Gate Burton
ENERGY PARK

Gate Burton Energy Park Consultation Information Booklet January 2022

low carbon
powering tomorrow

Introduction

Low Carbon is bringing forward proposals to build a new solar and energy storage park on land near Gate Burton in Lincolnshire.

Gate Burton Energy Park has the potential to generate around 500 megawatts (MW) of electricity through ground mounted solar panels. This is 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 and allow the electricity generated by the panels to be stored on site at times when grid-demand is low, then exported at times of higher demand.

Background

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.

However, as the publication of the Committee on Climate Change's (CCC) annual report in June 2021 made clear, our journey to net zero is not yet half completed.

This is a decisive decade for tackling climate change.

More renewable energy is needed to fast-track the transition away from fossil fuel electricity generation. The majority of renewable energy generation required to reach these targets needs to come from solar and wind.

This consultation

Gate Burton Energy Park would make a vital contribution towards achieving net zero by ensuring the supply of clean electricity to UK consumers when it is needed.

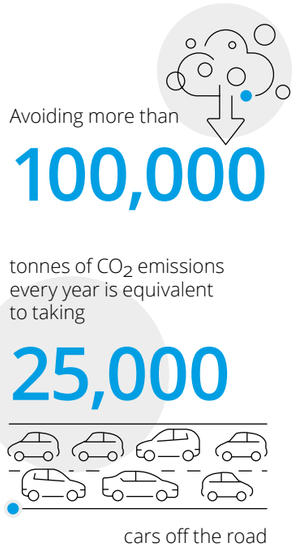
As we work to deliver this vision, we want to ensure that those communities living and working in the area have a chance to inform and potentially influence the development of our proposals from an early stage.

This initial consultation, running from 11 January to 18 February 2022, marks the first opportunity for us to share information with you about our plans for Gate Burton Energy Park.

Our aim is to introduce Low Carbon, present our emerging proposals for the scheme and its connection into the existing electricity transmission system, and give you the opportunity to tell us what you think. This will help us to identify and better understand wider potential local impacts.

We would also welcome your suggestions on local schemes or projects we could support or deliver to benefit those communities closest to the project.

Your views are important to us. They will be used to help us decide how and where we build the scheme while ensuring we do so in the most sympathetic manner.



This booklet provides information about who we are and our proposals for Gate Burton Energy Park so far and how you can take part in this consultation.

The deadline for responding to this consultation is Friday 18 February 2022.

What is 'net zero'?

Net zero refers to the balance between the amount of greenhouse gas produced and the amount removed from the atmosphere. If the UK is to achieve net zero by 2050 we need to have reached a place where we are adding no more carbon to the atmosphere than we are taking away. This is also referred to as being carbon neutral.

Low Carbon – who we are

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 track record in:

- The deployment of more than £600m capital into large scale renewable energy projects
- Financing, development and exit of more than 1GW 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.

To date Low Carbon investments 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).

Working together with local communities – how can we support you?

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

As part of this first stage of consultation we invite you to suggest any ideas you have for a sustainable, local scheme that you would like us to consider supporting.

Benefits associated with the development of Gate Burton Energy Park include:

- Producing enough clean energy to power more than 160,000 UK homes
- Delivering biodiversity net gain through additional planting to encourage more native wildlife with habitats and food sources increased for insects and birds
- Payment of business rates to the local authority when the project is operational, contributing to the provision of local services
- Provision of educational packs for local primary schools to utilise in addition to offering educational visits.

Let us know about any ideas you have in your feedback.

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

Our proposals

Gate Burton Energy Park would comprise the installation of solar photovoltaic panels (PV) and an on-site energy storage facility, plus infrastructure to connect the scheme to the national grid at Cottam substation.

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 wholly contained within the boundary of one site comprising approximately 684 hectares (1,690 acres).

The site is located in the West Lindsay district of Lincolnshire approximately 4km south of Gainsborough.

