Proposed Hawthorn Pit BESS

2nd December 2025
Public Meeting

ZENOBĒ

Introductions

Our team today are:

Present

- James Smith – Head of Project Development
- Sam Sykes - Project Development Manager
- Viki McCormick – Stakeholder and Community Engagement Manager

Apologies

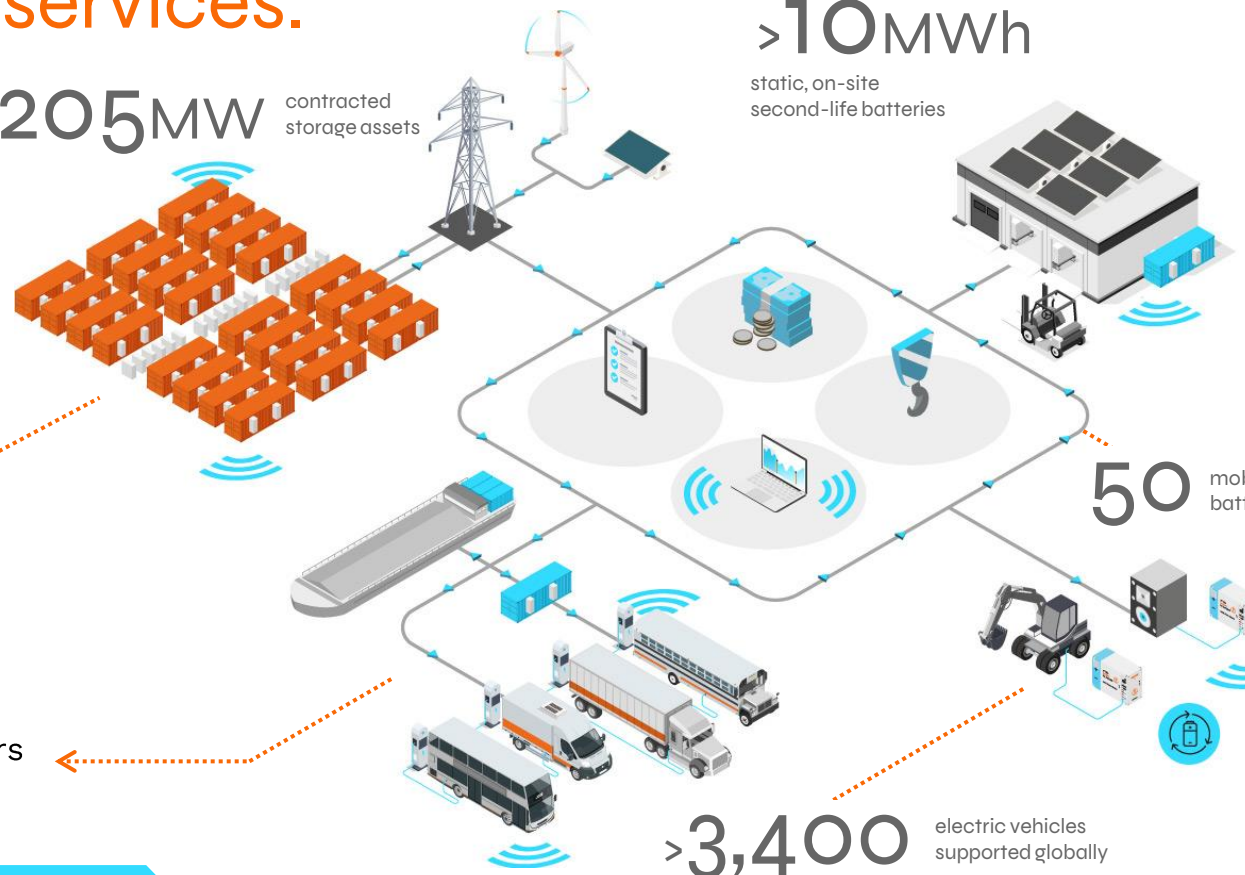
- Jack Hulme – Project Development Manager

Agenda:

- Registration and welcome
- Introduction to Zenobē
- Project overview
- Addressing key concerns (8 minutes per topic)
- Engagement and community Benefit Fund
- Next steps and Q&A

Introduction to Zenobē

Zenobē designs, finances, builds and operates battery-based services.



