Third Revolution Projects

Hatton Solar Farm

Site Search Document

Applicant: Push Generation & Supply Ltd.

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Contents

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Prepared by: Third Revolution Projects Ltd.

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1.0 Summary

The selection of sites for solar farms involves a complex process of site search and assessment to identify suitable locations, which are acceptable both in terms of planning considerations and the UK's energy generation. Whilst Government and East Lindsey District Council (ELDC) seek to urgently tackle climate change, it is essential to locate and develop suitable sites for renewable energy generation, to ensure the smooth transition from fossil fuel to a net-zero economy.

This report describes the process the applicant has used to locate the site as part of a process of identifying and assessing other potential sites, taking into account environmental considerations and key planning policies. It should be read in conjunction with the submitted Planning, Design and Access Statement.

Planning policy is supportive of solar farm developments. The National Planning Policy Framework (NPPF), updated in December 2023, is clear that "*the planning system should support the transition to a low carbon future... in ways that contribute to radical reductions in greenhouse gas emissions...; and support renewable and low carbon energy and associated infrastructure*." (Paragraph 157) It should also support "*the development and diversification of agricultural and other land-based rural businesses*", (Paragraph 88b) and for decisions to recognise "*the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land*" (Paragraph 180b).

When determining planning applications, the NPPF is clear at Paragraph 163a that "for renewable and low carbon development, local planning authorities should not require applicants to demonstrate the overall need for renewable or low carbon energy."

Furthermore, the NPPF seeks to enable *"the development and diversification of agricultural and other land-based rural businesses"* (Paragraph 88b), and for decisions to contribute to and enhance the natural and local environment, including *"the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land"* (Paragraph 180b).

There is no policy that prevents use of agricultural land of any grade for solar farms. NPPF Footnote 62 notes that *"where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality. The availability of agricultural land used for food production should be considered, alongside other policies in this Framework, when deciding what sites are most appropriate for development"*.

The National Planning Practice Guidance (NPPG) advises further on the factors that local planning authorities should consider.

The 2015 Written Ministerial Statement (WMS) referenced in the NPPG indicates that the use of BMV for solar farms has to be justified by the most compelling evidence. However, a recent appeal decision (Ref: APP/C1570/W/23/3319421) recognised that this must be read in light of more recent policy updates and also be viewed against the increasing imperative to tackle climate change, and to meet he legally binding Net Zero targets.

The National Policy Statement for renewable energy infrastructure (NPS EN-3), which came into force in January 2024, is a material consideration in decision making at local level, confirms that while the preference should be to use lower grade agricultural land, this should not be the predominating factor in determining applications.

The first stage of the process is to identify where there is appropriate grid capacity within the UK's energy infrastructure. The applicant's group company successfully obtained a grid connection and planning permission for a 60MW gas fuelled power station (S/079/00348/18), determined on 22nd August 2018. Development did not commence on the gas peaking plant due to the shift towards net zero commitments. Looking to respond to the market and national need, the applicant sought to utilise this established grid connection for solar. The strict criteria to get a change of technology permitted from the Distribution Network Operator required that the project remain within the landownership area submitted as part of the original gas grid connection.

In addition, the site selection process sought to identify land within the above identified area that would have the least environmental impact. As such, local and nationally statutory environmental protected sites and assets were avoided. Additionally, due to the location of the available grid capacity from the gas peaker consent, the use of agricultural land would be likely. Following these steps, the process confirmed that several potential parts of the above identified area could potentially be deliverable. These are assessed at Section 4.3.

An Agricultural Land Classification (ALC) survey was undertaken and demonstrated that the development site is located on a mixture of subgrades 2 (5.27%), 3a (73.68%) and 3b (21.05%).

The chosen site has a willing landowner and is available for development now and therefore is considered deliverable, as defined in the glossary of the NPPF. The site is of a suitable size to accommodate a viable project, avoid designated areas and has been demonstrated in the accompanying Planning Statement and surveys to be able to overcome all physical, environmental, policy and amenity constraints.

With regard to the policy guidance criteria, the development will not result in the loss of any agricultural land and this report demonstrates:

- The use of agricultural land has been shown to be necessary.
- That the use of poorer quality land has been explored in preference to higher quality land.
- The proposal allows for continued agricultural use and encourages biodiversity improvements around arrays.

In accordance with national policy, the development will secure wider benefits from natural capital and ecosystem services.

Compliance with policy guidance combined with significant benefits secured by the project provides the most compelling evidence required by the WMS, as outlined below:

- The development is temporary and completely reversible at the end of its life.
- Generating enough secure available, and affordable renewable energy to power around 21,000 UK homes each year, thereby supporting transition to a zero-carbon energy system.
- Avoiding 500,000 tonnes of CO_2 over the lifetime of the development (12,500 tonnes each year), thereby actively targeting the climate emergency.
- Improved resilience of the electricity grid by offering energy security.
- Planting of new trees, hedges, and meadow around the solar farm to provide a significant uplift in overall habitat compared to the existing use. This will support the diversity and abundance of flora and fauna, and in accordance with policy, will secure wider benefits from natural capital and ecosystem services. The Landscape and ecology enhancement plan (Ref: P044.302.02) will ensure these benefits are maintained for the duration of the development.
- No loss of agricultural land and continued grazing throughout the development's operation.
- Farm diversification to ensure the continued viability of the farm holding.

The Inspector on the recently decided appeal ref: APP/C1570/W/23/3319421 concluded that the site-specific considerations on that case, combined with many similar factors evidenced above provided the most compelling evidence to justify the use of BMV.

This report describes the rigorous process the applicant has gone through to identify the site and demonstrates compliance with local and national planning policy and guidance. It is clear, therefore, that the site is suitable when weighed against the considerable renewable energy, climate change, economic and biodiversity benefits of the project.

2.0 Introduction

This report has been prepared by Third Revolution Projects on behalf of Push ("the applicant") regarding the proposed development of a solar farm with ancillary development at Land adjacent to Sotby Woods, Sturton Road, Hatton ("the site"). The report details the approach the applicant has taken to locate the site as part of a process of identifying and assessing other potential sites. It describes the site selection process, study area and considers sites that may also have had potential to host the proposed development.

2.1 Site selection – an overview

The selection of sites for solar farms involves a complex process of site search and assessment to identify suitable locations which are acceptable in terms of commercial, planning and energy generation considerations. Environmental considerations such as avoiding designated sites was also a key consideration when selecting the site. Whilst the Government and ELDC seek to urgently tackle climate change, it is essential to locate and develop suitable sites for renewable energy generation, to ensure the smooth transition from fossil fuel to a net-zero economy.

This report describes the process the applicant has used to locate the site, including identifying and assessing other potential sites.

Solar farms must address a range of planning considerations at both national and local levels, and at the same time meet the criteria set for electricity infrastructure by the National Grid and Distribution Network Operators (DNO). While forecast generation capacity and demand provide important context, Government policy demonstrates an unconstrained need for additional renewable energy capacity and no requirement to demonstrate need for a particular facility.

The site selection process starts by locating those areas within the distribution network where there is capacity to connect additional electrical input. Having identified capacity, there follows a long process of identifying sites within a viable distance from the point of connection, where material planning considerations are or are likely to be able to be made acceptable, and where a site is deliverable.

The applicant's group company successfully obtained a grid connection and planning permission for a 60MW gas fuelled power station (S/079/00348/18), determined on 22nd August 2018. Development did not commence on the gas peaking plant due to the shift towards net zero commitments. The grid connection had been identified for the peaker and the principle of location for some form of energy generation project confirmed. Looking to respond to the market and national need, the applicant sought to utilise this established grid connection for solar. The strict criteria to get a change of technology permitted from the Distribution Network Operator required that the project remain within the landownership area submitted as part of the original gas grid connection

The location of the substation adjacent to the existing substation has already been confirmed as suitable through the approval of the peaker. This location has been retained and so has not been assessed further.

