
- 4. Applying that guidance to the Kingston appeal, as the proposed development has a total inverter capacity under 50MW that indicates it is properly considered under TCPA90. Applying the other guidance provided in EN-3 also indicates that it complies with the EN-3 description of a sub 50MW solar development.

	Site Specific Figures for Kingston at 580W <sup>1</sup>	Site Specific Figures for Kingston at 610W	EN3 guidance/reference
Application Site Area (redline boundary in acres)	199	199	n/a
Application Site Buildable Area (acres) Solar Panels (maximum	98 – 101	98 - 101	125 to 200 acres for 50MW (EN-3 para 2.10.17) 100,000 to 150,000 for
number)	91936	91936	50MW (EN-3 para 2.10.7)
Candidate panel power rating (Watts)	580	610	n/a
Inverters <sup>2</sup> (number of)	17	17	n/a
Maximum Export Capacity (legal grid limit, MWac)	49.9	49.9	n/a
Total maximum inverter capacity (MWac)	49.9 <sup>3</sup>	49.9	n/a
MWdc	53.324	56.08	n/a
dc/MEC ratio	1.07	1.12	n/a
Development density (101 acres (Site Buildable Area)/MWdc)	1.89	1.80	2 to 4 acre/MWdc (EN-3 para 2.10.17)

#### 5.4.2024

<sup>&</sup>lt;sup>1</sup> No specific panel power rating has been given in the planning application, but these two examples are indicative of panels that might be used. This footnote applies to both 580W and 610W columns in the table above.
<sup>2</sup> The exact specification of the inverters will be finalised at the procurement stage due to the technology continually

advancing, but in no circumstances will exceed the combined total of 49.9MWac as referred to in footnote 3. <sup>3</sup> No specific capacity for individual inverters has been given in the planning application but the total combined capacity

cannot exceed the MEC of 49.9MWac, excluding any capacity to overcome reactive power consumption within the solar farm between the inverters and the connection point, per EN-3 footnote 91. Footnote 3 of this document applies to both 580W and 610W columns in the table above.

<sup>&</sup>lt;sup>4</sup> The dc capacity in excess of 49.9MW is what is described as "overplanting" in EN-3 para 2.10.55 and footnote 92. This applies to both 580W and 610W columns in the table above.

#### NPS EN-3 Extracts

2.10.17 Along with associated infrastructure, a solar farm requires between 2 to 4 acres for each MW of output. A typical 50MW solar farm will consist of around 100,000 to 150,000 panels and cover between 125 to 200 acres. However, this will vary significantly depending on the site, with some being larger and some being smaller. This is also expected to change over time as the technology continues to evolve to become more efficient. Nevertheless, this scale of development will inevitably have impacts, particularly if sited in rural areas.

#### Capacity of a site

2.10.50 Solar panels generate electricity in direct current (DC) form. A number of panels feed an external inverter, which is used to convert the electricity to alternating current (AC). After inversion a transformer will step-up the voltage for export to the grid. Because the inverter is separate from the panels, the total capacity of a solar farm can be measured either in terms of the combined capacity of installed solar panels (measured in DC) or in terms of combined capacity of installed inverters (measured in AC).

2.10.51 For the purposes of determining the capacity thresholds in Section 15 of the 2008 Act, all forms of generation other than solar are currently assessed on an AC basis, while a practice has developed where solar farms are assessed on their DC capacity.

2.10.52 Having reviewed this matter, the Secretary of State is now content that this disparity should end, particularly as electricity from some other forms of generation is switched between DC and AC within a generator before it is measured.

2.10.53 From the date of designation of this NPS, for the purposes of Section 15 of the Planning Act 2008, the maximum combined capacity of the installed inverters (measured in alternating current (AC)) should be used for the purposes of determining solar site capacity.

2.10.54 The capacity threshold is 50MW (AC) in England and 350MW (AC) in Wales.91

2.10.55 The installed generating capacity of a solar farm will decline over time in correlation with the reduction in panel array efficiency. There is a range of sources of degradation that developers need to consider when deciding on a solar panel technology to be used. Applicants may account for this by overplanting solar panel arrays.<sup>92</sup>

2.10.56 AC installed export capacity should not be seen as an appropriate tool to constrain the impacts of a solar farm. Applicants should use other measurements, such as panel size, total area and percentage of ground cover to set the maximum extent of development when determining the planning impacts of an application.

2.10.57 Nothing in this section should be taken to change any development consent or other planning permission granted prior to the designation of this NPS. Any such permission should be interpreted on the basis upon which it was examined and granted.

2.10.58 In particular, any permissions granted on the basis of a DC installed generating capacity should be built on that basis, unless an amendment is made to that permission and the difference in impacts is considered.

91 The combined maximum AC capacity of the installed inverters may only exceed the aforementioned thresholds for the sole purpose of overcoming reactive power consumption within the solar farm between the inverters and the connection point.

92 "Overplanting" refers to the situation in which the installed generating capacity or nameplate capacity of the facility is larger than the generator's grid connection. This allows developers to take account of degradation in panel array efficiency over time, thereby enabling the grid connection to be maximised across the lifetime of the site. Such reasonable overplanting should be considered acceptable in a planning context so long as it can be justified and the electricity export does not exceed the relevant NSIP installed capacity threshold throughout the operational lifetime of the site and the proposed development and its impacts are assessed through the planning process on the basis of its full extent, including any overplanting.



# Appendix 2 - Kingston Grid Report





# Land to the West of Wood Lane and Stocking Lane, Kingston Estate, Gotham.

Grid Connection Feasibility

Author: Patrick Smart



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### Personal Background

My name is Patrick Smart and I am Energy Networks Director at RES. I have a degree in Business Studies and have worked in various areas of energy network regulation / grid connection for twenty five years.

As Energy Networks Director, I am responsible for all things grid relating to the RES onshore renewable energy and energy storage portfolio in UK and Ireland. Between 2014 and 2018, I was Chair of the Renewable UK Grid and Systems Group. From 2020 to 2022, I completed a two year contract as an independent advisor on the Northern PowerGrid Customer Engagement Group, a committee established to scrutinise Northern PowerGrid's RIIO ED2 business plan that will run during its next price control between 2023 and 2028. I currently sit on the DESNZ convened Connections Process Advisory Group (CPAG) which advises on delivery of the Government Connection Actions Plan.

Between 1999 and 2005, I held two senior roles within the OFGEM Networks Division and prior to joining RES in February 2011, I was Head of Commercial and Regulatory Consulting at Senergy Econnect, now part of Lloyds Register.

The content of this report has been prepared in accordance with current industry practice and any opinion expressed in it is my own.

I have prepared the following overview of the key restrictions and limiting factors when exploring feasible options for grid connection solutions in respect of the Kingston solar farm proposal, although the considerations involved here would be applicable to any renewable power station project. The following three factors are of particular importance:

- 1. Grid connection capacity and design the capability of electrical plant at different voltages to accommodate additional power generation and the types of plant available.
- 2. Local Grid Integration the ability of the existing network to integrate a new point of connection.
- 3. Wider Grid Reinforcement the possible need to reinforce that existing grid infrastructure due to the impact of new generation.

### **The Proposed Kingston Grid Connection Design**

In discussing these connection considerations, it will be helpful to do so in light of the actual connection solution that has been agreed with National Grid Electricity Distribution East Midlands (NGED EM). This involves construction of 400m of new double 132kV underground cables from Kingston Solar Farm substation to a loop in point (explained below) on the existing 132kV NGED EM network, all contained within the red line planning application boundary for the proposal. NGED EM have indicated that construction of the new connection can be completed in line with build out of the Kingston Solar Farm project and NGESO have confirmed that there is no delay associated with the need for transmission reinforcement.

### **Grid Connection Circuit Capacity and Design Factors**

When considering options for design of a grid connection for a new renewable power station, key considerations will be;

- Voltage / capacity
- Overhead Line or underground cable

#### **Voltage / Capacity**

New grid capacity tends to be delivered in volumes sufficient to meet new generating capacity. Doing so has to take account of the thermal capacities of typically available cable or overhead line at different voltages. Once constructed, the new grid connection will be adopted by the Distribution Network Operator (DNO) as part of its regulated network and DNOs will only adopt assets for which they have previously given type approval. This places a clear restriction on the grid connection design options in line with the type approved cables and overhead lines of the DNO in question. Even the heaviest typical 33kV overhead lines or conductors operated by DNOs will be of insufficient rating to safely convey generating output of 49.9MW. In practice only 66kV and 132kV cabling will be able to accommodate 49.9MW of new generation capacity and there is no network of 66kV voltage anywhere in the proximity of the Kingston Solar site.

#### **Overhead Line or Underground Cable**

For voltages up to and including 132kV, a single circuit can be carried on a wooden pole structure of . Typically, overhead lines bring significantly lower cost of construction than underground cable however they bring increased permanent amenity impacts. Some underground cabling in specific situations can benefit from permitted development rights, but outside of those situations require planning consent as do overhead lines. Once constructed, live overhead lines will impose safety related restrictions on the ability to work underneath or in close proximity to them and will involve acquisition of land rights reflecting those permanent restrictions on the corridor of land through which the overhead line runs. Typical 132kV wood pole support structures will be of elevation between 12.5m and 17m. It will also require a working width corridor in the region of 25m. An image of a typical wood pole structure is set out in Figure 1 below.

An overhead line solution for any new circuit of 132kV, or greater voltage, of a length of 2km or greater would fall outside of the Town and Country Planning Act regime and would require consent under the Planning Act 2008 as a Nationally Significant Infrastructure Project.



Figure 1 – Typical 132kV Trident Wood Pole structure

Although use of underground cable can in some situations allow use of permitted development rights as the means of obtaining planning consent, installing cables of 132kV voltage is a significant undertaking with a wide range of potential construction impacts depending on the land through which the route has to pass. Minimum installation depth is around one meter and land take is significant which contributes to a much increased unit cost. Underground cable can cost anywhere from 5 times to 10 times more than overhead line. A cross section drawing of a double 132kV circuit underground installation of the type required for Kingston solar farm is set out on in Figure 2 below. Minimum width of a double 132kV circuit trench is 1.35m but is often wider. A working width in the region of 16 m is needed in addition to the installation width itself both of which together then need to be safeguarded from future surface activities that could compromise the cabling or its future maintenance, for which permanent land rights will need to be acquired.

## DUAL CIRCUIT



75mm Cover To Marker Tape 75mm Fine Stone Dust Bedding

Figure 2 – Cross section of double 132kV cable trench installation

### **Grid Integration**

The following is a summary of the typical approaches to integration of a new grid connection into the existing electricity grid.

#### Tee in

A new circuit is constructed from the new (in this case renewable) power station substation to a point on an existing DNO circuit, usually requiring "break in" and jointing works. The DNO will adopt the new circuit from the new tee in point to the ownership boundary at the renewable power station substation.

Tee in opportunities are the simplest form of connection but are usually limited by grid company network protection standards which limit the number of ends that a circuit can have. This is to ensure that their protection systems can work safely and efficiently at all times.

#### Loop in

An existing DNO circuit is redirected through the new power station circuit. This usually requires the construction of 3 switch bays at the new power station substation. Loop in connections deal with protection challenges associated with a tee in connection but can often pose planning and property challenges depending on the extent of the redirection of existing overhead lines that is required.

#### **Busbar extension in Substation**

A busbar extension usually involves the construction of a new grid connection circuit from the new power station into an existing grid substation. In order for this to be a possibility, the existing grid substation must either have a spare switch bay or it must at least have the space within the substation compound to extend the existing busbar in order to accommodate a new switch bay.

#### **Network Reinforcement**

The integration of a new power station may take the loading of the existing grid systems beyond its

rated capabilities. This may be in relation to the thermal rating of a cable or a transformer but it may also be linked to the fault current rating of switchgear within existing substations or even the impact on the forecast voltage profile of a section of grid. If so, it is often the case that the required reinforcements may be significantly remote from the location of the new power station project in question.

### **GB** Grid Connection Opportunities (the Grid Queue)

Grid companies and regulators have historically focused on minimising short term cost over strategic reinforcement to help integrate renewables that will be essential to meeting the targets of decarbonising our electricity system by 2035 and achieving net zero by 2050. Build out of new grid has not kept pace with progression of demand for new connections from new renewable power stations. This shortfall of grid capability coupled with a new connections process with insufficient rigour has given rise to a very significant "queue" of new renewable generators waiting many years for new connection.

#### **Overview of GB Grid Queue**

According to data shared by NGESO, current state GB grid queue sits at around 600GW of new generating capacity and they expect this number to hit c800GW by the end of the summer. The data set out in Figure 3 below was published by NGESO in January 2024.



Figure 3 – GB Grid Queue in January 2024

A significant proportion of the accepted grid offers that make up the grid queue are from developers with impractical projects that are still able to exploit the position in the grid queue that they have secured. NGESO has now introduced new rules to remove such projects. Kingston Solar Farm is clearly not such a project.

## **Overview of impact of the Grid Queue on "local" grid connection opportunities**

One of the key effects of the grid queue is that existing transmission substations with spare switch bays have had those spare bays taken by queue generators and opportunities to extend busbars in those substations have now generally been exhausted. Transmission owners are left with the option of either extending the boundary of an existing substation, an option that will usually involve the securing of new land rights or variation to planning consent before undertaking a major rebuild, or constructing new Grid Supply Point (GSP) Substations.

## Key Conclusions of Grid Connection Feasibility for new Renewable Power Stations:

- In landing on a feasible connection design, developers must find the best balance between visual impact of overhead lines and the much higher cost of construction of underground cables at 132kV.
- 2. Developers of essential new renewable power station projects are rarely in a position to consider multiple grid connection solution options. Given the extent of demand for new grid connection solutions and the scarcity of technically feasible grid connections, an individual viable grid solution for a new project is increasingly a rare circumstance.
- 3. Developers are often faced with delays to grid connections of well over a decade as a result of the need to reinforce the existing transmission system through the construction of new GSP substations. National Grid Energy System Operator (NGESO) have quoted for connections as far in the future as 2037 and the terms for connection will involve the acceptance of very significant liabilities in the form of NGESO cancellation charges associated with the required transmission reinforcements.

### Kingston Solar - Grid Connection Key Conclusions

Considering the factors outlined above to the consideration of the best grid connection solution for Kingston Solar Farm, we arrive at the following conclusions.

