Gate Burton Energy Park Project Information Booklet

June 2022

1.3

low carbon
powering tomorrow

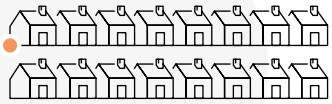
Introduction

We are consulting on our proposals to build Gate Burton Energy Park – a new solar and energy storage park on land near Gate Burton in Lincolnshire, as well as infrastructure to connect the scheme into the national grid at Cottam substation in Nottinghamshire.

Generation capacity:

500MW

Enough clean energy to power over



160,000

homes

The need for the project

The transition to a low carbon energy system is necessary to avoid the effects of climate change. The UK is committed to achieving net zero carbon emissions by 2050. The pathway to achieving net zero requires the decarbonisation of transport, industry, agriculture and homes through electrification, which will see electricity demand double by 2050.

There is no silver bullet to decarbonising the UK economy. It requires the substitution of electricity currently generated by burning fossil fuels with energy from low carbon sources.

Our future energy system will necessarily comprise a diverse mix of renewable energy technologies, the exact balance of which is still to be determined.

More renewable energy is needed to fast-track the transition away from fossil fuels if we are to achieve net zero carbon emissions by 2050. Large-scale solar development has an important role to play in this; providing a supply of clean, affordable electricity that contributes to achieving net zero carbon emissions while delivering UK energy security of supply and value to us all, for years to come.

Energy security

The recently published Energy Security Strategy set out a target to increase the UK's solar capacity five-fold by 2035 – equivalent to around 70 gigawatts (GW) total generation capacity.

Gate Burton Energy Park is anticipated as being operational for around 60 years. With potential to generate around 500 megawatts (MW) of electricity through ground-mounted solar panels, the project would make a vital contribution towards achieving net zero – providing enough clean energy to power over 160,000 homes and avoid more than 100,000 tonnes of CO_2 emissions every year.

The proposed scheme will also include an on-site energy storage system. This will provide an important balancing service for the national grid whereby electricity generated by the panels at time when demand is low can be stored on site, and then be exported onto the grid when demand is higher. It may also enable energy to be imported from the national grid so it can be stored until it is needed.

As we work to deliver our vision, we want to ensure that those communities living and working in the area have a chance to inform and influence the development of our proposals.

This consultation

After conducting an initial stage of consultation on our emerging proposals for the project earlier this year, we have continued to shape and refine our plans, taking into consideration the feedback you provided, together with the findings from our ongoing environmental surveys and assessments.

You are now invited to take part in this second stage of consultation running from 22 June to 5 August 2022. During this time we'd like you to tell us what you think about our proposals for Gate Burton Energy Park and how they have evolved since our earlier consultation.

Your views are important to us. They will be used to help us finalise our detailed proposals for Gate Burton Energy Park and submit our application for development consent to the Planning Inspectorate (PINS).

We look forward to hearing from you.

More information

In this booklet you'll find out more about the project, who we are, what we're consulting on and how you can take part.

In addition, we've prepared a set of technical documents and materials you might find useful:

Preliminary Environmental Information (PEI) Report - the core technical document setting out the findings from all the environmental assessments we have carried out to inform the development of the proposals we are now consulting on. It identifies what we currently believe the potential environmental effects of the project could be and gives more detail on how we propose to avoid or minimise those effects, where possible.

Non-Technical Summary (PEI NTS) – provides a summary of the PEI Report.

Copies of these documents are available on our website or on request (see back cover).

Low Carbon – who we are and what we do

Founded in 2011, Low Carbon is a market-leading privately-owned UK investment and asset management company specialising in renewable energy.

Our aim is to have a positive, lasting impact on climate change.

In practice this means:

- Responsible and innovative investment in renewable energy projects
- A commitment to protecting the earth's natural resources
- Dedication to creating a low carbon future for us all

To this end we have established our own target of achieving net zero by 2030.

At Low Carbon, we specifically target investments in solar, onshore wind, waste-to energy, battery storage and other proven renewable energy technologies.

Deploying capital at scale into renewables, we invest across the full life cycle from concept through to development, construction and operation.

20GW of renewable energy by 2030

In 2021 we announced we had formed a strategic partnership with the Massachusetts Mutual Life Insurance Company (MassMutual).

Together we will build a leading global renewable energy Independent Power Producer (IPP) targeting 20GW of renewable energy capacity by 2030.

Our ambition is to transform the global energy sector from fossil fuel based to zero-carbon. We will work in partnership to accelerate the deployment of large-scale renewable energy by harnessing our expertise across the full investment life cycle and leveraging our proven record in:

- Deployment of more than £600m capital into large scale renewable energy projects
- Financing, development and exit of more than 1GW of clean energy projects
- Proprietary development of an international pipeline of more than 5GW – enough to power more than 1.3 million homes
- A leading portfolio of UK subsidy-free solar with more than 2GW in development

Low Carbon's investments to date are generating sufficient clean energy to power more than 427,000 homes and, since commissioning, have avoided more than 750,000 tonnes of CO_2.[1]

More information

Low Carbon – An Overview is available from the project website or on request (see back cover for contact details). You can also find out more about us on our website: www.lowcarbon.com

[1] Low Carbon internal calculations using OFGEM Typical Domestic Consumption Values and BEIS Carbon Conversion Factors.

Stage Two Consultation

We are now carrying out a second stage of consultation on our updated proposals for Gate Burton Energy Park, having refined the early-stage proposals we introduced during the first stage of non-statutory consultation we held at the beginning of the year.

We introduced our emerging proposals for the project during our Stage One Community Consultation which ran for six weeks from 11 January to 18 February 2022. The consultation invited you to provide your views on the overall project, the proposed layout of the energy park, three broad corridors a connection into the national grid at Cottam substation could be routed in, and also suggest any local initiatives and projects we could support to benefit those communities closest to the project.

We've considered all the feedback submitted to the initial consultation along with the findings from our ongoing environmental and technical surveys to help us refine the design for Gate Burton Energy Park; incorporating measures to reduce the impact of the scheme on neighbouring communities and residents, being sensitive to the local landscape, preserving wildlife and habit, while also providing environmental and ecological enhancements.

The purpose of this second stage of consultation is to present our updated proposals and give you the opportunity to tell us what you think about how they have evolved.

The consultation will run for just over six weeks from 22 June to 05 August 2022, during which time we would specifically like your feedback on:

- The overall project
- Our updated concept masterplan, setting out where equipment would be located within the solar energy park
- The preferred route corridor we have identified for the electrical connection between the energy park and Cottam substation, largely using underground cable
- Measures we're proposing to avoid or reduce those impacts associated with the project that we have identified in our preliminary environmental assessment work and feedback to earlier consultation
- Community benefits
- Anything else you want to tell us about our work so far

After the consultation we'll review our proposals in light of the comments you provide to see if there are any changes we need to make.

Statutory consultation

Gate Burton Energy Park is classified as a Nationally Significant Infrastructure Project (NSIP) due to it having a proposed generation capacity exceeding 50MW.

The development consenting regime for NSIPs comes under the Planning Act 2008 which means we have to submit our application for development consent to the PINS.

Before we can submit our application for development consent, the Planning Act 2008 requires that we conduct a statutory stage of consultation.

This is our statutory consultation on our proposals for Gate Burton Energy Park. It is likely to be the last time we consult before we apply for consent.

This is your opportunity to tell us what you think about how and where we are proposing to build the scheme while ensuring we do so in the most sympathetic manner.

More information about the NSIP application process can be found on the PINS website: infrastructure.planninginspectorate.gov.uk

Stage One Consultation – what you told us

The feedback you provided in response to our initial consultation has played an important part in influencing the proposals we're now consulting on. It has helped us to understand those aspects of the proposed development that were most important to different individuals, groups and organisations, and specific areas you wanted us to consider as we continued to refine our proposals.

