



Welcome

NatPower

NatPower

GROWING BY NATURE

Welcome to our community event for the proposed Bellmoor Energy Storage System.

We are keen to share our plans with you. They include not just energy storage, but also large areas of tree planting and a new local nature recreational area, accessible to the local community.

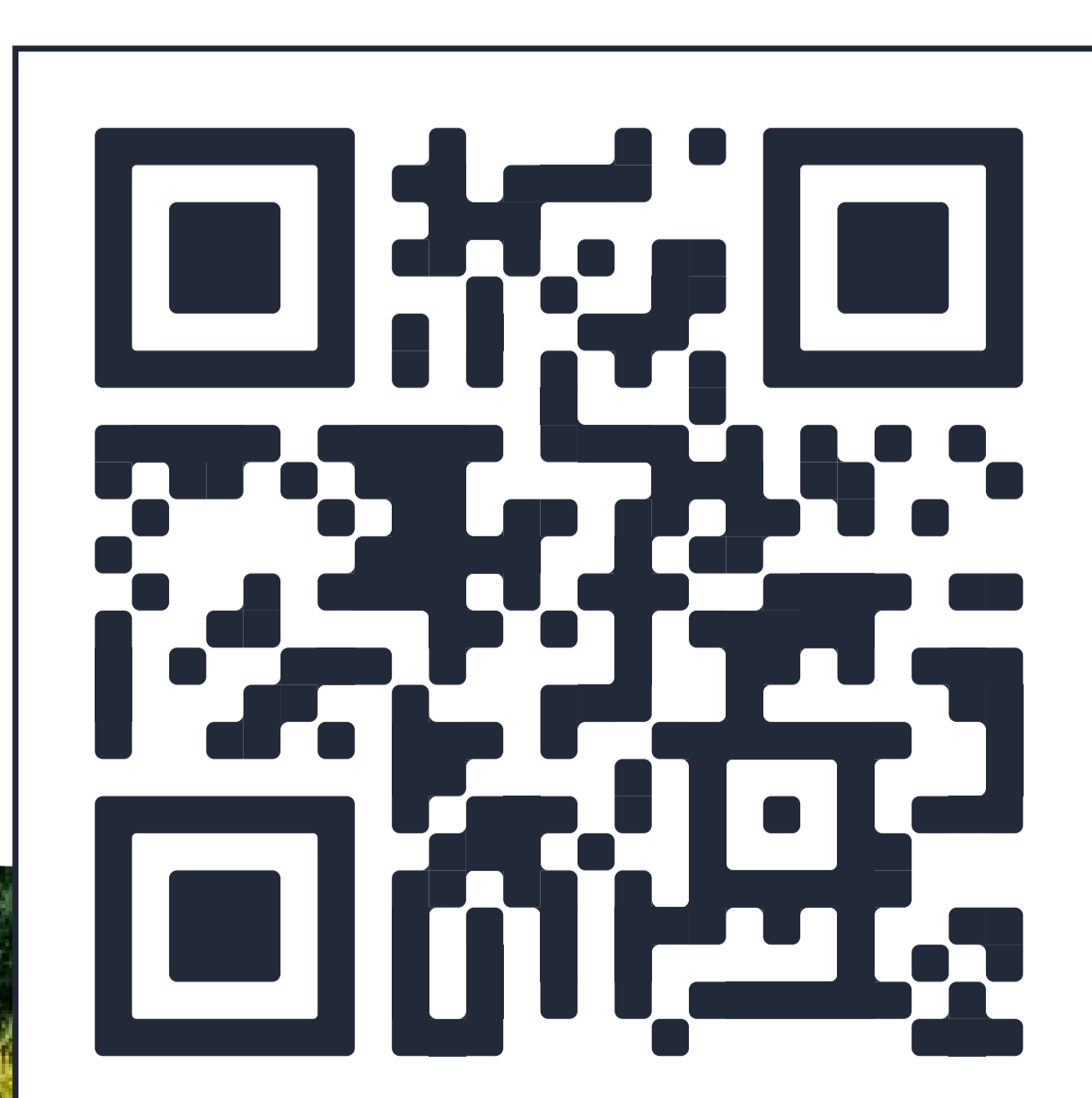
Please take your time to review all the material on display and direct any questions to our project team.

We welcome any feedback you would like to share with us.

We would also like to hear what you think about our Community Energy Transition Foundation, which would invest in local initiatives to promote sustainable communities. Tell us how we can help in your local area.

Alternatively, scan the QR code below which will take you to our project webpage where you can find all of the information on display here today, as well as a digital feedback form.