- Design (Capacity): In light of the ratings of relevant connection plant type-approved by NGED and the design of existing NGED network in the area, there was no realistic alternative to a grid connection at 132kV for a solar farm rated at 49.9MW. The heaviest 33kV cable or overhead line would have been of inadequate rating.
- Design (Overhead line or Underground Cable): Kingston Solar Farm was developed on the basis of a 49.9MW design, which falls under the Town and Country Planning (TCPA) regime. If the associated grid connection solution did not also fall within that regime, it would impose costs and longer timescales that the NSIP regime would impose. Use of

underground cable rather than overhead line for distances in excess of 2km from the connection point or the 132kV OHL that has the available capacity that the Kingston project is accessing would have involved very significant cost, construction impacts and acquisition and sterilisation of land that is all avoided with the chosen project design.

• Grid Integration: The effect of current state GB connections queue in the area, means that all potential alternative grid solutions have been taken. This is the only solution that enables grid integration within project delivery timescales.

• Network Reinforcement: To secure a grid connection that can be delivered in a timescale that is not delayed by transmission reinforcements is a rare opportunity and one that should be taken to allow Kingston Solar Farm to contribute to the meeting of UK Decarbonisation and Net Zero targets.



# Appendix 3 - Kingston Technical Report





# Land to the West of Wood Lane and Stocking Lane, Kingston Estate, Gotham.

**Technical Report** 

Author: Jean-Christophe Urbani



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### **Personal Background**

My name is Jean-Christophe Urbani, and I am the Global Solar Lead at RES. I have a degree in Physics, Microelectronics and Hydraulic.

As Global Solar Lead at RES, I am responsible for the design and the yield assessment of RES PV projects mainly in UK & Ireland, Germany and Sweden.

Prior to join RES I was a Consulting Director in the Renewable Advisory Business Unit at ERM with a direct lead and execution of Technical Advisory Services of Solar PV and BESS projects.

Previous to this role, I was the Head of the PV & Storage Engineering and Performance activities for an IPP (CVE) committed to creating synergies to reduce technical risks related to development, construction, and operation of solar plants.

I also had the opportunity to work for RES for 7 years with various positions mainly focused on delivering support to the development of renewable energy projects.

With more than 25 years' experience in the high technology industry and 17 years in the renewable sector, acquired through my different roles, I have a solid expertise in the design, the optimization of PV solar plants combined with a broad technical, engineering, project development and commercial knowledge of solar PV development.

This technical note describes the technical considerations regarding DC/AC installed capacity, power factor requirements, GCR and other elements that are taken into account in the design of grid connected Photovoltaic (PV) farm (solar farm).

The evidence that I have prepared is given in accordance with my expertise, and I can confirm that it is my true and professional view.

## Capacity of a Solar Farm: Direct Current, Alternating Current and Maximum Export

#### **Direct Current and Alternating Current**

In a solar farm, there are two key elements. The PV modules convert sunlight into direct current (DC) electricity during daylight hours. The inverters transform the electricity generated by the PV modules and turn it into alternating current (AC) electricity.

DC installed capacity is defined as the product of the number of modules by the nameplate wattage/output of each module. AC capacity is defined as the total output of the sum of all inverters.

The output of a solar panel is determined under carefully controlled laboratory settings, which are very different from the real operating conditions. These laboratory conditions are called Standard Test Conditions (STCs). They assume 1000 W/m2 solar irradiance, AM1.5 spectrum, and a cell temperature of 25°C. AM1.5 spectrum refers to a 1.5-atmosphere thickness (air mass or AM) corresponding to a solar zenith angle of around 48° (zenith angle is the angle to the sun relative to a vertical line).

These STCs reflect an idealised scenario that is rarely achieved with in reality by a solar farm, and therefore to accommodate this difference in PV module nameplate power rating and real power delivered, solar designers generally oversize the amount of DC capacity compared to the AC. This is known as overplanting. This results in a DC to AC ratio that is greater than 1. This DC to AC ratio of more than 1 allows the maximum inverter capacity to be used more often during the day and more energy to be produced – for example in the early morning and late afternoon as showed in the graph at Figure 1:





Any electricity that is produced in DC from the solar panels over the 49.9MWac inverter limit is constrained. This is called inverter clipping.

A typical DC/AC ratio of a solar farm is between 1.10 and 1.60 depending on the type of system (tracker/fix tilt), system size and project location.

The efficiency of a solar panel decreases by less than 0.5% each year. This is known as degradation. This results in around 12-15% less power being generated by each panel by the end of its life, which is between 30 and 40 years.

This effect has an impact on the DC/AC ratio over time and has to be take into account in design of the solar farm.

#### **Maximum Export Capacity**

The grid connection associated with a solar farm also dictates the maximum amount of electricity that can be exported (Maximum Export Capacity or MEC). A Power Park control system is programmed and commissioned not to exceed output greater than registered capacity. All new projects in the National Grid Electricity Distribution (NGED) network include the installation of a local control panel which monitors the MW output. If this were to ever exceed the Maximum Export Capacity the project would risk being tripping off by the NGED. There is also a tariff meter (which takes an average output of the site every 30 minutes). Power quality meters measure real time outputs from the site, which means NGED can monitor and analyse the amount of electricity a project exports and ensure that it is not more than the contracted capacity.

Attached is a copy of the connection agreement which shows the maximum export capacity 49.9MW. The variation was to clarify the export capacity of 49.9MW it having previously been expressed as 50,000kVA (50MVA). The rest of the original grid offer contains standard wording from WPD (NGED) and is not provided here.

### Other PV design considerations eg GCR and tilt

Another important parameter that characterises the design of a solar farm on the ground is the Ground Coverage Ratio (GCR).

It represents the ratio of module area to land area, or the ratio of array length to row-to-row pitch (L/R in Figure 2). Inter-row shading increases with GCR.  $\beta$  is the tilt angle, and z measures height along the array. The screening angle  $\psi(z)$  represents a two-dimensional field-of-view reduction at height z.





These different parameters (L, R,  $\beta$ ,  $\psi$ ) are usually optimised during the development of the project. The GCR is the result of this optimisation, and it generally varies from 0.35 to 0.75.

There is a minimum spacing of 2m between the rows to enable maintenance, otherwise the site is not workable. Also, if you increase density, you also increase shading losses and make the site less efficient.

I have been asked to address whether an equivalent yearly production of energy could be achieved on a smaller land area by increasing the GCR or using a higher rated panel and if so, what the visible extent of such changes might be:

- We are at what we think is an efficient GCR for this site and increasing it further will lead to higher levels of shading and energy loss for that reason.
- We have also taken account of forecast improvement in module efficiency in proposing the number of panels likely to be used and as for any developer need to retain some flexibility for the site to remain competitive when sourcing components for the final construction.
- Any scope for further changes to GCR or panel rating to affect site area to achieve similar performance to the current appeal layout would be of marginal effect and unlikely to result in changes that would be noticeable to the public.

### Number of Inverters / Inverter Capacity

The Kingston Solar Farm has 17 inverters in the current layout. The maximum AC capacity of all 17 of those inverters will never exceed 49.9MW.

Inverters come in different sizes (including sub 2MW) and a combination of different inverter sizes can be used at a Solar Farm. It is also possible to set, to a customised lower figure, the output power of a specific inverter, from its nominal designed capacity. This is done by firmware at the inverter factory or during the commissioning of the plant. In this scenario inverters installed on site will be pre-set to ensure that the maximum MWac of the solar farm never exceeds 49.9MWac.

### Bifacial module technology

The solar industry evolves continuously, and new technologies now allow the production of some energy from the back of the module.

This is what we call a bifacial module. Because the PV cell architecture is not fully symmetrical the capability of the module to generate from the back is not the same as the front.

Because solar modules stand on structures facing south and are inclined from around 10 to 35 degrees the irradiation that reaches the backside of the module is very low compared to the energy reaching the front side. It is on average between 2 and 4 % higher than a mono-facial module.

This may seem a low figure, however 2 to 4 % is still significant and allows the maximisation of renewable energy production from the land.

## Appendix A

Parameters/Layout	Original Layout	Current Layout
Yearly production - 1st year (GWh)	61.75	53.44
Difference of yearly production (%)	15.6%	
Maximum capacity injected into the grid (MW)	48.78	47.84
ifference of maximum capacity injected (%)	2.0%	
nergy injected into the grid at 50MW (MWh)	0	0
rea (acres)	127.3	100
umber of panels	114 946	91 936
GCR	0.7	0.7
Graph	Cumulated energy injected into the Grid (kWh) 00000000 12500 25500 550000 55000000 55000000 5500000000	Kingston project

## Appendix B

		Variation Agreement
Betv	een:	
(1)		on East Midlands plc (company number: 02366923) whose ank, Feeder Road, Bristol BS2 0TB ("WPD"); and
(2)	Renewable Energy Systems L Kings Langley, Hertfordshire, V	Ltd, whose registered office is at Beaufort Court, Egg Farm Lane, WD4 8LR (the "Customer")
(eacl	a "Party" and together the "Part	ties").
	of Variation (date of ture by WPD):	09/06/2022
Cont	oct details for notices for Custom	ner:
1000000	ct Name: Ben Adebowale	
	ess: Renewable Energy Systems Lt Lane, Kings Langley, Hertfordshir	td, whose registered office is at Beaufort Court, Egg re, WD4.8LR
1.	l: ben.adebowale@res-group.com	A STATE OF A CALL AND A
Tel: (	1923 299487 / 07500 333926	
We a	cree to be bound by the terms of	this Variation Agreement.
		Martan Down Distribution Toxi Midlands -las
	d by Richard Rowley on behalf of	western Power Distribution East Midiands pic.
	d by Richard Rowley on behalf of	western Power Distribution East Midlands pic:
	d by Richard Rowley on behalf of	western Power Distribution East Midiands pic:
	d by Richard Rowley on behalf of	western Power Distribution East Midiands pic:
		of the Customer:

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#### Background:

- (A) WPD and the Customer are parties to the Contract (as defined below).
- (8) The Parties now wish to amend the Contract and have agreed that the Contract shall be amended on the terms contained below.

It is a	preed as	follows:	
1.	Defin	itions an	d interpretation
1.1			ct of terms defined in this Variation Agreement below, expressions defined in nd used in this Variation Agreement have the meaning set out in the Contract:
	the p	remises i	Offer" means the connection offer issued by WPD on 13/10/2020 concerning known as Kingston Solar Kingston Estate Kingston on Soar Nottingham NG11 e 3719435).
			cans the contract formed on 08/01/2021 between WPD and Renewable Energy oon the acceptance of the Connection Offer by the Original customer.
		of Vari	iation" means the date appearing at the top of page 1 of this Variation
	*Orig	inal Cust	omer" means the customer to whom the original Connection Offer was made.
	"Varia	ation Agr	reement" means this agreement (including the schedule) varying the Contract.
1.2	In this	Variatio	n Agreement, unless the context otherwise requires;
	{a)		in the singular include the plural and vice versa and words in one gender ie any other gender;
	(b)	a refe	rence to:
		60	any party includes its successors in title and permitted assigns;
		(iii)	clauses and schedules is to clauses of and schedules to this Variation Agreement and references to sub-clauses and paragraphs are references to sub-clauses and paragraphs of the clause or schedule in which they appear.
2.	Variat	tion	
2.1			on of the obligations of each party as set out in this Variation Agreement as of Variation:
	(o)	At the	customer's request, we have revised the supply specification.
	Custo	mer's Ins	stallation
	1000020	100.000	병을 맞춰졌다. 방법을 맞고 성장에 들었다. 그는 것 이 가는 것이 많은 것은 것은 것은 것은 것을 만들었다. 것 같은 것은 것을 하는 것을 수 있다. 것은 것을 하는 것을 수 있는 것을 하는 것을 하는 것을 하는 것을 수 있다. 것은 것을 하는 것을 수 있는 것을 하는 것을 수 있다. 것은 것을 것을 수 있는 것을 것을 수 있다. 것은 것을 것을 수 있는 것을 수 있다. 것은 것을 것을 수 있다. 것은 것을 수 있는 것을 수 있는 것을 수 있다. 것은 것을 것을 수 있다. 것은 것을 하는 것을 수 있다. 것은 것을 수 있다. 것은 것을 수 있다. 것은 것을 것을 것을 것을 수 있다. 것은 것을 것을 것을 수 있다. 것은 것을 것을 것을 것을 것을 수 있다. 것은 것을

WPD understands that, based on current information provided by the Customer, including within the Customer's connection application, the proposed Customer's Installation will comprise the following:-

49.9MW of PV

#### DocuSign Envelope ID: 0C0C245C-1AF5-40AF-8AEA-C2D24F066B27

Subject to any other provision of this Connection		
the characteristics of the Proposed Connection Nominal Voltage at Connection Point	132000 Volts	
No of Phases	Three Phase	
Nominal Frequency	50 Hz	
Maximum Export Capacity	49900kW	
Maximum Import Capacity	100kVA	
Acceptable Power Factor for Export Capacity	Unity	
Acceptable Power Factor for Import Capacity	0.95 lag to unity	



# Appendix 4a - Kingston Ecology Update Report

22/04/2024

To whom it may concern,

This update report has been written by myself (Thomas Hill MEnv (Hons)), I can confirm that it is factually correct at the time of writing and recommendations are my own professional opinion(s). I am an ecologist with over five years' experience in the industry. The portfolio of projects I have contributed to vary in scale from small residential adjustments, all the way to national level infrastructure projects and large renewable energy schemes. My office experience consists of multi-disciplinary collaboration, data analysis, project management, and reporting writing numerous document types including Species Specific Reports, Preliminary Ecological Appraisal Reports, Ecological Impact Assessments, and Net Gain Assessments. Regarding fieldwork, I am skilled in a variety of survey methodologies including Phase 1, UK Habitat Classification, Habitat Condition Assessment, Great Crested Newt ("GCN") Habitat Suitability Index Assessment, Bat Emergence/Re-entry, Bat Transect, Otter and Water Vole, and Badger/Otter Precommencement alongside other Ecological Clerk of Works assignments. In addition, I have experience as an accredited agent for GCN, and other protected species licence adjacent work and have successfully inputted my expertise into relevant requests for further information and addressed comments as a part of the planning process.

Neo Environmental Ltd was commissioned by RES to undertake ecological surveys at the proposed Kingston Solar Farm, to ensure any alterations in the baseline habitat are recorded, due to time elapsed since the prior survey effort. These surveys were undertaken in January 2024, by Kevin Johnson MCIEEM (who also completed the initial surveys undertaken), and comprised UK Habitats Classification, Habitat Condition Assessment, and Species Scoping Surveys of the Application Site.

