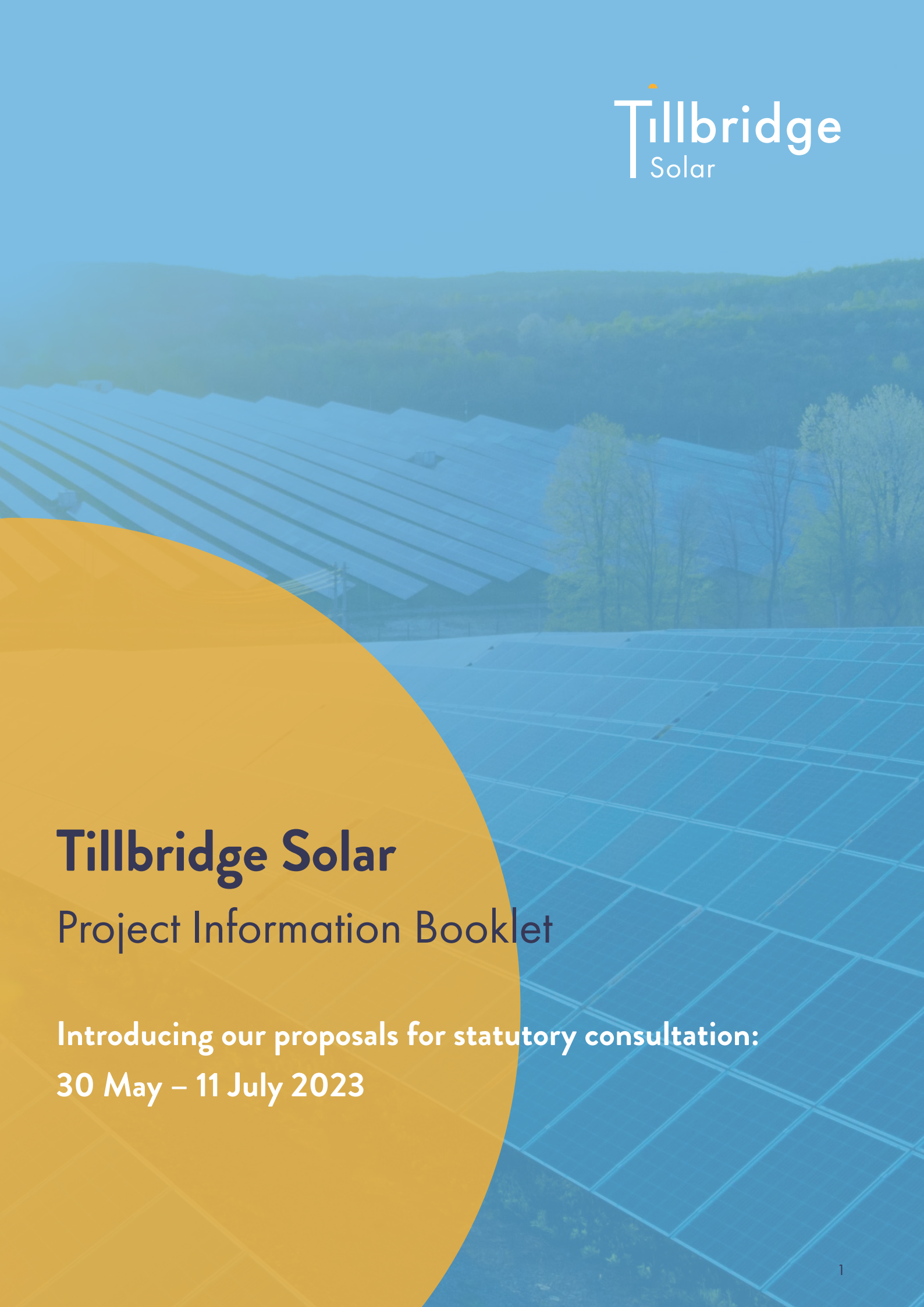


Tillbridge Solar

Project Information Booklet

Introducing our proposals for statutory consultation:
30 May – 11 July 2023

Contents

Introduction

Tillbridge Solar Limited is developing proposals for a new solar and energy storage scheme, (the "Scheme") which would involve the installation of solar photovoltaic (PV) generating panels and on-site energy storage facilities within Lincolnshire. The Scheme would also include infrastructure for connection to the national grid at Cottam substation in Nottinghamshire.

The Scheme, known as Tillbridge Solar, would allow for the generation, storage, export and import of electricity with a generation capacity exceeding 50 megawatts (MW), making a critical and meaningful contribution to achieving net zero carbon emissions and UK energy security through the development of a clean supply of electricity.

Our statutory consultation – May to July 2023

We have been carrying out detailed assessments on an area of land to the east and south-east of Gainsborough, which helped us determine the most suitable location for the Scheme. After continuing this work and introducing our emerging proposals in 2022 through a series of collaboration workshops, we are now inviting you to take part in our statutory consultation.

Our consultation is running for six weeks from **30 May until 11 July 2023**. This booklet provides information on how you can get involved and have your say. Your feedback is important in helping us to finalise the detailed proposals for our application for the Scheme, which we are expecting to submit to the Planning Inspectorate (PINS) later this year.

Key information

You can find out the details of our public consultation events and webinars in this booklet, including where you can find and request hard copy and online information related to the Scheme.

We recommend that you read our Preliminary Environmental Information (PEI) Report and non-technical summary (NTS) before providing feedback during this consultation. These documents provide more detail on the findings from our environmental assessments to date and how we are proposing to reduce impacts.

Key statistics

The Scheme would comprise an area of approximately 1,400 hectares (ha) of predominantly agricultural land, with approximately 900 ha being considered for the solar PV panels and associated infrastructure and approximately 500 ha being considered for environmental mitigation and enhancement.

The Scheme would connect to the national grid at Cottam substation via underground electricity cables, approximately 16 km in length.

We are anticipating that the Scheme would be fully operational from 2027, and would be generating clean energy for approximately 40 to 60 years.

The Scheme would have a generation capacity exceeding 50MW, providing enough clean energy to power approximately 300,000 UK homes.

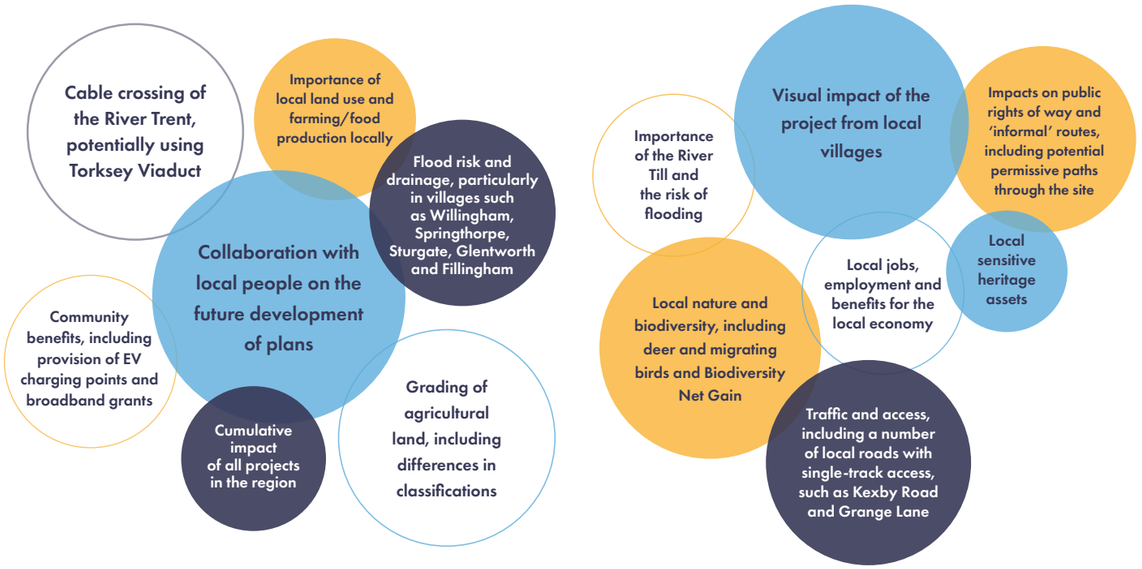
Background

Consultation and engagement so far

We first introduced our emerging proposals for the Scheme in 2022, including holding a series of collaboration workshops in the local area.

In July 2022, as part of the early-stage engagement for the Scheme, we held a series of collaboration workshops in the local area with elected representatives, such as local councillors and parish councils, along with representatives from environmentaland community groups. A newsletter was sent out to the local community, elected representatives and local interest groups in October 2022, which introduced the proposals to the public.

Key issues, constraints and features important to workshop attendees included:



Feedback received during these workshops, along with our ongoing engagement with local authorities, parish councils and other interested parties, has helped shape our plans, which have now developed and are being presented as part of this statutory consultation.

A summary of our engagement during our collaboration workshops, including how we have used comments to help refine the Scheme, is set out in the **Post-collaboration workshop report,** which is available on our website or on request (see 'Contact us').

Statutory consultation – get involved

We are now carrying out a statutory consultation on our refined proposals for the Scheme.

