Forest Road Energy Storage System

Community Information

908MW

Energy capacity

103 hours

Sufficient storage to power the entire Enderby area

Innova are proposing an Energy Storage System (ESS) located on land to the southeast of Thurlaston Lane, Enderby. The development areas have been carefully selected and designed via a detailed assessment process. Once connected, the ESS could store enough energy to power all homes in the Enderby area continuously for 103 hours. This proposal will be connected into the transmission network at Enderby National Grid Substation via an underground cable and has potential to be used by local homes and businesses.

An important part of the development process is to engage with the local community. This information pack seeks to provide you with comprehensive information regarding the proposed project with a view to arranging a phone call or virtual meeting so that you can ask any questions or provide feedback on the project proposal.

Key project elements:

- The scheme has an indicative export capacity of 908 megawatts (MW), the final installed capacity of the site will be confirmed through any feedback received from the local residents as well as the remaining surveys such as Noise, Flood Risk Assessment and Geophysical Survey.
- On-site infrastructure includes housed energy storage containers and other electrical equipment such as transformers, a substation, and a temporary construction compound.
- Electricity would be imported from, and exported to, the National Grid substation located close to the site, via an underground cable.
- Delivery of Biodiversity Net Gain through an increase in habitats for local wildlife and additional vegetation planting.
- Potential direct and indirect employment opportunities in the local area during the construction period, as well as some during operation.
- The scheme, once connected will be wholly contained within fields at Thurlaston Lane.

About Innova

Innova is a leading independent renewable energy consultancy who have been active in the development of renewable energy projects since 2010. Our mission is to support the delivery of utility-scale renewable energy projects using multi-technologies fit for the transition to Net Zero.

Our in-house team of renewable energy industry experts and trusted consultants have extensive experience delivering and operating renewable energy projects across the United Kingdom. We aim to build, own, and ultimately operate the Forest Road ESS project, should planning permission be forthcoming.

We look forward to discussing the proposal with you.

Site Location Plan

Visit: www.innova.co.uk/projects/forest-road-ess for more information.

The Need for Renewable Energy Developments

The UK has a legally binding target to achieve Net Zero by 2050 and has committed to fully decarbonising the electricity network by 2035. As part of this, the Government has set an ambitious target to deliver 30GW of energy storage by 2030. This results in many low carbon and renewable developments being needed across the UK. In 2020 Blaby District Council published ambitions to be carbon neutral as an organisation by 2030 and support the district in becoming carbon neutral by 2050.

