PLANNING DESIGN & ACCESS STATEMENT

Proposed Solar Farm at Caudwell Farms, Holbeach St. Matthew

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1 INTRODUCTION

Green Energy International Ltd ('*the Applicant*') is seeking planning approval for a solar farm AND Battery Energy Storage System (BESS) project on 114 hectares of land at Caudwell Farm, within the South Holland district of Lincolnshire.

For the purposes of the final planning submission, the full description of the development is as follows:

"Erection of a 49.9MW Ground Mounted Solar Array with Associated Underground Cable Route, Substation with POC Mast, Battery Storage and Ancillary Equipment & Structures at Caudwell Farm."

Construction work on the Proposed Development, assuming planning permission is granted, would not commence until a final investment decision has been made by the Applicant (and a contractor appointed. Following the award of the contract(s), the appointed contractor would carry out a number of detailed studies to inform the technology selection for the Proposed Development and also to optimise its layout and design before starting work at the Site. It follows that it has not been possible for the Applicant to be expressly definitive in relation to all of the design details of the Proposed Development at this stage.

The Applicant is therefore seeking to incorporate a degree of design flexibility. This relates to the dimensions and layout of structures forming part of the Proposed Development, including the precise layout of the Site and the height of the solar panels. The Proposed Development has been subject to environmental impact assessment (EIA). In order to ensure a robust assessment of the likely significant environmental effects of the Proposed Development, the assessments that form part of the Environmental; Statement (ES) have been undertaken adopting the principles of the 'Rochdale Envelope' in common with the approach for other similar developments including the 'Layer Solar Farm', Colchester which is one of a number of approved solar farm planning applications following this principle.

The approach involved assessing the maximum parameters for those elements where flexibility is required. For example, the solar panels have been assessed for the purposes of landscape and the visual impact as being a maximum of 3.7m high, which is the worst-case scenario. The approach also involved defining development zones, rather than having a defined layout. For the purposes of assessment, the development zones define the maximum extent of the developed area.

The components of the Proposed Development and all related ancillary development and equipment are set out in the bullet points below and described in greater detail in the relevant sections of this report.

- Installation of PV Panels, divided into two separate formats with those to the west of the site consisting of tracking solar arrays and those to the east of the site being fixed, south facing solar arrays.
- A containerised Battery Storage Facility.
- Inverter/Transformer (SPS) Stations to be located across the site.
- One point of connection (POS) mast up to 35m in height.
- Distribution Network Operator (DNO) Substation, access and cable route to connect into the 132kV power line.
- Buried underground cable between the site and the DNO Substation.
- On-site substation/ Switchgear and Meter Kiosk.
- Strategically placed CCTV cameras for security purposes.
- Perimeter security fencing.
- Internal service tracks constructed of permeable stone material.
- Temporary construction access & compounds of permeable stone material providing for plant/material storage and Staff Welfare Facilities.
- Embedded/integrated habitat enhancement measures proposed offsetting any impact on habitat and producing a biodiversity net gain.
- It is estimated that the solar panels would generate up to 49.9 MW peak, enough to power approximately 16,581 homes. The Proposed Development benefits from an agreed point of connection ('POC') to a proposed Distribution Network Operator ('DNO') electricity substation

located to the south of the site, approximately 1.3km away at National Grid Reference: TF 38437 2896.

This Planning, Design & Access Statement provides details of the Proposed Development, explains the design principles and concepts that have been applied, taking account of the site and prevailing policy, sets out the consultation has been undertaken on issues relating to design development and explains how the Proposed Development complies with relevant policy and other environmental considerations.

1.1 The Applicant

The Applicant, Green Energy International Ltd is a leading international and independent solar development with over 10 years' experience in solar PV installations. They are passionate about the planet and Solar power is a key to obtaining a clean energy future. It has the least negative impact on the environment compared to any other energy source and their mission is to help increase renewable energy generation and dramatically reduce CO2 emissions. They have extensive experience in delivering projects throughout the UK and Ireland, from initial landowner engagement to delivery on the ground and project completion. To date, it has successfully delivered 2GW of solar energy across 13 projects in the UK.

With professional experience across key disciplines and through careful attention to design, planning and development, and consultation with local communities, Green Energy International Ltd has the ability to plan, build and operate solar developments successfully.

1.2 Structure of Report

This report is structured as follows:

- Section 1: Introduction & a description of the site context.
- Section 2: Relevant planning history.
- Section 3: Details the Proposed Development and the design/access principles that have informed the development of the final design solution for which planning permission is being sought.
- Section 4: Provides an outline of relevant planning and development policy context and an appraisal of the Proposed Development against the salient policy considerations.
- Section 5: Sets out some conclusions.

This report evaluates the Proposed Development in the context of the above considerations in order to appraise its compliance with the policies, objectives and applicable development control standards. The proposal has been subject to EIA screening by South Holland District Council and confirmed as EIA development. In that context the planning application is supported by an Environmental Statement (ES) which includes consideration of the following key environmental considerations identified in the Council screening determination:

- Traffic & transport
- Noise
- Flood Risk & Drainage
- Glint & Glare
- Ecology & Ornithology
- Landscape and Visual Impact Assessment
- Other Environmental Considerations including built heritage and agricultural considerations.

1.3 Site Location

The application site ('the Site') extends to circa 114 hectares of agricultural land located in the countryside at Caudwell Farm between Holbeach St Matthew, approximately 1.7kms to the north and Holbeach St Marks, around 3.5kms west. As shown on Figure 1, the site is approximately 15kms northeast of the market town of Holbeach.

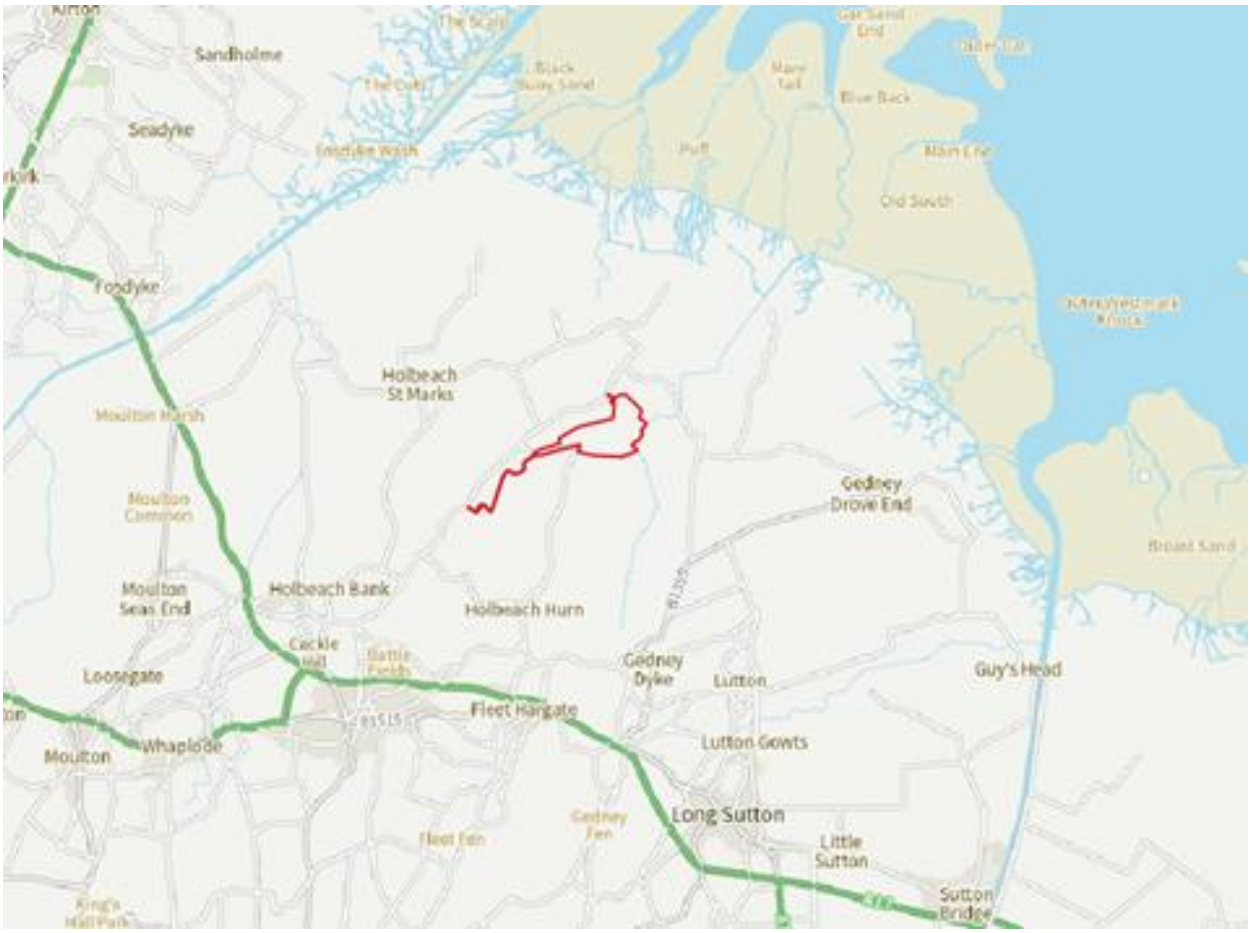

Figure 1: Site Location

Eastern Road between Holbeach St Matthew and Holbeach forms the northern boundary of the Site. While the minor road of March Road marks the southern boundary. The Eastern boundary is delineated Scots Hole Bank, a small country lane running from Holbeach St Matthews towards Gedney Dyke to the south. A public footpath runs east to west through the centre of the Site, following existing farm tracks.

The application site comprises six large fields, currently arable. The fields are divided by hedges which are typically 2 – 6m high and support the occasional large tree. Two field boundaries also include two small deciduous copses and in the centre of the site, there is a hardstanding used for agricultural use alongside a series of hedgerows arranges for shooting. Tracks for farm vehicles run alongside most of the internal hedges and some of these are the routes of the public rights of way (PRoW). There are no landscape features within the fields, such as mature trees or structures.

The fields are drained via a series of ditches which take the water in a southeast direction towards the Fleet Haven drain on the southeast side of the site.

The flat agricultural landscape is relatively sparsely settled with occasional farms and cottages, accessed from minor road networks and private tracks. Typically, the farm buildings are surrounded by larger modern barns and sheds. Hedgerows and some woodland contain some views in this open landscape. Holbeach St Matthew and Holbeach St Marks form the main villages in the area, with clusters of houses in the villages softened by well-treed settings.

The proposed Site is not subject to any statutory environmental designations, ancient woodland within or directly adjacent to the site boundary, or designated groundwater source protection zones. The site is not heritage-sensitive, having no statutory or local designations protecting it nor is it subject to any landscape designation. The Site lies 3 km southwest of The Wash SPA and The Wash and North Norfolk Coast SAC. The Wash is an important area for wildlife, particularly for migratory birds and seals. The Wash SPA is the most important area in Britain for wintering waterfowl, early autumn moulting waders, wintering passerines, breeding waders, and terns. Saltmarshes within The Wash support a diverse breeding bird population,

including over 4,000 pairs of black-headed gull, shelduck, and numerous wader species. Breeding redshank occurs at exceptionally high densities.

The MoD operates several military training areas, including the RAF Holbeach Air Weapons Range, which is situated to the north of Holbeach St Matthews. This range is used for air-to-ground weapons training and other exercises involving low-flying aircraft.