The Scheme is classified as a Nationally Significant Infrastructure Project (NSIP) due to it having a proposed generation capacity exceeding 50MW. We are therefore required to submit an application for development consent to the Secretary of State, in accordance with the Planning Act 2008.

We are planning to submit our application for development consent later this year. Before then, we are required to carry out a statutory stage of consultation.

This is your opportunity to provide your feedback and help further shape our proposals that will be submitted as part of our final application.

More information

More information on the national infrastructure planning process can be found on PINS' website: **infrastructure.planninginspectorate.gov.uk/application-process/the-process/**

This includes details on what comes next in the process after our application is submitted, including Acceptance, Examination and Recommendation and Decision.

Who we are

Tillbridge Solar Limited is a joint venture partnership between Tribus Clean Energy Limited and Canadian Solar, who are both experienced developers of renewable energy projects. They are being supported by a team of technical specialists.

Tribus Clean Energy

Tribus Clean Energy Limited specialises in the development of renewable energy projects and has a UK solar PV development pipeline of over 1.5 gigawatts (GW) and a pipeline of more than 3 gigawatt hours (GWh) of Battery and Energy Storage Systems (BESS).

Canadian Solar

Canadian Solar is a leading manufacturer of solar PV modules and provider of solar energy solutions, with a UK solar development pipeline of over 2GW and more than 4GWh of BESS.

Tillbridge Solar Limited

Both developers are using their experience from developing similar size projects in the UK to help bring forward our plans for Tillbridge Solar.

Need for the Scheme

The UK has set ambitious climate change targets to achieve net zero carbon emissions by 2050 and to ensure that the energy supply remains secure, reliable, and affordable. Together with legally binding commitments such as these, the government has further set out how the deployment of renewable technologies such as wind, solar, nuclear and hydrogen will be accelerated in its latest Energy Security Strategy (April 2022).

This strategy outlines that the UK's solar capacity needs to increase five-fold by 2035 to meet legally binding targets on net zero, which would increase the total generation capacity from 14 gigawatts (GW) today to around 70GW in the future. Tillbridge Solar would make a significant contribution towards achieving these targets, helping to provide energy security and a reliable source of affordable energy.

In response to the findings of the most recent UN climate report (March 2023), the UN secretary-general said that all countries should bring forward their net zero plans by a decade. The UK government responded that the report makes it clear that countries must "work towards far more ambitious climate commitments" ahead of the UN climate summit COP28 in November. The report notes solar energy is becoming increasingly cost effective and is generally supported by the public.

The release of Powering Up Britain (March 2023) marked a clear statement from the Conservative-led Government on its commitment to making net zero a reality and reiterated the need to maximise deployment of both rooftop and ground-mounted solar to achieve national targets.

The decommissioning of the previous coal-fired Cottam power station nearby has provided additional spare grid connection capacity and the opportunity for the region to play an important role in renewable energy generation in years to come. With an agreement in place between Tillbridge Solar Limited and National Grid for the Scheme to connect to the national grid by 2027, we are now looking to sensitively design the Scheme to help realise this opportunity. Further information on the need for the Scheme would be outlined in the materials supporting the application for development consent.

As a Scheme, Tillbridge Solar is committed to helping to realise the benefits of solar technology. We also understand the local sensitivities and cumulative impacts of multiple schemes in Lincolnshire, and we are committed to developing our plans in a sensitive and considerate way.

The role of solar energy in the UK

Our current power system still relies heavily on fossil fuels, such as gas.

The development of solar energy has a number of benefits[1], including:

Low cost

New solar farms provide the most affordable electricity to the UK's national grid. Increasing solar development will directly help reduce the cost of energy in the UK.

Speed and efficiency

Solar is the fastest of all renewable energy technologies to deploy and is the quickest way to act to address the energy crisis.

Jobs and investment

Deploying 40GW of solar could create 35,000 new jobs by 2030.

Reliability

Achieving 40GW of solar capacity by 2030 would afford at least 10% of the UK's entire electricity needs and contribute to self-sufficiency. Solar can operate all year round, with energy storage ensuring a safe and stable supply of energy to homes, businesses and the national grid.

Support for other sectors

Solar can help diversify income, reduce energy costs and improve sustainability of operations, including the agricultural sector. Solar can help regenerate soil quality, and ensure the availability of high-quality agricultural acreage for future generations.

Widespread support

Most recent survey results suggest that solar is the most popular form of renewable energy technology in the UK, with support increasing over time.

[1]Briefing - Energy-Security-Strategy-2022.pdf (solarenergyuk.org)

Our vision for Tillbridge Solar

Our vision for Tillbridge Solar is to deliver cleaner, greener, and lower-cost energy, while also enhancing the local environment and ensuring we are a responsible developer.

We recognise the impacts associated with multiple projects being developed in the region.

Given the proximity of Tillbridge Solar to other solar projects, we have explored opportunities for collaborative working, particularly where there are common interests to reduce the potential impacts of the Scheme on local communities and the environment, include along our Cable Route Corridor.

Our objectives for Tillbridge Solar are to:

- Build a solar farm that will contribute to the UK's zero-carbon future and support Lincolnshire's transition to Net Zero.
- Provide equivalent energy needs for around 300,000 households with low-cost energy, generated in the UK at a time of great uncertainty within the energy market.
- Develop a Scheme in a responsible and considerate way.
- Increase biodiversity and enhance existing ecology to achieve Biodiversity Net Gain and maximise opportunities to create new habitats for wildlife.
- Ensure the local landscape is central to the Scheme's design.
- Provide opportunities for local communities and the local economy.

Site selection

The Scheme comprises two distinct sections, which are:

- 'The Principal Site', which is the location where ground mounted solar photovoltaic (PV) panels, electrical substations and energy storage facilities would be installed; and
- 'The Cable Route Corridor', which would comprise the underground electrical infrastructure required to connect the Principal Site to the national grid.

The location of the Principal Site for the Scheme was determined through consideration of a number of criteria, including from a planning policy and environmental perspective, along with impacts of local communities.

More information

More information on the site selection can be found in **PEI Report Volume 1, Chapter 4: Alternatives and Design Evolution**, which outlines site selection, alternatives and how the design has evolved.

This location was considered suitable for solar for a number of reasons, including:

- The area is characterised by large flat areas of land to enable high levels of irradiation (exposure to sunlight) and reduce shading between arrays.
- The point of connection at Cottam substation has capacity. The power station ceased operation in 2019 but the existing substation on the site is still operational.
- It would maximise the utilisation of lower grade, non-best and most versatile agricultural land based on the DEFRA mapping.
- It is not located within internationally and nationally designated biodiversity sites and avoids direct impact on locally designated biodiversity sites.
- It is not located within or close to Areas of Outstanding Natural Beauty.
- It is not located within designated Green Belt.
- It would minimise impacts on designated heritage assets.
- It is predominantly within Flood Zone 1 and at low risk of flooding (defined as being less than 0.1% chance of flooding in any year).
- It has good transport access for construction, being adjacent to the primary route network (A631).
- It is of a size and has topography which meets the requirements of the Scheme to generate and store significant amounts of electricity.
- It has limited land use conflicts with respect to local development plan allocations and the displacement of existing businesses.
- No closures to Public Rights of Ways (PRoW) within the Principal Site (where one is located); however, there would be temporary closures within the Cable Route Corridor which would be managed by a PRoW management plan.
- Designated areas of local landscape value.

The 2,700 ha area for the Principal Site was refined and reduced through a master planning exercise reducing the development area to approximately 1,700 ha (as presented at the collaboration workshops) which would:

- Reduce landscape and visual impacts
- Minimise effects on sensitive receptors, such as residential properties
- Retain existing woodland and hedgerows where possible
- Utilise existing farm tracks where possible for site access
- Set the Scheme away from designated heritage assets (statutory listed buildings and conservation areas)
- Not result in the closure or diversion of definitive PRoWs on the Principal Site.

Evolution of scheme design

Our early-stage engagement, including our collaboration workshops, meetings held with occupiers of neighbouring properties and ongoing meetings, along with ongoing design work, has resulted in the following key changes to the Principal Site Boundary:

- Land to the west of Springthorpe has been removed due to concerns raised by local landowners and ecological advice.
- Land to the east of Springthorpe has been removed as a result of ongoing engagement with local stakeholders, and to have regard to the proximity of a byway and temporary permissive bridleway located to the east of Springthorpe.
- The Scheme has been pulled in from the east away from Middle Street (The Cliff) to have regard to views and the setting of Glentworth and the Area of Great Landscape Value.
- The Scheme was pulled in from the south having regard to the setting of Fillingham village and Middle Street around Fillingham Castle.

Ongoing design work has also helped evolve the Scheme's design in the following ways with respect to the Principal Site:

- Reduction in a total site area from approximately 1,700 ha to 1,400 ha (of the Principal Site) following feedback from the collaboration workshops and the initial results from environmental site surveys.
- Provision of buffers and offsets from existing landscape features such as ponds, hedgerows and woodland.
- Inclusion of new semi-improved grassland under the panels.
- Screening and planting design to reduce visual impacts to sensitive receptors, such as residential properties.
- Screening and planting design to reduce landscape and visual impacts generally.
- The Scheme has been pulled back from Harpswell Hall, a Scheduled Ancient Monument.
- Use of solar panels that are mounted on a single axis tracker and 'track' east to west during the daytime to maximise the amount of sunlight that hits the solar panels and energy generated.