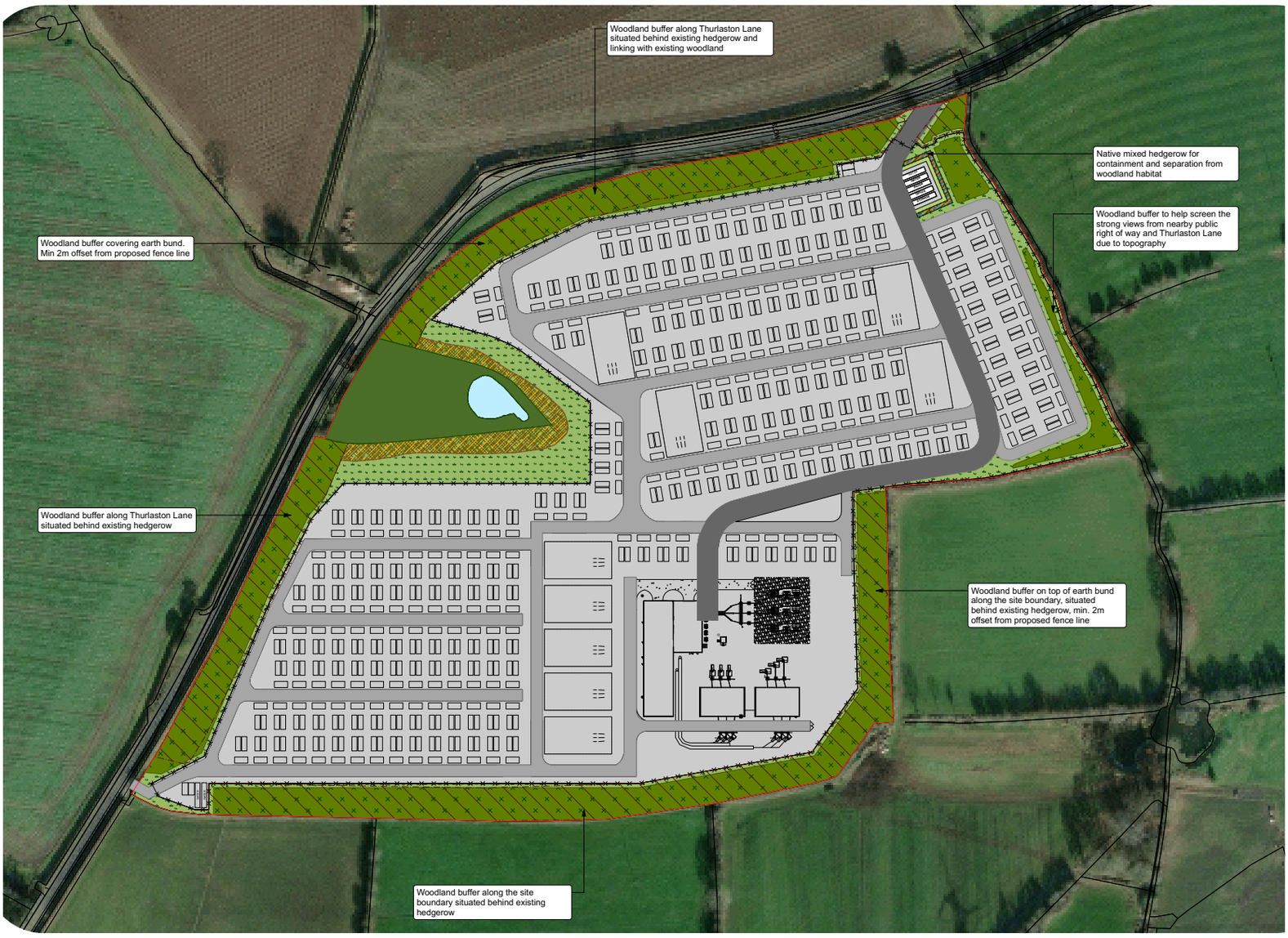
Energy Storage Systems (ESS), like this proposal, are leading the way in balancing the demand for electricity and providing flexibility to the supply of electricity, in terms of where it can be stored on the network and the times when it can be utilised. Projects like Forest Road are a crucial component of the delivery of Net Zero targets.

The Future Energy Scenarios 2022 report (written by National Grid ESO) indicates that the UK will need more than 250GW of energy storage by 2050, and this proposal would add a significant amount of energy storage to this pipeline. In April 2022, Renewable UK reported that, nationwide, there was around 1.5GW of energy storage in operation, 1.5GW under construction, and 10GW that had consent, but had not yet been built. A significant increase is required in order to meet the projected requirements.

Projects like the Forest Road ESS proposal allow for energy to be stored at times of low demand and released at times of high demand. Energy Storage Systems also allow us to make better use of our existing electricity supplies and for electricity generated from other renewable energy sources to be fully utilised.

The Proposal

We are proposing an Energy Storage System on land to the east of Thurlaston Lane, Enderby. This proposal will be connected into the transmission network and has the potential to be used by local homes and businesses. The system has an indicative storage capacity of 908 megawatts(MW), the final capacity of the site will be reviewed following feedback from local residents and the final surveys outstanding. The site areas have been carefully selected and the design informed by a detailed assessment process.