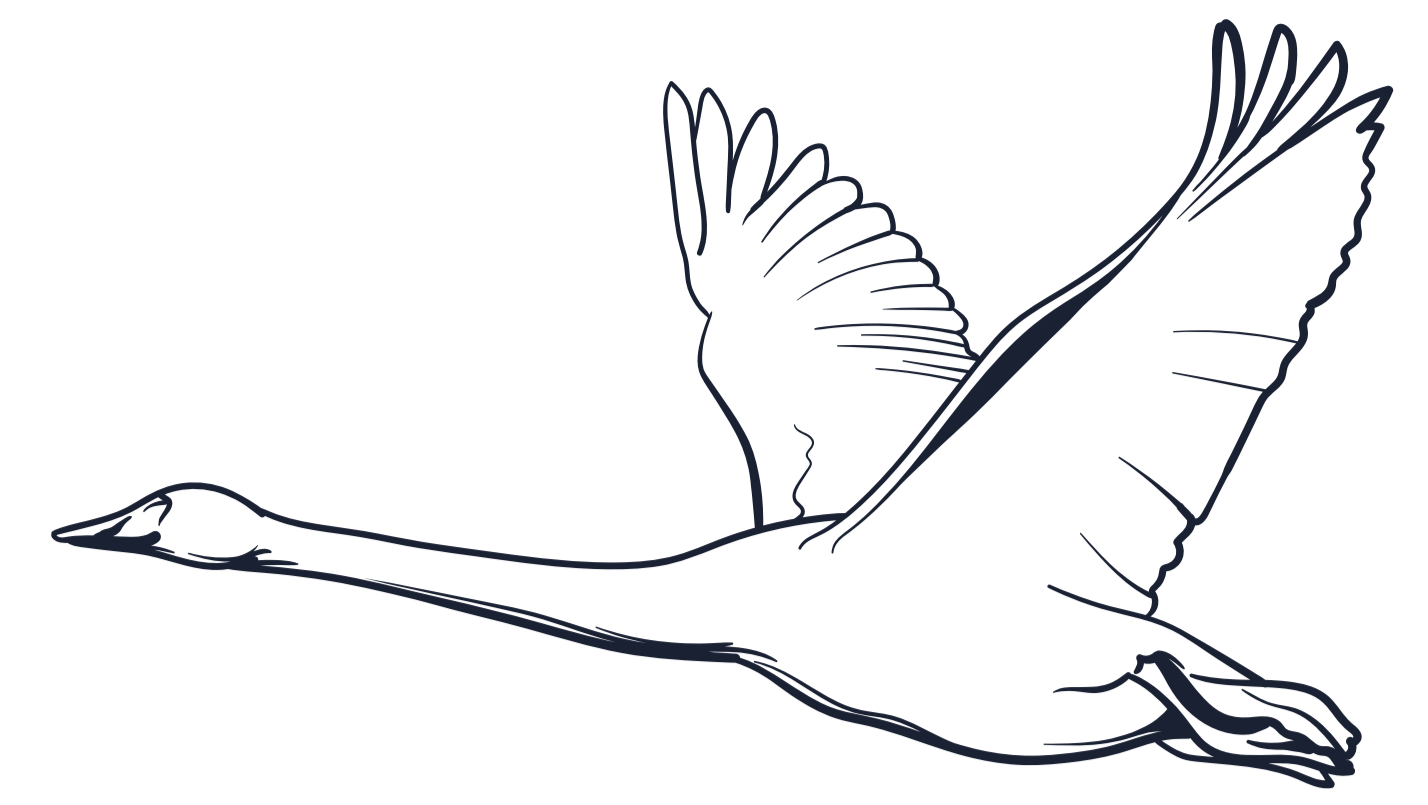
We plan to submit a planning application to North Yorkshire Council later this year.



Find out more

→ www.natpower.uk/project/bellmoor/

NatPower



Introducing NatPower

NatPower UK is part of the NatPower Group, an independent, well-capitalised energy enabler, with 25 years' experience and 30GW of assets developed across 20 countries and six continents.

