

Our Ref: 411-04-BESS
Mobile: 07398 810 695
Email: Isabella.Marcucci@intelligent-alternatives.co.uk

100 Brand Street
Glasgow
G51 1DG
www.intelligent-alternatives.co.uk

Planning, Conservation, Regeneration and Building Control
Staffordshire Moorlands District Council
Moorlands House,
Stockwell Street,
Leek,
Staffordshire Moorlands,
ST13 6HQ
(by email only)

7th December 2021

Dear Sir/Madam,

Battery Energy Storage Scheme on Land at The Fields Farm, Draycott Cross, Cheadle, Stoke-On-Trent

The Town and Country Planning (Environmental Impact Assessment) Regulations 2017

Introduction

I write, under Section 6 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations), to request an EIA Screening Opinion in relation to the proposed development of "Battery Energy Storage Scheme (BESS) and associated development" (the Proposals) at the location described above (the Site).

It is considered that the Proposals most closely relate to Schedule 2, Part 3 (a) of the EIA Regulations for an installation for the production of energy which has an area of greater than 0.5 hectare.

This request includes a plan sufficient to identify the land, a description of the Proposals (physical characteristics of the Proposals and a description of the location of the Proposals), a description of the aspects of the environment likely to be significantly affected, a description of the likely significant effects and other relevant information including features and measures taken to avoid or prevent what might have otherwise been significant adverse effects.

Based on the content of this request and the selection criteria in Schedule 3 of the EIA Regulations (characteristics of the development, location of development and types and characteristics of the potential impact), it is considered that the Proposals will not have a significant effect on the environment and the Proposals are, therefore, not EIA development.

The Site

The Site is approximately two hectares in size and comprises agricultural land in the countryside. The Site is located c. 350m east of Cheadle Road (the A521), c. 350m south of Daisybanks, and c. 760m north-east of Forsbrook. The topography of the land slopes to the south-west, and appears open to the east and south, with trees along the south-western boundary and hedgerow along the western field boundary.

The Site is located within Flood Zone (FZ) 1 within the Stoke Greenbelt, and there are no Public Rights of Way (PROW) which run in or around the Site. The nearest dwelling to the Site lies to the south-west at Mount Pleasant (as named on the OS map).

An overhead powerline crosses the Site from the north-east, with two masts located within the Site boundary.

Access to the Site would come from Fields Farm to the south-east, as shown on the plan enclosed, and through the adjacent field to the Site.

Designations and Allocations

Based on online mapping data, the Site lies within FZ 1 and within the Stoke Greenbelt.

The nearest heritage asset to the Site is the Grade II listed 'The Fields Farmhouse' approximately 590m to the south-east, with a number of scattered Grade II Listed properties noted further afield including Callowhill Farmhouse, Field Farmhouse and Forsbrook Hall Farmhouse.

The nearest Scheduled Monument is the 'Paynsley Hall moated site and outer enclosure' c. 3.8km to the south of the Site.

With regards to archaeology, there are no historic environment records (HER) on the Site.

With regards to ecology, the nearest designation to the Site is the Huntley Wood Ancient Woodland (AW) c. 1.6km east of the Site. Further afield, the Cecilly Brook Local Nature Reserve (LNR) lies c. 3.6km and further LNRs are noted further afield including the Hales Hall Pool LNR and the Coyney Woods LNR. The nearest Site of Scientific Interest (SSSI) to the Site lies 5km to the north-west, and is the Hulme Quarry SSSI. The Site lies within the Impact Risk Zone of a number of SSSI located more than 5km away from the Site, including Dimmings Dale & The Rangers SSSI and Groghall Meadow and Pastures SSSI but are not likely to be impacted by the works.

The Site lies within a Coal Consultation Area, however it does not appear to fall within a Development High Risk Area according to the Coal Authority's online mapping system.¹

Description of the Proposals

At this stage, it is anticipated that a Battery Energy Storage System (BESS) of up to 100MW will be developed.

¹ <https://mapapps2.bgs.ac.uk/coalauthority/home.html>

The Proposals will comprise up to 85 BESS containers which would measure c. 2.44m (w) x 2.9m (h) x 12.2m (l), and include a ventilation and cooling unit at either end. These will store the batteries and electrical equipment.

A number of buildings and further ancillary infrastructure will be required to house inverters, transformers, a substation compound, communications equipment, and for storage.

