Fanny House Farm Energy Storage

Welcome



Welcome to the Fanny House Farm Energy Storage proposal community consultation event.

Novus and Innova are proposing a 940MW (Megawatt) Energy Storage System ('ESS') at Fanny House Farm, Heysham. Once connected this proposal could meet the power demands of around 2,207,000 homes continuously for a two hour period.

An important part of the development process is to engage with the local community. This event seeks to provide an opportunity for local residents to meet our team, to ask questions and provide feedback on the proposed project.

We look forward to discussing our proposals with you.

Key Project Elements:

- On-site infrastructure including 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.
- Onsite 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.

940MW

Energy import and export capacity

72 acres

incl. land for planting, onsite biodiversity net gain and access

2,207,000

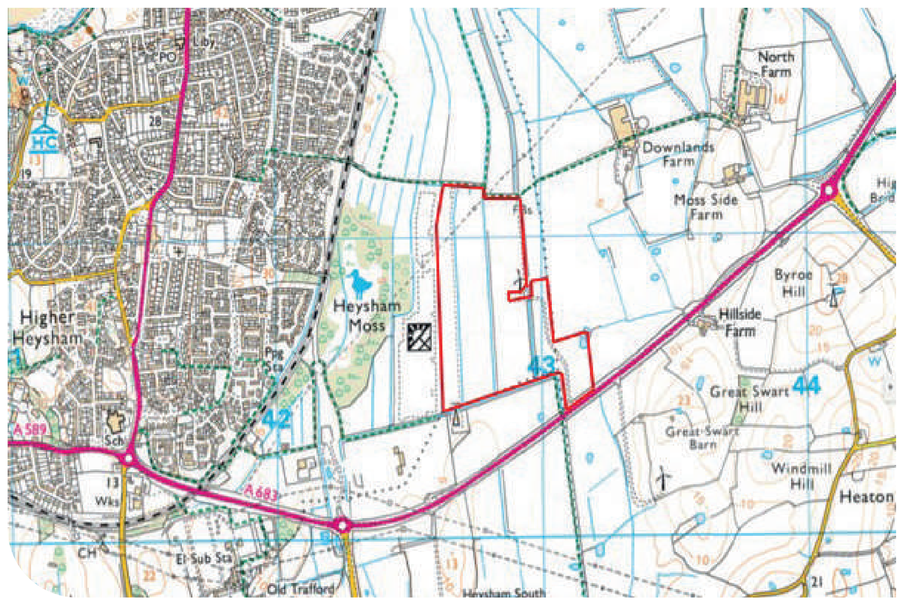
approx. houses continuously powered for 2 hours

About Novus and Innova

Novus Renewable Services 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 or renewable energy industry experts and trusted consultants have extensive experience delivering and operating renewable energy projects across the United Kingdom.

We are working in partnership with Innova Group who will build, own, and ultimately operate the Energy Storage System proposed on land at Fanny House Farm, should planning permission be forthcoming.



Site Location Plan

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Need for Renewable Energy Developments

There is widespread awareness of the need to reduce dependence on fossil fuels and transition to renewable energy.



The UK has a legally binding target to achieve Net Zero by 2050 and has committed to fully decarbonising the electricity network by 2035. This results in many low carbon and renewable developments being needed across the UK. Energy Storage Systems, like this proposal, are leading the way in balancing the demand and the flexibility of supply of electricity in terms of where it can be stored on the network, and the times when it can be utilised. They are a crucial component of the delivery of Net Zero targets.

There will be a significant increase in demand for electricity in the coming years as more sectors (such as cars, heating and trains) rely more extensively on electricity as a fuel source. The Future Energy Scenarios 2022 report (written by National Grid ESO) indicates that the UK will need more than 25GW (Gigawatt) 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 has consent, but has not yet been built. A significant increase is required in order to meet the projected requirements.



Projects like the Fanny House Farm proposal allow for energy to be stored at times of low demand and released at times of high demand. Therefore, Energy Storage Systems allow us to make better use of our existing electricity supplies and for electricity generated from renewable energy sources to be fully utilised.

Lancaster City Council declared a climate change emergency in January 2019. In 2020 the Council entered into the Climate Emergency Local Plan Review (CELPR), which comprised a review of the adopted Local Plan and highlighted the importance that the climate emergency has in decision making in the District. In response to the climate emergency more infrastructure and technology is being developed and implemented to achieve carbon neutrality. Energy storage is complimentary to the energy generation technology and part of the plan to achieve the goal.



