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Please reply to:

Neil McBride
Head of Planning
Lincolnshire County Council
County Offices
Newland
Lincoln
LN1 1YL

E Mail: [REDACTED]@[lincolnshire.gov.uk](mailto:[REDACTED]@lincolnshire.gov.uk)

Tel: [REDACTED]

Dear Sir/Madam

Proposal: The Planning Inspectorate – Scoping Opinion Under the Infrastructure Planning Regulation 2017 for order Granting Development Consent for Gate Burton Energy Park

Location: Gate Burton Energy Park

Thank you for your letter and consultation report 'Environmental Impact Assessment Scoping report (rev. 01)' produced by AECOM dated November 2021.

The Council have reviewed the information provided and have the following comments to make.

The scheme

- The scheme is considering a 500 MW PV plant. There is no quantification about the possible size of the Energy Storage System (ESS) required to 'provide peak generation and balancing services to electricity grid' (as depicted in section 2.1.25 - 2.1.29). Seeing that it is an important aspect of the scheme, surely an approximation on the EES size can be provided at this stage as well. Also, does the 500 MW include the ESS or is the solar field to be designed as a 500MW field, with the ESS adding additional capacity? The value of the solar field power in MW is a must-have.
- Will the installation take energy from the grid and store it, releasing it back to the grid when required? That is to say, is it a grid storage resource as well as a grid-connected energy supplier? If so, is there any estimate of how much energy it will store in this way?
- Design life of the scheme is pegged for 'at least 60 years', possibly even more for operational life (2.5.1). This aspect needs some clarification as this seems to be well beyond the 40 years considered in such plants. Durability of components is a key issue. How long can the panels be expected to last (in years)? Have replacement panels been included in the plan? The same applies to the batteries, which have an even shorter lifetime.
- East-West orientation states more panels are required. Why is the alignment chosen?
- The East-West orientation shown in Photo 1-4 implies no space between panels. How will panels be accessed for maintenance and safety checks and cleaning? What will be the ground cover under the panels and how will it be managed?
- Is there any intention to carry out a full LCA of the scheme?

Cumulative Impacts

Consideration needs to be given to the other NSIP schemes in the area for solar farms (Cottam and West Burton). Whilst it is accepted that these schemes are also at the pre-application stage and full details are not yet available, indicative plans have been produced and therefore the ES should include commentary on the cumulative impacts on the topics included in the ES from the other solar schemes in the area.

Alternatives

In this section consideration needs to be given to looking at the benefits of keeping the land, subject of this project, in agricultural use and the impact on food production in the region.

Climate Change

- The potential for a microclimate to be created by battery storage?
- What is the energy consumption and associated carbon emissions of the battery HVAC system?
- What are the carbon emissions associated with the solar PV panels themselves – separated into manufacture, operation, and maintenance (and which panels are to be used – poly, multi, single crystal silicon)? Is the embedded carbon associated with the panel manufacture included in any payback of carbon (bearing in mind that the panels are likely to be imported)?
- Power losses and associated carbon footprint of connecting cables to the grid need estimating.
- With regard to greenhouse Gas Emissions this should be directly be compared to the number of years it will take for development to be carbon neutral. However to get a true reflective understanding of the benefits/harm to the environment it should be compared to a least one fossil fuel, nuclear and at least one alternative renewable energy. It is considered that by doing this the clear environmental benefits should be highlighted and allow for careful consideration against the impacts of the development.

Loss of Agriculture

- Agricultural land classification should be scoped in and the mitigation measures for the loss of agricultural land included.

For each proposed layout (South, E-W, tracking) what is the land use per MWh of energy generated?

Landscape and Visual Assessment

Where it is proposed the panels are to be situated close to trees it should be identified which trees are to be removed and what is the impact of shading from the remaining trees. In addition, the impact of the scheme on these trees is fully assessed and suitable mitigation measures suggested.

All viewpoints should be based on winter months though summer months can also be included.

It should also be considered if any viewpoint montages should be with all landscape features removed to demonstrate the very worst potential impact on the visual character of the area.

Specifics on 'Zone of Influence', radius of this and the methodology contained within the Landscape and Visual Impact Assessment.

Minerals and Waste

The proposed development is partially located within a Mineral Safeguarding Area (MSA) for Sand and Gravel and is therefore subject to Policy M11 (Safeguarding of Mineral Resources) of the Lincolnshire Minerals and Waste Local Plan: Core Strategy and Development Management Policies - adopted June 2016. The Core Strategy is available to download from the County Council's website: www.lincolnshire.gov.uk.

Within a MSA, except for the exemptions set out in Policy M11, applications for non-minerals development should be accompanied by a Minerals Assessment.