In 2013, Caudwell Farm Solar Limited was granted approval by South Holland District Council for two planning applications to construct solar arrays to the north and south of Caudwell Farm, Sutton Bridge. The southern solar farm, which was completed in 2015, has been operational and producing renewable electricity. In addition, Caudwell Farms received approval for the construction of a winter storage reservoir at Hartley Farm in August 2013. This reservoir is now operational, ensuring reliable water supply during dry periods, mitigating flood risks, and offering a habitat for wildlife.

1.4 Solar Energy

1.4.1 What is Solar Energy?

Solar power is radiant energy emitted by the sun. In order to reduce our consumption of conventional fuels and minimise our carbon footprint, we can harness this energy and rely on it as a power source. This is mainly achieved through Photovoltaics (solar PV) and solar thermal heating. Solar PV converts the sun's radiation into electricity to help meet the increasing demand for power.

In essence, photovoltaic systems use daylight (not necessarily direct sunlight) to convert solar radiation into electricity. The light that shines on the semiconductor or the PV cells creates an electric charge.

When light shines on the cell it creates an electric field across the layers causing electricity to flow. The more intense the light is, the greater the flow of electricity. However, PV cells produce electricity in the form of Direct Current (DC) therefore an inverter is required to convert this electricity to Alternating Current (AC) which can then be used in your house or exported to the national grid. PV modules respond to both direct radiation (i.e., direct sunlight) and diffuse radiation (i.e. through cloud cover), and their output increases with increasing irradiance

Solar PV technology has a dependable and predictable generation and is most effective when demand is high. Solar PV produces local energy which reduces the requirement for extensive high-voltage overhead transmission lines or associated infrastructure.

Solar PV farms do not have any emissions which pollute and can be located in most areas as sun and daylight is available everywhere. Solar photovoltaic farms decrease the need for large power plants. Solar energy does not require external fuel and therefore reduces the United Kingdom's reliance on imported oil and gas.

1.5 The Need for Solar PV in the United Kingdom

1.5.1 The Climate Change Act 2008

The Climate Change Act 2008 created a new legal framework to reduce Greenhouse Gas (GHG) emissions, with a target for their reduction to at least 80% below 190 levels by 2050 at its heart. This target was reinforced in 2019, with the Climate Change Act 2008 (2050 Target Amendment) Order 2019 raising the target from 80% to 100% - in effect a 'Net Zero' target, as recommended by the Committee on Climate Change. The UK was the first major economy to set itself such an ambitious target, honouring its commitment to the 2015 Paris Agreement in which signatories from around the globe pledged to reach 'Net Zero' emissions during the second half of the twenty-first century.

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

The National Policy Statement for Renewable Energy Infrastructure EN-3 was published in July 2011, with a further draft published in September 2-21. Paragraph 1.1.1 of EN-3 underlines the importance of the generation of electricity from renewable sources by stating:

"Electricity generation from renewable sources of energy is an important element in the Government's transition to a low-carbon economy. There are ambitious renewable energy targets in place, and a significant increase in generation from large scale renewable energy infrastructure is necessary to meet the 15% renewable energy target."

The Proposed Development offers the opportunity to harness solar power at a utility-scale, thus providing clean, affordable, and reliable energy to consumers. The proposed development is considered to comply in principle, as it would contribute to the UK Government's objective to transition to a low carbon economy and increase the energy generation of large-scale renewable energy infrastructure.

1.5.3 UK Solar PV Strategy Part 1: Road Map to a Brighter Future (2013)

Part 1 of the UK Solar PV Strategy was published in October 2013 and sets out four guiding principles which form the basis of the UK Government's strategy for solar PV. These principles are:

- *Support for solar PV should allow cost-effective projects to process and to make a cost-effective contribution to UK carbon emission objectives in the context of overall energy goals;*
- *Support for solar PV should deliver genuine carbon reductions that help meet the UK's target of 15% renewable energy from final consumption by 2020;*
- *Support for solar PV should ensure proposals are appropriately site, give proper weight to environmental considerations such as landscape and visual impact, heritage and local amenity, and provide opportunities for local communities to influence decisions that affect them;*
- *Support for solar PV should assess and respond to the impacts of deployment on grid systems balancing, grid connectivity, and financial incentives.*

Part 1 establishes the principles for solar PV deployment in the UK and states that solar POV can be deployed in a variety of locations, including on the ground on greenfield sites.

1.5.4 UK Solar PV Strategy Part 2: Delivering a Brighter Future (2014)

Part 2 of the UK Solar PV Strategy was published in April 2014 and focuses on the UK Government's ambition for the key market segments, how they will be realised through innovation and partnership and the benefits that this will bring for jobs and investment in the UK, in addition to vitally important emissions reduction.

Part 2 of the Strategy recognises, in respect of ground-mounted solar PV installations, the opportunities for the greater clean energy generation and how collar farms can be beneficial for wildlife. Part 2 of the UK Solar PV Strategy also recognises there is a need for ground-mounted solar schemes to be well planned and screened and to avoid harm to biodiversity. It emphasises that innovation and clean energy are at the centre of the UK Government's economic plan. One of the key topics is the delivery of commercial and industrial on-site generation. With the falling costs due to technology innovation, there is an ambition for continuous growth in the solar PV capacity in line with the 2020 target for renewables.

1.5.5 Clean Growth Strategy (2017)

The 2017 Clean Growth Strategy for the UK (Department for Business, Energy and Industrial Strategy) (DBEIS, 2018) contains a key objective of 'Delivering Clean, Smart, Flexible Power' and details specific policies through which this can be achieved.

- Policy 33 of the report states the government's intention to phase out the use of unabated coal for electricity production by 2025.
- Policy 35 sets government's intentions to improve the route to market for renewable technologies, with up to £557 million for further Contract for Different auctions.
- Policy 36 details plans to target a total carbon price in the power sector which will give businesses greater clarity on the total price they will pay for each tonne of emissions.

The Strategy discusses a potential low-carbon pathway whereby annual emissions are as low as 16 $MtCO^2e$ by 2032. The report states this is only likely to be achieved if low-carbon power generation including renewables and nuclear has the capacity to provide at least 80% of generation demand.

1.5.6 UK Government Net Zero 2050

On 27 June 2019, the UK became the first major economy in the world to legally commit through law to end its contribution to global warming by 2050. This target will require the UK to bring all greenhouse gas emissions to net zero by 2050, compared to the previous target of 80% reduction by 2050 (against 1990 baseline) that was set out in the Climate Change Act 2008.

In support of this target, the Energy White Paper: Powering our net zero future (DBEIS, 2020a) was published, setting out the pathway to achieving net zero emissions through the greater reliance on solar and wind energy. At the end of June 2021, the UK Government made a further commitment to reduce emissions by 78% by 2035 (compared to 1990 levels) in order to keep Britain on track to end its contribution to climate change while remaining consistent with the Paris Agreement temperature goal to limit global warming to well below 2°C and pursue efforts towards 1.5°C (DBEIS, 2020a).

In November 2020, the Government delivered 'The Ten Point Plan for a Green Industrial Revolution' (DBEIS, 2020b). The Plan lays the foundations for the Green Industrial Revolution by supporting jobs and development of green infrastructure and technology. The plan places focus on advancing green and renewable energies and places an emphasis on "building more network infrastructure and utilising smart technologies" (DBEIS, 2020b).

The Energy White Paper (HM Government, 2020d) builds on the Ten Point Plan to set energy-related measures in a long-term strategic vision, working towards the net zero emissions target for 2050. It establishes a shift from fossil fuels to cleaner energy in terms of power, buildings, and industry, whilst creating jobs and growing the economy. In addition to this, the best solutions should be determined for very low emissions and reliable supply, keeping costs low for consumers.

Focusing on electricity is key for the transition away from fossil fuels and decarbonising the economy by 2050. Some commitments from this white paper include:

- Accelerate the deployment of clean electricity generation through the 2020s.
- Invest £1 billion in UK's energy innovation programme to develop the technologies of the future such as advanced nuclear and clean hydrogen.
- Ensure that the transformation of the electricity system supports UK jobs and new business opportunities, at home and abroad.

1.5.7 National Infrastructure Strategy, 2020

The National Infrastructure Strategy focuses on the investment and delivery of infrastructure, which is fundamental to delivering net zero emissions by 2050. The strategy sets out the UK Government's plans to deliver on this target, decarbonising the economy and adapting to climate change.

- Work towards meeting the net zero emissions target by 2050 – Decarbonise the UK's power, heat and transport networks, and take steps to adapt to climate change impacts. This will require increased investments in network infrastructure, storage and increased low carbon generation capacity.
- Reducing emissions across whole sectors of the economy must be done in a sustainable way that minimises cost.

1.5.8 The Sixth Carbon Budget: The UK's Path to Net Zero, 2020

The Sixth Carbon Budget: The UK's Path to Net Zero (Climate Change Committee, 2020) recommends that the UK sets its Sixth Carbon Budget to require a reduction in UK emissions of 78% by 2035 relative to 1990. The report states that 'this will be a world-leading commitment, placing the UK decisively on the path to Net Zero by 2050 at the latest, with a trajectory that is consistent with the Paris Agreement.'

Meeting the recommended budget will require major investment, with the upscaling of low carbon markets and supply chains. These investments should also have climate resilience in mind to account for the impacts of future climate change. Key objectives should be:

- reducing demand and improving efficiency: require changes that will reduce carbon-intensive activities and the improvement of efficiency in the use of energy and resources;
- take-up of low carbon solutions: phase out fossil fuel generation by 2035;
- expansion of low carbon energy supplies: increasing renewables to 80% of generation by 2050; and
- electricity generation: will require a significant expansion of low carbon generation which includes low-cost renewables, with more flexible demand and storage.

Increasing the renewables penetration in the UK electricity mix to 80% by 2050 will largely be met with intermittent, non-dispatchable generation types. In order to facilitate such a high penetration of intermittent

energy sources, the Climate Change Committee emphasise the requirement for a flexible energy network, partially achieved via the use of battery energy storage systems.

1.5.9 Net Zero Strategy: Build Back Greener, 2021

This strategy (DBEIS, 2021) sets out the UK's long-term plans to meet net zero emissions by 2050 and gives the vision for a decarbonised economy in 2050.

The policies detailed in the strategy will be phased in over the next decade or beyond in order to continue decarbonisation towards net zero. They also aim to keep the UK on track to meet upcoming carbon budgets.

This strategy brings forward the ambition for a fully decarbonised power system by 15 years, building on the targets set out in the Energy White Paper and the Ten Point Plan for a Green Industrial Revolution. The ambition is to fully decarbonise the UK's power system by 2035, through the growth in renewable and nuclear power in addition to an increase in energy storage capacity to increase the flexibility of supply.

1.5.10 Is the UK reaching its energy targets?

According to the National Grid in 2022, individual renewables contributed the following:

- Wind power contributed 26.8% of the UK's total electricity generation. In November 2022, more than 20GW of electricity was produced by wind for the first time, representing over 70% of electricity generated on that day. Since then, this record has continued to be broken, with 30th December delivering the largest generation to date of 20.918GW.
- Biomass energy, the burning of renewable organic materials, contributed 5.2% to renewable energy generation.
- Solar power contributed 4.4% to renewable energy generation.
- Hydropower, including tidal, generated 1.8% of energy.

