

Welcome to the Buckland Battery Storage Public Exhibition



Buckland Battery Storage (CSWE5 Limited) is a subsidiary of
Windel Energy Limited & Recurrent Energy.



Founded in 2018, Windel Energy is a privately held company that specialises in the development and asset management of renewable energy projects and low carbon technologies.

With more than 4 gigawatts (GW) of clean, renewable power and battery energy storage in various stages of development, Windel is at the forefront of low carbon technologies including solar, energy storage, and onshore wind, and are helping to pave the way to achieve the UK Government net zero target by 2050.

Windel Energy is committed to responsible land use and believe that the development and delivery of a Battery Energy Storage System can be achieved in harmony with its surroundings.



A subsidiary of Canadian Solar

Recurrent Energy is one of the world's largest and most geographically diversified utility-scale solar and energy storage project development, ownership and operations platforms. With an industry-leading team of in-house energy experts, we are a wholly-owned subsidiary of Canadian Solar Inc. and function as Canadian Solar's global development and power services business.

To find out more visit www.bucklandbatterystorage.co.uk

\ Site location

Buckland Battery Storage is a proposal for a new Battery Energy Storage System (BESS) and associated infrastructure, with a proposed storage capacity of up to 150MW, to be located on land south of Nottingham Lane, near Buckland Ripers, Weymouth. Associated infrastructure includes cabling via the highway and step-up transformers to support the battery storage and connection into Chickerell substation. The proposed development is situated within the local authority area of Dorset Council.

Proposed site location plan

The proposed site location plan shows the main battery storage site, cable route and step-up transformer site required to connect to the National Grid.

Legend:

-  Site boundary
-  Chickerell Substation



\ Battery Storage

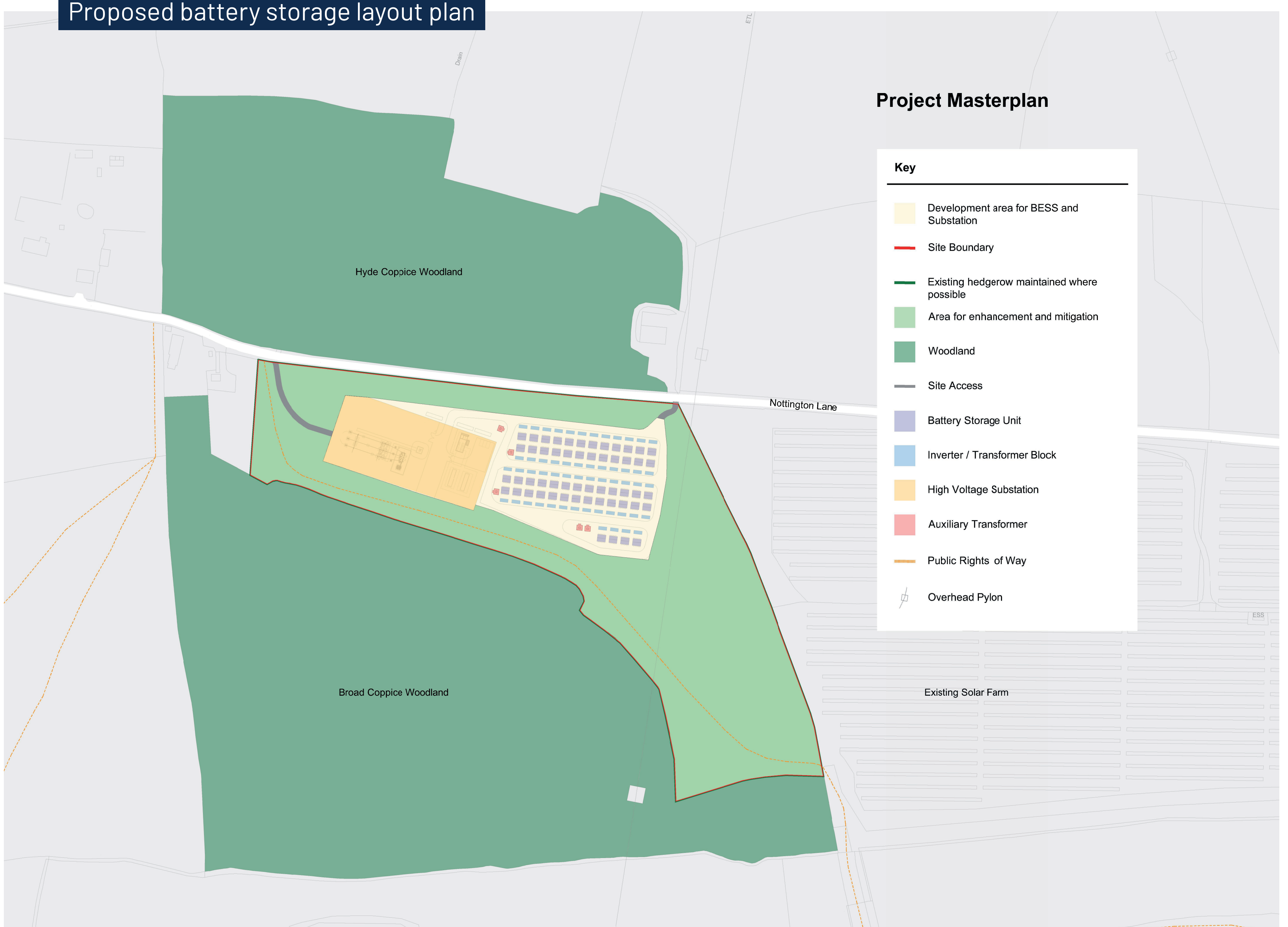
The site covers an area of approximately 13.5 acres (5.5 hectares), located 1km west of the small village of Buckland Rippers and adjacent to the existing solar farm on Nottingham Lane.