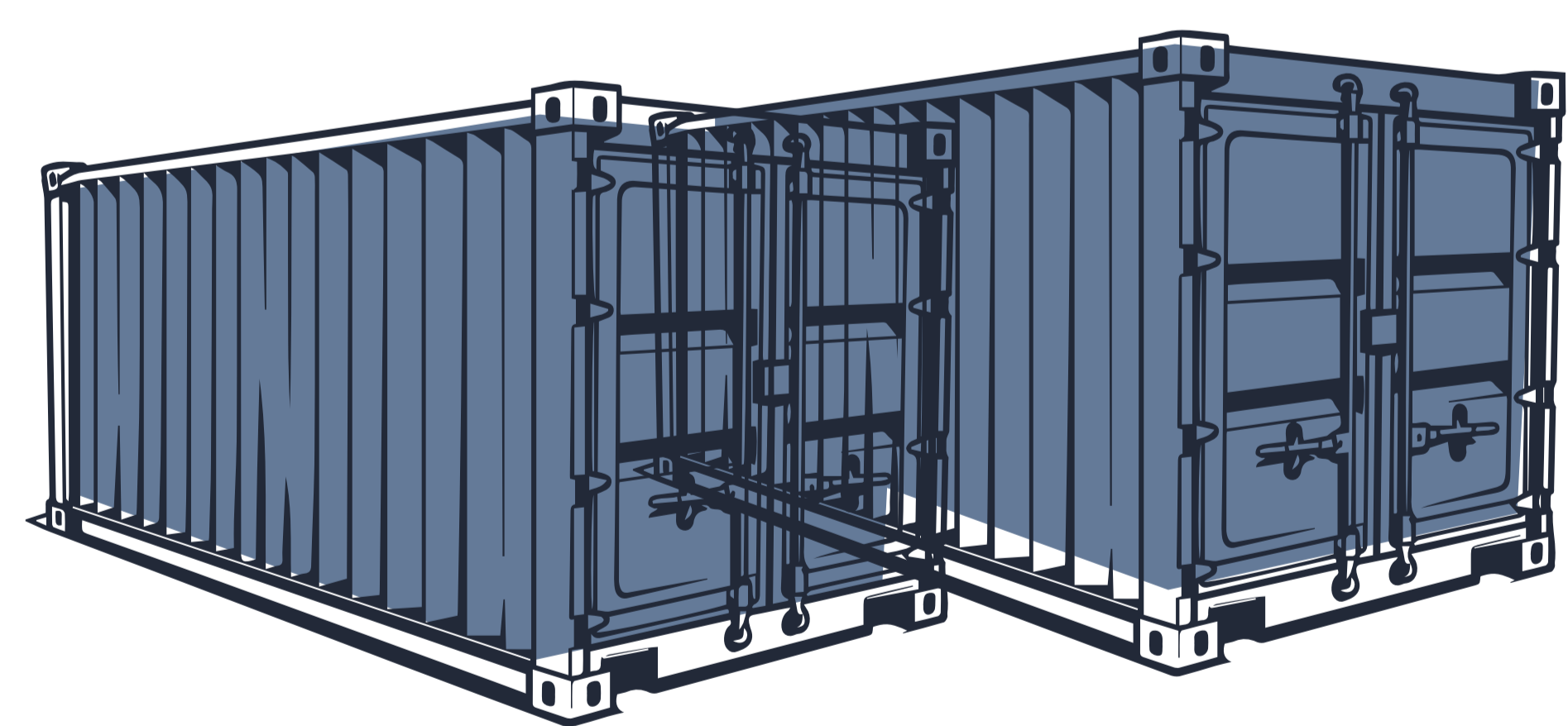
We are making a meaningful contribution to the UK's need for clean, secure and affordable energy. By delivering more than 60GWh of energy storage across the country, we are aiming to provide 20% of the energy storage requirement of the UK by 2040. We are also bringing forward wind and solar farms in different places to contribute cleaner energy for the UK.

We develop, build and manage our own projects. That means that we are long-term partners in our communities.

We look to work with local residents, businesses and community groups to bring the benefits of the clean energy transition to the places we operate. That includes designing our projects in a way that is sensitive on the environment and our neighbours – but it also means investing directly into our communities to assist them becoming the most sustainable in the UK.



**60GWh of
energy storage
across the UK.**



**20% of the energy
storage requirement
of the UK by 2040.**



Battery storage – the need

The UK is committed to achieving net zero by 2050 and expects to completely decarbonise its energy network by 2035. In the future, wind and solar will be the main ways that we generate energy across the UK.

We are also forecast to use more electricity in future. As we stop using fossil fuels to power our cars and heat our homes, the country expects to double the amount of electricity it uses by 2050.

That means we need access to reliable, consistent supplies of electricity. Battery storage has a vital role to play: wind and solar farms don't generate electricity consistently, but batteries allow us to store electricity and release it at times when it is most needed.

That means that our homes and businesses can continue to be powered – even when the sun isn't shining, or the wind isn't blowing. It also protects our whole energy system against price shocks or issues with supply abroad. This helps keep electricity affordable and our supplies secure.

By adopting this sustainable approach, we can help to ensure a cleaner, more secure energy supply for future generations.

A large, stylized, light blue letter 'n' is positioned in the bottom right corner of the page. The background of the entire page is a composite image showing wind turbines in the upper half and a solar panel array in the lower half, set against a sunset sky.