The surveys were completed in fair weather with no heavy wind, rain, or other adverse conditions which may materially affect the findings of the survey. Whilst it is acknowledged that January is outside the optimal period to survey certain habitats, such as heathland and priority woodland, none of these habitats are present within or immediately adjacent to the Application Site. Therefore, the time of survey does not constitute a limitation to the findings of the survey, and subsequent recommendations and calculations.

These informed the creation of this Ecological Update Report. Additionally, this has informed the recreation of the Biodiversity Net Gain Metric, updating it from the previously submitted v2, to the Statutory Edition, now required for law for all new planning applications.



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### **Protected Species**

No additional signs of protected species were identified during the survey in January 2024, all trees previously identified with bat roost potential have retained this status, and all recommendations relating to the mitigation of potential impacts for protected and notable species remain relevant.

#### Habitats

Within the latest iteration of the development boundary of the Application Site, the following habitats are present;

- c1c Cereal Crop: Comprising the southern half of the Application Site, this land is primarily managed for the cultivation of wheat. No change in recommendations relating to this habitat comparative to the previously submitted Ecological Reporting.
- g4 Modified Grassland: Comprising the northern half of the Application Site, this land is utilised primarily for grazing of livestock. Some small areas deviate minorly from the core habitat classification, in form of small patches of less managed grassland. No change in recommendations relating to this habitat comparative to the previously submitted Ecological Reporting.
- h2a Native Hedgerow: Frequently found throughout the Application Site are hedgerows almost entirely comprising of hawthorn, with many including mature trees, and associated with adjacent ditches. No change in recommendations relating to this habitat comparative to the previously submitted Ecological Reporting.
- u1e Built Linear Feature: Numerous routes used for existing management of the Application Site and by local residents as Public Rights of Way
- w1g Other Broadleaved Woodland: Two small stands of plantation woodland within the Application Site, one within the northeast corner of Field 4, the second overshadowing the access route connecting the north and south parcels. No change in recommendations relating to this habitat comparative to the previously submitted Ecological Reporting.
- w2c Other Coniferous Woodland: Multiple small stands of plantation Scot's pine trees located at the edges of field boundaries just within the Development Boundary.



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No change in recommendations relating to this habitat comparative to the previously submitted Ecological Reporting.

These habitats supersede those identified within the Application Site in previously submitted Ecological Reporting. Changes in habitats recorded are predominately due to the differing industry standard methodologies at time of completion, and how these categories are further classified within the most up to date Biodiversity Metric at the respective times of completion.

Additionally, under the UK Habitats Classification Survey Methodology the ditches previously noted within the Phase 1 Habitat survey during the original Planning Application are most accurately classified as ancillary features to associated hedgerows, and therefore have been assessed as Hedgerow Units, rather than Watercourse Units.

### **Biodiversity Net Gain**

Following the changes between editions relating to the Habitat Condition Assessment which informs the Statutory Biodiversity Net Gain Metric, alongside the weighting these habitats receive within the Metric, the baseline biodiversity unit value of the Application Site has decreased, whereas the changes to the Temporal Multiplier (amongst other factors) have increased the value of the Post Development habitats proposed within the LEMP (Landscape and Ecological Management Plan).

The completion of the Statutory Biodiversity Net Gain Metric has been informed by the surveys undertaken in January 2024 and most up to date LEMP<sup>1</sup>. The Statutory Biodiversity Metric identifies that habitat units will increase from **179.47** to **396.05**, an increase of **120.67%**, and hedgerow units will increase from **68.01** to **83.51**, an increase of **22.78%**.

Both of these are above the 10% requirement set by the Environment Act and highlight the improvements to biodiversity and protected species within the local area as a result of the Proposed Development.



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<sup>&</sup>lt;sup>1</sup> It should be noted that a Landscape Masterplan has subsequently been prepared by Pegasus Group (Drawing number P24-0106\_EN\_OI\_E\_02) which is presented at Appendix 2 of the Landscape proof of evidence. This reflects the Landscape and Ecological Management Plan (LEMP) Revision E (Drawing number NEO00763\_047I\_C) prepared by Neo Environmental which was submitted in February 2023 following the removal of further solar infrastructure from field 15 and noting removal of field 16. This LEMP was the final iteration of three LEMPs submitted during the application process.

#### Conclusion

Overall, the limited changes to habitats within beneath the design footprint do not constitute a significant change, and no additional species of note were recorded during the updated 2024 survey. Therefore, the findings and recommendations outlined in the previously submitted Ecological Assessment and associated appendices (as amended in 2023 following the removal of panels from the southeastern most fields) remain relevant. The calculation of the biodiversity metric under the statutory version additionally highlights that the Proposed Development remains highly beneficial to nature and the environment comparative to the baseline land use.

Please do not hesitate to contact myself or colleagues if you require any further information.

KIND REGARDS, **THOMAS HILL** MENV (HONS) SENIOR ECOLOGIST E: <u>Thomas@neo-environmental.co.uk</u>



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### Appendix 4b - BNG summary sheet

Kingston Solar Farm       Return to         Headline Results       results menu         Scroll down for final results ▲			
On-site baseline	Habitat units Hedgerow units	179.47 68.01	
On-site Daseillie	Watercourse units	0.00	
On eite meet internentien	Habitat units	396.05	
On-site post-intervention (Including habitat retention, creation & enhancement)	Hedgerow units	83.51	
(including nabitat retention, creation & ennancement)	Watercourse units	0.00	
On site not shonge	Habitat units	216.58	120.67%
On-site net change	Hedgerow units	15.49	22.78%
(units & percentage)	Watercourse units	0.00	0.00%
	Habitat units	0.00	
Off-site baseline	Hedgerow units	0.00	
	Watercourse units	0.00	
	Habitat units	0.00	
Off-site post-intervention	Hedgerow units	0.00	
(Including habitat retention, creation & enhancement)	Watercourse units	0.00	
	Habitat units	0.00	0.00%
Off-site net change	Hedgerow units	0.00	0.00%
(units & percentage)	Watercourse units	0.00	0.00%

	Habitat units	216.58
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Hedgerow units	15.49
	Watercourse units	0.00
	Habitat units	0.00
Spatial risk multiplier (SRM) deductions	Hedgerow units	0.00
	Watercourse units	0.00

FINAL RESULTS					
Total net unit change	Habitat units Hedgerow units	216.58 15.49			
(Including all on-site & off-site habitat retention, creation & enhancement)	Watercourse units	0.00			
	Habitat units	120.67%			
Total net % change	Hedgerow units	22.78%			
(ווגנווטווא איז איז איז איז איז איז איז איז איז אי	Watercourse units	0.00%			
Trading rules satisfied?	Yes √				

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	1
Habitat units	10.00%	179.47	197.42	0.00	No
Hedgerow units	10.00%	68.01	74.81	0.00	No
Watercourse units	10.00%	0.00	0.00	0.00	No

o additional area habitat units required to meet target  $\checkmark$  No additional hedgerow units required to meet target  $\checkmark$  o additional watercourse units required to meet target  $\checkmark$ 



### Appendix 5 - Brownfield Register

Appendix 5 - Brownfield Register											
Organisatic SiteReferer SiteNameAddress	SiteplanUR G	eoY (	GeoX	Hectares OwnershipStatu: PlanningStatus	PermissionType	PermissionDate PlanningHistor Deliverable	NetDwellin Net	Dwellin Hazard	lous: Notes	FirstAddedDate	LastUpdatedDati EndDate
http://open SHLAA/BIN "Chesterfield Arms Church Street Bin	g https://arcį	52.9521	0.9505	0.32 not owned by a p permissioned	full planning permission	17/08/2018 https://plannin Yes	10	10	"Planning permission 18/00298/	31/03/2020	31/03/2020
http://open SHLAA/BUI "Bunny Brickworks, Bunny"	https://arcį	52.8534	-1.1383	2.4 not owned by a p not permissioned		Yes	80	100	"Part of mixed use allocation"	31/03/2020	31/03/2020
http://open SHLAA/FLI/ "Flintham Islamic Institute, Flintham'	" https://arcį	53.014	-0.9025	3.45 not owned by a p not permissioned			95	95	"Permission 15/03060/OUT expi	ŧ 11/12/2017	31/03/2020
http://open SHLAA/NE\ "Former RAF Newton, Newton"	https://arcs	52.966	-0.9813	35.4 not owned by a p permissioned	outline planning permission	30/01/2014 https://plannin Yes	500	550	"Outline planning permission 10	11/12/2017	31/03/2020
http://open SHLAA/RAE "Pedigree Wholesale, The Crescent, F	Ri https://arcį	52.9488	-1.0301	0.5 not owned by a p not permissioned			10	10	"Suggested number of dwellings	f 11/12/2017	31/03/2020
http://open SHLAA/RUI "15 Parkyns Street, Ruddington"	https://arcį	52.8913	-1.15	0.05 not owned by a p not permissioned			5	5	"Lapsed planning permission"	11/12/2017	31/03/2020
http://open SHLAA/STA "Hillcrest Workshops, Stanton in the	V https://arcį	52.8739	-1.0516	0.49 not owned by a p permissioned		11/12/2018 https://plannin Yes	6	6	"Planning permission 18/02288/	31/03/2020	31/03/2020
http://open SHLAA/WB "West Bridgford Depot, West Bridgfor	rc https://arcį	52.9283	-1.1195	1.7 owned by a publi permissioned		18/06/2019 https://plannin Yes	50	76	"Suggested number of dwellings	f 11/12/2017	31/03/2020
http://open SHLAA/WB "Former Filling Station, Radcliffe Road	d https://arcį	52.938	-1.1329	0.1 not owned by a p not permissioned			6	6	"Planning permission 13/01936/	11/12/2017	31/03/2020
http://open SHLAA/WB "John Germans Drovers, 37 Gordon R	c https://arcį	52.9295	-1.1251	0.02 not owned by a p permissioned	full planning permission	08/03/2017 https://plannin Yes	9	9	"Planning permission 16/02908/	12/12/2017	31/03/2020
http://open SHLAA/WB "134A Trent Boulevard, West Bridgfor	d https://arcį	52.938	-1.1174	0.09 not owned by a p permissioned	full planning permission	20/08/2018 https://plannin Yes	9	9	"Planning permission 18/00856/	28/08/2018	31/03/2020
http://open SHLAA/WB "Trentside Club, West Bridgford"	https://arcį	52.931	-1.143	0.37 not owned by a p permissioned	full planning permission	10/01/2019 https://plannin Yes	34	34	"Planning permission 18/00946/	31/03/2020	31/03/2020



### Appendix 6 - Local Policy summary

Appendix 6 – Local Policy Summary	
Policy Requirement	Scheme Compliance with Policy
Rushcliffe Local Plan Part 1 – Core Strategy	
<ul> <li>Core Strategy Policy 1 – Presumption in Favour of Sustainable Development</li> <li>1. When considering development proposals the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the NPPF.</li> <li>2. Planning applications that accord with the policies in this Local Plan (and, where relevant, with policies in neighbourhood plans) will be approved without delays, unless material considerations indicate otherwise.</li> <li>3. Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision then the Council will grant permission unless material considerations indicate otherwise, taking into account whether: <ul> <li>a. Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the NPPF taken as a whole; or</li> <li>b. Specific policies in that Framework indicate that development should be restricted.</li> </ul> </li> </ul>	Albeit the policies are framed within in the context of a superseded version of the National Planning Policy Framework, the scheme shows compliance with the relevant policies included within the Development Plan and is in accordance with the latest NPPF.
<ul> <li>Core Strategy Policy 2 – Climate Change</li> <li>All development proposals will be expected to mitigate against and adapt to climate change, and to comply with national and local targets on reducing carbon emissions and energy use, unless it can be clearly demonstrated that full compliance with the policy is not viable or feasible.</li> <li>Decentralised, Renewable and Low Carbon Energy Generation         <ol> <li>The extension of existing or development of new decentralised, renewable and low-carbon energy schemes appropriate for Rushcliffe will be promoted and encouraged, including biomass power generation, combined heat and power, wind, solar and micro generation systems, where these are compatible with environmental, heritage, landscape and other planning considerations. In line with the energy hierarchy, adjacent new developments will be expected to utilise such energy wherever it is feasible and viable to do so.</li> </ol></li></ul>	The proposed development seeks to deliver 49.9MW of renewable energy. In the Case Law presented within the wider submission it is clear that substantial weight is applied to renewable energy generation at a national level. This is echoes within this policy. As per the information submitted within the relevant consultant reports and as detailed within the Officer's Report to committee, the scheme s not in conflict with the considerations outlined in this policy. With regard to flood risk, the site, in its entirety, is located within Flood Zone 1 and is therefore at lowest risk of flooding. As detailed within the wider Flood Risk and Drainage Impact Assessment (Core Document CD 1.25), drainage in the form of Sustainable urban Drainage Systems (SuDS) have been proposed so the operational site discharges surface water at the greenfield run off rate.

	re Strategy Policy 16 – Green Infrastructure, ndscape, Parks and Open Space	Green infrastructure across the site is retained, protected and enhanced where practicable and PROWs will remain open and fully functional
4.	Particular attention will be given to heritage assets at risk of harm or loss of significance, or where a number of heritage assets have significance as a group or give context to a wider area.	
2.	<ul> <li>The elements of Rushcliffe's historic environment which contribute towards the unique identity of areas and help create a sense of place will be conserved and, where possible, enhanced with further detail set out in later Local Development Documents. Elements of particular importance include:</li> <li>a) Industrial and commercial heritage such as the textile heritage and the Grantham Canal;</li> <li>b) Registered Parks and Gardens including the grounds of Flintham Hall, Holme Pierrepont Hall, Kingston Hall and Stanford Hall; and</li> <li>c) Prominent listed buildings.</li> </ul>	
	re Strategy Policy 11 – Historic Environment Proposals and initiatives will be supported where the historic environment and heritage assets and their settings are conserved and/or enhanced in line with their interest and significance. Planning decisions will have regard to the contribution heritage assets can make to the delivery of wider social, cultural, economic and environmental objectives.	There are no designated heritage assets located within or adjacent to the appeal site that could be physically impacted by the Proposed Development. As such no direct effects will occur on designated assets (Core Document CD 1.24). This matter is agreed within the Statement of Common Ground with the LPA (Core Document CD 7.9).
	re Strategy Policy 4 – Nottingham-Derby Green Belt The principle of the Nottingham Derby Green Belt within Rushcliffe will be retained and it will only be altered where it is demonstrated that exceptional circumstances exist.	It is considered that very special circumstances for the construction of the Proposed Development exists as discussed within the wider Evidence in this Proof.
10.	All new development should incorporate measures to reduce surface water run-off, and the implementation of Sustainable Drainage Systems into all new development will be sought unless it can be demonstrated that such measures are not viable or technically feasible.	
	od Risk and Sustainable Drainage Development proposals that avoid areas of current and future flood risk and which do not increase the risk of flooding elsewhere and where possible reduce flood risk, adopting the precautionary principle to development, will be supported.	

