FIELD

FIELD KNOCKNAGAEL BATTERY STORAGE

Providing up to 200 MW of electricity to create a greener and more stable grid

We are holding two public consultation events on **Tuesday 30th April 2pm-7pm** and **Tuesday 28th May 2pm-7pm**, at Dores Village Hall, Dores, Inverness IV2 6TR.



WHAT ARE WE **PROPOSING TO BUILD** AND OPERATE?

Field builds and operates large batteries which store energy to help create a greener, more stable electricity grid.

We'd like to build one of these batteries. Field Knocknagael, on land to the south-west of the existing Knocknagael substation.

Field Knocknagael would connect directly to Knocknagael substation, and would be capable of storing up to 200 MW of electricity. This is expected to avoid up to 1.4 million tonnes of CO₂e emissions during the first 20 years of operation. This would be achieved by supplying the grid with electricity stored when renewable energy generation is high, therefore reducing reliance on high carbon energy sources when renewable generation is low.

Our first site was Field Oldham, a 20 MW battery which has been operating since Autumn 2022. Field Knocknagael would join Field Oldham as part of a nationwide network which, together, will help the UK reach net zero.

WORKING WITH LOCAL COMMUNITIES

Our batteries will provide huge benefits to the UK, and we take great care to make sure this is not to the detriment of the communities that host them.

As a responsible developer and operator, listening to local communities matters to us, as it allows us to understand and respond to local issues, and ultimately build better battery sites.

We engage early with communities throughout the development process, oversee the construction on-site and we're responsible for the project once it's in operation. We're part of communities for the long-term.

WHY DO WE NEED BIG BATTERIES?

To reach net zero, increase energy security and help reduce energy bills, we need to store renewable energy and improve the electricity grid's stability and reliability.

Our batteries are designed to fill gaps in the UK's electricity supply by charging up when renewable energy is being produced (such as on windy or sunny days) and discharging energy back into the grid when needed (e.g. when the wind isn't blowing, the sun isn't shining, or we aren't able to import enough energy from elsewhere). This ensures plenty of energy is available for people to make their morning cuppa, even on a calm, overcast winter's day.

These batteries work a lot like the batteries you use at home, only instead of using our batteries to power a torch or TV remote, we operate large, 'grid scale' batteries. This means we can rely more on renewable energy and less on expensive fossil fuels to provide electricity to thousands of homes and businesses.

Batteries are also very good at keeping the grid stable, by maintaining a constant and predictable supply of electricity to the grid, at the right frequency.

Changes in the supply and demand of electricity on the network create changes in this electrical frequency. This needs to be closely monitored, as if frequency is too high or too low, the network cannot operate properly. Field Knocknagael will help to keep this frequency at the right level, which in turn helps reduce the chances of network disruptions or blackouts.

STORING ENERGY IN THE HIGHLANDS

Scotland has set a target to become net zero by 2045, with a reduction in greenhouse gases of 75% by 2030 and 90% by 2040*. Batteries enable much greater use of renewable energy, and therefore play an important role in helping Scotland reach net zero.

Batteries are a vital part of how we can make the most of renewable energy, which is why we believe that they can play a part in Highland Council's "Future Highland" Programme. The Highland Council stated in their Net Zero Strategy (2023) that:

"The Council's "Future Highland" Programme sets out a vision of Highland, a centre for global renewable energy, by capitalising on our areas of immense natural capital to deliver alternative energy solutions including developing solar, hydrogen, Hydro, wind and wave solutions."

*https://www.gov.scot/policies/climate-change/

FIELD KNOCKNAGAEL

Field Knocknagael would be located directly adjacent to the existing Knocknagael substation. The built infrastructure (batteries, cables, access tracks etc.) is proposed to cover an area of approximately 7 hectares.

We'll also provide landscaping to reduce visual impacts and biodiversity enhancements to we are having a positive ecological effect on the land we use.

Field Knocknagael will be made up of the following components:

- Battery energy storage units, which will be used to store the energy from the grid.
- Power conversion systems (including inverters and transformers), which convert energy from alternating current to direct current, so that it can be stored by the batteries.
- An on-site substation, which either steps up or steps down the voltage of the energy being stored.

- An underground cable connection to connect the battery to the existing Knocknagael substation.
- Site access tracks to allow vehicles (including emergency vehicles) to safely get around the site.
- Drainage arrangements to allow surface water to drain from the site at the same rate as the existing fields.
- Site security, including CCTV, fencing and lighting.
- Landscaping to reduce visual impacts and contribute to biodiversity enhancement.



