

Staffordshire Moorlands District Council
Development Control
Moorlands House Stockwell Street
Leek
Staffordshire
ST13 6HQ

Our ref: SV/2024/112686/01-L01
Your ref: SMD/2024/0452
Date: 08 November 2024

F.A.O: Declan Cleary

Dear Declan

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) SCOPING OPINION FOR A PROPOSED DEVELOPMENT OF A BATTERY ENERGY STORAGE SYSTEM (BESS) ON LAND ADJOINING NEW HOUSE FARM, LUZLOW LANE, BAGNALL, STAFFORDSHIRE ST9 9JZ

Thank you for your consultation on the above Environmental Impact Assessment (EIA) Scoping Opinion which was received on the 18 October 2024.

We have reviewed the EIA Scoping Report (by Energy Planning, dated September 2024) and can offer the following comments and recommendations to make for your consideration at this time.

Environmental Constraints: Based on our records, the proposed development is located within an area that may be affected by the following:

- **Flood Risk:** Based on our Flood Map for Planning the entire site is located within Flood Zone 1 (the low risk zone), however, there does appear to be a small ordinary watercourse bisecting the site.
- **Groundwater:** The entire site is classified as a Secondary A aquifer (Undifferentiated) with the superficial geology underlying the site being Devensian Till. The site does not appear to fall within a designated Source Protection Zone for public drinking water according to our internal records.
- There may be private water supplies in the area, records of which may be held by the Council's Public Protection team. The applicant is advised to contact British Geological Survey (BGS) for records of any boreholes etc; and make enquiries with adjacent properties and landowners.
- The site falls within the Churnet Rivers and Lake Catchment defined by the Water Framework Directive (WFD); the nearest WFD waterbody is the Endon Bk which is currently afforded 'poor' ecological status. The aim is to maintain/achieve 'good' ecological status by 2027. Where possible, the

development should consider ways to increase local biodiversity and ecology to meet the Water Framework Directive targets.

Further information on the above and other environmental constraints can be found via the following link: <http://apps.environment-agency.gov.uk/wiyby/>

For planning advice please find attached a copy of our Development Guidance Note which should be of interest to the applicant.

We note that this proposal seeks to deliver a 99MW BESS facility. To briefly summarise, BESS developments could, with reference to matters within our remit, present the following risks:

- They could be at risk of flooding.
- Pollution risks (including fire-related risk) to surface water and groundwater.
- The links between flood risk and pollution risk.
- Management of end-of-life batteries.

The above points should be considered when designing the site layout and deciding where the BESS is to be placed on site, though we recognise an indicative layout has been produced.

Risk to groundwater and surface water: Under normal operation BESS developments do not present significant risks to groundwater or surface water. There is, however, potential for pollution of the water environment due to abnormal and emergency situations at BESS developments, in particular: fires. There is a risk that highly polluting chemicals in batteries could enter groundwater in firewater or rainfall. Applicants should assess risks to groundwater and the water environment, and ensure robust mitigation is in place for containment of this water. Where possible the applicant should ensure that there are multiple 'layers of protection' to prevent the source-pathway-receptor pollution route occurring.

While in the event of a fire at a BESS, it is accepted best practice to let the containers on fire burn out, it is likely water will be used to cool neighbouring containers. This water could enter burning containers through surface run off or directly from spray cooling neighbouring containers. Furthermore, during or following a fire at a BESS development, water could enter exposed containers through rainfall during the period of time it takes to remove, or cover burnt out containers. The site must be able to accommodate an appropriately sized water storage for these events.

We would encourage the council and developer to ensure that appropriate space is available on site for firefighting water storage and containment. We would suggest that the surface water drainage system incorporates suitable measures to prevent pollution of the water environment from firefighting run-off, in the event of a fire. For example, 'containment' through tanks or appropriately sealed containment drainage (lagoons tanks or storage) systems, on impermeable surfaces to hold firewater. Use of shut off valves. Spill kits and drainage covers.

Whilst the proposed development is not currently an operation we regulate under Environmental Permitting Regulations, the following advice may be of use: [Fire prevention plans: environmental permits - GOV.UK](#)

In line with [planning practice guidance](#):

- Applicants are encouraged to engage with Local Fire & Rescue Services issues of siting and location of BESS are dealt with before applications are made. Ideally this should be done before submitting a planning application.
- Local planning authorities are to refer to [guidance produced by the National Fire Chiefs Council](#) for consideration when determining applications and consult with local Fire & Rescue Services before issuing decisions. Matters relating to the siting and location of such facilities in the event of an incident, prevention of thermal runaway and emergency services access should be considered.
- Applicants will also need to comply with relevant Building Regulations in [Part B](#). They require applicants to provide suitable access for the fire service.

To help mitigate the risks arising from accidents or spillages, applicants should propose appropriate measures to manage activities and consider whether certain riskier activities should only be carried out within specific areas on site to reduce associated environmental risks.

It may also be important to consider the risk of failure of mitigation measures to manage identified risks. For example, the risk that a containment system to contain surface water in the event of a fire failing because of the fire. The extent of the measures taken to assess and manage this risk may depend on the sensitivity of the groundwater or surface water bodies affected.

Notwithstanding the above, in reference to the submitted Scoping Report, the following assessments and details are likely to be required.

