

AXIS

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Date : 5th August 2024

FAO: Mr Andrew Barton

Dear Sir / Madam,

**Pre Application Advice : Installation of Battery Energy Storage System with associated infrastructure and access
Land Off Newnham Road, Newnham Road, Newnham, Hertfordshire,**

I refer to your request for pre-application advice regarding the property above and the proposed development.

For your information, the relevant national and local planning policies that would relate to the potential future planning application are as follows:

National Planning Policy Framework

Section 2 – Achieving sustainable development
Section 6 – Building a strong and competitive economy
Section 8 – Promoting healthy and safe communities
Section 9 – Promoting sustainable transport
Section 11 – Making effective use of land
Section 12 – Achieving well-designed places
Section 14 – Meeting the challenge of climate change, flooding and coastal change
Section 15 – Conserving and enhancing the natural environment
Section 16 – Conserving and enhancing the historic environment

North Hertfordshire Draft Local Plan 2011-2031

SP1 - Sustainable development in North Hertfordshire
SP3 – Employment
SP5 – Countryside and Green Belt
SP6 – Sustainable transport
SP7 – Infrastructure requirements and developer contributions
SP9 – Design and sustainability
SP10 – Healthy communities

SP11 – Natural resources and sustainability
CGB1 – Rural Areas beyond the Green Belt
T1 – Assessment of transport matters
T2 – Parking
D1 - Sustainable design
D3 - Protecting living conditions
D4 – Air quality
ETC2 – Employment development outside Employment Areas
NE2 – Landscape
NE4 – Biodiversity and geological sites
NE7 – Reducing flood risk
NE8 – Sustainable drainage systems
NE11 – Contaminated land
NE12 – Renewable and low carbon energy development
HE1 – Designated Heritage Assets
HE4 – Archaeology

Vehicle Parking at New Developments SPD - November 2011

Design SPD - July 2011

Assessment:

The Site

The development plot is situated to the north of Newnham Road, Newnham. The site is an agricultural field situated within the Rural Area beyond the Green Belt.

Baldock Services is situated to the south west of the application site. The site is otherwise surrounded by agricultural fields.

The land upon which the development is proposed is classified as Grade 2 (very good) agricultural land.

The Proposal

Advice is sought for the change of use of the agricultural field to accommodate a Battery Energy Storage System (BESS) and associated infrastructure.

The development would consist of two compounds. A northern compound and southern compound. Each compound would house an assortment of different equipment and buildings. The southern compound would be home to 48 prefabricated BESS grouped and arranged into rows.

Assessment

Policy Context:

Policy SP1 of the Local Plan supports the principles of sustainable development within the district. Policy SP1 states that the Local Planning Authority will “*grant planning permission for proposals that... provide the necessary infrastructure required to support an increasing population.*”

Policy SP1 also sets out that the Council will *“protect key elements of North Hertfordshire’s environment including biodiversity, important landscapes, heritage assets and green infrastructure (including the water environment)”*. The policy then sets out that the Local Planning Authority will *“secure any necessary mitigation measures that reduce the impact of development, including on climate change”*.

With the application site being situated within the Rural Area beyond the Green Belt, Policy SP5 of the Local Plan sets out that the Council will operate a general policy of restraint in Rural Areas beyond the Green Belt through the application of detailed policies.

Policy CGB1 of the NHLP sets out that planning permission will be granted provided that the development complies with one of the following criteria:

- a) Is infilling development which does not extend the built core of a Category B village;
- b) Meets a proven local need for community facilities, services or affordable housing in an appropriate location;
- c) Is strictly necessary for the needs of agriculture or forestry;
- d) Relates to an existing rural building;
- e) Is a modest proposal for rural economic development or diversification; or
- f) Would provide land or facilities for outdoor sport, outdoor recreation and cemeteries that respect the generally open nature of the rural area.

Policy SP11 of the Local Plan sets out that the Plan seeks to meet the challenges of climate change and flooding. The policy sets out that the Local Planning Authority will support proposals for renewable and low carbon energy development in appropriate locations.