National Grid's 400kV Cottam substation located approximately 4km to the southwest of the site in Nottinghamshire would provide the connection point into the existing electricity transmission system for the energy park.

Generation capacity:

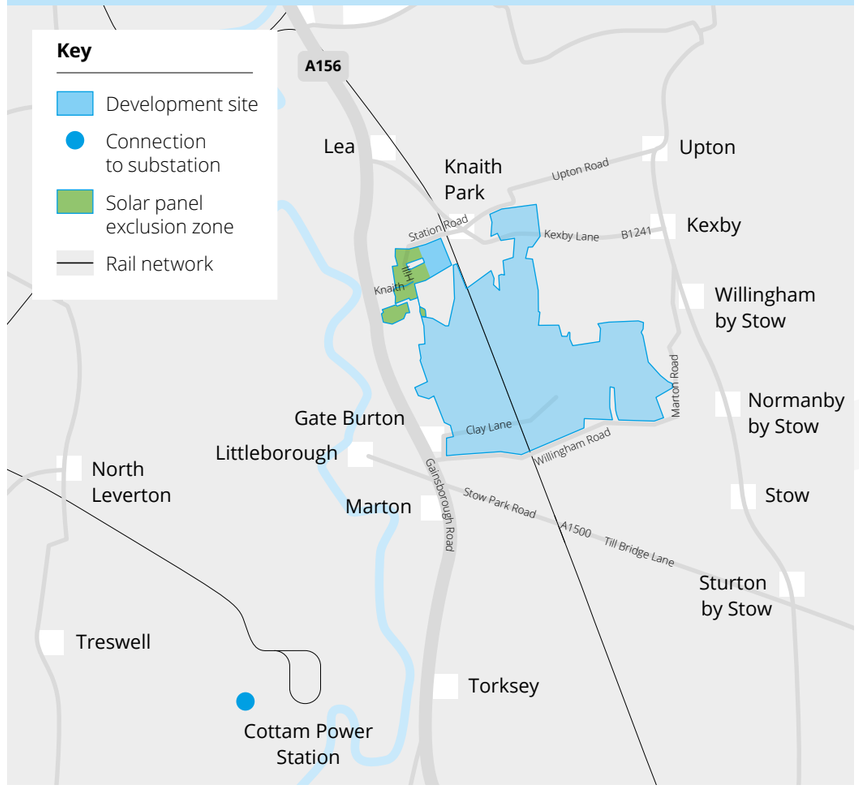
500MW

Enough clean energy to power over

160,000

homes

Map showing site location and grid connection point



The extent of the land available for the energy park is denoted by the blue line boundary in the map, with the location of Cottam substation also shown.

Additional maps and plans are available from the project website or on request from us (see back cover for contact details).

The solar energy park

At this early stage, we have not yet finalised the design of the scheme. This will be informed by considering the findings from the surveys we're carrying out, alongside feedback provided through ongoing consultation.

We have already established that an area to the northwest of the site will be a solar panel exclusion zone. However, we still have to determine how much of the land remaining will be used for solar panel modules and associated equipment, and how much more will be set aside as an exclusion zone for the purposes of creating new or enhancing habitats for biodiversity gain.

The principal components of the energy park would comprise:

- Ground mounted solar photovoltaic (PV) panels converting sunlight into electricity
- PV module mounting structures
- Supporting infrastructure – inverters, transformers and switchgear – converting the direct current to alternating current and stepping up the voltage so it can be exported to the national grid
- On-site cables connecting the solar PV modules and energy storage system to inverters which, in turn, connect to the transformers. Higher voltage cables will then be required between transformers and the switchgear, and from the switchgear to the off-site electrical infrastructure
- An energy storage system so electricity generated by the solar PV panels can be stored on site and released to the national grid when it is 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 substation to export electricity from the energy park to the national grid. The substation will include a control building comprising office and welfare space as well as storage
- Security fencing in the form of 'deer fence' or other mesh fencing to enclose the operational areas of the site, along with pole mounted internal facing closed circuit television (CCTV) deployed around the perimeter of the operational site
- Accesses 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 one or more temporary construction compounds will be required, as well as temporary roadways, to enable access to all the land within the site boundary