	A strategic approach to the delivery, protection and enhancement of Green Infrastructure will be taken, through the establishment of a network of primary Green Infrastructure corridors and assets (as shown on the Key Diagram), together with corridors and assets of a more local level which will be defined through Local Development Documents.	during all stages of the Proposed Development (Core Document CD 1.22). An additional Permissive Path has been proposed as part of the development. This matter is agreed within the Statement of Common Ground with the LPA (Core Document CD 7.9). Landscape Character and the Greater Nottingham Landscape Character Assessment
2.	The approach will require that:	are considered in the evidence of Mr Cook.
a)	existing and potential Green Infrastructure corridors and assets are protected and enhanced. Priority for the location of new or enhanced strategic Green Infrastructure will be given to locations for major residential development identified in Policy 3, the Strategic River Corridors of the Trent, and Soar rivers, Grantham canal corridor, and Urban Fringe areas;	
b)	Where new development has an adverse impact on Green Infrastructure corridors or assets, alternative scheme designs that have no or little impact should be considered before mitigation is provided (either on site or off site as appropriate). The need for and benefit of the development will be weighed against the harm caused;	
c)	Developments proposed through the Core Strategy should enhance the Strategic Green Infrastructure network (either on-site or off-site or through contributions as appropriate). Non-strategic sites will be assessed through the Local Plan Part 2 (Land and Planning Policies);	
d)	Links to and between the Green Infrastructure network will be promoted to increase access, especially in areas of identified deficit, for recreational and non-motorised commuting purposes, and to allow for the migration of species; and	
e)	Landscape Character is protected, conserved or enhanced where appropriate in line with the recommendations of the Greater Nottingham Landscape Character Assessment. Criteria for the assessment of proposals and any areas of locally valued landscape requiring additional protection will be included the Local Plan Part 2 (Land and Planning Policies).	
	<ul> <li><u>e Strategy Policy 17 – Biodiversity</u></li> <li>The biodiversity of Rushcliffe will be increased over the Core Strategy period by:         <ul> <li>a. Protecting, restoring, expanding and enhancing existing areas of biodiversity</li> </ul> </li> </ul>	There are no designated or non-designated ecology sites within the appeal site and no significant adverse effects on any sites are anticipated as a result of the Proposed Development (Core Document CD 1.33). A

		interest, including areas and networks of priority habitats and species listed in the UK and Nottinghamshire Local Biodiversity	significant net gain in biodiversity will occur with the implementation of the Biodiversity Masterplan and Landscape and Ecological
	h	Action Plans;	Management Plan measures (Core Documents
	D.	Ensuring that fragmentation of the Green Infrastructure network is avoided wherever	CD 1.22.14 C, CD 1.22.15 C, CD 1.22.16 C). This matter is agreed within the Statement of
		possible_and improvements to the network	Common Ground with the LPA (Core Document
		benefit biodiversity, including at a landscape scale, through the incorporation of existing	CD 7.9).
		habitats and the creation of new habitats;	
	C.	Seeking to ensure new development provides new biodiversity features, and improves existing biodiversity features	The site is able to demonstrate a biodiversity net gain as part of the Proposed Development. The submitted Metric 4.0 confirms the delivered net
	d.	wherever appropriate; Supporting the need for the appropriate	gains is significantly more than the required net $120\%$ and $120\%$ and $120\%$ and $120\%$
		management and maintenance of existing and created habitats through the use of	gain of 10%. The proposal results in a 120% net gain in area habitats and a 22% net gain in hedgerow habitats as a result of the proposed
		planning conditions, planning obligations	development.
	e.	and management agreements; and Ensuring that where harm to biodiversity is	
		unavoidable, and it has been demonstrated that no alternative sites or scheme designs	
		are suitable, development should as a	
		minimum firstly mitigate and if not possible compensate at a level equivalent to the	
		biodiversity value of the habitat lost.	
2.	-	ated national and local sites of biological or cal importance for nature conservation will	
		tected in line with the established national	
		hy of designations and the designation of protected sites will be pursued.	
3.	Develo	pment on or affecting other, non-designated	
		wildlife corridors with biodiversity value will e permitted where it can be demonstrated	
	•	ere is an overriding need for the development	
	and that place.	at adequate mitigation measures are put in	
	·		
		Part 2: Land and Planning Policies	MY evidence and the considerations in the
		Development Requirements ermission for new development, changes of	officers report confirm that the matters raised
		rsions or extensions will be granted provided	in the criteria of policy 1 are met. Policy 1 is not
		e relevant, the following criteria are met:	part of the Councils reasons for refusal.
1.	There	is no significant adverse effect upon the	
		y, particularly residential amenity of adjoining	
		ties or the surrounding area, by reason of the	
		nd levels of activity on the site, or traffic	
	genera	ted;	

2.	A suitable means of access can be provided to the	
	development without detriment to the amenity of	
	adjacent properties or highway safety and the	
	provision of parking is in accordance with advice	
	provided by the Highways Authority;	
3.	Sufficient space is provided within the site to	
	accommodate the proposal together with ancillary	
	amenity and circulation space;	
4.	The scale, density, height, massing, design, layout	
	and materials of the proposal is sympathetic to the	
	character and appearance of the neighbouring	
	buildings and the surrounding area. It should not	
	lead to an over intensive form of development, be	
	overbearing in relation to neighbouring properties,	
	nor lead to undue overshadowing or loss of privacy;	
5.	Noise attenuation is achieved and light pollution is	
	minimised;	
6.	There is no significant adverse effects on important	
	wildlife interests and where possible, the application	
	demonstrates net gains in biodiversity;	
7.	There is no significant adverse effects on landscape	
	character;	
8.	The amenity of occupiers or users of the proposed	
	development would not be detrimentally affected by	
	existing nearby uses;	
9.	There is no significant adverse effect on any historic	
	sites and their settings including listed buildings,	
	buildings of local interest, conservation areas,	
	scheduled ancient monuments, and historic parks	
	and gardens;	
10.	It can be demonstrated that wherever possible,	
	development is designed to minimise the	
	opportunities for criminal activities;	
11.	The use of appropriate renewable energy	
	technologies will be encouraged within new	
	development and the design, layout and materials of	
	the proposal should promote a high degree of	
	energy efficiency; and	
12.	Development should have regard to the best and	
	most versatile agricultural classification of the land,	
	with a preference for the use of lower quality over	
	higher quality agricultural land. Development should	
	also aim to minimise soil disturbance as far as	
	possible.	
-		
	icy 17 – Managing Flood Risk	The site, in its entirety, is located within Flood
1.	Planning permission will be granted for development	Zone 1 and is therefore at lowest risk of flooding.
	in areas where a risk of flooding or problems of	As detailed within the wider Flood Risk and
	surface water disposal exists provided that:	Drainage Impact Assessment (Core Document
	a. The sequential test and exception test are	CD 1.25), drainage in the form of Sustainable
	applied and satisfied in accordance with the	urban Drainage Systems (SuDS) have been

	<ul> <li>National Planning Policy Framework and National Planning Policy Guidance; or</li> <li>b. Where the exception test is not required, for example change of use applications, it has been demonstrated that the development and future occupants will be safe from flood risk over the lifetime of the development; or</li> <li>c. The development is for minor development where it has been demonstrated that the Environment Agency's flood risk standing advice has been followed, including: <ol> <li>an industrial or commercial extension of less than 250 square metres;</li> <li>alterations to buildings that do not increase the size of the building;</li> </ol> </li> </ul>	proposed so the operational site discharges surface water at the greenfield run off rate.
	<ul> <li>iii. householder development including sheds, garages within the curtilage</li> <li>of the dwelling; and</li> </ul>	
2.	of the dwelling; and Development does not increase the risk of flooding on the site or elsewhere, including through increased run-off due to areas of hardstanding, or reduction in ground water storage as a result of basements.	
Pol	icy 18 - Surface Water Management	As detailed within the wider Flood Risk and
	icy 18 – Surface Water Management To increase the levels of water attenuation, storage and water quality, and where appropriate, development must, at an early stage in the design process, identify opportunities to incorporate a range of deliverable Sustainable Drainage Systems, appropriate to the size and type of development. The choice of drainage systems should comply with the drainage hierarchy.	As detailed within the wider Flood Risk and Drainage Impact Assessment (Core Document CD 1.25), drainage in the form of Sustainable urban Drainage Systems (SuDS) have been proposed so the operational site discharges surface water at the greenfield run off rate.
2.	Planning permission will granted for development which:	
	<ul> <li>a. is appropriately located, taking account of the level of flood risk and which promotes the incorporation of appropriate mitigation measures into new development, such as sustainable drainage systems;</li> <li>b. Reduces the risk to homes and places of work from flooding;</li> <li>c. Delivers a range of community benefits including enhancing amenity (ensuring a safe environment) and providing greater</li> </ul>	
	resistance to the impact of climate change; d. Contributes positively to the appearance of the area;	

<ul> <li>e. Accommodates and enhances biodiversity by making connections to existing Green Infrastructure assets; and</li> <li>f. Retains or enhances existing open drainage ditches.</li> </ul>	
<ul> <li>Policy 28 – Conserving and Enhancing Heritage Assets</li> <li>Proposals that affect heritage assets will be required to demonstrate an understanding of the significance of the assets and their settings, identify the impact of the development upon them and provide a clear justification for the development in order that a decision can be made as to whether the merits of the proposals for the site bring public benefits which decisively outweigh any harm arising from the proposals.</li> </ul>	There are no designated heritage assets located within or adjacent to the appeal site that could be physically impacted by the Proposed Development. As such no direct effects will occur on designated assets (Core Document CD 1.24). This matter is agreed within the Statement of Common Ground with the LPA (Core Document CD 7.9).
<ul> <li>2. Proposals affecting a heritage asset and/or its setting will be considered against the following criteria: <ul> <li>a. The significance of the asset;</li> <li>b. Whether the proposals would be sympathetic to the character and appearance of the asset and any feature of special historic, architectural, artistic or archaeological interest that it possesses;</li> <li>c. Whether the proposals would conserve or enhance the character and appearance of the heritage asset by virtue of siting, scale, building form, massing, height, materials and quality of detail;</li> <li>d. Whether the proposals would respect the asset's relationship with the historic street pattern, topography, urban spaces, landscape, views and landmarks;</li> <li>e. Whether the proposals would contribute to the long-term maintenance and management of the asset; and</li> <li>f. Whether the proposed use is compatible with the asset.</li> </ul> </li> </ul>	
<ul> <li>Policy 29 – Development Affecting Archaeological Sites</li> <li>Where development proposals affect sites of known or potential archaeological interest, an appropriate archaeological assessment and evaluation will be required to be submitted as part of the planning application. Planning permission will not be granted without adequate assessment of the nature, extent and significance of the remains present and the degree to which the proposed development is likely to affect them.</li> <li>Where archaeological remains of significance are identified permission will only be granted where:</li> </ul>	There are no designated heritage assets located within or adjacent to the appeal site that could be physically impacted by the Proposed Development. As such no direct effects will occur on designated assets (Core Document CD 1.24). This matter is agreed within the Statement of Common Ground with the LPA (Core Document CD 7.9).

<ul> <li>a. The archaeological remains will be preserved in situ through careful design, layout and siting of the proposed development; or</li> <li>b. When in-situ preservation is not justified or feasible, appropriate provision is made by the developer for excavation, recording and for the post-excavation analysis, publication, and archive deposition of any findings (to be undertaken by a suitably qualified party), provided that it can be clearly demonstrated that there are wider public benefits of the development proposal which outweigh harm to heritage assets of archaeological interest in line with NPPF requirements.</li> </ul>	
Policy 34 – Green Infrastructure and Open Space Assets1. The following Green Infrastructure assets will be protected from development which adversely affects their green infrastructure function (or their contribution to a wider network) unless the need for the asset is proven to no longer exist and the benefits of development, in that location, outweigh the adverse effects on the asset: <ul><li>Allotments;</li><li>Amenity Space and Semi-Natural Green Space;</li><li>Grantham Canal, Rivers, Streams, Lakes, Ponds and Wetlands;</li><li>Cemeteries and Churchyards;</li><li>Former Railway Lines (including former Cotgrave Colliery Mineral Line);</li><li>Flood Alleviation Areas;</li><li>Golf Courses;</li><li>Nature Conservation Sites, Geological Sites and Priority Habitats;</li><li>Parks, Recreation Grounds and Country Parks;</li><li>Rights of Way;</li><li>School Playing Fields;</li><li>Sports Pitches (including disused and lapsed pitches); and</li><li>Woodlands and Traditional Orchards.</li></ul> <li>2. Development that protects, enhances, or widens their Green Infrastructure importance will be supported, provided it does not adversely affect their primary functions.</li> <li>3. Where a proposal would result in the loss of Green Infrastructure which is needed or will be needed in the future, this loss should be replaced by equivalent</li>	Green infrastructure across the site is retained, protected and enhanced where practicable and PROWs will remain open and fully functional during all stages of the Proposed Development (Core Document CD 1.22). An additional Permissive Path has been proposed as part of the development. This matter is agreed within the Statement of Common Ground with the LPA (Core Document CD 7.9).