Policy NE12 Policy NE12 of the Local Plan states *“...Proposals for other renewable and low carbon energy development which would contribute towards reducing greenhouse gas emissions will be permitted subject to an assessment of the impacts upon:*

- i. Landscape quality, landscape character and visual amenity, including consideration of cumulative impacts of development;*
- ii. Environmental assets;*
- iii. The historic environment, including the impact on the setting of historic assets;*
- iv. The transport network;*
- v. Air quality;*
- vi. Aviation interests; and*
- vii. The amenity of residents.*

In assessing renewable and low carbon energy proposals against the above criteria the Council will give significant weight to their local and wider benefits, particularly the potential to reduce greenhouse gas and other harmful emissions, and the social benefits of community owned schemes where this is relevant...”

Policy NE12 also requires that end of life / redundant plant, buildings, apparatus and infrastructure must be removed and the site restored to its former state, or a condition which is agreed with the Council.

Paragraph 163 of the National Planning Policy Framework (NPPF) sets out that local planning authorities should not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small scale projects provide a valuable contribution to significantly cutting greenhouse gas emissions. P. 163 then goes on to set out that local

planning authorities should approve the application if the impacts are (or can be made) acceptable.

Climate Change:

The country has set the target to reach zero carbon emissions by 2050. This will be set against a background of having to provide new low carbon and energy efficient infrastructure. It is acknowledged that there is a requirement for a vast increase in electrical capacity and various forms of renewable energy to meet the demand.

The urgency to address climate change issues is now clearly demonstrated at international, national, and local levels. Locally, this includes the declaration of a Climate Emergency and the Climate Change Strategy that sets the target to achieve net zero within the district by 2040.

Further to the above, both the Local Plan and the NPPF are supportive of proposals for renewable or low carbon energy development which contribute towards reducing greenhouse gas emissions.

Whilst the proposed battery storage development would not produce renewable energy, the development would contribute significantly to reducing the carbon footprint by approximately 6,250 tonnes per year according to the accompanying letter submitted alongside the application.

Therefore, in terms of support for the development, it is clear that weight can be attached to the wider environmental benefits associated with the battery storage development.

Principle of Development:

The application site is situated on agricultural land designated Rural Area beyond Green Belt. Local Plan (LP) Policy CGB1 sets out that planning permission will be granted provided that the development complies with the provided exceptions. This includes, "*is a modest proposal for rural economic development or diversification*".

The site comprises a 4ha (approx.) agricultural field. The development would result in the construction of two separate compounds within the boundary. The first compound would measure approximately 5800m² and the second compound would measure approximately 4000m².

In my opinion, the two compounds along with associated works could not be considered a modest proposal for rural economic development or diversification in the Rural Area beyond the Green Belt. Therefore, the development would not comply with any of the exceptions offered within LP Policy CGB1 and would not be acceptable development within the Rural Area beyond the Green Belt. Therefore, a case would need to be submitted with an application for planning permission that sets out the material considerations that justify the grant of planning permission in conflict with LP Policy CGB1.

Further to the above, it is accepted that Policy NE12 of the Local Plan is generally supportive of proposals for renewable or low carbon energy development which contribute towards reducing greenhouse gas emissions however, this is subject to an assessment of the impacts upon several criteria. An application for planning permission should address each criterion and the proposal should seek to comply with them.

An assessment of planning balance would be carried out in full should a formal planning application be received.

Impact on Landscape:

Paragraph 180 of the NPPF sets out that planning decisions should contribute and enhance the natural and local environment. Paragraph 180 b) indicates that the intrinsic character and beauty of the countryside should be recognised.

Policy NE2 sets out that “*planning permission will be granted for development proposals that:*

- a) Respect the sensitivities of the relevant landscape character area and have regard to the guidelines identified for built development and landscape management;*
- b) Do not cause unacceptable harm to the character and appearance of the surrounding area or the landscape character area in which the site is located, taking account of any suitable mitigation measures necessary to achieve this;*
- c) Are designed and located to ensure the health and future retention of important landscape features; and*
- d) Have considered the long-term management and maintenance of any existing and proposed landscaping.”*

The site does not have any statutory landscape designation.

The application site is open in nature and visible along the southern boundary of the site. There is also a public rights of way footpath (Caldecote & Newnham 006) that runs across the adjacent field to the east of the site from which the development would be visible. Given the land levels of the application site, it is likely that the site would be visible from some distance away.

It is likely that the development would have long term significant adverse effects on landscape character and views.

