

Welcome and purpose of the exhibition



Welcome to the early (non-statutory) consultation for Beacon Fen Energy Park, a solar and battery storage development being brought forward by Low Carbon. Here you will find our plans for the project, including the proposed outline of the energy park and the indicative cable route search area we are currently examining. We welcome your suggestions and encourage you to give written feedback on the proposal, which will help us refine our plans and ensure they are considerate of the local community.

Please take your time looking at all the information available here today. If you need any help the project development team are more than happy to speak with you throughout the event.

Low Carbon – who we are

Low Carbon creates large-scale renewable energy to fight climate change. We're building a net-zero energy company that will power tomorrow and protect the planet for future generations.

Low Carbon was established with one goal in mind: to make the biggest contribution we can in the fight against climate change.

Our commitment to the climate mission means we do not cut corners. We manage every asset with care. We treat our communities as real partners. We hold ourselves to account. And we invest for the long-term benefit of people and the planet.

Low Carbon was founded in 2011 to create renewable power capacity. With our strong foundation in place, we have increased our ambitions exponentially. By the end of this decade, we want to have created 20GW of new renewable energy capacity – enough to power the equivalent of 7.8 million homes*.

All of us at Low Carbon know that trust is a vital component of the climate fight. We are a long-standing certified B-Corporation, a reflection of our fundamental ethos to balance the needs of the environment and society with our bottom line. And we always report on our goals and our business with transparency – this is core to who we are.

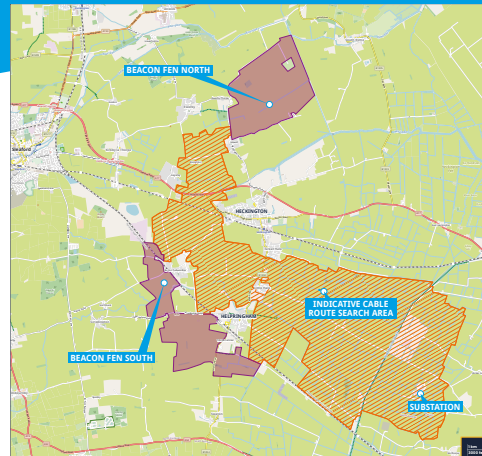
We can work together to build a completely renewable energy system that will be a profound legacy for the generations that follow us.

Low Carbon is on a mission. Together, we will power tomorrow.

* Low Carbon internal calculations using Ofgem Typical Domestic Consumption Values and BEIS Carbon Conversion Factors.



About Beacon Fen Energy Park



We're consulting on proposals to build a new solar and battery storage park on land to the east of Sleaford, Lincolnshire. Spread across two sites, Beacon Fen North is north of the village of Heckington, while Beacon Fen South is south of Helpringham.

If awarded planning consent, the project has an anticipated generation capacity of around 600 megawatts (MW) – enough clean energy to power over 190,000 UK homes and avoid up to 120,000 tonnes of CO₂ emissions annually.

The plans include building the infrastructure needed to export the electricity generated by the energy park into the National Grid. It is planned this would be via an existing connection point at the nearby Bicker Fen substation.

At this early stage, an area known as our "indicative cable route area" is being considered, which shows the area within which the project's cable route corridor will be located. This area will be refined depending on the output of additional survey assessment work and feedback from this consultation.

Beacon Fen Energy Park welcomes feedback from landowners, the local community, and stakeholders to finalise project proposals ahead of submission. We look forward to presenting a refined cable route area at our statutory community consultation later this year, where there will be a further opportunity to feed into the plans.



Principal components of the Energy Park

The main components of Beacon Fen Energy Park will be solar photovoltaic (PV) panels and the battery energy storage system (BESS) infrastructure. As we are still in the early stages of developing our proposals, the location of this equipment and how we will minimise any potential environmental impacts are still to be determined.

The principal components comprise:

- Solar PV panels and modular ground-mounting structures. The height of the panels considered will be up to 4.5m, with individual panels anticipated to be approximately up to 2.5m long and up to 1.5m wide. The proposal is for a fixed (i.e., static) panel orientation
- 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
- A battery energy storage system (BESS), so electricity can be stored on-site and then released into the National Grid when it is needed most. The BESS containers and switch rooms are anticipated to be approximately up to 12.5m x 3m, with a height of up to 4.5m
- 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 operational
- New planting around the site perimeter and within the solar and BESS development area to provide visual amenity, reduce landscape impacts, and provide substantial net gains for biodiversity

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 energy park boundary

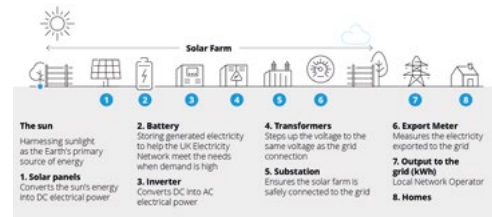


How a solar energy park works

The UK Government has set an ambitious target of reaching net zero by 2050, with the aim of increasing the nation's solar capacity fivefold by 2035. Beacon Fen Energy Park would deliver a vital contribution towards this ambitious target, securing an estimated 600 megawatts (MW) of renewable electricity and avoiding up to 120,000 tonnes of CO₂ emissions each year.