A high-level analysis of key designations was applied to the study area to make sure the selected site avoids fundamental planning and environmental constraints in the area, i.e. protected areas of particular importance, such as landscape, ecological, historic, or planning designations.

Often located on agricultural land because of their size, there is also growing examples of solar farms allowing continued agriculture – such as grazing – and providing considerable benefits to the wider farm, and biodiversity. The selection process is therefore both iterative and thorough and is set within this report.

2.2 Planning policy

Solar farms provide clean renewable energy and are recognised as an important means to achieving the UK's legally binding target of net-zero carbon emissions by 2050 and the five-fold increase in solar power by 2035 in the 2022 British Energy Security Strategy and can also dramatically enhance biodiversity within the site.

Planning policy is supportive of solar farm developments. The NPPF is clear that "the planning system should support the transition to a low carbon future… in ways that contribute to radical reductions in greenhouse gas emissions…; and support renewable and low carbon energy and associated infrastructure." (Paragraph 157) It should also support the development of the local economy, and encourage "the development and diversification of agricultural and other land-based rural businesses" (paragraph 88b), and for decisions to contribute to and enhance the natural and local environment, including "the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land" (paragraph 180b).

There is no policy that prevents use of agricultural land of any grade for solar farms. NPPF Footnote 62 notes that *"where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality. The availability of agricultural land used for food production should be considered, alongside other policies in this Framework, when deciding what sites are most appropriate for development"*.

The NPPF provides at paragraph 88b that planning decisions should recognise the economic and other benefits of BMV land, not avoid use of BMV land.

The National Planning Practice Guidance (NPPG) on Renewable and low carbon energy, also originally released in 2015, provides a list of planning considerations that relate to large scale ground mounted solar photovoltaic farms[1]. These include:

"Encouraging the effective use of land by focussing large scale solar farms on previously developed and non-agricultural land, provided that it is not of high environmental value;

Where a proposal involves greenfield land, whether:

- *(i) the proposed use of any agricultural land has been shown to be necessary and poorer quality land has been used in preference to higher quality land; and*
- *(ii) the proposal allows for continued agricultural use where applicable and/or encourages biodiversity improvements around arrays. See also a speech by the Minister for Energy and Climate Change, the Rt Hon Gregory Barker MP, to the solar PV industry on 25 April 2013 and written ministerial statement on solar energy: protecting the local and global environment made on 25 March 2015."* [Paragraph: 013 Reference ID: 5-013-20150327]

The NPPG passage refers to all agricultural land, not just BMV, and it also looks to whether there can be continued agricultural use and/or biodiversity improvements. The WMS indicates that the use of BMV for solar farms has to be justified by the most compelling evidence. However, a recent appeal

[1] Paragraph ID: 5-013-20150327

decision (Ref: APP/C1570/W/23/3319421) recognised that this must be read in light of more recent policy updates and also be viewed against the increasing imperative to tackle climate change, and to meet he legally binding Net Zero targets. There has therefore been a significant change in the imperative placed by Government on the urgent need for the rapid deployment of renewables.

Appeal Ref: APP/G2713/W/23/3315877 is a recent appeal decision from proposals for a solar development in Hambleton District Council. The Inspector found that the local policy did not prevent the use of BMV land but required that the benefits need to justify its loss. If they do, then areas of the lowest grade available must be used except where other sustainability considerations outweigh agricultural land. Similarly, the national guidance outlined above *"not prevent the use of such land"*.

The National Policy Statement for renewable energy infrastructure (EN-3), which came into force in January 2024, is a material consideration in decision making at local level and confirms that while the preference should be to use lower grade agricultural land, this should not be the predominating factor in determining applications.

The ALC survey has demonstrated that the majority of the development area is on land classified as Grade 3a (73.68%), and 21.05% classified as Grade 3b, and 5.27% Grade 2 as shown below in Figure 1. The soil classification has been carried out using the revised guidelines set out in the publication "Agricultural Land Classification of England and Wales" (MAFF2, 1988).

In summary, planning policy does not preclude the development of solar farms on agricultural land or prevent the use of higher-grade land. Importantly, the NPPF confirms the importance in decision-making of the wider benefits from natural capital and ecosystem services, including the economic and other benefits of best and most versatile agricultural land. Such benefits include food growing, but also include control of climate, nutrient cycles, pollination, flood prevention, and energy – all of which can be provided by solar farms.

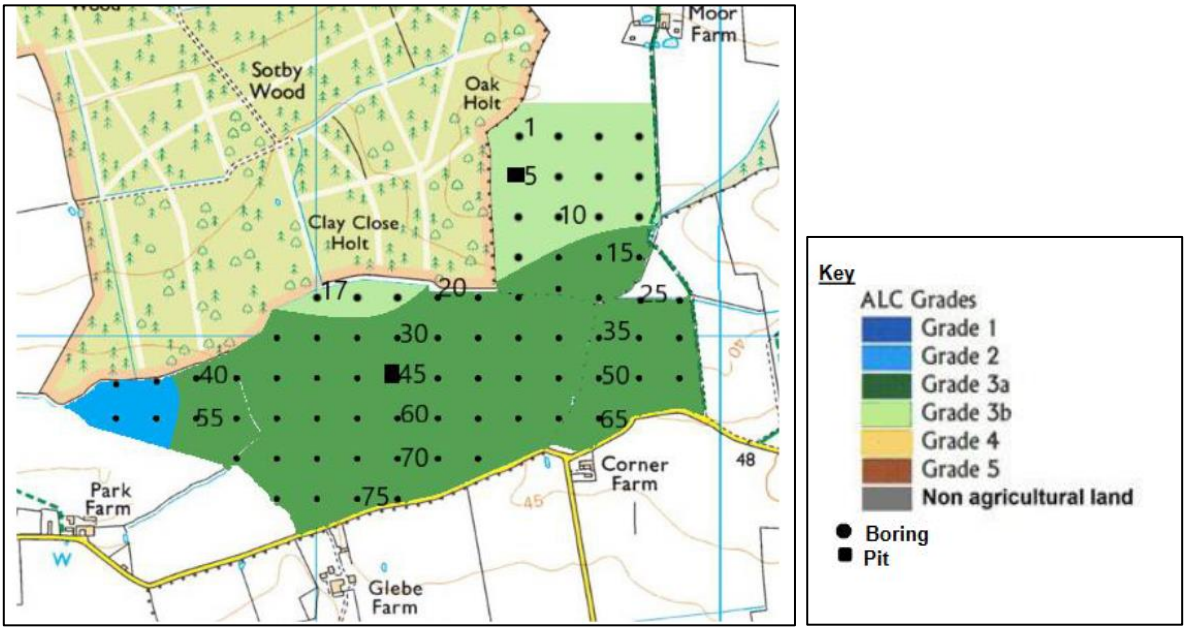

Figure 1: Site Map showing Agricultural Land Grades

[2] MAFF, (1988). Agricultural Land Classification for England and Wales: Guidelines and Criteria for Grading the Quality of Agricultural Land.

2.3 Overarching national need

Although Government policy is clear that developers are not required to demonstrate need (there is an unconstrained need for new capacity), it is useful to describe the increasingly urgent need for the proposed development in the context of the climate emergency declared by the Government, ELDC's proposals to reach their goal of being net zero by 2040 and a 45% reduction in carbon emissions by 2027, and the UK's transition away from fossil fuels to a renewable energy system.

In the 21st Century, climate change is a recognised phenomenon of international and global significance. The scientific evidence is overwhelming and has recently led to cross-party support for legislation that enshrines *"net-zero greenhouse gases emissions"* within the Climate Change Act 2008.