Significantly, the UK Climate Change Committee 2023 Progress Report to Parliament on 28th June 2023 provides a comprehensive overview of the UK Government's progress to date in reducing emissions. That report concludes that:

- **Policy development** continues to be too slow and the assessment of the Carbon Budget Delivery Plan (CBDP) has raised new concerns and Committee confidence in the UK meeting its medium-term targets has decreased in the past year.
- **A lack of urgency**. While the policy framework has continued to develop over the past year, this is not happening at the required pace for future targets.
- **Immediate priority actions and policies**. Action is needed in a range of areas to deliver on the Government's emissions pathway.
- **Planning policy needs radical reform to support Net Zero**. The planning system must have an overarching requirement that all planning decisions must be taken giving full regard to the imperative of Net Zero.

All evidence points to an urgent imperative to do more to address climate change. In that context the Proposed Development will make an important contribution to England's role in meeting national objectives, which are likely to see further demand for accelerated action to assist in the efforts towards achieving the region's renewable energy targets in the near future.

1.6 Stakeholder Engagement

Government advice is that pre-application discussions are critically important, albeit discretionary other than in the case of nationally significant infrastructure projects and major developments, as specified in legislation. The National Planning Policy Framework recognises the benefits of considering design and environmental issues at the pre-application stage. The Applicant has undertaken pre-application engagement with the planning authority, relevant statutory bodies and the local community as part of the pre-application engagement process which has assisted in developing the design solution being brought forward for planning permission.

1.6.1 Pre-Application Engagement with Statutory Bodies

The Applicant has undertaken pre-application discussions with South Holland District Council who facilitated consultation with relevant statutory agencies, including Natural England, RSPB and the Historic Environment Office of Lincolnshire County Council. In summary that consultation confirmed that:

- While there is potential for some degree of visual impact on landscape character due to the large-scale open nature of the subject lands, there is scope to incorporate appropriate mitigation to address potential impacts. A Landscape & Visual Impact Assessment (LVIA) will be required to support he application. This is provided in Chapter 9 of the ES.

- There are a small number of residential properties in the vicinity of the site that could be affected by construction and/or decommissioning and these matters need to be satisfactorily addressed in the design and construction methods to be covered in a Construction Management Plan. A Construction Environmental Management Plan (CEMP) is provided in the ES, Appendix 2.1.

- Traffic impacts are predicted to be confined to the construction period and there is a requirement to manage traffic levels during that period. The Highways Authority have been consulted and have raised no objections, subject to an appropriate Construction Traffic Management Plan which is provided in the ES, Appendix 4.1.

- While the Proposed Development would occupy a large proportion of Grade 1 agricultural land, there is potential to facilitate grazing in the operational phase and any effects are temporary as the land will be returned to agriculture and will potentially benefit from a rest from intensive agricultural practices. A report on the potential impacts on agriculture is provided in the ES, Appendix 10.1.

- The Historic Environment Officer at Lincolnshire County Council has advised that they are not aware of any below ground archaeology in or around the site, and thus would not recommend any archaeological input be required. However, Hartley House Farm is a historic farmstead, which is located just outside of the site to the north and can be considered as a non-designated heritage asset. The development proposal should take account of potential impacts on the setting and, if necessary, suggest mitigation measures. A Cultural Heritage report id provided in the ES, Appendix 10.2.

- The site is close to wildlife reserves with statutory protection, as well as a priority habitat. Lincolnshire Wildlife Trust have highlighted that there is a significant opportunity to create a biodiverse site that becomes part of the nature recovery network for the area and biodiversity net gain is expected. Chapter 8 of the ES – Ecology & Ornithology reports on the assessment of potential impacts on ecology and includes a Biodiversity Management plan that demonstrates significant bio-diversity gain as a result of the Proposed Development

1.6.2 Pre-Application Community Engagement

An important factor in finalising the proposals has been consultation with the community and local stakeholders. Community Engagement for the Caudwell Solar Farm was orchestrated and managed by the Applicant. A comprehensive report detailing public feedback and consultation material can be found in the Statement of Community Involvement.

For local community consultation, the Applicant facilitated the provision of relevant information on the development and sought opinions and comments from local residents through the following methods:

- Discussions with local councillors, including an online Zoom Video presentation.
- Letter drops and press releases.
- A project-specific website.
- Pre-application feedback forms.
- Individual correspondences and meetings with residents on specific matters.

The primary objective of community engagement was to keep the local community and the local planning authority fully appraised of the proposed development, thereby providing a platform to express any potential

concerns. This engagement strategy was adopted by the Applicant to tailor the design of the Proposed Development to positively respond to feedback and any concerns raised. The engagement protocol adheres to the recommendation of the South Holland District Council, which advocates for developers to actively involve the community and include details of such preliminary consultations in their planning applications. Upholding its strong track record of effective community involvement and stakeholder engagement, the Applicant remains committed to maintaining this approach throughout the project and in future endeavours.

Given the ongoing Covid-19 Pandemic, the public consultations adhered to government guidelines which were relevant at the time. The first round of consultation was conducted remotely with a limited number of small, in-person meetings. The subsequent consultation in August 2021 adopted a blend of in-person events and information dissemination online through a virtual public exhibition. To ensure public participation, the Applicant reached out to all addresses within a vicinity of 2km from the proposed scheme at the start of each consultation phase. The objective was to provide information about the proposal and to clarify how interested parties could partake in the consultation process.

Interested parties were directed to a virtual exhibition available through the Applicant's project website. Hard copies of the questionnaire were made available upon request, and hard copies of the virtual exhibition and maps were made available on request through a dedicated phone number/information line and postal address. The Applicant also held discussions with immediate site neighbours, local parish councils, and councillors throughout consultation. These interactions played a significant role in shaping the project design.

This community engagement process and how the matters raised have been addressed in the design development and assessment process is summarised in the accompanying Statement of Community Involvement, which has been prepared by the Applicant.

2 RELEVANT PLANNING HISTORY

2.1 Planning History Context

A planning history search was undertaken to identify whether there has been any new development approved on or adjacent to the application site which must be taken into consideration as part of the assessment. A search was undertaken using the Council's online eplanning system and evidenced the following permissions listed in the table below.

Reference	Address	Description of Development	Decision
H09-0550-13	Caudwell Farm Eastern Road Holbeach St Matthews PE12 8EW	Installation of 624 ground mounted Trina solar panels and a 2.5-metre-high earth mound wall	Granted with conditions 27/08/2013
H09-0132-23	Land North of Roman Bank and East of Middle Marsh Road at Red House Farm Holbeach Bank PE12 8BY	Proposed construction and operation of a 48MW solar farm comprising ground mounted solar photovoltaic arrays together with associated infrastructure and landscaping	Undecided

It is noted that planning application H09-0550-13 is in the adjacent field to the Proposed Development discussed in this Planning Statement.

While the Council EIA screening determination has confirmed that the there are no existing or planned developments in the locality that, together with the proposed development, would result in a significant adverse cumulative impact during the construction/operation phase when taking into account the nature of the development proposed, the Applicants have identified a number of projects in the locality, either approved or in the planning system and have included assessment of potential cumulative impacts in each relevant chapter of this ES. The other developments that have been considered in the ES are:

- Decoy Park solar farm, Crowland, Spalding.
- Proposed solar farm at Gunthorpe Road Solar Farm Land South of Gunthorpe Road Walpole Marsh.
- Proposed photovoltaic solar array, grid connection, access improvement works, and ancillary development on land west of Cowbridge Road, Bicker Fen, Boston, and South Holland.
- Proposed solar farm is at Land North of Roman Bank and East of Middle Marsh Road at Red House Farm, Holbeach Bank, Spalding.

3 DESCRIPTION OF THE PROPOSED DEVELOPMENT

3.1 Design & Access Principles

The Applicant has followed a number of key design principles in developing the design evolution of this project. These include:

- Taking account of the outcomes of pre-application engagement with the planning authority, relevant statutory bodies and the local community.
- The layout is informed by the existing topography and landscape features so that development proposals reflect and respect the existing site constraints including field boundaries, existing vegetation and site topography.
- There will be no cut and fill or regrading of land to facilitate panel placement and excavation is only required for cable laying and access tracks as well as inverter and substation bases. This constitutes a minimal percentage of the site area.
- To protect against damage to landscape features the layout has evolved to include a buffer zone between existing hedgerows and solar panels. Internal access tracks will utilise existing field openings where possible.
- As detailed further below, areas of greatest environmental sensitivity within the wider site are excluded from development and a package of environmental management proposals including landscape proposals and ecological enhancement measures are integral components of the project.

As set out in the ES, Chapter 3 – Alternatives, the selection of the subject lands for development were based on consideration of:

- **Avoidance of Statutory Designations***:* There are no statutory designated sites within 2 km of the Proposed Development. The Wash Ramsar Wetland and The Wash Special Protected Area (SPA) are located 3.3 km north of the Proposed Development and are designated for ornithological interest. The Wash and North Norfolk Coast Special Area of Conservation (SAC) and component Site of Special Scientific Interest (SSSI) is also located 3.3 km north of the Proposed Development.

- **Landscape Considerations:** The site selection process sought to avoid areas that are subject to landscape designations including Areas of Outstanding Natural Beauty (AoNBs) or landscapes that were otherwise considered to be subject to high levels of sensitivity to change.

- **Topography:** The wider site context is dominated by the flat, open agricultural landscape of The Fens Landscape Character Area. The low Sea Bank to the north forms the only feature of elevation in this otherwise flat landscape. The Proposed Development respects the existing topography.

- **Proximity to Settlements:** Proximity to settlements is an important consideration in that it impacts on the likely wider impact on the landscape and on residential amenity. In this instance the subject lands are characterised by a flat agricultural landscape is relatively sparsely settled with occasional farms and cottages, accessed from minor road network and via private tracks. Typically, the buildings of the farms are surrounded by larger modern barns and sheds. Hedgerows and some woodland contain some views in this open landscape. Holbeach St Matthew (1.7kms north) and Holbeach St Marks (3.5kms west) form the main villages in the area with the clusters of houses in the villages, softened by well treed settings. In that context the site selected minimise impacts on local settlements

- **Roads & Recreation Routes:** The site selection process has sought to minimise landscape and visual impacts through locating the Proposed Development away from main roads and other well used public vantage points. There are no main roads in the study area so that impacts are restricted to the network of minor roads and farm tracks that wind through the arable farmland. A footpath crosses the southern extent of the site between Marsh Road and Sot's Hole but otherwise the footpath network is limited. Well-defined hedgerows around the fields, occasional tree belts farm buildings and sheds also interrupt views. A National Cycle Route 1 passes along the country lanes from Holbeach in the south, via Holbeach St Marks, to Boston in the north but otherwise there are no formal tourism and recreation opportunities within 1.5kms of the Site.

- **Flood Risk:** Site selection has taken account of flood risk and drainage consideration in order to ensure that the Proposed Development complies with the Water Framework Directive (WFD), the Flood & Water Management Act 2010 and relevant provisions of the National Planning Policy Framework and to avoid development in areas at risk of flooding.

- **Agricultural Land Quality**: Agricultural Land Quality is an important consideration in the determination of planning applications. As confirmed in the report on Agricultural Considerations (ES, Volume 2, Appendix 10.1), all of the land in the search area around the grid connection point falls within a Grade 1 classification in the 'provisional' Agricultural Land Classification maps of the 1970s and as 'high' in the 2017 Natural England predictive 'Best & Most Versatile' (BMV) mapping. In that context there is no land available within the search area that is clear of this predicted land classification and the Applicant has sought to address potential impacts through design development.

The environmental management proposals are set out in detail in the Biodiversity Management Plan (ES, Appendix 8.2).