The containers will sit on a compacted crushed stone bed and will be arranged to fit the shape of the Site as best possible, aligning the batteries in rows of parallel containers. Each container will be pre-fabricated off-site and transported to Site, and is likely to be finished in dark grey or moss green.

The Proposals will be enclosed by green paladin fence up to 2.4m in height. An acoustic timber fence may be erected inside the Site adjacent to the paladin fence subject to the outcome of any noise assessment. CCTV cameras will also be positioned along the fence line.

The existing access track leading up to Fields Farm from Cheadle Road will provide permanent access to the Site. The entrance will provide access directly into the Site and will result in minimal disruption. Where the track is not presently paved, particularly to the west of Fields Farm, the proposed access track, as well as the internal access tracks within the Site, will be made of crushed, permeable stone, approximately four metres in width.

The Proposals will not generate any waste once operational. During construction and operation, suitable waste and recycling facilities will be put in place. Relevant recycling and waste regulations and policy will be followed, including the Waste Electrical and Electronic Equipment Directive.

There will be a small number of low-level lights on the substation structure which will be manually operated, small and downward-directional, for emergency use/maintenance only. Additionally, manually operated, small and downward directional LED lights will be located on the door of each battery container to facilitate safe entry/exit for emergency use/maintenance only.

Noise levels from the battery units will be assessed and mitigated as necessary through a Noise Impact Assessment as part of the planning submission.

Access, traffic and transport issues will be carefully managed during construction in line with the relevant legislation, policy and guidance.

There will be a cable route and associated trenching connecting the Proposals to the 132kV overhead line c. 200m to the south of the Site which would be undertaken under the Distribution Network Operator's Permitted Development Rights (in this case, Western Power Distribution). Should this connection materially change in terms of route or nature, and/or the likely impact change to the extent that the outcome of EIA Screening Request would likely change, a fresh EIA Screening Opinion would be sought. The trench will typically be between

750mm & 1100mm in depth and will contain a three-phase cable and a fibre optic communications cable.

Fire safety would be ensured through providing sufficient distance between each battery container, through appropriate fire containment and suppression systems, and ensuring the established suppliers of BESS containers has a robust Battery Management System and battery chemistry that limits the risk of thermal runaway.

It is noted new native species hedges and trees will be planted along the boundary of the Proposals to provide sensitive natural screening which is in-keeping with the surrounding area's character.

Effects

With regards to the **Green Belt**, it is anticipated that whilst the Proposals will result in harm to the openness of the Green Belt, these impacts would not be significant as a result of their low-level nature and the potential for landscaping to be deployed to minimise impacts. The Proposals will not result in coalescence, and a justification for very special circumstances would be set out within any future planning submission.

Furthermore, the declaration of a climate emergency from Staffordshire Moorlands District Council in July 2019, and the need to tackle climate change without delay indicates that there are very special circumstances which outweigh the minimal, less than significant, impact on the openness of the Green Belt (in line with Paragraph 147 of the NPPF).

In terms of **landscape and visual effects**, the site is considered sufficiently set back from nearby sensitive receptors to not result in significant impacts on the landscape. The south-west sloping topography of the land lends itself to minimal distanced views, and the existing scattered mature trees in the vicinity contribute towards minimising the view of the Site from further afield. There are no PROW nearby, and the nearest properties to the Site are more than 300m from the Site.

A number of pylons, masts and overhead powerlines are located in the surrounding landscape, and the nearby wind turbine is also noted, cumulatively adding man made elements to the views of the Site and nearby fields.

The Site may be partially viewed by Cheadle Road to the north, but it is considered that views of the Proposals from the road are not likely to be significant as the road is well screened by existing vegetation, hedgerow and mature trees along the road.

There may be partial views of the Site from Fields Farm. However, these impacts can be fully assessed through a Landscape and Visual Impact Appraisal (LVIA) as part of the planning application. A landscaping scheme will also take these views into account when looking to mitigate the visual impacts, including planting native hedging and trees around the boundary of the Proposals to ensure that views of the Site are minimal.

Therefore, noting the topography of the Site and the existing and proposed screening around its boundaries, as well as the distance between the Site and nearby sensitive receptors, the Proposals would be contained within the landscape and will not result in any significant landscape and visual impacts.

Heritage effects, including archaeology, have been considered. The nearest heritage asset to the Site is the Grade II listed 'The Fields Farmhouse' approximately 590m to the south-east, with a number of scattered Grade II Listed properties noted further afield including Callowhill Farmhouse, Field Farmhouse and Forsbrook Hall Farmhouse.

