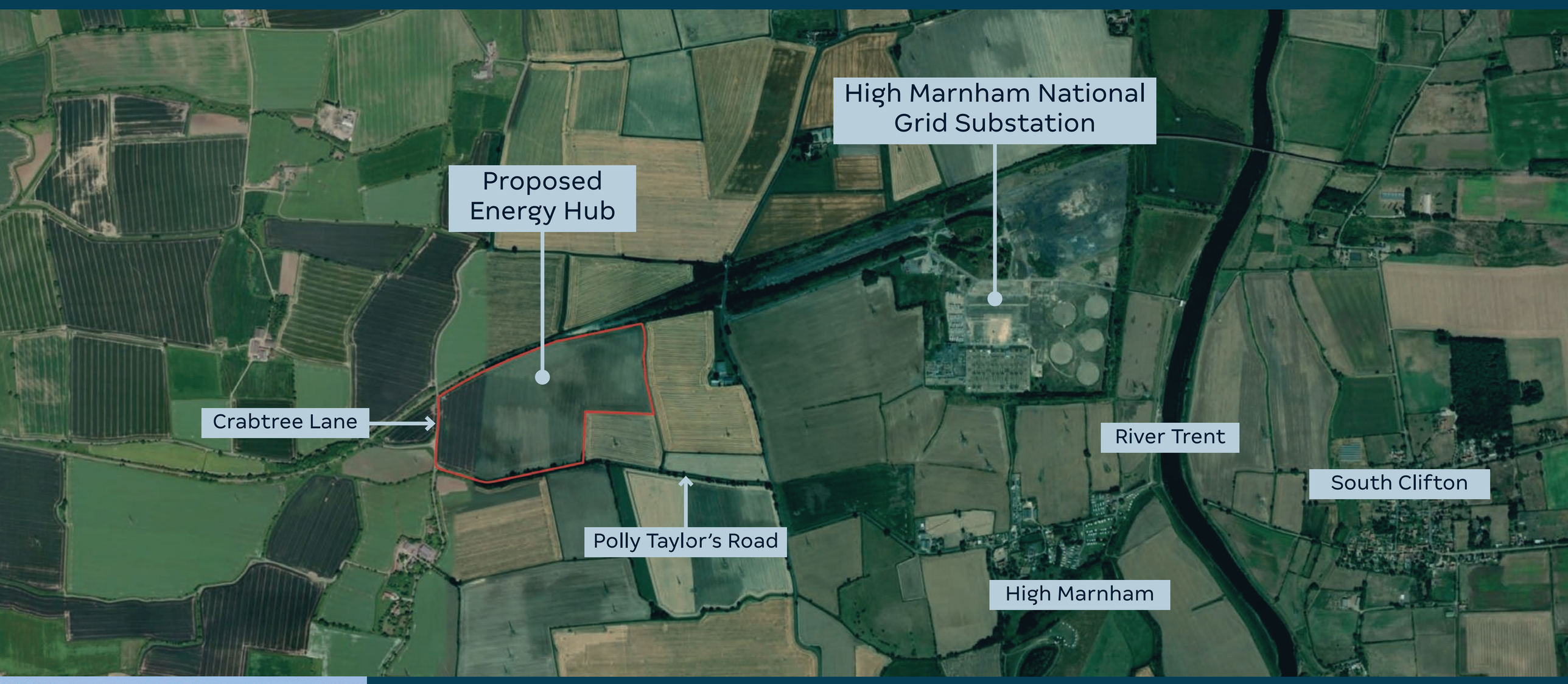


Welcome to the Crabtree Lane Energy Hub consultation

Welcome to the Crabtree Lane Energy Hub consultation

These exhibition boards provide an overview of our proposals. Further information on our proposals, as well as digital copies of all consultation materials, can be found at:

www.crabtree-lane.co.uk

We'd like your views

We are currently preparing a planning application to Bassetlaw District Council, however before we do, we want to hear your views on our proposals.

Please email your comments to consultation@ensoenergy.co.uk, or write to us at FREEPOST ENSO ENERGY.