How energy storage works

1

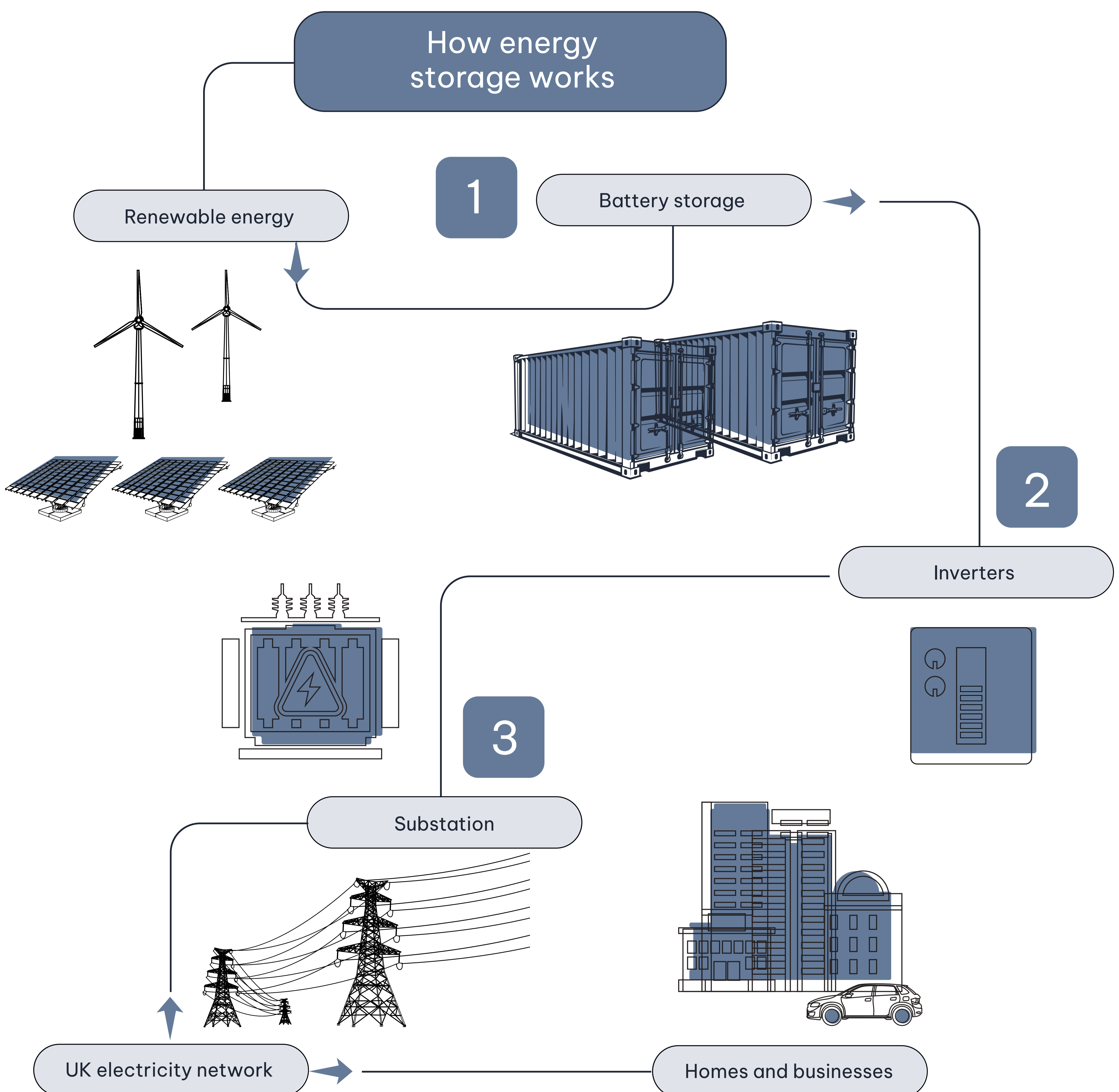
Battery energy storage system (BESS): Enable us to capture and store energy when supply exceeds demand. They then release that power back to the grid later, when it is needed, so that we have a steady and reliable supply of energy at all times.

2

Inverters: Battery systems store and deliver electricity as Direct Current (DC) while most electrical systems operate on Alternating Current (AC). The BESS includes inverters to change the electricity from AC to DC and back.

3

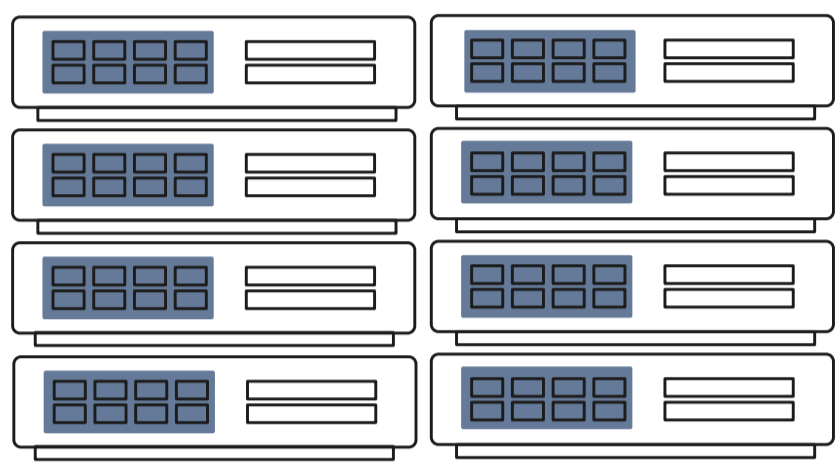
A substation: A substation connects the project into the National Grid. A substation typically appears as a collection of electrical equipment and towers, sometimes connecting to overhead powerlines by cabling.