Flood Risk: Based on our Flood Map for Planning the site is located entirely within Flood Zone 1 (the low risk zone), though we note there is a small unmodelled ordinary watercourse bisecting the site and in immediate proximity to the proposed development. This watercourse may have associated flood zones that are not mapped on the Environment Agency's flood map for planning due to the scale and nature of the watercourse.

There is currently a lack of clarity, within National Planning Policy, regarding the vulnerability classification of BESS development. For standalone BESS development, until the vulnerability classification is updated, or other guidance is provided by DLUHC (or DESNZ), we would advise that such facilities should be treated as 'essential infrastructure' if providing 'grid and primary substations storage' (e.g. if the BESS is connected to the national grid) as proposed by this site.

We note in paragraph 4.59 that a Flood Risk and Drainage Assessment (FRA) will be submitted with any future planning application on site. A FRA will need to be in line with the NPPF and NPPG to fully understand and inform the risk of flooding at the site whilst demonstrating that the development will remain suitable for its lifetime without increasing flood risk to third parties.

A range of Sustainable Urban Drainage Systems (SUDS) could be incorporated throughout the development, and we expect all opportunities to be fully exploited in the scheme so as to ensure no negative impact on water quality and deliver enhancements in line with the WFD and Biodiversity Net Gain (BNG). Incorporation of systems along pathways (i.e. roads, verges, open areas, footpaths etc) and near to receptors (i.e. near to watercourses) can not only control flows but potentially bring about improvements in water quality, ecology of receiving watercourses.

Your Council, as the Lead Local Flood Authority (LLFA), will need to consider the impacts of the ordinary watercourse as the statutory consultee in this regard.

Advice to the Applicant - Environmental Permitting Regulations: Separate to planning permission an Environmental Permit (EP) may be required from us, in line with the Environmental Permitting Regulations. This may be to regulate matter such as, discharge of effluent/waters, water abstraction, watercourse impoundment, waste management.

Further information and links on these EP's and other regulatory advice is provided in our Development Guidance Note (attached).

Ecology: We note that Ecology has been scoped out of the EIA assessment at this stage. An Ecological Survey may be required. We might provide comments on water based 'protected species' that are within our remit. For example, there may be otters and/or water voles associated with adjacent water features or near this location. We might also comment on potential impact upon fish habitat. Detailed assessment and mitigation measures may be necessary.

We would encourage, where possible, opening up of culverts, improvement/naturalisation/creation of new watercourses, and the provision of other environmental infrastructure that would provide wider biodiversity benefits and help deliver WFD improvements.

The provision of SUDS systems provides chance for 'Blue Infrastructure'. If designed correctly, they could also provide wetland habitat throughout the year as well as providing a recreation amenity. As stated above we would seek appropriate blue infrastructure i.e. 'blue' landscape elements are linked to water such as pools, pond and wetland systems, artificial basins or watercourses. Along with green infrastructure they help form an interconnected network of environmental enhancements within and across catchments. We would also welcome identification of opportunities for measures to secure net gains for biodiversity, and other environmental improvements, in line with the NPPF recent revisions.

We would also recommend that you consult Natural England as the key consultee for this issue.

Biodiversity Net Gain: The development should deliver BNG. The Environmental Statement should include an assessment on BNG using the relevant metric tool. Please see further information here: [Calculate biodiversity value with the statutory biodiversity metric - GOV.UK](#).

We would urge the applicant to consider all possible opportunity to enhance the biodiversity value of the site as far as practicable and note a BNG assessment will form part of the documents submitted with any future planning application.

Water Framework Directive: We would also expect the EIA to include relevant information on the WFD. It should identify any river water bodies close to the site that might be affected by the development (both positively and negatively). The Government is currently committed to improving the quality of our watercourses through the requirements of the WFD. The developer should maximise the opportunities for significant incorporation of features and schemes to improve the quality of watercourses and features identified in the report.

No development should be permitted if it will result in any deterioration in the quality of any waterbody. All appropriate measures should be taken to bring about improvements in the morphology and condition of water courses.

If development might lead to a deterioration in water quality and Water Body status, we would expect a Water Framework Directive Compliance Assessment to be submitted with any application. If significant improvement works are planned for watercourses (which we would encourage as detailed above) we would also expect a WFD Compliance Assessment, or at least a Screening exercise for such, to demonstrate no negative impacts of such works, and indeed to make clear the positive impacts to be delivered.

Ground Conditions and Contamination: We note that ground conditions have been scoped out at this stage but recognise ground investigations will be required prior to any development taking place on site, we would expect any potential contaminative sources present across the site to be identified and appropriate mitigation measures implemented where necessary.

As above, we highlight that the entire site is classified as a Secondary A and that the site does not appear to fall within a designated Source Protection Zone for public drinking water according to our internal records.

It is important to establish any historic uses that could have given rise to contamination on a site of this scale, though the site appears to be a greenfield site in agricultural use.

We concur that due to the site's history there is no need to scope in the ground conditions from a controlled waters perspective, matters relating to human health should be directed to the local council. This is on the basis that an investigation will be undertaken to confirm the site does not pose a risk to controlled waters.

I trust the above will assist in your determination of the Scoping Opinion. Please do not hesitate to contact me if you have any queries.

If the applicant wishes to have a meeting with us or wishes for us to review a document such as the potential modelling prior to its formal submission as part of the application, this will be chargeable as part of our Cost Recovery Service. We would recommend they contact our team email address

Yours faithfully

Mr. Graeme Irwin
Planning Specialist