Chickerell Battery Storage Scheme
Frequently Asked Questions

WHAT TIMEFRAME IS STATERA PLANNING FOR?

It is our intention to submit a planning application for the Battery Storage Scheme to Dorset Council in May 2023. We would expect the planning application to reach determination by Dorset Council in Q4 2023. Works would be likely to start in 2026 with the scheme going live in 2027.

IS THE PROJECT IN THE AONB?

The site falls outside of the Dorset Area of Outstanding Natural Beauty.

WHAT ARE THE VISUAL IMPACTS OF THE SCHEME?

The substantial expansion of grid infrastructure around the main substations within the UK is a national trend arising from the need to meet carbon reduction targets. The grid network is a national asset which needs to evolve to meet the challenges of climate change. The challenge is to ensure that the adverse landscape, visual, and biodiversity effects arising from such developments are adequately mitigated and any residual effects should be weighed against the national (and global) interest.

It is considered that the development strikes an equitable balance by accommodating the electrical infrastructure with a substantial landscape framework which meets the aspirations for the Locally Valued Landscape and ensures that there will be no significant adverse effects on visual amenity. A Landscape and Visual Impact Assessment will be undertaken.

WILL FOOTPATHS BE AFFECTED?

There are no public rights of way crossing the site. We are planning to provide a permissive path around the 10.65ha ecological enhancement area which will link up to the public footpath network and can be enjoyed by members of the public during the life of the scheme.

WHAT ARE THE IMPACTS ON WILDLIFE?

We have conducted ecological studies to ensure that we not only protect existing habitats where possible, but we also enhance the local landscape for the benefit of wildlife and nature.

Over 70% of the land forming part of the battery development will be used for landscaping and biodiversity enhancement which will help minimise impact on wildlife and provide a biodiversity net gain.

Biodiversity net gain (BNG) is a way to contribute to the recovery of nature while developing land. It ensures the habitat for wildlife is in a better state than it was before development.

WILL THE PROJECT BE NOISY?

A full noise impact assessment has been carried out and will be submitted with the application. The noise emitted from the proposed development will not exceed EHO standards. Battery storage plants do require a large number of inverters in a relatively small area of land which does result in noise from having to cool the battery containers, but this noise can be mitigated to an acceptable level.

WHAT HAPPENS AT THE END OF THE SCHEME'S OPERATIONAL LIFE?

It is a common misconception that once a battery scheme comes to its operational end, the land becomes 'brownfield'. If planning permission is granted, the battery scheme development is considered to be "temporary", for a period usually up to 40 years. Once this time has lapsed, the land reverts to its original use, in this case agricultural. The land will not be classed as previously developed.

WILL THE DEVELOPMENT CAUSE FLOODING?

A flood risk assessment and drainage strategy has been undertaken for the site. The battery storage site will include adequate drainage and attenuation ponds to collect rainwater runoff from the site.

It should also be noted that all site access tracks will be rolled stone (or similar) and are permeable as a result.

HOW DOES THE PROJECT INCREASE THE CHANCE FOR THE UK TO BE NET ZERO BY 2050?

The scheme would materially help Dorset meet its renewable energy target and would also assist in meeting national targets for both energy supply and low carbon energy development. The scheme can fulfil the annual electricity need of about 400,000 UK households (assuming an average annual usage of 2,900kWh per household).

WHY ARE THERE SO MANY RENEWABLE ENERGY APPLICATIONS BEING MADE IN THIS PART OF THE COUNTRY?

Amid the ongoing war in Ukraine and volatile gas prices, there is serious need for homegrown renewable energy to power the country. The UK also has a target of a clean energy grid by 2035, which means it is necessary to increase the land allocated to renewable energy developments.

Unlike oil and gas infrastructure, which has historically been determined by the location of naturally occurring reserves in particular pockets of the country, energy storage developments need to connect into the existing electricity grid at points across the UK.

The existing National Grid substation near Chickerell provides a rare opportunity to connect a battery in a location where land is both available and suitable to develop this infrastructure.

Statera Energy is bringing this scheme forward as the Government is relying on the private sector to develop, construct and operate renewables and energy storage infrastructure.

HOW MUCH TRAFFIC WILL THERE BE?

During construction there will be an average of 9 deliveries per day associated with the battery development. These movements will be conducted following a strict management protocol and a number of mitigations measures will be put in place such as signage and banksmen.

Once operational, the site will be visited on a weekly basis for operational and maintenance purposes.

IS THERE A FIRE RISK?

There is some fire risk associated with BESS due to thermal runaway. Our batteries will be compliant with industry standards, and we have designed the scheme to mitigate this risk by spacing the batteries further apart and will carry out regular maintenance.

Thermal runaway begins when the heat generated within a battery exceeds the amount of heat that is dissipated to its surroundings. If the cause of excessive heat creation is not remedied, the condition will worsen.

Fire protection consists of two key systems:

1. Cooling systems maintain battery temperatures within safe limits. Historically, these have been air cooled units (HVAC), but future projects are likely to utilise liquid cooling which brings cooling to the cells within battery modules.
2. Battery managements systems have multiple levels of safety protection, including the following at both pack and cell level: over voltage, under voltage, over temperature, under temperature and communication fault. These typically have 3 different levels of response of increasing intervention:
    a. Level 1 – report a warning.
    b. Level 2 – reduce charge / discharge power by 50 %.
    c. Level 3 – reduce power to 0% and open the electrical contractor.

The batteries are containerised to suppress any fire breakout. Previous systems we have built use gas fire suppression system initiated on temperature and / or smoke detection.

HOW WILL THE COMMUNITY BENEFIT?

Energy storage is an essential component to a modern grid system allowing surplus energy generated at off peak times to be stored for later use. This increases efficiency in the system that will lead to greater energy security and best value for customers in the long term.

As part of the proposed site layout, we have included a community orchard and permissive path which we commit to establish.

Over 70% of the site will be used for biodiversity enhancement including planting native trees, creation of wildflower meadows, creation of ponds, creation of scrubland, and erecting bird boxes which will be delivered as part of the development. Detailed landscaping will be designed in consultation with the Council's landscape and ecology officers.

Through our programme of engagement, we have sought views from the community on how the development can make a positive contribution to the area.

You can give your feedback by scanning the QR code below: