

PHASE ONE CONSULTATION



Early plans and proposals

January 2023

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? This icon means there is a question on this topic in our feedback questionnaire.



Foreword

Climate change is a challenge we must all play our part in addressing – from the small changes in our everyday lives to the transformational changes we need to make across our whole economy, particularly the way we power our homes, businesses and transport systems. Over the next decade, we'll need to replace the fossil fuels that once powered our economy with sources of low-carbon electricity.

Solar is an important part of the way we can meet this challenge – it is affordable, reliable and can be built quickly. EDF Renewables is passionate about

creating a net-zero future where clean energy powers our lives. We're already one of the UK and Ireland's leading renewable energy companies, developing, building, operating and maintaining wind, solar and battery storage projects. Together with Luminous Energy, a company with numerous solar farms in development across the UK and abroad, we are delighted to introduce our plans for Springwell Solar Farm.

Springwell would make an important contribution to our future energy network by producing enough clean, secure and affordable energy to power over 180,000 homes every year - that's around half of all the homes in Lincolnshire*.

We are currently at the earliest stages of Springwell, with local views vital to helping us develop our plans. We are keen to hear your feedback, which will help shape our proposals and ensure Springwell can benefit the community throughout its lifetime. I encourage everyone to get involved in this consultation and share your views.

I hope we will see you at one of our consultation events and we look forward to hearing your feedback.

Ben Fawcett
Head of Solar,
EDF Renewables UK

* Based upon the average domestic electricity consumption per home (temperature corrected) per the Energy Consumption in the UK (published September 2021, Table C9 of ECUK: Consumption data tables)

1

Introduction

Introduction

Springwell Solar Farm is a proposed new solar farm with battery storage in North Kesteven capable of providing enough clean, secure and affordable energy to meet the needs of over 180,000 homes* every year. That's the equivalent of half the homes in Lincolnshire.

Like most solar farms, Springwell would have a fixed lifespan of around 40 years and could be built and operated with limited impact to the land beneath it. This means that once the panels are removed, the land could be returned to agricultural use. In fact, it is possible to continue to use the land between and beneath the panels during operation.

For example, to support new habitats.

We also want Springwell to benefit the local area throughout its lifetime and we will work closely with the community to identify opportunities to support local initiatives.

* Based upon the average domestic electricity consumption per home (temperature corrected) per the Energy Consumption in the UK (published September 2021, Table C9 of ECUK: Consumption data)



Who are we?

Springwell is backed by EDF Renewables UK and Luminous Energy.

EDF Renewables has over 25 years' worth of experience delivering renewable energy projects in more than 20 countries around the world. In the UK, we have 38 operating sites providing much needed affordable, low carbon electricity across all renewable technologies.

We're pleased to be working with Luminous Energy, an established UK-based renewable energy developer with projects in the UK, US, Chile and Australia.

EDF Renewables invests for the long-term in the projects and communities where we operate. We remain involved in and committed to projects over their lifetime from development, construction and operation, all the way through to decommissioning.

We're also working closely with the Blankney Estate, the owner of the majority of the land for Springwell. Springwell will play an important role in safeguarding its future agricultural operations while supporting the estate's ethos of long term sustainability, for the benefit of the environment and future generations.



Why here?

Lincolnshire has played an important role in powering the nation for almost a century – generating electricity from coal and gas and feeding it into the National Grid to reach millions across the nation.

While these traditional methods of electricity generation are being phased out, the grid infrastructure which transported this electricity is still in place.

By adding more entry and exit points to this network via new substations, clean methods of electricity generation can feed

into it, allowing us to use this existing pylon infrastructure. We have secured a grid connection agreement with National Grid which would allow us to export up to 800MW of electricity to this network, through a new substation owned by National Grid. There would also be capacity to import power from the network.

North Kesteven is well suited for solar energy generation. It is suitably sunny and its landscape has many positive attributes for ground mounted solar panels.

In selecting the site for Springwell, we have ensured that there is enough suitable land available to support a solar farm while also allowing parts of the site to be used for recreation, landscaping and ecological enhancements.

It can also be easily accessed from the existing road network and is away from places identified by the government as having special landscape and ecological value, such as Areas of Outstanding National Beauty.

During this consultation, we are seeking your views on our early plans for Springwell, including any local knowledge which could help progress our design.



What's happening now?


We are now consulting on our early proposals for Springwell. We're seeking feedback at this stage so it can inform our plans while they are still being developed.

Community input will be vital to helping shape a design that supplies clean, secure and affordable electricity while enhancing the surrounding environment.