But how exactly do solar energy parks work?

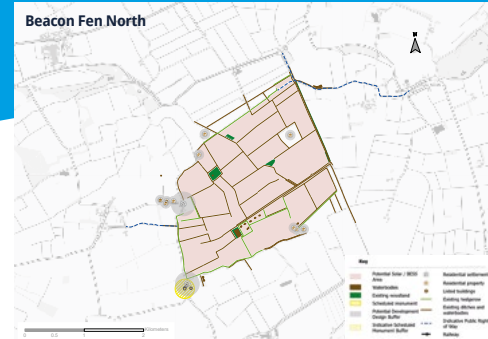
Read the handy infographic below to see how the sun is harnessed to power the planet.



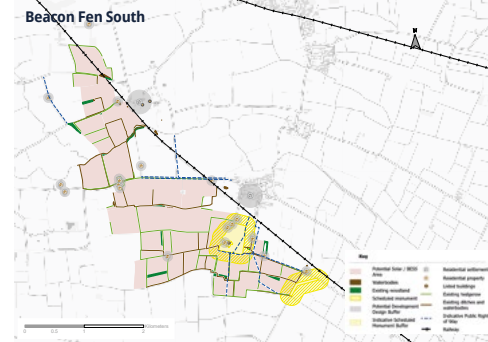
Solar PV and energy storage technologies are rapidly evolving. Our project proposals for Beacon Fen Energy Park will incorporate the flexibility to allow us to use the latest technology available at the time of construction.



Indicative concept masterplan



The images comprise indicative concept masterplans showing the full extent of land available and are for the purposes of consultation only. The areas and features shown are subject to change based on the environmental assessment, design development and feedback received.



We have identified the following existing built and environmental features in the local area that we will consider when developing our proposals:

- Existing field boundaries (particularly in Beacon Fen South)
- Existing ditches and waterbodies (particularly in Beacon Fen North)
- Nearby scheduled monuments in Beacon Fen South
- Nearby settlements and individual residential dwellings

Our development will be designed with appropriate setbacks from these features. These are shown indicatively in these plans, but will be sized and designed based on the results of our Environmental Impact Assessment.

Similarly, we will include extensive planting proposals to provide screening and biodiversity enhancement, which may result in slight reductions in the solar/BESS development area extent, which will be informed by our Environmental Impact Assessment and Biodiversity Net Gain work.



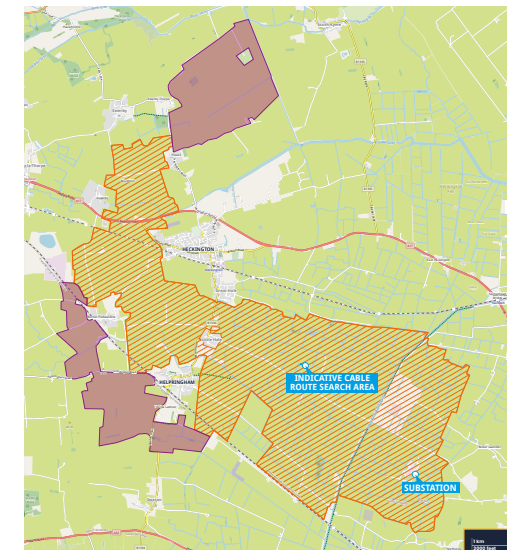
Connecting to the grid

The electricity generated by Beacon Fen Energy Park will be exported into an existing connection at National Grid's Bicker Fen substation.

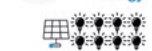
Following initial desk-based surveys, Beacon Fen Energy Park has identified a broad cable route search area in which an electrical connection between the energy park and Bicker Fen substation will be routed.

The team are currently undertaking technical assessments of the different constraints within this search area. The findings, together with feedback submitted during this early (non-statutory) consultation, will inform the selection of the preferred cable route corridor for the project.

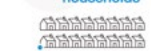
This preferred route will be shared and consulted upon during statutory consultation, which is scheduled to take place later this year.



600 MW energy



190,000 households



Up to 120,000 tonnes avoided emissions



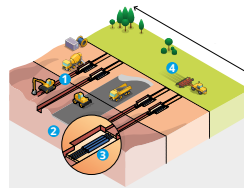
Building the grid connection

Our business case has always been to use underground cables, and this remains true for Beacon Fen Energy Park; putting cabling underground ensures it is hidden from view. However, overhead lines remain an option pending the findings from our ongoing survey work, which will determine whether there are any localised issues along parts of the route that would prevent underground excavation. We expect this to be completed later this year. Overhead cabling therefore remains a possibility we will be consulting on.