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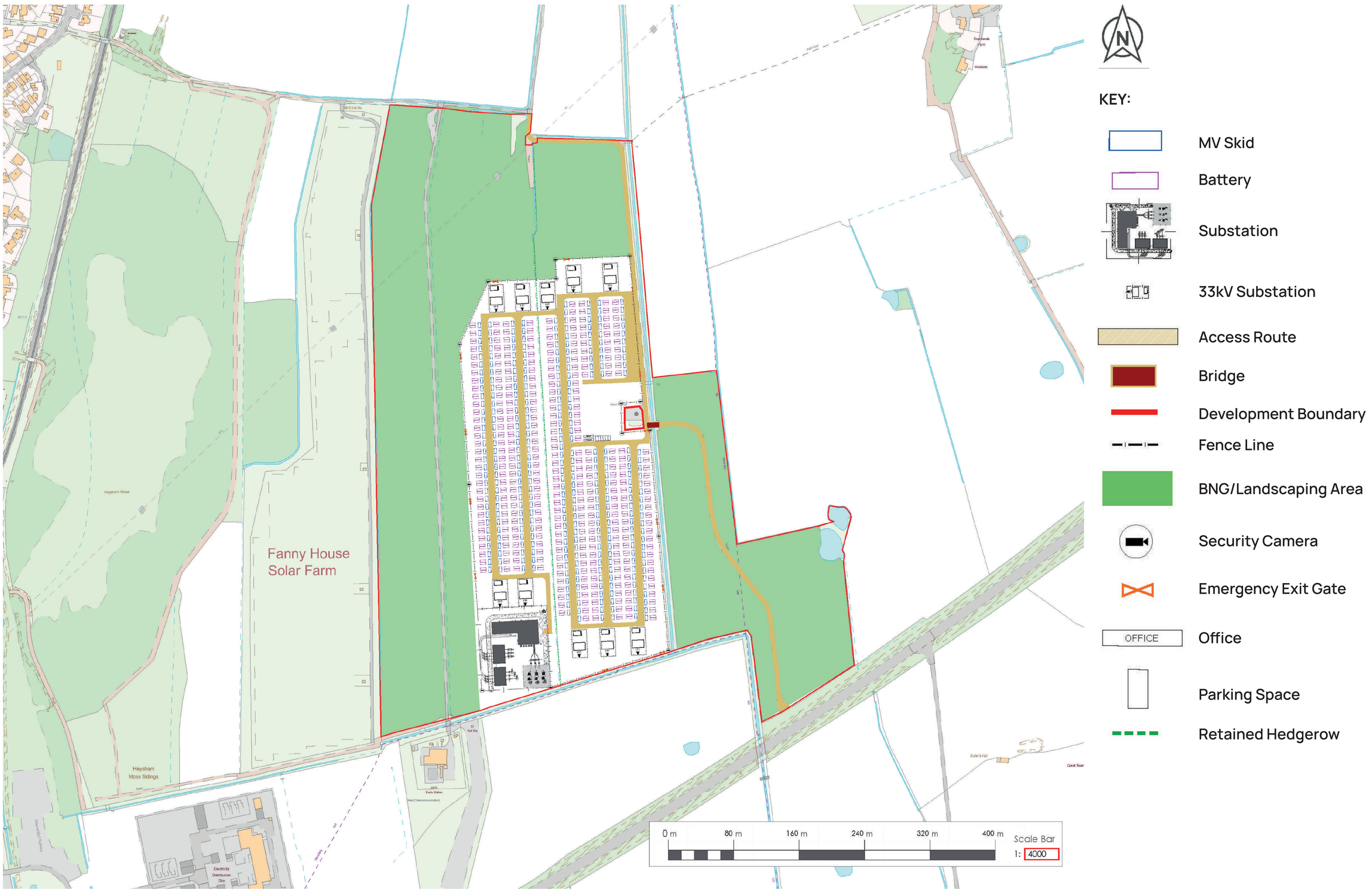
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The Proposed Project



We are proposing an Energy Storage System on land at Fanny House Farm, Heysham.

The site has been carefully selected and the design informed by a detailed assessment process.



Proposed Masterplan

This site we have selected has the following benefits:

- The confirmed availability of grid capacity for both import and export of electricity into the National Grid substation;
- Suitable access off the A683 for construction vehicles;
- It is not located within any statutory or local planning designations, landscape designations nor within close proximity to both listed and locally listed heritage assets; and
- The proposal presents an opportunity to deliver significant biodiversity net gain onsite.

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The Proposed Equipment



Energy Storage

The development will primarily consist of liquid cooled batteries, the size of a shipping 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 blacks to house the inverter, transformer and Ring Main Unit (RMU).



Transformers

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

Access tracks would be established across the site. During the construction phase a construction compound would be established in the vicinity of the site access near the A683.



Security

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

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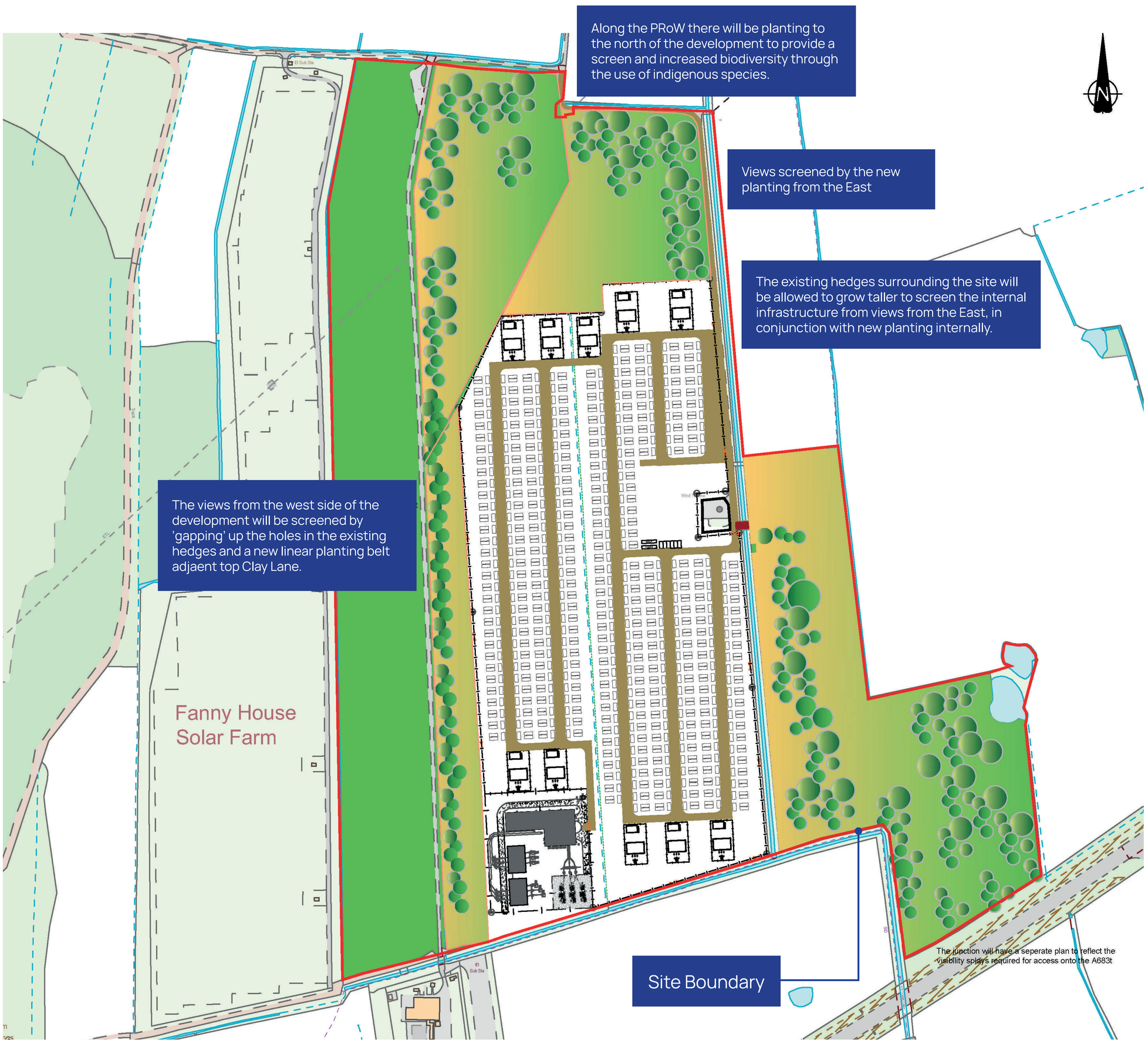
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Ecology

The proposal is not located within or adjacent to an ecologically designated site, however the Heysham Moss Local Nature Reserve/ Site of Special Scientific Interest (SSSI) is located approximately 200m to the west. The proposal will seek to include suitable habitat creation measures and native planting to enhance this ecological site.