4.	or better provision in terms of its usefulness, attractiveness, quantity and quality in a suitable location. Replacement Green Infrastructure should, where possible, improve the performance of the network and widen its function. Planning permission will not be granted for development which would adversely affect access to open spaces and opportunities should be sought to protect or enhance the rights of way network and, where applicable, its open environment.	
<ul> <li>Policy 36 – Designated Nature Conservation Sites         <u>Nationally Designated Sites</u>         a) Development likely to have an adverse effect on a Site of Special Scientific Interest (either directly or indirectly, or individually or in combination with other developments) will not normally be permitted.         b) Where an adverse effect on the site's notified features is likely, an exception should only be made where the benefits of the development's location, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of Sites of Special Scientific Interest.     </li> </ul>		There are no designated or non-designated ecology sites within the appeal site and no significant adverse effects on any sites are anticipated as a result of the Proposed Development (Core Document CD 1.33). A significant net gain in biodiversity of will occur with the implementation of the Biodiversity Masterplan and Landscape and Ecological Management Plan measures (Core Documents CD 1.22.14 C, CD 1.22.15 C, CD 1.22.16 C). This matter is agreed within the Statement of Common Ground with the LPA (Core Document 7.9).
<ul> <li>Locally Designated Sites</li> <li>c) Development likely to have a significant adverse effect on a site of local nature conservation value will not be permitted unless it can be clearly demonstrated that there are reasons for the proposal which outweigh the need to safeguard the essential nature conservation value of the site. Locally designated sites include:         <ul> <li>Local Wildlife Sites</li> <li>Local Geological Sites</li> <li>Local Nature Reserves</li> <li>Irreplaceable Habitats</li> </ul> </li> </ul>		The site is able to demonstrate a biodiversity net gain as part of the Proposed Development. The submitted Metric 4.0 demonstrates the delivered net gains is significantly more than the required net gain of 10%. The proposal results in a 120% net gain in area habitats and a 22% net gain in hedgerow habitats as a result of the proposed development.
d)	<ul> <li>Proposals that are likely to have a significant impact on such sites will be assessed according to the following criteria: <ul> <li>a. Whether works are necessary for management of the site in the interests of conservation;</li> <li>b. Whether adequate buffer strips and other mitigation has been incorporated into the proposals to protect species and habitats for which the Local Site has been designated; and</li> <li>c. The development would be expected to result in no overall loss of habitat and, where</li> </ul> </li> </ul>	

	possible, achieve net gains in habitat. As a last resort, any compensation could be expected to include off-setting habitats adjacent to or within the vicinity of any losses proposed.	
	icy 37 – Trees and Woodland Adverse impacts on mature tree(s) must be avoided, mitigated or, if removal of the tree(s) is justified, it should be replaced. Any replacement must follow the principle of the 'right tree in the right place'.	The Proposed Development can be undertaken without detriment to the health and longevity of the retained trees or amenity of the area as demonstrated within the submitted Arboricultural Impact Assessment (Core
2.	Planning permission will not be granted for development which would adversely affect an area of ancient, semi-natural woodland or an ancient or veteran tree, unless the need for, and public benefits of, the development in that location clearly outweigh the loss.	Document CD 1.31).
3.	Wherever tree planting would provide the most appropriate net-gains in biodiversity, the planting of additional locally native trees should be included in new developments. To ensure tree planting is resilient to climate change and diseases a wide range of species should be included on each site.	
<ul> <li>Policy 38 – Non-Designated Biodiversity Assets and the Wider Ecological network</li> <li>Where appropriate, all developments will be expected to preserve, restore and re-create priority habitats and the protection and recovery of priority species in order to achieve net gains in biodiversity.</li> </ul>		The site is able to demonstrate a biodiversity net gain as part of the Proposed Development. The submitted Metric 4.0 confirms that the delivered net gains is significantly more than the required net gain of 10%. The proposal results in a 120% net gain in area habitats and a 22% net gain in
2.	Developments that significantly affect a priority habitat or species should avoid, mitigate or as a last resort compensate any loss or effects.	hedgerow habitats as a result of the proposed development.
Got	tham Neighbourhood Plan	
Pol	icy GS1 – Protective and Enhancement Measures	Green infrastructure across the site is retained,
	a Green Network Footpaths and Bridleways Within the Green Network shown on Map 3, footpaths and bridleways will be given a high priority for maintenance and enhancement. The biodiversity of hedges and woodlands adjacent to sustainable route-ways will be conserved. Planning applications which will result in closure and diversion of a public right of way will not be permitted unless it can be demonstrated that satisfactory alternative provision can be made.	protected and enhanced where practicable and PROWs will remain open and fully functional during all stages of the Proposed Development (Core Document CD 1.22). An additional Permissive Path has been proposed as part of the development. This matter is agreed within the Statement of Common Ground with the LPA (Core Document CD 7.9).
b)	Areas of biodiversity value Developments which harm designated wildlife sites and ancient	

woodlands in the Plan area will not be supported. Other developments which include provision for, or contribute to, the establishment and retention of a network of green infrastructure within the parish will be looked on favourably. Proposals which contribute towards new links and/or enhancement of the existing green infrastructure network will be supported. Proposals should consider opportunities to retain, enhance and incorporate features which are beneficial for wildlife and habitat creation through their landscape proposals and design.	
<ul> <li>Policy T1 – Traffic Calming, Congestion and Parking</li> <li>The priority within the village is the safety and convenience of residents. Traffic speed will be restricted to defined limits by traffic calming at such sites as the entrance to the village at Nottingham Road, the Curzon St/Kegworth Rd junction, the Square and the entrance to the village from East Leake.</li> <li>The amount of traffic passing through the village and the existing issues with parking will be a consideration in assessing development proposals and will take into account wider cumulative impacts.</li> </ul>	During operation of the solar installation, it is anticipated only infrequent visits would be required for the purposes of equipment maintenance or cleaning of the site on an as required basis. A such, the operational access would be associated with a low number of trips (around on per month). In respect of the construction and operational traffic the Highway Authority do not object to the number of vehicle movements and note that this would be appropriately managed. This matter is agreed within the Statement of Common Ground with the LPA (Core Document CD 7.9).
East Leake Neighbourhood Plan	
Policy E1 – Containment of Built Environment	The Proposed Development has been designed
<ul> <li>a) The ridges within the Parish boundary marked on the map at Fig 5.1/1 will remain undeveloped, in order to maintain the rural character of the village and to provide a visual link between the settlement and the countryside. The heights of any buildings within the Parish boundary on the slopes up to the ridges will be limited so as to leave a green rim clearly visible from the village and to screen sight of the village from outside.</li> <li>b) Development to the west of the railway line, other than on West Leake Road, will be permitted only where strong justification is provided. On West Leake Road, any development should have regard to the more liner and sporadic residential character of the area.</li> </ul>	to respect the character of the landscape and uses the strong field pattern to integrate the scheme as far as practicable. Existing landscape features would be retained, protected and strengthened including the retention of all existing field margins (hedgerows and ditches) except where necessary for access and standoffs from boundary habitats. All trees on the site would be retained and additional planting provided, where necessary, to fill gaps in the existing boundary planting. This matter is agreed within the Statement of Common Ground with the LPA (Core Document CD 7.9).



### Appendix 7 – International, National Policy



# Appendix 7 – Renewable Energy Policy and Legislation (International, UK and Scotland)

### International

### The COP21 UN Paris Agreement

The Paris Agreement (December 2015) is an international agreement on climate change, with 195 signatory countries, including the UK.

The Agreement came into force on 4 November 2016.

Governments agreed:

- A long-term goal of keeping the increase in global average temperature to well below 2°C above pre-industrial levels.
- To aim to limit the global average temperature increase to 1.5°C, since this would significantly reduce risks and the impacts of climate change.
- On the need for global emissions to peak as soon as possible, recognising that this will take longer for developing countries.
- To undertake rapid reductions thereafter in accordance with the best available science.

Countries would also be obliged to make new post-2030 commitments to reduce emissions every five years.

### The Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report and related Press Release and Statements (2021)

The first part of the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (AR6) was published on 9 August 2021.

The key points taken from the report are:

- It is unequivocal that human influence has warmed the atmosphere, ocean and land.
- The scale of recent changes across the climate system as a whole and the present state of many aspects of the climate system are unprecedented over many centuries to many thousands of years.
- Human-induced climate change is already affecting many weather and climate extremes in every region across the globe. Evidence of observed changes in extremes such as heatwaves, heavy precipitation, droughts, and tropical cyclones, and, in particular, their attribution to human influence, has strengthened since the last report.
- Global surface temperature will continue to increase until at least mid-century under all emissions scenarios considered. Global warming of 1.5°C and 2°C will be exceeded during the



21st century unless deep reductions in carbon dioxide (CO2) and other greenhouse gas emissions occur in the coming decades.

- Many changes due to past and future greenhouse gas emissions are irreversible for centuries to millennia, especially changes in the ocean, ice sheets and global sea level.
- With further global warming, every region is projected to increasingly experience concurrent and multiple changes in climatic impact-drivers. Changes in several climatic impact-drivers would be more widespread at 2°C compared to 1.5°C global warming and even more widespread and/or pronounced for higher warming levels.

### COP26 – The Glasgow Climate Pact (November 2021)

Negotiations were at the COP26 climate summit held in November 2021 under the UN Framework Convention on Climate Change. The aim of COP26 was to keep alive the hope of limiting the rise in global temperature to 1.5C.

### IPCC Second AR6 Report (February 2022)

The second part of the IPCC's AR6 Report was published on 28 February 2022. It highlights that climate change has already disrupted human and natural systems. Past emissions, development and climate change have not advanced global climate resilient development. It states that societal choices and actions implemented in the next decade will determine the extent to which medium and long-term pathways will deliver higher or lower climate resilient development. It importantly confirms that development prospects are increasingly limited if current greenhouse gas emissions do not rapidly decline, especially if 1.5°C global warming is exceeded in the near-term. This can only be enabled by inclusive governance, adequate and appropriate human and technological resources, information, capacities, and finance.

#### IPCC Third AR6 Report (April 2022)

The third part of the IPCC's AR6 Report 'Mitigation of Climate Change' was published on 4 April 2022. It reports the consequences of failing to limit the rise of global temperatures and that reducing emissions is a crucial near-term necessity.

Global GHG emissions in 2030 associated with the implementation of Nationally Determined Contributions announced prior to COP26 would make it likely that warming will exceed 1.5°C during the 21st century. Policies implemented by the end of 2020 would be projected to result in higher global GHG emissions than those implied by NDCs. It suggests that limiting warming to below 2°C would then rely on a rapid acceleration of mitigation efforts after 2030.

### IPCC AR6 Synthesis Report (March 2023)

The fourth and final part of the IPCC's AR6 Report, 'The Synthesis Report', was published on 20 March 2023. The Synthesis Report summarises the state of knowledge of climate change, its widespread impacts and risks, and climate change mitigation and adaptation.

It reports that there are multiple, feasible and effective options to reduce greenhouse gas emissions and adapt to human-caused climate change. However, the most important conclusion of this this report is the urgency in meeting mitigation targets at a rapid pace.



### **United Kingdom**

### The UK's Sixth Carbon Budget: The UK's Path to Net Zero (December 2020)

The Climate Change Committee (CCC) published the Sixth Carbon Budget: The UK's Path to Net Zero on 9<sup>th</sup> December 2020. The Sixth Carbon Budget sets out, for the first time, what actions the UK will need to take to achieve net zero emissions by 2050.

The CCC's recommended pathway, the Balanced Net Zero Pathway, aims to decarbonise electricity generation by 2035, with action thereafter focused on meeting new demands in a low-carbon way. The pathway requires a 78% reduction in UK territorial emissions by 2035, a 63% reduction from 2019.

The key features if the scenario are an increasing demand for electricity, decreasing carbon intensity of generation, and a more flexible system.

### Department for Business, Energy and Industrial Strategy (BEIS) Outcome Delivery Plan (2021)

The Outcome Delivery Plan sets out four priority outcomes, including tackling climate change. BEIS note within the report:

"Making sure the UK ends its contribution to global warming by 2050 is a core part of the Department's work. Following the publications of the Prime Minister's Ten point Plan, the Energy White Paper and the Industrial Decarbonisation Strategy, we will work across the government to drive the Green Industrial Revolution. Our ambitious domestic action plan will create growth and jobs in clean technologies, infrastructure and energy in the 4 nations of the UK. Through our upcoming Presidency of COP26 and our Internation Climate Finance we will also provide strong global leadership and set an example to accelerate climate action."

### The Ten Point Plan for a Green Industrial Revolution (2020)

In November 2020, the Prime Minister announced his Ten Point Plan for the UK to lead the world into a new Green Industrial Revolution. This innovative programme sets out ambitious policies and significant new public investment to support green job creation, accelerate out path to reaching net zero by 2050 and lay the foundations for building back greener. Spanning clean energy, buildings, transport, nature and innovative technologies, the Ten Point Plan will mobilise £12 billion of government investment to unlock 3 times as much private sector investment by 2030; level up regions across the UK , and support up to 250,000 highly skilled green jobs.

### Industrialisation Decarbonisation Strategy (2021)

The Industrial Decarbonisation Strategy, published in March 2021, set out complementary plans for the transformation of the UK's energy system and industries, including actions to fully decarbonise electricity generation by 2050. This will help to meet out ambitious Nationally Determined Contribution (NDC) to reduce the UK's emissions by at least 68% by 203, compared to 1990 levels (the highest reduction target for a major economy to date), and meet our Sixth Carbon Budget to cut emissions by 78% by 2035.



This domestic ambition is matched internationally, through the Prime Minister's pledge in September 2019 to double the UK's Internation Climate Finance for developing countries to £11.6 billion for the 5-year period from 2021 to 2025, as part of our Paris Agreement commitments. These commitments lay the steps to build back greener from the pandemic and reach net zero.



### Appendix 8 – Planning Appeals



### Appendix 8 – Relevant Planning Appeals

### Land North of Halloughton, Southwell, Nottinghamshire (Appeal Reference: APP/B3030/W/21/3279533)

An appeal concerning Land North of Halloughton, Southwell, Nottinghamshire was allowed by Inspector Baird in February 2022, for a 49.9MW solar farm and battery stations, together with all associated works, equipment and necessary infrastructure (Core Document G1).

Inspector Baird set out three key issues in Paragraph 5 of the decision, relating to the landscape and visual impact of the scheme; the effect on heritage assets; and thirdly whether the Proposed Development would conflict with the Development Plan.

With regards to agricultural land quality, Inspector Baird recognised that the Appellant, undertook a robust and appropriate agricultural land classification assessment which demonstrated that the land was not considered to be Best and Most Versatile Agricultural Land, and that only a small proportion of the land would be permanently lost from agricultural use.