Proposed design

The site selected has the following benefits:

- The confirmed availability of grid capacity for both import and export of electricity into the national grid substation.
- Existing mature trees and hedgerows surround much of the site providing screening of the proposal.
- Set away from local communities. The existing hedgerows will be added and extended to provide extra cover.
- Located outside of any statutory ecological or landscape designations. Heritage surveys are being carried out to assess the site for any potential archeological interest.
- Suitable access for all construction vehicles.
- The proposal presents an opportunity to deliver significant Biodiversity Net Gains.

The Proposed Equipment

Energy Storage Blocks

The development will primarily consist of liquid cooled batteries, the size of a storage container.

Medium Voltage (MV) Skid

The MV Skid is required to convert the Direct Current (DC) to Alternating Current (AC). One MV Skid will be required per two energy storage blocks to house the inverter, transformer and Ring Main Unit (RMU).

Transformers

The purpose of these transformers is to raise the voltage for export from the Energy Storage System to the National Grid and vice versa. They will be positioned close to the energy storage blocks to minimise the cabling distance.

Substation

The main substation contains the largest items of plant, consisting of a Gas Insulated Switchgear (GIS) hall, transformers and filters. It will have a footprint of approximately two acres.

Access tracks and construction compound

Access tracks would be established across the site. During the construction phase a construction compound would be established for storage of materials, plant, parking and worker offices and welfare units. The site will have two access points at the development perimeter to allow for increased accessibility.

Security

A fence would be installed around the perimeter of the development at a height of approximately two meters and the site will be monitored by inward facing CCTV cameras.

Transport

The access points for construction and operational traffic are proposed to be from Thurlaston Lane. This will require some tree, hedgerow and fence removal on the verge. Trees and hedgrrows will be replaced at a suitable ratio agreed with Blaby District Council.