Due to the sites proximity to the Morecambe Bay Ramsar/Special Area of Conservation (SAC) and the Lune Estuary SSSI, we have undertaken over-wintering bird surveys, which will in turn inform a Habitat Regulations Assessment. This will form part of the planning application.





Planting Plan

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Transport

The access point for construction and operational traffic is proposed to be from the A683. This will require some tree, hedgerow and fence removal on the verge. Trees and hedgerow will be replaced at a suitable ratio agreed with Lancaster City Council. This proposal will re-open the construction access point which was used for the existing wind turbine on-site. An internal access track is proposed to route northwards towards the main development area.

A secondary access may be required from Clay Lane for use by emergency vehicles only.

Construction Traffic

We have undertaken an assessment to confirm that the necessary abnormal load construction vehicles can safely access the site. There will be minimal abnormal load movements to the site throughout the construction period. The identified access route for abnormal loads is proposed to be from Heysham Port, along Port Way to the A683 and then into the site. This route will be agreed with Lancashire County Council Highways, National Highways and Lancashire Police, who will also be informed of delivery timings once this information is available.

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.

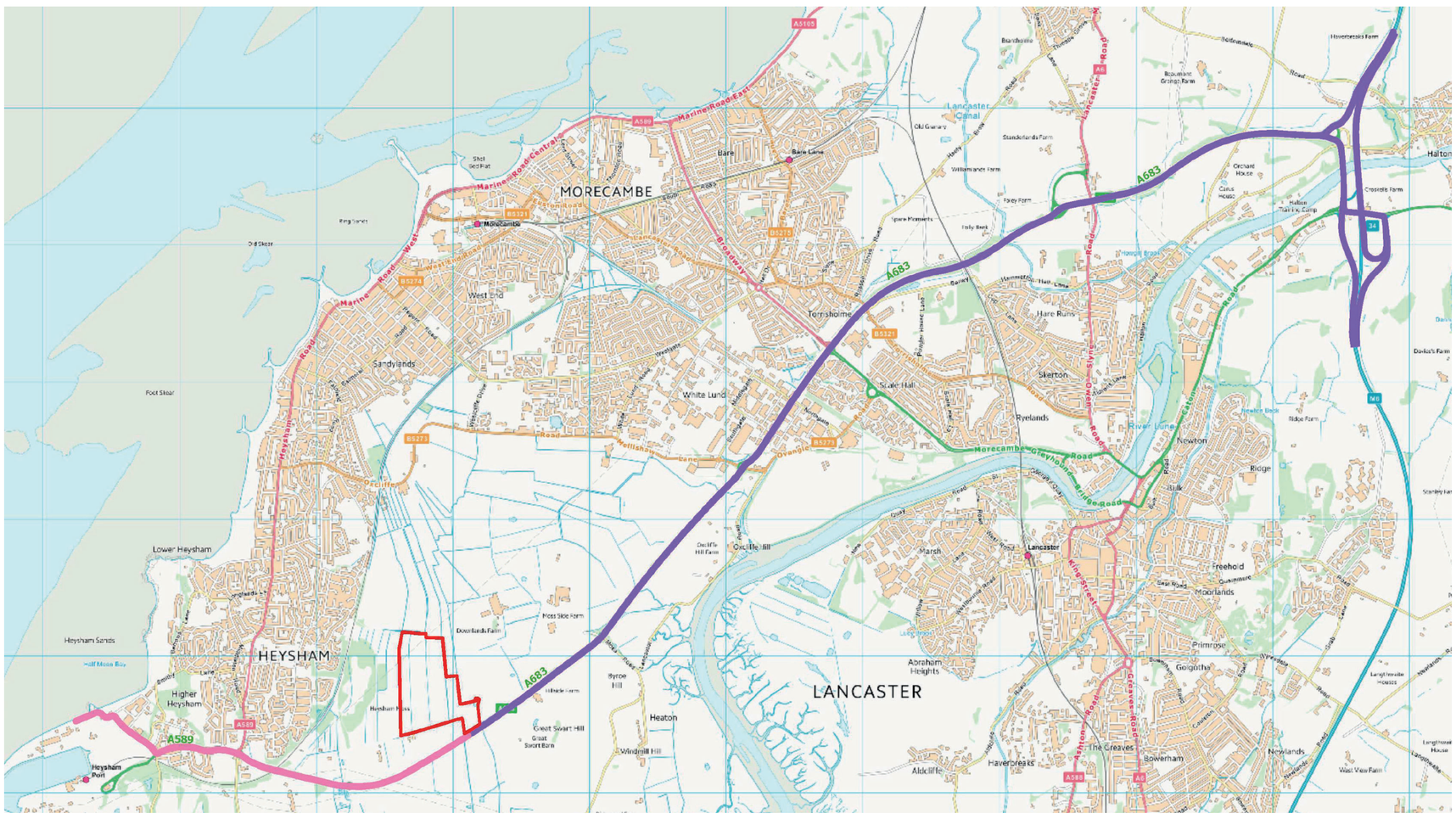
The figure on this board illustrates the indicative construction traffic routes, which we welcome your comments on.