Alongside explaining our early proposals, the rest of this booklet sets out the process we need to follow to get planning consent, and explains how we will carry out our assessments.

It also sets out the different ways you can get involved and share your views.

Some parts of Springwell need to be guided by the results of our environmental assessments and the technical work we will carry out. Other parts are more open, with consultation feedback helping us develop our plans.

Throughout the booklet, you will see this icon  which means there is a question on this topic in our feedback questionnaire.





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The planning process

The application process

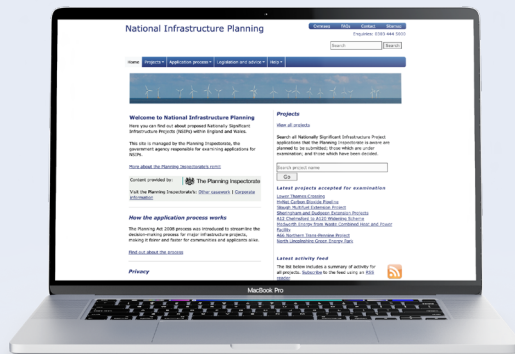
Springwell Solar Farm is classed as a Nationally Significant Infrastructure Project (NSIP) because of the amount of electricity it would generate (over 50MW). This means we need to apply for a special type of planning consent called a Development Consent Order (DCO) to build and operate it.

Consultation is an important part of the DCO process as it enables everyone to comment on the proposals. The feedback received, along with further technical work and environmental studies, will inform the development of our proposals before we submit our DCO application to the Planning Inspectorate (PINS).

The Planning Inspectorate will then review and examine the application, including encouraging submission of views from communities and other interested parties, before making a recommendation to the Secretary of State for Business, Energy and Industrial Strategy, who will take the final decision on whether or not to grant consent.

For more information on the DCO planning process, please visit:

infrastructure.planninginspectorate.gov.uk



Role of consultation

We are carrying out this consultation to introduce our plans and gain your early feedback. This is called a 'non-statutory consultation' as it is in addition to the statutory consultation we will carry out as part of the application process.

Local councils play a very important role in this process and we will be consulting with them at every stage – including on how we will conduct our statutory consultation. We will develop

and agree a 'Statement of Community Consultation' which will set out how we plan to consult with the local community.

The statutory consultation will show how our plans have evolved in response to the feedback we have received from this consultation. It will also reflect the outputs of our environmental assessment work and include more detail about the layout and design of Springwell.

This will be a further opportunity to share your views and feedback with us.

If there is anything you think we should include in our statutory consultation, please let us know in your feedback.





Our approach to design



Our aim is to design a layout for Springwell that is sensitive to surrounding communities and responds to the distinctive character of the local environment.

The early design for Springwell will continue to be refined as our plans evolve, with our design process guided by the early principles we have developed. We will, for example, retain all existing Public Rights of Way, provide buffers from heritage sites and residential properties and use areas within the Springwell site to create new habitats. We've shown these on the next page, along with our early design.

Our approach to design

We have developed some early principles that will guide the design of Springwell as our plans evolve.



The amenity of homes and villages would be protected, with buffers and setbacks separating them from solar panels.



We would work to deliver a biodiversity net gain at Springwell.



Existing trees and woodlands would be retained with buffers from solar development.



Existing Public Rights of Way and permissive footpaths within the Springwell site would be retained.



Existing hedgerow and ditch networks would be retained where possible and managed to boost biodiversity.
















Local wildlife sites would be retained and improved, creating new grassland habitat.



New habitats would be created to support farmland birds such as skylark and grey partridge and animals such as brown hares.



We would respect the history and settings of local historic and cultural sites, responding to the distinctive character of the local environment.

-  Indicative Springwell boundary
-  Existing woodland
-  Existing power line and pylons within Springwell
-  Existing railway line
-  Existing wall retained and enhanced
-  Existing hedgerows retained and enhanced
-  Existing Public Rights of Way and footpaths
-  Potential area for solar development
-  Potential area for solar development, substation and/or consolidated battery storage.
-  Potential area for mitigation, enhancement and/or retained agricultural land
-  Potential access
-  Potential new permissive footpaths
-  Existing watercourses

This plan shows our early thinking for Springwell. As part of this consultation, we are seeking your feedback on our early design - including where we have placed different elements of the solar farm, our initial ideas for new footpaths and habitats and whether there is any information we need to take into account as we develop our plans. ?



We want to enhance the existing footpath network to improve recreation, linking existing Public Rights of Way in and around Springwell as well as providing new routes to enjoy.