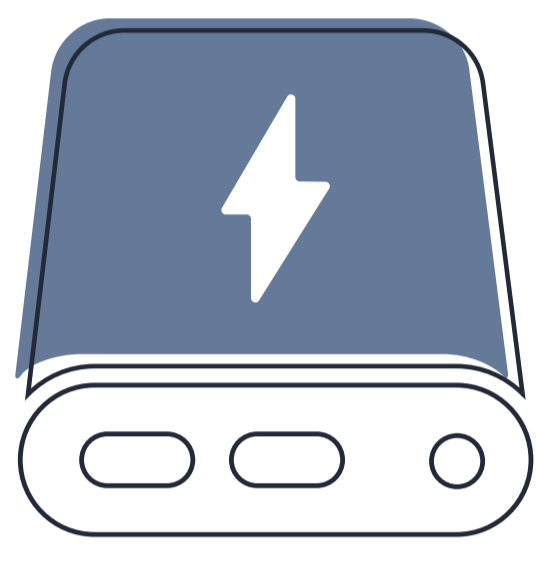
Battery storage - what's involved

1

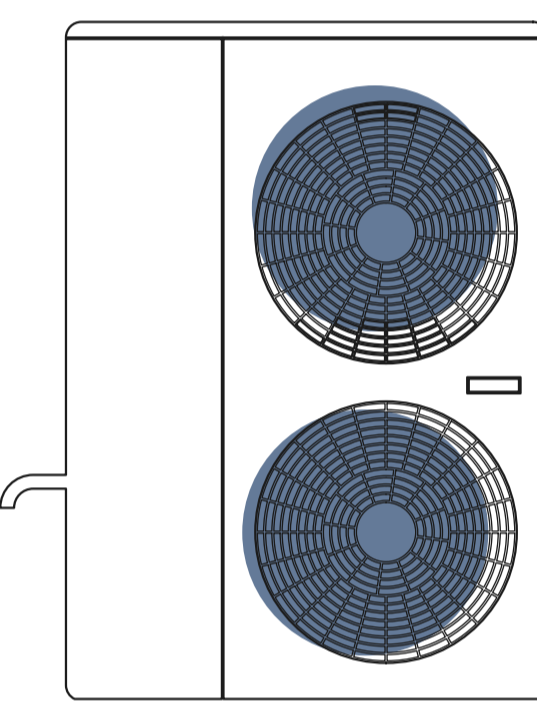
The BESS contains a number of components, all housed in units similar in size and shape to shipping containers, about 12m in length and 2m-3m high:



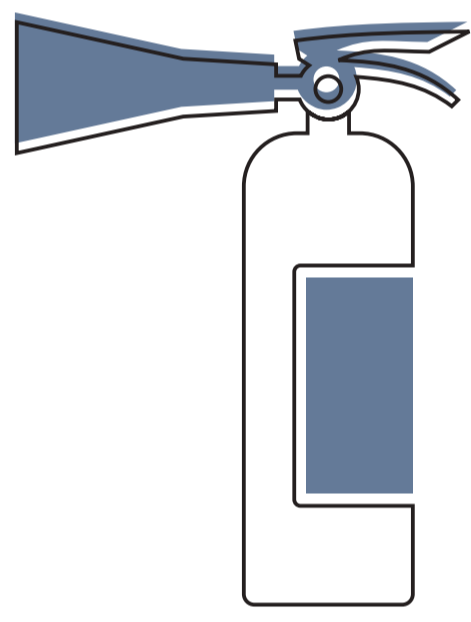
Lithium-ion batteries store energy ready to be supplied when needed. These are stacked on top of each other to form a battery rack and are connected together to reach the required voltage and current of the BESS. These are a tried and tested technology that is commonly used in our day-to-day lives, such as in smartphones.



The battery management system is the brain of the BESS and works to safeguard the batteries from damage in various scenarios. It constantly monitors the state of charge, state of health, voltage, temperature and current. It ensures the safety and longevity of the batteries.



A heating, ventilation and air conditioning system controls the operating temperature within the system's enclosure and ensures good air distribution. This prevents the batteries from overheating, which in turn means that the batteries last longer and perform better.



A fire suppression system is built into the design of the BESS and would only operate in the unlikely event of overheating of the batteries.