A summary of feedback received during our initial consultation and how we have had regard to it when refining our proposals is set out in the **Stage One Non-Statutory Consultation Feedback Report.** This is available on our website or on request (see back cover).

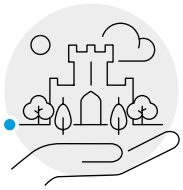
Some of the important areas you asked us to consider include:

Views are important – reduce visual impacts on the landscape

Maintain a respectful distance – reduce visibility and noise from neighbouring properties

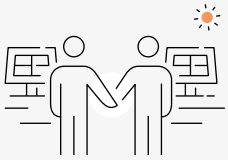
Avoid disruption to communities during construction

Protect archaeology and heritage



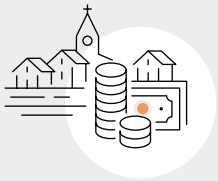
Protect the environment and wildlife

Collaborate with other solar developers



Protect agricultural land for food production

Consider the impact on the local economy



Consultation Process timeline

2021

From Oct
- Early engagement with local authorities and interested parties
- Ongoing engagement

Dec
- Confirmation of dates for Stage One community consultation
- Ongoing engagement

2022

11 Jan-18 Feb
- First stage of community consultation (non-statutory)

April/May
- Consultation on draft SoCC with Local Planning Authorities

08 Jun
- Publication of the SoCC

22 Jun-05 Aug
- Second stage community consultation (statutory)

Gate Burton Energy Park

Gate Burton Energy Park would comprise the installation of solar photovoltaic (PV) panels and an on-site energy storage facility, plus infrastructure to connect the scheme into the national grid at Cottam substation so the electricity it generates can be made available to the UK's homes and businesses.

If consented, the project is anticipated as having a generation capacity of around 500 megawatts (MW). This is equivalent to providing enough clean energy to power over 160,000 homes and avoid more than 100,000 tonnes of CO_2 emissions every year.

Location

Gate Burton Energy Park would be built on agricultural land contained within the boundary of one site comprising approximately 684 hectares (1,690 acres). The site is located in the West Lindsey district of Lincolnshire, approximately 4 kilometres (km) south of Gainsborough.

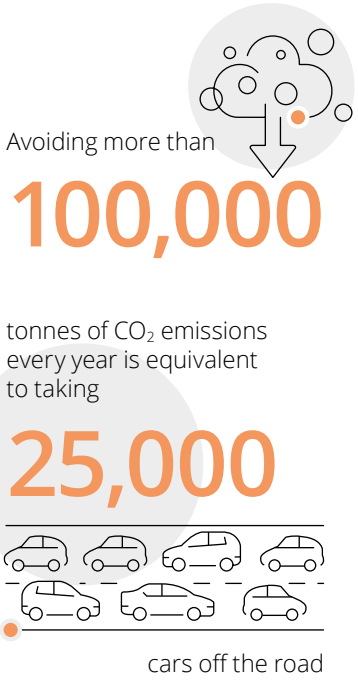
The electricity generated by the energy park is expected to be exported into the existing national electricity transmission system at National Grid's 400kV Cottam substation. Cottam substation is located approximately 4km to the southwest of the site in the Nottinghamshire district of Bassetlaw.

Site selection

One of the key factors influencing the location of the project was the availability of the grid connection at Cottam substation with capacity to enable the electricity anticipated as being generated by the energy park to be fed into the grid.

Further to engagement with landowners who confirmed their willingness to enter into lease agreements, the proposed energy park development site was identified as being suitable for a number of reasons:

- The site comprises large arable fields of regular shape
- There are no statutory landscape designations on the site or in the immediate surrounding area
- The site topography is gently undulating which makes it technically suitable for solar development and maximising the efficiency of solar panels
- Existing hedgerows, tree belts, and woodland around and across the site mean it is well screened
- There is only one Public Right of Way running through the site
- There are no ecological or heritage designations, scheduled monuments or listed buildings in the site
- The site is located almost entirely within Flood Zone 1 – which is defined as having a low risk of flooding
- There are only a small number of residential properties in proximity to the site and effective screening and landscaping could be employed to offset or mitigate any visual impacts
- The land is predominantly classified as Grade 3b (moderate quality agricultural land) with some Grade 3a (good quality agricultural)



The project site

The application we submit to the Planning Inspectorate for the project – known as a Development Consent Order (DCO) – will comprise the solar energy storage park and the grid connection route to Cottam substation. Combined these are known as the 'DCO site'.

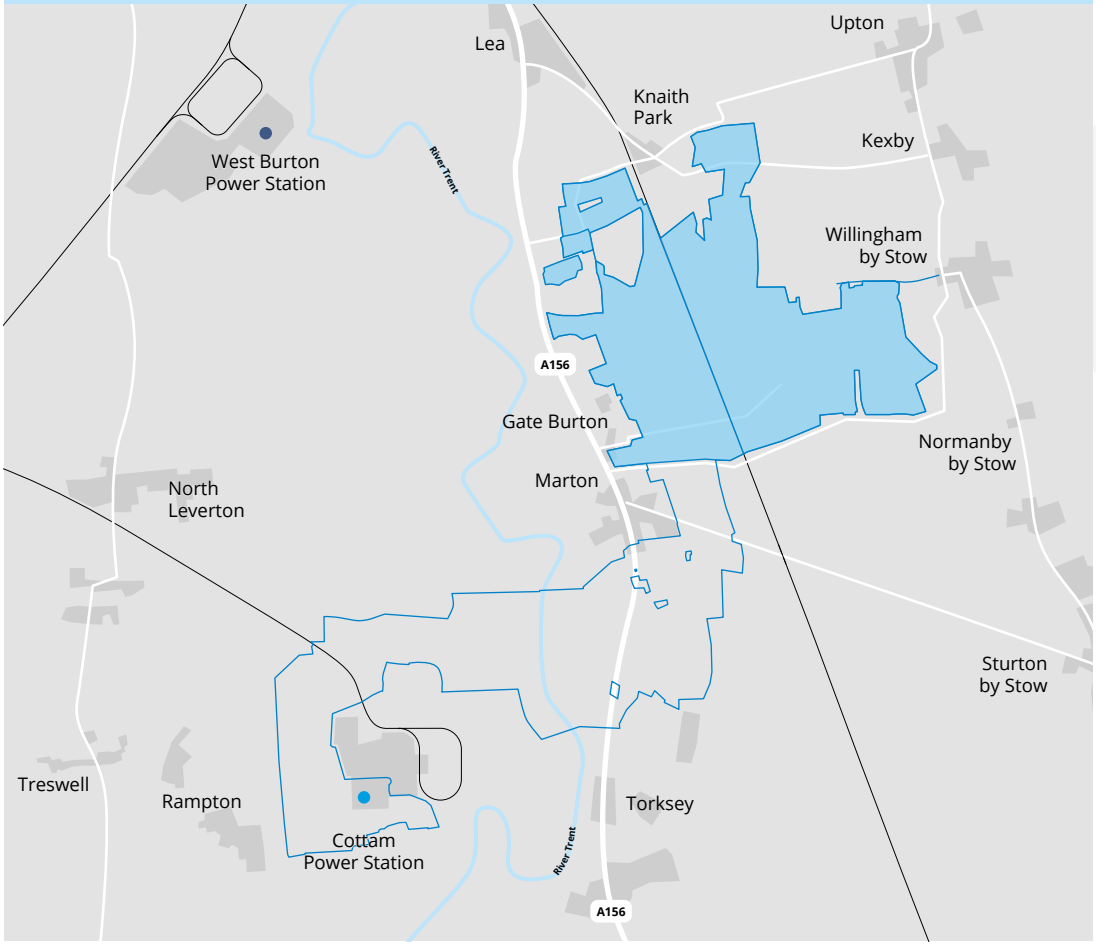
The DCO site comprises an area of 1,436 hectares. The map below shows the extent of the land required for the construction, operation, maintenance and decommissioning of the energy park and the grid connection into Cottam.