1. Network infrastructure

We develop, finance, build and operate grid-scale battery storage systems.

2. Fleet electrification

We provide end-to-end electric vehicle and software solutions for fleet operators

3. Second life batteries

We support the circular economy of batteries – upcycling, reuse, and recycling.

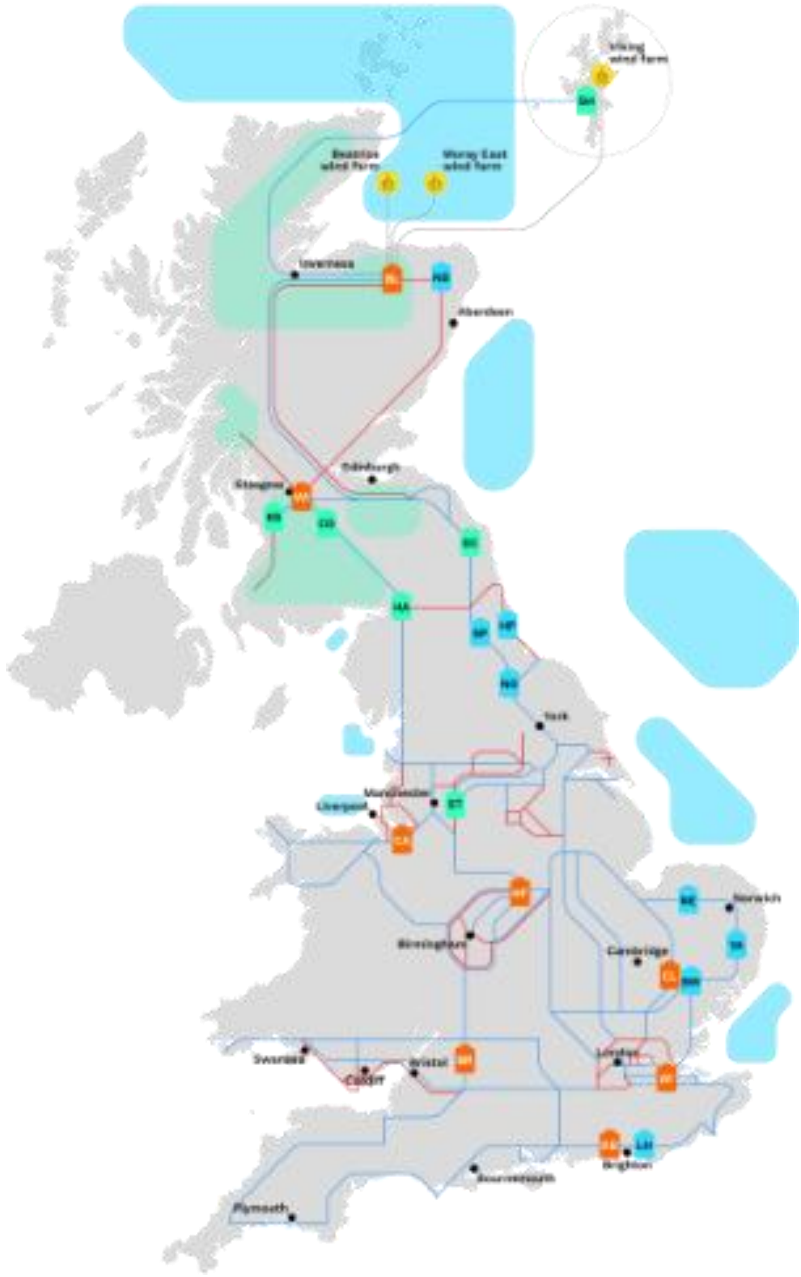
We also offer financing, operational support, software management and construction to help de-risk our battery storage and fleet electrification offerings.

Why do we need grid-scale battery storage?

The rapid uptake of renewables creates challenges for the Electricity System Operator looking to provide clean, affordable and reliable power.

The challenge	The benefits
Renewables create technical and cost challenges for today's network: • Power stability. • Managing power line constraints. • Balancing power flow demand & supply. The cost of managing these issues in the network is passed onto consumers.	• Ensuring low carbon, reliable and affordable network. • Avoiding expensive, time-consuming grid upgrades. • Reduce dependence on power from fossil fuel generation • Reducing carbon emissions • Helping to lower bills for consumers. • Comprehensive end to end support. • Track record of successful projects. • Bespoke designs and operation.