Construction Compound

The site will include a temporary construction compound which will be positioned immediately north of the access point, off the A683. This will allow access for all construction traffic, areas for loading/unloading and space for turning vehicles to ensure all access onto the highway is made in a forward gear. The compound area will be removed following the construction period.

Operational Traffic

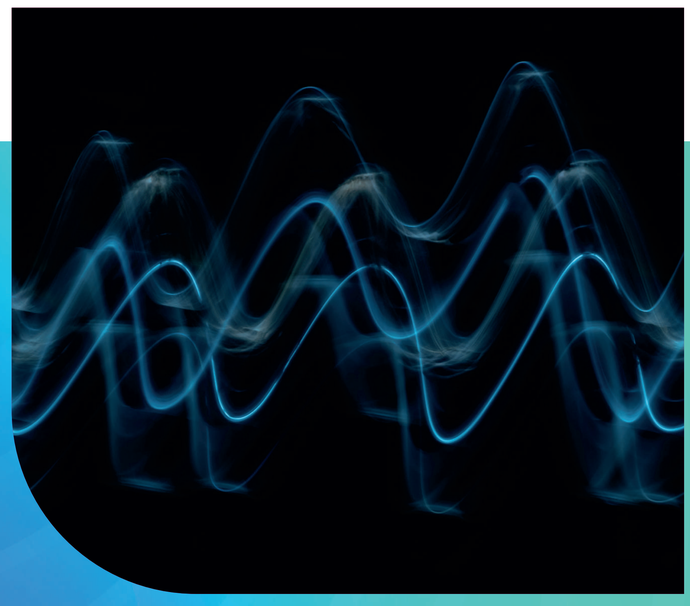
Once operational the site will be visited for occasional routine maintenance, usually by a light goods vehicle. In the first five operational years, regular visits will also be made by landscape contractors and ecologists to monitor and manage completed landscape works.



Indicative Construction Traffic and Abnormal Load

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Technical Details



Noise

The planning application will be supported by a Noise Impact Assessment.

To date we have undertaken a preliminary high-level noise analysis which has identified the closest noise receptors and informed the proposed layout.

Early noise assessments have found the proposals noise levels will be below background noise with mitigation.



Archaeology & Heritage

We are currently undertaking a Historic Environment Desk-Based Assessment which 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. We have consulted with the County Archaeologist who has confirmed the site has low potential for archaeology.

The assessment has demonstrated that the project will not physically impact designated heritage assets nor will it result in impacts to the setting of designated heritage assets. There there will be no impact to known archaeological assets.

Hydrology

The site is located within Flood Zone 3, as shown by Environment Agency mapping and is noted to benefit from flood defences. We are currently undertaking a Flood Risk Assessment which will from part of the planning application and are discussing our findings to date with the Environment Agency to ensure the proposed design is suitable and the scope of mitigation measures does not result in flooding on or offsite.

The Flood Risk Assessment will include a sequential test, the confirmed drainage strategy and mitigation measures.





Agricultural Land

According to the Natural England Regional Agricultural Land Classification Maps, the site is located on Grade 3 agricultural land. In planning policy terms, 'Best and Most Versatile' agricultural land (which is afforded the highest level of protection) comprises Grades 1, 2 and 3a. Lower grade agricultural land comprises land that falls in Grade 3b, 4 and 5.

A site-specific agricultural land classification survey has been undertaken and we are awaiting the result. This survey will form part of the planning application.