Within the boundary of the DCO site there will be areas for mitigation and ecological improvements, buffer zones that maintain a respectful distance between equipment and infrastructure and existing homes, landscape, ecological and habitat features as well as Public Rights of Way.

More information

Further detail on the site can be found in **PEI Report Volume 1, Chapter 2: The Scheme.** This is available on our website or on request from us (see back cover for contact details).

The DCO site



Key

- Gate Burton Energy Park site
- Gate Burton Energy Park connection corridor

Other solar projects in the area

Gate Burton Energy Park is a standalone project being progressed by Low Carbon, however from an early stage in our development process we have been aware of other large-scale solar NSIPs coming forward in geographic proximity to our project.

Cottam substation is the proposed point of connection with the national grid for Gate Burton Energy Park and another potential solar farm in the area, Island Green Power's Cottam Solar Project.

Island Green Power is also developing proposals for West Burton Solar Project which proposes to connect into the national grid at West Burton substation located to the north of Cottam substation.

We will need to review the cumulative effects of nearby schemes in combination with our project following statutory consultation and ensure they are fully addressed in our final application.

Collaborative approach to working

Given the proximity of Gate Burton Energy Park to the two Island Green Power solar projects, we have sought to work collaboratively with Island Green Power in areas where we have common interests in a bid to maximise the opportunities for reducing the potential impacts of the project on the environment and communities, and also lead to more efficient ways of working as the projects are developed.

As well as working to ensure local communities and residents are aware of the different solar projects, one significant area we have explored with Island Green Power is the opportunity to combine the grid connection corridors into Cottam substation. This has resulted in our identification of a shared grid connection corridor.

More information on the outcome of this work can be found on pages 14 to 15 of this document.

Island Green Power – Statutory Consultation (June-July 2022)

Island Green Power will be conducting statutory consultation on its proposals for West Burton Solar Project and Cottam Solar Project over the course of June and July 2022.

These consultations are separate to the statutory consultation we are carrying out, and we advise you to make sure that any views and comments you have are fed back to these projects directly through their specific consultation channels.

You can find out more about these projects, the separate consultations Island Green Power is undertaking and how you can take part below:

For Cottam Solar Project:

Visit: cottamsolar.co.uk

Email: info@cottamsolar.co.uk

Call: 0808 169 1848

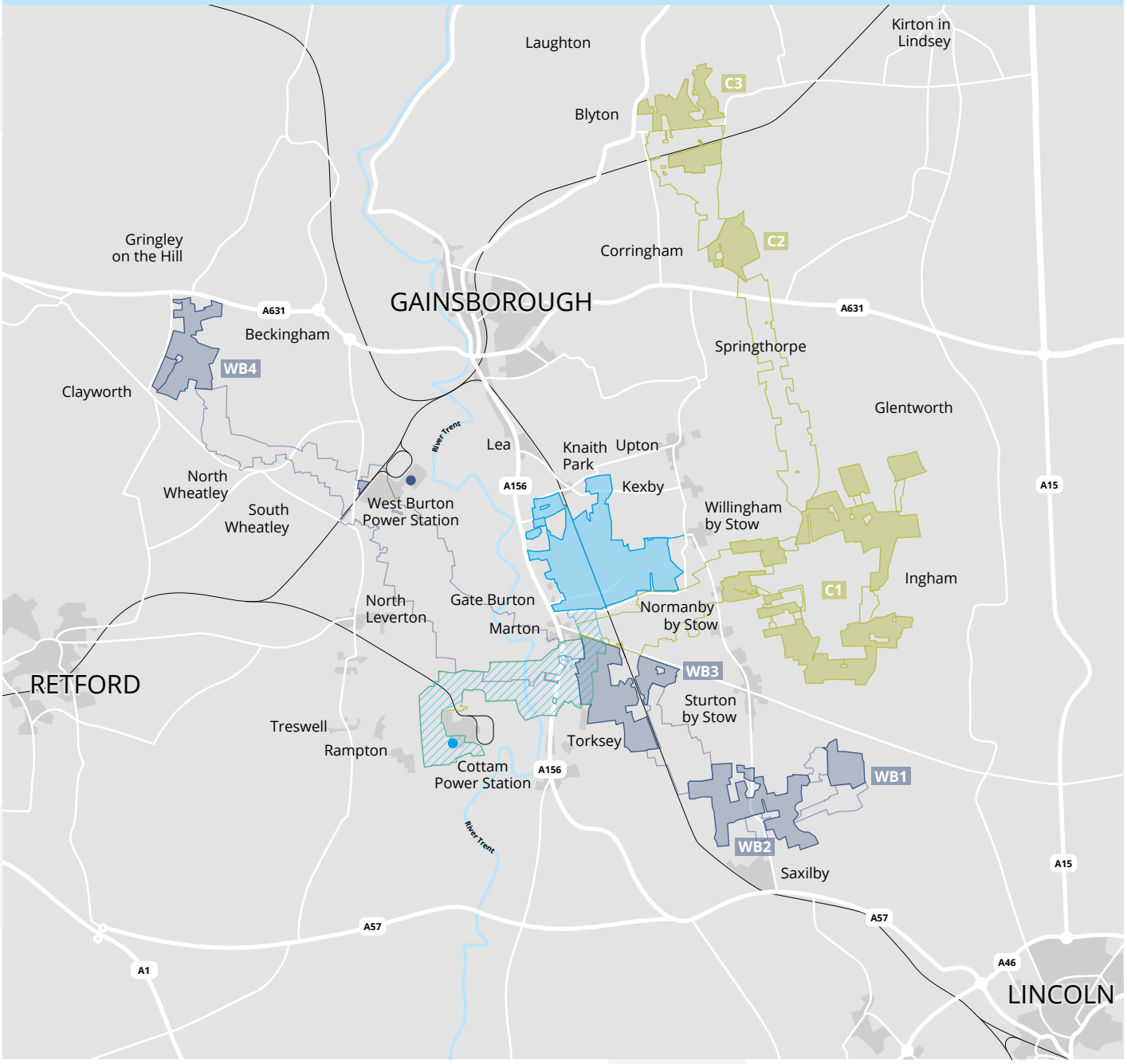
For West Burton Solar Project

Visit: westburtonsolar.co.uk

Email: info@westburtonsolar.co.uk

Call: 0808 169 1858

The location of Cottam and West Burton solar projects shown relative to Gate Burton Energy Park



Key

Low Carbon:

- Gate Burton Energy Park site
- Gate Burton Energy Park connection corridor
- Cottam substation
- West Burton substation
- Rail network

Island Green Power:

- C — Cottam Solar Project
- Cottam Solar Project connection corridors
- WB — West Burton Solar Project
- West Burton Solar Project connection corridors

Our proposals

The updated proposals we are now consulting on for Gate Burton Energy Park have evolved from the early-stage proposals we presented during our initial consultation based on feedback to that consultation and the findings from our survey and assessment work.

As well as helping us refine the design for the energy park, consultation feedback and the findings from our survey work have also informed our selection of a preferred corridor in which an electrical connection between the site and Cottam substation could be routed.

What has changed?