2

Security: The BESS and substation will be secured by metal security fencing and monitored by a CCTV system, which will face the battery storage and substation areas. We will use motion sensor lights to keep lighting to a minimum.

3

Landscaping: Our projects include landscaping to screen the BESS from view.



Our Proposals - Summary

Bellmoor Energy Storage is a proposed 1GW Battery Energy Storage System (BESS), located off Hag Lane, to the east of South Kilvington village.



The land within our proposal is approximately 173 acres, of which around 58 acres would be developed for battery storage development and transmission substation.

Further areas would be set aside for a new nature recreation area which will be dedicated for use by the community.



Project Timeline

Autumn 2023

Environmental and ecological surveys underway

Winter 23/24

Extensive survey work and ecological survey continued

Spring 2024

Consultation with North Yorkshire Council

Summer 2024

Continuation of ecological survey work

Autumn 2024

Finalisation of survey work and preparation of planning application

Autumn/Winter 2024

Consultation with community and submission to local authority

2025

Application decision issued by North Yorkshire Council

2026

Construction to begin



Construction and Operation

Construction

Upon securing planning permission, we expect to start construction in late 2026. The level of activity on site would vary throughout this period.

NatPower will prepare a Construction Traffic Management Plan (CTMP) and agree this with North Yorkshire Council. The CTMP will set out how we will manage construction activities and any traffic moving to and from the site.



90 FTE Jobs

Construction jobs

(During the peak of the construction phase)



110 FTE Jobs

Supply chain jobs

(During the peak of the construction phase)



£8.1m GVA

Gross value added

(throughout the peak of the construction period)

Operation

BESS are generally quiet neighbours and, once operational, traffic movements to and from the site will be low. A team of qualified engineers will monitor our BESS 24/7 from an offsite location. An engineer would routinely visit our sites in a small van two or three times a week to inspect the BESS and associated infrastructure.



Community Energy Transition Foundation

We are committed to supporting our communities through a **Community Energy Transition Foundation**, which invests in those areas where we have operational sites. The Foundation receives funding from each site, proportionate to its size.

We expect this project, if approved, to contribute around £1 million each year.

With that funding, the Foundation can then provide substantial financial support to individuals, businesses, charities and community groups to promote sustainable communities and provide a financial stimulus for the green transition in your area.

That's why we would like to hear from you about what your community needs to become more sustainable and how the Foundation could help.

The types of projects that will be considered for funding include:

- Emissions reduction
- Habitat enhancement
- Energy efficiency
- Education/skills support
- Sustainable transport
- Green economy
- Sustainable agriculture

In terms of practical application, the fund could potentially invest in initiatives such as:

- Electrification of vehicle fleets, including tractors and trucks;
- EV community pool cars;
- Small-scale solar generation;
- Battery tools for use in expanded allotments.