The Cable Route Corridor has also undergone further refinement:

- This alternative route has been removed as an option with the focus of more detailed design work on land to the south of Willingham-by-Stow. This would facilitate the opportunity for sharing the of the corridor with other developers.
- Torksey Viaduct was considered as a means for the cable to cross the River Trent; but was discounted due to impact upon the heritage asset.
- Further desk-top environmental and planning constraint mapping was undertaken to identify constrained areas and to refine the Cable Route Corridor to have the least environmental impacts.
- Technical design input alongside environmental and planning considerations refined working width, access requirements and crossing points of the Cable Route Corridor.
- Review of the Cable Route Corridor by the land referencing team helped to refine the design further.
- Data was shared with other developers to maximise collaboration, the progression of a shared corridor with cables running parallel to each other and to minimise environmental impacts.

Statutory consultation – our proposals for Tillbridge Solar

The Scheme comprises the construction, operation (including maintenance) and decommissioning of ground-mounted solar photovoltaic (PV) panel arrays to generate electricity and would include on-site energy storage facilities. The Scheme would connect to the national grid at Cottam substation in Nottinghamshire via an underground electricity Cable Route Corridor.

Tillbridge Solar has secured a Bilateral Connection Agreement (BCA) with National Grid to allow 500MW of renewable energy to be transferred in to and out of its substation. This agreement would allow the scheme to transport this amount of power to the national grid at one time; however, with energy storage facilities on-site, we would be able to store excess energy and release it at times when it is needed most.

The proposals include measures to:

- Minimise impacts upon residents and nearby communities
- Respond sensitively to local context, including landscape, habitats, wildlife and heritage
- Provide landscape and ecological enhancement measures.

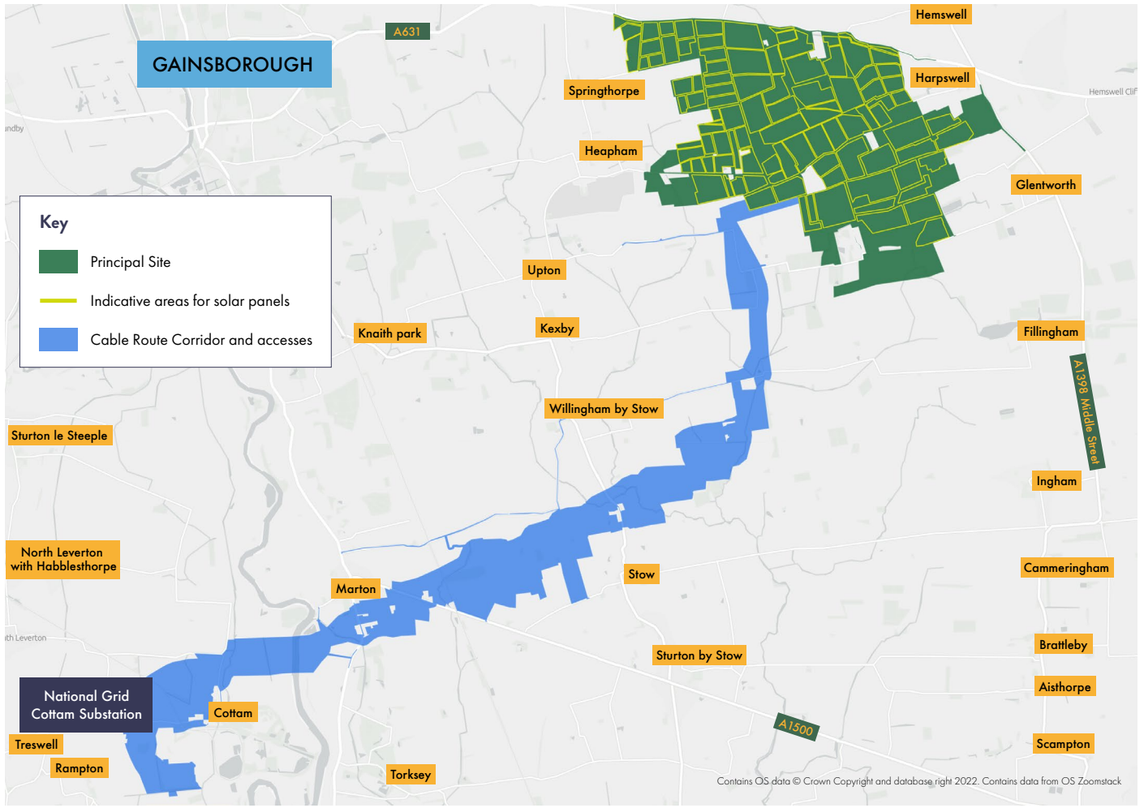
While we are open to any comments on our proposals, we are particularly keen to receive comments on:

- The overall Scheme
- Our updated plans for the Principal Site, including the indicative location of equipment and infrastructure within this area
- Our Cable Route Corridor between the Principal Site and connection at National Grid's Cottam substation
- Measures we are proposing to reduce the impacts associated with the construction, operation and maintenance of the Scheme, as set out in the PEI Report
- Any additional measures you would like us to include in our proposals, including local community benefits
- Any other feedback on our work so far or local issues and sensitivities of which we should be aware.

Location

The Scheme would be located approximately five kilometres to the east of Gainsborough and approximately 13km to the north of Lincoln. It would involve two distinct elements, which are:

- 'The Principal Site', which would be built on primarily agricultural land contained within a single red line boundary. This would be where the ground mounted solar PV, electrical substations and energy storage facilities would be located and covers an area of approximately 1,400 ha on land to the south of Harpswell Lane (A631), to the west of Middle Street (B1398) and largely to the north of Kexby Road and to the east of Springthorpe.
- 'The Cable Route Corridor', which is approximately 16km long and would involve the construction of underground electricity infrastructure to connect the Principal Site to National Grid's Cottam substation. This is displayed as an initial search area across the administrative areas of West Lindsey District Council and Bassetlaw District Council.



The Principal Site and Cable Route Corridor

The site would comprise approximately 900 ha of developable area (where all solar PV panels and associated infrastructure would be located), and approximately 500 ha of non-developable areas (which is being considered for environmental mitigation and enhancement measures).

We are currently presenting a wider search area for our Cable Route Corridor than what would be required. This is to allow for the completion of environmental surveys to set out potential constraints allowing the cable route to be refined to minimise impacts. Whilst the intention will be to refine the extent of the Cable Route Corridor down further as part of the ongoing environmental assessment work, it will still need to be of sufficient width for flexibility to ensure that localised constraints can be sensitively dealt with.

Principal Site main infrastructure

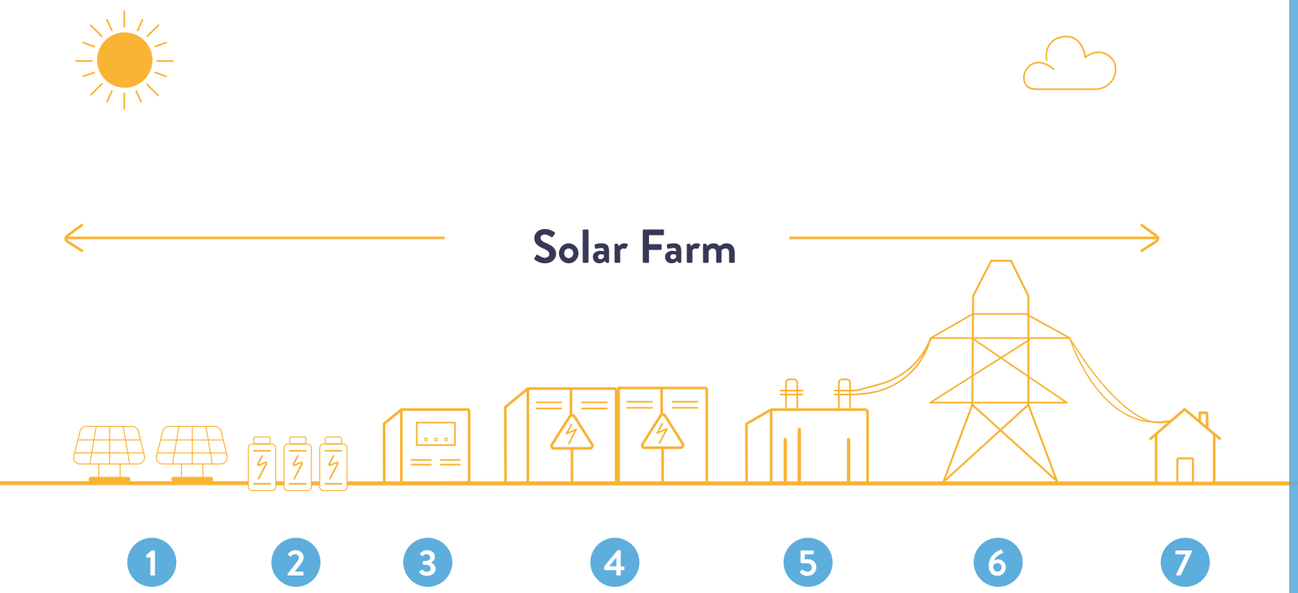
Within our final application for development consent, we are applying for the rights to construct, operate and maintain the following Scheme elements.