Zenobē's UK battery storage portfolio



Hawthorn Pit BESS
Project Overview

Why Hawthorn Pit?

Hawthorn Pit is a key location for unlocking clean energy.

Location

National Grid is building a new 400kV substation at Hawthorn Pit as part of Eastern Green Link 1 (EGL1) – a major project connecting Scotland and England via HVDC to unlock renewable energy and strengthen the UK electricity network.

Why does this matter?

Major network upgrades are needed to unlock clean energy potential.

Our proposed battery site will connect directly to the new substation, providing **flexible services** that:

✓ Balance supply and demand

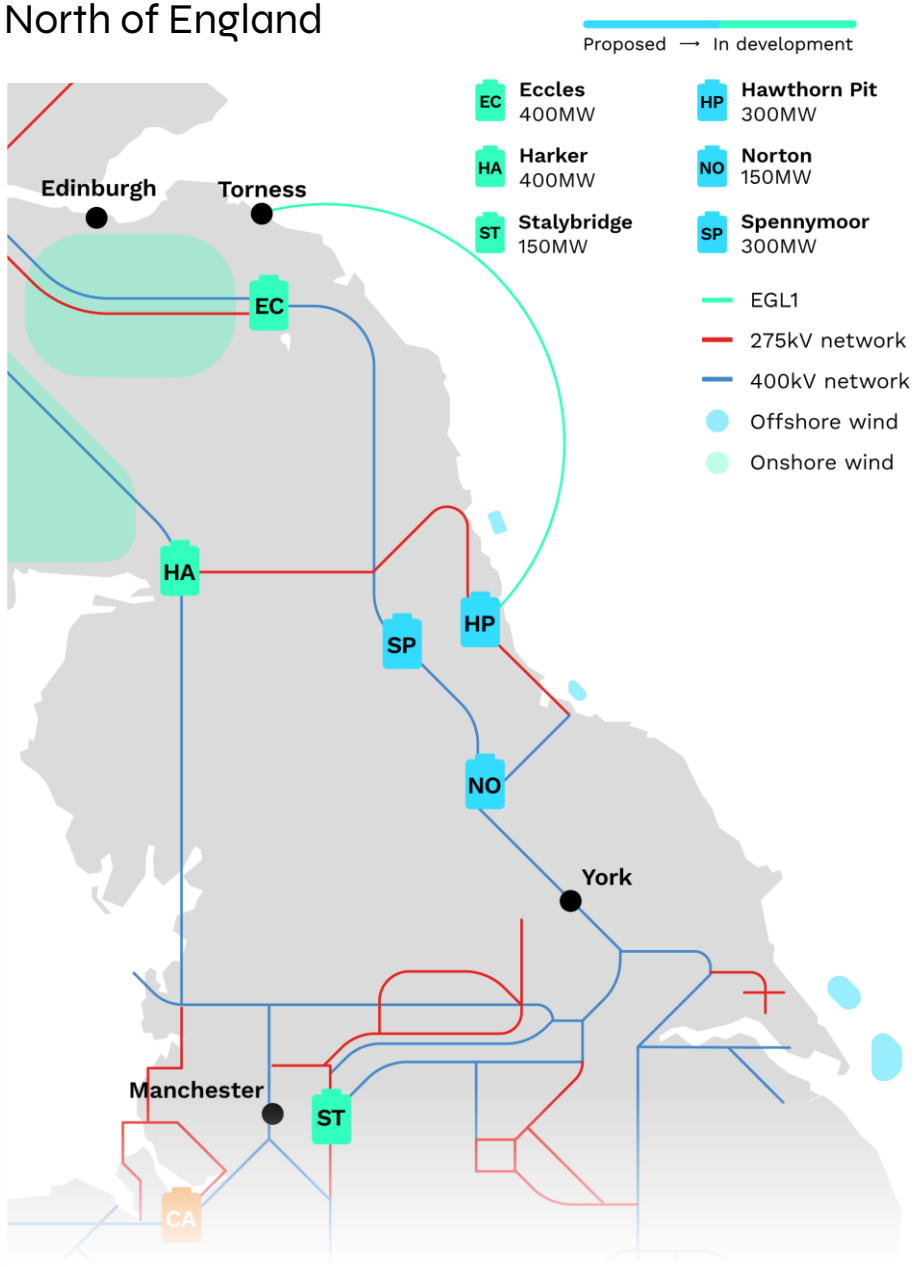
✓ Improve power stability

✓ Reduce grid constraints as the UK moves away from fossil fuels

Without storage schemes like this, renewable energy will increasingly be **curtailed** - wasted - and gas-fired power stations may be relied upon to keep the grid stable.