The proposals involve substantial habitat enhancement measures including the creation of species-rich grassland, botanically diverse wildflower grassland, new native species-rich hedgerows, tree belts and groups, a community orchard, beehives, significant enhancements areas for skylarks and fieldfares, bat roost boxes and bird nest boxes, otter holts, hedgehog nest boxes, insect hotels, log piles, amphibian and reptile hibernacula features, and mammal gates or small gaps. These measures will result in a biodiversity net gain of 17.48% for habitat units and 94.35% for hedgerow units, with a significant improvement in the support for wildlife and the biodiversity of the site.

The proposed community orchard will consist of a variety of local and English fruit tree varieties, providing a sustainable source of food, supporting local biodiversity, and promoting environmentally friendly practices. The orchard will also be a valuable resource for the local community, offering access to fresh, locally grown fruit, and enhancing community cohesion. The ongoing management of the orchard will require community involvement, providing opportunities for education and skill-building.

Overall, the proposed development of the Caudwell Solar Farm will improve the site's biodiversity and the species it supports through habitat enhancement and creation measures. The mitigation measures implemented for nesting birds, disused badger setts, roosting bats, and great crested newts will ensure no significant effects on the wildlife present on the site. The implementation of these measures will result in a significant biodiversity net gain, providing a positive contribution to the environment and the local community.

3.2 Project Summary

3.2.1 Solar Panels, Tables/Mounting Systems and Arrays

The proposed solar farm will use bifacial solar panels on both the fixed and tracking solar arrays. Bifacial solar panels are an innovative technology that enables the generation of electricity from both sides of the module, harnessing sunlight reflected off the ground in addition to direct sunlight. These panels are designed with a transparent back sheet or dual-layer glass, allowing them to capture and convert light from the front and rear faces, thereby increasing their overall efficiency. For the proposed solar farm, 600W panels are anticipated to be utilized. However, the optimal panel type and specifications will be thoroughly assessed and procured only after planning permission has been granted. This ensures that the most suitable and efficient panels, aligning with the latest advancements in solar technology, are selected for the project prior to construction, maximizing the farm's energy generation potential.

The layout of the rows of panels and the width of field margins has been designed to anticipate future maintenance costs, taking into account the size, reach, and turning circle of machinery and equipment used for mowing, collecting forage grass, spot-weeding, and re-seeding. Agri-environmental measures have been incorporated, such as strengthening hedgerows, planting new ones, and creating areas for wildlife to maintain the land in "good agricultural and environmental condition" under the Common Agricultural Policy rules of 'cross-compliance'. The design features of the solar farm include a 5m clearance between the ends of the panel rows and the security fence (description below) and a 5m clearance between the hedge and the security fence to allow tractor access for hedgerow maintenance.

The front edge to panels over 70cm will allow mowing equipment and/or sheep to access the grass beneath the leading edge of the solar panels and prevent shading from taller flowers or grasses. The proposed Layout and elevations are based on informed assumptions regarding specifications of equipment currently available on the market and their positioning, however it may be that availability of equipment, or specific site requirements, mean that the final detailed design differs in some minor respects from the proposed layout.

The solar arrays would be set within the generally flat landscape with partial enclosure provided by the framework of hedgerows and small blocks of woodland which are to be enhanced as part of the landscape proposals. The mounting system used in solar farms is crucial to providing a stable and even surface on which

to install the solar panels at the optimal tilt and orientation. The panels on the east of the site (area shaded purple on Figure 3 below) would be laid out in straight arrays set at an angle of between 10 to 35 degrees from east to west across the field enclosures. The distance between the arrays would typically be between 3-6m. The top northern edges of the panels would be up to 2.8m above ground level and the south lower edges of the panels would be no less than 0.7m above ground level. These arrays would be static. The south-facing solar arrays are designed to ensure that the panels are installed at an optimal tilt angle of around 23 degrees.

The arrays on the western side of the proposal (area shaded yellow in Figure 3 below) include single-axis trackers where the mounting is designed to ensure that the panels remain at an optimal angle throughout the day as they track the sun's movement from east to west. Single-axis trackers are used to rotate the solar panels in one direction to follow the sun's movement from east to west throughout the day, increasing the panels' energy production by up to 20%.

These arrays are approximately 1.9metres (m) off the ground; with a maximum height of approximately 3.7m from ground level when the tracks are at a maximum east or west tilt of 45 degrees. Panels will be placed in arrays atop frame tables which are supported on posts screwed or pile driven into the ground.

The overall photovoltaic (PV) panel heights to be considered are between 0.7m at their lowest point and 3.7m at their highest point cumulatively. The metal framework that houses the modules will be supported at intervals by either single or double mounted posts approximately 5m apart, depending on the orientation/configuration of the panels. The posts will be driven into the ground at an approximate depth of 1.5m. The cabling would be concealed in trenches.

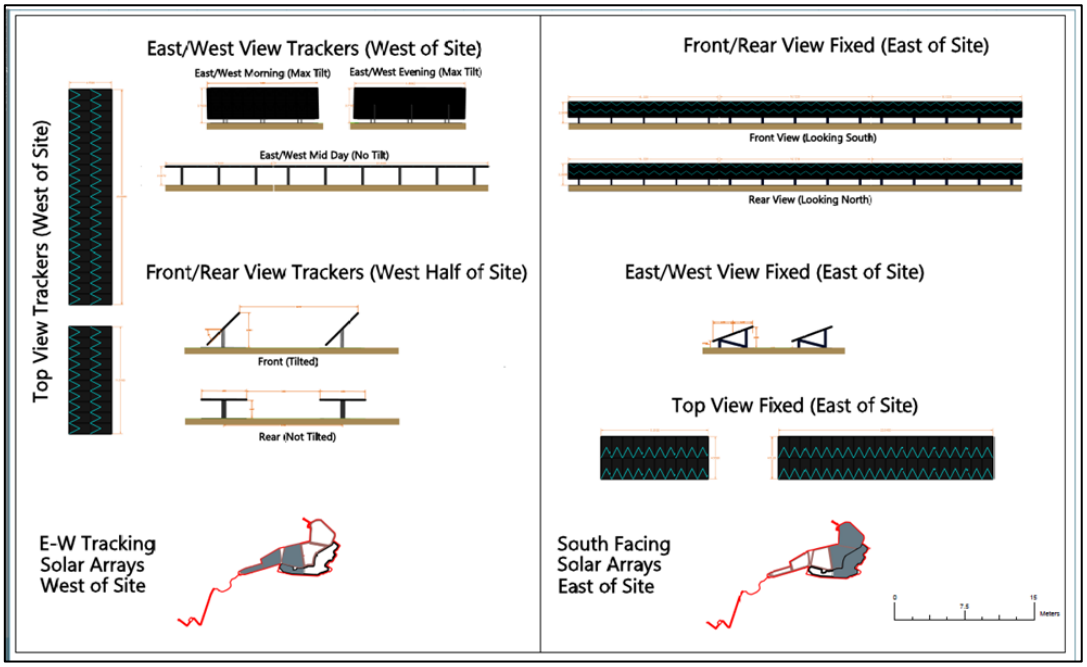

Figure 2: Array details

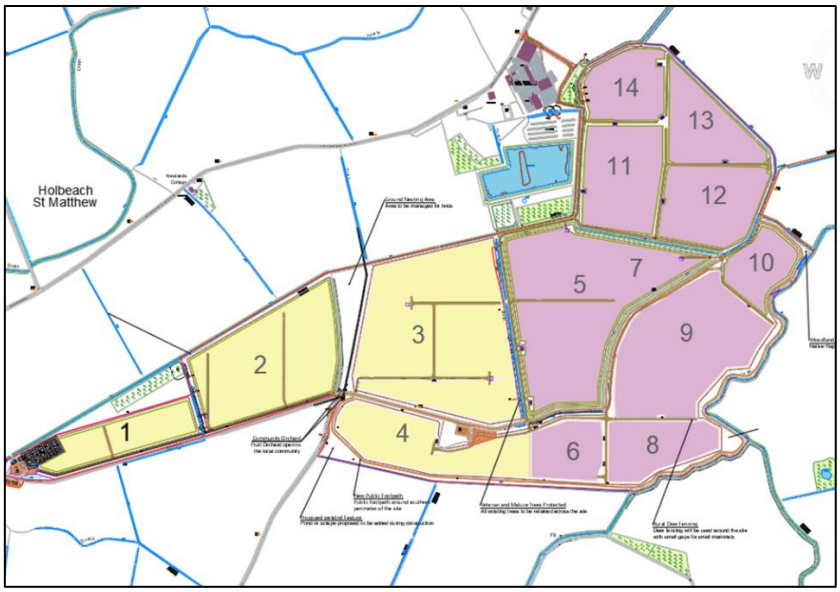

Figure 3: Development Land Parcels

Figure 4: Typical South Facing Arrays

Figure 5: Typical Single Axis Tracking Solar Arrays

3.2.2 Grid Connection and Cable Route

The proposal includes a buried cable route between the solar farm and the substation, covering a distance of 1.91km. Cable trenching is to be buried, and the trenches are created by removing topsoil and subsoil into separate piles, then reinserting the soils back to their original profile. The development has a 49.9MW export connection tied to Caudwell Farm which is formally accepted and will be made on the Walpole to Boston 132kv circuit 2, specifically between towers 48HW60 and 48HW59. The network in this region has received a significant number of committed grid connections. As a result, the 132 kV circuits in the area are either approaching or have already reached their capacity limits, whether due to thermal constraints or voltage restrictions. The need for new connections to this circuit has prompted National Grid to activate an ANM scheme (Active Network Management) in the area This ANM scheme will help to ensure that the grid connection remains stable and reliable, particularly in light of the increased demand for renewable energy sources like solar power.

National Grid has already begun implementing the ANM scheme, which is expected to provide a robust and sustainable solution for managing the increased demand for power in this area. The process of curtailing electricity generation follows a "Last In First Out" stack approach, whereby generators are prioritised based on the date of their application. In this approach, the most recently added generator is given priority over the ones added earlier, and curtailment is initiated for the generators at the bottom of the stack before those higher up. Caudwell Farm is expected to meet curtailment levels from 4.7% to 11.2% based on most recent assessment. During times of curtailment during daylight hours, electricity can be stored in the battery units for release at a later point. With these measures in place, Caudwell Solar's grid connection will be well-positioned to meet the needs of their customers and provide a reliable source of renewable energy for the region.