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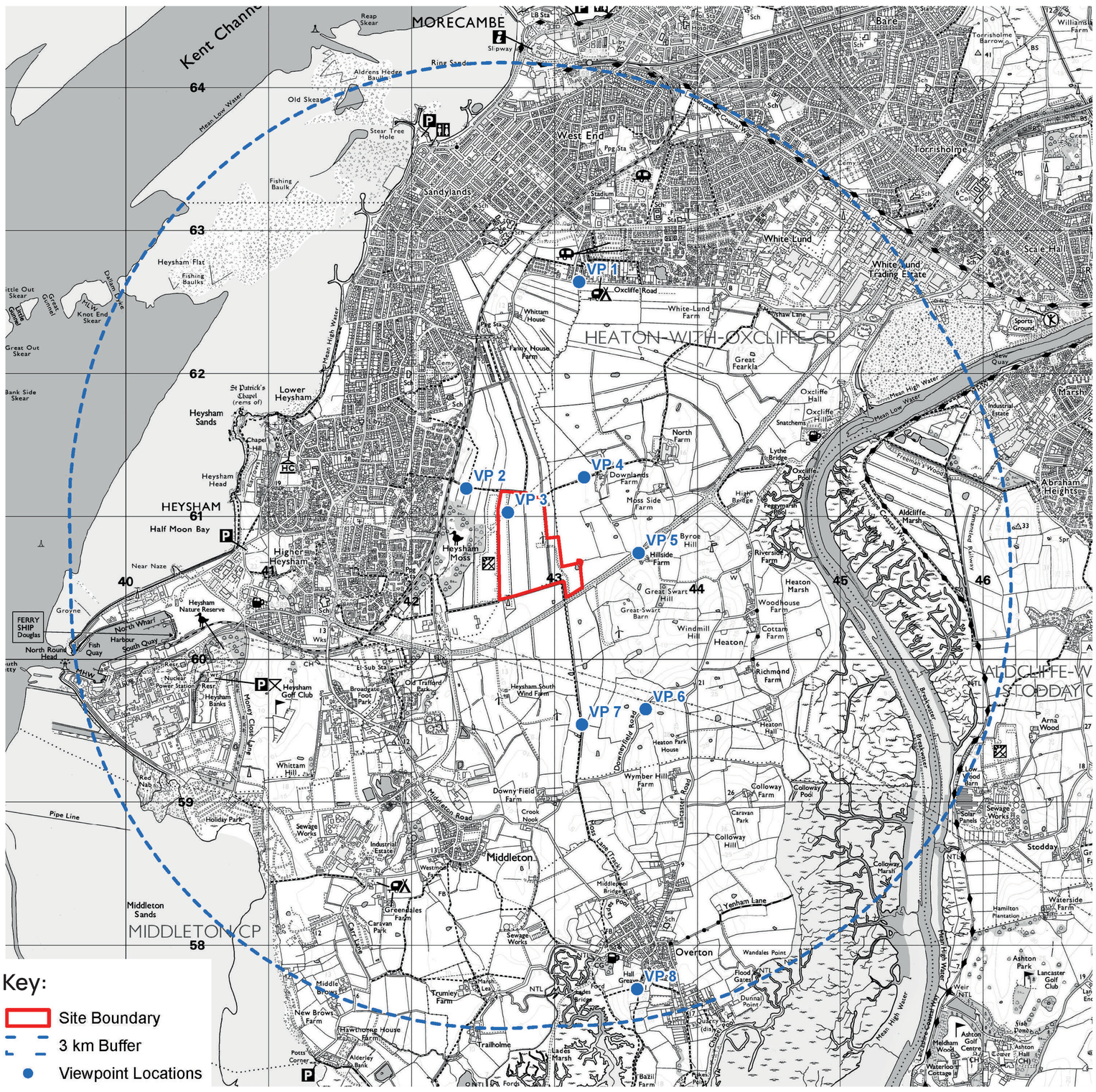
Landscape and Visual



We are currently undertaking a full Landscape and Visual Impact Assessment which will accompany the planning application.

We have agreed viewpoint locations with Lancaster City Council through pre-application discussions, which are illustrated on the plan on this board. Boards 9 and 10 provide imagery from each of these viewpoints.

The proposed development is located in an area of designed open countrysidehowever the immediate area surrounding the site is characterised by a significant amount of telecommunications and renewable energy infrastructure, including a number of wind turbines (with one being located to the east of the site), the solar farm close to the western boundary, the Walney Offshore windfarm substation, electricity pylons, overhead lines and a communications tower adjacent to the southern boundary of the site. Similar energy storage developments have also been approved on land directly south of the site and on land approximately 0.5km to the west of the site.



Viewpoints location plan

Based on the surrounding uses, it is considered that the proposal will be viewed within the existing energy infrastructure context and it does not extend infrastructure far past the existing wind turbine.

The below provides a selection of viewpoints at key locations surrounding the site with labels demonstrating the approximate extent of the proposed development boundary.



