NatPower

Welcome

Thank you for taking the time to visit our public exhibition today.

We are keen to hear your thoughts on our plans for the Teesside Gigapark, including how our Community Energy Transition Foundation could invest in local initiatives to support your community transition to net zero. We would like to hear from you about what the community requires in order to become more sustainable and how we could help.

Please take the opportunity to review the material on display, ask our team questions and give us your feedback.

We would be grateful if you could take the time to complete a questionnaire, which is available from any member of the project team here today.

You can also find all of the information on display here today, as well as the questionnaire, on our dedicated consultation website.

Scan here for our project webpage

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 – and 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.

To do this, we have established a Community Energy Transition Foundation, with investment to support local communities' transition to net zero. We are keen to hear about the sustainable initiatives you would like to see funded in your local area.

60GWh of energy storage across the UK.

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

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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 the future. As we stop using fossil fuels to power our cars and heat our homes, the country is expecting to double the amount of renewable 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 energy supplies secure.

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Battery storage - the basics

1

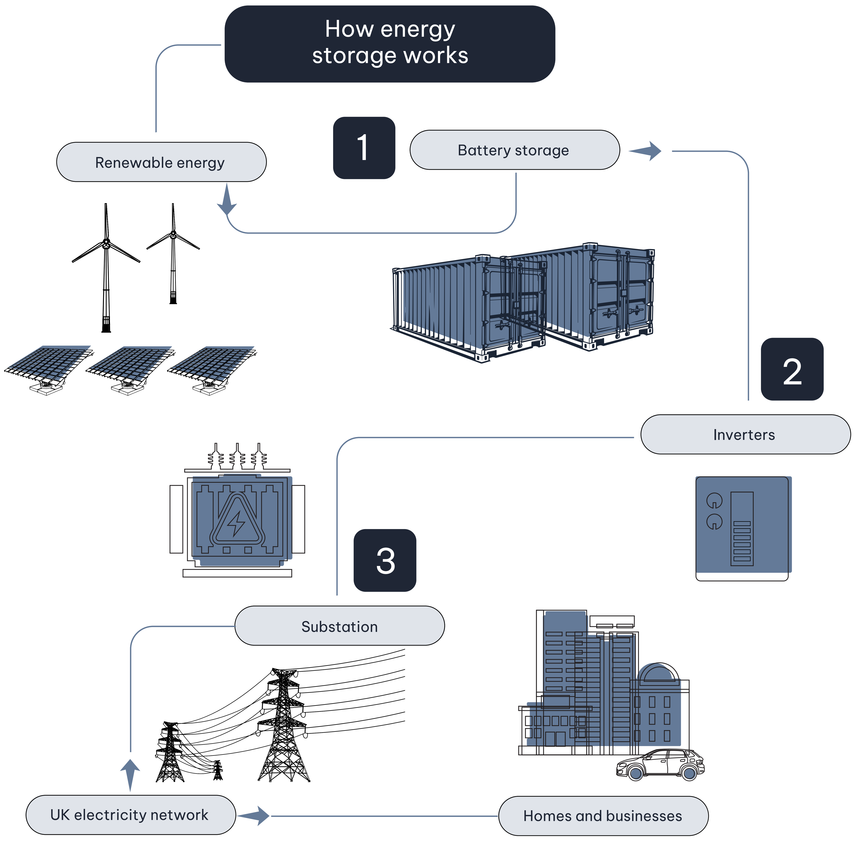
Battery energy storage system (BESS) enable us to capture and store energy when supply exceeds demand. It then releases that power back to the grid later, when it is needed, so that we have a steady and reliable supply of energy at all times.

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 electricity from AC to DC and back.

3

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.



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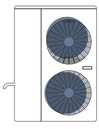
Battery storage - the BESS

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 2-3m 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.

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NatPower is working to create the next generation of energy transition projects.

Teesside Gigapark is a proposed 1GW energy storage system located on the Teesworks site, part of the UK's largest freeport in North East England.

Our proposal will use a battery energy storage system (BESS) to store electricity at times of lower demand, so we can provide energy when it is most needed. Teesside Gigapark will make an essential contribution towards the provision of reliable, secure and affordable energy for the country as we move away from using coal and gas for power.

The proposed site, which forms part of the wider development of Teesworks, is located on 50 acres of land, in the north eastern industrial zone known as 'Long Acres'. The site falls entirely within the administrative boundaries of Redcar and Cleveland Borough Council.

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Why here?

We have selected this site because:

- It can easily connect into the National Grid.
- The land is previously developed and is designated as brownfield.
- There are no historic, landscape or ecological designations on the land, and the site is set away from residential areas.
- The land is part of the wider Teesside industrial area enabling NatPower to partner with other industrial organisations to support the region's continued growth.
- The surrounding area is heavily industrialised, and so an energy development is suited to this environment.