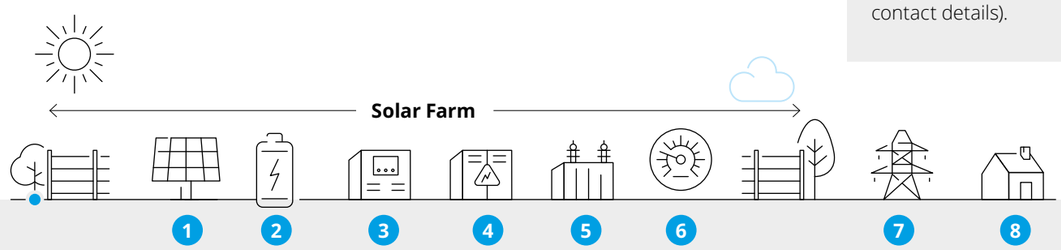
The indicative concept masterplan overleaf sets out the preliminary design of the land available for Gate Burton Energy Park. This includes scheme layout, field boundaries, buffer zones, flood zone and heritage and biodiversity considerations.

Solar PV

Solar PV and energy storage technologies are rapidly evolving. The parameters of the application we submit for development consent will therefore maintain flexibility to allow us to use the latest technology available at the time of construction.

More information

The **Gate Burton Energy Park Environmental Impact Assessment Scoping Report** provides a more detailed description of the proposed scheme. This is available from our project website or on request from us (see back cover for contact details).



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
Steps up the voltage to the same voltage as the grid connection

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

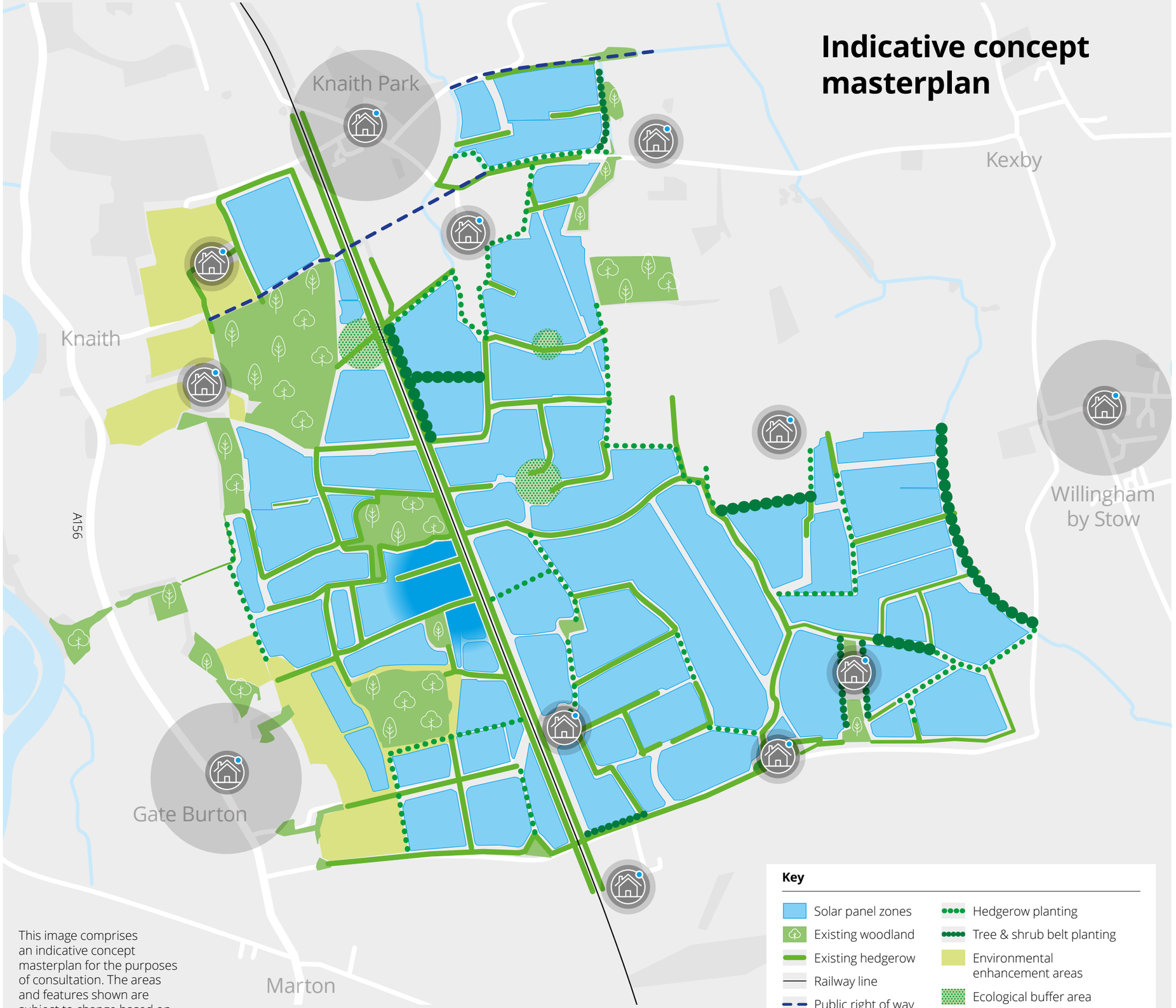
6. Export Meter
Measures the electricity exported to the grid

