

Development Management

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Sent by email only to:-
section62a@planninginspectorate.gov.uk

Our ref: S/23/0019/PREAPP
Your ref: S62A/2022/0011
Please ask for: Hannah Weston

Date: 20th March 2023

Dear Sir or Madam,

Thank you for your consultation on application S62A/2022/0011 for 'Construction and operation of a solar farm comprising ground mounted solar photovoltaic (PV) arrays and battery storage together with associated development, including inverter cabins, DNO substation, customer switchgear, access, fencing, CCTV cameras and landscaping' at Land East of Pelham substation, Maggots End, Manuden.

The site is in Uttlesford district in Essex, close to the border with East Herts district in Hertfordshire. The site is currently a complex of irregular fields east of Pelham Substation.

The application proposes five separate parcels of land to be used for solar farming, with solar panels on frames with a maximum height of 3 metres. Each parcel of land is proposed to be separately fenced with 2 metre high security fencing, CCTV, and deer fencing. Two substations are proposed, a substation compound, battery compounds, meter kiosk, inverter buildings and new access tracks. Fencing is further proposed around the substation compound.

It is noted that planning permission has previously been refused for a similar application on this site under reference UTT/21/3356/FUL. This was refused due to the impact on the rural character of the area, the impact on heritage assets, the impact on archaeology, the impact on national important infrastructure, the impact on ecology, the impact on the highway network, the impact on flooding, and due to no S106 having been completed.

The East Herts District Council must raise an **objection** to the current proposal. This is due to insufficient information being provided to satisfy the Local Authority that the proposal adequately assesses or mitigates the noise impact of the development. Furthermore, the proposal would result in a low level of less than substantial harm to the wider setting of various designated heritage assets, and as per the NPPF great weight should be given to this harm within the planning balance. It is for the Inspectorate to assess whether the harm is outweighed by any wider public benefits.

The Council's Conservation and Urban Design Officer has been consulted on this application and advises:

'There are no designated heritage assets within the proposal site, but there are numerous Listed Buildings and Scheduled Monuments within Uttlesford surrounding the site, some of which may be impacted to varying degrees by the proposed development due to impact on

their respective settings. In addition, the Crabb's Green Conservation Area in East Herts lies to the north of the Pelham Substation.

Designated heritage assets in Uttlesford surrounding the site include:

1. The Crump Earthwork – Scheduled monument.
2. The Crump and former barn – Grade II listed building.
3. Moated site at Battles Manor – Scheduled monument.
4. Battles Hall – Grade II listed building.
5. Dovecote 30m northwest of Battles – Grade II listed building.
6. Cart Lodge 30m south of Battles – Grade II listed building.
7. Hillview – Grade II listed building.
8. Rose Garth – Grade II listed building.
9. Brick House – Grade II listed building.
10. Peyton Hall – Grade II listed building.
11. Barn to the south east of Peyton Hall – Grade II listed building.
12. Jersey Farmhouse – Grade II listed building.
13. Dane Pytle – Grade II listed building.
14. Rowan Cottage – Grade II listed building.
15. Rooks Farmhouse – Grade II listed building.
16. Church of St Nicholas – Grade I listed building.
17. Berden Hall – Grade II* listed building.

The impact of the proposals on the rural character of the landscape would result in impacts to varying degrees on the wider rural setting of these designated heritage assets. Similarly, these proposals would impact the wider rural setting of the Crabb's Green Conservation Area, although there would be no direct visual impact on the Conservation Area due to existing mature woodland planting to the south and east of the Conservation Area boundary. Overall, the proposals are considered to result in a low level of less than substantial harm to the wider setting of various designated heritage assets, and as per the NPPF great weight should be given to this harm within the planning balance.'

The Council's Landscape Officer advises: 'In the Screened Zone of Theoretical Visibility and Viewpoint location Plan Drwg P20-1300-01 to be found in the Landscape and Visual Impact Assessment by Pegasus Group, it would appear that the proposed solar farm in Uttlesford District will have little adverse visual impact on the landscape character of that part of East Herts District within the vicinity of the proposed development.'

The Council's Environmental Health department raise an objection to the development. It is advised:

'The application lacks sufficient information to satisfy the local authority that the proposal adequately assesses or mitigates the noise impact of the development. Environmental Health are concerned that the prevalence of planning applications for Battery Energy Storage Systems (BESS) sites and the use of DNO transformers in the area will allow equipment rating levels to continuously creep as the background noise level is increased by other nearby BESS sites.

Having reviewed ion acoustics report A1784 R01b submitted in support of this application, I have concerns that need to be addressed.

EHDC Environmental Health has received complaints, which have later been evidenced, regarding the current noise environment of the area primarily due to low frequency noise (100Hz and 200Hz) emissions from the existing BESS site but especially due to the unenclosed DNO transformer. This has the most impact at night where the noise emitted from equipment is clearly audible over greater distances and presents itself as a continuous 'mains hum'. The ion acoustics report uses BS 4142 however the standard states that it is inappropriate for use when considering low frequency noise, therefore the report does not sufficiently assess the impact of the dominant frequencies emitted by existing and proposed equipment.

Ion acoustics technical note reference A1690 TN03C produced by ion acoustics predicts that the sound power levels of the current DNO transformer are higher than those used in the acoustic modelling. These increased levels should be used in an updated acoustic model to accurately predict the noise impact of the Pelham Springs development. The proposed equipment has considerably more energy at 100Hz and 200Hz than in other 1/3 octave bands, generating a strong, low frequency tonal element to its output. This is verified by measurements made by Environmental Health at both the existing BESS site and at a complainant property shown in Figure 2 further on in this document. In such a rural area with a low background noise level, it is expected that these frequencies would be mitigated but there is no mention of this in the ion report.