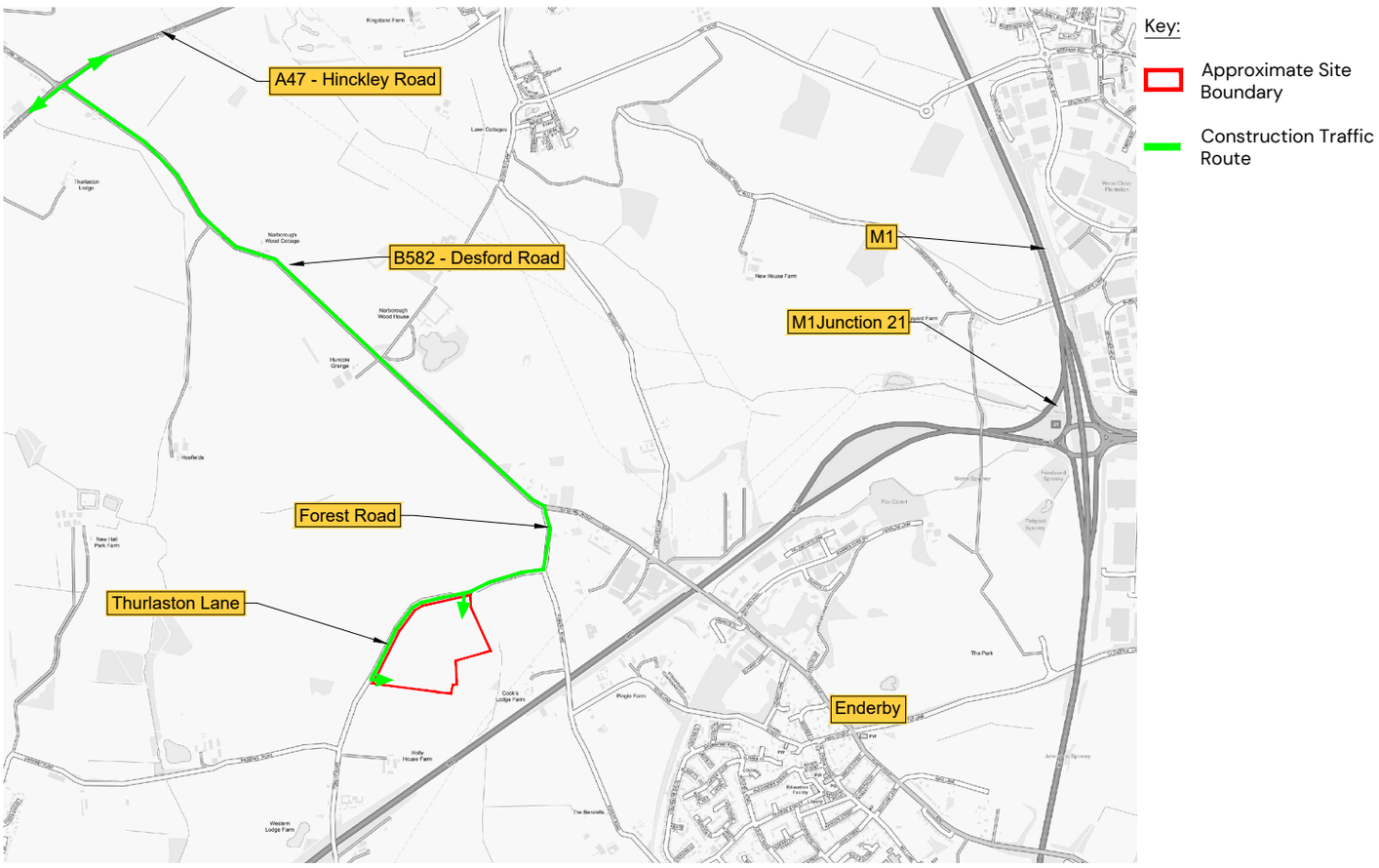
Construction traffic route

We have undertaken an initial assessment to confirm that the necessary abnormal load construction vehicles, which would deliver the largest equipment such as transformers to site, can safely access and egress the site. A small number of loads will require abnormal load transportation. The identified access route for abnormal loads is likely to be from the M1 onto the A563, then onto the A47 then into the site via Desford Road and Thurlaston Lane. This route will be agreed with Leicestershire Police, Leicestershire County Council Highways as well as National Highways.

We are currently assessing the number of construction vehicles that will be required. This will be detailed within the Construction Traffic Management Plan which will be submitted as part of the planning application. The figure below illustrates the indicative construction traffic route, which we welcome your comments on.

Operational traffic

Once operational, the site will be visited for occasional routine maintenance, typically once or twice a month by a light goods vehicle. In the first five operational years, regular visits will be made by landscape contractors and ecologists to monitor and manage completed landscape works.



Indicative Construction Traffic Route Plan

Technical Details

Agricultural land

According to the Natural England Regional Land Classification Map, the site is located predominately on Grade 3 agricultural land. Grade 3b, 4 and 5 is classified as lower grade agricultural land. A site-specific survey has been undertaken and we are awaitng the results.

Hydrology

The site is located in an area with a low risk of flooding. A Flood Risk Assessment (FRA) is however currently underway which will review how the site could be affected by flooding and from surface water. A drainage strategy will be included and discussed with Blaby District Council.

Archaeology and Heritage

A Historic Environmental Desk-Based Assessment is currently being carried out. This assessment will consider the available archaeological, historic, topographic, and land-use information in order to establish the potential for any effects on heritage assets in the area, and the likelihood of encountering archaeological remains on the site. A geophysical survey has been undertaken.

Noise

We are preparing a Noise Impact Assessment of the site, which has identified the closest noise sensitive receptors and has been informed by background noise monitoring. The assessment identifies that the proposed development will give rise to rating sound levels that do not exceed the measured background sound level in the area during the day and night, and are therefore acceptable.

Operation

Energy Storage Systems are a safe technology and there are many sites across the UK operating today. The development will incorporate a number of embedded safety mitigation measures to ensure that it operates safely and in accordance with regulatory requirements and the requirements of the Leicestershire Fire and Rescue Service.

Why do we need two accesses?

Two access points are proposed for construction and operation: the first utilising the existing farm access at the southwestern corner, this will be the access used by maintenance vehicles once the site is constructed. There will be a newly constructed access to the north of this land parcel which will allow access into the site for the large site equipment during construction, as well as serving as a secondary entrance for emergency vehicles.