We have made a number of changes to the layout and technology we're proposing for the project to address potential impacts identified through our assessment work and your feedback on our early-stage proposals:

- Inclusion of undeveloped buffers and offsets from:
  - Existing landscape features including ponds, hedgerows and woodland
  - Ancient woodland
  - Public Rights of Way
  - Listed buildings at Gate Burton and residential property
- Careful location of the larger built elements of the energy park including the battery energy storage system (BESS) and on-site substation in areas of reduced flooding, screened by existing woodland, with topography and existing vegetation screening wider views, while also avoiding best and most versatile agricultural land as far as possible
- New grassland and wildflower mixes under the panels to enrich the range of fauna, enhance biodiversity and provide resource for pollinators
- Adoption of skylark plots and lapwing fields
- New hedgerow, shrub and tree planting, as well as improvements to existing hedgerow, to limit the visual impact of the energy park from different vantage points and also provide environmental areas, offsets and buffer zones
- Siting infrastructure to avoid below ground archaeological features wherever possible
- Screening and planting to minimise the impact on the setting of heritage assets
- No disturbance to Burton Ancient and Semi-Natural Woodland
- Integration of the energy park with existing local green infrastructure to improve ecological connectivity across the site
- Selection of a preferred connection corridor approximately 7.5km long in which the electrical connection could be routed largely using underground cable, resulting in less impact on the landscape and views
- Collaboration with Island Green Power on cable connection corridor design to identify opportunities for a single shared grid connection area either side of the River Trent to minimise areas for disturbance and maximise opportunities for avoiding sensitive heritage and ecological receptors

More information

Project design is an iterative process based on preliminary environmental assessments and consultation.

PEI Report Volume 1, Chapter 3: Alternatives and Design Evolution describes the process further, including options that have been considered and discounted or amendments made to the project design to date.

This is available on our website or on request from us (see back cover for contact details).

The solar energy park

The main elements of the energy park comprise the solar photovoltaic (PV) panels, the battery energy storage system (BESS) infrastructure and an on-site substation.

The PV panels will convert the sun's energy into electricity for storage on-site. The electricity will then be exported to the grid via a cable connection.

The principal components comprise:

- Solar PV panels and modular ground-mounting structures
- Supporting infrastructure – inverters, combiner box, transformers – converting the direct current to alternating current and stepping up the voltage so it can be exported to the national grid
- On-site substation to export electricity from the energy park to the national grid; including a control building with an office, welfare space and storage
- A BESS storing electricity on-site then releasing it into the national grid when it's needed most. It may also enable energy to be imported from the national grid so it can be stored until it is needed
- On-site cables connecting the solar PV modules and energy storage system to inverters which, in turn, connect to the transformers
- Fencing enclosing the operational areas of the site, with security measures including pole mounted internal facing closed circuit television (CCTV) around the site perimeter
- Access tracks to the site during construction and for routine maintenance when the energy park is operational
- New planting around the site perimeter and within the solar PV area to enhance biodiversity and improve the landscape

In addition:

- During construction, in addition to the main construction compound, up to three temporary construction compounds will be required, as well as temporary roadways, to enable access to all the land within the energy park boundary
- Opportunities for landscaping and habitat management will be explored in areas around the energy park equipment and other land within the DCO site to contribute to achieving Biodiversity Net Gain (BNG)

The **Concept Masterplan** overleaf shows our current indicative proposals for the design and layout of the solar energy park.

Additional project design factors

Solar PV and energy storage technologies are rapidly evolving.

The parameters of the DCO application we submit will therefore maintain flexibility to allow us to use the latest technology available at the time of construction.

Our DCO application will however seek a consent that restricts aspects of the solar energy park which have potential environmental impacts including:

- Solar panel height
- Dimensions of infrastructure such as the BESS and on-site substation
- Location of solar panels in the energy park

More information on the design parameters can be found in **PEI NTS** and the **PEI Report Volume 1, Chapter 2: The Scheme.**

The sun

Harnessing sunlight as the Earth's primary source of energy

1. Solar panels
Converts the sun's energy into DC electrical power

2. Battery
Storing generated electricity to help the UK Electricity Network meet the needs when demand is high

3. Inverter
Converts DC into AC electrical power

4. Transformers
Step up the voltage to the same voltage as the grid connection

5. Substation
Ensures the solar farm is safely connected to the grid

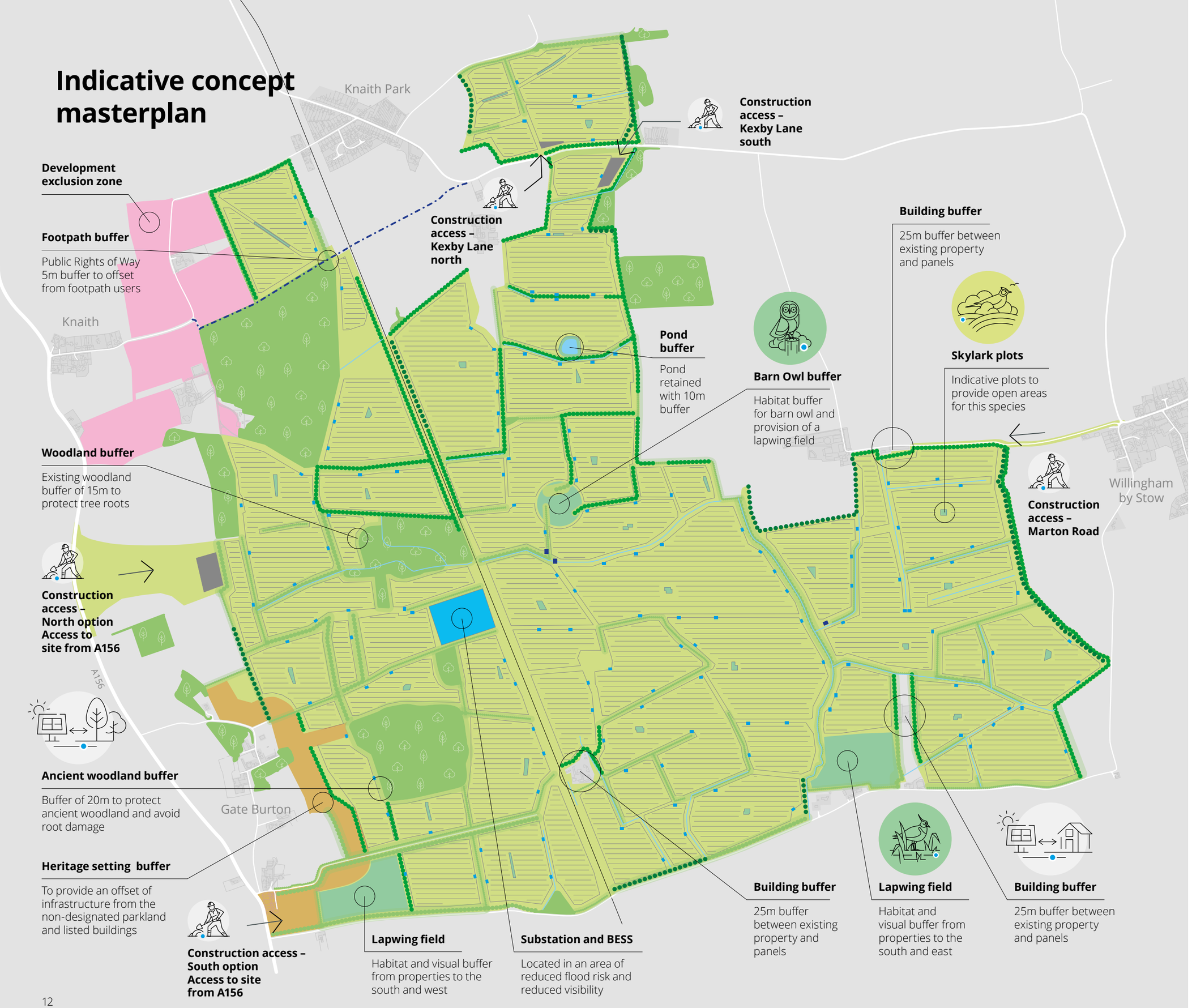
6. Export Meter
Measures the electricity exported to the grid

7. Output to the grid (kWh)
Local Network Operator

8. Our homes

How a solar farm works

Indicative concept masterplan



Key

- Development exclusion zone
- Indicative solar panel arrays
- Indicative skylark plots
- Lapwing field
- Construction compound
- Transformer station
- Collector station
- Substation and Battery Energy Storage System (BESS)

Proposed mitigation / enhancement

- Species rich grassland
- Proposed or strengthened hedgerow
- Tree and shrub belt planting
- Hedge with trees - 10m buffer
- Other hedge - 5m buffer
- Heritage setting buffer

Existing infrastructure / features

- Railway line
- Public Right of Way
- Existing woodland
- Existing hedgerow
- Existing hedgerow with trees
- Ordinary watercourse

More information

More detailed information about the proposed scheme can be found in the **PEI Report, Chapter 2: The Scheme.**

This is an indicative preliminary masterplan for the purposes of statutory consultation. The areas and features shown are subject to change based on environmental assessment, design development and feedback received.