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

8. Homes

How a solar farm works

Indicative concept masterplan



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

Field boundaries

The scheme will involve new planting, field boundary enhancement and planting of seed mixes within the solar PV areas. A *Biodiversity and Landscape Management Plan* will be submitted as part of application for development consent.

Scheme layout

Siting of infrastructure will avoid below ground archaeological features wherever possible. Screening and planting will be designed to minimise impact on the setting of heritage assets. There will be no disturbance to Burton Ancient and Semi-Natural Woodland.

Screening & planting design

Screening and planting design will be developed to reduce visual impact by providing environmental enhancement areas, off-sets and buffer zones.

Water & drainage

The site is almost entirely located within Flood Zone 1, defined as having a low risk of flooding. A drainage strategy will be submitted with the application that will describe how surface water will be managed to prevent any increase in flood risk.

Heritage & biodiversity

A heritage setting buffer will be established to the east of Gate Burton. Measurable improvements for biodiversity will be defined and achieved through establishing ecological buffer areas, the creation of new habitats or enhancement and management of existing habitats.

More information

The **Gate Burton Energy Park Environmental Impact Assessment Scoping Report** provides more information of the areas and features shown on the indicative concept masterplan. This is available from our project website or on request from us (see back cover for contact details).

Our proposals

Connecting to the national grid

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

Route corridor options

Studies are being carried out to determine the exact route and installation method for the grid connection.

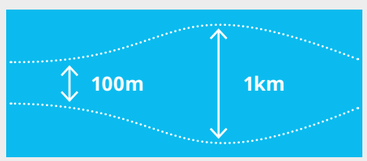
At this stage we have identified three broad route corridor options (shown opposite).

Work is underway to refine these corridors so we can select which corridor meets the objective of minimising environmental and social impact, and then determine the alignment the connection will take within it.

What is a route corridor?

A route corridor is a broad ribbon of land through which an electrical connection could potentially be routed. A corridor will typically vary in width.

For the Gate Burton Energy Park the width of the corridors vary from between 100 metres in some places to just over 1km in others.



Off-site substation

An off-site substation is being considered as part of the design process. This would be located close to Cottam substation.