In terms of landscape and visual impact, Inspector Baird acknowledges that given the nature and scale of large-scale solar farms, it is inevitable that they may result in landscape harm (Paragraph 11), but that did not mean the scheme was unacceptable. When assessing the visual impacts during construction in Paragraph 22, Inspector Baird stated:

"During the construction period and at Year 1, it is agreed that within the site, the scale of effect would be Major and have a Significant adverse effect on landscape character. In my view, this significant adverse effect would be experienced at several places where there are views into the site. However, given the relatively short construction period, some 26 weeks, and at a time when the mitigation planting would be young, such adverse impacts cannot be avoided. Thus, the weight I attach to these early effects is limited. As François Athenase de Charette de la Contrie1 is reputed to have said, "...you cannot make an omelette without breaking a few eggs"."

In Paragraphs 73 – 78, Inspector Baird conducts the planning balance. I draw the Inspector's attention to the following extract:

"74. Both national and development plan policy recognise that large scale solar farms may result in some landscape and visual impact harm. However, both adopt a positive approach indicating that development can be approved where the harm is outweighed by the benefits. This is a planning judgement. Here, through a combination of topography, existing screening and landscape mitigation, the adverse effect on landscape character and visual impact would be limited and highly localised. Moreover, as the existing and proposed planting matures, adverse effects, would be progressively mitigated and once decommissioned there would be no residual adverse landscape effects. Rather the scheme would leave an enhanced landscape consistent with the objectives of development plan policy and the SPD. In these circumstances, whilst there would be some localised harm to landscape character and some visual harm in conflict with the relevant development plan policies, the imperative to tackle climate change, as recognised in legislation and energy policy,



### and the very significant benefits of the scheme clearly and decisively outweigh the limited harm."

Accordingly, in Paragraph 78 Inspector Baird concludes that the proposal would make a material and early contribution to the objective of achieving the decarbonisation of energy production and would not conflict with local and national policy.

In my opinion, the decision of Inspector Baird is clear, demonstrating the strength and weight presently being afforded to addressing climate change. The decision is clear that where the significant benefits outweigh the harms of the Proposed Development (in that case, very localised effects on the landscape and less than substantial harm to the heritage assets), consent should be granted. The decision also emphasises both how the effects are temporary in nature and would be reversible at the end of the 40-year period, but also how the mitigation planting would result in an enhanced landscape after the lifetime of the temporary planning permission.

# Land East of Langford Mill and Tye Farm, Langford, Devon (Appeal Ref: APP/Y1138/W/22/3293104) (Core document G5)

I consider a further relevant case is the Secretary of State decision to agree with an Inspector's recommendation to allow an appeal and grant planning permission for the construction of ground-mounted solar PV panels to generate up to 49.9MW (site area 60.78 ha) and battery storage facility together with all associated works, equipment and necessary infrastructure, at Langford in Devon.

The main issues identified in the appeal were:

- Effect of the proposal on the character and appearance of the landscape
- The effect on Langford Court a designated heritage asset
- The effect on and potential loss of agricultural land
- The safety of the Battery Storage facility (BESS)

In concluding comments regarding the planning balance, the planning inspector identified neutral weight to be accorded to the issues of heritage, the effect on agricultural land and the safety of the BESS.

Landscape effects were identified as the matter causing an element of harm, however the Inspector commented that this

"... is unsurprising given that national and local policy recognise that large scale solar farms may result in some landscape and visual harm. But in this instance the topography, existing screening and landscape mitigation lead to very limited and highly localised landscape and visual effects, and these would be progressively mitigated by additional planting." (Paragraph 155)

With regard to the benefits of the scheme the inspector noted the accordance with National policy stating:



The scheme is for a renewable energy proposal which is fully in accordance with the economic, social and environmental dimensions of sustainable development set out in the NPPF. In addition EN-1 and subsequent draft policies state that the Government is committed to cutting greenhouse gas emissions and need for a move away from fossil fuel and towards renewable sources of energy production is supported. The scheme therefore has strong national and local policy support. This matter weighs very heavily in favour of the proposal. (Paragraph 156)

The inspector also accorded substantial benefits to the financial investment arising from the scheme, the construction and operational jobs to be created. Significant weight was given to the benefit of additional planting which would remain beyond the period of the 40 year temporary permission and the proposed biodiversity net gain of 179.25% in area derived units and 9.82% in linear derived units. (Paragraph 157)

Although the inspector considered that the proposal accorded with planning policy and accordingly planning permission should be granted, the additional point was made that in the event that the Secretary of State considered that the landscape effects resulted in a conflict with policy, the

"...importance of addressing climate change, as recognised in legislation and energy policy, and the very significant benefits of the scheme clearly and decisively outweigh any very limited harm" (paragraph 160)

# Land east & west of A130 and north & south Of Canon Barns Road, East Hanningfield, Chelmsford (Appeal Ref: APP/W1525/W/22/3300222)

I also note a recent appeal at East Hanningfield, Chelmsford, relating to a planning application for Installation of a solar photovoltaic (PV) park generating up to 49.9 MW of electricity spread over three sites and associated infrastructure. (Core Document G4)

The site is agricultural land set within the green belt. The issues considered at the appeal were:

- The effect of the proposal on the openness of, and purposes of including land within, the Green Belt;
- The effects of the development on the settings of the Grade II\* listed building Church of St Mary and St Edward, and the Grade II listed building Church House and other non-designated heritage assets;
- The effects of the proposed development on the landscape character and appearance of the area;
- The effect of the proposal on agricultural land;
- The effect of the development on the integrity of the SPA; and



• Whether the harm caused by the proposal, by virtue of being inappropriate development in the Green Belt, and any other identified harm, would be clearly outweighed by other considerations to result in 'Very Special Circumstances'

In concluding on the issues, the inspector noted that the appeal scheme would result in harm to the Green Belt from inappropriateness and loss of openness, affording substantial weight to this harm. In addition it was concluded that the proposal would also result in moderate harm to the landscape character and convey moderate visual harm to the area. Limited adverse harm was also accorded in the planning balance to a small loss of BMV arable land and harm to a non-designated heritage asset.

Against this the Inspector noted the benefits arising from the generation of renewable energy as being substantial, in providing power for around 16,581 households, resulting in a carbon dioxide displacement of around 11,210 tonnes per annum and therefore helping to combat climate change. Paragraph 91 of the Inspectors decision states:

"The benefits of renewable energy raise substantial benefits in favour of the proposal. These benefits are recognised in the Council's local policies and guidance and national policy in accordance with the Climate Change Act of 2008. It is also clearly identified, in Section 14 of the Framework, where it seeks to increase the use and supply of renewable and lowcost energy and to maximise the potential for suitable such development. The delivery of suitable renewable energy projects is fundamental to facilitate the country's transition to a low carbon future in a changing climate."

A further factor taken into account in the decision was the implication of needing a suitable and viable grid connection on the site selection. Paragraph 92 of the appeal decision states:

Also, a solar farm requires grid capacity and a viable connection to operate. As such, this requirement places a locational restriction on site selection that limits the number of appropriate sites for such a facility. The Appellant explains that the national grid suffers capacity difficulties and limits suitable points of connection. The Appellant proposes to connect to the adjacent electrical pylons placing the site in an advantageous location satisfying the connection constraints that exist. The Appellant has therefore demonstrated that a rational approach was taken to site selection lending support for the selected site.

Overall it was concluded that the benefits identified attracted very substantial weight in favour of the scheme, clearly outweighing the substantial harm to the Green Belt and other harm identified.

#### Land at Land West of New Works Lane, Telford, Shropshire – APP/C3240/W/22/3293667

The Secretary of State approved a recovered appeal for the installation of a Solar Farm and associated infrastructure at New Works Lane, Telford, on 27<sup>th</sup> March 2023. (Core Document CD 7.14)

Although the appeal Inspector recommended that the appeal be dismissed, the Secretary of State determined that the appeal should be allowed.



The main issues identified were the effect on the landscape character and appearance. It was noted that the site is a component of the Wrekin Forest Strategic Landscape (WFSL) and falls within and contributes to the setting of the AONB.

The Secretary of State agreed with the Inspector that the proposal would introduce a managed landscape and not an open rural one, resulting in a change in character to one of a developed and managed landscape which would be at odds with the Special Qualities of the WFSL.

It is noted at paragraph 12 of the Secretary of States letter that:

Taking into account the fact that solar farms are often located in rural areas, he disagrees that the proposal would extend the urban fringe up to the very edge of the woodlands.

Under the conclusions on landscape and visual effects, the Secretary of State's letter says:

"For the reasons given at IR10.42 and above, the Secretary of State agrees with the Inspector that the proposal would cause detrimental change to the Strategic Landscape, and would be in conflict with Local Plan Policy NE7". (Paragraph 14)

For the reasons given in IR10.37-10.38 and IR10.58, the Secretary of State agrees that this is a valued landscape in Framework terms (paragraph 174(a)), and is also a landscape that is clearly valued by local residents (IR10.38 and IR10.58). It is also designated as a Strategic Landscape within a recent local plan and forms part of the setting of an AONB. The Secretary of State considers that it is a sensitive site, and agrees with the Inspector at IR10.38 that overall, significant weight should be attributed to the harm to landscape character and appearance" (Paragraph 15)

However, taking into account his conclusions in paragraph 13 above relating to intervisibility and numbers or approaching or leaving the area through the site, the Secretary of State does not consider that it is a highly sensitive site (IR10.38). Further taking into account that the site is not an important gateway site to the WFSL (paragraph 9 above); and his conclusions in paragraphs 12 and 13 above, he does not agree with the Inspector that there is a significant adverse effect on the landscape or the amenity value of the area (IR10.39 and IR10.42), or that there is conflict with Policy WF1 of the AONB Management Plan (IR10.42). He further does not agree at IR10.64 that the harm is unacceptable in this case, or should carry substantial weight. (Paragraph 16)

It was concluded that, notwithstanding that the proposal was judged to cause detrimental change to the Strategic Landscape and not be in accordance with one development plan policy, the proposal was in accordance with the overarching policy which incorporates consideration of landscape harm. The landscape harm was not considered to be unacceptable and the proposal was deemed in accordance with the development plan taken overall.



In respect of benefits the production of electricity was given significant weight, the additional planting and community benefits which are afforded significant weight; and the economic benefits which are afforded limited weight.

The combined landscape harms were given significant weight, however the accordance with the development plan and other material considerations led the Secretary of State to conclude that the appeal should be allowed.

#### Land at Steerway Farm, Limekiln Lane, Wellington, Telford - APP/C3240/W/22/3308481

An appeal was allowed on 9<sup>th</sup> May 2023 for the installation of a ground mounted solar farm with continued agricultural use (grazing), ancillary infrastructure and security fencing, landscape provision and ecological enhancements on Land at Steerway Farm, Limekiln Lane, Wellington, Telford, Shropshire(Core Document CD 7.15).

The main issue considered at the appeal was the impact of the proposal on the character and appearance of the strategic landscape around the Shropshire Hills Area of Outstanding Natural Beauty (AONB), having regard to local public rights of way and any benefits associated to the scheme.

The Inspector noted at paragraph 19 that:

"Although softening and screening planting are proposed, the solar farm would result in an engineered landscape character rather than an open rural one. It would represent a substantial and significant change in character predominantly from the views contained within it.

Paragraph 20 notes that

"Within the site boundary; from the byway; and where other wider marginal views are possible in small gaps such as field entrances, the changes would materially degrade the experience of using the nearby entry or transit points for the WFSL".

At paragraph 21 the Inspector states:

### "Nevertheless, I also recognise that solar farms are often located in rural areas. The appeal scheme would not extend the urban area fringe. It would be visually distinct from the urban area and separated by the M54."

In concluding, the Inspector confirms that the proposal would have a material adverse effect on the landscape character and appearance of the site itself and the subsequent contribution it makes to the valued landscape of the Wrekin Forest Strategic Landscape, resulting in localised and contained harm to its special qualities and by virtue of this, very limited harm to the setting of the AONB.

Set against this in the planning balance the Inspector notes that given the 40-year operational lifespan of the proposal, the harm would ultimately be reversible, the proposal provides biodiversity net gain and economic benefits which were accorded limited positive weight. In terms of renewable energy generation, it was concluded that:



# "The clean and secure energy production the scheme offers is a substantial overarching benefit even at the lower scale of up to 30MW" (Paragraph 65)

The inspector's overall conclusion was that the overall benefits would substantially outweigh the harms it would cause.

#### Land west of the village of Scruton, North Yorkshire – APP/G2713/W/23/3315877

In June 2023 an appeal was allowed, and planning permission granted for the installation of a solar photovoltaic array/solar farm with associated infrastructure.

The Council had refused the scheme on the basis of the impact on agricultural land.

The Inspector found that the majority of the land was not BMV (paragraph 18), but also finds that that even if it was neither the development plan nor national policy prevented the use of such land. (paragraph 19),

The Inspector concluded that the height of the panels would enable the growth of grass and enable the grazing of sheep for the duration of the 40-year planning permission. (paragraph 20)

Noting that the majority of the land would continue in agricultural use and that it was the intention to return the land to full agricultural use after the period of the permission, the Inspector was satisfied that resting the land from intensive agriculture would be likely to improve soil health by increasing the organic matter in the soil and improving soil structure and drainage, even if a return to arable farming would then start to reverse this improvement. (paragraph 21)

The Council's case at the hearing was that the loss of productivity of the land for the 40 year duration of the scheme was objectionable, but the Inspector noted that "the specific way agricultural land is used is not a matter that is subject to planning controls...Given this, the fact that the proposal would limit the ability to carry out any arable farming does not, in my opinion, mean that it results in the loss of agricultural land when it can still be used for other agricultural uses. Furthermore, current government schemes actually encourage farmers to take land out of production and put it to grass, meadows, or trees for carbon capture." (paragraph 22).

The Inspector recognised the scarcity of grid connections nationally (paragraph 28), and the fact the site benefited from an immediate grid connection to the nearby substation (paragraph 33). The proposed development would make a valuable contribution to achieving local and national renewable energy goals paragraph 34) as well as achieving a substantial biodiversity net gain.

# Land near to Bishop's Itchington near Stratford-Upon-Avon in Warwickshire - APP/J37200/W/22/3292579

An appeal determined on 1st December 2022 granted planning permission for the construction of a solar farm and associated works on land near to Bishops Itchington, Stratford on Avon.

The single main issue was identified as relating to the impact of the proposal on the character and appearance of the surrounding landscape. The overriding character of the locality was identified as one of a mixed pastoral and arable landscape which is perceived as being deeply rural, having a medium susceptibility to solar energy development and a medium to high value.