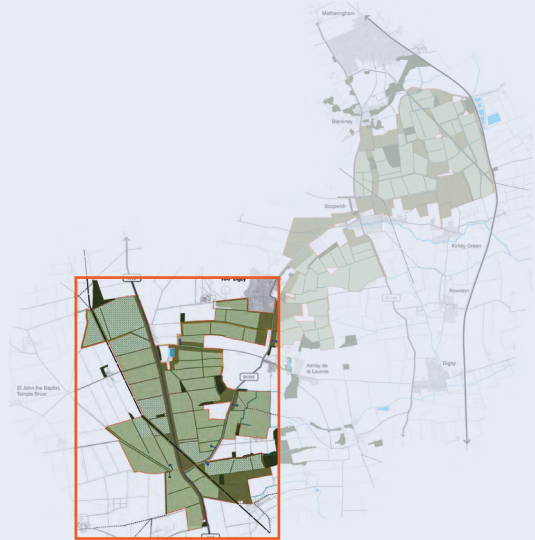















We are working to determine the best location for the battery storage to ensure it is placed sensitively. We are also considering whether to locate the battery storage in one area alongside the substation, or having three smaller batteries spread out across the site.



Access to Springwell would be via the A15 and onto the B1191.

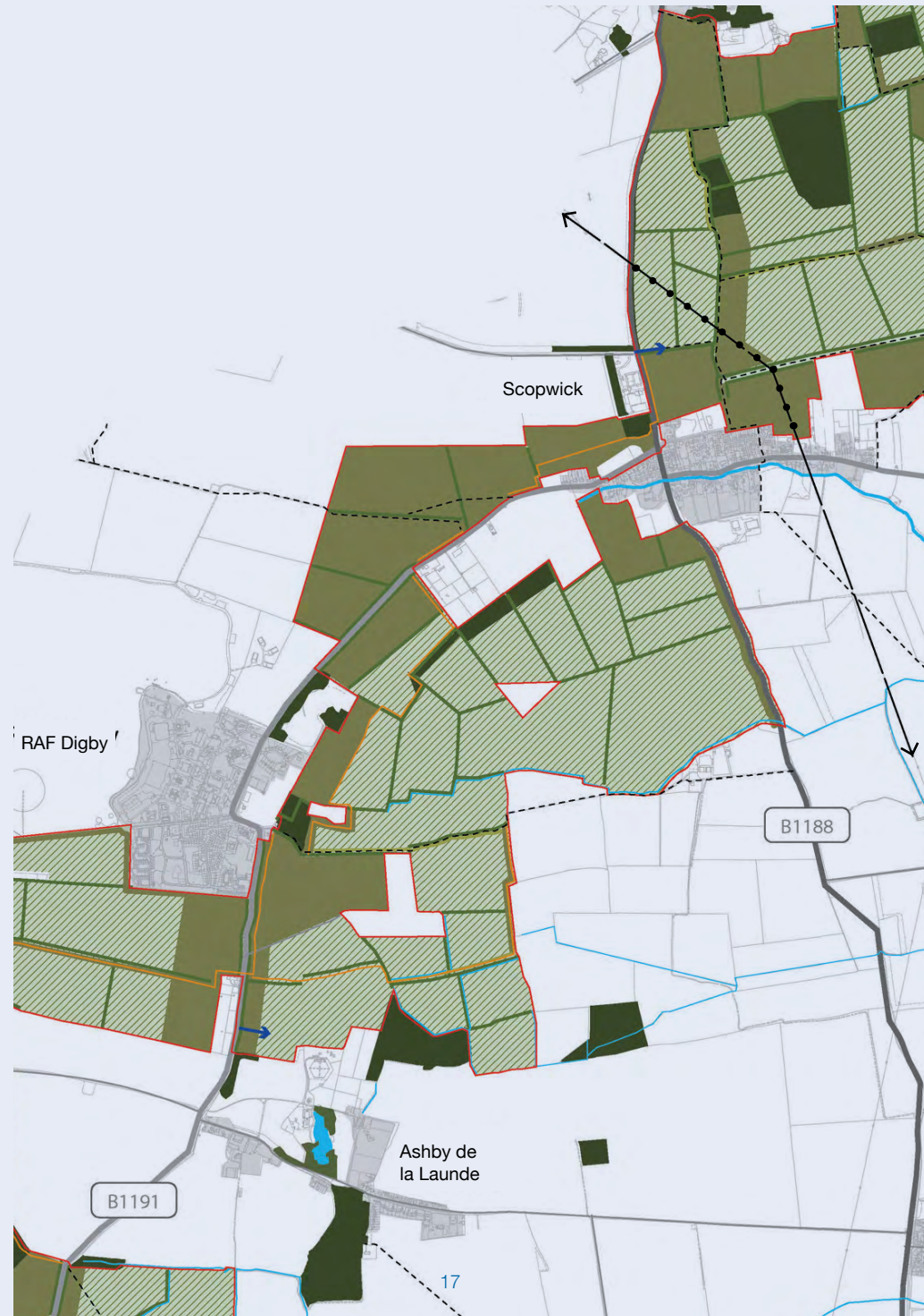
Springwell West
















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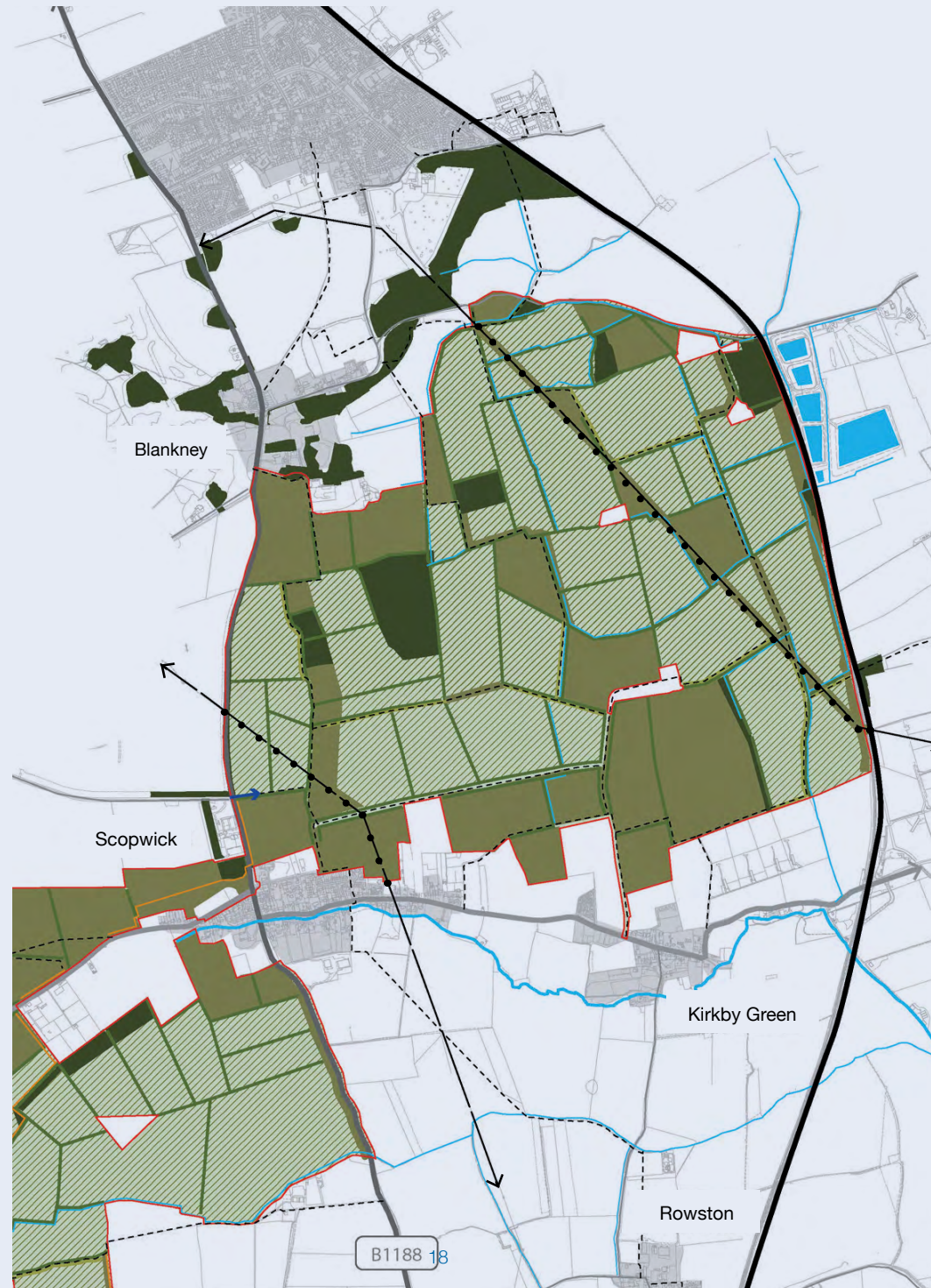
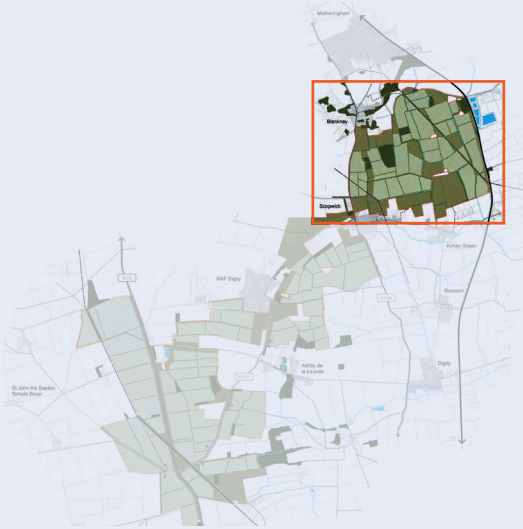