FREQUENTLY ASKED QUESTIONS

What makes Field a committed and responsible developer for the long term?

Many developers look to take the project to shovelready status - that's securing land, grid connection and planning permission, and then sell the project on.

Field is a developer/owner/operator, which means we are responsible for the project throughout its entire lifecycle. This differentiates us from many developers who look to take the project to shovel-ready status - that's securing land, grid connection and planning permission, and then sell the project on.

We will be working with the community during early design and development, construction, and throughout the operation of the project.

When will Field Knocknagael be built?

We will be submitting our planning application to the Energy Consents Unit in Summer 2024. If we are granted consent, we would look to start construction in 2027 and it will take about two years to complete.

How will our local community benefit?

We're currently working with the National Schools Partnership* to deliver a community-based programme in local schools to help educate students about the work that Field is undertaking in renewable energy and energy storage, as well as encouraging and equipping young people to explore careers in STEM and renewable energy. The Field team will work with local schools to provide information to students about how to build a career in the renewable energy sector.

*National Schools Partnership is a unique education network (run by the Brand and Social Impact Agency, We Are Futures) providing free teaching resources to schools across the whole of the UK.

Will the project impact local traffic?

Once operational, the battery will have minimal impact on local traffic, with only occasional visits required for maintenance. When the battery is being built, construction traffic is managed through a Construction Traffic Management Plan. This will include details of construction traffic numbers, vehicle routing and working hours. As with all aspects of the development, we welcome input from the local community to help reduce any impact on local roads where possible.

Are battery energy storage sites noisy?

The main noise associated with batteries are the cooling fans, which keep the batteries from overheating. This noise level is low and the batteries are not expected to be audible beyond the site boundary. Noise is measured against existing background noise levels and noise levels are required to meet the relevant British Standards and World Health Organisation Noise Guidelines.

We conduct thorough noise evaluations for each site and implement various noise mitigation measures in our project plans. These measures, such as acoustic fencing and bunding, ensure that noise impacts are acceptable at nearby sensitive locations.

Are the batteries safe and what safety measures will you put in place?

Large batteries are safe facilities. We work hard throughout site design, construction and into operation to ensure the safety of our sites. We would only use batteries that have best-in-class fire safety performance and will be compliant with all relevant fire safety standards.

The batteries will be constantly monitored and in the unlikely event that a fire does occur, the facility will employ automatic fire detection and suppression systems.

We are also working with the Scottish Fire and Rescue Service to ensure suitable emergency response procedures are in place, including a Battery Fire Safety Management Plan.

To keep our sites secure, all our projects include perimeter fencing and gated access. During operation, our sites are unmanned and CCTV is used to monitor activities.

FEEDBACK FORM

To return your completed feedback form please tear it from the brochure and pop it in the post by Friday 7th June 2024. Alternatively, you can return your form via email to feedback@fieldknocknagael.co.uk.

Title:	Name:			
Address:				Postcode:
Email:			Telephone:	
1. Has this brochure been helpful in understanding our proposal?			🗆 Yes 🗖 No	Not sure
2. With regards to the proposals you have read about within this leaflet, are you:				
In favour	In objection	Of no opinion		
3. Please use this s aspects of the eme	pace to provide any com erging design shown in th	ments on the proposal. W le brochure.	/e would welcome	your feedback on all

Please provide your contact details if you wish to get a response. Any information provided will only be used for the purpose of the planning application to the Local Planning Authority and will not be disclosed with any third parties. Your contact details will not be listed on the planning application documentation. Field is managing this public consultation process in collaboration with Alpaca Communications.

To return your feedback form, please fold and put it in the post to us. If you'd like more space to share your thoughts, send us an email, or just write your comments down and pop them in an envelope with 'FREEPOST ALPACA COMMUNICATIONS LIMITED' written on the front. You don't need any further address or stamp. Any queries or problems? Get in touch via feedback@alpacacommunications.com.

Instructions

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INDICATIVE TIMELINE





JOIN US AT OUR PUBLIC CONSULTATION EVENTS

We're on a mission to build the renewable energy infrastructure needed to reach net zero, starting with battery storage. Your feedback can help us to improve our proposals for Field Knocknagael.

For further information, please visit our website at www.fieldknocknagael.co.uk.

We're holding two public consultation events at Dores Village Hall, Dores, Inverness IV2 6TR:

2pm - 7pm Tuesday 30th April 2024 2pm - 7pm Tuesday 28th May 2024

You can submit your feedback to us or write to us via:

Email: feedback@fieldknocknagael.co.uk

Freepost: Alpaca Communications Ltd