Connecting to the national grid

The electricity generated by the energy park will be exported into the existing national electricity transmission system at National Grid's Cottam substation in Nottinghamshire.

For our initial Stage One Consultation we identified three broad corridor options (see map below) in which an electrical connection between the energy park and Cottam substation could potentially be routed. We undertook technical assessment of the different constraints within each of these corridors based on the possibility of building the connection using overhead lines and underground cable.

Our preferred connection corridor

The findings from our technical assessments, together with feedback submitted to that first consultation, have informed our selection of Option 3 (see below) – the southern route option we presented at our first consultation – as our preferred connection corridor for project.

Within this southern corridor we are proposing to build much of the connection into Cottam substation using underground cable.

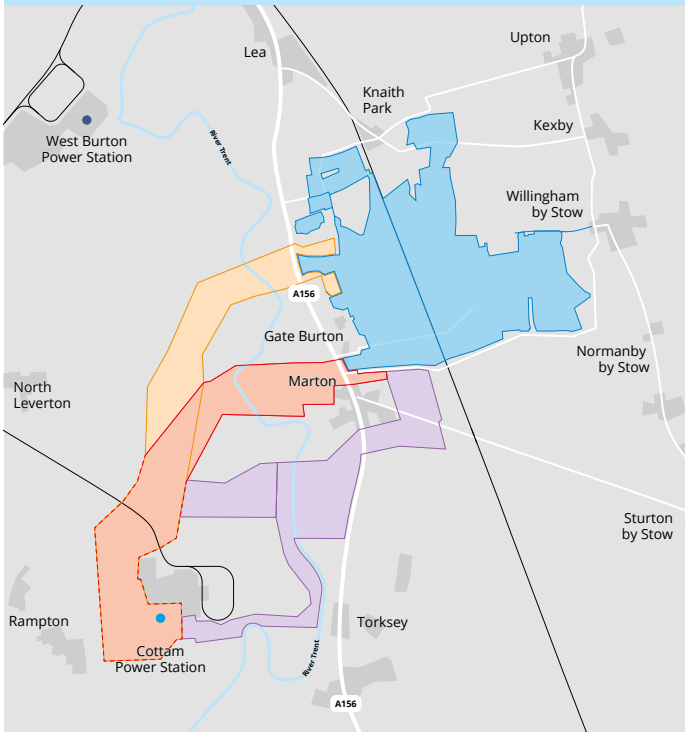
Why we chose this route

The findings from our technical assessments and feedback to non-statutory consultation determined:

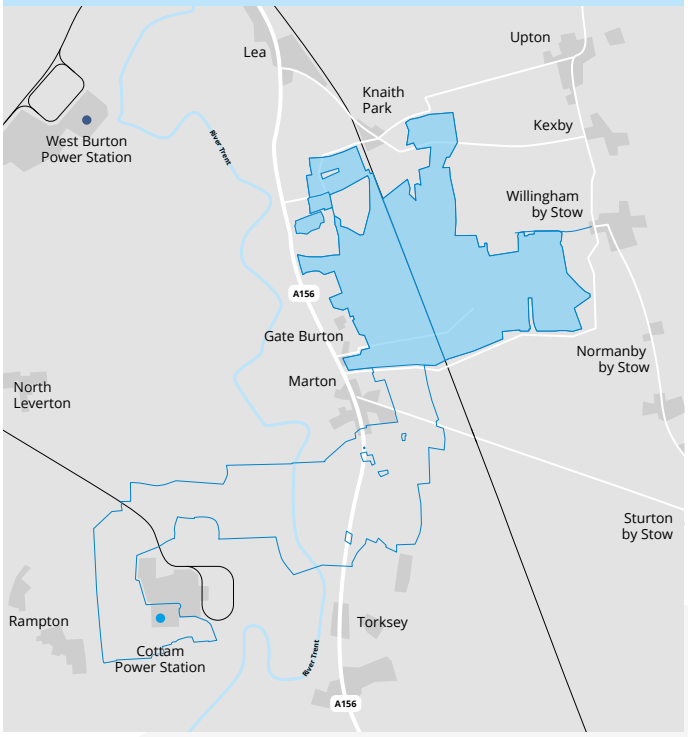
- A preference for underground cable due to lower visual effect and less intrusion in the area
- The identification of ecological and heritage sites which would rule out certain areas

The combination of a preference for an underground cable together with the extent of the known beneath ground archaeological assets ruled out two of the three corridor options we considered.

Stage One Consultation – route corridor options



Preferred connection corridor



Key

Broad connection corridor options:

Option 1 Option 2 Option 3

While the cable may be required to be above ground at a number of locations along this corridor (for example, joining Cottam substation, or avoiding archaeology), we have selected it as our preferred option on the basis of it enabling us to underground the cable wherever possible while avoiding known archaeological sites.

It provides the best balance of minimising impacts on the environment and local communities while meeting the technical and constructability feasibility requirements.

Working with Island Green Power

Given the proximity of Gate Burton Energy Park to Island Green Power's proposed Cottam and West Burton solar projects we have worked together to identify opportunities for a single shared grid connection area for the projects; the aim being to maximise opportunities for reducing overall environmental and social effects, in particular on communities close to the grid connection corridor, and sensitive heritage and ecological receptors adjacent to the River Trent.

The outcome from this work has resulted in us identifying a shared grid connection corridor (see map below).

Within this area, the installation of common elements (i.e. the cable ducts and associated installation activities) that would accommodate three cable connections in the future results in environmental and community benefit by reducing the amount of disturbance; in particular the level and frequency of construction activity.

Shared grid connection area

The shared cable corridor indicated on the map below comprises an area within which we could locate our 400kV connection from Gate Burton Energy Park to Cottam substation and Island Green Power could locate its 400kV connection to Cottam substation and its 132kV connection to West Burton.