The NPPF is clear that *"the planning system should support the transition to a low carbon future… contribute to radical reductions in greenhouse gas emissions… and support renewable and low carbon energy and associated infrastructure"* (Paragraph 157).

However, financial incentives for most renewable technologies have been removed by the Government and the Institution of Mechanical Engineers estimates a 40-55% electricity supply gap in the next decade. Ground mounted solar photovoltaics are currently the only renewable technology that retains relatively unconstrained planning policy support and, due to significant cost reductions in recent years, is viable without financial subsidies. Solar is therefore critical to achieving the required increase in clean energy supply. This is evidenced by the March 2023 Powering up Britain strategy that includes an ambition for a five-fold increase in new solar power by 2035, from 14,000MW today to around 70,000MW. This has been translated into a planning policy expectation in the NPS for Renewable Energy Infrastructure (EN-3, January 2024), which is a material consideration in local decision-making.

The proposed project will contribute significant renewable energy, directly addressing the climate emergency and supporting the transition away from fossil fuels.

2.4 Need for development in this location

While planning policy is clear that there is a need for all forms of renewable energy and supporting infrastructure, such developments cannot be sited anywhere. Suitable locations must meet certain technical and commercial criteria. The process the applicant has been through to identify development locations and then to identify specific sites in which to site a solar facility is described in the sections below.

Demonstrating specific local need is not possible since the responsibility for ensuring supply and demand are balanced, locally and nationally, falls to The National Grid as the electricity system operator. It does this by prescribing requirements for power capacity (megawatts of generation) and services (e.g. provision of capacity at peak times, balancing and frequency response). This is becoming more challenging as the traditional large, centralised power stations become unviable and the Government's policy is to close all coal-fired power stations by 2024.

The UK's old, centralised electricity network is being replaced, with Government support, by a decentralised one powered by renewable energy, such as solar and wind, supported by small flexible demand responsive facilities, such as battery energy storage. Apart from the largest power stations, which connect directly to the transmission network, most projects connect to the distribution network.

The electricity network was designed for centralised generation and as a result, large parts of the network do not have the capacity to accommodate new connections. Therefore, project locations are determined in relation to available grid connection capacity rather than by locally specified needs. Due to the unconstrained national need and the Government's expectation of a five-fold increase in solar by 2035, it is reasonable to assume that all substations and circuits with capacity should be expected to accommodate some form of generation unless material planning policy reasons indicate otherwise. The Inspector on appeal ref: APP/C1570/W/23/3319421 recognised the constraints in the availability of grid connections nationally and it is clear in their assessment that grid capacity is a key determinant of location.

The grid connection from the consented (but not implemented) gas peaker scheme was the only available capacity within this locality with the ability to support the proposed scheme and the agreement by the DNO to allow this grid connection to be transferred to the proposed solar farm came with the restriction that it must be located within the same land ownership.

2.5 Identifying the study area

The previous section established that each local substation or circuit should be considered for whether it can accommodate some form of generating or balancing facility. Therefore, grid capacity maps are first consulted to determine those that may be suitable.

There are 6 DNOs operating 12 territories in England and Wales. The applicants process involves consulting the data released by relevant DNOs and finding suitable grid paths. Once a territory has been identified, the publicly available information relating to the grid is consulted to confirm available capacity.

The 132kV circuit had been identified as having some capacity to connect a generation project as part of developing the consented (but not implemented) gas peaker scheme. The agreement by the DNO to allow this grid connection to be transferred to the proposed solar farm came with the restriction that it must be located within the same landownership. This is what has determined the study area, and the study area is therefore the blue line identified at Figure 2.

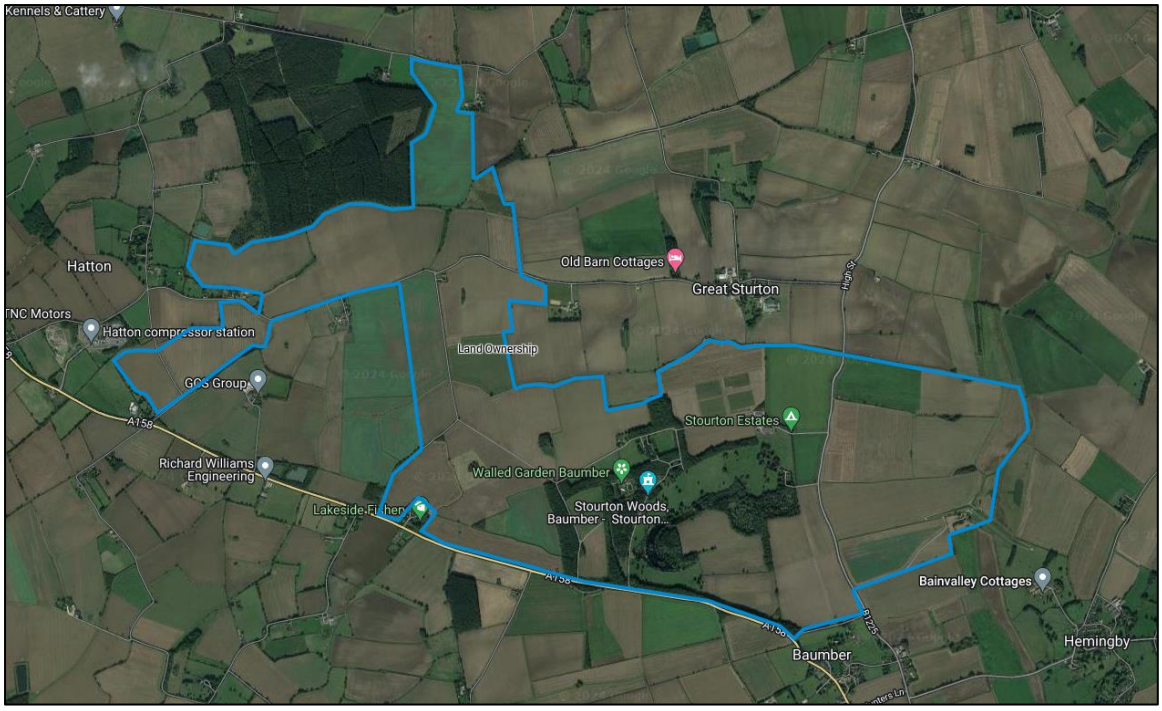

Figure 2: Study area for potential sites

This does not mean that it would be feasible or viable to connect at every location near to this grid connection point because it will depend on factors such as the intervening presence of development and infrastructure, and the type of terrain. First and foremost, environmental, and social considerations often dictate the most appropriate location, for example, laying a cable across a field directly adjacent to a connection would often have less environmental or neighbouring amenity considerations in comparison to a route that must cross a river, designated site, railway or pass through a settlement, and does not require additional rights to be secured. Adjacency to a point of connection can often have significant cost implications. This is discussed further below.

In practice, a connection to a generation development will need to run underground to the substation itself, with the viability of the connection (due to costs) declining as distance increases.

3.0 Identifying Suitable Sites Within the Study Area

The applicant has adopted a sequential approach to identifying sites within the study area. This is not a requirement of planning policy but has been used to demonstrate the rigorous approach taken by the applicant. It also means there is no methodology available in the NPPF that can be directly applied to solar and so the applicant has sought sites that are *"deliverable"*, as defined in the glossary of the NPPF. To be considered deliverable sites should be:

- Available now; and
- Offer a suitable location for development now.