More information

More information on on the Scheme infrastructure can be found in **PEI Report Volume 1, Chapter 3: Scheme Description**

Element	Definition
Solar PV panels	Panels convert sunlight into electrical current. There will be clearance of the PV panels above the ground and the height of the panels at maximum tilt above the ground would be 3.5 metres.
Inverters, transformers and switchgear (solar station)	This infrastructure is required to convert the electricity ready for export to the national grid.
Battery and Energy Storage Solution (BESS)	BESS would be distributed throughout the Principal Site sitting alongside the solar station.
Electrical substations	Two substations would be located within the Principal Site.
Solar Farm Control Centre	This would be a single building used to operate and maintain the solar farm once operational. Operational staff would work from the solar farm control centre.
Equipment storage	The Scheme would require space for the storage of parts and equipment either as open storage or within a building.
Underground cabling within the Principal Site	Underground cables would need to be built on site to connect the solar panels, BESS and other infrastructure to the transformers and to the on-site substations.
Temporary infrastructure	We would need temporary parking and construction compounds for the duration of the construction period within the Principal Site.
Fencing and security	A security fence would enclose the operational areas of the site. The fence is likely to be a timber post and wire deer fence. A pole-mounted closed-circuit television (CCTV) system would be installed around the perimeter of the site, and would face towards the solar farm and away from any land outside of the site.

Illustrative example of the Scheme (not to scale)



The sun

Harnessing the sunlight as the earth's primary source of energy

1. Solar panels

Convert the sun's energy into DC electrical power.

2. BESS

Battery and energy storage will have a direct relationship with the solar PV panels and it will support the operation of this by storing electricity produced during times of peak capacity until it needs to be released.

3. Inverters, transformers and switchgear

Infrastructure is needed to convert power generated by the PV panels and step up the voltage within the Principal Site to allow onward transmission to the national grid.

4. Substations

Consisting of equipment to facilitate the export/import of electricity from/to the Principal Site to/from the national grid.

5. Connection to the national grid

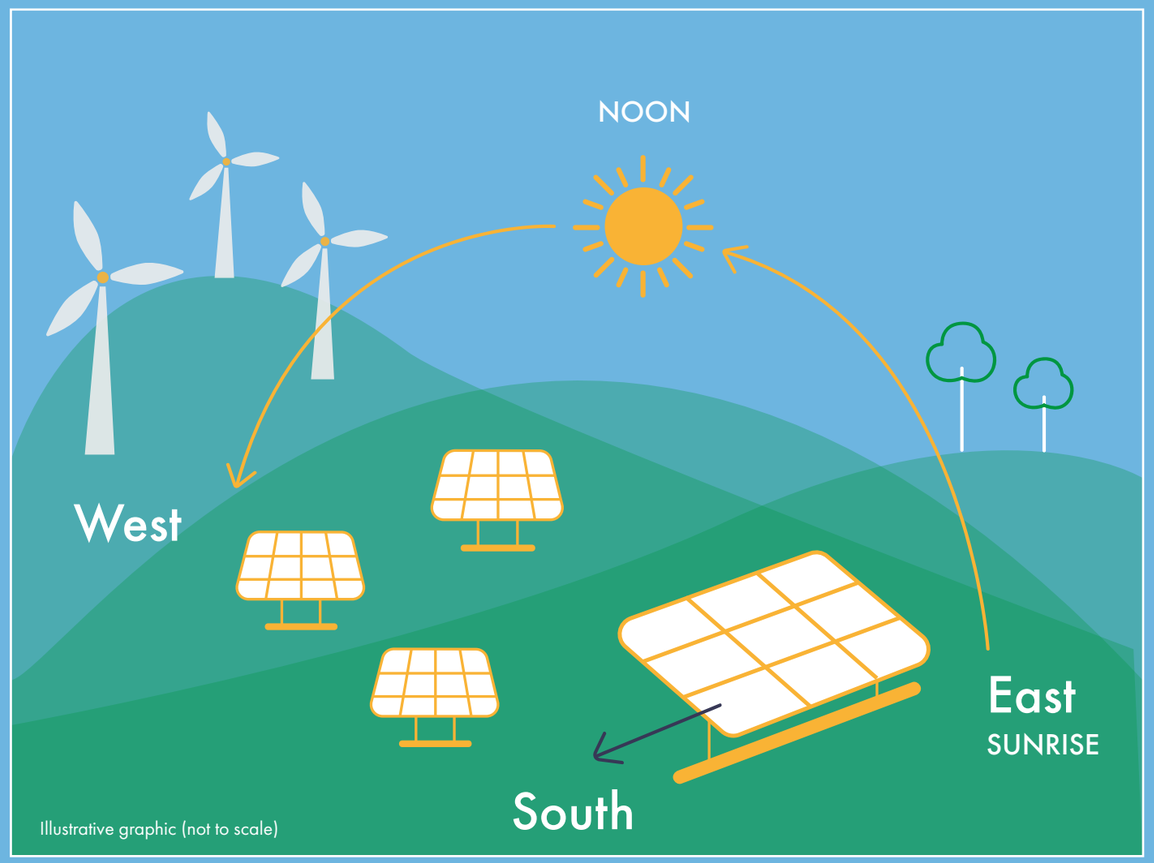
Electricity is exported from the on-site substation to the national grid via underground 400 kV cables. Cabling is also required within the Principal Site.

6. Output of power to the network

Power is transmitted to the network by the local network operator via the national grid.

7. Our homes

How the panels would operate



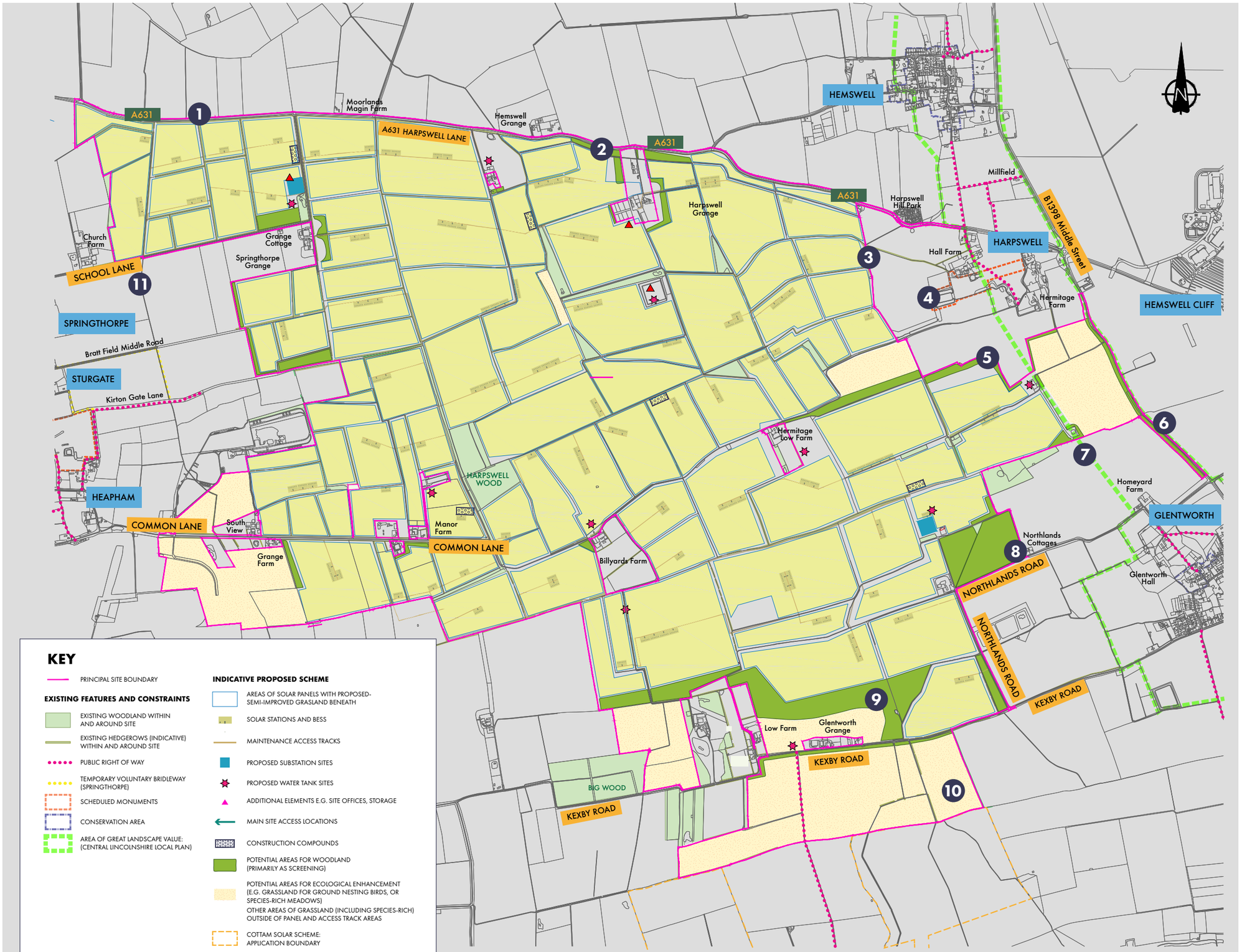
Illustrative graphic (not to scale)

The design of the Scheme aims to:

- Safeguard the water environment, be resilient from flooding and not increase flood risk elsewhere.
- Be sensitive to heritage assets and their setting.
- Use land effectively by minimising impacts on Best and Most Versatile and minerals safeguarding zones.
- Retain all existing public rights of way and look to include new permissive paths.
- Ensure highway safety and minimise impacts on the road network.
- Not result in adverse impacts to residential amenity with respect to noise, vibration, visual/outlook, lighting and glint/glare.