Any future formal planning application should be accompanied by a formal landscape and visual assessment (LVIA). The LVIA should identify key viewing points of the site, and this should guide and inform appropriate mitigation measures. Sympathetic planting and screening with the aim of lessening the visual and landscape effects of the development should be considered.

Ecology and Biodiversity:

Policy NE1 of the Local Plan requires new development to deliver biodiversity improvements. The application site is subject to a mandatory requirement to deliver a 10% Biodiversity Net Gain.

The NHC Ecologist has been consulted and has no ecological objections to the proposal.

Should a formal planning application be submitted, the applicant is advised to follow the recommendations made within the Preliminary Ecological Appraisal with respect to protected species surveys and future site layout.

Any future application should also be accompanied by a completed Statutory Metric Calculation.

The greater the biodiversity improvement delivered, the greater the weight which can be attached to the planning balance.

Impact on Heritage Assets:

In determining any formal application there is a statutory duty of section 66(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 to have special regard to the desirability of preserving listed buildings or their setting or any features of special architectural or historic interest which they possess.

Paragraph 205 of the NPPF requires that *“great weight should be given to the asset's conservation”*. Paragraph 206 goes on to state that *“any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification.”*

Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, that harm should be weighed against the public benefits of the proposal, including securing its optimum viable use (paragraph 208).

Policy HE1 of the Local Plan is relevant where it states that planning permission for development proposals affecting Designated Heritage Assets or their setting will be granted where they “enable the heritage asset to be used in a manner that secures its conservation and preserves its significance” and “will lead to less than substantial harm to the significance of the designated heritage asset, and this harm is outweighed by the public benefits of the development, including securing the asset's optimum viable use”.

Following consultation with the Senior Conservation Officer, there would likely be no heritage impacts upon heritage assets as a result of the development proposed.

Highways and Footpaths:

Policy T2 in the adopted local plan requires traffic impacts arising from a development to be considered and addressed.

The development would provide a primary access and an emergency access to the site. Details are however limited, and it is unclear what impact the development would have on the local highway network.

The Highways Authority offer a separate pre-application advice service which should be considered prior to a formal application being submitted to the Local Planning Authority. More information can be found using the below link:

[Highways Development Management | Hertfordshire County Council](#)

Flood Risk and Drainage:

The site is located within flood zone 1 has a low probability of flooding from rivers and the sea. However, as the site is over 1 hectare a flood risk assessment would need to accompany any formal planning application.

The Hertfordshire Lead Local Flood Authority offer a Surface Water Advisory Service. More information can be found using the following link:

[Surface water drainage | Hertfordshire County Council](#)

Noise Impacts:

The following response has been received from the NHC Environmental Health Team:

A noise assessment and a land contamination assessment have been submitted in support of the proposals. The noise report concludes that due to the location and the nearest noise sensitive premises no specific mitigation is required. The land contamination report concludes that given the historic land use and the proposals that no further work would be required beyond the phase 1 assessment as submitted.

I am satisfied with these reports and would raise no objections to the proposals should these be submitted. I would recommend a condition requiring the facility to be installed as per the details in the noise report.

Agricultural Land Impact:

Paragraph 180 b) of the NPPF requires consideration of the economic and other benefits of the best and most versatile agricultural land. Footnote 62 of the NPPF states that where *"significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality."*

The agricultural grade of the application site has been identified within the covering letter as Grade 2 (very good). The loss of the land for a period of 40 years would weigh against the proposal in the planning balance.

There is a preference to develop on brownfield or degraded land over greenfield land. The loss of Grade 2 land should be addressed as part of a formal planning application.

Archaeology:

Policy HE4 confirms that planning permission for development proposals effecting heritage assets with archaeological interest will be granted provided that:

- (a) Developers submit an appropriate desk-based assessment and, where justified, an archaeological field evaluation;
- (b) It is demonstrated how archaeological remains will be preserved and incorporated into the layout of that development, if in situ preservation of important archaeological remains is considered preferable; and
- (c) Where the loss of the whole or a material part of important archaeological remains is justified, appropriate conditions are applied to ensure that the archaeological recording, reporting, publication and archiving of the results of such archaeological work is undertaken before it is damaged or lost.

Paragraph 203 of the NPPF confirms that the effect of an application on the significance of non-designated heritage assets should be taken into account in determining the application.