During construction a traffic management plan will be put in place. Once the storage system installation is complete, the site requires very little maintenance. Operational access will comprise (approximately) of monthly visits in regular cars or 4x4 vehicles.

Will there be a site contact during construction?

A site manager will be located on site during the construction phase, and suitable contact details will be provided on boards outside of the construction area.

Who deals with planting?

We would instruct an Engineering Procurement Construction (EPC) company to oversee construction. This company will carry out the planting which will be set out on the Landscape Planting Plan. Following construction, Innova would operate the site and will be responsible for its upkeep and maintenance.

How many jobs will be created?

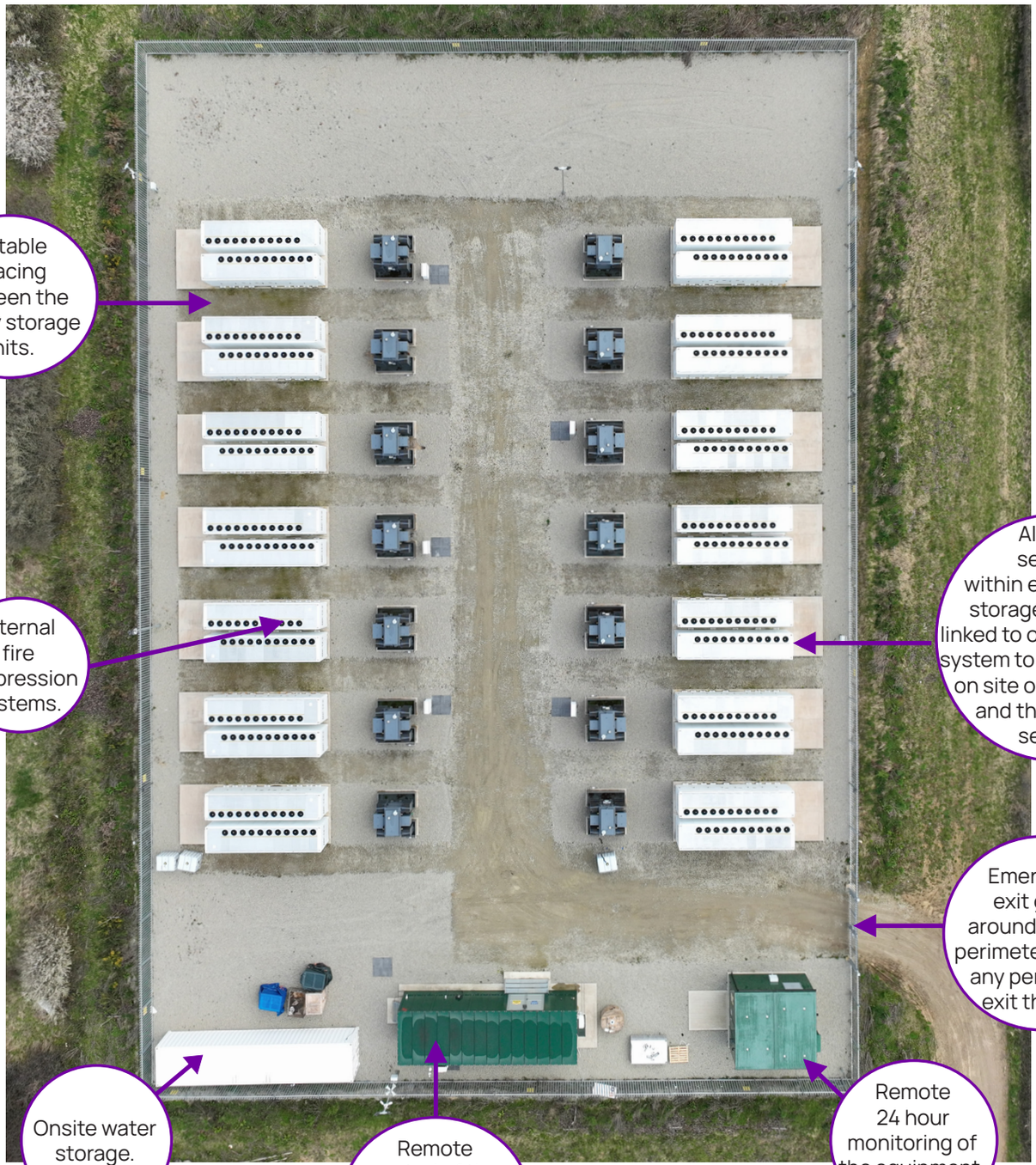
The proposal will create potential opportunities for the local area during the construction phase. As part of our procurement process, we will hold “local supplier information events” to raise awareness of these opportunities and encourage local businesses to tender for work.