Speak to a member of the team for more information

Next Steps

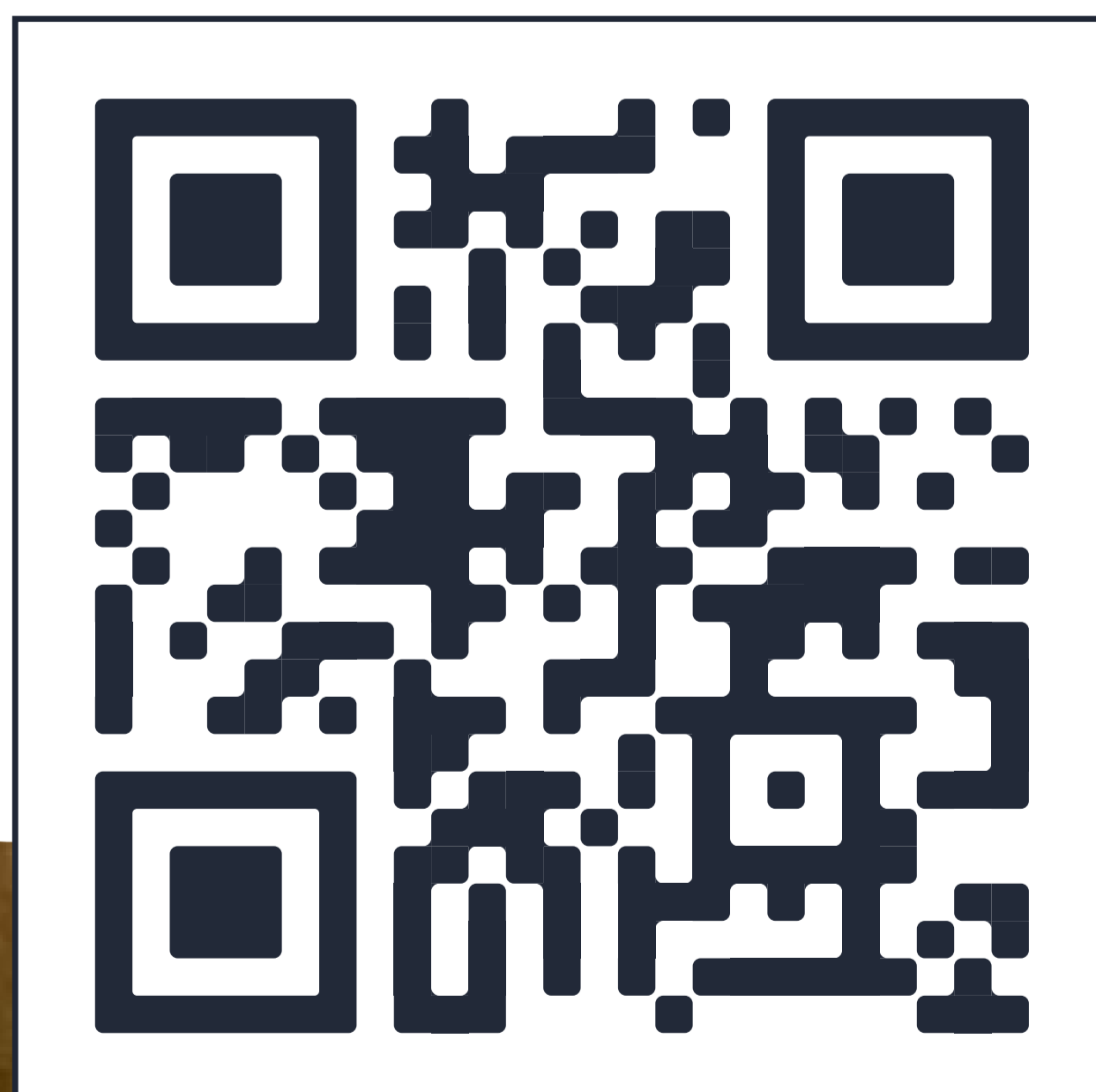
Thank you for taking the time to learn about our plans. Your feedback is invaluable and, where possible and appropriate, we will look to incorporate your comments into our evolving proposals.

Please complete a feedback form and let us know what you think. You can fill one out here today or go to our project webpage for an online form (QR code below).

All feedback should be returned to us by 22 November 2024.

We will consider all feedback and finalise our plans before submitting a planning application to North Yorkshire Council. As part of the application, we will submit a document that summarises the community's comments and the engagement undertaken for the project (known as a Statement of Community Involvement).

North Yorkshire Council will then conduct its own statutory consultation before determining the application. This will provide stakeholders, residents and other interested parties with another opportunity to provide feedback on our proposals.



Find out more

→ www.natpower.uk/project/bellmoor/





Biodiversity Gain

We are committed to delivering significant biodiversity enhancements over the life of the battery storage facility. We will create Bellmoor nature and recreational area, to protect and enhance existing habitats and create new ones appropriate to the site.

Our plans include re-connecting hedgerows, creating new areas of woodlands and tree-lined boundaries, and introducing wildlife ponds to improve the resilience and quality of the biodiversity of the area.

Our goal is to encourage people to understand, appreciate and care for nature. We aim to encourage the local community to re-connect with the area and to learn more about the habitat on their doorstep. By providing accessible paths through the wildlife area, and a dedicated parking area, we can ensure inclusive access.

The species that these measures will support and attract are detailed on the panels that follow.

A Barn Owl is perched on a weathered wooden post. The owl has a white face with a dark eye and a brown and white mottled pattern on its body. The background is a soft, out-of-focus green.

Birds & Bats

By filling in the gaps in hedgerows with native, fruit bearing species, such as blackthorn and crab apple, we can help to sustain a range of wintering and passage birds, including redwing, fieldfare, blackbird, song thrush and starling, which are present on site.

Areas of marginal habitat will be enhanced and created to provide cover for small mammals and to provide hunting habitat for birds of prey, such as barn owl, kestrel and buzzard.

Barn Owls help to control rodent populations, reducing the need for chemical pest control methods. Their presence indicates a healthy ecosystem.

Bats (Brown Long-Eared, Common Pipistrelles, Noctules) consume vast quantities of insects, helping to control pest populations naturally. Some bat species are important for pollinating plants and dispersing seeds, contributing to ecosystem diversity.





Wildlife Ponds

The Whitelass Beck corridor will be enhanced with the planting of aquatic plants such as common reed, and/or canary grass for nesting habitat of reed buntings and warblers.