The Hawthorn Pit BESS will play **a vital role in enabling a cleaner, more resilient energy future.**

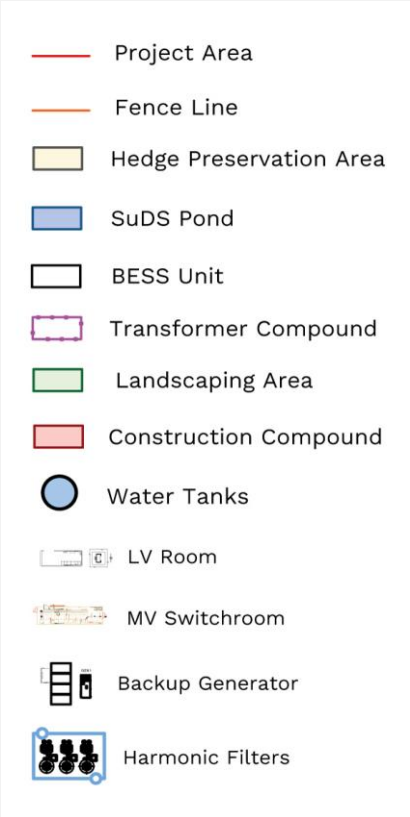
Zenobē's battery storage portfolio
North of England



What's proposed at Hawthorn Pit?

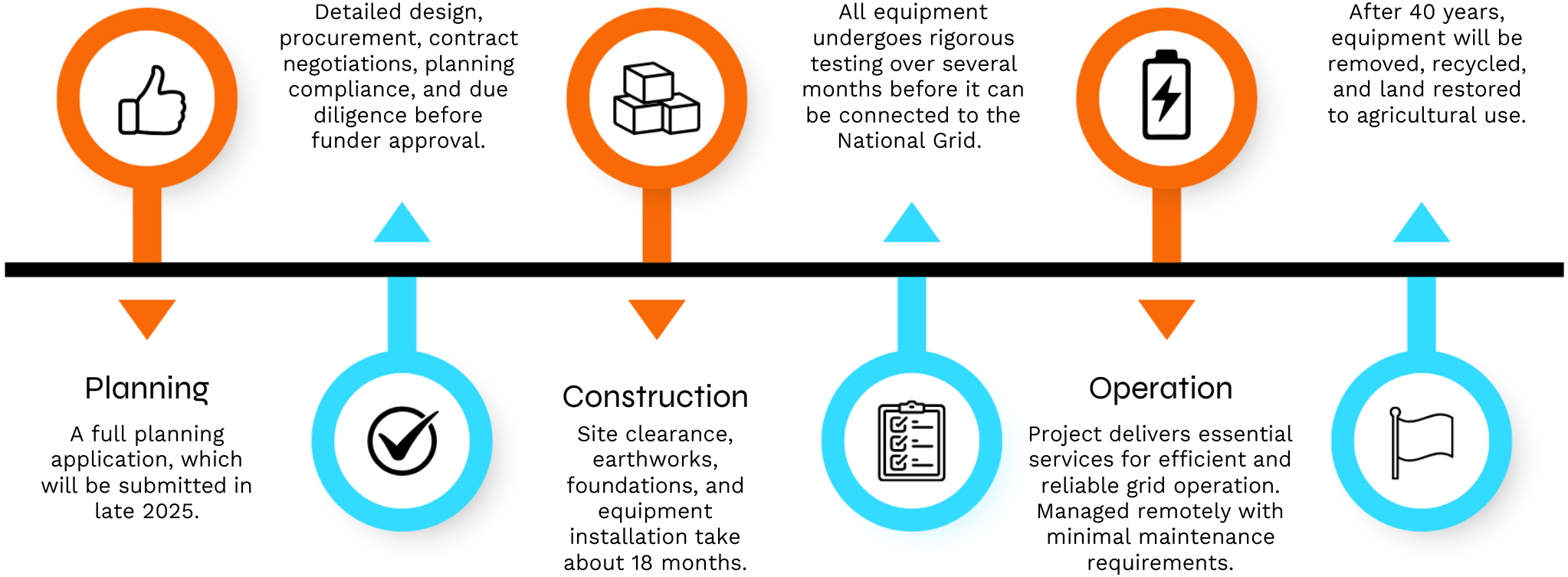
A 300MW BESS on approximately 25 acres of agricultural land:

- Around **300 battery units**, each with inverters, transformers, and HVAC systems.
- **Switch rooms and control buildings** for safe and efficient operation.
- **Security infrastructure** including fencing, CCTV, and infrared lighting.
- **Internal access tracks** and **underground cables.**
- **Landscape planting and biodiversity enhancements** to improve local ecology and provide visual screening for nearby viewpoints.



Programme at Hawthorn Pit

The programme below outlines the key stages of the proposed project, from planning and construction through to the site becoming fully operational.



The programme beyond planning is driven by the date of the grid connection
FiD is typically c. 2 years prior to the connection date

Addressing Key Concerns

Community conversations

What we've learned

KEY CONCERNS:
Site selection, land use, construction, traffic, noise, visual, ecology, safety, cumulative impact.

SOME SUPPORT IN PRINCIPLE:
Recognition of renewable energy benefits.

COMMUNITY PRIORITIES:
Clear communication, minimising disruption, addressing concerns, delivering local benefits.

Key concerns:
site selection and cumulative impact

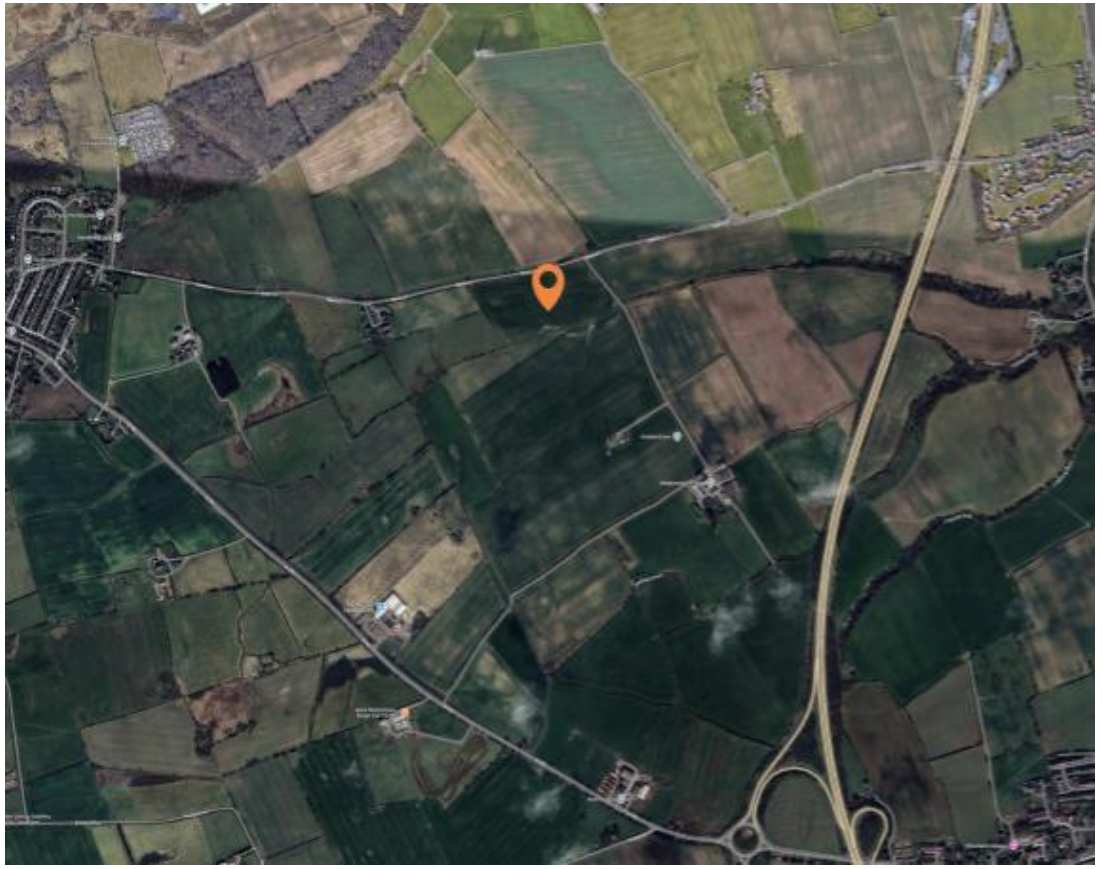
Concern

- **Understanding site selection process**
- **Cumulative impact** – BESS proposals alongside other developments in the area including solar and new housing.
- **Added pressure** – multiple projects with construction activity, traffic, and changing landscape.

Our response

- **Site selection:** Driven by proximity to the substation and requires a landowner willing to lease suitable land
- **Cumulative:** Work with local council to minimise impact and co-ordinate construction programmes where possible
- **Mitigation:** Scheduling, traffic management, and landscaping
- **Not all projects proceed:** Many proposed developments may not gain approval, or secure funding, and could fall away
- **Proven track record:** We're one of the few BESS developers delivering end-to-end—design, finance, build, and operate
- **Community collaboration:** We have a strong history of working with local communities throughout all phases of development

Site location:
Proposed Hawthorn Pit BESS



Key concerns:
construction impact

Concern
Community concerns include: • **Road closures and traffic disruption** – affecting daily travel and access routes, disturbance to residents along route • **Impact on local businesses** – reduced footfall due to restricted access / disruption on road network • **Communication gaps** – uncertainty about timelines and what to expect

Our response
Build timeline: ~18–24 months for a 300 MW site **Programme management:** Close coordination with our contractors, partners & local authorities to avoid delays (permitting, logistics, weather) **Community focus:** • Traffic management with councils & roads authorities, and local residents • Scheduled works to minimise inconvenience **Temporary impacts:** • Increased construction traffic and some noise **Our commitment:** Keep impacts low where possible & share updates in advance