Springwell Central



-  Indicative Springwell boundary
-  Existing woodland
-  Existing power line and pylons within Springwell
-  Existing railway line
-  Existing wall retained and enhanced
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Springwell East



-  Indicative Springwell boundary
-  Existing woodland
-  Existing power line and pylons within Springwell
-  Existing railway line
-  Existing wall retained and enhanced
-  Existing hedgerows retained and enhanced
-  Existing Public Rights of Way and footpaths
-  Potential area for solar development
-  Potential area for solar development, substation and/or consolidated battery storage.
-  Potential area for mitigation, enhancement and/or retained agricultural land
-  Potential access
-  Potential new permissive footpaths
-  Existing watercourses



Enhancing the local environment



Parts of the Springwell site would be used for recreational, landscape and ecological enhancements. Our early design shows our initial thoughts about what we could include - such as introducing new habitats, new planting and setting parts of Springwell back

from important landscape features and residential properties. We are keen to hear your thoughts on what we could include and where these could be.?

We are also aware that there is an opportunity to improve the existing footpath network, by providing links between existing Public Rights of Way in and around Springwell as well as providing new routes for residents to enjoy. ?

Construction

Our current thinking is that the main construction access to Springwell would be via the A15 and onto the B1191. Within Springwell itself, we intend to use existing agricultural access tracks and field gateways for internal access where possible. We will provide more detail about construction routes and how traffic will be managed at a later stage of consultation.

Within the Springwell site, temporary construction compounds would be created before construction begins which would store materials, plant and equipment. They would also include staff welfare facilities, waste storage and wheel washing areas.

As the design for Springwell evolves we'll be able to share more detail on the construction process. The next stage of consultation will include proposed construction activities and their duration and how we propose to limit the effects of construction on local communities.

Operation

Solar farms are quiet neighbours and once operational, require minimal upkeep. Springwell would be managed throughout its lifetime by a team of permanent staff who would ensure all elements of Springwell are monitored and maintained, including the solar panels and battery storage as well as the landscaping and habitats we would introduce.

Battery storage technology is safe and makes use of tried and tested technology, much of which we use in our day-to-day lives. While battery storage at Springwell would be larger in scale, we would build safety measures into our battery design, including for example, self-contained units for each battery and a fire extinguishing system.

This is something we already do at the battery storage sites we manage around the country. We will work with Lincolnshire Fire and Rescue and the Health and Safety Executive, along with other relevant statutory bodies, throughout the development of Springwell.

Decommissioning

The operational lifetime of Springwell is expected to be around 40 years. At the end of Springwell's operational lifetime, we will dismantle all above ground material and recycle where practicable, in line with the best practice at that time and a decommissioning plan.

Like any other electrical waste, solar panels need to be disposed of responsibly and safely. Around 85% of solar panel parts are now recyclable, and the major panel components including the glass, aluminium and copper can all be recovered. With recycling methods improving all the time, this is likely to be even greater in the future.

4

How does a
solar farm
work?

How does a solar farm work?

Solar farms use **energy from the sun (1)** to generate electricity, supported by battery storage and a substation to feed the electricity into the National Grid.

The **solar panels (3)** are set up in rows, connected to each other by cables to transfer the electricity generated by the panels to inverters. Once mounted the panels at Springwell would be approximately four metres at their highest point. Our current thinking is that we would use fixed panels, however we may explore the potential for using 'tracking panels' (which follow the sun as it moves through the sky), in limited areas.