The applicant considers a site to be suitable by applying the following criteria:

- Minimum site area of approximately 70 hectares. For the available grid connection, sites could not be significantly smaller than this as there will be insufficient space to accommodate a solar farm without making the project unviable on a cost per megawatt basis. Potentially sites can be combined if they are not too far from one another.
- Avoid affecting key designations:
  - Ancient Woodland
  - National, European, and International environmental designations: Areas of Outstanding Natural Beauty, Biospheric/Biogenetic Reserves, Environmental Sensitive Areas, RAMSAR sites, Sites of Special Scientific Interest, National Parks, Special Area of Conservations and Special Protection Areas
  - Heritage Coast
  - Country Parks
  - Historic Battlefields
  - National Heritage Future Zones
  - Nature Reserves
  - Registered Park or Gardens
  - Royal Society for the Protection of Birds reserves
  - Scheduled Monuments
- Be able to overcome physical, environmental and policy constraints, including flood risk, planning policy or other designations and on-site or connection route infrastructure or features (such as trees, pylons, railway lines and buildings).
- Be able to overcome amenity constraints, such as noise and visual impacts. The anticipated cost of connection. The costs to connect to the grid increases almost exponentially as the connection voltage increases.
- Rent levels payable to the landowner can vary considerably.

In summary, this section has demonstrated a clear need for solar farms to be located where there is the capacity to connect to the electricity grid. It has also shown the approach the applicant has taken to identifying capacity across the country. Government policy presents an unconstrained need for new renewable energy capacity and so available capacity in one location is not a reason to preclude development in other areas. The strict criteria for us to get a change of technology permitted from the DNO was that the project remain within the landownership area submitted as part of the original gas peaker connection. The applicant considered the most appropriate parcels of land within this area.

4.0 Analysis Against Policy and Guidance

Planning policy is supportive of renewable energy developments, including solar developments. The remainder of this assessment demonstrates the site's suitability in the context of national policy guidance to demonstrate the following:

- The proposed use of any agricultural land is necessary.
- That poorer quality land has been used in preference to higher quality land.
- That the proposal allows for continued agricultural use and/or encourages biodiversity improvements around arrays.
- The wider benefits from natural capital and ecosystem services.
- That there are compelling reasons for using BMV land.

4.1 The proposed use of any agricultural land is necessary

To establish whether the use of agricultural land is necessary, previously developed sites were assessed in the ELDC's brownfield register, available on the Council's website. This research found that all of the brownfield sites located within the register are located outside of the study area. There are no rooftops large and strong enough within the study area to support a solar scheme of this size. The proposed use of agricultural land is therefore necessary.

4.2 Poorer quality land has been used in preference to higher quality land

An ALC survey accompanies this analysis and has demonstrated that the majority of the proposed development (73.68%) is located on higher grade land (subgrade 3a), with the remaining 21.05% being located on Grade 3b land or 5.27% on subgrade 2, as shown at Figure 1. The purpose of this section is to consider whether there are any areas that might comprise lower grade that this.

As shown in the maps at Figure 3, the study area contains a mix of agricultural land grades of both Very Good and Good to moderate. Figure 4 shows that all land within the study area has either a high likelihood of most versatile land (<60% of the area) or moderate (20-60%). The proposed site has around 73% BMV, so it is possible that other parts of the wider landowner study area have lower quality land. Therefore, this will be assessed further in the succeeding sections.

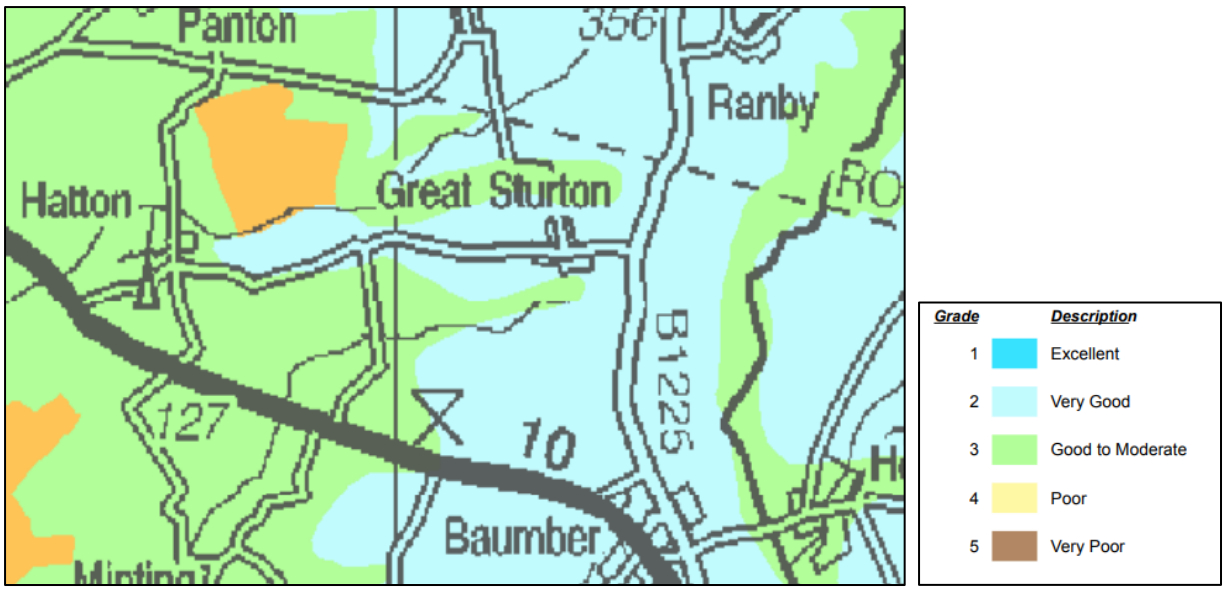

Figure 3: Agricultural Land Classification Map- East Midlands Region Map (ALC005). Study site extract (Source: Natural England)

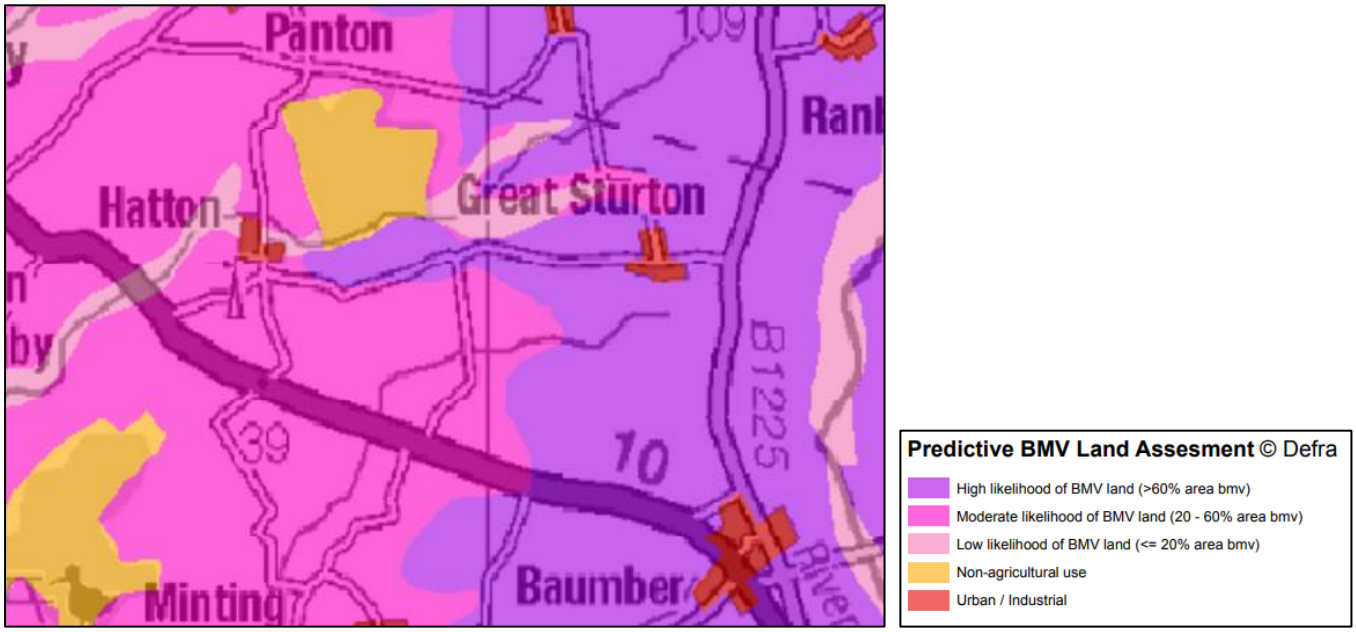

Figure 4: Extract of study area showing the predictive BMV land assessment (Source: DEFRA)

4.3 Further analysis of land within the study area

The previous sections have shown that the use of agricultural land is necessary. This section provides further analysis on whether poorer quality land has been used and other factors that determine its suitability.