A Minerals Assessment should provide an appropriate assessment of the mineral resource, its potential for use in the forthcoming development and an assessment of whether it is feasible and viable to extract the mineral resource ahead of development to prevent unnecessary sterilisation. Where prior extraction of some or all of the mineral can be undertaken, the assessment should also include an explanation of how this will be carried out as part of the overall scheme. The assessment should also assess the potential for proximal sterilisation of mineral resources in adjacent land.

Where mineral resources would be sterilised by a proposal, Policy M11 sets out the tests that need to be met in order to enable planning permission to be granted.

When reviewing the submitted scoping report, it is noted that the Minerals and Waste Local Plan is identified as relevant local policy in para 1.2.10. The report also notes in para 15.4.3 that the ES will include details of land designated for Mineral Safeguarding in its brief section on 'other environmental topics', however, the proposed section in question, (on ground conditions), appears to be geared towards pollution and contamination and does not acknowledge the policy issue of the need to consider the potential sterilisation of safeguarded mineral resources.

The potential sterilisation of mineral resources should therefore be 'scoped in' to the EIA and addressed through a minerals assessment as part of the ES. We would expect this to be proportionate to the proposals. We acknowledge, for example, that the vast majority of the PV site itself does not lie within the MSA, and the potential sterilisation of mineral resources may therefore be very limited.

The proposed grid connection corridors, however, require more detailed consideration. All of the connection options pass through the sand and gravel MSA situated between the A156 and River Trent. Whilst the final footprint of the grid connection may be limited, by dissecting the MSA it could introduce a constraint to the potential for any future extraction of the sand and gravel resources in the surrounding land. The minerals assessment as part of the ES should therefore include consideration of this matter and it should be given due consideration when determining the final route/method of the grid connection.

Socioeconomic

From an economic growth perspective, the range of the topics in the scoping document appears reasonable, and we will be able to comment in further detail as the project progresses.

Water Environment

As Lead Local Flood Authority we would expect a full flood assessment and/or surface water drainage strategy to be included in the Environment Statement.

Historic Environment

The Environmental Impact Assessment scoping report for Gate Burton Energy Park sets out the proposed approach regarding Cultural Heritage. We are generally supportive of the programme presented, however, we do feel the full extent of the proposed impact area including the connector route corridors should be included in the evaluation process. Archaeological impacts and subsequent mitigation have the potential for significant impacts so sufficient evaluation is essential in informing the selection process and in ensuring the subsequent design and work programme is devised with an understanding of the level of archaeological work which may be required before and during the construction phase.

The Environmental Impact Assessment (EIA) will require desk-based research, non-intrusive surveys, and intrusive field evaluation for the full extent of proposed impact. The results should be used to minimise the impact on the historic environment through informing the project design and an appropriate programme of archaeological mitigation. The provision of sufficient baseline information to identify and assess the impact on known and potential heritage assets is required by Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Regulation 5 (2d)), National Planning Statement Policy EN1 (Section 5.8), and the National Planning Policy Framework.

While we are pleased that further archaeological evaluation will be undertaken as part of the assessment process (7.6.15) no further details have been provided, we will need more specific information going forward.

The full potential impact zone will require geophysical survey as the results are required to identify site-specific archaeological potential and to inform a programme of archaeological trial trenching and subsequent mitigation.

Trenching results are essential for effective risk management and to inform programme scheduling and budget management. Failing to do so could lead to unnecessary destruction of heritage assets, potential programme delays and excessive cost increases that could otherwise be avoided. A programme of trial trenching is required to inform a robust mitigation strategy which will need to be agreed by the time the Environmental Statement is produced and submitted with the Development Consent Order (DCO) application.

Regarding desk-based sources (7.6.10) full LiDAR coverage is required, and Portable Antiquities Scheme (PAS) data must also be consulted for the study area.

The EIA will need to contain sufficient information on the archaeological potential and must include evidential information on the depth, extent and significance of the archaeological deposits which will be impacted by the development. The results will inform a fit for purpose mitigation strategy which will identify what measures are to be taken to minimise or adequately record the impact of the proposal on archaeological remains.

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 states "The EIA must identify, describe and assess in an appropriate manner...the direct and indirect significant impacts of the proposed development on...material assets, cultural heritage and the landscape." (Regulation 5 (2d))

Other Environmental Topics

- Include details of crime prevention and in respect of major accidents to include sabotage criminal activity is assessed as pre-planned damage to the scheme could leave it vulnerable to a major accident;
- Agree that glint and glare that should be included and this should focus on visual impact, highway safety and aviation safety.

The Council will continue to engage with this proposal as required and therefore any further queries, please do not hesitate to get in contact.

Yours faithfully

Neil McBride

Head of Planning