An off-site substation would consist of electrical infrastructure including transformers, switchgear and metering equipment to enable the electricity generated by the energy park to be exported onto the national grid.

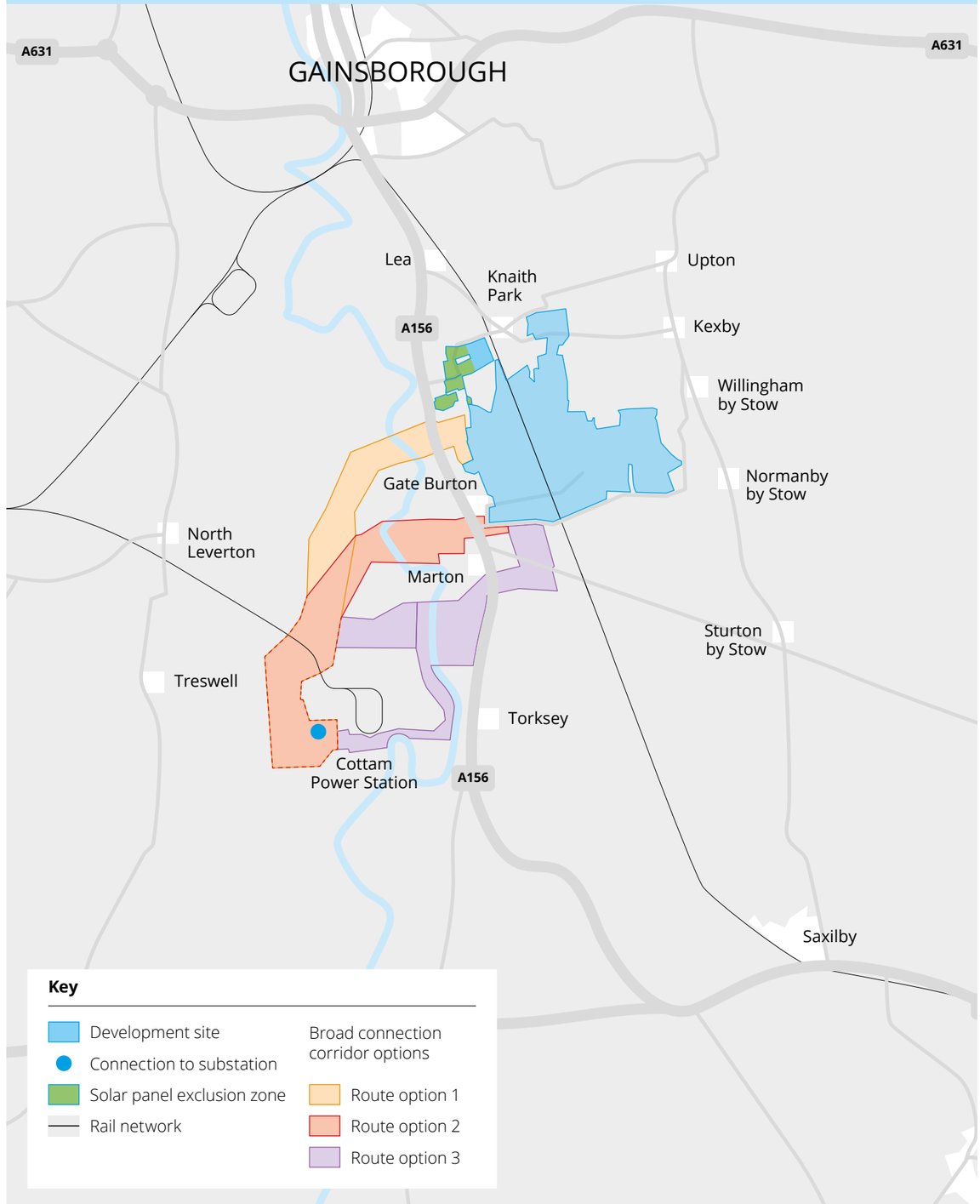
It's likely to have a footprint of around 185 by 160 metres and could be up to 11 metres high. A control building would be located within the footprint of the substation.