Any potential sites within the study area must be deliverable, as defined in Sections 2.5. Other constraining features of particular note are shown in Figure 5. The applicant has avoided any parcels of the study area that is shown to be within the environmental designations, urban or woodland areas.

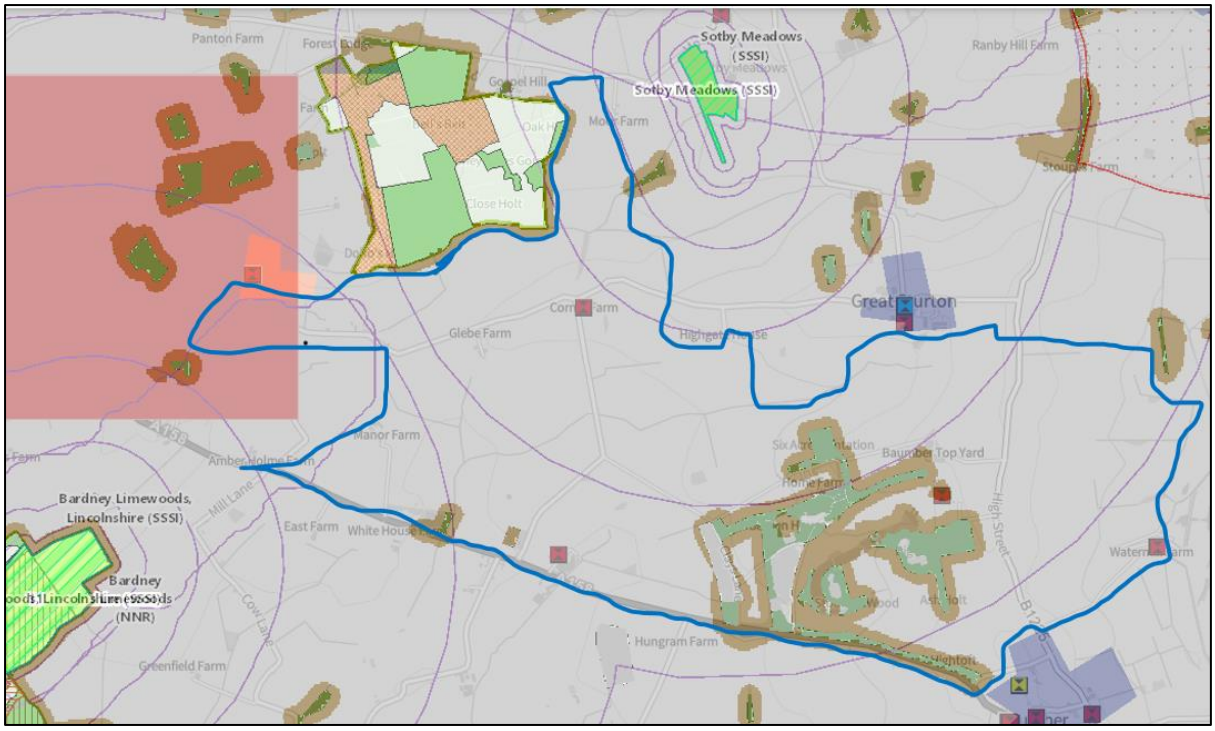

Figure 5: Map showing the various designations in the study area within the vicinity of the site (dark green = priority habitat), light green = SSSIs, H Grade II and Grade II listed buildings. Approximate study area identified by blue line. (Source: Magic Maps)*

The above map identifies that there are a number of constraints associated with the study area, particularly to the south and east. This includes a significant area in around the Garden House, Stourton Wood and Home Farm which are designated priority habitat. Heritage assets are also particularly prominent on the south and eastern parts of the sites.

Selecting the site

The available land area identified at Figure 2 was separated into six assessment areas, each ranging in size between approximately 30-100ha (Parcels A-F) which are identified on the plan at Figure 6.

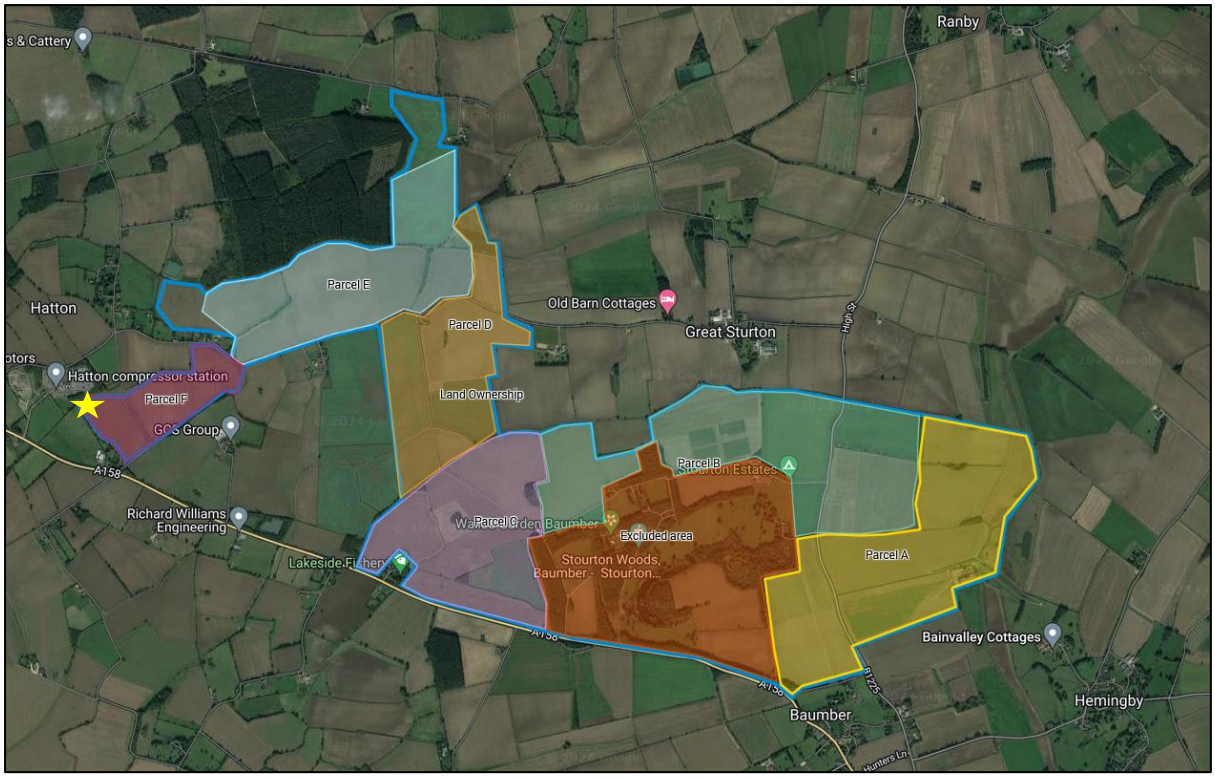

Figure 6: Alternative parcels available within the study area (source: Google Maps). Point of connection identified by the star.