Indicative site layout plan

The indicative site layout plan below shows our current proposals for the Tillbridge Solar Principal Site.



KEY

PRINCIPAL SITE BOUNDARY

EXISTING FEATURES AND CONSTRAINTS

- EXISTING WOODLAND WITHIN AND AROUND SITE
- EXISTING HEDGEROWS (INDICATIVE) WITHIN AND AROUND SITE
- PUBLIC RIGHT OF WAY
- TEMPORARY VOLUNTARY BRIDLEWAY (SPRINGTHORPE)
- SCHEDULED MONUMENTS
- CONSERVATION AREA
- AREA OF GREAT LANDSCAPE VALUE: (CENTRAL LINCOLNSHIRE LOCAL PLAN)

INDICATIVE PROPOSED SCHEME

- AREAS OF SOLAR PANELS WITH PROPOSED-SEMI-IMPROVED GRASSLAND BENEATH
- SOLAR STATIONS AND BESS
- MAINTENANCE ACCESS TRACKS
- PROPOSED SUBSTATION SITES
- PROPOSED WATER TANK SITES
- ADDITIONAL ELEMENTS E.G. SITE OFFICES, STORAGE
- MAIN SITE ACCESS LOCATIONS
- CONSTRUCTION COMPOUNDS
- POTENTIAL AREAS FOR WOODLAND (PRIMARILY AS SCREENING)
- POTENTIAL AREAS FOR ECOLOGICAL ENHANCEMENT (E.G. GRASSLAND FOR GROUND NESTING BIRDS, OR SPECIES-RICH MEADOWS)
- OTHER AREAS OF GRASSLAND (INCLUDING SPECIES-RICH) OUTSIDE OF PANEL AND ACCESS TRACK AREAS
- COTTAM SOLAR SCHEME: APPLICATION BOUNDARY

The Scheme

1. New and enhanced hedgerows along A631, allowed to grow taller as screening and for wildlife value
2. Woodland belts to limit views from the A631 and create new wildlife corridors
3. Potential for enhanced planting to provide increased screening along eastern boundary near Harpswell
4. Scheme set back from Hall Farm (including Scheduled Monument) and open space/permissive paths
5. Screening along northern boundary to limit views from Harpswell
6. Narrow band of planting along Middle Street to provide continuous wildlife corridor and limit views nearest to the site
7. Solar infrastructure set back from Lincoln Cliff
8. Woodland as screening and new habitat area north of Northlands Road
9. Woodland as screening to limit views from properties along Kexby Road, with additional set-back of grassland habitats to help mitigate loss of longer-range views
10. Buffer to proposed Cottam solar scheme: scope for new habitats, including damp grasslands within flood zone
11. Set-back of scheme from Springthorpe and recreational routes east of Sturgate

More information

A more detailed site layout plan can be found on our website or in person at our public consultation events. Please get in touch if you have any questions.

Connecting to the national grid – Cable Route Corridor

The electricity generated by the Scheme would be exported via 400 kilovolt (kV) buried cables within the Cable Route Corridor, from the onsite substations to National Grid's Cottam substation. The total length of the cable run for Cable Route Corridor would be approximately 16km.

All of the new offsite cabling would be laid underground and would be directed across fields. At certain points along the route, it would be necessary to drill under 'obstacles' such as roads, railways, watercourses and utilities. Elsewhere, the cable would be laid in a trench with soil then backfilled following its installation. The cable would sit in a trench that is approximately 80cm to 1m wide and by 1.7m deep. There would be no new above ground power lines for the offsite cabling.

During our early-stage engagement and at the EIA Scoping stage, we presented a broad search area for the Cable Route Corridor. An alternative corridor to direct the route to the north of Willingham-by-Stow was presented.

This alternative route has been removed as an option with the focus of more detailed design work on land to the south of Willingham-by-Stow. This would facilitate the opportunity for sharing the of the corridor with other developers.

In refining our Cable Route Corridor, we have considered a range of criteria, including:

Criteria	Consideration
Technical and engineering requirements	We have worked to optimise routeing so that cables can be laid in a straight line or in shallow curves to aid with efficient construction. We have also worked to aid access and construction, including identifying suitable areas for road, rail and river/watercourse crossings.
Planning and environmental constraints	We want to minimise potential disruption and have considered factors such as proximity to residential properties, avoidance of sensitive receptors, proximity to public rights of way, and flood risk.
Land use constraints	We wanted to minimise the number of impacted landowners and follow field edges to minimise possible disturbance for the landowner when farming or using land for other purposes.

Construction, operation and decommissioning

Construction

Should the Scheme be granted development consent, construction could start in autumn 2025. It is currently anticipated that the Scheme would commence commercial operation from winter 2027.

We are anticipating that construction would take place in one continuous phase, which would last for approximately 24 months. This is being assessed as a 'worst-case scenario' in terms of environmental impacts because of this continuous period of works. Therefore, a worst-case scenario has been applied in our assessments, including the daily number of construction vehicle movements.

At the peak of construction, up to 1,250 staff per day would be required to complete work related to the Principal Site. This number would be less at other times of the construction phase. Working days would be one 12-hour shift, with working hours onsite from 7am until 7pm Monday to Friday and from 7am to 1pm on Saturday. We will be preparing a Construction Traffic Management Plan (CTMP), which would manage the impacts of construction traffic associated with the Scheme. An outline version of this document will be available as part of our final DCO application.

For the Principal Site, it is anticipated that construction access would include four access points. Three would be located along the A631 and one would be located on the B1398 Middle Street.

It is assumed that all access points used during the construction phase will remain open. Activity on site during the operational phase will be minimal, principally routine maintenance, servicing and repairs, and monitoring to ensure the continued effective operation of the Scheme.

More information

More information on construction, operation and decommissioning can be found in **PEI Report Volume 1, Chapter 3: Scheme Description**

What would construction involve?

Construction of the Scheme would take place in a number of stages, comrpising:

1. Site preparation, including the import of construction materials, plant and equipment to site, along with establishing the relevant construction compounds (containing temporary offices, welfare units, storage areas and parking areas) and perimeter fencing.
2. Construction of internal access roads, piling and mounting of solar panels to their relevant structures, along with trenching and installation of the underground electrical cables.
3. Commissioning of the Scheme, including testing of all equipment, mechanical and visual inspections and commencement of electricity supply into the grid.
4. Reinstatement and habitat creation, including around the perimeter of the Principal Site, within the Site and at strategic locations to provide visual screening.

Construction of the Cable Route Corridor

The cable would be laid in open-cut trenches before ground is backfilled and reinstated back to its previous condition. We would need some parts of the cable to be installed using trenchless methods, such as horizontal directional drilling, to lay the cable under the River Trent, roads and railways.

Operation

During the operational phase, activity within the Scheme would be minimal. It would include vegetation management, equipment maintenance and servicing, replacement of any components that fail, solar PV panel cleaning and monitoring.

Decommissioning land reinstatement

The Scheme is expected to generate clean energy for approximately 40 to 60 years, with decommissioning expected to commence thereafter.

Decommissioning of all Scheme infrastructure would take place over a 12 to 24 month period, with all solar PV panels, mounting structures, foundations, inverters and transformers removed, recycled or disposed of in accordance with good practice. It is to be determined whether the 400kV cable would remain in situ or removed as part of decommissioning. The future of the substation and control building would be agreed with the relevant Local Planning Authority prior to commencement of decommissioning.

The drainage of the land within the Scheme would be checked and grass seeded after decommissioning. Should any agricultural drains be altered or removed, they would be restored such that agricultural activities could continue after decommissioning of the Scheme.

Areas of habitat and biodiversity mitigation and enhancement delivered as part of the Scheme would remain up until the land is returned to the previous landowners. Following this, the landowners would choose how the land is to be used and managed.