About us

Crabtree Lane Energy Hub is being brought forward by Enso Green Holdings X Limited, a joint-venture partnership between Enso Energy and Cero Generation.

We are one of the UK's leading developers of renewable energy projects. We are firm advocates for renewable, low carbon, efficient, secure and sustainable energy that can be generated, stored and utilised locally. You can find out more at: www.ensoenergy.co.uk

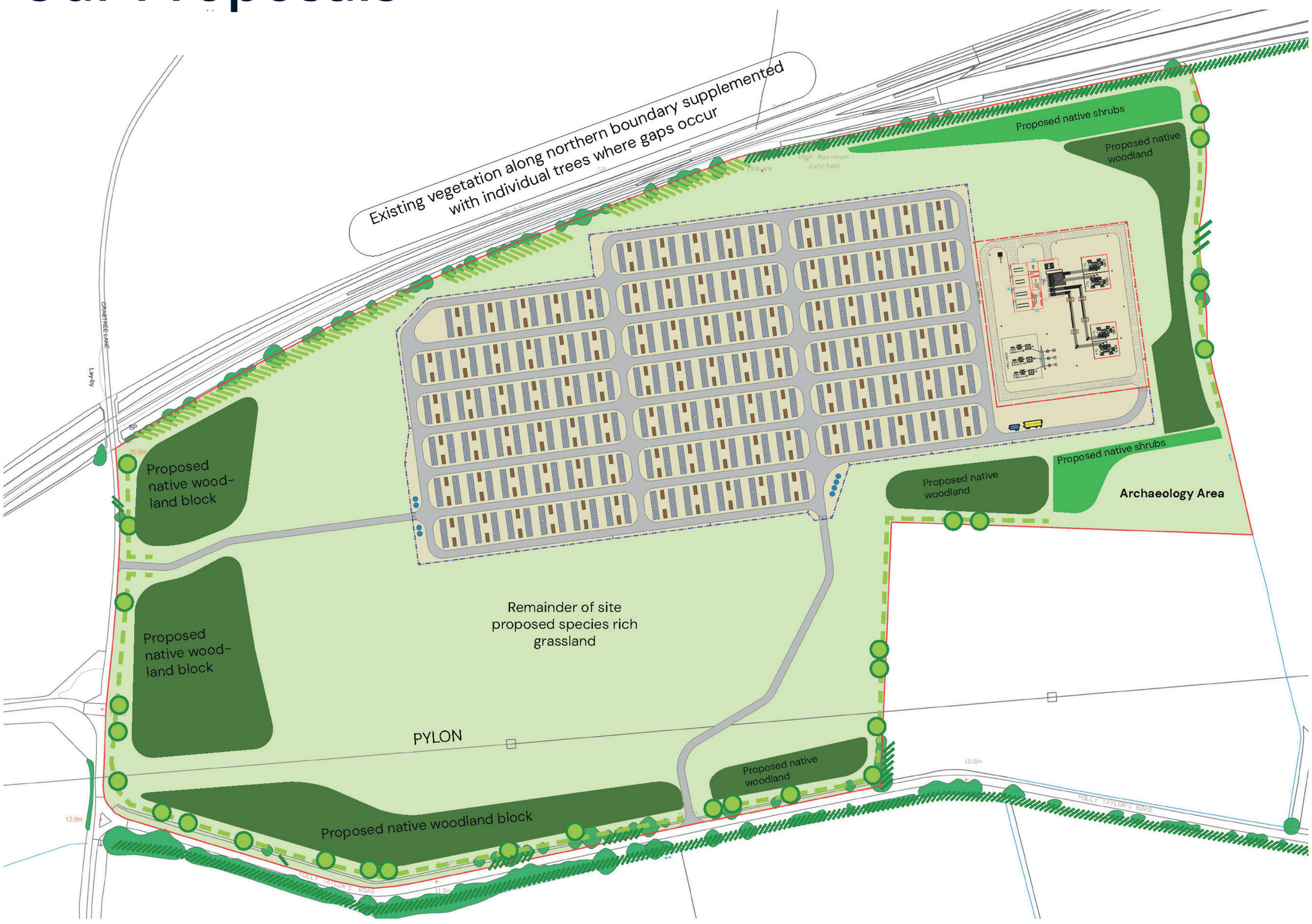
What is an Energy Hub?