More information

More information about the alternative routes we considered and the collaborative approach we have taken to working with island Green Power can be found in the **PEI Report Volume 1, Chapter 3: Alternatives & Design Evolution.**

Key

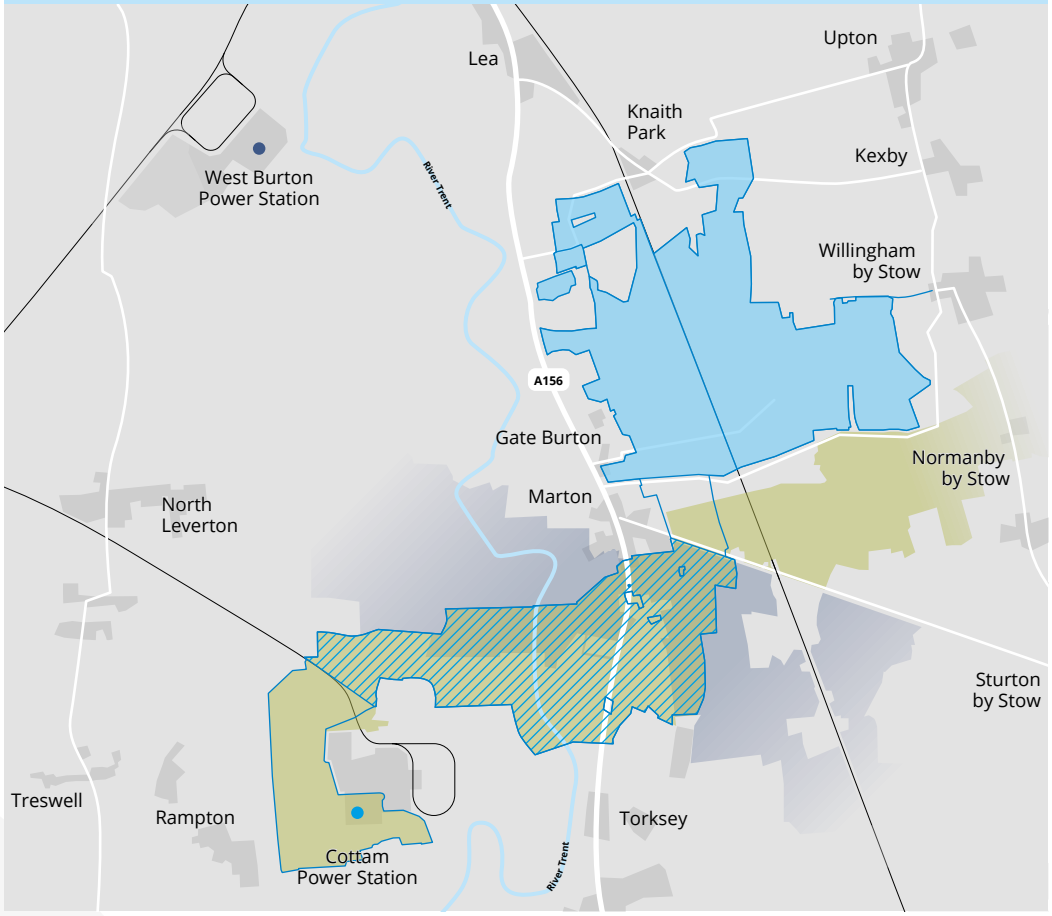
Low Carbon:

- Gate Burton Energy Park site
- Gate Burton Energy Park preferred connection corridor
- Shared connection corridor area

Island Green Power:

- Cottam Solar Project connection corridors
- West Burton Solar Project connection corridors

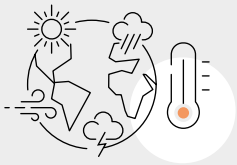
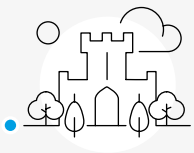
Shared grid connection corridor

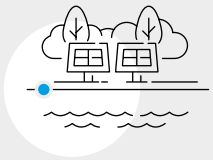


Measures to reduce effects

We have considered the findings from our ongoing assessments to gauge the potential impact the construction, operation and decommissioning of Gate Burton Energy Park could have on the landscape, environment and local communities.

Reducing or avoiding impacts is one of our top priorities. In developing our proposals for the project we have incorporated a range of measures to minimise its effect on a range of different factors. These include but are not limited to:

Topic	Proposed measures to reduce effects	
Landscape and views 	Gate Burton Energy Park will be designed to integrate within the landscape and existing vegetation patterns, sensitively aligning form, colour and material where possible.	The design will incorporate minimum offsets from existing landscape features, including residential properties, ancient woodland, woodland and hedgerows, Public Rights of Way, and watercourses.
Ecology and nature 	We propose to design in the avoidance of protected species, such as 30m buffers from badger setts and 10m buffers from watercourses. Undeveloped buffers are included in the design to protect all hedgerows, individual trees, ponds, and ancient woodland during construction.	We propose using a technique called Horizontal Directional Drilling (HDD) for sections of the grid connection route. This involves drilling underground rather than digging open trenches, helping to avoid disturbing priority or sensitive habitats.
Climate change 	We would store topsoil and construction materials outside of floodplain extents. Our drainage systems have been designed to ensure there will be no significant increases in flood risk downstream, including climate change scenarios.	We are developing health and safety plans accounting for potential climate change impacts on workers.
Heritage and archaeology 	We have designed the grid connection route and the energy park to minimise impacts on significant heritage assets. We have minimised overall land requirements to reduce the extent the project could affect known and potential cultural heritage assets. We are seeking to avoid known archaeological remains.	We will carry out archaeological survey work along our grid connection route and will share the survey results in an appropriate format and supporting archive. Where required in areas of archaeological potential, we will install temporary physical protection during construction and decommissioning works.

Topic	Proposed measures to reduce effects	
Water and drainage 	The solar PV panels will be offset from watercourses. The exact distance will be agreed with the Environment Agency through further consultation.	There are considered to be no significant residual effects for surface water, groundwater or flood risk during the construction, operation and decommissioning. The assessment will be reviewed and revised where necessary ahead of submission.
Noise and vibration 	We propose to minimise operational noise impacts by strategically locating the battery and energy storage system (BESS) compound to reduce the effect of noise impacts. Transformers will be housed in cabins to reduce noise emissions. For construction noise, we will develop a construction noise monitoring scheme which is likely to include monitoring and reporting noise complaints for immediate investigation and action.	We will maintain dialogue with neighbours, providing advance notice on any construction activity which could give rise to noise and vibration, and retain a direct project communications channel so people can contact us directly if they have any queries or concerns.
Socioeconomics and land use 	We have designed Gate Burton Energy Park to take into account the quality of agricultural land. We will limit impact on best and most versatile land as far as possible, and also minimise impacts on Public Rights of Way.	

Biodiversity net gain

From 2023, all new developments including Gate Burton Energy Park will be required to demonstrate a net increase in biodiversity on-site of at least 10 per cent.

We pride ourselves on going above and beyond this baseline requirement, and have pledged that all our new sites will deliver biodiversity net gain in excess of 10 per cent. While we are not yet at the stage in the development process to have an exact estimate of the biodiversity net gain for Gate Burton Energy Park, we are currently averaging over 75 per cent biodiversity net gain across our other new sites.

Tell us what you think

If you think there are ways we can change our proposals to reduce effects further we'd like you to tell us how and as importantly, why.

More information

We have systematically studied the environmental impacts arising from Gate Burton Energy Park as part of the Environmental Impact Assessment (EIA) process. A summary of the initial results can be found in the PEI NTS, more detailed information is set out in topic specific chapters of the **PEI Report – Volume 1: Main Report.**

Construction, operation and decommissioning

Subject to being granted consent, construction of Gate Burton Energy Park could start in early 2025. We estimate it would take between two to three years to build, with the site potentially being operational from early 2028.

The operation of Gate Burton Energy Park is expected to be around 60 years, while decommissioning is expected to take between two to four years and would be carried out in phases.

Construction

Delivery of the solar energy park and cable route will involve site preparation (including establishing construction compounds and delivering equipment to site), civil engineering (including upgrading and constructing site access routes and drainage facilities, trenching and laying the cables), installation, testing and commissioning of the operational kit and equipment (including construction of electrical infrastructure), as well as site installation, landscape and habitat creation.

Our studies have considered potential impacts on residents associated with transport, noise, vibration and dust during construction, as well as operation and decommissioning. Measures have then being identified to keep disruption to local communities and effects on the environment to a minimum.

Work on site

During construction, core on-site working hours would be 7am to 7pm Monday to Friday, and 9am to 1pm on Saturdays. During the winter months, weekday working would be 8am to 6pm on account of reduced daylight hours.

Work may occasionally take place outside these hours/days, particularly if there is activity which needs to be conducted continuously. For example, cable joining or Horizontal Directional Drilling (HDD). Other non-intrusive works such as installation of PV modules may take place over longer periods during the summer months.