Inverters (4) are needed to convert the direct current (DC) electricity which is generated into alternating current (AC)

electricity, suitable for it to be transferred to the solar farm substation.

Inverters are housed in areas sometimes referred to as 'Balance of Solar System', along with transformers to step up the voltage and switchgear which controls the electrical equipment. This area would be up to three and a half metres in height.

Collector compounds (6) can be used to reduce the amount of cabling that is needed by collecting electricity from a number of inverters, stepping up the voltage and sending it to the solar farm substation. The maximum height of the equipment within these compounds at Springwell would be six metres.

The solar farm substation (7) receives all the electricity and sends it on to the

National Grid substation (9) to enter the electricity network.

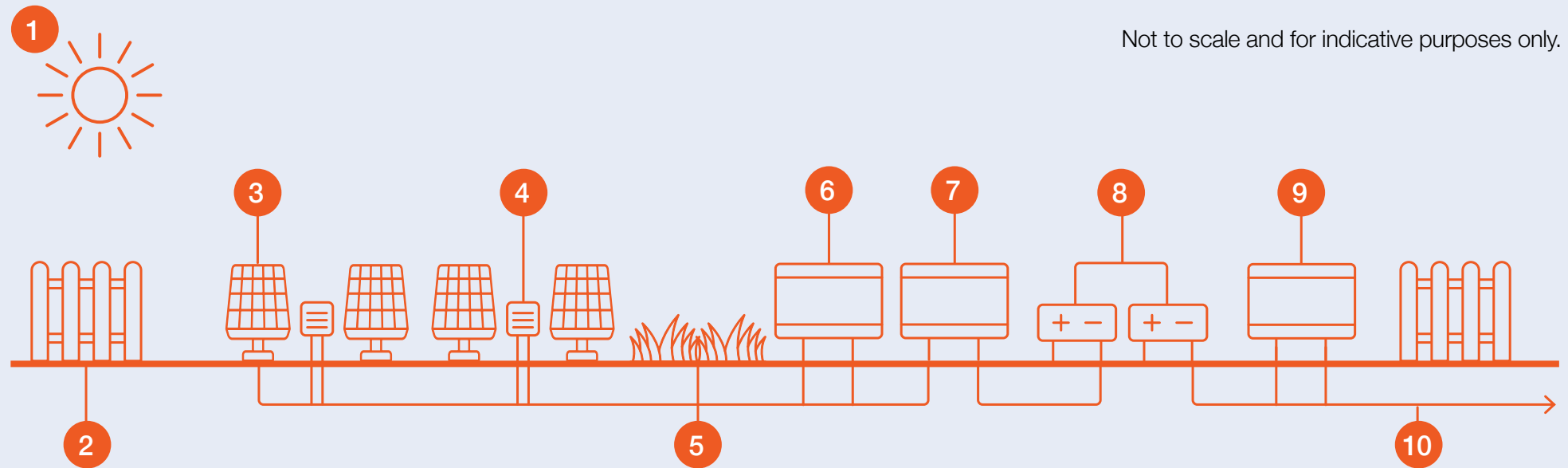
The substation includes a control building with a small amount of office space, storage and welfare facilities. At Springwell, it is likely that this area would be located alongside battery storage, if this is located in one area.

The main role of **battery storage (8)** is to store electricity at times when demand is lower and release it to the National Grid when it is most needed. The height of the battery units at Springwell will not be more than three metres, although there may be some electrical plant of up to six metres in height. At this stage, we have not made decisions about where the battery storage would be located and how it would appear.

Our commitment to providing low-carbon energy means we are constantly searching for ways to innovate. We are, for example, pioneering the use of green hydrogen to decarbonise hard-to-reach areas of our economy, such as the industrial sector. As complementary renewable technologies evolve, we will consider - and consult on - whether they might be suitable for extending the benefits of Springwell.



This diagram shows the main elements that typically make up a solar farm.



Not to scale and for indicative purposes only.

- 1. Solar Energy
- 2. Fencing
- 3. Solar Panels
- 4. Inverters
- 5. Landscape and Biodiversity Areas
- 6. Collector Compounds
- 7. Solar farm substation
- 8. Battery Storage
- 9. National Grid Substation
- 10. Cables

i Battery storage is important because renewable technologies like wind and solar do not generate electricity at a constant rate – and the times electricity is generated is not always when electricity demand is highest. Battery storage therefore stores energy for when it is most needed.

i Solar panels don't need direct sunlight to work and can produce power all year round. Even in winter, solar technology is powerful and effective. At one point in February 2022, solar provided more than 20% of the UK's electricity.