How does it work?

Crabtree Lane Energy Hub charges with electricity from the grid during periods of low demand and then discharges that electricity during periods of high demand.

Due to technological advances in battery technology, renewable energy can now meet peaks in energy demand throughout the day. Battery storage provides an important role in decarbonising our energy system by storing energy and discharging it over periods of high demand when renewable sources may not be generating. The Energy Hub can therefore contribute to grid stability by offering frequency control services to the National Grid.

Our Proposals



The main components of the proposal comprise:

Battery Energy Storage System comprising a series of linked batteries housed within shipping containers (or containers of similar appearance);

Inverter/transformer stations with cooling equipment and associated electrical infrastructure distributed evenly across the site housed within containers;

Underground cabling to connect the batteries and inverters/transformer stations to the proposed on-site substation and control room, which comprises the plant and equipment necessary to export the electricity stored on-site to the electricity network;

Security fencing (2.4m high metal weld mesh) and monitoring **CCTV/ infra-red cameras** mounted along the perimeter of the BESS Site;

Landscape planting, biodiversity enhancements and surface water attenuation measures;

Land for the **temporary construction laydown area and site accesses** from the public highway;

On site **Substation** and associated electrical infrastructure.

Why do we need Energy Hubs?

A significant increase in renewable energy generation is supported by national policy and relevant material planning considerations, such as the UK Government's legally binding 2050 'net zero' target supported by the Net Zero Strategy and the British Energy Security Strategy, which requires a rapid and expanded deployment of zero and low-carbon electricity generation, supported by energy storage, if climate change is to be tackled within our lifetimes and achieve a fully decarbonised power system by 2030.

National Grid advised, in their July 2024 Future Energy Scenarios, that electricity storage is necessary across all net zero pathways to help balance the grid and ensure security of supply, modelling that the total electric storage capacity will need to increase to 26-34 GW by 2030 to achieve net zero targets. Great Britain currently has 4.7 GW of operational battery storage capacity.

The Climate Change Committee further highlights the need for urgent action in their reports to ensure that reliable power is always there at the flick of a switch