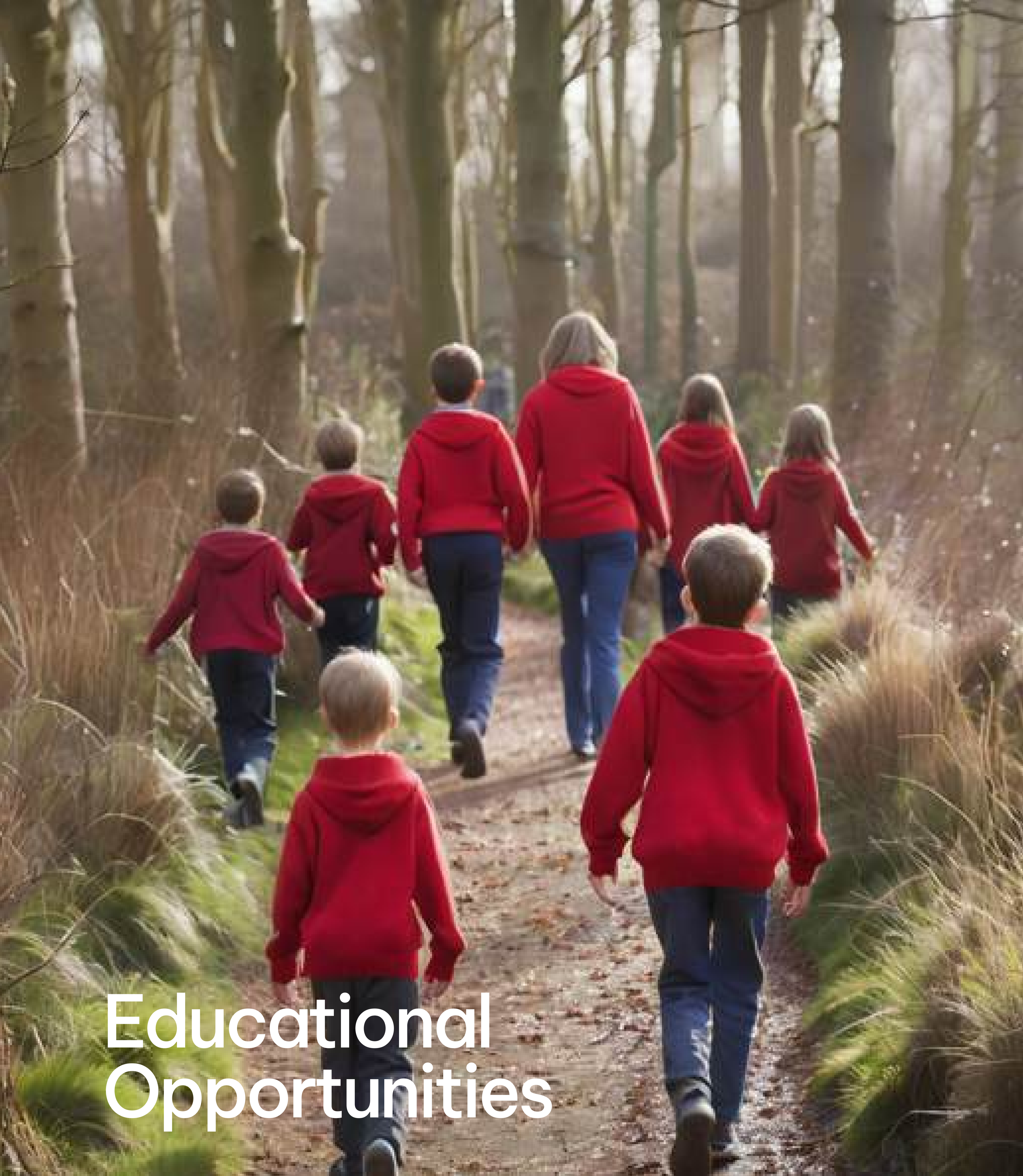
Connecting the wetland habitat will allow the beck to flood the field, benefiting wintering wildfowl and waders such as teal, snipe, woodcock and mallard along with breeding birds such as yellow wagtail.

Sand martins, grey wagtails and kingfishers are present on the brook and further enhancement measures may attract these species to nest.

Kingfishers are sensitive to pollution, so their presence suggests good water quality in aquatic ecosystems. They help control fish populations, contributing to balanced aquatic ecosystems.

Moorhens and Coots can indicate the health of wetland ecosystems, promoting biodiversity. They serve as a food source for various predators, supporting the local food web.





Educational Opportunities

An outdoor classroom and educational area will be provided for local school children to learn more about the wildlife of the area, and bird hides will be built so that people can enjoy the local birdlife without disturbance.

We envisage:

Nature Walks and Field Trips – to local habitats where students can observe barn owls, kingfishers, and other species in their natural environments. This will promote an appreciation for nature and provide real-world learning experiences.

Wildlife Monitoring Projects – engaging students in citizen science projects, such as tracking local bird populations or monitoring butterfly species. We see this as an opportunity to foster a sense of responsibility and stewardship for the environment, while teaching scientific methods.