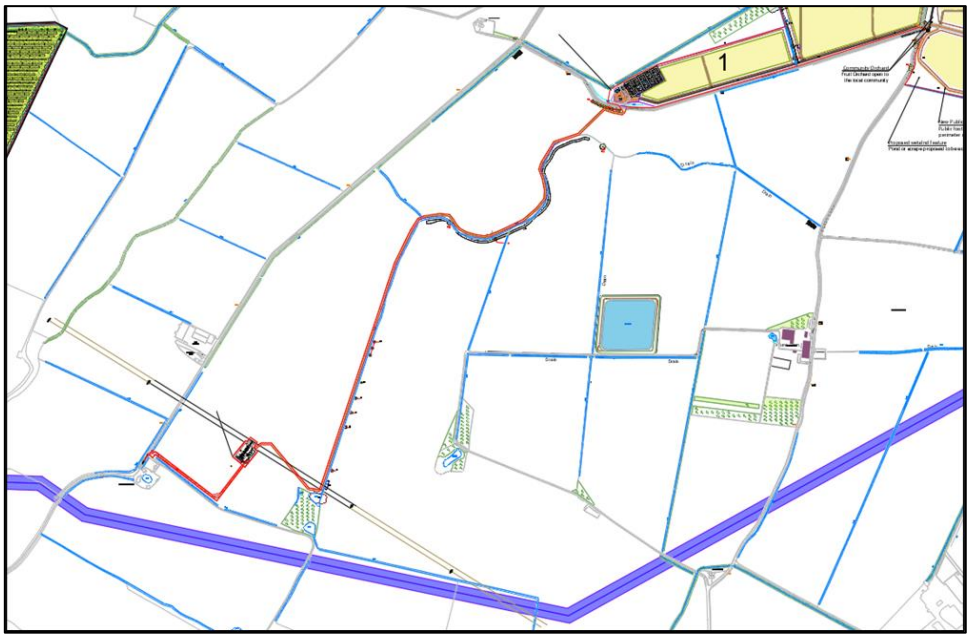

Figure 6: Proposed Grid Connection Route

The intention for the Proposed Development is to connect to the 132kV power line which runs north-south through fields to the south of the Site. All cabling required for the Proposed Development and cable route would be located in buried trenches. To connect the site to the DNO substation, the cabling will be required to cross Marsh Road. Horizontal Directional Drilling (HOD) will be used to tunnel underneath Marsh Road. This would not impact function of the road or ecology and trees. The cabling would follow the field boundaries to a POC Mast of up to 35m in height located within a compound at National Grid Reference TF 38437 28963.

The proposed DNO substation and POS mast will be located alongside the existing trellis tower as shown in the plan above. An access track is provided for 24/7 DNO access and the underground cable has been positioned to minimise the damage to land drains (Shown in pink). The tree survey has been taken into account for the position of the cable route. Example of the underground electricity cable configurations are shown in the Cable Trench Cross-Section Plan.

3.2.3 Battery Storage

The battery storage facility plays a critical role in the solar energy project by storing excess energy generated during the day and releasing it during peak demand periods or lower power output periods. This process helps to stabilize the power output and make it nearly continuous, addressing the intermittency issues associated with solar energy generation. The proposed facility has been designed to reduce visual impacts by reducing the number of storage containers while still retaining its load-shifting potential.

Safety is a top priority during the construction and operation of the battery storage facility. The facility has been designed with safety systems built-in, such as automatic shut off and temperature monitoring, to mitigate any risks that may arise. The construction techniques used in the facility comply with relevant legislation, including electrical safety standards. Additionally, fire detection and suppression systems have been installed within the battery storage facility, and containers within the facility have been adequately separated to prevent fire spread between units.

The facility will be equipped with multiple types of fire detection systems and fire suppression systems, such as FM200 gas, which are triggered automatically in the event of a fire. The facility also uses fire-resistant materials and employs redundancy in its design to provide multiple layers of protection against fire and contamination. To further ensure safety, the facility works closely with the local fire service to develop a Tactical Response Plan for adequate emergency response in case of an incident. Measures are also in place to prevent potential contamination from firefighting appliances in the event of an emergency.

The battery storage containers are likely to be 6m long and 2.4m wide/high (like an average shipping container) and will be designed with sufficient spacing to prevent any fire from spreading between containers. The overall compound contains around 48 battery containers and 8 STS units, covering an area of 6,500 M². The finishes for the battery containers will be chosen to blend in with the surroundings with green paint, minimizing the visual impact. The materials used for the ancillary infrastructure will be chosen for their durability and environmental sustainability.

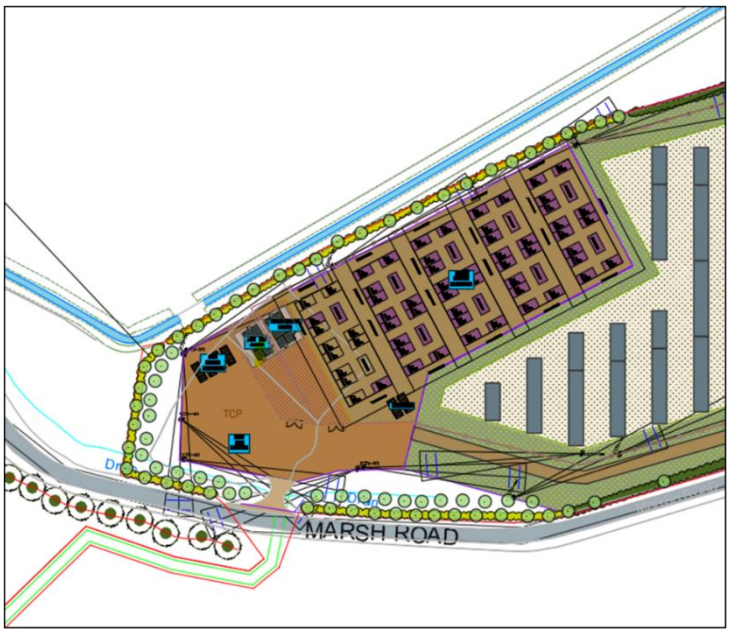

Figure 7: Battery storage compound location

3.2.4 Security

It is proposed that stock-proof fencing (mesh with wooden posts or similar) to a height of approximately 2 m would be installed along the outer edges of the Site in order to restrict access. The 2.m high fencing will be installed around the site perimeter to provide site security. The security fence will be erected on the inside of the hedgerows, so that it will be screened by the hedgerows in views from the surrounding area, further mitigating any visual impact. The fence line will normally be set approximately 4-5m inside the hedge, keeping it separate from the hedge and allowing ease of maintenance for both the hedge and the fence. Although where necessary the buffer between the security fence and the hedge has been enhanced for ecological

reasons. Gates would be installed at the Site access point for maintenance access. These would be the same design, material and colour as the fencing.

The perimeter of the Site would be protected by a system of CCTV cameras, which would provide full 24-hour surveillance around the entire perimeter. Thermal imaging cameras will be placed around the park, with 1 day/night camera located at entrance gates to fields. The camera at the site entrances will be day/night cameras capable of viewing in colour in the daytime. It will switch to black and white at night. The thermal imaging cameras only identify a heat source, and this means that in either daylight or at night the camera would be able to see if a human being was climbing the fence or if an animal is making contact with the fence. The cameras are energised 24 hours a day but only record when motion is detected. An intelligent sensor management system would manage the cameras. The cameras would be on poles of approximately 2.5m high, spaced at approximately 50m intervals along the security fence meaning there would be a total of around 240 cameras. The cameras are controlled by an external manned operations room. The cameras are all programmed to automatically move to pan to the area of the perimeter fence that has had an alert, which will then record if they can see motion. There would be no lighting within the Site at night with the exception of internal lights inside substation buildings and battery units for use in the event of an emergency.

3.2.5 Inverter/Transformer Stations

The purpose of the inverter stations is to convert Direct Current (DC) electricity generated by the panels into Alternating Current (AC) electricity which is compatible with transfer to the local electricity grid. The inverters would be contained within shipping containers or similar cabin type structures, each unit would measure around 2.9m high, 12.2m long and 2.5m wide. The inverters would convert the direct current generated by the solar panels into alternating current. Transformers would be contained within the inverter cabins, converting the low voltage output from the inverters into high voltage suitable for feeding into the local electricity distribution network. Inverters are located towards the centre of the development zones as shown in the layout plan.

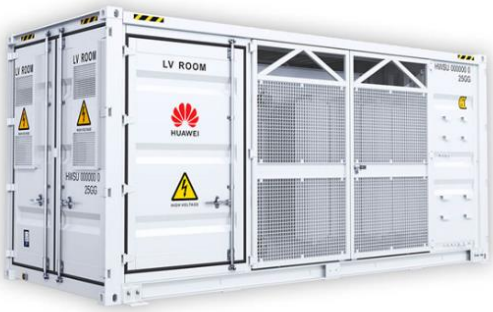

Figure 8: Typical Inverter Unit

3.2.6 Substation

The proposed development will include two substations, one for the DNO (District Network Operator) located near to the point of connection (POC) and another switch room located on the site. The substation compound for the DNO grid connection would measure up to 50m by 25m. This would become partly adopted by the DNO for their assets. This would consist of overhead electrical busbars and other electrical infrastructure along with a DNO control building and a customer switch room housing the metering equipment. These structures would measure up to approximately 6 m high.

The DNO control building would measure approximately 6m long, 8m wide and 4.1m high. From the substation compound, a cable would be installed to DNO substation and then on to a customer switch room on-site. Each would be placed on a concrete base. They would either be clad in brick or wood to comply with local vernacular, or coloured green (or in any other colour) to minimise any visual impact. The substation, inverters and solar panels would be connected by underground electrical cables (buried approximately 1 - 1.5m below ground level).

3.2.7 Landscaping and Biodiversity

The solar farm will be designed and built to blend into the surrounding landscape, minimizing its visual impact. The use of environmentally recessive colours and materials, such as the dark finish of the solar panels, will

help to reduce the visual impact of the development. The installation of screening and landscaping measures, including augmenting existing trees and hedgerows, will also help to integrate the solar farm into the surrounding environment. The proposed landscaping and planting plan will enhance the site's ecological value, providing habitats for local wildlife and contributing to the overall environmental sustainability of the project. The design of the solar farm will be subject to approval by the Local Planning Authority, ensuring that the development meets the highest standards of sustainability and visual integration into the landscape.

The proposed solar farm site is located within an existing agricultural landscape, which provides a good foundation for the landscape design approach. The landscape design approach is based on enhancing the existing landscape to minimize visual impact and support biodiversity. The application includes a Planting Plan that outlines the proposed planting, considering existing vegetation and potential improvements for visual screening, hedgerow reinstatement, and habitat creation. The planting plan is included in the appendices.

Visual impact is minimized through careful site selection, design, and consideration of existing vegetation for screening purposes. The proposed planting plan will supplement existing vegetation, effectively mitigating localized effects of the development on landscape and visual impact. The planting will include new and infill hedgerow planting, using native species, to strengthen existing species-poor hedgerows and fill gaps, providing valuable wildlife habitats.

Landscape mitigation works including native hedgerow and hedgerow tree planting, and hedgerow reinforcement, are proposed as part of the development. As part of a phased programme of construction the hedgerow reinforcement and tree planting strategy will be implemented at the earliest opportunity. Development in the more visually sensitive sectors of the site will benefit from the early establishment of this planting which will mature to provide an attractive setting to the new development.

The landscape proposals will be used to help integrate the scheme into the surrounding landscape, to anchor it and make it part of the landscape.

Native tree and hedgerow species, of local provenance will be planted as transplant nursery stock for the hedgerow reinforcement planting and feathered whips for the trees, which will establish quickly to provide screening/filtering of views into the site during operation. The stock size is selected to ensure successful establishment. Species for the hedgerow will include hazel, holly, hawthorn and blackthorn, and tree belt species will include birch, hazel and cherry. An area of riparian planting is proposed beside the Fleet Haven watercourse, including species such as willow, alder and black poplar. The land beneath the solar tables will be planted with a herb rich ley for sheep grazing. The detailed planting proposals will be agreed with officers from south Holland District Council. The planting proposals include:

- A permanent grass mixture will be sown beneath the solar tables;
- Reinforcement of hedgerows and hedgerow tree planting;
- Lengths of new hedgerow planting;
- A length of tree belts around the temporary construction compound/battery storage compound;
- Areas of riparian woodland planting beside the Fleet Haven watercourse.