Battery storage

The development area of the site comprising the battery storage and associated infrastructure covers approximately 4.39 acres (1.8 hectares). This would consist of approximately 108 battery storage units housed within steel cabinets, the size of a typical storage container. Other associated infrastructure would include:

- A HV substation housing a transformer.
- Inverter/transformer stations.
- Access tracks around the site and on site parking.
- Auxiliary transformers.
- Inward facing infrared CCTV and motion detection lighting for security.

Proposed battery storage layout plan



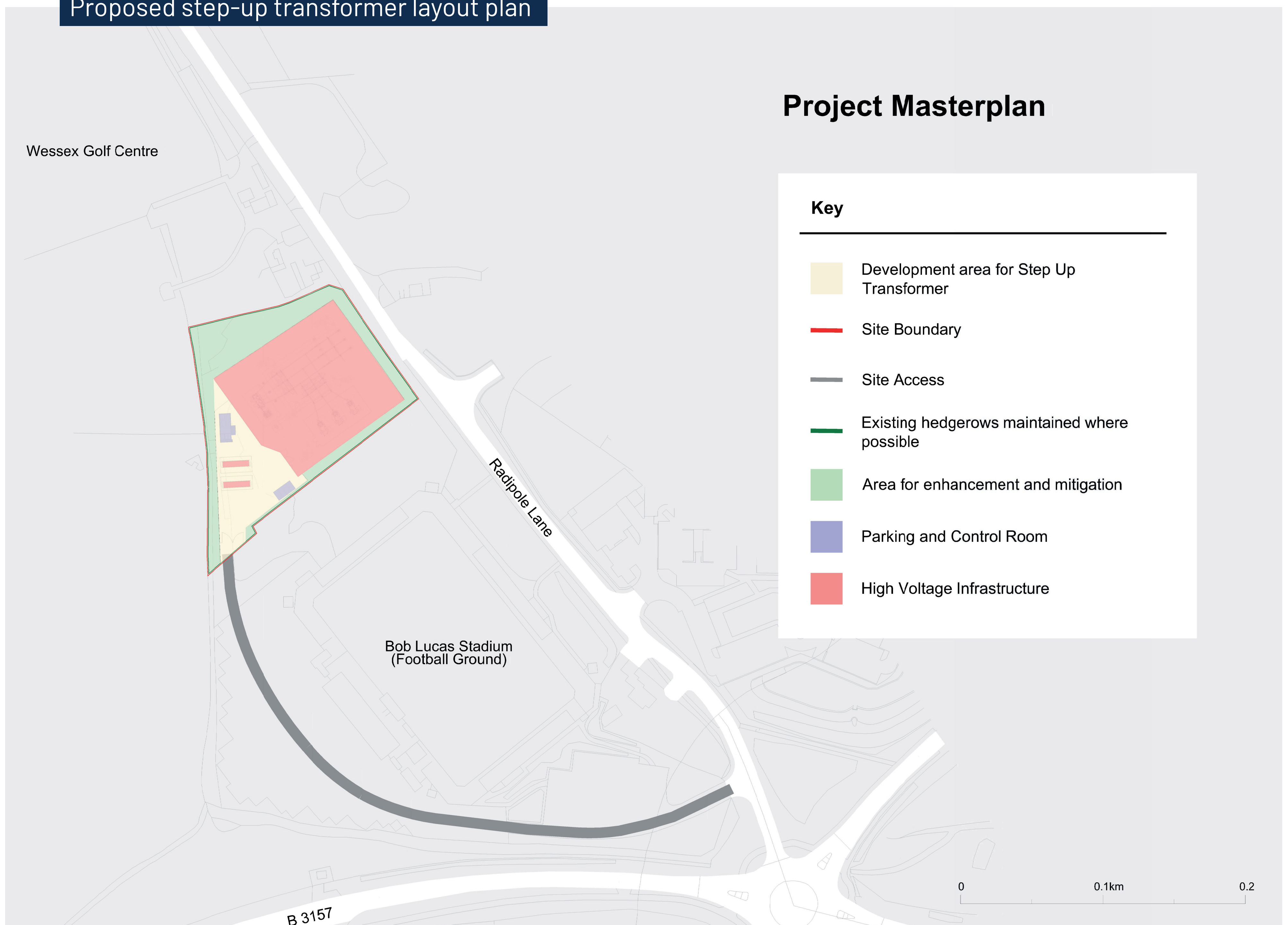
\ Step-up transformer

The proposed step-up transformer is part of the associated infrastructure to support the battery storage and connection into Chickerell substation at the required connection voltage. The site of the proposed stand alone step-up transformer is situated on brownfield land to the north of Weymouth FC Stadium.

Step-up transformer

The site of the proposed stand alone step-up transformer covers an area of approximately 2.7 acres (1.1 hectares). Cabling along the highways route would be subject to appropriate construction phasing, management and agreement with the highways authority.

