



Gravesham Borough Council
Planning Department
Civic Centre
Windmill Street
Gravesend
Kent
DA12 1AU

27 January 2025

By email: planning.admin@gravesham.gov.uk

Dear Sir or Madam,

Request for an Environmental Impact Assessment Screening Opinion - Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended).

Proposed BESS on Land at Thames Way, Northfleet DA11 8HN

I write in accordance with the Town & Country (Environmental Impact Assessment) Regulations 2017 (as amended) ("the EIA Regulations"), to request an EIA Screening Opinion to determine whether a proposed Battery Energy Storage System (BESS) ("the Proposed Development") located on land at Thames Way, Northfleet, DA11 8HN ("the Site") constitutes EIA development.

Background to the Proposed Development

In October 2021, the UK Government committed within its Net Zero Strategy¹ to fully decarbonise the UK's power system by 2035, a critical component to achieving the overall statutory target of making the UK carbon net zero by 2050 and tackling global warming/climate change.

BESS are vital components in the UK electricity grid to facilitate this decarbonisation. BESS enable the electricity transmission network to be resilient and stable as it transitions from being heavily dependent on centralised fossil fuel power stations to large scale renewable energy sources, matching intermittent weather dependent wind and solar energy generation with continuously fluctuating consumer demand.

BESS technology achieves this by storing excess energy available on the power system when supply outstrips the demand, such as at times of high solar radiance levels or high winds, for use at a later point in time when the converse happens i.e. demand outstrips supply. At the moment, this system balancing is achieved by turning off (curtailing) renewable energy generation when supply outstrips demand, and turning on gas-fired power stations when demand outstrips supply.



Curtailing renewable energy use in this way brings with it significant extra costs, as well as wasting highly affordable green energy which results in an increased network carbon footprint when we should be urgently reducing it. For example, curtailing wind power generation in this way costs the UK up to £62 million a day in guaranteed payments to wind farm operators². It is estimated that adding BESS technology to the energy system could reduce wind curtailment by at least 50%, saving £31 million.

The Proposed Development, as a BESS facility, will make a direct contribution towards supporting the UK's transition to Net Zero by 2050, and support decarbonisation of the energy power system. The Proposed Development would have the capacity to store and export up to 100 MWh of energy.

Submitted Information

The following information is submitted as part of this EIA Screening Opinion Request, as set out in Regulation 6(2) of the EIA Regulations:

A draft plan sufficient to identify the location of the Site (1.25ha).

A description of the Proposed Development, including its physical characteristics;

A description of the aspects of the environment likely to be potentially significantly affected by the Proposed Development, including a description of any likely significant effects resulting from:

- a. the expected residues and emissions and the production of waste, where relevant; and
- b. the use of natural resources, in particular soil, land, water and biodiversity.

In addition this submission explains the proposed approach for the planning application submission.

The Application Submission

The Proposed Development to be applied for is on land at Thames Way A226, Northfleet, DA11 8HN ("the Site" as shown on the Site Location Plan). A location plan for the Proposed Development is at Appendix One.

Full planning permission will be sought for a temporary time period (40 years) after which all consented electrical infrastructure will be removed and the Site restored.

The planning application will follow the Rochdale Envelope approach so as to retain design flexibility and accommodate advances in energy storage technology. This approach will enable the design details to be submitted and approved prior to the commencement of development.

As the Rochdale Envelope approach involves defining development zones rather than having a fixed layout, its benefit is that it facilitates future optimisation of the BESS. The zones will also define where infrastructure would be located within the Site, whilst providing



flexibility in terms of design layout of the battery energy storage containers, associated infrastructure and substation within each zone.

The zoning plan would be the only plan approved should the Proposed Development be consented as the final and detailed layout and elevations would be secured by planning condition.

The Proposed Development

The Proposed Development will include the following key components. An example photograph of a battery energy storage systems is shown at Appendix Two. The battery energy storage system comprises:

- Battery containers on footings and no higher than 3m;
- Inverter units and transformers on footings, no higher than 3m;
- A substation with the tallest equipment being a maximum of 13m in height;
- Security fencing, gates and CCTV/infrared with a maximum height of 2.5m;
- Internal access roads; and
- Two access points suitable for all vehicles including emergency vehicles.

Underground cables will connect the Proposed Development to the existing Northfleet East Substation.

Approximately 75% (1ha) of the Site will contain electrical infrastructure and the on-site access roads, with the remainder of the site being the existing railway embankments which will act as a bund, landscape enhancements and screening and biodiversity improvements.