The Planning Inspector considered that it is inevitable that an array of solar panels covering almost 55 ha of the appeal site would have an impact on the existing character, changing the character to an area of



countryside with a solar farm in it. The presence of hedgerows and the increase of in hedgerows and tree cover proposed mitigated the impact of this change. The Inspector also noted that the development would be developed in blocks which took account of the existing field pattern (Core Document CD 6.11 Paragraphs 10, 12,13 and 14).

The Inspector concluded that although there would be an impact on the landscape, it had been shown that the impact could be made acceptable and the proposal was deemed to accord with the development plan policy.

In the planning balance the Inspector refers to national policy initiatives requiring the move to renewable sources of energy generation and notes that included in this is the provision of more solar energy. The Inspector agreed with the appellant that the provision pf clean renewable energy which contributes to security of supply attracts substantial positive weight.

The provision of a high level of biodiversity net gain and some enhancement to the land through introduction of flower rich meadows attracted significant weight in favour of the proposal.

### Land at Barton in Fabis, Nottingham, NG11 OHA - APP/P3040/W/23/3324608

An Appeal was dismissed in January 2024 in relation to a energy storage facility, together with associated equipment, infrastructure, and ancillary works, at Barton In Fabis, Nottingham. The main issues included harm to the Green Belt, effect on the character and appearance of the area and the extent to which the harm by reason of inappropriateness, and any other harm, would be clearly outweighed by other considerations so as to amount to the very special circumstances required to justify the proposal.

It was concluded that the scheme would result in harm to openness of the Green Belt, arising from *"considerable change from an open, agricultural field into an industrial style setting"*. Significant harm to the character and appearance of the area was also found by the Inspector.

The Inspector, whilst acknowledging that there is no policy requirement, was not satisfied that the scheme presented had provided certainty that there were no other alternative sites located outside of the Green Belt. In the planning balance the Inspector concluded that impacts of the development were not acceptable, and the benefits of the scheme did not outweigh the harm to the Green Belt.

#### Land at Crays Hall Farm, Church Lane, Crays Hill - APP/V1505/W/23/3318171

This appeal related to a solar farm with associated infrastructure where one of the main issues was the effects on the openness of the Metropolitan Green Belt. Paragraph 9 of the IR refers to the National Planning Practice Guidance (PPG) which advises that:

### "The deployment of large scale solar farms can have a negative impact on the rural environment particularly in undulating landscapes. However, the visual impact of a well-planned and well-screened solar farm can be properly addressed within the landscape if planned sensitively."

Openness is addressed at paragraph 10 onwards. The area of Green Belt affected consists in the most part of open arable countryside interspersed with farm buildings, industrial structures and isolated individual dwellings, some semi-detached or in loose clusters.

The introduction of solar panels would detract from the openness of a significant part of the central part of the valley and would be seen alongside existing panels comprising the extended Outwood Solar Farm. The effect on openness would be mitigated by the limited field sizes and odd shapes, undulating ground,



frequent hedges with mature trees and the proposed biodiversity enhancements. Photomontages indicate that for the great majority of the time the panels are in place, there would be a good level of vegetation cover of a type already consistent with exiting hedges and field boundaries.

The PPG advises that the reversibility of a scheme is a relevant consideration to assessing the impacts on the openness of the Green Belt. The harm to openness for 40 years nevertheless attracts substantial weight.

In light of the Inspector's analysis, the proposed solar farm was allowed.

for example at Crays Hill, a BNG of 94% in area habitats and 53% linear habitats attracted 'substantial weight'

At Crays Hall, I note that the Inspector accepted that the longer term benefits to soil structure added weight to the environmental benefits of the project overall

At Crays Hill, Basildon the Inspector allowed a 25.6MW solar farm in the Green Belt in August 2023 and in so doing applied "very significant weight" to the renewable energy generation and carbon savings

### Land at Sherbourne, Warwick - APP/T3725/W/23/3317247

This appeal relates to a solar farm (20 MW) near Warwick and is located in the West Midlands Green Belt. The IR notes from paragraph 4 onwards dealing with the Green Belt, that the scheme would have a spatial and visual impact on the openness of the Green Belt. It would be seen from nearby roads and public footpath networks and from these viewpoints would appear as encroachment of manmade structures into the countryside. However, views of the installation would not be widespread and would not have a wide visual impact. The development would be seen in the context of nearby road infrastructure which itself has a significant effect on the openness and tranquillity of the surroundings. In this context, the additional visual impact of the scheme on the openness of the Green Belt would be relatively limited. The IR goes on to note the appeal site would largely be contained and the scheme would have a relatively small additional impact on the Green Belt.

The scheme would have a 40 year life with the site returned to open land following decommissioning and removal of the solar farm.

The proposal in practical terms, would cause limited harm to the openness of the Green Belt. This point is reiterated at paragraph 34 noting the impact on the openness of the Green Belt would be limited.

In light of the Inspector's analysis, the proposed solar farm was allowed.

In September 2023 at Sherbourne, a solar farm of about 20MW was also allowed in the Green Belt and the Inspector considered that the proposal would provide a 'very significant environmental benefit" given the clear support given to renewable energy development from a number of sources

### Land at Halse Road, south of Greatworth, Northamptonshire APP/W2845/W/23/3315771 ("Copse Lodge")

In November 2023, an appeal was allowed relating to the proposal for a development in 2 parts the main part would comprise the solar panels and associated infrastructure, including battery storage, and would lie south of the Halse Road. This would connect, via underground cabling, to a 132kV substation to be constructed north of Halse Road, which would include, as set out above, a new pylon sited along an existing pylon route that runs roughly northwest to southeast.



The main issues related to the effect on landscaper character and appearance, heritage assets, ecology and the complicate with planning policy and other material considerations.

The Inspector found the proposal would have a material adverse effect on the visual and landscape character of the site and the contribution that the site makes to the wider landscape. Conflict was found with the development plan policy in this regard.

Paragraph 115 of the decision noted the Inspector's view that "Fundamentally solar farms are becoming part of that landscape and many people view them as a positive addition or, much like the pylons that step across the views here, one that becomes more accepted over time."

In the planning balance the Inspector afforded "very significant weight" to renewable energy production in respect of and storage from the proposal.

#### Land at Graveley Lane, Hertfordshire - Appeal Ref: APP/X1925/V/23/3323321

In March 2024 the Secretary of State granted permission for a Proposed solar array with generating capacity of 49.9 mw, with associated battery storage containers and ancillary development, over-ruling an Inspectors recommendation.

The Secretary of state agreed with the Inspector that the proposal would have a damaging effect on character and appearance f the area and would be contrary to local plan policy in this regard.

The secretary of State also agreed that biodiversity enhancements and net gains of 205% in habitat units and 102% in hedgerow units would be a positive contribution carrying significant weight. Proposed grazing was also accepted as enabling continued agricultural use of the land, consistent with the NPPF paragraph 180(b) and footnote 62.

The secretary of state was satisfied with the site selection process, having followed a robust and reasonable approach and that scheme's availability and deliverability and the urgency of addressing the climate crisis, are matters which lend significant support to the proposal, and he considers these matters attract significant weight.

In the planning balance the Secretary of State placed "substantial weight" on the developments contribution towards renewable energy generation

### Appeal Decision: Land at Monk Fryston Substation, Selby - APP/N2739/W/22/3290256

This appeal relates to a battery storage facility where one of the main issues was the effect of the proposal on the openness of Green Belt which is specifically addressed from paragraph 4 onwards. The IR notes that there would be considerable change from an agricultural field into a compact industrial style setting with a considerable number of structures which would reduce the openness of the Green Belt from a spatial point of view.

Visually, the site is screened to a good degree with the presence of existing vegetation and the substation itself, but the proposals would modify the nature of the Green Belt surroundings and would be visible from the public right of way such that the visual aspects of the Green Belt would be harmed by the installation.

It is not a short term installation, planned to be utilised for approximately 40 years and the harm to the Green Belt would be long term in nature, even if the site was fully reinstated back to agriculture. The IR found harm to the openness of the Green Belt from both a spatial and visual aspect.



In light of the Inspector's analysis, the proposed solar farm was allowed.

#### Land at Wolverhampton West Primary Substation APP/C3430/W/22/3292837

This appeal is related to a battery storage scheme with associated infrastructure. One of the main issues related to the Green Belt and the matter of openness is addressed from paragraph 8 onwards. The Inspector's Report (IR) notes that openness is an essential characteristic of the Green Belt that has a spatial as well as visual aspects. It can be considered to be the absence of buildings and development. As such, the introduction of this facility would unavoidably reduce the openness of the Green Belt in both spatial and visual terms. There would be a degree of harm arising from the loss of openness. The IR concludes at paragraph 15, that there would be moderate harm arising from the loss of openness.

In light of the Inspector's analysis, the proposed solar farm was allowed.

#### Rawfield Lane, Fairbourne, Selby - APP/N2739/W/22/3300623

This appeal is related to the construction of an energy storage and management facility at Fairbourne, Selby. The main issues included the Green Belt with regard to openness and purposes. Analysis concerning openness is set out at paragraph 4 onwards. The appeal site is agricultural land within the open countryside with the majority of the site covered with development where there is currently none. Consequently, even though the appeal site forms only a small part of the Green Belt as a whole, the spatial effect on openness would be significant. The appeal site is located within a natural dip, together with surrounding rolling topography and natural vegetation means that visually the proposal is well contained and has limited wider visibility in the landscape. There is nearby electricity infrastructure including a substation, overhead power lines and pylons. However, this does not visually degrade the openness or tranquillity of the Green Belt in this location to such an extent as to reduce the visual impact on openness of this proposed development which would significantly industrialise this open field.

The duration of the development would be 40 years and whilst not permanent, would still be a lengthy period of time over which the openness of the Green Belt would be significantly reduced.

In terms of activity, in the short term, this would be high during the construction phase. However, this would reduce monthly visits for maintenance when operational. There would be no harmful impact on openness in this regard.

Overall, therefore there would be a significant impact on the openness of the Green Belt.

In light of the Inspector's analysis, the proposed solar farm was allowed.



### Appendix 9 - Third Party Comment summary

Appendix 9	Summary of 3 <sup>rd</sup> party comments
Theme and Key Comments	Response
Landscape and Visual Matters	
<ul> <li>Loss of recreational walking/riding routes and enjoyment of countryside.</li> <li>Close to existing PROW network</li> <li>Concern over public safety on PROWs/ hedges high on PROWS/ Channelisation</li> <li>Access to existing PROWs</li> </ul>	All existing PRoWs will be retained on their current alignment and accommodated with generous Green Infrastructure Corridors. Where PRoW routes currently run along the edges of agricultural fields within the site such as PRoW bridleway B10 where the potential width of the route is determined by the ploughing regime of the farmer, the proposals have accommodated the route within a substantial Green Infrastructure corridor. The scheme proposes the creation of a permissive path, which would actually increase the recreational opportunities and current recreational route provision. During consideration of the planning application the relevant Nottinghamshire County Council consultees response confirms no objection in respect of Public Rights of Way, The Public Rights of Way officer commented on the planning application three times, each time noting no objection. In the 3 <sup>rd</sup> comment it is noted that the officer recognises and welcomes additional information provided during the course of the application and acknowledges that suggestions made in earlier representations have been accommodated. The responses of the County Council were noted in the planning officer's committee report. Effects on the Public Rights of Way have also been assessed in the evidence of Mr Cook. Mr Cook notes no visibility from PRoWs to the north, south and west of the site which means that users of these routes are therefore unaffected. Users of the bridleway to east is noted as being adversely affected to a limited degree. Within the site, PRoW bridleways BW1 and BW12 are flanked by hedgerows which will are proposed to be infilled and strengthen as part of the scheme. PRoW bridleway BW10 which crosses the site between fields 10 and 11 which is noted as not being lined by hedgerow on its eastern side is proposed to be planted with a native hedgerow to aid in screening the proposed built form and to create a Green Infrastructure corridor. The impact of the proposal on the users of the public rights of way will be limited to a small section of th
Commercialisation/industrialisation     of countryside/ loss of green space.	The appellant acknowledges the unavoidable change to the character of the site itself, introducing solar panels and associated infrastructure superimposed over grassland which can be managed for pasture and grazing. However, such a change would in physical terms be confined within the site boundaries.

	Opportunities for visual receptors such as PRoW users to view the proposals are limited by the existing field boundaries and mature areas of woodland, and therefore opportunities to appreciate the change to the character of the site are also limited and localised and would be reduced further once the landscape proposals for the scheme mature. The proposal presents the opportunity to infill and reinforce the existing hedgerows within and along the periphery of the site and include new areas of woodland planting and trees which are all characteristic features in the locality. Authorised and lawful public access to the site is currently limited to designated PRoW routes only, the agricultural fields are currently private. The proposal however includes a permissive path which would increase the available routes for PRoW users to utilise.
<ul> <li>Cumulative scale of the development</li> <li>Cumulative impact with other schemes</li> </ul>	The Officers Report refers to cumulative effects, noting that the Officer does not consider that there are any other projects that need to be taken into account with regard to this proposal given the separation distances involved. The application LVA states that there would be no discernible cumulative visual effects due to a lack of intervisibility. The external landscape advisor commissioned by Rushcliffe Borough Council also did not believe the scale of landscape change would lead to significant cumulative landscape character effects. I note cumulative effects are not cited in the Reason for Refusal.
<ul> <li>Visual impact of the scheme / loss of views</li> <li>Impact on character of the area.</li> <li>Major landscape impact</li> <li>Proposed landscaping is not immediate/ overreliance on planting as mitigation.</li> </ul>	As detailed within submitted evidence the visual effects of the proposed solar farm would be very limited and localised due to the site's substantial visual containment as a result of a combination of topography and surrounding mature vegetation which includes substantial areas of woodland. Where visible, only small parts of the scheme would be observed, and it would not be possible to appreciate the totality of the scheme from any one viewpoint location. There are some beneficial effects of the proposal on the sites landscape features, such as upon the tree and hedgerow resource, and where there are negative effects have been assessed they there are at worst moderate, the adverse effects are highly localised and limited to the immediate site.
No reference made to landscape character assessment / whether	The Landscape Proof of Evidence looks at the landscape character for the locality, identifying the relevant assessment at a national, regional and local scale.