Once the land parcels had been identified, the applicant undertook a more intensive feasibility assessment to identify the most suitable areas. This included the following criteria:

- Areas with the fewest landscape and visual impacts.
- Areas with the fewest heritage and archaeological constraints
- Areas with the lowest agricultural land quality
- Areas that are sufficiently accessible from the public highway
- Areas that are available from the landowners.

The assessment also included evidence from the landowner in respect of specific issues as the farm continues to attempt to navigate the effects of climate change as a sustainable (profitable) producer of food.

The sites were assessed based on the following traffic light system:

- **Green** - criteria does not represent a significant constraint to development.
- **Amber** - a potential sensitivity requiring further investigation.
- **Red** – a clear sensitivity / constraint to development.

Restrictive designations led to other land in the study area being assessed as being unsuitable for development of this type. The following sites were among those considered and were discounted for the reasons stated below.

In addition to the ALC survey, the farmer has provided land quality information based on their own experience of farming the land for many years.

Site Ref	Landscape and Visual	Heritage	Flood Risk	ALC	Overall Assessment
Parcel A Land to the north of Baumber	The topography of the land is very flat in this parcel. Much of this area is visible from the settlements of Baumber and Hemingby. From applicant's site visit and the topography, it was apparent that the site was visible from a number of properties. The site also faces east towards the Lincolnshire Wolds AONB and development is likely to be visible in long distances. PRoW (Braum/92/1) runs south to north along the entirety of the eastern boundary which was considered to be a challenge to screen effectively without large offset areas.	This parcel could impact negatively on the nearby heritage assets in the form of the collection of listed buildings immediately to the south at Baumber and approximately 900m to the south west. The Water Mill on the south eastern edge of the site is Grade II listed which would have required a significant buffer area to limit the level of harm.	This parcel hosts the Horncastle Flood Defence at the eastern most edge along the River Bain. This periodically floods to help protect Horncastle 4 miles downstream.	The published ALC maps indicate the parcel to be predominantly in Grade 2 with a small amount of Grade 3 along the eastern boundary. The parcel is defined as having a high likelihood of BMV apart from a small amount along the eastern parcel. The landowner has provided the following information based on their experience of farming this land: Considered to be the best land in the entirety of the study area which has been used for root crops and potatoes in the past. The landowner did not want to make this parcel available as its use for solar would not have contributed to their plans for effective operation of the farm in the long term.	The site contains a higher proportion of BMV land than the proposed site which has been confirmed by the landowner's experience. Bordered by residential development along its southern and south-eastern boundary, the landscape visual impact experienced by the dwellings adds significant risk. The landscape and visual and heritage considerations, along with the Grade 2 agricultural land classification combined mean the site is not preferable to the proposed site.
Parcel B Land to the north of Baumber Walled Garden	On-site visual receptors from the properties directly to the north. This is the highest point of the study area and the central area in particular is highly visible within the locality (faces the	Church of All Saints (Grade II*) and the Thatched Cottage (Grade II) immediately north of the parcel. The site was very visible from these assets.	The entirety of the area is Flood Zone 1 (Low probability of flooding) with a low risk of surface water flooding.	The published ALC maps indicate the parcel to be predominantly in Grade 2 with a small amount of Grade 3. The site is identified as having an equal measure of High and Moderate Likelihood of BMV.	The site contains a higher proportion of BMV land than the proposed site. The landowner has also confirmed that this lies on very high-quality land. The heritage, landscape and visual considerations add significant risk.

	village of Great Stourton). The eastern sections would also be visible to the Lincolnshire Wolds AONB. It was determined landscape considerations would be difficult to satisfactorily overcome.			The landowner has provided the following information based on their experience of farming this land: Whilst the western part of this site would be relatively well hidden by the woods, this lies on very high-quality ground.	The site is not preferable to the proposed site.
Parcel C Land to the west of the Baumber walled garden	The wider landscape is of this parcel is of an open, rolling landform with site levels which are broadly comparable with natural height variations within the wider landscape. Generally, the site is reasonably flat near the A158 although the ground does start to rise as you move away from the roadside fields and therefore becomes visible for road users and nearby villages.	Grade II Listed Building in south western corner. Contains sites of monastic priory and roman villa (both of which have been protected under Countryside Stewardship Scheme run by English Nature). Aerial imagery of the site clearly shows the outlines of fields that have not been cropped by the landowner in order to protect these sites.	The entirety of the area is Flood Zone 1 (Low probability of flooding) with a low risk of surface water flooding.	The published ALC maps indicate the parcel to be an equal mix of Grade 2 and 3. The likelihood map indicates approximately half of the parcel has a high likelihood of BMV and half moderate likelihood. The landowner has provided the following information based on their experience of farming this land: Start of poorer land (Heavier, clay-based soils). The landowner did not want to make this parcel available as its use for solar would not have contributed to their plans for effective operation of the farm in the long term.	Open landscape combined with likely requirement for significant offsetting from heritage site could make this parcel unviable. The site has more Grade 2 land than the proposed site, and contains significant heritage assets which have been protected under the Countryside Stewardship Scheme. The site does not appear to be preferable to the proposed site across all factors.

Parcel D Central area	On-site visual receptors will primarily be the residential property on the north of the site. It is also very visible, being split by the lanes to Hatton and Great Sturton. Together these could be difficult to mitigate.	Grade II Listed building in north western corner of the site. Site could be made acceptable if appropriate buffer and landscape enhancement were incorporated into scheme design.	The entirety of the area is Flood Zone 1 (Low probability of flooding) with a low risk of surface water flooding.	The published ALC maps indicate the parcel to be Grade 3 with a moderate likelihood of BMV. The landowner has provided the following information based on their experience of farming this land: This land is much heavier. The southern end is considered to be the worst in the entirety of the search area, however, it is very visible, being split by the lanes to Hatton and Great Sturton. The landowner did not want to make this parcel available as its use for solar would not have contributed to their plans for effective operation of the farm in the long term.	Open landscape combined with likely requirement for significant offsetting from heritage site could make this parcel unviable. Whilst this site has less BMV than the proposed site, the land was considered to be very visible to road users and the landowner wasn't prepared to make it available.
Parcel E Land to the immediate south of Sotby Wood	Having researched the multiple locations above, it was considered that Parcel E offered a location that could be accommodated without any significant adverse impacts on either landscape character or residential amenity- sufficient distance from residential buildings.	The parcel is not within, or in proximity to, any historic garden, park, battlefield, conservation area, or archaeological site. It is within proximity to a Grade II Listed Building; however, the initial heritage feasibility assessment concluded	The entirety of the area is Flood Zone 1 (Low probability of flooding) with a low risk of surface water flooding.	The ALC survey confirms the parcel to be majority of the land (73.68%) to be located on subgrade 3a, with the remaining 21.05% being located on Grade 3b or 5.27% on subgrade 2. The landowner has provided the following information based on their experience of farming this land:	The parcel is not in proximity to any site of biodiversity or geodiversity importance. The Proposed Development is of sufficient distance from the SSSI (Sotby Meadows) to not have any immediate harm. The SSSI is also designated for flora, suggesting the habitat is localised to that specific area and would not sprawl near the development. Whilst a majority of the agricultural land is