Construction of the Proposed Development is expected to take place over 12 months.

At the end of the 40 year operational period, the Proposed Development would be decommissioned, and the Site reinstated.

The Site

The total site area is 1.25ha.

The Site is currently scrubland partly within a former embankment.

To the north of the Site is Ebbsfleet International Railway Station, to the east is the A226 Thames Way and Blue Lake, to the west is an open area of land, roads and further east parking for Ebbsfleet International Railway Station and to the South the Thames Water sewage works and Springhead Industrial Park.

There are no listed buildings within the Site. There is a Scheduled Monument described as a Neolithic Site (List Entry 1004206) to the west of the site. The closest listed building is The Old Rectory House Grade II* at 1.5 km to the south east of the Site.



There are no public rights of way within the Site. There is a public footpath to the north of the site - footpath NU14. To the south beyond the Thames Water sewage works is the restricted byway, NU20.

The nearest residential properties are to the south west separated from the Site by the sewage works and an open area of land.

The Site is in Flood Zone 3.

There are limited views of the Site from Thames Way and from the public footpath.

The Site is not within the Ebbsfleet Central East Site which is currently the subject of a planning application.

EIA Regulations and Screening

An EIA will be required to support a planning application if the Proposed Development constitutes EIA development by either being:

Schedule 1 development - whereby EIA is mandatory in all cases; or

Schedule 2 development – whereby the Proposed Development exceeds the size threshold for that class of development, or is located within a sensitive area as defined by the EIA Regulations, AND is likely to have significant effects on the environment by virtue of its characteristics, location and nature of potential impact.

The Proposed Development does not fall within the description of development listed in Schedule 1 of the EIA Regulations and would not be classified as Schedule 1 development.

With respect to Schedule 2 development, the Proposed Development is not located in a sensitive area as defined by the EIA Regulations. In terms of the relevant class of development, the Proposed Development is considered to fall under Schedule 2 Part 3 (a) "Industrial installations for the production of electricity, steam and hot water" of the EIA Regulations. The size threshold for this type of development is 0.5ha. As the Site measures The Proposed Development exceeds the threshold of 0.5ha and therefore constitutes Schedule 2 Development.

Schedule 2 developments do not automatically trigger EIA. EIA is only required where the proposals are likely to have significant effects on the environment. The online Planning Practice Guidance (PPG) explains that "only a very small proportion of Schedule 2 development will require an EIA" (Paragraph 018). The potential environmental impacts of the Proposed Development are considered below.

Potential Environmental Impacts of the Proposals

It is considered that the following topics should be evaluated to assess the potential for likely significant effects arising from the Proposed Development:



Landscape;
Ecology;
Heritage and Archaeology;
Transport;
Flood Risk;
Air Quality;
Noise and Vibration;

Landscape

The Site is not situated within a landscape “sensitive area” as defined by the EIA Regulations.

Locally, Ebbsfleet International railway Station and the network of roads connecting the station, Bluewater and the A2 form strong components of the developed landscape alongside other related infrastructure such as car parking, overhead transmission lines and urban development on the rises at Northfleet.

Initial appraisal work indicates that the visibility of the Proposed Development will be relatively localised as the Site is self-contained being situated within the former railway bund and adjacent to the Thames Water sewerage works. Other landscape elements that will mitigate the visual impact include the general topography and the industrial park to the south.

In summary, the nature of the existing wider landscape, much of which is urban, means that the Proposed Development is not likely to result in significant adverse landscape and visual impacts. Furthermore, the Site's location within the former railway embankment and adjacent to the sewage works provides a high degree of containment.

Ecology

There is one internationally designated site approximately 6km to the east of the Site - the Thames Estuary and Marshes SPA and Ramsar site.

No impacts on the SPA/Ramsar are anticipated during construction or operation due to the absence of suitable foraging habitat for birds, the absence of protected woodland habitats and the distance of the Site from the SPA/Ramsar.

As the Site lies within 6km of the Thames Estuary and Marshes SPA and Ramsar site, it is the duty of the local planning authority to undertake a Habitat Regulations Assessment.

The Swanscombe Peninsula SSSI is within 5km of the Site separated by the railway line. The Site is therefore within the SSSI Impact Risk Zone (IRZ) (SSSI).

The SSSI is broken up into approximately 5 sections, the largest being the furthest away from the Site. Four sections are to the south of the largest area and 3 of them are within 2km of the Site. The SSI has the following important features:



- A key Pleistocene site at the previously designated Bakers Hole SSSI;
- Populations of plants - divided sedge, yellow vetching, slender hare's ear and round leaved wintergreen;
- Assemblages of invertebrates; and
- Breeding birds associated with lowland open waters and their margins.