Due to the undulating topography of the surrounding landscape, and the proposed screening, there are no significant impacts on heritage assets resulting from the Proposals.

With regards to archaeology, there are no historic environment records on the Site. It is considered that the impact on archaeology is unlikely to be significant due the nature of the Proposals, so there will not be significant effects on archaeology.

A Historic Environment Desk-Based Assessment will be undertaken as part of the planning process to fully assess whether the Proposals would result in any harm to nearby heritage assets, and to inform the landscaping scheme to minimise that harm, if any.

With regards to **ecology and biodiversity**, as noted above, the Site is presently in agricultural use and is not in a sensitive area as defined by the EIA Regulations. The nearest designation to the Site is the Huntley Wood AW, and further afield, the Cecilly Brook LNR lies c. 3.6km. On account of the scale and distance of the Proposals, there will be no impact on these designations as a result of the Proposals. Designations further afield will also not be impacted.

The boundaries and margins of the Site, including mature trees and hedges to the west, would be protected during construction and operation as the Proposals will not be within the root protection zone, and will be set back from field boundaries. Additional planting and hedgerow would be put in place to help screen the Proposals and contribute to the biodiversity of the Site and its surroundings. The central agricultural land is likely to be of low ecological distinctiveness and strategic significance, and the loss of the ecological value of the agricultural land will be compensated for within the biodiversity management plan for the duration of the Proposals.

The Proposals will be set back from the trees, with a rough grassland / wildflower meadow buffer acting to retain/enhance wildlife corridors. Biodiversity enhancements such as bat boxes, wild flower planting areas and new native species hedges will improve the biodiversity value of the Site and its surroundings, and the Proposals would aim to deliver a biodiversity net gain noting the future requirements of the Environment Act 2021.

Taking all of this into consideration, including the distance to sensitive areas as defined in the EIA Regulations, it is considered that the Proposals will not result in significant adverse effects on ecology or biodiversity.

With regards to **land use and land grade** effects, the Site is understood to be partly Grade 4 and Grade 3 land (which may be Grade 3a, Best and Most Versatile, or 3b, poorer quality)

based on high level mapping. A full and detailed Agricultural Land Classification will be undertaken as part of the planning application to establish the land classification. This is a standard and established process with clear outcomes to consider well understood planning issues.

An informal 'sequential test' approach will be undertaken to demonstrate that the use of land within a rural location is justified and, if the land is BMV, explore whether or not poorer quality land is available. This would also inform the consideration of the use of land in the countryside.

In terms of **flooding and drainage** effects, the Site lies entirely within FZ 1, and therefore flooding impacts are not considered significant. Nonetheless, as the Site is over one ha, a detailed Flood Risk Assessment will be conducted which would set out measures to mitigate potential flood risk on Site and on neighbouring land. The Proposals will take flooding and drainage issues into account; access tracks would be permeable, and swales and scrapes can be incorporated, if necessary, into a drainage design to ensure surface water drainage is effectively managed from the increased hardstanding resulting from the Proposals. Overall, it is considered that there will not be significant impact on the environment as a result of the Proposals in terms of flooding and drainage issues.

In terms of **noise and amenity** effects, noise will be generated as a result of the fans on the battery containers and this can be measured and assessed through a Noise Impact Assessment. Subject to the results of the survey, mitigation in the form of acoustic fences can be implemented, and a subsequent impact undertaken to ensure that noise impacts are reduced to appropriate levels.

The nearest dwelling to the Site lies approximately 350m to the north and is not likely to be significantly impacted by the noise due to the distance between the Proposals and the receptor, the topography of the land and the potential for acoustic fencing and trees to minimise the impacts.

There will be no pollutants generated as a consequence of the Proposals.

A fire safety suppression scheme will form part of the Proposals which results in the risk of fire being very low. Further details confirming the fire safety suppression will be provided through the planning application.

The Proposals are also not considered to result in significant traffic impacts, as the batteries would be mostly pre-fabricated off-site and therefore do not require extensive trips or noteworthy on-site construction traffic.

With regards to **access, traffic and transport** effects, no significant effects are anticipated. Access to the Site will come from the existing entrance track to Fields Farm to the east. Where the track is not paved, it will be improved to ensure it is safe and appropriate for articulated vehicles and heavy goods vehicles. The entrance will provide access directly into the Site and will result in minimal disruption.

There will be regular traffic movements during construction and decommissioning. However, during operation the maintenance visits to the Site will be infrequent. Construction is expected to last approximately six months and deliveries would be restricted to standard working hours.