Key concerns:
ecology and land use and noise and visual impact

Concern

- **Loss of agricultural land** – impact on farming and food production
- **Visual changes** – how the site will look in the landscape
- **Wildlife impact** – potential effects on habitats and species

Our response

- **Brownfield first** – preferred where possible but not a viable option here
- **Location limits** – BESS must be near substations which themselves are often located in rural locations
- **Agricultural land** – BESS are energy-dense compared to other technology like PV which require much greater areas of land
- **Landscaping** – a planting scheme will form part of the planning application. The design also incudes a bund and there is opportunity to install barriers to further screen views
- **Biodiversity net gain** – every project includes a plan with specialist input to achieve at least 10% BNG - wildflower meadows, hedgerows, and landscaping to support wildlife

Concern

- **Noise** from site construction and operations
- **Visual** impact on the landscape

Our response

Noise management:

- The site is designed to meet strict noise limits – noise is key consideration for the layout and equipment selection
- Noise is assessed during planning, compliance checks are done during commissioning, and monitored during operation.

Visual mitigation:

- Sympathetic landscaping and planting will be implemented to blend with the surroundings
- Hedgerows will be improved and additional screening / bund will also reduce visibility

Key concerns:
battery storage safety

Battery storage keeps the lights on

- Over **250 battery sites** operate safely across the UK.
- These sites help **balance the grid** and **support renewable energy.**

Strong rules and local partnerships

- All sites follow **strict UK safety regulations.**
- We work with Local fire services to prepare emergency response plans, and emergency drills.
- Industry shares lessons and best practices to keep improving safety.

Safety incidents are extremely rare

- All available government and industry data show that BESS **incidents are extremely rare.** In the few safety incidents reported in the UK so far, there have been **no cases of harm to people, third-party property, or the environment.**
- Fire risk is **lower than for other commercial buildings.**
- Strict safety rules and modern technology keep sites safe.

What if there's a Problem?

- Sites have **early warning and detection systems** to spot issues before they become serious
- If a fire does occur, it's **contained within a single unit and does not spread to adjacent containers**
- Environmental impact would be **minimal and short-lived**

Listening to local concerns

- Most people support battery storage, but we know some have questions.
- **Safety is our top priority** - we're here to listen and provide answers.