Figure 1 below shows the measurement positions for each application in the area – LAeq,min(dB) is shown as it is the only consistent noise metric across the three reports:

Figure 1 – LAeq,min measurement positions



The 2016 noise report for the existing BESS predicted a rise of 4dB in night-time noise levels due to the development. This is evident in the measurements taken for both the Solar Farm and Crabbs Green applications which show that the background noise has been increased by 6dB and 2dB respectively. For context, EHDC would expect new developments to achieve 10dB below the background noise level in order to prevent them from further inflating the background noise measurements.

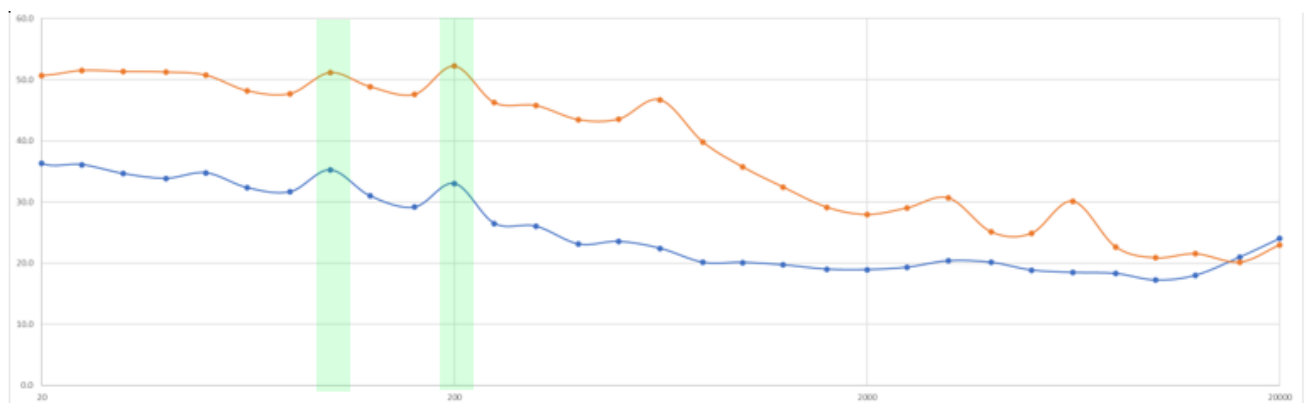
It would be inappropriate that this application is judged against a background noise level which includes the existing BESS site as it is instigating an artificially increased background noise level due to control measures not being implemented. The proposed solar farm should be assessed against a background noise level which does not include the current BESS site – all existing equipment must be turned off during measurements. This would assist in appropriately assessing the impact of the developments. This is in line with the NPPF guidance which seeks to protect the tranquillity of areas that have remained relative undisturbed by noise and prevent adverse impacts on the quality of life of the nearby residents and impacts on the natural environment.

I have attempted to present the data taken from both inside our complainant’s property and near to the existing BESS site in the most helpful way possible. Below is a graph showing the average of the measurements taken – the blue line shows the average reading taken at the complainant’s property and the orange shows that taken close to the existing BESS.

The horizontal axis shows the frequency (measured in Hz) and the vertical axis shows the sound energy that exists in each frequency band, (measured in dB/decibels) represented by each dot on the graph. An example of reading this graph is that the recordings taken inside the complainant’s property had an average amount of sound energy of approximately 32dB within the 200Hz frequency band.

I have highlighted the 100Hz and 200Hz frequency bands in **GREEN** which are those that are clearly identifiable and audible both at the BESS site and the complainant’s property.

Figure 2 – Complainant Measurements



It is for the reasons given above that at this time I am unable to support this application and must recommend refusal.

In order to reconsider this application, we would expect the following to be carried out, all to be provided to and approved in writing by the Local Authority(ies) prior to commencement of development:

1. A full frequency analysis is to be carried out which predicts internal and external noise levels during day and night compared to the existing background noise (excluding the current BESS site) for the nearest residential receptors, in order to assess the impact of low frequency emissions.
2. These additional assessments are to inform a scheme of proposed noise mitigation measures for the site. It must be noted that low frequency noise in the frequency range from about 10Hz to 200Hz has been recognised as a special environmental noise problem particularly to sensitive people in their homes - due to its large wavelengths it requires specific mitigation techniques in order to provide effective reduction.

Further to the above being approved, a post development noise assessment must be undertaken, to be provided to and approved in writing by the Local Authority(ies) This is to ensure that any mitigation has been implemented, agreed noise limits are adhered to and residents in both East Herts and Uttlesford are sufficiently protected.'

As discussed earlier in this report the Council must raise an **objection** to the proposal. This is due to insufficient information being provided to satisfy the Local Authority that the proposal adequately assesses or mitigates the noise impact of the development.

Furthermore, the proposal would result in a low level of less than substantial harm to the wider setting of various designated heritage assets, and as per the NPPF great weight should be given to this harm within the planning balance. It is for the Inspectorate to assess whether the harm is outweighed by any wider public benefits.

It is recommended, if they have not, that Hertfordshire County Council are consulted on the proposal, including Highways, Lead Local Flood Authority, Public Rights of Way, Ecology and Archaeology departments.

Yours faithfully,

Hannah Weston
Principal Planning Officer
East Herts District Council