The below images show the different construction techniques and equipment used for installing underground cables or overhead lines.

Underground cable (preferred)

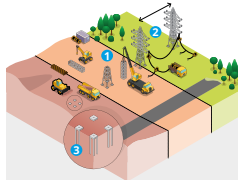
- Can be installed by direct burial where there is no restriction on land use
- A sealing end compound is needed where a section of underground cable comes above ground



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

Overhead lines (if required)

- The height of the pylons – between 30 and 50 metres tall will determine whether the overhead line is installed using metal towers or wood pole
- A range of factors determine the distance between pylons including: pylon height, whether the landscape is flat or hilly as well as changes in route direction



1. Height of the pylons between 30m-50m
2. Distance between pylons approx 300m
3. Foundations approx 6m deep



Environmental impact assessment



As part of the planning process, the project requires an Environmental Impact Assessment (EIA). This is undertaken to assess any impacts the proposal may have on the environment and is worked on over many months.

An EIA Scoping Report is currently being considered by the Planning Inspectorate, which has written to the local authorities and parish councils in the local area for their input on the topics and methodologies to be used in the EIA.

A Preliminary Environmental Impact Report will be prepared for the statutory consultation phase later this year. Stakeholders and local communities will have the opportunity to give their feedback on the report, which will then be finalised into an Environmental Statement (ES) and submitted as part of the plans.

Work has started and is ongoing to assess any potential impacts on the environment of the site, from views and ecology to noise and traffic.

The findings from these environmental assessments will be used to understand the potential impact the construction, operation and decommissioning of Beacon Fen Energy Park could have on local communities, the environment and landscape. This includes identifying mitigation measures for any potential identified impacts.

Reducing or avoiding impacts is one of Low Carbon's top priorities. In developing our proposals a range of design and operational measures will be considered to minimise environmental effects.



The DCO process

As Beacon Fen Energy Park will generate more than 50 MW of power, it is classed as a Nationally Significant Infrastructure Project and needs a Development Consent Order (DCO) under the Planning Act 2008 before it can be built.

Applications for DCOs are examined independently and in public by the Planning Inspectorate, a government executive agency.

Following examination of the project, the Planning Inspectorate will make a recommendation to the Secretary of State for Energy Security and Net Zero, who will make the final decision on the application.

The six steps of the DCO process are:

1 Pre-application (where we are now)

Before an application is submitted, we will carry out two consultations; an early (non-statutory) consultation (this consultation) followed by a statutory consultation. Following consultation and the completion of our Environmental Impact Assessment, we will submit an application for a DCO in late Q1 2024.

2 Acceptance

After an application is submitted, the Planning Inspectorate has 28 days to decide whether it meets the standards required to be accepted for Examination.

3 Pre-examination

During this stage you can register as an Interested Party by making a Relevant Representation, which is a written summary of your views. Inspectors are selected, who then hold preliminary meetings and set out the timetable for Examination.

4 Examination

The Planning Inspectorate has a six-month period to carry out the Examination. This is mostly a written process, and those who have registered as Interested Parties will be invited to provide further information in writing. There will also be open floor hearings, which the public can register to speak at.

5 Decision

The Planning Inspectorate has three months to prepare a report, which includes a recommendation. The relevant Secretary of State for the Project then has a further three months to issue a decision.

6 Post-decision

In the event of a positive decision by the Secretary of State, a DCO would be granted (or 'made' as it is a form of legislation). Beacon Fen Energy Park would take a final investment decision and then discharge requirements and comply with the powers and provisions of the DCO.

More information can be obtained from the Planning Inspectorate by telephoning **0303 444 5000** or by visiting <https://infrastructure.planninginspectorate.gov.uk/application-process/>



Next steps

Thank you for taking part in this consultation.

Gathering feedback is essential and we want to hear your thoughts. Your written views will be analysed and shared with the project team for consideration. You can share your views in a number of different ways.

Fill out a feedback form at this event and either hand it to a member of the team, or post it using the Freepost address to reach the team by **Sunday 18th June 2023**. Alternatively, you can fill in a form online at the website below.

If you need to give your feedback in other ways, or have accessibility requirements, please do let us know.

There are many ways you can keep in touch with Beacon Fen Energy Park, including joining the mailing list via the Beacon Fen Energy Park website.

Website www.beaconfenenergypark.co.uk

Email info@beaconfenenergypark.co.uk

Post FREEPOST Beacon Fen Energy Park (no stamp required)

Phone 0330 0571943