the scheme is consistent with the landscape character assessment.	As discussed within Mr Cooks evidence, the character of the landscape beyond the immediate environs of the site would remain unchanged with the scheme in place and the key characteristics of the landscape would remain and prevail. Within the site, whilst as sated above the appellant recognises that the character of the site would unavoidably change.
• Whether the scheme site is within a valued landscape.	The appellant is not of the view that the site is a valued landscape; neither was the author of the application LVA, the external landscape advisor commissioned by Rushcliffe Borough Council to review the LVA, or the author of the Officer's Report.
	The PRoW which allows access though parts of the site and the views from them may be valued locally, but this in itself does not deem a site to be a valued landscape within the meaning of the NPPF paragraph 180a.
	<ul> <li>It should also be noted that whilst third party comments state in their view that the site "exemplifies the valued characteristics of the LCA", the site is located within Draft Policy Zone (DPZ) NW01 Gotham And West Leake Hills And Scarps, not an LCA or Landscape Character Area as set out on Page 8 of the Statement prepared by Marches Planning and Environment, full extracts from the Greater Nottingham Landscape Character Assessment related to DPZ NW01 are considered within the Landscape Proof of Evidence. However, it should be noted that the recommended landscape actions for these 'valued characteristics' of DPZ NW01 include to:</li> <li>"Conserve the distinctive pattern of hills with large blocks of woodland on high ground". The layout of the panels, set out in rows on metal supports sit lightly on the land and as a result, have the ability to reflect the underlying topography, thus the topographical variations within the site can still be appreciated. With regards to the existing woodland, these characteristic features would remain, with only minimal works required to one woodland edge to accommodate the permissive path. Woodland planting is also proposed as part of the proposals.</li> <li>"Conserve the older field patterns within the character area such as those reflecting open systems and the irregular and regular geometric patterns". The scheme can be best described as a solar scheme, set within agricultural fields. The existing field pattern which currently defines the site would remain, with existing hedgerows infilled and strengthened where applicable, with additional hedgerows also proposed. Both of these principles (infill and new hedgerows) would comply with this action and guarantee these additional landscape proposals would be implemented through a suitably worded condition, which would not be a guarantee without the solar proposals.</li> </ul>

	<ul> <li>The reference to open systems is assumed to refer to the open field system: the historic method of portioning land into strips for agriculture, rather than fields which are currently 'open' e.g free from development.</li> <li><i>"Conserve the balance of arable farming on lower slopes and pasture on steeper and higher slopes".</i> The scheme would accord with this action as the fenced areas of the proposals present the opportunity for livestock to graze beneath the panels.</li> </ul>
	It is also noted that there is a reference to 'valued views across the Appeal Site from residential properties' the appellant's analysis with regard to this point is covered within the appellant's Landscape Proof of Evidence at section 7. Similarly, analysis concerning the 'open views' mentioned by 3 <sup>rd</sup> parties are included in section 6 of the appellant's Landscape Proof of Evidence. However, it should be noted that any views across parts of the site are primarily incidental, occurring at breaks in hedgerows to allow for field access, and in such instances views are frequently contained to a field due to intervening vegetation. In occasions where views across the site can currently experience the proposed landscape scheme for the proposals would aid in screening and mitigating views, noting that hedgerow-lined PRoW routes are common in the locality and that any open views across the vale to the north would remain unaffected by the proposals (photoview 10 and 11, Appendix 10 of the appellant's Landscape Proof of Evidence).
Green Belt	
<ul> <li>Loss of Green Belt Land.</li> <li>Urban Sprawl</li> </ul>	It is acknowledged that the development would be inappropriate development in the Green Belt and would by definition result in harm to the Green Belt.
<ul> <li>Loss of openness</li> <li>Proposed landscaping would reduce openness.</li> </ul>	The Proposed Development is not a permanent form of development and as such will not have a permanent effect on the openness of the Green Belt, which would be the case for many other forms of built development.
	As detailed within the wider Planning proof of evidence and Mr Cook's evidence the proposed solar scheme would be physically limited to the site itself and there would continue to be a strong disconnection between the distant urban areas beyond the Green Belt with the scheme in place. It is concluded within this evidence that <i>"it is evident that the perception of openness as it relates to the site is only readily appreciated from the nearby PROWs and not from the wider countryside beyond due to the substantial physical containment of the surrounding extensive woodlands."</i>

•	Failure to meet very special circumstances/ exceptional criteria to justify development.	Due to the imperative to deliver renewable energy schemes which can assist in decarbonising the UK's electricity supply, that the benefit of a 49.9MW solar farm's renewable energy generation should be afforded substantial weight. It is considered that very special circumstances are clearly demonstrated by the substantial benefits arising from the scheme. As such, as was concluded at <i>Graveley Lane, "the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations, and therefore very special circumstances exist"</i>
Ec	ological Impact	
•	Impact and Disruption to biodiversity and ecosystems.	<ul> <li>The Biodiversity Management Plan explains that a variety of options exist to enhance the biodiversity value of a solar farm site, including the creation of different habitats such as hedgerows, field margins, wildflower meadows, nectar-rich areas and winter bird crops. The range of habitat enhancements that will be incorporated in the appeal scheme include:</li> <li>Species-rich grassland;</li> <li>Native hedgerows;</li> <li>Native trees;</li> <li>Bat and bird boxes ; <ul> <li>2 x Schwegler 1B Nest Box with 26mm entrance for very small species,</li> <li>2 x Schwegler 1B Nest Box with 32mm entrance (suitable for birds including the Nottinghamshire priority species, house sparrow), and</li> <li>2 x Barn Owl Nest Box with a 130mm high x 120mm width entrance.</li> </ul> </li> <li>Hedgehog houses;</li> <li>Hibernacula;</li> <li>Invertebrate hotels; and</li> <li>Bee banks.</li> </ul>
•	Not meeting the required net gains	The site is able to demonstrate a biodiversity net gain as part of the Proposed Development. The submitted
	targets	Metric 4.0 (dated 15.04.2024) The delivered net gains are significantly more than the required net gain of 10%.
•	Question validity of net gains calculations	The total number of biodiversity units in the proposed layout post development are 396.05 units of area habitat and 83.51 units of hedgerow. This equates to a 120.67% net gain in area habitats and a 22.78% net gain in hedgerow habitats as a result of the proposed development.

<ul> <li>Concern over use of pesticides and weedkillers within the scheme.</li> <li>Chemicals used to clean panels</li> <li>Inaccuracy of surveys/surveys completed at the wrong time of year</li> <li>Contradictory information with regards to use of land for sheep</li> </ul>	It is very likely that the site will see a reduction in the use of herbicide within the proposed development site. It is however acknowledged that weeds will be treated with herbicide. No technical objection to the original ecological surveys has been received from statutory consultees. These surveys have been updated in 2024 and the ecologist has concluded that the time of survey does not constitute a limitation to the findings of the survey, and subsequent recommendations and calculations. The appellant is committed to retain the dual use of agriculture in the form of low intensity sheep grazing on the site alongside the renewable energy generation.
grazing during operation.	
<ul> <li>Loss of Agricultural Land</li> <li>Displacement of food production/ loss of fertile land.</li> <li>There will not be a betterment in</li> </ul>	The appeal site is of Grade 3b quality, which is therefore not of a 'Best and Most Versatile Agricultural Land' standard.
<ul> <li>There will not be a betterment in agricultural land quality.</li> </ul>	As detailed within the submitted Planning Statement it is also the case that taking fields out of traditional agricultural use for a long period of time will give the site the opportunity to recover its fertility and productivity in the future.
<ul> <li>Loss of agricultural jobs/ employment in farming practices.</li> </ul>	The diversification of the agricultural farmland increases the profitability of the landowner's farming business with the ability to continue a reduced level of agricultural use on the appeal site. The National Farmers Union see renewable energy as an important step towards making British agriculture neutral within two decades, an important consideration as farm is responsible for around on tenth of the UK greenhouse gas emissions
Transport and Highways	
<ul> <li>Impact of construction vehicles during construction and decommissioning.</li> </ul>	The application is supported by a Construction Traffic Management Plan. It is acknowledged that during the construction phase of development there will be an increased volume of traffic.
Highway safety of Horse Riders     during construction periods.	Wood Lane is proposed to be widened to a maximum of 4.5m. Vehicles accessing the site during the construction phase are c. 2.5m, leaving sufficient space to cordon off an area for users of the PRoW to continue use. Only

<ul> <li>Access at Wood Lane would impact Ancient Woodland/ trees</li> <li>Access for plant setup within the site.</li> </ul>	<ul> <li>when the Grid Transformer is being delivered will this road need to be closed temporarily, however this will be for a short period of time, likely no more than 10 minutes. All Bridleways will also be appropriately signed, whilst banksmen will be available when construction vehicles must cross over Bridleways, always without fail. Where there are Bridleway crossings, the construction area will be signed to alert construction vehicle drivers not to cross without a banksman available and priority will be given to any users which are currently using the Bridleways.</li> <li>To enable the required visibility at the junction of Kegworth Road and Wood Lane the following will be requires: <ul> <li>11m of hedgerow trimming; and</li> <li>152m of hedgerow realigned.</li> </ul> </li> </ul>
Other	
<ul> <li>Need for consideration of rooftop solar. Use of new commercial development rooftops.</li> <li>Brownfield Land should have been used.</li> <li>Use of the land within the LDO</li> </ul>	The consideration of alternatives is provided in detail in the Grid Capacity Analysis (Core Document xxx). Within the defined Study Area centred on the Racliffe-on-Soar to Willoughby 132kV circuit where the Appellant has secured a grid connection officer, there are no alternatives sites which are suitable and available for the Proposed Development. A review of the Council's Brownfield Land register outlines that there are only 12 sites identified, 8 of which are less than 1 hectare in size, 3 site are between 1 ha and 3.5 ha and the largest of the sites is 35.4 ha. I have concluded that none of the sites are large enough to accommodate the proposed appeal scheme. Indeed the area of the appeal scheme exceeds the total area of all of the sites in the brownfield register.
Site located within an Area of     Outstanding Natural Beauty	The site is not located within a statutory designated Area of Outstanding Natural Beauty (AONB)
<ul> <li>Productivity of Panels – no energy produced in winter, limited contribution to energy system and reliance on other means when not being productive.</li> <li>No evidence of grid connection</li> </ul>	Technical details regarding the generating capacity of the proposal have been provided. The overplanting allowance, accepted in NPS, would account for fluctuation in productivity.
produced in winter, limited contribution to energy system and reliance on other means when not being productive.	

<ul> <li>Generating capacity in excess of grid agreement. No evidence provided to determine capacity. Matters of NSIP</li> <li>Cannot limit capacity by condition.</li> <li>Would supply low number of homes (1,250)</li> </ul>	The scheme represents benefits to the local economy during the construction period including from the
Reduction in local employment.	temporary jobs created (both direct jobs on-site and indirect/induced roles in the wider economy).
<ul> <li>Noise impact/humming</li> <li>Noise Impact on users of the Public Right of Way</li> <li>Noise Impact during construction period</li> </ul>	As discussed in the submitted Noise Impact Assessment, an assessment against absolute limits, in line with WHO guidance and BS 8233 as agreed with the Rushcliffe Borough Council Environmental Health Department, demonstrates that such limits are met at all of the properties considered in the assessment.
<ul> <li>Impact of crime and location of proposed security palisade fencing.</li> <li>Security ability of deer fencing.</li> </ul>	There are two different elements of fencing included in the design. Wire strung 'deer fencing' will be erected around the perimeter of the site while palisade fencing will be erected around the substation for security purposes.
	Once operational the site will be monitored by 106 inward facing CCTV camera with infrared lighting at intervals around the perimeter fencing. This will be operational 24 hours a day.
<ul> <li>Impact on mental wellbeing and mental health.</li> </ul>	No objection to the proposal has been provided by technical consultees and no evidence provided that there would be a detrimental effect on well-being. The PRoW officer does not object to the proposal and recreational rights of way are retained. An additional permissive right of way is also being provided.
Loss of property value	This concern is noted, however this is not a material planning consideration in the determination of a planning application.
Increase in continued pollution.	The appellant is happy to agree to the inclusion of a condition requiring the submission of a CEMP which would include provision of measures to control the emission of dust, dirt, noise and vibration.

Permissive paths should be inclusive for users.	The proposed permissive paths within the development will be of a suitable width to allow for all users including horseriders.
Support petition was misleading.	Comments and withdrawal of previous supportive comments noted.
<ul> <li>Loss of Gypsum mining potential</li> <li>Land Stability issues in relation to previous gypsum mining practices</li> </ul>	The site has previously been subject to mining of historic gypsum. A risk assessment has been performed to address the presence of historic gypsum. The mining entrances located within the Application Site are now closed and British Gypsum have confirmed there will be no future extraction on the site, therefore the Proposed Development is not considered to be of the nature to sterilise mineral resources. The site layout design has taken into account the findings of the SLR report by siting any sensitive infrastructure such as invertor stations and the electrical substation away from these localised areas of "Medium" risk to mitigate the effects of any future subsidence on the solar project.
Rushcliffe Golf Club liable for stray shots	This concern is noted, unfortunately this is not a material planning consideration in the determination of a planning application.
<ul> <li>Inaccuracy in levels information, used an average height.</li> </ul>	A topographical survey was undertaken for the site that provided accurate land levels across all field parcels. This informed the final design and consultant reporting.
Impact on historic monuments	There are no designated heritage assets and two non-designated sites within the local HER with the appeal site. Exclusions zones were implemented around these features during the design of the proposed development. The submitted CHIA concluded that there will be no significant direct or indirect effects on heritage assets aligning with the relevant development plan policies. The LPA Conservation Officer was satisfied that CHIA had demonstrated that the proposals has taken into consideration potential impacts to designated and non- designated heritage assets and therefore the proposal would not harm the significance the assets or their setting.
<ul> <li>Solar panels alter surface water flows</li> <li>Increasing flood risk</li> </ul>	The site is located in its entirety within Flood Zone 1 an area described by the Environment Agency as have a 'low probability' of flooding. The proposal incorporates SuDS into the drainage design, which not only adequately mitigated the increased flow rates as a result on the minor increase in impermeable areas of the development, but provides a significant improvement.
<ul> <li>Extent to which the development is temporary</li> <li>Applications will be made to extend lifetime</li> </ul>	At the end of the 40-year operational lifespan of the proposed development, the site would be restored back to full agricultural use with all equipment and below ground connections removed with the exception of the DNO substation.

• Too much weight given to	This application is seeking permission for a 40 year operational lifespan of the development. Any life extension
temporary nature of the scheme	would be subject to a separate application process and the application would be determined on its own merit.

Comments in support of the application – R Bines, K Copper-Simpson, S Nayton



Town & Country Planning Act 1990 (as amended) Planning and Compulsory Purchase Act 2004

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