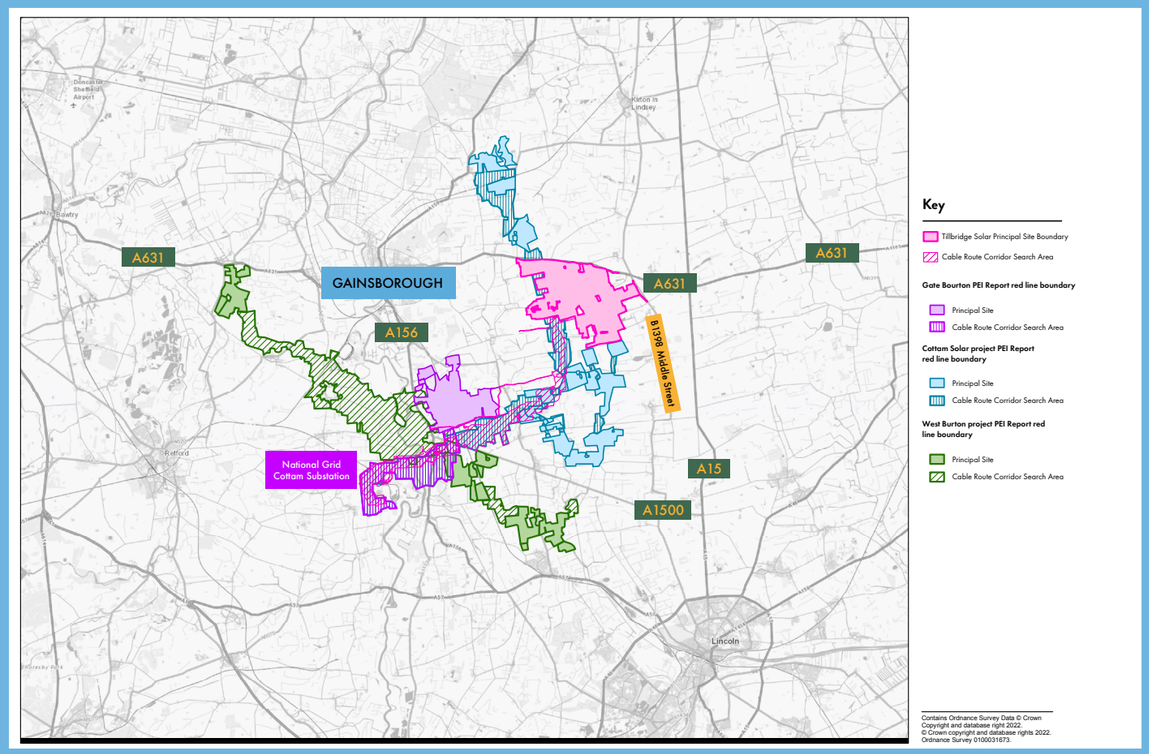
Collaborative working

Given the proximity of our Scheme to Island Green Power's Cottam and West Burton solar projects and Low Carbon's Gate Burton Energy Park, we have been refining our plans to identify opportunities for collaborative working in regard to connection to National Grid's Cottam substation.

This collaboration has included building an understanding of the extent of the respective Cable Route Corridors associated with each scheme and how these might be able to sit alongside each other, ensuring that all routes can be brought forward to minimise land take and environmental impacts, including disruption during the construction phase.

We are continuing to work with Low Carbon and Island Green Power and this work, along with your comments during this statutory consultation and our ongoing studies and surveys, will help shape the final plans for our corridor submitted as part of our DCO application.

PEI Report Volume I Chapter 17: Cumulative Effects addresses the potential for effect interactions and cumulative effects to occur as a result of the Scheme.



Environmental Impact Assessment (EIA)

Overview of the EIA process

EIA is a process to identify the potential effects that a proposed development may have on the environment, people and local communities. This process involves consultation with affected communities and other stakeholders to ensure that the EIA has identified the relevant effects of the Scheme. These effects can be positive or negative.

Through the design evolution process, we are working to reduce the negative effects of the scheme and provide enhancements where possible.

The preliminary EIA findings for Tillbridge Solar are reported within the PEI Report. The PEI Report has been prepared for the purposes of statutory consultation.

It has been prepared to help members of the public, consultation bodies and other stakeholders to develop an informed view of the likely significant impacts of the Scheme, as identified at this stage, and comment on particular areas of interest.

This consultation is taking place before we finalise our design as part of our application for development consent. Alongside this application, we will provide a full Environmental Statement (ES), which will report the outcome of the EIA process.

Accessing the PEI Report

The full suite of PEI Report documentation can be found on our website and will be available at the consultation events. One printed copy is also available to view (but not take away) at each of our local information points. If you would like a hard copy of the PEI Report, a reasonable charge to cover printing and postage costs of £0.35 per page will apply. We can also provide this free of charge on a USB device. Please use the contact details at the end of this booklet to request a copy.

To allow you to read information on impacts and topic areas that are important to you, we have divided the PEI Report into the following topic areas:

- Chapter 1 Introduction
- Chapter 2 Scheme Location
- Chapter 3 Scheme Description
- Chapter 4 Alternatives and Design Evolution
- Chapter 5 EIA Methodology
- Chapter 6 Air Quality
- Chapter 7 Climate Change
- Chapter 8 Cultural Heritage
- Chapter 9 Ecology and Nature Conservation
- Chapter 10 Flood Risk, Drainage and Surface Water
- Chapter 11 Human Health
- Chapter 12 Landscape and Visual Amenity
- Chapter 13 Noise and Vibration
- Chapter 14 Socio-economics and Land-use
- Chapter 15 Transport and Access
- Chapter 16 Other Environmental Topics
- Chapter 17 Cumulative Effects
- Chapter 18 Summary of Significant Environmental Effects

A non-technical summary (NTS) of the PEI Report is also available to view on the Scheme website and at our consultation events. A hard copy of the NTS can be sent free of charge on request.

Summary of findings of the PEI Report

The table below outlines the areas of assessment and summarises some of the potential effects and proposed mitigation measures. Please see our NTS of the PEI Report for more information on the environmental effects of our proposals and measures we'll take to avoid or reduce any impact. Volume 1, Chapter 18 of the PEI Report summarises the significant 'residual' effects of the Scheme, which are as those significant effects that will remain following the implementation of mitigation measures.

Area of assessment	Potential effects and proposed mitigation	For more information
Air quality	The construction and decommissioning of the Scheme are likely to generate dust. Following the implementation of measures in the Construction Environment Management Plan (CEMP), any impacts are anticipated to be not significant. The CEMP would identify procedures to which all of staff and contractors working on site would be required to adhere. The operation of the Scheme is not anticipated to lead to any significant effects on air quality.	See PEI Report Volume I, Chapter 6
Climate change	Greenhouse gas (GHG) emissions would occur during the construction phase as a result of the manufacture of the materials required to build the Scheme. Other sources of GHG emissions would include transport of materials for construction, maintenance activities during operation and emissions from plant used during decommissioning. However, the the Scheme would help the UK achieve net zero and the target of 70 GW of solar capacity by 2050, so the impact on climate once operational is therefore considered to be a major beneficial effect.	See PEI Report Volume I, Chapter 7
Cultural heritage	In terms of buried archaeology, any disturbed assets would be recorded and evaluated during the construction phase. Along the Cable Route Corridor, it is anticipated that impacts on any particularly valuable archaeological assets can be avoided by routing the cable away from the asset, although temporary access may still be required through historic assets. In most cases, the Scheme would have limited effects on the setting of built heritage assets as existing vegetation and ground level differences would obscure views of the Scheme from those assets. However, once operational, solar infrastructure may be visible from the Scheduled Monument of Harpswell Hall and the Grade I listed Church of St Chad. New planting has been included in the landscape design to mitigate effects and the potential for further landscaping will be investigated further, prior to submission of the ES with the DCO application.	See PEI Report Volume I, Chapter 8
Ecology and nature conservation	The layout of the Principal Site has been designed so that impacts on habitats such as woodland, running water and ponds are avoided. However, there may be a significant effect on skylarks due to temporary loss of habitat within the Principal Site whilst newly created habitats become established. Although further work is required to refine the Cable Route Corridor, at this stage it is anticipated that significant impacts on ecology could be avoided either by routeing the cable away from sensitive ecological areas or specifying certain construction methods to reduce impacts. However, there may be a significant effect on hedgerows due to temporary removal of sections of hedgerow required to lay the cable and whilst replacement planting becomes established. As part of the landscape design for the Scheme, new habitats would be provided to increase biodiversity compared to existing. This would include: • Converting areas of agricultural land adjacent to and beneath the solar panels into grassland • Strengthening hedgerows by planting up any gaps • Planting new areas of trees and enhancing habitats next to watercourses. These measures would benefit wildlife by increasing areas of habitat provision and improving connectivity between habitats. This would be of value to a wide range of animals, particularly farmland birds such as Skylark and Yellowhammer. It is expected that the Scheme would deliver more than 10% biodiversity net gain.	See PEI Report Volume I, Chapter 9
Flood risk, drainage and surface water	Construction works would be carried out in accordance with mitigation measures documented within a CEMP, so that impacts on local watercourses are appropriately managed and prevented. This would include measures to prevent silty water reaching watercourses and the safe handling of fuels and chemicals on site. Where possible, cabling required either in the Principal Site or Cable Route Corridor would cross watercourses and ditches by drilling the cable underneath them using non-intrusive methods such as horizontal direction drilling (HDD) techniques. Some smaller watercourses may be crossed by 'open cut' through the channel. Where we may need to temporarily build culverts to cross some watercourses, effects would be considered to be significant (with highly sensitive watercourses). There are no structures within the Scheme Boundary that require large/continuous foundations and would prevent groundwater from continuing to flow freely below ground through soils. The depth where cabling as part of the Cable Route Corridor would be installed is likely to be below the water table. The Scheme would look to implement sustainable drainage systems (SuDS), whereby new planted areas and ponds would be created to ensure that rainfall that lands within the Scheme Boundary does not reach local watercourses quicker than existing land use.	See PEI Report Volume I, Chapter 10