Proposed step-up transformer layout plan



\ Environment

The following considerations will inform the final design of the development to support the planning application.

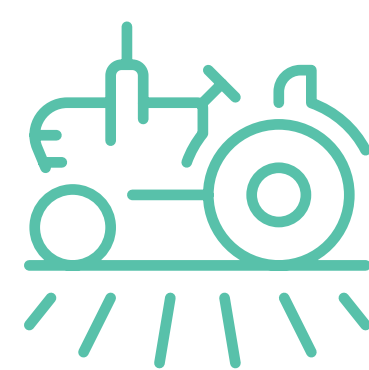


Site selection

We secured a grid connection to Chickerell substation following a land search exercise. The selected site for the battery infrastructure was found to be suitable for a development of this nature for the following reasons:

- The site is not subject to any environmental, landscape or heritage allocations or designations.
- The site is classified as low-grade agricultural land (Grade 3b).
- The site is well screened and contained by existing mature hedgerows and woodland, limiting visual impacts.
- The site is adjacent to the existing Nottingham Lane Solar Farm.
- The formal grid application applied for the point of connection to be utilising the on site 400kV overhead lines. However, National Grid advised this is no longer possible due to network limitations. Connection will now be made via underground cabling to the substation.

No suitable available sites for battery storage were found closer to the substation as part of the land search exercise. A stand alone step-up transformer site has been included as part of the proposal.