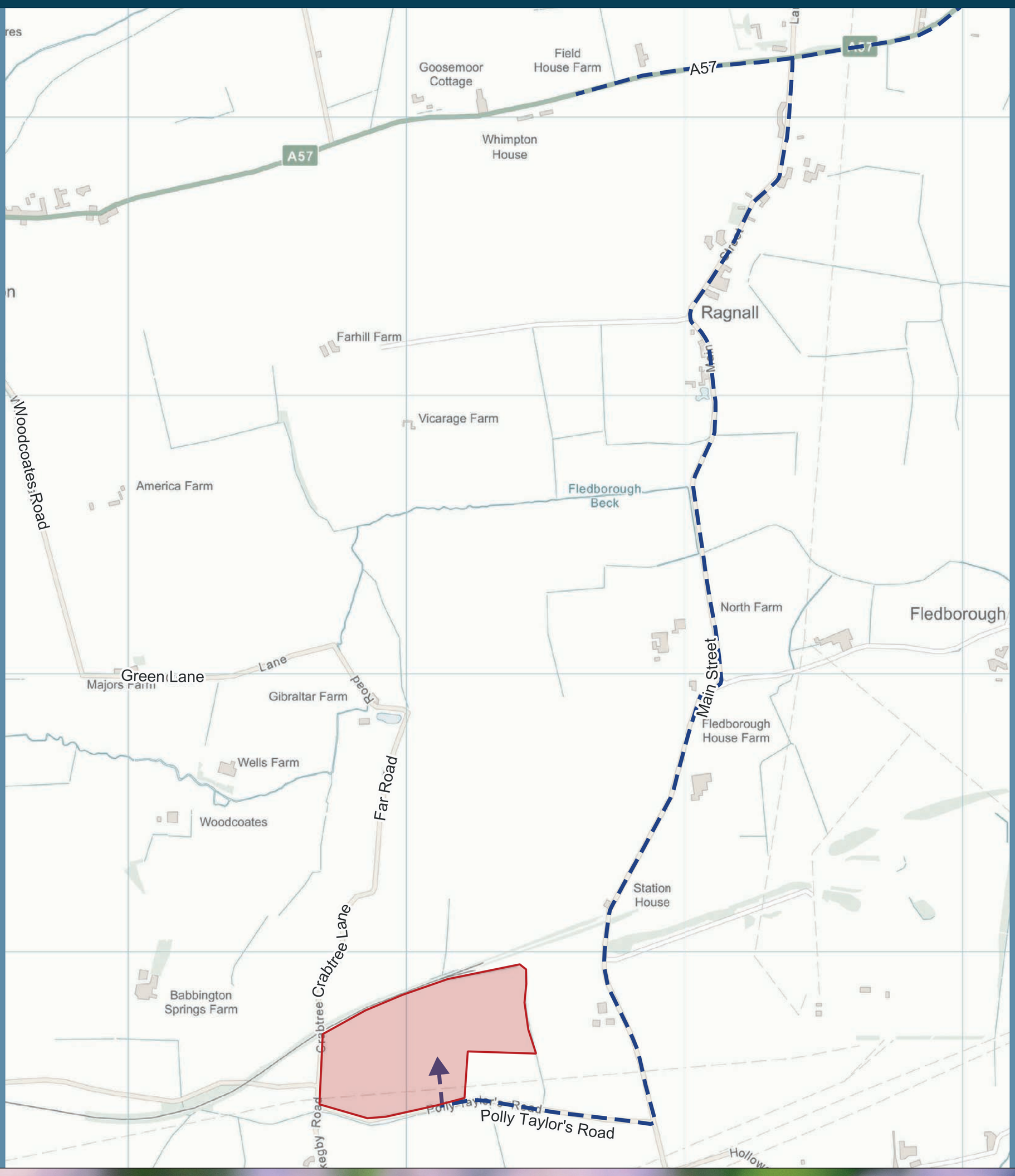
- The project would support the UK's urgent need for energy security.
- The project would also support the UK's goal of **reducing carbon emissions by 68% by 2030 compared to 1990 levels**.
- Provides a consistent source of renewable energy for use by the National Grid, even when the wind stops blowing and the sun isn't shining.
- It will assist Bassetlaw District Council to reduce greenhouse gas emissions in line with local, national, and international targets.
- The proposed scheme would not require any Government subsidies.

Why Here?

The site is within close proximity to the point of connection at the High Marnham National Grid Substation which is located approximately 1km east.

The land is not covered by any statutory or non-statutory designations or assets that relate to landscape, biodiversity and cultural heritage.

We are currently undertaking environmental surveys and assessments which will be used to refine the design alongside feedback received. Early feedback from our environmental consultants suggests there are no constraints to this type of development in this location.



Key

- Site Boundary
- HGV Construction Traffic Route

Construction and Access

The construction of the proposal would take place within 30 months, with construction vehicles accessing the site via Polly Taylor's Road. A secondary access will be provided from Crabtree Lane during operation for emergency service vehicles.

The anticipated average number of deliveries for the construction of the battery compound would be 5-6 deliveries per day assuming a 12-month construction period.

For the remainder of the construction period, during the construction phase of the substation, there will be a lower number of HGV deliveries on a daily basis. There is likely to be a small peak in deliveries early in the construction process for site set-up, including the construction of the access track. This should be no more than 10-15 deliveries per day by HGV during this period.

A Construction Traffic Management Plan (CTMP) will be prepared and submitted with the planning application and be implemented during the construction phase. The aim of the CTMP is to reduce the effect of the construction phase on the highway network. It will contain all of the required information for the construction phase, as well as package of agreed mitigation measures.