Construction staff

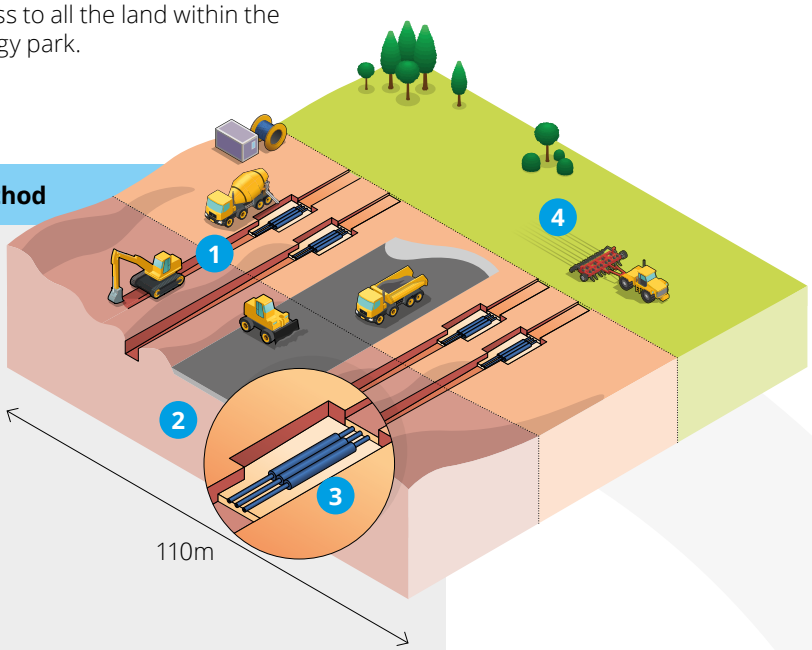
The number of construction workers on-site will vary over the period of construction – however at the peak of construction, which is anticipated to be during 2026, there could be up to 400 staff on site.

Construction traffic and site access

In addition to the main construction compound, up to three temporary construction compounds will be established along with temporary roadways to facilitate access to all the land within the energy park.

Installing underground cable – open trench method

1. A trench approximately two metres wide and two metres deep will be excavated for each cable
2. During construction the working width of land needed would be between 30 to 40 metres
3. Jointing bays are needed where one section of cable joins the next
4. When land is reinstated, land-use restrictions may apply to avoid risk of cables being disturbed or damaged



During construction we're proposing four access points to the site. The primary point of access to the main construction compound is expected to be from Gainsborough Road (A156), with two access points from Kexby Lane and one coming off Gainsborough Road (B1241).

For the grid connection, it is expected there will be two access points; one off the A156 south of Marton and one off Cottam Road west of Cottam Power Station.

Across the full extent of the project site, during the peak construction period, the worst case scenario estimate is that there would be up to 60 HGV deliveries per day (120 movements). Deliveries will come directly to the compounds, with kit and equipment then being transported within the site to minimise impact on the local road network.

We anticipate HGV movements would be restricted to specific routes and reduced during certain times of day (for example between 7am and 9am, and between 5pm and 7pm).

Construction controls

Management documents would be put in place to limit and control activity during the construction phase to avoid or reduce impacts on the environment and local communities.

- **Framework Construction Traffic Management Plan (CTMP)** – setting out the management and monitoring strategy for construction traffic involved in delivering the project. It considers traffic associated with construction activity, routing of all vehicles to and from the site – testing and establishing that local infrastructure can handle construction traffic and minimise disruption to existing network users to limit congestion.
- **Framework Construction Environment Management Plan (CEMP)** – focusing on wider environmental management and mitigation measures rather than focusing solely on traffic. A detailed CEMP will be produced further to construction starting (subject to consent being granted), identifying the procedures to which all of our staff and contractors working on site will be required to adhere.

These framework documents will be turned into detailed Environment and Traffic Management Plans prior to construction starting. Measures for continual monitoring and review will be put in place to ensure impacts are minimised throughout the construction phase.

Operation

When the energy park becomes operational, activity on-site would be limited mainly to vegetation management, equipment maintenance and servicing, periodic replacement of components, fence inspection and general monitoring to ensure the continued effective operation of the scheme.

A team of up to 14 full time staff are anticipated as being employed – working on a site and flexible office basis – with them travelling to site using four-wheel drive vehicles or vans. Operational access would be from Gainsborough Road (A156), via Clay Lane.

Gate Burton Energy Park is expected to be operational for around 60 years, so permissions granting its consent will be temporary. When this time has lapsed, the land would revert back to its original use for agriculture.

If equipment is still operating successfully and safely, it might be that we choose to operate beyond the original anticipated lifespan.

Any extension to the operational life of the project beyond 60 years would be dependent on new negotiations with landowners and new planning consent.

Decommissioning

Decommissioning is expected to take between two to four years.

The decommissioning process would be carried out in phases, with the panels and other associated technology being removed for recycling and disposal in accordance with good practice and market conditions at the time.

Buried medium voltage cables would be either removed or left in situ (below plough depth). The future of the substations and associated control buildings would be agreed with the relevant Local Planning Authorities prior to decommissioning.

Any modification work to National Grid's Cottam substation to facilitate the connection would remain under National Grid's control.

The effects of decommissioning are usually similar to or of a lesser magnitude than construction effects. However the specific methods used to decommission the project at the end of its operational life will be informed by evolution in engineering approaches over the lifetime of the project.

End of operation

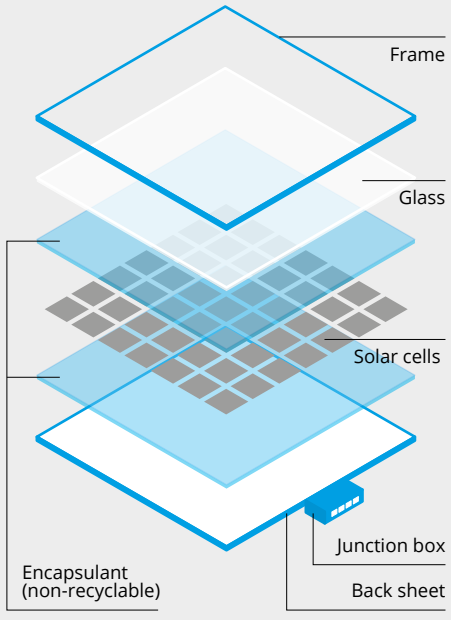
We are committed to reducing the environmental impact from decommissioning and we will look into ways to recycle material from solar panels wherever possible.

Recycling solar panels

There is rapid growth in research and new technologies for the more efficient recycling of solar panels. We will review any new advancements when the Gate Burton Energy Park reaches the end of its operational phase.

Currently, "in most cases, 99 per cent of a solar panel is recyclable, and there are well established industrial processes to do this" a solar panel is made of a frame (typically aluminium), glass, crystalline silicon solar cells, and copper wiring, all of which can be extracted, separated, and recycled or reused. The remaining one per cent is an encapsulant material which bonds the layers of a panel together."[2]

Anatomy of a solar panel



Solar Energy UK recently published **Everything Under the Sun – The Facts About Solar Energy** (March 2022) providing answers to the questions and issues most frequently raised in respect of solar development. We'd recommend taking a look if you're interested in finding out more.

The full document is available to view and download from the Solar Energy UK website: solarenergyuk.org/resources/

More information

More information on the construction activity and associated traffic and transport movements can be found in **PEI NTS** and the **PEI Report Volume 1, Chapter 2: The Scheme.**

[2] Solar Energy UK Briefing; Everything Under the Sun – The Facts About Solar Energy (March 2022) p.15. https://solarenergyuk.org/wp-content/uploads/2022/03/Briefing-Fact-Checker-1.pdf

Community benefits

As a certified B Corporation we believe those communities living closest to the proposed energy park should benefit from it – with these communities being best placed to recommend what a 'community-benefit' should be.