The Proposed Development includes embedded environmental management proposals that are set out in detail in the Biodiversity Management Plan (ES, Appendix 8.2). The Biodiversity Management Plan concludes that the Proposed Development will result in significant Biodiversity Net Gain (BNG) including a percentage increase of 181.87 % habitat units, 187.47 % hedgerow units and no net loss of watercourse units.

The design of the solar farm has incorporated a number of ecological design principles as embedded mitigation, which reduce the impact on the habitats present on Site via the mitigation hierarchy. No hedgerows, trees or shrubs are to be removed, and the ponds and ditches will be retained and protected.

The proposed habitat creation and enhancement measures are set out in a Landscape and Ecological Management Plan (LEMP) figure (4.2.0 GEI-IH-CDW-LP Layout Plan, Caudwell V9 Landscape Plan). The exact details such as grassland seed mixes and management measures are presented in this LEMP. The measures are summarised below:

- The solar panels, tracks and associated infrastructure are to be located on the existing arable fields. The panels will be underplanted with a species/herbal rich grassland mix. This will be managed for

biodiversity and to reduce soil fertility, with the emphasis on a sward height which does not cast shade on the panels.

- Wildflower rich field margins will be sowed in the margins of the fields. Management measures of these areas will focus on reducing the high levels of soil fertility, which would otherwise favour grasses as opposed to wildflowers. Cutting of the sward will take place in late summer when seeds have set, and arisings removed from the area and either baled or placed in areas agreed by the Project Ecologist to provide habitat piles. Around some of the margins of the fields, there is potential for a bird seed rich mix to be sown. This would be sown in the spring to provide seeds over winter for wild birds such as finches, as well as cover as it is left over winter. The exact specifications and locations will be agreed with the Project Ecologist.
- A new pond will be created on Site. From the outset, the cessation of agricultural practices, reduced disturbance and reduced leaching of nutrients and fertilisers into the water will result in improved water quality and terrestrial habitat around the existing watercourses and ponds on Site and in the wider area. In conjunction with this, some or all of the below will be implemented:
    - Creation of hibernacula for amphibians (comprised of stones uncovered during construction, piled up with soil on top and covered with turf/seeded).
    - Cutting back of trees/shrubs which may be casting excessive shade and leaf litter.
    - Planting of native marginal and aquatic plants if vegetation cover and egg-laying material appears to be limited. These will be plants will be native and will not be spreading such that they reduce the areas of open water or water levels.
- Bird and bat boxes will be installed in suitable habitats around the Site. Locations will be agreed on the ground with the Project Ecologist. The specification of the boxes will be developed to provide habitat for a range of species (i.e. a range of hole sizes, tunnel and open fronts). Due to the lack of cover within the solar farm area itself, bird boxes will typically be located close to field boundaries and ponds to provide perching locations for birds before entering boxes and cover from predators.
- New hedgerows will be planted along the Site boundaries, with existing hedgerows infilled and planted with another line of trees to increase screening onto the Site.
- Dead wood piles will be created around the Site for invertebrate interest.

The construction works are not considered to cause any more disturbance than the existing arable farming regime. In the long-term, the scheme will result in an improvement in biodiversity and a reduction in overall disturbance as solar farms require little on-going maintenance.

3.2.8 Access Considerations

The primary access routes to the Site are from Eastern Road. In addition, there is an access from Marsh Road to serve the site exit, and a backup access to the Site which would be used infrequently. Appropriate visibility splays are achievable from all access junctions with some vegetation clearance. Three of the access junctions will be constructed, or modified as appropriate, as part of the development to provide 6m kerb radii and 6m wide carriageway, with the remaining three access points likely already being capable of accommodating all anticipated vehicle turning manoeuvres. The roads to/from the Site are considered suitable to accommodate all construction and operational vehicle types, as all of the roads on these routes are currently used by large vehicles. Therefore, the construction vehicles and operational traffic associated with the development will be easily accommodated therefore, it is anticipated that the vehicle routing for the construction, operational and decommissioning phases will be the same.

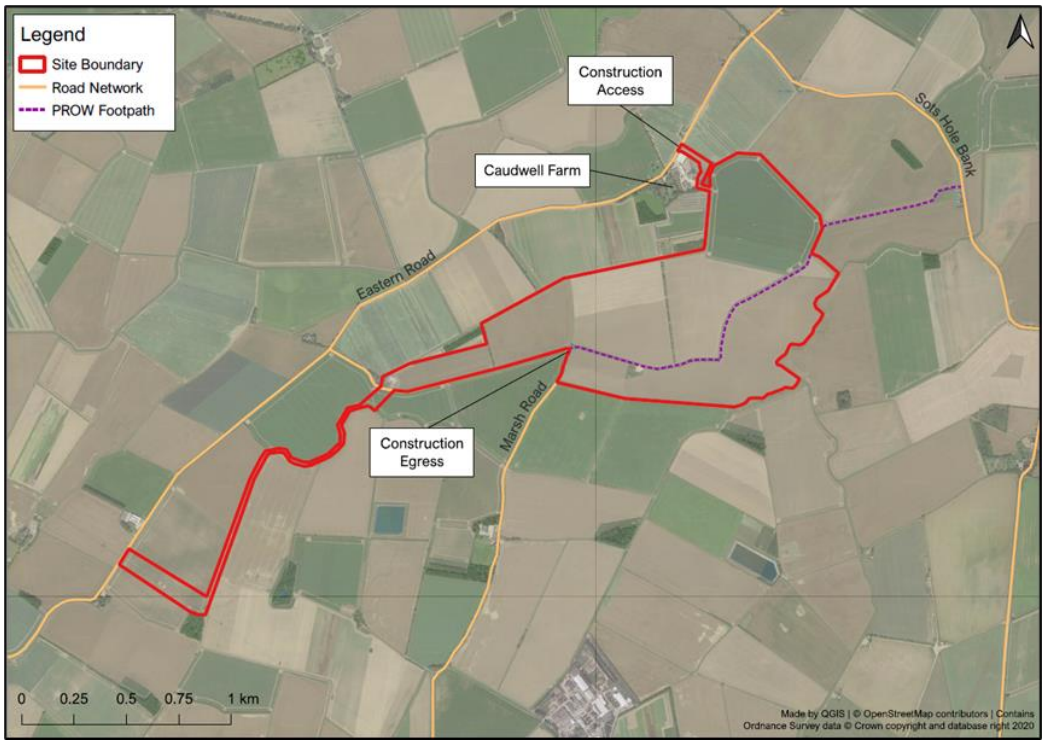

Figure 9: Site Access Context Plan

The existing PRoW which runs through the centre of the Site will be suitably managed throughout construction and operation of the development. Therefore, there would be no impacts upon these PRoWs, and they shall remain accessible at all times.

In response to the feedback received from the local community during the pre-application community engagement process, the Applicant has incorporated the addition of a new permissive footpath into the project design and layout. This footpath, established around the site's perimeter, will serve as an invaluable amenity for local residents and visitors alike. Features to be included are strategically placed seating arrangements comprising standard and picnic benches for leisure and rest, comprehensible and professionally designed signage for ease of navigation, accessible entrance gates for seamless ingress and egress, and distance markers in both miles and kilometres. These markers will be of particular use to local residents interested in using the new footpath loop for sports training and fitness-related activities, aligning with our goal of fostering a healthy and active community.

Internal access tracks will be required during the construction phase with existing farm tracks retained, enhances, and used wherever possible. Smaller HGV's will be able to drive directly onto the field of the construction site using a small track of compacted gravel which will connect the construction site to the primary access track into the site. Thereafter access to repair panels and to carry out routine maintenance can be undertaken by small vehicles. Vehicles will access the site in a one-way method, with the HGVs accessing the site from Eastern Road through an existing access gateway by-passing the farmyard using a new track and running along existing tracks through the centre of the site. All vehicles will exit the site at the existing gateway onto Marsh Road. Two temporary construction compounds will be included on the site, shown in the images below. A detailed Construction Traffic Management Plan (CTMP) (ES, Appendix 4.1) has been prepared to demonstrate how the site will be accessed during the construction period.

- Temporary Construction Compound East: 1607m²
- Temporary Construction Compound West: 3424m²

3.2.9 Construction, Operation and Decommissioning

3.2.9.1 Construction Phase

The proposed solar farm development has a lifespan of 40 years, after which the site will be decommissioned and restored to agricultural use. The planning application for the project is expected to be submitted in Spring 2023, and work will commence once all necessary permissions have been obtained and pre-commencement planning conditions have been discharged. The construction period is estimated to last approximately 6 months, beginning in 2024, assuming all necessary permissions are obtained. During the construction period, there will be temporary effects on landscape and visual amenity, such as the construction of new built forms, temporary construction compounds and fencing, machinery and material storage, plant and vehicle movements, HGV and abnormal load deliveries, construction site lighting, and reinstatement work. To minimize the environmental impacts during the construction phase, mitigation measures such as good housekeeping, protection of valued features, minimal external lighting, and protection of trees and vegetation will be implemented. Additionally, light pollution will be minimized through the use of cowls/shielding of lights and directional lighting.

The construction of the solar array will follow a 4-stage program over 20 weeks, similar to the Bilbo Farm construction program. Working hours are 08:00-18:00 Monday to Friday and 08:00-13:00 on Saturdays. During the construction period, construction vehicles and deliveries will visit the site, with vehicles limited to HGV tippers for road/track stone and sand, HIAB flatbed crane trucks, other HGVs, and light vehicle movements associated with staff working on the site. To minimize the impact of construction noise on nearby residents, hours of construction operations will comply with the requirements of condition 29, which limits construction works, including road works, with the exception of fit-out and excluding piling, to 08:00 - 18:00 each day Monday - Friday and 08:00 - 13:00 on Saturdays. There shall be no construction works or deliveries on Sundays, public holidays, or bank holidays. Ground piling works shall be limited to 09:00 - 17:00 each day Monday - Friday, and there shall be no ground piling works on Saturdays, Sundays, public holidays, or bank holidays.

3.2.9.2 Operational Phase

Maintenance and monitoring are essential aspects of ensuring the long-term performance and profitability of a solar farm. Regular inspections and maintenance of solar panels, inverters, and other equipment are necessary to ensure maximum energy efficiency and minimal downtime. Maintenance procedures may include cleaning solar panels, repairing or replacing faulty equipment, and checking wiring and electrical connections. The frequency of maintenance checks may vary, but it is typically carried out every six months, with more frequent inspections during periods of high demand or inclement weather conditions.

Monitoring is also a vital aspect of the operation of a solar farm, as it enables operators to keep track of energy production and identify any issues that may arise. Advanced monitoring systems can provide real-time data on the performance of individual solar panels, inverters, and other equipment, allowing for timely intervention in case of any problems. Regular data analysis and reporting are also necessary to evaluate the solar farm's performance and identify opportunities for improvement.

Solar farms are significant investments and require proper security measures to prevent theft or damage to equipment. Security measures may include fencing, CCTV, and alarm systems. The fencing is designed to deter unauthorized access while allowing for adequate permeability and access for maintenance personnel. CCTV systems should cover all critical areas of the solar farm, including the inverter rooms and battery storage areas. The alarm system should be connected to a central monitoring station and be capable of alerting security personnel to any potential threats (details of security features above). Grazing will be used as a way to manage the grassland and increase its conservation value. Solar farms can also provide a suitable environment for free-ranging poultry, with a stocking density of up to 2000 birds per hectare allowed.