Agricultural land classification

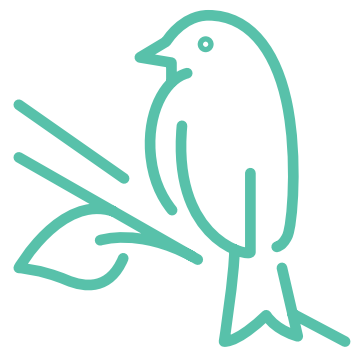
A soil survey has been undertaken which identified that the land at the battery storage site is classified as low-grade agricultural land (Grade 3b). The step-up transformer site is non-agricultural land (brownfield land).



Landscape and visual impact

A Landscape and Visual Impact Assessment (LVIA) will be undertaken to understand and help mitigate the landscape and visual impacts of the proposed development. Consultation on the scope of the LVIA and agreed viewpoints for the assessment has already been progressed with Dorset Council, including considerations of the impacts on the Dorset AONB.

\ Environment



Ecology

A phase 1 habitat survey has been undertaken for both sites

to understand the ecological baseline and conditions. Detailed survey and assessment work is currently underway, including a biodiversity net gain (BNG) assessment. These assessments will identify the net gain to be delivered as a result of the proposal and any mitigation or ecological benefits required for the development.



Flood risk

Both sites are in a Flood Zone 1 area so are at low risk of flooding.

However, a flood risk assessment will be undertaken and a drainage strategy developed to outline how flood risk and drainage will be managed for the development. This will be submitted as part of the planning application.



Heritage

A heritage desk-based assessment will be undertaken and submitted

as part of the planning application to understand the heritage impacts of the development and how these can be mitigated. Given the distances and intervening built development and vegetative screening, the development is unlikely to give rise to any effects to the settings of nearby built heritage assets. The site is not located within a conservation area or adjacent to any statutorily or locally listed buildings.



Public rights of way

There is an existing public right of way which runs along the western and

southern boundaries of the battery storage site. The majority of the right of way runs through existing woodland, which will be retained. As described in the landscape section, an LVIA will be undertaken to understand how potential visual effects from the development on public rights of way can be mitigated through design. The public right of way on the boundary of the battery storage site will be retained and additional landscaping provided to help screen views into the site.



Trees

A tree survey and impact assessment has been undertaken to understand

the impact of the proposal on trees within/adjacent to the sites and to mitigate impacts. Works within both sites largely take place within the centre, with boundary hedgerow and planting retained. There is limited vegetation within the sites.



Transport

A Transport Statement and Construction Management Plan

will be produced to understand the transport impacts of the proposal during construction and operation and set out mitigation measures. This will include details for the phasing and construction management of the proposed cabling route between the battery storage site and step up transformer site, along Nottingham Lane and via the B3157. Once operational, the development will generate very little traffic or vehicle movement.

\ Frequently asked questions



Why battery storage?

Battery storage has an important role to play in decarbonising the UK's energy supply as it provides a balancing mechanism to reduce the risk of power shortages and blackouts.

This is done by drawing electricity from the National Grid when levels of generation on the network outweigh the levels of demand. The electricity is then discharged back onto the National Grid during periods of higher demand to ensure any energy generated is not wasted and there is no loss of power to end users. As defined by the National Grid, "Battery storage systems will play an increasingly pivotal role between green energy supplies and responding to electricity demands".

Are battery energy storage systems safe?

Battery energy storage systems use the same Lithium-Ion technology as in our smartphones and laptops, which we use with ease and relative comfort every day. There are currently over 1,500MW of battery storage projects operating safely around the UK over 90 separate sites, with the majority being fitted with cooling and fire suppression systems alongside hyper-sensitive sensors which can detect defects in the batteries long before a fire would commence, meaning that these units are safer than ever. Should the sensor detect even the slightest anomaly, it will automatically shut off the battery unit instantaneously, well in advance of any possible fire. The batteries will also be monitored

24/7 by a person, and regularly inspected to ensure safety and compliance.