Based on the information available to me, the site is not affected by archaeological constraints. However, this part of the District is known to be of potentially high archaeological interest, due to occupation from pre-historic times onwards. Therefore, it is recommended that the applicant contact Hertfordshire County Council who provide advice and services to the Local Planning Authority. The County Council also provide an advisory service to developers. More information can be found by following the link below:

[Hertfordshire Historic Environment Advisory Service | Hertfordshire County Council](#)

Fire & Fire Protection:

Guidance published within the Planning Practice Guidance on Renewable and Low Carbon Energy encouraged the developers engagement with the relevant fire and rescue service before submitting an application to the Local Planning Authority.

A consultation response from the County Councils Fire Safety Inspector has been received. The inspector has advised that the applicant should produce a risk reduction strategy. It is expected that the safety measures and risk mitigation be developed in collaboration with the Hertfordshire Fire and Rescue Service.

The full consultation response shall be attached to this pre-application response.

Conclusion:

The proposed development would not be acceptable in principle within the Rural Area beyond the Green Belt given that the development would not comply with the exceptions set out within Policy CGB1 of the Local Plan. Whilst Policy CGB1 does allow for moderate economic development or diversification within the Rural Area beyond the Green Belt, given the scale of the development proposed, it is unlikely that the proposal can be considered moderate. In these circumstances it will be necessary for you to show that there are material considerations that would outweigh the conflict with this policy.

The development is likely to result in harm to the character of the landscape given the prominent location of the site and local topography. The impacts of the development and mitigation measures should be carefully considered and fully addressed in an application for planning permission.

No harm has been identified to nearby heritage assets. However, the potential for archaeological remains should be investigated and addressed in a submission. No objection has been raised to the impact of the development upon ecology. You will need to show how the minimum 10% BNG will be delivered.

It is likely that moderate to significant weight would be attached to the contribution the development would make to a reduction in carbon footprint and the progress towards achieving net zero both nationally and within the district. However, your submission should clearly and thoroughly set out the case for this proposal in this location.

There are a number of issues that would need to be addressed when submitting a formal application to the Local Planning Authority. Any formal planning application would require officers to carry out a weighing exercise – harm vs benefits. The supporting documents adequately addressing the issues will be critical to whether a formal application for development can be supported by officers.

It is recommended that the following documents be submitted:

- Planning Statement
- Design and Access Statement
- Landscape and Visual Assessment
- Arboricultural Appraisal
- Biodiversity Metric Calculation
- Preliminary Ecological Appraisal
- Flood Risk Assessment
- Fire Risk Reduction Strategy / Fire Safety Assessment
- Archaeological desk based assessment (subject to confirmation from HCC)
- Transport Statement / Highways Impact Assessment
- Noise Impact Assessment
- Emissions / Air Quality Report
- Technical Specifications

Please note that this is an officer opinion only and is not binding on the Council. I trust that you find the response helpful.

Kind regards,

Ben Glover
Senior Planning Officer

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My ref: 33464

Date: 28 June 2024

Dear Sir,

Proposed battery energy storage system, Newnham Road, Baldock

Whilst Hertfordshire Fire and Rescue Service (HFRS) are not a statutory consultee in relation to this project we will work and engage with the developer as this project develops to ensure it complies with the statutory responsibilities that we enforce.

The developer should produce a risk reduction strategy as the responsible person for the scheme as stated in the Regulatory Reform (Fire Safety) Order 2005. We would also expect that safety measures and risk mitigation is developed in collaboration with the HFRS. The strategy should cover the construction, operational and decommissioning phases of the project.

During the construction phase the number of daily vehicle movements in the local area will significantly increase. HFRS will want to view the transport strategy to minimise this impact and prevent an increase in the number of road traffic incidents. Any development should not negatively impact on the Service's ability to respond to an incident in the local area.

HFRS recognises the use of batteries (including lithium-ion) as Energy Storage Systems (ESS) is a new and emerging practice in the global renewable energy sector. As with all new and emerging practices within UK industry, HFRS would like to work with the developers to better understand any risks that may be posed and develop strategies and procedures to mitigate these risks.