Connecting to the grid

Large amounts of electricity are transported around the country every day by a transmission network called the National Grid. This isn't the electricity you use in your home – this is supplied from your local network which takes electricity from the National Grid and feeds it through to homes and businesses.

It's helpful to think of our electricity system like our road network. The National Grid is the high-speed route (the motorway) which transfers electricity over a large area while the local networks connect into it to distribute electricity to local areas, acting like 'B roads'. To get the electricity generated by Springwell to homes and businesses, we need to connect into the National Grid.

We have secured a grid connection agreement with National Grid which would allow us to export up to 800MW of electricity to this network, through a new substation owned by National Grid. There would also be capacity to import power from the network.

Our preference is for this substation to be located within the Springwell site, connecting into the existing overhead power line which crosses it. This would be done either using transmission towers or sealing end compounds, which house the connection between the overhead line and underground cabling. We are working with National Grid to determine the most appropriate location.



Assessing environmental effects

5

Assessing environmental effects

Assessing environmental effects is a key part of the DCO process. We will carry out an Environmental Impact Assessment (EIA) for Springwell Solar Farm.

This will assess the potential effects (both positive and negative) Springwell would have on the environment, and ensure that these are considered in the design process.


These environmental assessments will look at a range of topics such as cultural heritage, landscape and visual impact, flood risk and ecology over the whole of Springwell's lifetime – construction, through operation, and to decommissioning.

We will present our early findings in a Preliminary Environmental Information Report (PEIR) at a later stage of consultation. The final results of these assessments will be presented in an Environmental Statement (ES) which will accompany our DCO application.

This process will also help us to identify how best we can reduce the potential environmental effects of Springwell.

Where significant effects are identified, the report will also explore the measures we would take to avoid, mitigate or compensate for these effects in order to reduce Springwell's impact.

We have outlined some of the topics and how we will approach our assessment on the following pages.



We will shortly be submitting a report to the Planning Inspectorate (called a 'Scoping Report') which sets out our proposed approach to assessing effects and shows our early assessments.

These assessments cover all of the land within Springwell - more than we would use for solar development. This is to make sure we identify which areas are most suitable for solar and which should be used for environmental enhancements or retained for agricultural use.

The early results of these assessments have already helped shape our early thinking on the design for Springwell which we have shown on pages 14-18.



Artists impression of Springwell Solar Farm from a Public Right of Way.

Community benefit

We recognise that the construction and operation of solar farms can affect the communities around them. As long-term investors in our projects and the communities where we operate, we are committed to being good neighbours.

Wherever we operate, we also give something back to the local community. All our onshore wind and solar sites in the UK have a dedicated community fund to spend on improvements in the local area during development and over their operational lifetimes.

We welcome suggestions from the community as to how we can make a positive local contribution, **?** whether that's through funding, employment and training, or environmental programmes.

We are also interested in hearing about existing community funds or organisations that might be interested in partnering with Springwell.



Some examples of community projects we have helped fund include improvements to village halls, footpaths, wildlife projects and tree planting. We're always looking for new ways we can make a difference locally. More recently, we've been in discussions with communities about providing electric vehicle charging infrastructure in their area.



Natural environment and ecology

Springwell would not only bring environmental benefits by contributing to UK's net-zero goal, it also has the potential to make a positive impact on the local environment.

The assessments that we are carrying out will identify the species and habitats currently in the area and assess any effects Springwell could have.

We are aiming to deliver a substantial 'net gain' in biodiversity. We will use feedback from the consultation and our ongoing work with stakeholders to design a detailed biodiversity plan for Springwell.

Our design will ensure habitats and corridors for existing wildlife are retained and enhanced, while creating new habitats suitable for the area to increase the landscape's biodiversity value.

We would also manage the land between and beneath the panels throughout Springwell's operational lifetime to help improve the condition of the soil, allowing it to recover for future long-term farming use. Soil which is used for any kind of production needs time to rest and regenerate to regain its quality and replenish nutrients in the soil. This is called a fallow period, and is a common practice used by farmers.



What is biodiversity net gain?

Biodiversity net gain is the term used to describe the process of increasing the overall biodiversity value of a given site. It is calculated by using the difference between pre-development and post-development habitat data. From 2023, all new developments are required to deliver at least ten percent biodiversity net gain on site.



We have partnered with Nature Positive, an environmental consultancy, to help researchers carry out academic research to look at how all our solar farms can be managed to boost biodiversity, improve wildlife habitats and soil health.