Southern area of site - looking west

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Proposed Viewpoints

Viewpoints illustrating the potential visual extent of the site, where vegetation would not be present in winter months.



Viewpoint 1 - Looking south from Oxcliffe Road, Approximately 1.5 km from the site (long View).



Viewpoint 2 - View from Heysham Moss Nature Reserve, approximately 550m from the nearest site boundary (mid view).
Photomontage representation of year 1 of the proposal



Viewpoint 3 - Access track to Walney Offshore Windfarm substation Looking into the site from the western boundary, (close view).



Viewpoint 4 - Public footpath near Downlands Farm looking south west, 400m (mid view).
Photomontage representation of year 1 of the proposal

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Proposed Viewpoints

Viewpoints illustrating the potential visual extent of the site, where vegetation would not be present in winter months.



Viewpoint 5 - Entrance to Hillside Farm, A683 looking North west approximaterly 420m (mid view).
Photomontage representation of year 1 of the proposal



Viewpoint 6 - View from Downeyfield Road approximately 1520m from the site, looking north west (long view).



Viewpoint 7 - View from Public footpath off Downeyfield Road, approximately 14990m from the site looking north (long view).



Viewpoint 8 - View from public footpath at Overton village (highest local point), approximately 2700m (long view) looking north.

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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 Lancashire Fire and Rescue Service.

“ Will there be a site contact during construction?

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

“ How much operational traffic will there be?

Once operational, it is likely that a member of staff will visit the site once 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 and any equipment maintenance.

“ Why do you need two accesses?

Once operational, the site will be accessed by maintenance staff via the A683. Clay lane will only be used by emergency vehicles if necessary.

“ Who deals with planting?

We would instruct an Engineering Procurement Construction company (EPC) 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 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. This could include, for example, engagement with the Lancashire Local Enterprise Partnership to help promote those opportunities.



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Safety

The safety of our sites is of key importance at Innova who will be both owning and operating the site. We are designing a proposal which includes a number of safety measures to ensure the surrounding residences, buildings and the equipment on-site remain in suitable working condition.

The design of the proposed development incorporates a number of safety measures which will be discussed with Lancashire Fire and Rescue Service pre-submission of the application to confirm suitable measures.



Fire wall



Safety fence

Suitable spacing between the energy storage units.

Emergency exit gates around the site perimeter to allow any persons to exit the site.

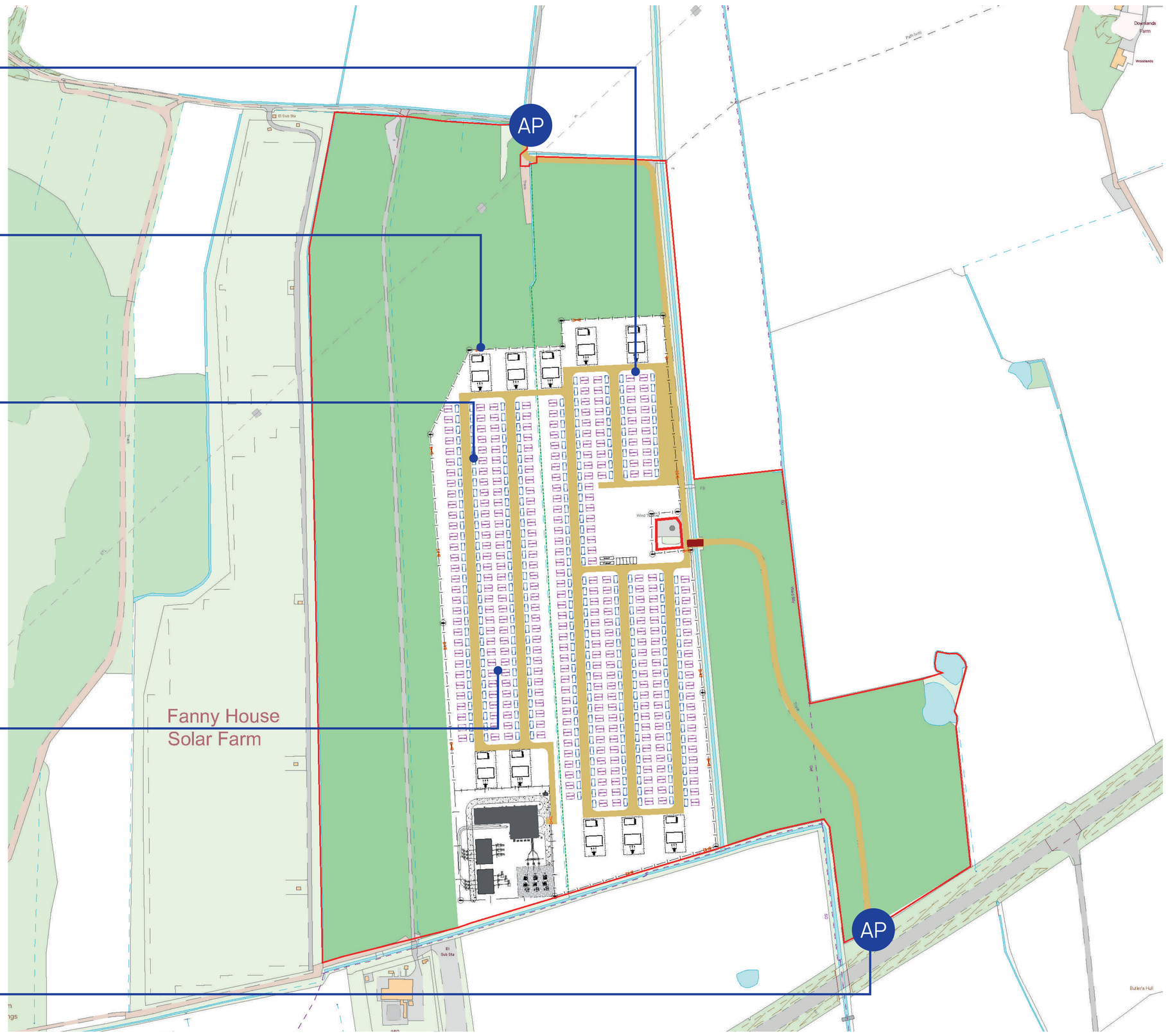
Remote control of the site to switch on/off the equipment.