Human health	Due to the temporary nature of the construction phase, the effect of the Scheme on the health is assessed as being not significant. Health determinants include connectivity to local community services, prioritisation of travel by walking and cycling, road and route safety, employment and income, air quality, noise and vibration, and climate change. Once the Scheme is operational, it would enable the generation of renewable energy and help the UK reach its target for net zero by 2050. The effect of this on human health is considered to be beneficial and significant.	See PEI Report Volume I, Chapter 11
Landscape and visual amenity	Landscape effects, i.e. those which occur to features or characteristics of the landscape, will be significant within the Principal Site area, due to the long-term presence of solar infrastructure. However, these will be balanced against an increase in and improvement to the condition of features and habitats such as trees, hedgerows, woodland and species-rich (meadow) grasslands. Some significant visual effects, i.e. those on people's views, will arise for some residential properties near the Principal Site and roads or footpaths where there are open views (such as Middle Street along The Cliff). However, the inclusion of mitigation screen planting is intended to limit the majority of these visual effects as vegetation matures over time. In particular, we will look to reduce effects from the green space and Scheduled Monument at Harpswell. Opportunities for planting in advance of the scheme construction will also be explored. Landscape and visual effects are not expected to be significant for the cable corridor. This route will be designed to avoid sensitive landscape elements and views; and any removed vegetation that requires removal will be replaced wherever possible.	See PEI Report Volume I, Chapter 12
Noise and vibration	Mitigation documented within a CEMP would include practical measures to reduce noise and vibration from construction works, such as: • Switching off plant when not in use • Regular maintenance of plant • Undertaking noisy activity such as unloading in a considerate way to minimise noise generation. In addition, residents near to the Scheme boundary would be kept updated of upcoming construction works, including when any particularly noisy activities would be undertaken. The site would include plant such as inverters, transformers, switchgear and the BESS, which would generate a steady hum (rather than noticeable impulsive or intermittent sounds) when the Scheme is operational. However, this is not deemed to be significant, so it is not anticipated there will be any significant effects during construction, decommissioning or operation of the Scheme.	See PEI Report Volume I, Chapter 13

Socio-economics and land use	It is estimated that the Scheme would require a peak of 1,250 full-time equivalent (FTE) jobs, and an average of approximately 500 gross direct FTE jobs on site over the construction period and the decommissioning period. The Scheme would generate an estimated 10 to 12 FTE long-term jobs during the operational phase. One public right of way (GItw/85/1) runs through the Principal Site but would continue to be accessible, with woodland screening measures proposed to mitigate against potential amenity impacts. We will be submitting an Agricultural Land Classification (ALC) survey as part of our final DCO application, which will determine the grading of land within the Principal Site. To date, we have been able to survey approximately 1,200 hectares of our Principal Site (which is approximately 1,400 hectares in total). These surveys show that approximately 94.4% of the area surveyed is classified as 'grade 3b' agricultural land, and approximately 5.6% is classified as 'grade 3a'. An initial report outlining these findings is provided as part of the PEI Report (which can be found on our website) and a full report will be available as part of our DCO application. The land use can be returned to agriculture after the Scheme is decommissioned and the land would be available for some forms of use (such as sheep farming) during operation.	See PEI Report Volume I, Chapter 14 and Volume II, Appendix 14-2
Transport and access	Additional traffic movements to the Principal Site and Cable Route Corridor during construction would be within the overall capacity of the highway network. During construction, the Scheme would operate in accordance with a Construction Traffic Management Plan (CTMP), which would define the routes that deliveries to the Principal Site and Cable Route Corridor would need to take and would avoid peak hours. Construction staff would be encouraged to car share and travel by public transport, with the Scheme operating a pick-up service. The Scheme is expected to generate a low level of vehicle trips during the operational phase. It is estimated there would be 10 to 12 staff on site daily, which as a worst-case scenario would generate up to 12 vehicles (24 movements) per day. In addition, there would be an average of 10 to 20 visits per year from four-wheel drive vehicles, HGVs or transit vans for maintenance. This equates to approximately one to two per month.	See PEI Report Volume I, Chapter 15
Other environmental topics - Glint and glare	Solar panels are designed to absorb, not reflect, sunlight. Studies generally agree that, while there is potential for glint and glare from solar panels, the intensity of such reflections is similar to that caused by bodies of still water (which is considerably lower than for other man-made materials such as glass, steel or white concrete). An assessment has concluded there would be no impacts on houses or road surrounding the Scheme Boundary. We have also assessed other topics such as 'Major Accidents and Disasters', where we anticipate there will be no significant risks during all stages of the Scheme. The Scheme is also unlikely to interfere with telecommunications and television infrastructure.	See PEI Report Volume I, Chapter 16

Cumulative effects	If there is overlap during the construction phases of other solar schemes planned in the area, then transport effects may be able to be managed jointly, with the potential for the different solar developers to prepare a joint CTMP that could facilitate co-ordination of deliveries to each site and avoid peak traffic hours. Further detail about the design of the Scheme and further assessment is required to understand the potential for there to be significant cumulative effects on nearby landscape, heritage assets and ecology. This will be reviewed further in the ES that is submitted with the DCO application.	See PEI Report Volume I, Chapter 17

Community benefits

In addition to biodiversity enhancement, a community benefit fund is being explored and could be provided as part of our development.

We believe those communities living closest to the proposed solar farm should benefit from it – with these communities being best placed to recommend what a 'community-benefit' should be.

Suggestions to date have included funding towards:

- Improvements to existing community facilities, such as village halls and sports facilities
- Provision of electrical vehicle charging points
- Subsidised solar PV panels for community use and lower cost energy
- Grants for broadband and wider improvements
- Educational visits and wider education/apprenticeship opportunities.

We are currently investigating how a community benefit fund could be managed and delivered independently. One way of doing this is by appointing a community foundation who would independently manage the fund on our behalf. We have spoken with Lincolnshire Community Foundation and Nottinghamshire Community Foundation, who would be able to use their local knowledge and experience to identify funding opportunities and help maximise benefits for local communities.

Their details are as follows:

- Lincolnshire Community Foundation: **www.lincolnshirecf.co.uk**
- Nottinghamshire Community Foundation: **www.nottscf.org.uk**

A community benefit fund would only operate if the Scheme receives development consent. We recognise that other funds could also be active from other developers. We are therefore considering the possibility of coordinating on these localised benefits.

We're inviting your continued views on how such a benefit could be made available through our Scheme and how it could be administered and managed. We also continue to welcome any further suggestions for local schemes and initiatives that we could support.

How to have your say

Between 30 May 2023 and 11 July 2023, we are asking for your feedback on our updated proposals. Your feedback will help us to shape our proposals before we submit our application for a Development Consent Order.

Specifically, we would like your feedback on:

- The overall Scheme
- Our updated plans for the Principal Site, including the indicative location of equipment and infrastructure within this area
- Our Cable Route Corridor between the Principal Site and connection at National Grid's Cottam substation
- Measures we are proposing to reduce the impacts associated with the construction, operation and maintenance of the Scheme, as set out in the PEI Report
- Any additional measures you would like us to include in our proposals, including local community benefits
- Any other feedback on our work so far or local issues and sensitivities of which we should be aware.

How to take part in our consultation

You can take part in the consultation in the following ways:

Attend a public consultation event

We are holding a series of face-to-face consultation events at publicly accessible venues. These events offer the opportunity to view and discuss our more detailed plans for Tillbridge Solar with members of the project team, and provide your feedback. You will be able to take away printed copies of our consultation booklet and feedback questionnaire.

We will also be holding two webinar sessions where the project team will provide a short presentation, followed by a live question and answer session. **You can register for these online events on the Scheme website or by emailing info@tillbridgesolar.com**

The events and webinars are being held as follows:

The events and webinars are being held as follows:	Date	Times
Online webinar (please get in touch to register)	Wednesday 7 June	6:30pm to 8pm
Glentworth Village Hall, Stoney Lane, Glentworth, DN21 5DF	Wednesday 14 June	2:30pm to 7pm
Willingham Village Hall, High St, Willingham by Stow, Gainsborough, DN21 5JZ	Saturday 17 June	10am to 2pm
Sturton by Stow Village Hall, High St, Sturton by Stow, Lincoln, LN1 2AE	Thursday 22 June	1:30pm to 5:30pm
Corringham Village Hall, 10 Middle St, Corringham, Gainsborough, DN21 5QR	Friday 30 June	12pm to 4pm
Rampton Village Hall, Manor Grounds, Rampton, Retford, DN22 0JU	Saturday 1 July	10am to 2pm
Hemswell and Harpswell Village Hall, Maypole Street, Hemswell, DN21 5UL	Thursday 6 July	2:30pm to 6:30pm
Online webinar (please get in touch to register)	Monday 10 July	6:30pm to 8pm

If you are unable to make it to any of the events but want to find out more about the Scheme, or if you have any further questions, please get in touch with our community relations team and you can arrange a call back from a member of the team at a time convenient to you.