Information source: *BESS Safety in Britain*, Battery Storage Coalition

Engagement and Community Benefit

Working together with communities

Our approach to effective engagement

- **Listening:** Engage through surveys, meetings and feedback sessions.
- **Transparency:** Keep the community informed about project developments.
- **Inclusion and Collaboration:** Ensure diverse representation and participation by partnering with local organisations and leaders.
- **Impact:** Measure and communicate the positive outcomes of our initiatives.

What does that look like

✓ Regular community meetings and open lines of communication.

✓ Engagement with neighbours to address concerns & incorporate feedback.

✓ Community site visits to foster transparency and trust.

✓ Collaboration with local stakeholders to implement a comprehensive community benefit fund.

✓ Supporting local schools and education

Outcome: Enhanced community support and understanding, leading to smoother project implementation and tangible, relevant benefits for the local community.

+ Hawthorn Pit -

Your community benefits

Our commitment

We want to ensure the project delivers real value for the local community.

Your priorities matter

Tell us what matters most to you - whether it's support for local groups, education, sustainability initiatives, or other ideas.

Tailored for your community

We design our community benefit programmes to reflect what matters most to each area. Examples from other projects include:

- **Kilmarnock** - Funding for education and training for nearest neighbours, alongside wider support for local community organisations and schools.
- **Blackhillock** - Launching a micro-grants fund administered by the local community council to support grassroots initiatives.
- **Eccles** - Working with the community council on a project to modernise the local community hall.

What matters to you?

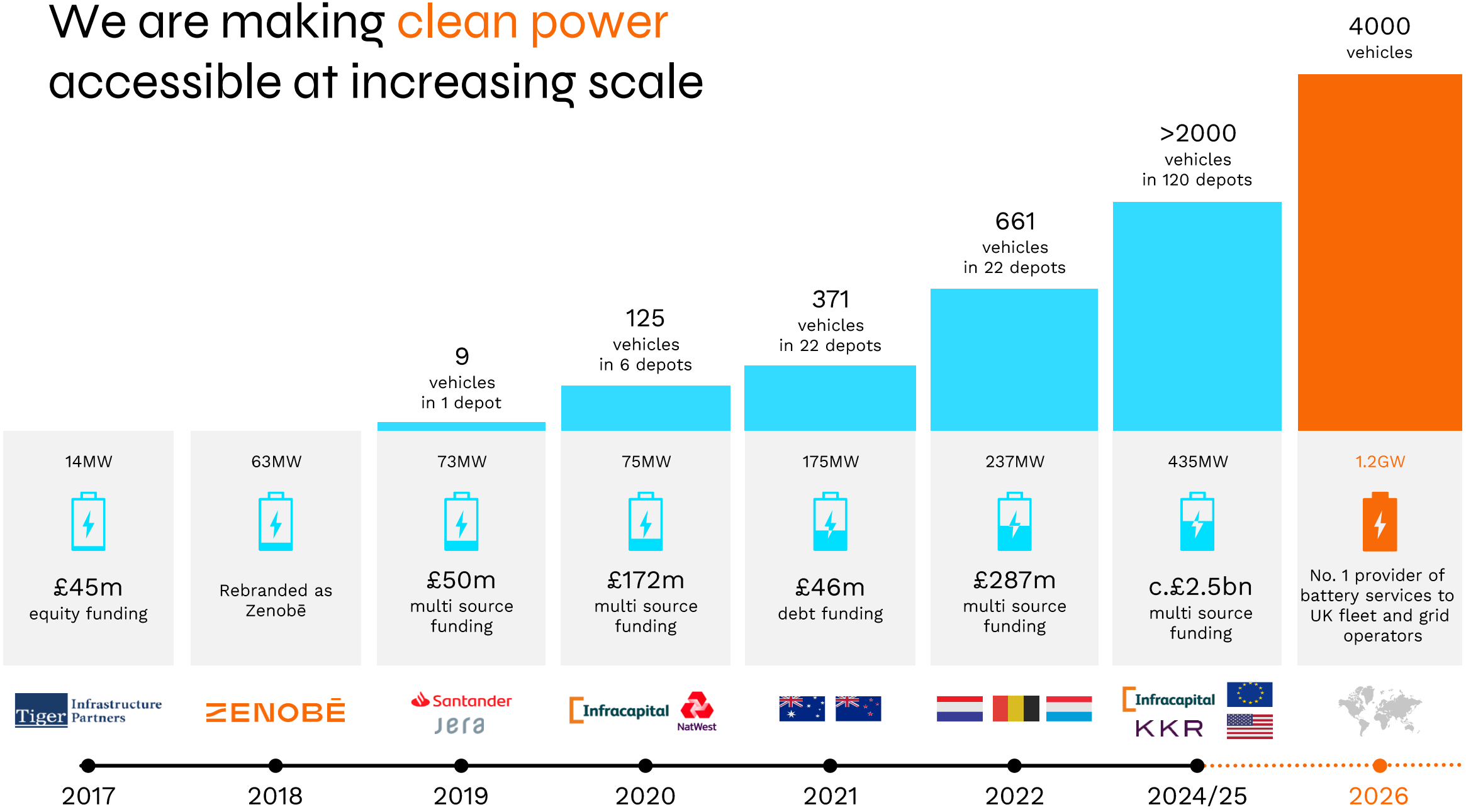
Tell us your priorities on the feedback board or via the QR code survey.