Internal fire suppression systems.

Alarms/sensors within each energy storage container linked to our monitoring system to notify anyone on site of any issues, and the local fire service.

Two access points allowing safe access to the site in different directions, if required.

Remote 24 hour monitoring of the equipment.



Safety measures incorporated in the project

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Supporting the Community



Our Community Promise

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.

We are reaching out to local schools to include artwork areas at certain points along the fenceline.

Every year the 940MW Fanny House Farm Energy Storage System will contribute £50 per MW of import capacity to the community benefit fund. A further £20 per MW of import capacity charitable donation will be provided annually for the entire 50-year lifetime. The total annual payment which would be generated for this project is set out below.







From early in the development process of all our sites, we like to reach out to the community which will host the development and set out the local benefits the proposal can bring. This includes setting up a Community Benefit Fund, which would be funded by the project with an annual sum paid into each fund for the entire lifespan of the project.

£47,000

To Community Benefit Fund

per year

£18,800

To Charitable Fund

OUR COMMUNITY PROMISE

The above figures are based on the contributions which will be made every year for the 940MW project of £50 to the local community and £20 charitable donation per MW import capacity.

Boosting Biodiversity

The Landscape Management Plan is likely to include the following measures:

- Retention and enhancement of the existing landscape features, including the hedgerows around the field boundaries, the central ditch between the equipment and the syke to the immediate east and trees;
- Bolstering of the existing hedgerow on the site boundaries and allowing this to grow to approx. 3m in height;
- Sporadic tree planting within the site; and
- 20-30m buffer from the public rights of way to the north and enhancement of Clay Lane which is an aspirational cycle route.

The proposal will provide a minimum of 10% Biodiversity Net Gain on-site. Details of this will be included within the Landscape Management Plan.

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Next Steps

Pre-application and community consultation - Current

We have undertaken pre-application discussions with Lancaster City Council who are supportive of the proposed development and have provided valuable advice on the design and scope of the planning application.

We will consolidate the feedback from this consultation event and from the Council to help us finalise the planning application submission and ensure we have taken everything into account.

SCAN ME

We would appreciate any feedback you choose to share with us at our event, either in person or using the feedback forms provided. If you would like a little more time to consider the proposals once you have met with us, you can contact us through the project website: **www.novus-rs.co.uk/projects/fannyhouse-farm-energy-storage-project/**

Environmental Surveys - Ongoing

We are finalising our site-specific assessments and design of the proposed Energy Storage System.
The ongoing surveys include flood risk assessment, various ecology surveys, landscape and transport.

Planning Application Submission – Summer 2023

The planning application is expected to be submitted to Lancaster City Council in Summer 2023.

As part of the planning process, the Council will invite comments from the public and a range of statutory consultees.
The application documents will be available to view on the Council's website once an 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.





Contact Us

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