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Our plans

We are proposing to construct the BESS on 50 acres of land on the Long Acres section of the Teesworks site.

Our plans form part of the wider Teeworks development and will support the continued growth of the industrial zone. The development will also involve landscaping including hedgerow planting and improved biodiversity management within the Teesworks Estate.

The layout of the site will include a connection into the existing electricity network that will allow the site to balance supply and demand on the National Grid Transmission Network. We are currently working with National Grid to determine the best location for this connection point.

If consented, Teesside Gigapark would be operational for up to 50 years.

We are proposing to build Teesside Gigapark in three phases. Phase one would include 1GW of stored capacity for 4 hours, the second phase would deliver augmentation to maintain efficiency and the third phase would allow us to scale up to 7 hours of stored capacity.

We are at an early stage in our design and would welcome the views of the local community on our plans as part of this consultation. Your feedback will then be considered and, alongside our environmental assessments, will help to shape our plans.

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Our design process

We ensure our projects are sensitively designed to respect the land we build on and the surrounding environment and communities. This starts early, from the site selection and design stages.

The way we design our projects is guided by the following process that we apply wherever we work:

01

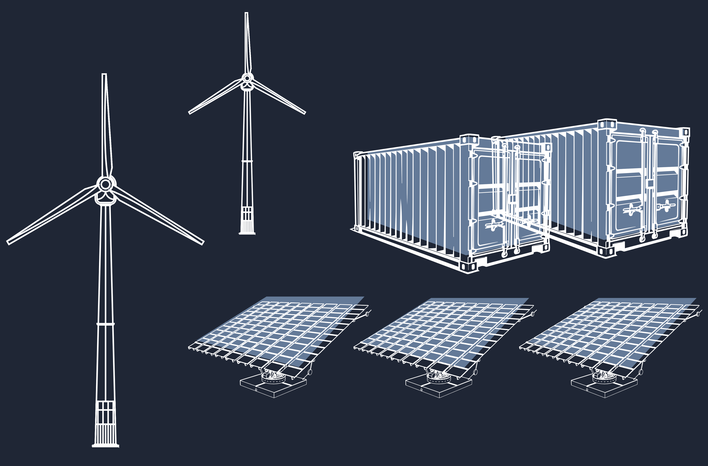
We consult the community, as well as local business groups and environmental bodies, to ensure our proposed design is informed by local insight.

02

We work closely with the local Fire and Rescue service, local authority environmental health teams and other statutory bodies to confirm that our proposed designs meet the health and safety requirements set by local and national policy.

03

We undertake a comprehensive programme of environmental assessments to determine the potential impact of our proposals in relation to matters such as ecology, landscape, heritage features, noise and traffic. The findings of these assessments, along with the consultation feedback, will inform the development of our proposal.



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Construction and operation

Construction

Should Teesside Gigapark receive planning permission, we expect to start phase one construction in 2027 and finish work in December 2028. We anticipate the delivery of phase two by 2030 and phase three by 2035.

We will prepare a Construction Management Plan (CMP) and agree this with Redcar and Cleveland Borough Council. The CMP will set out how we will manage construction activities and any traffic moving to and from the site.

Our current thinking is that our main access to the site will be via Trunk Road, from the A1053, entering the site via Steel House Gate to Teesworks. During phases one and two, we expect that around 2,000 HGV and light vehicle deliveries will be required across the site.

There will be around 300 jobs on site during construction, as well as opportunities for local businesses to become involved. Where possible, we will look to procure suitably qualified, local suppliers to help us deliver the project. If you are interested, please register your company details with our team.

Operation

BESS are generally quiet neighbours and, once operational, require minimal upkeep. 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 every week to inspect the BESS and associated infrastructure.

The BESS and substation will be secured by 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.

Community benefit

We are committed to supporting our communities to become the most sustainable in the UK. We do this through our Community Energy Transition Foundation, which invests in the communities where we work.

We want to make sure our work makes a genuinely positive impact – be that through funding local sustainability projects, supporting the creation of new jobs and providing environmental enhancements and recreational opportunities in the communities around our sites.

That's why we would like to hear from you about what your community needs to become more sustainable and how we could help. We would like to know about any initiatives that we could potentially support, as well as where you think there are unmet needs.

Please speak to the project team today and fill out our questionnaire here at the event or online. All suggestions will then be reviewed by the Foundation, which is run independently of NatPower.

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Have your say

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 questionnaire, either here today or online, and let us know what you think.

All feedback should be returned to us by Friday 19th July 2024.

Scan here for our project webpage

Once we have reviewed all the feedback, we will finalise our plans and submit a full planning application to Redcar and Cleveland Borough Council. As part of the application, we will submit a document that summarises the comments received from the local community and the engagement undertaken for the project.

Redcar and Cleveland Borough 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.

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