The developer must ensure the risk of fire is minimised, this may be by way of any, or all, of the following measures:

- Procuring components and using construction techniques which comply with all relevant legislation.
- Including automatic fire detection systems in the development design.
- Including automatic fire suppression systems in the development design.
- Various types of suppression systems are available, but the HFRS's preferred system would be a water drenching system, as fires involving Lithium-ion batteries have the potential for thermal runaway. Other systems would be less effective in preventing reignition.
- Including redundancy in the design to provide multiple layers of protection.
- Designing the development to contain and restrict the spread of fire through the use of fire-resistant materials, and adequate separation between elements of the BESS.
- Developing an emergency response plan with HFRS to minimise the impact of an incident during construction, operation and decommissioning of the facility.
- Ensuring the BESS is located away from residential areas. Prevailing wind directions should be factored into the location of the BESS to minimise the impact of a fire involving lithium-ion batteries due to the toxic fumes produced.
It should be noted that, given its proximity, a serious incident may necessitate closure of the A1M.

The emergency response plan should include details of the hazards associated with lithium-ion batteries, isolation of electrical sources to enable firefighting activities, measures to extinguish or cool batteries involved in fire, management of toxic or flammable gases, minimise the environmental impact of an incident, containment of fire water run-off, handling, and responsibility for disposal of damaged batteries, and establishment of regular onsite training exercises.

The emergency response plan should be maintained and regularly reviewed by the occupier and any material changes notified to HFRS. Environmental impact should include the prevention of ground contamination, water course pollution, and the release of toxic gases.

BESS facilities should be designed to provide:

- Adequate separation between containers. It is noted from the plans that the indicated spacing between containers appears to be approximately 3m. **A standard minimum spacing between units of 6 metres is recommended unless suitable design features can be introduced to reduce that spacing. If reducing distances, a clear, evidence-based case for the reduction should be shown. *Separation distance is important in the mitigation of fire spread, but also provides vital access for firefighting intervention.***
- Provide adequate thermal barriers between switch gear and batteries.
- Provide suitable systems to detect thermal runaway and prevent the occurrence of an explosive atmosphere.
- Install adequate ventilation or an air conditioning system to control the temperature. Ventilation is important since batteries will continue to generate flammable gas while they are hot. Also, carbon monoxide will be generated until the batteries are completely cooled through to their core.
- Install a very early warning fire detection system, such as aspirating smoke detection.
- Install carbon monoxide (CO) detection within the BESS containers.
- Install fire suppression within BESS containers. Sprinkler systems should be designed to adequately contain and extinguish a fire.
- It is noted that provision is made for personnel to work on site. Consideration should be given to a suitable access / egress route which facilitates escape without entering the risk area.

NB The Building Regulations B5

Ensure that sufficient water is available for manual firefighting. An external fire hydrant should be located in close proximity of the BESS containers. – The water supply should be able to provide a minimum of 1,900 l/min for at least 2 hours.

Given the potential need for copious amounts of water, the Fire Authority would seek the provision of suitable fire hydrants rather than an emergency water supply.

Further hydrants should be strategically located across the development. These should be tested and regularly serviced by the operator.

NB The Building Regulations B5

The site design should include a safe access route for fire appliances to manoeuvre within the site (including turning circles). An alternative access point and approach route should be provided and maintained to enable appliances to approach from an up-wind direction.

The plans provided detail a number of dead-end access road which exceed the maximum distance detailed in Approved Document B, V2, 15.10.

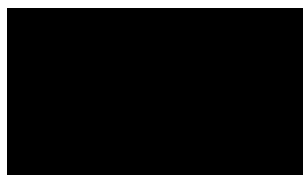
Dead-end access routes longer than 20m require turning facilities (per ADB V2, diagram 15.3). Turning circles should comply with the guidance provided in the table below:

Appliance Type	Min. width of road between kerbs (m)	Min. width of gateways (m)	Min. turning circle between kerbs (m)	Min. turning circle between walls (m)	Min. clearance height (m)	Min. carrying capacity (tonnes)
Pump	3.7	3.1	16.8	19.2	3.7	19
ALP	3.7	3.1	26	29	4	26

However, it is strongly recommended that perimeter roadways are provided which negate the need for turning. This reduces the risk of vehicles manoeuvring within a risk area.

Should you require any further information, please feel free to make contact via administration.cfs@hertfordshire.gov.uk

Yours faithfully,



Stuart Joiner
Fire Safety Inspector