How much operational traffic will there be?

Once operational, it is likely that a member of staff will visit the site twice a month in a light goods vehicle to undertake general maintenance of the site, e.g., checking on planting, cleaning pieces of equipment, removal of any debris around equipment blown into the site, and any equipment maintenance.

Safety

The safety of our sites is of key importance to Innova, Energy Storage Systems are a safe technology and there are many sites across the UK operating today. The development will incorporate numerous embedded safety mitigation measures to ensure that it operates safely and in accordance with regulatory requirements and the requirements of Leicestershire Fire Service. It is anticipated that safety measures will include:



Our Community Promise

Supporting the Community

We believe it is important that local communities share in the benefit our project brings. For all our energy storage projects, we offer a community benefit fund, which can be used to support local projects and priorities. We will work with our host communities to agree the best way to provide and administer that fund.

Every year, the Forest Road Energy Storage System will contribute £50 per megawatt (MW) of energy storage installed to the community benefit fund. A further £20 per MW of energy storage installed for a charitable donation annually for the entire 50-year lifetime. The total annual payment based on an indicative installed capacity of 908MW, which would be generated for this project is set out below.

OUR COMMUNITY PROMISE

The below figures are based on the contributions which will be made every year for the project of £50 per MW of energy storage which will be paid into a local community fund, and £20 per MW of energy storage which will be paid to charity.

£45,400
To Community Benefit Fund

per year

£18,160
To Charitable Fund

The above figures are indicative and final figures will be confirmed after planning and prior to energisation. All sums are indexed link for the lifetime of our projects.

Community involvement

- Work with Parish Councils and local stakeholders.
- We are interested to hear community suggestions.
- Opportunities for local beekeepers.

Local economic benefit

- Local supply chain and employment during construction (contractors, materials, security, hospitality etc.)
- Rural diversification.

Next steps

Pre-application and community consultation - current

Blaby District Council do not currently offer pre-application advice. Innova have reached out to the planning manager to discuss the project at a high level and are currently awaiting feedback. This will further inform the forthcoming planning application, which is due to be submitted in Spring 2024.

We will consolidate the feedback from the local community and from the Parish to help us finalise the planning application submission and ensure we have taken all comments into account.

We would appreciate any feedback you choose to share with us, using the feedback forms provided. If you would like a little more time to consider the proposals, you can contact us through the project website.

Environmental surveys - ongoing

We are finalising our site-specific assessments and design of the Forest Road Energy Storage System proposal. Ongoing surveys include;

- Full Landscape and Visual Impact
- Flood Risk Assessment
- Agricultural Land Classification
- Biodiversity Net Gain Assessment
- Geophysical Survey

Planning application submission - Spring 2024

The planning application is expected to be submitted to Blaby District Council in Spring 2024.

As part of the planning process, the Council will invite comments from the public and from a range of statutory consultees.

The application documents will be available to view on the Council's website once the application has been submitted.

Construction and operation

If we are successful in securing planning permission, our construction period would be kept to a minimum duration. Planting would be implemented in the first planting season following the construction activities.

Printed on sustainably sourced material, in a factory powered by renewable energy, using a 100% waterless process and sending 0% waste to landfill. 100% recyclable.

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