Before you go...

- Questions?
- Register for updates
- Community Benefits – let us know your priorities
- Survey – scan the QR

Additional slides

We are making clean power accessible at increasing scale



Zenobē and industry firsts

We believe that a net-zero society is within reach, and we want to get there as quickly as possible. We are a leading owner and operator of battery storage in the UK.

Leading the way in battery innovation

Zenobē is proud to be pioneering energy storage solutions that support a cleaner, more resilient electricity system. Our battery projects have achieved several firsts:

- **First** directly connected battery systems on the GB transmission network
- **First** batteries in the UK to provide fast reserve services
- **First** in the world to deliver reactive power using batteries
- **First** in the UK to help manage transmission constraints with battery technology
- **First** in the world to provide stability services from batteries

These innovations help make the grid smarter, greener, and more secure - and we're committed to delivering benefits locally as well as nationally.

Blackhillock 300MW Battery

A world-first, delivering Stability Services

Blackhillock is one of the **largest live transmission-connected battery in Europe**, pioneering a new approach to grid stability by delivering a full suite of active and reactive power services. It will significantly reduce renewable energy waste and **lower consumer bills.**

The challenge

- Scotland's renewable energy generation is increasing, but **grid constraints** mean excess clean energy goes to waste.
- Traditional stability solutions rely on fossil fuels, adding to higher costs and emissions.

The solution

- World-first transmission-connected battery designed to **provide Stability Services** to the grid.
- **300MW / 600MWh capacity** *(delivered in phases: 200MW live in 2025, additional 100MW in 2026)*
- Maximizes the usage of **renewable energy output** by reducing the need to curtail wind energy

The benefits

- ✓ Prevents **450,000 tonnes of CO_2 emissions** over 15 years.
- ✓ Enhances grid stability without fossil fuel plants.
- ✓ Provides instant response to grid events
- ✓ Can independently power up the grid following a blackout situation
- ✓ Dynamically adjustable for different grid conditions
- ✓ Lowers consumer energy bills by **£170 million over 15 years.**

Blackhillock

Kilmarnock South 300MW/600MWh BESS

Due to enter commercial operation in 2025

We designed, constructed, and are now commissioning our Kilmarnock South BESS, a site that will enhance the UK's position as a leader in delivering energy that is cost-effective, clean and efficient.

The challenge

- Scotland’s renewable energy generation is increasing, but **grid constraints** mean excess clean energy goes to waste.
- Traditional stability solutions rely on fossil fuels, adding to higher costs and emissions.

The solution

- **300MW / 600MWh capacity**
- Providing inertia and fault-current services are provided via Pathfinder programme
- Maximises the usage of **renewable energy output**

The benefits

- Enhances grid stability without fossil fuel plants.
- **Less wind curtailment** (wind turbines being switched off), ensuring usage of homegrown renewables is maximised.
- Accelerating the rollout of renewable power.
- The site is expected to prevent **3.3m tonnes of CO_2 emissions** over 15 years of operation.

Kilmarnock