There are no nearby PROW and therefore there will be no impacts on users of these routes.

Overall, it is considered that effects would not be significant and can be fully assessed through a Traffic Management Plan.

In terms of potential **cumulation** with other existing or proposed development, specifically renewable energy schemes, the wind turbine located c.445m to the east of the Site may result in less than significant cumulative impacts. As the turbine is already built, the cumulative visual impact can be sufficiently assessed through a LVIA.

The location of the Site within its surroundings is considered to be appropriate for battery deployment and no significant cumulative effects and **transboundary effects** are anticipated.

Battery issues and effects are not considered complex. Impacts are considered to be generally low intensity. The probability, expected onset, duration and frequency of the impacts are likely to be accurately determined.

There have been recent widespread realisations of the potential impact of global climate change and a recognition that swifter, greater action is required to reach net zero by 2050. This has included a greater understanding on the need to adapt the grid to accommodate renewable energy, and therefore that BESS play a vital role in decarbonising the grid and transitioning to a smarter and more flexible power network.

Recently, the Government published the National Infrastructure Strategy alongside the Ten Point Plan in November 2020 which set out to decarbonise the UK's power networks by integrating clean technologies like wind and solar into the energy system, through improve the network infrastructure and utilising smart technologies like energy storage.

In December 2020 the Government published their Energy White Paper: Powering Our Net Zero Future, which recognises that energy storage and flexibility is a priority area for a net zero innovation portfolio, and states that "electricity markets need to adapt as the deployment of renewable generation increases".

The Ministerial Forward within Ofgem's Smart Systems and Flexibility Plan (published July 2021) states that:

"A smarter, more flexible system will utilise technologies such as energy storage and flexible demand to integrate high volumes of low carbon power, heat and transport and reach a carbon neutral future.

A smart and flexible energy system can deliver significant benefits for consumers, the system and the wider economy whilst lowering carbon emissions."

The recent publication of part of the Sixth IPCC report has also demonstrated how human influence has warmed the climate at an unprecedented rate and stated that urgent action and cooperation is required to slow down the rate of global warming, including a global cumulative effort to reach carbon net zero.

The draft National Policy Statement (NPS) (EN-1) and (EN-3), both published in September 2021, seek to stress the “need and urgency for new energy infrastructure to be consented and built to ensure our supply of energy always remains secure, reliable, affordable, and consistent with net zero emissions in 2050 for a wide range of future scenarios”. Both documents recognise that increasingly, energy storage is likely to come forward as part of the infrastructure associated with solar farms, and that it plays a pivotal role in achieving net zero and integrate high volumes of low carbon power into the energy system. Specifically, the draft NPS EN-1 states that “Storage is needed to reduce the costs of the electricity system and increase reliability by storing surplus electricity in times of low demand to provide electricity when demand is higher.”

Since then, the Government have unveiled plans to decarbonise the UK power system by 2035 which is fully set out in the Government’s Net Zero Strategy: Build Back Greener, published in October 2021. A key focus of the report is to build a secure, ‘home-grown’ energy sector that reduces reliance on fossil fuels and exposure to volatile global wholesale energy prices. Battery energy storage is an essential component in the “integration of low carbon energy sources in a smart and flexible way”.

Therefore, there is substantial national policy which support the need for BESS, and this should be attributed significant weight.

Based on all of the above it is considered that the effects of the Proposals will not be significant in terms of the EIA Regulations and the Proposals are not EIA development.

Proposed Planning Application

It is proposed that any future application is accompanied by the following information, which is considered suitable to assess the Proposals. The Council’s feedback as need be on this would be appreciated.

- Location plan, site design and elevation drawings;
- LVIA including photomontages;
- Preliminary Ecology Assessment;
- Biodiversity Management Plan;
- Heritage assessment, including the impact on archaeology;
- Noise Impact Assessment;
- Flood Risk Assessment;
- Agricultural Land Classification;
- Traffic Management Plan; and
- Planning, Design and Access Statement

Conclusion

In conclusion, I trust the above and enclosed is clear and that the Council agree that the effects of the Proposals will not be significant and are therefore not considered EIA development. I look forward to hearing from you.

Yours faithfully,

Isabella Marcucci

Assistant Town Planner

Isabella.Marcucci@intelligent-alternatives.co.uk

07398 810 695

Encl: Location Plan 1:10,000 (07/12/2021)
Designations and Allocations Plan (07/12/2021)
Existing Consents Plan (07/12/2021)