The final dimensions of the substation are dependent on the findings from ongoing studies and will be refined through the development process.

What is a substation?

Substations provide a connection point for generators to input power into the network.

Our proposed connection routes from the energy park to Cottam substation



Our proposals

Building the connection

The connection for Gate Burton Energy Park into Cottam substation could be built using cable installed underground or running on overhead lines.

The voltages for the cable – whether it is installed underground or on overhead lines – would range from 132kV to 400kV.

We would anticipate that the connection for the energy park would be installed using underground cable. However, the possibility of it being built using overhead lines remains an option at this stage pending the findings from our ongoing environmental surveys

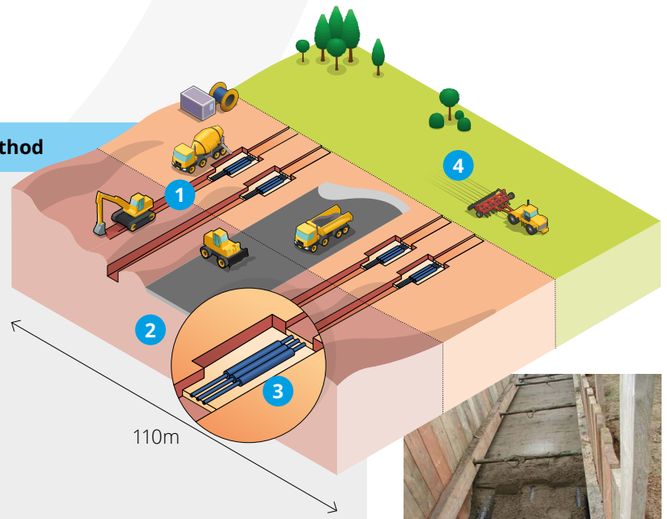
determining that there are no localised issues on parts of the routes that could prevent underground excavation.

The construction techniques and equipment for installing a cable underground or on overhead lines both have different properties affecting how, when and were they can be used.

Underground cable

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. Joining 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



- Underground cable can be installed by direct burial where there is no restriction on land use
- Direct burial of cable takes considerably longer than building overhead lines
- It can take several weeks to locate and repair a fault on an underground cable
- While underground cable reduces the visual impact of overhead lines, the installation process has potential to damage important geological and archaeological features.
- A sealing end compound is needed where a section of underground cable comes above ground

Overhead lines

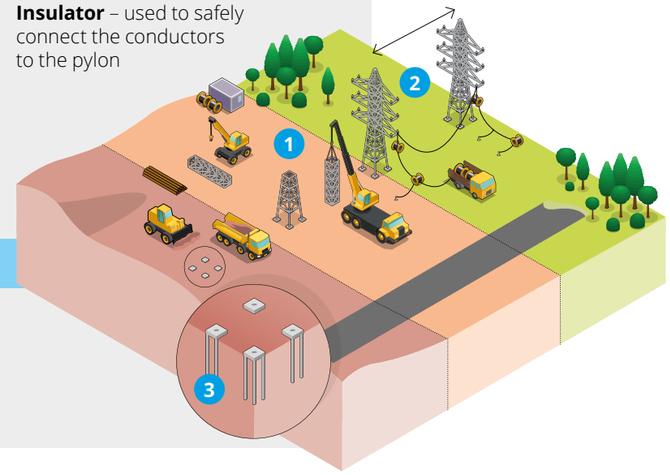
A connection built using overhead lines could require pylons between 30 to 50 metres high. Depending on the height, the overhead line could be installed using metal towers or wood/composite poles.

- Pylons need to be tall enough to ensure the distance or 'clearance' between each conductor and the lowest conductor and the ground, buildings or structures they over-sail, meets with relevant guidelines.
- Lower voltage overhead lines need less clearance. Pylons used to support 132kV lines are shorter than pylons used to support 400kV lines. Pylons supporting 400kV lines can be up to 50 metres high.