Over the course of our initial consultation, we invited suggestions for local schemes and projects that we could support to benefit communities closest to the project. The ideas and suggestions we received fell into two categories – on-site and off-site initiatives.

On-site initiatives

We received many suggestions relating to initiatives you would like to see incorporated on the site of the energy park itself.

Environmental mitigation and enhancements are inherent in the material design and development process for the energy park itself. This means many of your suggestions in respect of on-site initiatives and projects are incorporated in the proposals we are now consulting on.

For example, protection of existing ecological features such as woodland, hedgerows and ponds, delivery of biodiversity net gain through additional planting to increase food and habitat sources for insects and birds and encouraging native wildlife, such as through the maintenance of existing wildlife corridors through the site.

Off-site initiatives

Separate to initiatives on the site of the energy park, a wide range of community projects and schemes – new and existing – were proposed in your feedback. These included:

- Improvements to existing community amenities such as village halls, sports facilities, children's playgrounds
- Addressing fuel poverty through community energy initiatives
- Provision of electric vehicle charging points
- Improved broadband delivery
- Education and apprenticeship opportunities
- Subsidised solar PV for domestic installation
- Support for provision of wrap-around childcare in local primary schools

A community benefit is not a material planning consideration in the DCO application process. However, by starting now to look at how we might support and deliver benefits to communities closest to the project, subject to consent being granted we can then start to deliver those benefits at the earliest opportunity.

How would communities benefit from the project?

There are different ways of delivering a community benefit. Some examples may be non-financial, e.g. Low Carbon providing educational visits to the site for schoolchildren or school learning packs direct to schools. Other examples could be to set up a fund that can make a direct financial contribution into the local communities.

In the case of the latter, as well as the projects and initiatives a community fund could be used to support, we would need to consider the framework which is put in place to effectively manage and administer it. There are a number of ways this could be done.

One option would be for us to make a direct financial contribution to existing bodies such as parish councils who would then manage the funds on behalf of the communities they represent.

Alternatively, the fund could be administered by an independent community foundation who would manage the fund on behalf of the communities for whom it is intended, capitalising on its knowledge and experience to identify match-funding opportunities and access to grants to maximise the benefits that could be gained.

For this project the relevant community foundations would be:

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

Tell us what you think

While a community benefit associated with Gate Burton Energy Park is not a material planning consideration in the DCO application process, we're inviting your continued views on how such a benefit could be made available through our project and how it could be administered and managed.

We also continue to welcome any further suggestions for local projects and initiatives that we could support.

Taking part in this consultation

This statutory stage of consultation is open for six weeks from 22 June to 5 August 2022.

There are a number of different ways you can find out more about what we are consulting on and how to take part:

Join us at a consultation event or webinar to learn more about our proposals, meet the project team and provide us with your comments. A list of events taking place is available on our website.

Visit our project website to view information about our proposals at this stage and submit feedback to this consultation. All the information being made available at events is on the website.

Visit a document reference location where you will find copies of all our consultation materials. There are five unmanned document reference locations in Lincolnshire and Nottinghamshire. Details of the five locations, their opening times, and the documents available to view there are listed on our website. Alternatively, contact us directly (see back cover for details).

Contact our community relations team if you are unable to attend our events, have any questions, or would like help accessing information about the project or responding to this consultation.

Tell us what you think

You can submit your comments to this consultation online or in writing:

To submit comments online:

- Go to our project website: www.gateburtonenergypark.co.uk
- Use the interactive site map or online feedback form to provide us with your views and comments:
  - To use our interactive map go to: feedback.gateburtonenergypark.co.uk consultationmap
  - To use our online feedback form go to: www.gateburtonenergypark.co.uk/feedback/feedback-form

To submit comments in writing:

- Collect a feedback form from a consultation event or contact the Community Relations Team to request a copy (see back for details)
- Complete as many sections of the form as you would like
- Hand your feedback form in at a consultation event or send it to us at FREEPOST GATE BURTON ENERGY PARK

The deadline for responding to this consultation is 5 August 2022.

All the comments submitted to this consultation will be acknowledged, recorded, and considered to inform our decisions as we finalise our proposals.

We will not, however, be able to respond to you individually. We will address all the issues and themes you raise in your feedback in our Consultation Report that will be submitted as part of our application for development consent (see page 23).

Development Process timeline*

2021

Nov
- Environmental Impact Assessment (EIA) Scoping request submitted to the Planning Inspectorate

2022

- Ongoing environmental studies
- Ongoing engagement with local communities and representative organisations

Summer
- Publication of the Preliminary Environmental Information Report (PEIR)

Summer - Autumn
- Prepare the DCO application and supporting documents
- Finalise EIA and prepare Environmental Statement
- Finalise DCO application including supporting EIA documents

2022/2023

Late 2022 / early 2023
- Final DCO application submitted to the Planning Inspectorate

2023/2024

- DCO Examination and determination process

2025

- Anticipated start of construction (subject to consent being granted)

*Dates are indicative and could be subject to change

Next steps

When this second stage of consultation closes, we will review our proposals in light of all the feedback received along with the findings from our ongoing assessments to finalise our detailed proposals for Gate Burton Energy Park.

When we are happy that our proposals are ready, we will then submit our application for development consent to PINS. We expect to submit our application towards the end of 2022.

PINS will examine our proposals and prepare a report for the Secretary of State for Business Energy and Industrial Strategy, who will make the final decision on our application.

The application process

Our application will include:

- A **Consultation Report**: as the developer, we have a duty to demonstrate how we have taken your views into account in developing our final proposals. Our final application will include a Consultation Report summarising the responses submitted to this consultation along with an explanation of how we've taken your views into account in developing our final proposals; and,
- An **Environmental Statement**: this will set out what environmental effects we believe our project would have and how we propose to minimise them.

Both reports, along with our other application documents, will be published on the Planning Inspectorate's website if and when our application has been accepted. We will write or email everyone who has taken part in the consultation to let them know when this information is available to view.

Further opportunities to contribute

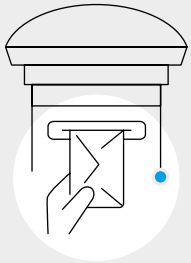
This second stage of consultation is likely be the last time we consult on our proposals for Gate Burton Energy Park before we submit our DCO application to the Planning Inspectorate.

Further to our application being accepted, 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.

What happens when the application is submitted?

1

After receiving our application the Planning Inspectorate has 28 days to accept it and decide if it can proceed to the examination stage.

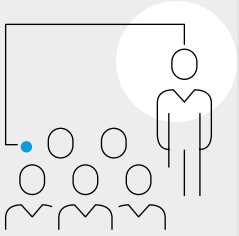


2

When the application is accepted anyone wishing to be involved in the examination process will be invited to register their interest with the Planning Inspectorate.

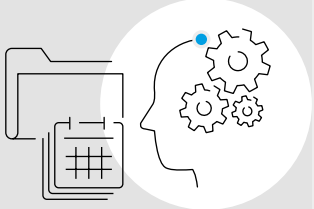
3

Those who register their interest will be invited to submit their views on our proposals in writing and may be asked to speak at any public hearings that are held.



4

The Planning Inspectorate will hold an examination. When this finishes it has three months to make a recommendation to the Secretary of State about whether the application should be approved. The Secretary of State then has a further three months to make a final decision.



5

Subject to our application being approved, construction of the project will start. We anticipate that construction would start no earlier than 2025.

Gate Burton
ENERGY PARK

Contact us

0800 860 6259
(open Monday - Friday 09:00 - 17:30)

info@gateburtonenergypark.co.uk

FREEPOST GATE BURTON ENERGY PARK

gateburtonenergypark.co.uk

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Certified B Corporation
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