Land use

At the moment, solar farms occupy less than 0.1% of the UK's land. Government plans to significantly scale up solar in line with its net-zero target are expected to bring this up to just 0.3% of the UK land area. The design of Springwell would be informed by detailed surveys to identify the land most suitable for continued farming and where appropriate, provide a robust justification for using such land.

Climate change

Springwell would make an important contribution to tackling climate change by reducing our reliance on more carbon-intensive forms of electricity generation, providing new, clean energy to power homes and businesses across the UK.

The UK Government has also recognised that climate change is the biggest medium to long term risk to our domestic food supply, making the delivery of sources of new renewable energy so important.

Reducing visual impact

While solar farms are low-lying in nature, we recognise that they represent a change to what is currently there. Our aim is to design Springwell sensitively to reduce its visual impact and protect the amenity of our neighbours. As part of our assessments, we will examine the effect Springwell could have on the landscape from a range of public viewpoints around the site. Where appropriate, we will propose mitigation such as new planting to help screen the site, in line with the principles we have set out on page 14.

A group of people in winter clothing talking outdoors, overlaid with a blue tint and a large number 6.

Get in
touch

Responding to our consultation

We are keen for as many people as possible to get in touch, meet with us and share their feedback during our consultation.

This consultation is running between **Tuesday 24 January 2023** and **Tuesday 07 March 2023**.

Finding out more

You can find out more about Springwell Solar Farm by:

- Coming along to the public exhibitions we are holding
- Visiting springwellsolarfarm.co.uk, where you can visit our virtual exhibition
- Contacting us on **0800 038 3486** or info@springwellsolarfarm.co.uk

Public exhibitions

Tuesday 31 January (2pm-7pm)

Blankney Old School House, Drury St, Blankney, LN4 3AZ

Wednesday 01 February (2pm-7pm)

Scopwick Village Hall, Brookside, Scopwick, LN4 3PA

Friday 03 February (11am-4pm)

Ashby de la Launde Village Hall, Church Avenue, Ashby de la Launde, LN4 3JQ

Saturday 04 February (11am-4pm)

Metheringham Village Hall, Fen Road, Metheringham, LN4 3AA

A hand holding a pen over a document, with a large number 7 in the background.

Share your
views

Consultation questionnaire

Thank you for taking the time to read through our early plans and proposals for Springwell. Our consultation questionnaire is available both on our website and in hard copy, and we have set out the ways you can get in touch and share your views on the back page of this booklet.

Early plans

At this stage in our design process, we have developed principles which will guide the design of Springwell.

- Q1.** Do you have any comments on our early plans and proposals for:
- a.** the potential locations of the solar energy generation element of Springwell?
 - b.** the areas we are looking at for the battery storage element of Springwell?
 - c.** any other elements of Springwell?

Enhancing the local environment

We have had some early thoughts on what could be suitable to balance any effects Springwell could have and ways we could improve what is currently there, including the potential for improving the existing footpath network.

- Q2.** Are there any environmental enhancements you think we should include as part of the proposals?
- Q3.** Do you have any feedback on our proposals for new public footpaths or suggestions for other improvements or additional routes?
- Q4.** Do you have any other information about the area and local environment which you think we should take into account?



Communities

We recognise that the construction and operation of solar farms can affect the communities around them. Each of our onshore wind and solar sites in the UK has a dedicated community fund to spend on improvements in the local area during its development and over the lifetime of its operation.

- Q5.** Do you have any ideas you would like to share about how Springwell could support local community initiatives?
- Q6.** Are you aware of any existing community funds or organisations that might be interested in partnering with Springwell?
- Q7.** Please leave any further comments or suggestions you have.

Sharing your views

You can share your views on our proposals for Springwell Solar Farm by:

- Completing a consultation questionnaire online at: springwellsolarfarm.co.uk/questionnaire
- Emailing a questionnaire to info@springwellsolarfarm.co.uk
- Posting a questionnaire (no stamp required) to:
Springwell Solar Farm
FREEPOST SEC Newgate UK LOCAL
- Submitting your comments by email to: info@springwellsolarfarm.co.uk or in writing to the above Freepost address.

Get in touch

Phone:
0800 038 3486

Email:
info@springwellsolarfarm.co.uk

Next Steps

All responses must be received by the consultation deadline of **11:59pm on Tuesday 07 March 2023**.

Following this consultation, we will consider all of the feedback that we receive and continue to develop our plans for Springwell ahead of the next stage of consultation.

Our DCO application will include a Consultation Report setting out how we have had regard to the responses received during all phases of consultation.



springwellsolarfarm.co.uk