- The distance between pylons depends on factors including: pylon height, number and size of conductors, whether the landscape is flat or hilly as well as changes in route direction.
- The typical distance between 400kV steel lattice pylons is 360 metres.

Overhead lines are made up of three parts:

- **Conductor** – the cable used to transport electricity
- **Pylon** – the tower used to support the conductors
- **Insulator** – used to safely connect the conductors to the pylon



Overhead lines

1. Height of the pylons between 30m-50m*
2. Distance between pylons approx 360m*
3. Foundations approx 6m deep*

* dimensions can vary depending on topography/features

More information

The **Gate Burton Energy Park Environmental Impact Assessment Scoping Report** provides a more detailed description of the proposed scheme. This is available from our project website or on request from us (see back cover for contact details).

The development process

Gate Burton Energy Park is anticipated as having a generation capacity of around 500MW. The amount of electricity the scheme could generate means that it is classified as a Nationally Significant Infrastructure Project (NSIP).

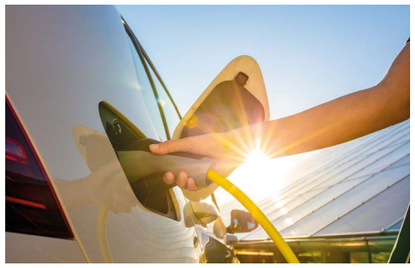
Planning

The development consenting regime for an NSIP comes under the Planning Act 2008. This means we need to apply for a Development Consent Order (DCO) to build Gate Burton Energy Park. This would be submitted to the Planning Inspectorate rather than a local planning authority.

In the case of energy-related development the Planning Inspectorate acts on behalf of the Secretary of State at the Department for Business, Energy and Industrial Strategy (BEIS). It will carry out an examination of our proposals and then make a recommendation to the Secretary of State on whether or not to grant consent for the development.

The Secretary of State for BEIS will then make the final decision on whether to grant consent for our scheme.

We anticipate that the development process through DCO submission and examination will take between two to three years. We intend to submit our proposals to the Planning Inspectorate late 2022 / early 2023 then, subject to achieving consent, the earliest construction would start is early 2025.



What is an Environmental Impact Assessment (EIA) Scoping?

The purpose of an EIA is to assess, measure, evaluate and mitigate the likely significant effect of a proposed development on the environment.

The EIA Scoping is a critical step in the EIA process – it sets out all those environmental, social and health issues likely to be most important and establishes the boundaries of the work that will be carried out in producing the final Environmental Statement for the proposed scheme.

What is a Preliminary Environmental Information Report (PEIR)

The PEIR is a core technical document that sets out the findings from the extensive environmental studies and assessments we carry out to develop our proposals for Gate Burton Energy Park.

The findings from the PEIR will be presented at the statutory consultation. It will include detailed maps and plans of our proposed development.

Development Process timeline*

2021

Nov
- Environmental Impact Assessment (EIA) Scoping request submitted to the Planning Inspectorate (Nov 2021)

2022
- Ongoing environ-mental 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

Pre-application consultation

We are at an early stage in the development process for Gate Burton Energy Park. As we evolve and refine our plans, we are committed to striking an appropriate balance between the potential social, economic and environmental impacts that our final scheme may have.

We believe this balance is best achieved by:

- Consulting widely and effectively from an early stage in our project development process
- Being open with information and transparent about the decisions we make
- Developing proposals that deliver significant levels of renewable energy generation to secure the energy needs of Great Britain.

Public consultation forms an important part of the pre-application process for NSIPs; early and ongoing engagement will serve to inform and influence the design process with local councils, stakeholders and residents all having an important role to play.

The development of Gate Burton Energy Park will be an iterative process and we welcome views at any time. However, prior to submitting a DCO application for the project we will hold two specific stages of consultation where we will be asking for feedback.