3.2.9.3 Decommissioning Phase

The decommissioning process for the solar photovoltaic (PV) array and electrical storage facility, is outlined in the Design and Access Statement. Planning permission for the facility is temporary and will cease to have effect on 40 years from the date of energization. After this date, all solar PV array infrastructure, including modules, mounting structures, cabling inverters, and transformers, will be removed from the development site and recycled or disposed of according to good practice and market conditions at the time. The decommissioning process is expected to take approximately 20 weeks, during which the removal and disposal of the infrastructure associated with the development will occur, followed by site restoration. Some removal

works will happen concurrently to maximize efficiency and minimize time spent on site. Restoration of the site will occur in tandem with the removal of structures and is incorporated into the relevant timescales.

Upon completion of the decommissioning process, the land usage will be returned to its original condition, likely as agricultural land. This will require re-planting of grassland and will be facilitated and funded by a process agreed upon before the decommissioning begins. The future of any electrical compound or energy storage facility at the site will be determined by network operators, the landowner, and the local planning authority prior to decommissioning commencement. Throughout the decommissioning process, an inventory of the infrastructure on site will be maintained to ensure the final DRP covers any replacements or upgrades that occur within the lifetime of the development.

3.2.9.4 Decommissioning Timeline

Decommissioning a solar farm is a crucial consideration during its planning and development stages, as it ensures that the site is properly restored to its pre-development state at the end of its useful life. The timeline for decommissioning a 49.9MW solar farm typically involves several stages and can span several months.

The first stage of decommissioning involves the removal of all solar panels, inverters, and other equipment from the site. This process requires careful planning and execution to ensure that it is carried out safely and efficiently, with minimal disruption to the environment and local communities. The dismantling and removal of the equipment are typically carried out by specialized contractors and can take several months to complete, depending on the size of the solar farm.

Once the equipment has been removed, the site must be restored to its pre-development state. This involves removing any temporary infrastructure, such as access tracks and security fencing, and restoring the land to its original condition. The restoration process can involve activities such as soil testing, reseeding, and planting of native vegetation. This process is critical in ensuring that the site is returned to its natural state and that the surrounding environment is not negatively impacted by the decommissioning process.

After the site has been restored, ongoing monitoring may be required to ensure that the land remains stable and that any potential environmental impacts are identified and addressed. The monitoring process can last for several years and involves periodic inspections of the site to assess its condition and identify any issues that may need to be addressed.

4 APPRAISAL AGAINST PLANNING POLICY CONTEXT

4.1 Introduction

This section of the Planning Statement reviews the key national and local planning policies which relate specifically to the Proposed Development. The aim of this section is to establish the land use implications of the Proposed Development, consider its compliance with the Development Plan, and identify other material considerations to be taken into account during the planning process.

4.1.1 Legislative Background

The Town and County Planning Act 1990 Section 70(2) states that:

"In dealing with such an application the authority shall have regard to the provisions of the Development Plan, so far as material to the application, and to any other material considerations."

The Planning and Compulsory Purchase Act 2004 forms an amendment to the Town and Country Planning 1990. Section 38(6) of the Planning and Compulsory Purchase Act 2004 states that:

"If regard is to be had to the Development Plan for the purpose of any determination to be made under the Planning Acts the determination must be made in accordance with the plan unless material considerations indicate otherwise."

The process for determining a planning application can be defined as:

- Identification and consideration of the key provisions within the Development Plan.
- Clarification of whether the Proposed Development is in accordance with the Development Plan.
- Identification and consideration of relevant material considerations.
- Conclusions on whether planning permissions is justified.

South Holland District Council, in response to a pre-application request for EIA screening, confirmed on 10th December 2020 that the Proposed Development falls within Schedule 2 of the EIA regulations and that it constitutes EIA development:

From the information submitted it is not considered that a significant effect is likely on natural resources, residential amenity/human health, waste, water resources, transport routes, historic assets and, with mitigation measures, could have limited visual impact on the countryside landscape (no landscape designations present).

This development is considered to be fully reversible and could return to agricultural use in the future.

However, the proposal is in an area that is likely to be sensitive by virtue of the avian species located on or around the location and which could be affected by the project. Given that both the RSPB and Natural England have indicated that further surveys are required to determine the likely impacts of the proposal it must be assumed that a significant effect is possible.

Accordingly, the Local Planning Authority, in line with Regulation 5 of the Regulations, has determined that the development proposed is Environmental Impact Assessment development and will require an Environmental Statement to be submitted.

An ES addressing these matters is submitted in support of the planning application.

4.2 National Planning Policy Framework 2021 (NPPF)

The revised NPPF sets out the Government's planning policies for England and how these are expected to be applied. National planning Practice Guidance (PPG) adds further context to the NPPF, and the two documents should be read together. The NPPF and PPG are both material considerations in determining planning applications.

Paragraph 2 of the NPPF confirms that:

"Planning law requires that applications for planning permission must be determined in accordance with the development plan, unless material considerations indicate otherwise. The National Planning Policy Framework must be taken into account in preparing the development plan and is a material consideration in planning

decisions." Paragraph 3 clarifies that: *"The Framework should be read as a whole (including its footnotes and annexes)."*

4.2.1 The Presumption in Favour of Sustainable Development

Paragraph 7 identifies that the purpose of the planning system is to contribute to the achievement of sustainable development. Paragraph 8 sets out the environmental objective that the planning system should aim to meet to achieve sustainable development; it states that this includes moving to a low carbon economy.

Paragraph 11 of the NPPF provides the presumption in favour of sustainable development, stating:

"c) approving development proposals that accord with an up-to-date development plan without delay; or

d) where there are no relevant development plan policies or the policies which are most important for determining the application are out of date, granting permission unless:

i. The application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or

ii. Any adverse impacts of doing so would significantly and demonstrably outweigh the benefits when assessed against the policies in this Framework taken as a whole."

4.2.2 Decision Making

The NPPF states at Paragraph 38 that planning should be a creative exercise rather than being focused on scrutiny, stating that:

"Local Planning authorities should approach decisions on proposed development in a positive and creative way. They should…work proactively with applications to secure developments that will improve the economic, social and environmental conditions of the area. Decision-makers at every level should seek to approve applications for sustainable development where possible."

4.2.3 Meeting the Challenge of Climate Change, Flooding and Coastal Change

Paragraph 152 states that the planning system *"should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should…support renewable and low carbon energy and associated infrastructure."*

Paragraph 155 states to help increase the use and supply of renewable and low carbon energy and heat, plans should:

a) *"Provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts);*

b) *Consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and*

c) *Identify opportunities for development to draw its energy supply from decentralised renewable or low carbon energy supply systems and for co-locating potential hear customers and suppliers."*

The NPPF also is clear that there is no requirement for Applicants to demonstrate the need for renewable energy development, stating that LPAs should not require Applicants for energy development to demonstrate the overall need for renewable or low carbon energy and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions. In any event, as set out in section 1.5 above, there is a clear and pressing need for renewable energy development if the national targets are to be met.

Paragraph 158 states that when determining planning applications for renewable and low carbon development, local planning authorities should:

a) *"Not require Applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and*

b) *Approve if its impacts are (or can be made) acceptable. Once suitable areas for renewable and low carbon energy have been identified in plans, local planning authorities should also expect consequent*

applications for commercial scale projects outside these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas."

There is therefore a presumption in favour of renewable energy development and in that context the Proposed Development is acceptable in principle, subject to demonstrating that any impacts of the development are acceptable or can be made acceptable. The Proposed Development is supported by NPPF.

4.3 Planning Practice Guidance

In terms of renewable and low carbon energy, PPG (Paragraph: 001 Reference ID: 5-001-20140306) states that:

"Increasing the amount of energy from renewable and low carbon technologies will help to make sure the UK has a secure energy supply, reduce greenhouse gas emissions to slow down climate change and stimulate investment in new jobs and businesses. Planning has an important role in the delivery of new renewable and low carbon energy infrastructure in locations where the local environmental impact is acceptable."

The PPG goes on to state (Paragraph: 013 Reference ID: 5-013-20150327) states that:

"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 the application and/or encourages improvements around arrays."

The Applicant commissioned a report on the agricultural considerations of the site, in particular the soils, the agricultural land quality and the farming enterprises. The report (ES, Appendix 10.1) assesses the effects of the Proposed Development on these assets and assesses the effects against the relevant planning policy and guidance.

The assessment concluded areas affected by the development will be confined to tracks, inverters and substation compounds which amount to c3.5ha in total and this is a temporary loss during the operational phase. In the wider context, it is estimated that there is approximately 3.7million hectares of BMV land in England so the Site is a very small area in the context of BMV nationally and the amount of BMV land temporarily lost from agriculture to the renewable energy development is insignificant.

The assessment also concludes that the land will benefit from the operational phase of the development through the conversion of arable land to grassland which will result in a significant beneficial impact on soil organic carbon. While agricultural use will continue during the operational phase through grazing, there will be additional benefits in that there will be no compacting of soils due to the removal of heavy agricultural machinery over the operational period and the Proposed Development will also result in significant bio-diversity benefits through plans to plant suitable grass seed mixes that will create a better environment for invertebrates and birds while enhancing soil structure.

The land will continue to be used for food production, as it will be grazed by sheep for meat production. The report also concludes that the site's contribution to nationwide food production is limited and reversible.

The EIA screening undertaken by South Holland Council confirms that higher grade agricultural land involved but there is the potential for grazing sheep, thereby allowing some agricultural activity to continue. It is accepted that any impact is reversible after decommissioning and will arguably be more fertile.

The Proposed Development therefore complies with the terms of the PPG.

4.4 South-East Lincolnshire Local Plan

South Hollands existing Development Plan is a joint local plan with Boston Borough Council and Lincolnshire County Council, known as the South-East Lincolnshire Local Plan, and was adopted on 8th March 2019 and covers the period 2011-2036. The South-East Lincolnshire Local Plan (SELLP) provides guidance as to the Council's policies, forming a basis against which all development proposals in the borough are decided.

The SELLP seeks to promote growth of the Local Plan area in a sustainable manner. Embedded within the vision of the Plan is a strategic aim to reduce carbon emissions, with new development required to help South-East Lincolnshire mitigate and adapt to climate change. To this end, the Plan states that it will be imperative that renewable energy technologies be used to minimise carbon emissions.

The following policies detailed in the SELLP are considered to be of relevance to the Proposed Development:

4.4.1 Policy 3 – Design of New Development

This policy contains detailed criteria in relation to landmarks, views, landscape character, accessibility (public rights of way and cycle ways), new landscaping to enhance biodiversity, and the orientation of the development to maximise efficiency of renewable energy technology.

As set out in section 3.1 and in 3.27 above, the Proposed Development has been designed in accordance with design principles that respect the site context and proposes significant enhancements in the biodiversity interest of the subject lands. The ES confirms that there are no unacceptable impacts on landscape character, accessibility or critical views.

The Proposed Development complies with Policy 3.

4.4.2 Policy 4 – Approach to Flood Risk

This policy requires proposals for development in areas of flood risk for sites of over 1 ha to be accompanied by a flood risk assessment. Proposals must demonstrate that surface water from the development can be managed and not increase the risk of flooding to third parties.

The planning application is supported by an ES that includes an assessment of the potential impact of The Proposed Development on the water environment including surface water, flood risk and drainage (Chapter 6). The assessment confirms that, while the construction and operational phases of the Proposed Development have the potential to reduce surface water quality and increase flood risk, the adoption of proposed mitigation measures will result in a residual significance of environmental effects on the water environment which is assessed to be Negligible, and therefore the environmental effects on the water environment is Not Significant.

The Proposed Development complies with Policy 4.