In the event of changing government guidelines due to COVID-19, or other unforeseen circumstances meaning the consultation events must be cancelled, replacement online events would be organised that would provide the same information as presented at the in-person events.

View more information

We recommend visiting our website **(www.tillbridgesolar.com),** where all of our consultation materials are available to view online. We also have an online interactive map where you can interact with our proposals and provide your feedback on areas important to you (using our feedback questionnaire).

Alternatively, our materials are available to view in person at the five local information points listed on our website.

Materials available to collect at these locations include this consultation booklet, feedback questionnaires and the consultation leaflet. Printed copies of the Statement of Community Consultation (SoCC), full PEI Report and NTS will be available at each of these locations to inspect (but not take away).

Navigating our consultation documents

We've prepared a set of documents and materials to explain the proposals we're consulting on to help your provide feedback.

Document	Summary
Project information booklet	Provides detailed information on the Scheme, the planning process, what we're consulting on and how our plans have evolved over time. This can be found on our website, in hard copy at our events or can be sent free of charge on request.
Feedback questionnaire	Allows you to provide comments on our proposals. You can collect this from our events, a local information point or by request. You can also provide your feedback online.
Preliminary Environmental Information (PEI) Report	Explains what effects we believe the Scheme would have on the environment and the measures we are proposing to reduce the impacts. This includes a main report, figures, maps and plans. You can view this online, in hard copy at our events, or request a USB device. If you would like a hard copy of the PEI Report, a reasonable charge to cover printing and postage costs of £0.35 per page will apply.
Non-technical summary (NTS) of the PEI Report	An NTS of the PEI Report is also available to view on the Scheme website and at our consultation events. A hard copy of the NTS can be sent free of charge on request.
Maps, plans and visualisations	We have produced a series of detailed site and location plans. Full-scale site plans can be viewed on our website or at our events.
Interactive map	Allows you to search for areas of interest, including explanations of the individual Scheme elements. You can view this on our website.
Maps and plans	A series of maps and plans for the Scheme are also available, including its location in relation to other solar schemes in the region.
Statement of Community Consultation (SoCC)	The SoCC sets out how we intend to consult people ahead of our application for development consent for the Scheme. The SoCC can be found on our website, in hard copy at our events or can be sent free of charge on request.

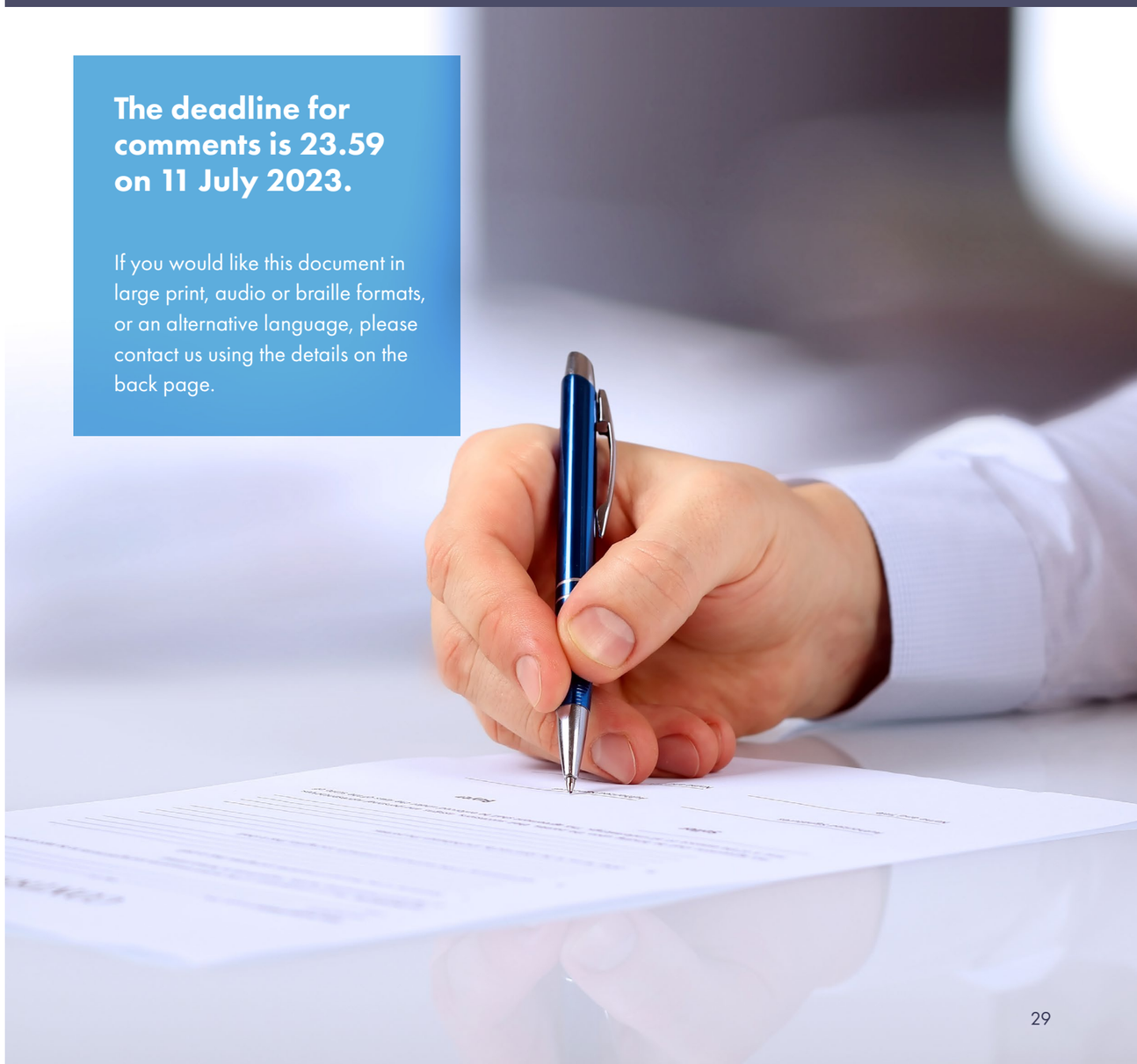
Have your say

You can provide your feedback to us either online or in writing, by:

- Going to the 'Consultation' page of our website **(www.tillbridgesolar.com)** and completing an online feedback questionnaire
- Collecting a questionnaire from one of our consultation events, information points (listed on our website), or on request (by contacting the community relations team by email, phone or post)
- Returning your completed questionnaire to us at one of our events, by email or by post (by writing 'FREEPOST TILLBRIDGE SOLAR' on a blank envelope – please note you do not need a stamp)
- Providing your free form comments by email or post. Please note that we will not accept comments over the phone, however we can assist you wherever possible.

The deadline for comments is 23.59 on 11 July 2023.

If you would like this document in large print, audio or braille formats, or an alternative language, please contact us using the details on the back page.



How we'll use your feedback and next steps

Once the consultation has closed at 23:59 on Tuesday 11 July 2023, we will review all comments and suggestions that have been received during the consultation period.

We will take time to consider and have regard to your feedback when making further refinements to our proposed design and developing our planned mitigation measures.

We will set out a summary of the responses that you have given us in a Consultation Report, with details on how your feedback has shaped and influenced the proposals. This report will form part of our application for a Development Consent Order (DCO).

We expect to submit our DCO application later this year.

Once our application has been accepted, the Planning Inspectorate (acting on behalf of the Secretary of State) will examine the application.

You will be able to register your interest in our proposals directly with the Planning Inspectorate, who will then inform you about the progress of our application during the examination process, and let you know about further opportunities you will have to inform and contribute to the planning process.

The Planning Inspectorate will then make a recommendation to the Secretary of State for Energy Security and Net Zero who will decide on whether or not the Scheme will go ahead. More information about the DCO process can be found on the Planning Inspectorate's website:
https://infrastructure.planninginspectorate.gov.uk

Indicative Project Timeline

Summer 2022

Initial engagement with stakeholders, including collaboration workshops

September 2022

EIA Scoping Request submitted to the Planning Inspectorate

Spring 2023

Publication of our Statement of Community Consultation (SoCC) and ongoing development of our EIA

May - July 2023

Statutory consultation to be held with community and technical stakeholders, including sharing the findings of our PEI Report

Winter 2023

Anticipated submission of DCO application to the Planning Inspectorate for public examination

2024 - 2025

DCO examination and decision

Autumn 2025

Anticipated start of construction

Contact details

If you have any questions about Tillbridge Solar, please don't hesitate to get in touch using the details below.

Write to us at: **FREEPOST TILLBRIDGE SOLAR**
(please note that you do not need a stamp).

Email us at: **info@tillbridgesolar.com**

Call our Freephone information line on:
0800 046 9643
(phone lines are monitored 9am – 5:30pm Monday to Friday, with an answerphone facility available outside of these hours)

For more information on the Scheme please visit our website at: **www.tillbridgesolar.com**

Please contact us if you would like this document in large print, audio or braille formats, or an alternative language.