	Ability to utilise the natural screening of the Sotby Woods along the northern boundary hides the proposed development area from the orth. The majority of the houses which would overlook the scheme would only see the panels from the rear or from a distance.	that the Listed Building is not visible from the majority of viewpoints due to the natural screening and the topography of the site. This was confirmed by the heritage assessment.		Already this agricultural season the land east of Sotby wood, which forms Parcel E of the proposed solar farm, has a failed crop of Oil seed rape due to the extreme wet weather. This contributed to flea beetle damage brought on by a reduction in the pesticides the landowner was allowed to use. The other parts of this site have some crop failure and will need re seeding in the spring. Generally, the land is poor, with the exception of the far western point. This has been included in the proposals as it forms a better 'edge' to the landscape design and removes what would be a 'tricky to farm' field corner.	defined as best and most versatile, evidence from the landowner shows that the land quality is poor which is an important reason for why he made these parcels available. Located away from both the villages of Hatton and Great Sturton. The topography means that it is better screened from properties and roads than most of the rest of the farm.
Parcel F Land to the north east of the A158	Public Right of Way crosses diagonally across the site. There are some isolated properties close to the site. The southern and western boundary of the site would have visibility from road receptors The site was considered to be too close to the village.	Grade II Listed building immediately to the north of the site. This would require detailed appraisal to confirm risk.	The entirety of the area is Flood Zone 1 (Low probability of flooding) with a low risk of surface water flooding.	The published ALC maps indicate the parcel to be Grade 3 with a moderate to high likelihood of BMV identified. The landowner has provided the following information based on their experience of farming this land: Too small to farm effectively but better-quality	This site has two gas mains running through it which limits the developable area considerably. Significant restrictions placed on the potential layout of panels by both the PROW and the measures to avoid the gas mains. This parcel could have less BMV than the proposed site, but the landowner's experience is that the quality is actually better than the proposed.

	These would require detailed appraisal to confirm risk.			land than Parcel E. The landowner did not want to make this parcel available as its use for solar would not have contributed to their plans for effective operation of the farm in the long term.	

Table 1 - Assessment of site viability

Table 1 provides analysis on all of the land assessed as lower grade agricultural land in the previous section.

The chosen site has a willing landowner, is available for development within a reasonable timescale and therefore is considered deliverable, as defined by the NPPF. It is of a suitable size to accommodate a viable project, it avoids all key designations and has been demonstrated in the accompanying Planning Statement and surveys, and the table above, to be able to overcome all physical, environmental, policy and amenity constraints.

The landowner has stated that the current most sensible business decision to maintain the viability of the wider farm would be to take some of their worst land temporarily out of production through the government's Sustainable Farming Incentive (SFI) scheme. To assist in guaranteeing their income. This would be focussed on the poorer quality land (Parcels C & D). Parcel E would also be included should the solar proposals be considered unacceptable.

This demonstrates the rigorous methodology that the applicant has taken to confirm that lower grade land has been used in preference to higher grades, on sites that are deliverable within the study area.

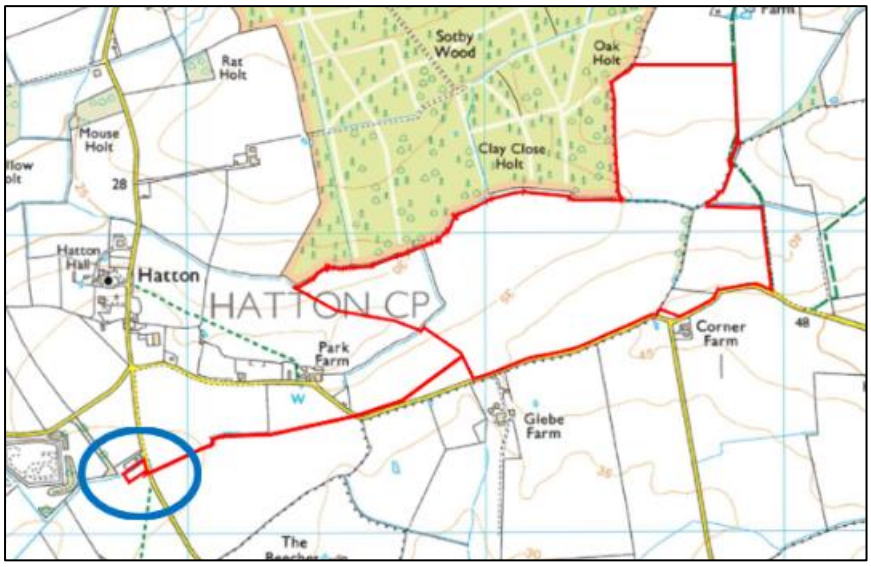

Figure 7: Point of connections map. Point of connection circled blue.

4.4 The proposal allows for continued agricultural use and/or encourages biodiversity improvements around arrays

The scheme allows for continued agricultural use, by allowing sheep to graze underneath and around the solar panels. The Inspector on appeal ref: APP/L3245/W/23/33314982 confirmed this is an acceptable form of continued agricultural use and recognised the change from arable to pasture from sheep grazing between and the associated change from arable to pasture would improve soil health. Appeal ref APP/B3030/W/21/3279533 also recognised that sheep grazing is an accepted part of solar farm developments as a means of naturally managing the pasture.

At the end of the development's life, all equipment will be removed, and the site restored to its current use. Therefore, there will be no loss of agricultural land and agriculture can continue throughout the operation.

The current land use for intensive agriculture provides a limited range of ecosystem services. The proposed solar farm retains a food provisioning function but make significant additional contributions towards ecosystem services, as referenced in NPPF paragraph 180(b):

- Supporting services-
  - Responding to NPPF paragraph 174(d), the project will deliver significant biodiversity net gain of 70.26% for habitat units and a 103.61% gain for hedgerows and 0% river units due to the absence of rivers on site, compared with the existing site, as confirmed in the Biodiversity Net Gain report. These will include wildflower meadows, hedge and tree planting, installations of bird/bat boxes and solitary bee hotels. These measures can be secured via a Management Plan planning condition.
  - The creation of over 100% in new hedgerows, more biodiverse field margins and new grasslands will provide a considerable benefit for pollinators and for supporting prey species.
- Regulating services -
  - The importance of the development in regulating the climate by reducing carbon emissions carries very significant weight in planning decisions and described in the submitted Planning Statement.
  - Pollution by reducing emissions to air or water from other forms of energy generation.
- Provisioning services –
  - The site can be grazed with sheep throughout operation. This will benefit both food production and biodiversity. As the development will be removed at the end of its life, this does not prevent the option of a more intensive agricultural use in the future, should national or local priorities change, and so the solar farm will not have a negative impact on food security.
  - Energy generation is a major benefit from this project.

Therefore, the proposal allows for continued agricultural use and encourages biodiversity improvements around arrays. In accordance with policy, the development will secure far greater benefits from natural capital and ecosystem services than the current use solely for agriculture.

4.5 Effect of the development of food security

Other than footnote 62 of the NPPF, there are no national or local policies, guidance or strategies that relate to food security and production.

There is no policy that prevents use of agricultural land of any grade for solar farms. NPPF Footnote 62 notes that *"where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality. The availability of agricultural land used for food production should be considered, alongside other policies in this Framework, when deciding what sites are most appropriate for development"*.

Ground mounted solar currently uses 0.1% of all UK land, according to Carbon Brief. The Government's stated five-fold increase will require just 0.5% of the land currently used for farming (0.29% of total land area) – roughly half of the space taken up by golf courses.

The UK Government Food Security Report, published in December 2021, is explicit: "The biggest medium to long term risk to the UK's domestic production comes from climate change and other environmental pressures like soil degradation, water quality and biodiversity."

It says that climate change could reduce the UK's stock of high-grade agricultural land by nearly three-quarters by 2050, while solar farms are not cited as a risk. Because solar farms generate near zero-carbon electricity, they help address climate change. This means they are helping to improve the UK's food security.

Solar preserves agricultural land. Planning permission for the solar farm will be time limited and will be completely dismantled at the end of their operation. Solar does not take agricultural land, it borrows it, and because agricultural land under a solar farm is in effect left fallow, soil health can recover.