Once operational there would be limited vehicle visits each month comprising a transit style van, accessing the Site via the proposed access from Polly Taylor's Road.

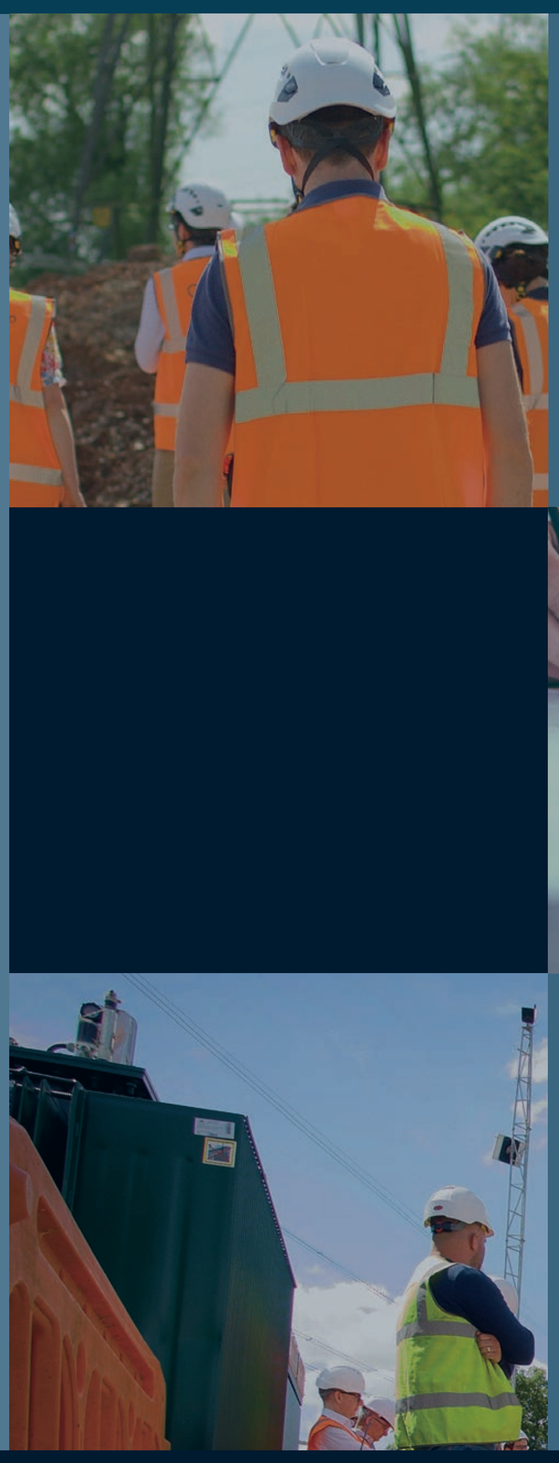
Safety

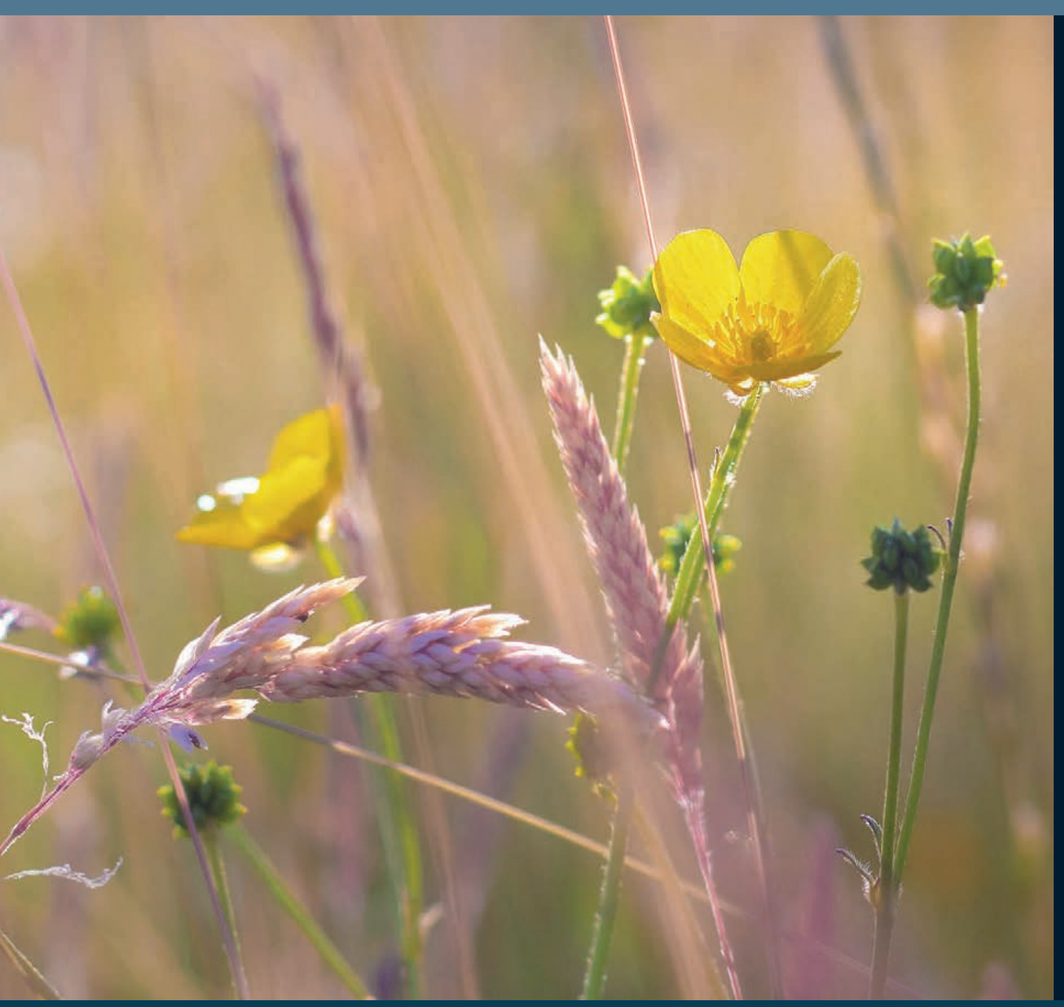
Battery Energy Storage Systems (BESS) are designed and installed by specialist suppliers who have experience of developing and supplying this type of technology, and who certify their systems to all relevant standards and regulations concerning safety performance.

Each battery container is designed with several layers of monitoring and prevention systems to ensure safe operation throughout the lifetime of the project. These safety systems undergo rigorous testing regimes throughout their operation to ensure that they operate as they should.

The application will be accompanied by a Battery Safety Management Plan (BSMP). The BSMP will cover all aspects of the project including but not limited to site design, installation, operation, technology and emergency response to ensure the highest safety standards are met. The project must comply with the standards set out in the BSMP.

Nottinghamshire Fire and Rescue Service will be consulted as part of the application.





Site Design

The project has been carefully chosen based on distance to properties, roads and footpaths. In line with the National Fire Chiefs Council guidance the following principles have been applied to the site design:

- **✓ Secondary access point for emergency vehicles has been provided**
- **✓ Provision of localised water tanks**
- **✓ Suitable spacing between the battery storage units**
- **✓ Equipment placed at least 10m from vegetation**

Viewpoints

VIEWPOINT 1A – Existing View

VIEWPOINT 1A – Proposed View (Year 1)

VIEWPOINT 1A – Proposed View (Year 15)

Viewpoints

VIEWPOINT 1B – Existing View

VIEWPOINT 1B – Proposed View (Year 1)

VIEWPOINT 1B – Proposed View (Year 15)

Viewpoints

VIEWPOINT 2 – Existing View

VIEWPOINT 2 – Proposed View (Year 1)

VIEWPOINT 2 – Proposed View (Year 15)

Viewpoints

VIEWPOINT 4 – Existing View

VIEWPOINT 4 – Proposed View (Year 1)

VIEWPOINT 4 – Proposed View (Year 15)