

North Kyle BESS

Frequently Asked Questions

The following questions were raised by members of the public during the North Kyle BESS community webinar. Answers have been provided by the project team.

What is the lifetime of the battery energy storage system equipment?

The overall project lifetime is 40 years. Some individual components, such as the power conversion systems (PCSs), inverters, and battery cells, may be replaced over that period. As battery technology advances, replacement units are likely to be more energy dense, potentially requiring fewer containers.

Where exactly will the BESS be located?

The BESS will be situated approximately 500–800 metres to the west of the existing North Kyle substation, within the North Kyle Wind Farm red line boundary. The site was selected to minimise the need for any new grid connection routes, as it will connect directly into the existing North Kyle substation.

What is the capacity of the BESS and how does it relate to the wind farm?

The BESS is a 100 megawatt, 2-hour system, providing 200 megawatt hours of storage capacity. The North Kyle Wind Farm has a grid connection of 212 megawatts and an installed capacity of 220 megawatts. The BESS will use the same grid connection and substation. It will store surplus wind energy during periods of low demand and release it when it is needed, helping to provide a more consistent power output.

What noise will the BESS generate, and will it be audible from nearby properties or the village?

Noise modelling is currently underway. Based on the assessments carried out so far, the BESS is not expected to have any noticeable noise impact at the nearest properties, and the village is too far away for any noise to be perceptible. The full noise assessment will be submitted as part of the planning application, and the project will be required to comply with the approved noise levels. As battery technology evolves, future units may be more energy dense and therefore quieter, as fewer containers would be required.

What noise mitigation measures could be applied if required?

Potential mitigation measures include the construction of an attenuation fence (a large wall around the facility) to reduce noise levels, and the option to reduce battery operations to a

lower level at night. Based on current modelling, these measures are not expected to be necessary, but they could be implemented if needed.

What are the specific noise levels the units will generate?

The precise decibel levels are being confirmed through the ongoing noise assessment. The battery containers are believed to produce noise in the region of the 80s (dB), but the full assessment — which also accounts for transformers and other equipment — will provide definitive figures prior to submission.

What happens to the equipment at the end of its life? Is any hazardous waste involved?

At the end of the project's life, all equipment will be removed and the site returned to its original condition. The battery provider will be responsible for recycling and disposing of the units in accordance with their own established procedures. In addition, a decommissioning bond will be put in place with the local council before construction begins. This fund ensures that, even in unforeseen circumstances, the site will be properly decommissioned and restored. Site investigation works are carried out at the start to establish a contamination baseline, and measures are in place throughout the project to prevent any land contamination.

What about the risk of battery fires? What safety measures are in place?

Battery fire risk is something Brockwell takes very seriously. The BESS is designed with safety as a priority, including appropriate spacing between units and two points of access for emergency services. The project team engages with the local fire service on design requirements and emergency response planning. New legislation has also recently been introduced to strengthen safety standards for battery energy storage systems. While the risk of fire is very small, a plume report may be prepared to assess potential impacts, and all necessary precautions will be taken.

Will there be an increase in traffic during construction, and what mitigation will be in place?

There will be some traffic impact during construction, but it will be significantly less than that experienced during the North Kyle Wind Farm build. Crucially, the BESS does not require any abnormal indivisible loads (AILs) — unlike wind turbine components — so there will be no large-scale road disruption. The most intensive traffic periods will be during initial groundworks and when the battery units are delivered to site. A transport statement is being prepared and will be shared once finalised. The project will also draw on the existing transport assessment work carried out for the North Kyle Wind Farm.

Will there be public access to the North Kyle site during construction of the BESS?

It is possible that some access routes close to the BESS site may need to be temporarily closed during construction for safety reasons. However, given the scale of the North Kyle site and its rural setting with multiple access points, it is expected that public access can largely be maintained. This will be confirmed with the North Kyle construction manager.

How will delivery drivers be managed to prevent them getting lost, as happened during the wind farm construction?

While it is not possible to control every aspect of third-party logistics, measures will be put in place to ensure delivery companies are aware of the correct routes and site access points. Any reports of drivers going to the wrong location or behaving inappropriately will be taken seriously and raised with the relevant contractors. Local residents are encouraged to report any issues directly to the project team.

How will neighbouring property owners be communicated with and supported?

The project team is committed to engaging directly with anyone affected by the development. Residents can get in touch via the project email address or telephone number to raise concerns or request a face-to-face meeting. As part of the noise impact assessment, the closest properties are specifically assessed, and mitigation will be put in place if required. Once operational, any noise complaints will be investigated by an independent noise consultant to ensure compliance with approved levels.

What is the state of the road near the North Kyle entrance, and will it be repaired?

Any road damage caused by construction activities is the responsibility of the developer to repair. Video surveys are conducted before and after construction to document the condition of the roads, and the developer is required under planning conditions to restore them to their pre-construction state. Any current concerns about road condition will be raised with the North Kyle construction and operations teams.

Could a separate postcode be allocated to the BESS site?

This suggestion has been noted and will be taken away for consideration. Postcode allocation is managed by Royal Mail rather than the developer, but it may be worth exploring to help with deliveries and navigation.

This is a dark skies area — will the plant be illuminated at night?

No. Unlike wind turbines, which have aviation warning lights on the tips of their blades, a battery energy storage system consists of ground-level units that do not require any form of night-time illumination. The BESS will therefore have no impact on dark skies.

Will a community fund be put in place?

Yes, a community benefit fund is planned. The fund will be managed by Brockwell, separate from East Ayrshire Council, and its structure will be informed by feedback from the local community. The company is keen to understand what the community would find most beneficial. North Kyle Wind Farm is expected to contribute approximately £65 million to the local community over its lifetime, and Brockwell is looking to build on that model for this project as well.

What environmental and technical assessments are being carried out?

A comprehensive suite of assessments is being undertaken, including noise and vibration assessments, ecology assessments (including biodiversity net gain considerations), drainage reports, traffic and transport assessments, archaeological and heritage impact assessments, and landscape and visual impact assessments. These are being carried out by specialist consultants and will form part of the planning submission.

What is the project timeline?

The planning application is expected to be submitted in Q2 2026 (target: end of May 2026). A decision from the ECU is anticipated by the end of 2026. If consent is granted, there will be approximately one year to discharge planning conditions and finalise financial arrangements before construction begins. The construction period itself is expected to take around one year.