Adopting an iterative approach means we can present and refine our proposals, sharing with those taking part how we have taken their views into consideration to help shape our proposals.

Stage One Consultation – 11 Jan to 18 Feb 2022

The first stage of consultation (this stage) is non-statutory. While not formally required, it is intended to give local communities a real opportunity to influence the proposed development from an early stage to gain a better understanding of what we are proposing and its potential impacts.

The aim of this consultation is to introduce Low Carbon and the overall project, share our early-stage proposals and give individuals and interested parties the opportunity to have their say and share their views and local knowledge.

We will use the feedback we receive to inform and shape a strong set of proposals that are sensitive to and respect concerns of local communities.

Stage Two Consultation – Summer 2022 (tbc)

Further to developing more detailed proposals for the project, a second stage of consultation will be carried out. This is a statutory stage of consultation required by the application process for NSIPs.

We expect to carry out this second stage of consultation later this year when you will be invited to comment on our detailed proposals for the scheme and its connection into the national grid.

Statement of Community Consultation (SoCC)

Ahead of Stage Two consultation we will publish a SoCC. This will set out how we will engage with and obtain feedback from the local community on our detailed proposals for Gate Burton Energy Park.

Consultation Process timeline*

2021

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

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

2022

Jan
- First stage of community consultation (non-statutory)

Spring
- Consultation on draft SoCC with Local Planning Authorities

Summer
- Publication of the SoCC
- Second stage community consultation (statutory)

*Dates are indicative and could be subject to change

More information

You can find more information about the application process for NSIP projects on the Planning Inspectorate website at: infrastructure.planninginspectorate.gov.uk

Taking part in this consultation

This first stage of community consultation on our emerging proposals for Gate Burton Energy Park is open from 11 January to 18 February 2022.

There are a number of ways you can learn 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 will also be available on the website.

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.

What we are asking you to comment on

For this stage of consultation we are inviting your views on:

- The overall project
- The proposed layout of the energy park
- The three broad route corridors we have identified that a connection for the energy park could be routed along to connect it into the national grid
- Local initiatives and community projects which we could support

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
- You can leave feedback on our interactive site map or feedback form:
  - To use our interactive map go to: www.gateburtonenergypark.co.uk/consultationmap
  - To use our online feedback form go to: www.gateburtonenergypark.co.uk/feedback

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 feedback 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
- Alternatively any written letters or emails sent to us using the project freepost and email address during the consultation period will also be considered as feedback

The deadline for responding to this consultation is 18 February 2022.

All the comments submitted to this consultation will be acknowledged, recorded, and considered to inform and shape a strong set of proposals.

We will not, however, be able to respond to you individually.

Next steps

When this first stage of consultation closes we will review all the comments we receive, together with the findings from our ongoing environmental and technical studies, to inform and shape detailed proposals for Gate Burton Energy Park.

We will then carry out a second statutory stage of consultation and ask for your views on:

- the specific location of equipment for the energy park
- the route the grid connection will take
- how the project will be built
- the measures we are proposing to mitigate the impact of the project

We will then review our proposals in light of all the feedback submitted to this second consultation and the findings from our ongoing assessments, so we can finalise and submit an application for development consent to the Planning Inspectorate. As the developer, we have a duty to demonstrate how we have taken your views into account in developing our final proposals.

Further opportunities to contribute

The second stage of consultation on our proposals for Gate Burton Energy Park will likely be the last time we consult before we submit our application.

Once our application has been accepted you will be able to register your interest in our proposals with the Planning Inspectorate. It will then keep you informed about the progress of our application during the examination process and further opportunities 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 people 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

gateburtonenergypark.co.uk

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If you would this document in large text or an alternative format, please contact us on 0800 860 6259 or send an email to us at: info@gateburtonenergypark.co.uk

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Certified B Corporation
This company meets the highest standards of social and environmental impact