4.4.3 Policy 28 – The Natural Environment

This policy seeks a net gain in biodiversity, along with the protection and enhancement of geological interest. Existing biodiversity and geodiversity assets will be conserved through the application of several detailed criteria for proposed developments.

As set out in section 3.27 above, the Proposed Development incorporates appropriate mitigation measures to safeguard natural environment interests and proposes significant enhancements in the biodiversity regime. The assessment of likely significant effects on ecology and ornithology is summarise din Chapter 8 of the ES along with the associated appendices covering the Ecological Impact Assessment (EcIA) and the Biodiversity Management Plan.

Chapter 8 concludes that:

- Embedded mitigation in the design of the Proposed Development has meant habitat loss is minimised and largely restricted to the open arable farmland, an Important Ecological Feature (IEF) of county importance resulting in a not significant effect.
- Hedgerows are to be retained, except small sections where existing gateways are to be widened or where existing gaps are to be utilised for new access. Effects on hedgerows, an IEF of local importance, are not significant.
- There are no effects on trees or watercourses or field margins as these are retained and protected from development.
- If the works were timed during the bird breeding season, significant effects on birds could occur if nests were caused to fail. Mitigation measures including a nesting bird check reduce this to not significant.
- Disused badger setts and badger field signs were observed on Site. Precautionary mitigation by way of a pre-construction check provides assurance that should a sett be excavated in the working area, mitigation can be put in place to either avoid effects or obtain a development licence from natural England for its' disturbance or destruction, thus resulting in a not significant effect.
- The mature trees around the Site could be used by roosting bats, as well as hedgerows and ditches for foraging. These are being retained with no illumination of features resulting in no significant effects.
- There are four ponds within 500m of the Site which may support breeding Great Crested Newts (GCN). The works will not impact these ponds, but Reasonable Avoidance Measures have been suggested to protect GCN that may range onto the Site, resulting in no significant effects.

- The ditches on Site are suitable to support foraging and commuting otter, but these are to be retained and protected so no unacceptable impact is anticipated.
- The cessation of arable agricultural practices and implementation of habitat enhancement and creation measures will result in a biodiversity net gain of +181.87 % habitat Biodiversity Units, and 187.47% hedgerow units. A supporting Landscaping Plan illustrates the enhancement of the Site hedgerows and retained grassland as well as creation of further woodland and wildflower areas.
- The reduction of farming activities along with enhancements to the existing habitats present mean the Proposed Development has the potential to provide an improvement in the biodiversity of the Site and the species it supports.

The Proposed Development therefore complies with Policy 28.

4.4.4 Policy 29 – The Historic Environment

This policy seeks to protect distinctive elements of the South-East Lincolnshire historic environment from inappropriate development proposals which may otherwise have a detrimental effect on the character, integrity and or setting of the asset in question.

The Applicant commissioned a Cultural Heritage Assessment which is included in the ES at Appendix 10.2. The assessment focused on built heritage considerations as the EIA screening assessment undertaken by the Council confirmed that there is unlikely to be any below ground archaeology in or around the site, but that Hartley House Farm is a historic farmstead and can be considered a non-designated heritage asset.

The assessment, as summarised in Chapter 10 of the ES demonstrates that the proposed Caudwell Solar Farm is being developed with a strong commitment to protecting cultural heritage and built heritage assets. Through a proactive approach to identifying and assessing potential impacts, the development can be carried out in a sustainable and responsible manner, while maintaining compliance with relevant national and local policies. The Proposed Development will not give rise to any unacceptable impact on cultural heritage.

The Proposed Development therefore complies with Policy 29.

4.4.5 Policy 30 – Pollution

This policy states the development must not have any unacceptable impacts in terms of health and safety, amenity, noise, air quality or other types of pollution. Where there is reason to suspect contamination, proposals must include an assessment of contamination and possible risks.

Potential impacts in respect of pollution are assessed in Chapter 5 (Noise) and Chapter 6 (Flood Risk & Drainage) of the ES. It acknowledges that construction activities could lead to the disturbance and mobilisation of physical contaminants (i.e. dust, sediments and muds) and during periods of heavy rainfall, vehicle movements resulting in damage to soil structure could generate increased sedimentation within surface water runoff. In addition, during periods of dry, windy weather, wind-blown dusts could be generated by the excavation of soils. In addition, these activities could result in sediments directly or indirectly entering surface water features, thereby impacting the physical, chemical and biological quality of the surface water receptors in the surrounding area.

Contaminants, spilled contaminants and suspended sediments have the potential to impact surface water bodies via surface runoff.

Potential pollution effects during the construction phase would be managed by a range of operational, control and monitoring measures that, as a whole, would act to mitigate the potential effects. A Construction Environmental Management Plan (CEMP) will be prepared and submitted by the principal contractor for the agreement of the local planning authority. The CEMP will set out the methods, including the minimum requirements as agreed between the construction contractor and the local planning authority, by which construction will be managed to avoid, minimise and mitigate any adverse effects.

The adoption of best practice construction methods and construction management processes would significantly mitigate many of the identified potential environmental effects of the construction phase of the Proposed Development. The ES concludes that the development will not give rise to significant effects as a result of pollution.

The Proposed Development therefore complies with Policy 30.

4.4.6 Policy 31 – Climate Change and Renewable and Low Carbon Energy

This policy emphasises the need to reduce carbon emissions within South-East Lincolnshire and indicates support for renewable and low carbon energy generation where it can be demonstrated that proposal meets seven criteria with reference to landscape, amenity and environmental considerations. The planning application is supported by an ES which demonstrates that the Proposed Development complies with the relevant criteria as set out below:

1. **Visual amenity, landscape character or quality, or skyscape considerations:** The Proposed development has been subject to a Landscape & Visual Impact Assessment (LVIA) (ES, Chapter 9). The Landscape and Visual Impact Assessment (LVIA) has established that the Proposed Development will change the existing landscape and visual baseline conditions but concludes that any significant effects on the landscape resource and visual amenity will be localised and will be seen in the context of the diverse and changing landscape of southeast Lincolnshire.

   The Proposed Development incorporates embedded mitigation measures, and any locally significant effects will quickly reduce over a short distance, as the intervening distance, terrain and enhanced vegetation structure assist in containing views.

   The development strategy incorporates sections of new hedgerow and tree belts alongside gapping up of lengths of the existing hedgerows and tree belts which surround the proposed site, incorporating a native species-based planting mix. A section of new riparian woodland planting beside the Fleet Haven watercourse is proposed along the south-eastern site boundary. This will establish over the short term to soften and filter direct views to the development. In addition, the existing hedgerows will be maintained at a higher height.

   Whilst significant effects will arise due to local change, the sensitive siting of the development and introduction of new mitigation planting will assist in accommodating the Proposed Development within the existing flat agricultural setting. The Proposed Development will fit with the large scale and pattern of the prevailing landscape features and will be seen as an appropriate scale of new development in the wider landscape.

   The Proposed Development complies with this criterion.

2. **Residential amenity in respect of noise, fumes, odour, vibration, shadow flicker, sunlight reflection, broadcast interference, traffic:** The Proposed Development has been subject to a Noise Impact Assessment (ES, Chapter 5). The baseline noise environment is typical of a remote, rural environment in which anthropogenic noise is a minor contributor, and noise from natural sources, including bird calls, the wind, and wind-blown vegetation are the primary control on baseline noise levels. Anthropogenic noise is anticipated to be limited to road traffic on the Eastern Road and agricultural machinery.

   Appropriate target noise levels have been derived for construction noise. Construction noise impacts will be controlled by design, such as by production and implementation of a Construction Environmental Management Plan (CEMP). Noise effects during the construction phase have therefore been determined to be “not significant”.

   Noise modelling was undertaken to determine noise impacts from the Proposed Development at existing NSRs. Predicted noise levels have been evaluated in accordance with BS4142 and fixed limit criteria. Noise impacts at the closest existing NSRs have been determined to be “not significant”.

   The EIA screening undertaken by South Holland DC has confirmed that the Proposed Development will not give rise to any unacceptable impacts on air quality or shadow flicker. The glint and glare assessment concludes that no unacceptable impacts will arise from sunlight reflection.

   The Proposed Development complies with this criterion.

3. **Highway Safety (including Public Rights of Way):** The Proposed Development has been subject to a Traffic and Transport Impact Assessment (ES, Chapter 4). The assessment concludes that there are no highway safety concerns which require mitigation as a result of this planning application and the prevailing traffic flows on the local road network are very low. The traffic impact has been assessed with consideration to the prevailing traffic flows and determined the impact will not be severe, and upon completion of the construction phase will be imperceptible. It has concluded that the development

proposals would not have a severe residual impact on the network and the development therefore complies with NPPF paragraph 111.

The existing PRoW which runs through the centre of the Site will be suitably managed throughout construction and operation of the development. Therefore, there would be no impacts upon these PRoWs, and they shall remain accessible at all times.

Further and in response to the feedback received from the local community during the pre-application community engagement process, the Applicant has incorporated the addition of a new permissive footpath into the project design and layout. This footpath, established around the site's perimeter, will serve as an invaluable amenity for local residents and visitors alike. Features to be included are strategically placed seating arrangements comprising standard and picnic benches for leisure and rest, comprehensible and professionally designed signage for ease of navigation, accessible entrance gates for seamless ingress and egress, and distance markers in both miles and kilometres. These markers will be of particular use to local residents interested in using the new footpath loop for sports training and fitness-related activities, aligning with our goal of fostering a healthy and active community.

The Proposed Development complies with this criterion.

4. **Agricultural land take:** See section 4.3 above. The Proposed Development complies with this criterion.
5. **Aviation and radar safety:** The Proposed Development has been subject to a glint and glare assessment (Chapter 7). That assessment incudes consideration of the potential impact on aviation receptors – air traffic control towers and aircraft identified (2 miles) approach paths. The assessment covered a 10km area for aviation receptors. The assessment concludes that no unacceptable impacts are predicted and no design mitigation is required. The Proposed Development will not result in any unacceptable impact on aviation and will not impact on telecommunications or utilities.
6. **Heritage assets including their setting:** See section 4.4.4 above. The Proposed Development complies with this criterion.
7. **The natural environment:** See section 4.4.3 above. The Proposed Development complies with this criterion.

The Proposed Development therefore complies with Policy 31.

4.4.7 Lincolnshire County Council Carbon Neutral 2050

At a full Council meeting in May 209, Lincolnshire County Council passed a motion to commit to becoming carbon neutral by 2050. As a response to climate change, and the 2050 target, Lincolnshire County Council have developed a Green Masterplan, which sets out the guiding principles of how this challenge will be met. These guiding principles are:

- Don't waste anything.
- Consider wider opportunities.
- Take responsibility and pride.

The Green Masterplan is also supported by the Initial Action Plan 2020-2025, which details the initial projects which will be developed to ensure national carbon reduction targets are met. The development of solar farms should be considered as a positive and proactive approach to reaching carbon neutrality by 2050.

4.5 Conclusion

As detailed above, national, regional, and local planning policy is striving to provide strong support for the development of renewable energy to ensure consistency of supply, reduce energy consumption, and contribute to achieving natural energy targets. The Proposed Development supports and delivers on each of these aspects, and as such conforms in principle with current planning policy.

The Proposed Development complies with the Development Plan and constitutes sustainable development.

It has been assessed through the EIA process and in line with the provisions of paragraph 158 of the NPPF, the Proposed Development should be approved in the scenario demonstrated where '*its impacts are (or can be made) acceptable.'*