The development will be developed to meet industry guidelines, statutory regulations and the regional Fire and Rescue will be consulted throughout the application process.

What is a step-up transformer?

A step-up transformer converts low voltage and high current on the primary side to high voltage and low current on the secondary side, allowing the power where it is originated at a lower voltage to be distributed into the grid at a higher voltage with minimal loss of current. National Grid connection voltage is 400kV (e.g. Chickerell 400kV substation) and so the transformer allows us to connect at the required voltage level.

What will the development look like?

The battery storage development would consist of approximately 108 battery storage units, the size of a typical storage container. An off site step-up transformer is also proposed to support the battery storage and connection into Chickerell substation with the tallest element being a typical maximum height of approximately 10m. There will also be access tracks within the site for construction and operational purposes, and deer fencing around the perimeter with inward facing infrared CCTV and motion detection lighting for security. Landscaping will also be incorporated into the proposals to provide mitigation, screening, and biodiversity enhancement.

\ Frequently asked questions

Will the proposal impact the local environment?

For proposed developments such as Buckland Battery Storage, the applicant needs to undertake assessments and prepare reports considering the environmental impacts of the development. These environmental topic areas include, but are not limited to:

- Landscape and visual impacts
- Ecology and biodiversity
- Trees
- Flood risk and drainage
- Heritage and archaeology
- Noise

A safety management report will be produced which will detail our approach to fire safety and how we will meet industry guidelines and statutory regulations. The report will form part of the planning application.

The feedback from the assessments will be carefully considered and will help to shape the final design and layout of the development while also providing mitigation/enhancements where possible and suitable to limit any adverse impacts on the local environment.

What about noise?

Battery energy storage systems will generate some noise from inverters, switchgear and fans. Mitigation has been considered, where necessary, to minimise noise impacts to acceptable levels. A noise impact assessment will be provided as part of the planning application.

To manage noise during construction a Transport Statement and Construction Management Plan will be produced and provide details of proposed access arrangements, the anticipated programme, construction vehicle numbers and



type, construction worker numbers and the proposed construction hours. This will need to be agreed with the local planning authority prior to commencement of construction.

How long would it take to build?

The construction phase would last approximately 18 months after which the development will operate for up to 40 years. Following the operational phase the site will be decommissioned, and the land returned to its original use.

A temporary set down and vehicle parking area will be provided for the construction phase within the site boundary.

Who will decide whether this project receives planning permission?

A planning application will be made to Dorset Council under the Town and County Planning Act (1990) and the Council will make the decision on whether to grant planning permission in their role as the Local Planning Authority. Once submitted, details of the planning application will be available to view online via the Council's planning portal, and interested persons will be able to make comments on the application during the statutory consultation period.

\ Have your say

We want to hear your feedback on our proposal. You can send us your thoughts via any of the channels listed below.



Feedback form

Available at the public exhibition and online at **www.bucklandbatterystorage.co.uk**. On the website you can also register for project updates. We will post hard copies of the form upon request.



Email

Written feedback can be sent to **info@bucklandbatterystorage.co.uk**



Post

You can send feedback via post to Windel Energy Ltd, Blyth WorkSpace, Commissioners Quay, Quay Road, Blyth NE24 3AF



Phone

Register your views or request a call back from the communications team on **07493 060539**.

The deadline for response to this consultation is **22nd December 2023**. All responses will be gratefully received and will be analysed as we refine our proposal ahead of submitting a planning application. A Statement of Community Involvement will accompany the planning application, which will set out the methods used to consult, the views expressed and how these have been taken into account in relation to the project.

\ Project timeline

Summer 2023

- Commenced surveys and development of early proposal.
- Pre-application advice and Environmental Impact Assessment screening request submitted to Dorset Council. The Council confirmed that the development does not require an Environmental Statement.

Autumn 2023

- Developer formal consultation with local communities and stakeholders to commence.
- Ongoing development of the proposal.
- Final survey work.

Winter 2023/2024

- Application submission to Dorset Council.