Planning permission for the solar farm will be time limited. It will be fully removed at the end of its operational life and so this land will only be borrowed from intensive agriculture. In the meantime, the lower intensity use allows soils to rest. The use does not prevent the option of a more intensive agricultural use in the future, should national or local priorities change, and so the solar farm will not have a negative impact on food security.

The landowner has explained that the farm continues to try and navigate the effects of climate change and is struggling to continue as a sustainable (profitable) producer of food. In February 2023, the farm lost 200t of sugar beet to frost which was ploughed in to rot. In October 2023, the farm's sunflower crop was lost to flooding. 150 acres of oil seed rape was lost to flee beetle in 2023 also.

As identified in Table 1, already this season, the land east of Sotby Wood, which forms part of Parcel F (the proposal), has a failed crop due to the extreme wet weather. The other parts of the proposed area have crop failure which would need re sdeeding in the spring. The landowner lost 120 acres of winter beans in 2023 due to the faulty (merchant supplied) seed which had been damaged by the drought in 2022. It should however be noted that none of these events in isolation could be blamed on climate change. However, in the landowners experience, they have noticed an increasing occurrence of these events which are making crop losses/failures across the rotation much more commonplace. As a result this is increasing risk and uncertainty for the landowner within their business and could make farming unviable.

The wet nature and heavy soil type of the land has meant that it has continuously provided challenges with crop establishment over the years, and the increased cultivations to achieve seed beds require extra costs and less efficient production. Instead of providing crops, the solar site will provide direct grazing for sheep, areas for biodiversity as well as the generation of significant

amounts of renewable energy. Therefore, while there will be no material impact on food production there will be considerable benefits in terms of other policies in the NPPF.

The site of the proposed solar farm forms approximately 10% of the farms land ownership. The rent that would be received from the leasing of the site for a solar farm would provide a baseline robust income to enable the farm to weather the storm of climate change to continue to grow crops on the other 90% of the farm.

The Inspector on Appeal ref: APP/C1570/W/23/3319421 concluded that there was no compelling evidence that taking out of production almost 55ha of BMV for a 40-year duration, would have a significant negative impact on food security either on its own or cumulatively with other BMV losses, nor that it would likely be likely to increase imports from other countries. The Government Food Strategy, published in 2022, stated that the UK is largely self-sufficient in wheat, most meats, eggs, and some sectors of vegetable production.

On a recent solar appeal on BMV land ref: APP/G2713/W/23/3315877, the Inspector noted at Paragraph 22 of their decision letter 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"*. As such, the Inspector was satisfied that the proposed use of the land on that appeal case would not be detrimental to the nation's food security.

It is also noted that the Inspector on appeal ref APP/B3030/W/21/3279533 considered that value of the proposed solar farm measurement in terms of national energy production and security against the net value of arable crop production in the UK is an assessment that an individual appellant or LPA could realistically undertake for any one proposal.

In summary, the use of a small area of BMV land for a solar farm, which will be removed at the end of its life, will have a negligible effect on food production. Indeed, the impacts that climate change is already having on food production on the site illustrates how important tacking this issue is.

4.6 Most compelling evidence/significant benefits

The significant benefits create a compelling case for using a relatively small amount of higher-grade land.

The **reversibility** of effects is a compelling argument in favour of the solar energy development because any harm associated with it should be removed after 40 years, with the exception of the substation. The duration of the proposal is relatively short compared to the enduring nature of the rural landscape, and the lifespan of heritage assets that were in place long before the development and will remain long after.

Climate change Whilst the Government and ELDC seek to urgently tackle climate change, it is essential to locate and develop suitable sites for renewable energy generation. ELDC's proposals to reach their goal of being net zero by 2040 and a 45% reduction in carbon emissions by 2027. Solar is therefore critical to achieving the required increase in clean energy supply. This is evidenced by the March 2023 Powering up Britain strategy that includes an ambition for a five-fold increase in new solar power by 2035, from 14,000MW today to around 70,000MW. This has been translated into a planning policy expectation in the NPS for Renewable Energy Infrastructure (EN-3, January 2024), which is a material consideration in local decision-making.

The proposed project will contribute significant renewable energy, directly addressing the climate emergency and supporting the UK's transition away from fossil field, and contribution to global commitments made at COP26.

Farm Diversification In the case of the proposed development, the regular income from the solar farm will make an important contribution to the continued viability of the farm holding, including investment in farming activities and protecting themselves during years of low agricultural yield. This is becoming increasingly important as a changing climate affects agricultural yields and the Government is committed to reducing agricultural subsidies to enable farmers in England. The area proposed for development will be a small proportion of the total landowner area and so will remain subservient to the main agricultural use of the farm.

The previous section has confirmed that there will be no significant effect on **food security**. The site of the proposed solar farm forms approximately 10% of the farms land ownership. The rent that would be received from the leasing of the site for a solar farm would provide a baseline robust income to enable the farm to navigate the difficulties of climate change to continue to grow crops on the other 90% of the farm.

The landowner had a failed crop of oil seed rape due to the extreme wet weather. The other parts of the proposed area have crop failure which would need re sdeeding again. The lower intensity use created by the proposed solar panels allows soils to rest. The use does not prevent the option of a more intensive agricultural use in the future, should national or local priorities change, and so the solar farm will not have a negative impact on food security.

The solar farm will deliver a range of **ecosystem services** as identified at Section 4.5, that significantly outweigh those existing on the current farm. The planting of new trees, hedges and meadow around the solar farm to deliver an increase in habitats. The proposals will provide a **significant BNG** of 70.26% for habitat units and a 103.61% gain for hedgerows. This will support the diversity and abundance of flora and fauna, and in accordance with policy, will secure wider benefits from the natural capital and ecosystem services.

Strong Economy As part of its social objective, the NPPF aims to *"support strong, vibrant and healthy communities"*. The proposed development would bring important local community benefits. According to ONS data, over 10,000 households were fuel poor in East Lindsey (15.6%) in 2020, which is well above the Lincolnshire and UK averages. Sharp increases in energy bills since these figures were gathered risk pushing many more into fuel poverty.

Businesses are not protected by the current energy price cap and are being subjected to significant inflationary pressures, which is dampening confidence in business growth and is seeing businesses increasingly plan for job cuts or even closure and there are comparable impacts on schools and other parts of important social infrastructure. Therefore, the social and economic benefits to the area of feeding low-cost secure energy supplies into the local distribution network should carry significant weight.

The development will provide significant and ongoing business rates contributions, which support delivery of local services. It will also employ people during construction and operation. It is difficult to be definitive but during construction it is expected to employ the equivalent of 16-20 full time employees plus around 100 sub-contractors over the expected 20-week construction period. This brings value to the local area in the form of accommodation and other living expenditures for construction staff.

National planning policies encourage developments that support the local economy and enable rural diversification. An economic objective of the NPPF is to *"help build a strong, responsive and competitive economy, by ensuring that land of the right types is available in the right places and at*

the right time to support growth, innovation, and improved productivity." Paragraph 85 directs that *"Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development."* It goes on at Paragraph 86c to *"seek to address potential barriers to investment, such as inadequate infrastructure, services or housing, or a poor environment;"* Paragraph 88b notes that decisions should enable *"the development and diversification of agricultural and other land-based rural businesses"* and Paragraph 87 goes on to state that *"Planning policies and decisions should recognise that sites to meet local business and community needs in rural areas may have to be found adjacent to or beyond existing settlements..."*

The proposed development will provide essential energy infrastructure to serve existing homes and the needs of local businesses. The need for electricity is only going to grow as society moves to electric heating and transportation, therefore economic growth, and the transition to a net zero economy could be severely constrained without enabling new renewable energy projects such as the proposed. The NPPF directs that the economic benefits of the proposals should carry significant weight.

In summary, compliance with policy and guidance, combined with significant benefits create a compelling case for using a portion of higher-grade land.