The Site does not support the habitat associated with the SSSI, therefore, the Proposed Development is unlikely to have a significant impact on the SSSI.

Blue Lake, a designated local wildlife site, is to the east and is included in the proposals for Ebbsfleet Central East for residential and leisure development. The Proposed Development will have no direct impact on Blue Lake.

Ebbsfleet Marshes Local Wildlife Site (LWS) is to the north of the Site but is separated from the Site by the A2 dual carriageway. The Marshes are protected due to areas of important habitat including the River Ebbsfleet and associated reedbeds and wetland areas.

There are no trees within the Site that are protected by a tree preservation order (TPO). As such there are currently no statutory restrictions that would restrict the removal of trees from within the site.

No direct impacts on the SPA/Ramsar and SSSI are expected in relation to the Proposed Development. A Preliminary Ecological Assessment will be submitted with the planning application to identify potential ecological constraints and to propose mitigation measures.

Heritage and Archaeology

There are no designated conservation areas within the Site or close by.

There are no listed buildings within the Site, however there is a Scheduled Monument, a Neolithic Site, to the west of the site. The closest listed building is The Old Rectory House to the south east of the Site.

Due to distance, topography and a lack of intervisibility no impacts on the Scheduled Monument or listed building are anticipated during construction or operation of the Proposed Development.

Transport and Access

The Site is easily accessible from the A2 strategic highway to the south which provides vehicular connectivity to London, Kent County destinations and on to continental European gateways on the south coast. Two locally important A category roads the A2260 Ebbsfleet Gateway and A226 Thames Way provide connectivity to the A2 for employment sites along the River Thames and are important routes for HGVs.

No public rights of way (PRoW) operate through the Site.



During the construction and operational phase of the Proposed Development, the Site will be accessed from the A226 Thames Way.

No significant or adverse traffic impacts are expected during the construction and operation of the Proposed Development.

Hydrology and Flood Risk

The Environment Agency Flood Map for Planning indicates that the Site is located within Flood Zone 3. The mapping also shows that much of the Site that lies within Flood Zone 3 is also situated within an 'Area Benefitting from Flood Defences'; thus, highlighting the presence of the River Thames tidal flood defences and the benefit they provide to the Site.

As the Site sits within Flood Zone 3, a Sequential Test and Exception Test are required. A Flood Risk Assessment will be submitted with the planning application.

The risk of flooding to the Site from other sources such as groundwater and sewers, is considered to be low.

The Proposed Development will incorporate suitable forms of Sustainable Drainage Systems (SuDS) to ensure that surface water flood risk is not exacerbated as a result of the development. The Surface Water Management Plan will utilise infiltration drainage wherever possible, taking account of site constraints.

Air Quality and Climate

The Site is not located within an Air Quality Management Area (AQMA).

Impacts to air quality will be limited to dust and vehicle emissions generated by the construction and decommissioning activities. Dust would be effectively controlled through standard best practice measures.

In terms of vehicle emissions, guidance from Environmental Protection UK (EPUK) states that construction traffic impacts on air quality are likely to require assessment for large, long-term construction sites that would generate large heavy goods vehicles (HGV) flows (more than 200 movements per day) over a period of a year or more. The Proposals would not fall into this category, being significantly less at one or two per day on average. There are no other activities during the construction phase that are likely to give rise to significant air quality and climate change effects. During the operational phase, the Site would be largely unmanned with occasional routine maintenance visits (not exceeding one to two visits per week). It is not anticipated that these visits would generate significant effects on traffic emissions or air quality. The Proposals itself would not generate any emissions during its operation and therefore would not impact on local air quality.

Noise and Vibration

During construction and decommissioning of any development, on-site works will be likely to generate noise and vibration. However, these impacts are temporary in nature and are often



sufficiently mitigated through the use of Best practicable means (BPM) which will form part of a Construction Environmental Management Plan (CEMP), typically incorporating:

- Specification, use and siting of equipment;
- Timings of planned works;
- Use of enclosures or acoustic screens; and
- Neighbourhood engagement.

During its operation, the Proposed Development has the potential to create noise effects through the operation of the substation, inverters, battery storage containers and ancillary equipment.

The closest sensitive receptors to the Site are south of Springhead Parkway south of the sewage works. On the basis that the works are undertaken during standard daytime working hours and that good practice construction measures/ BPM are implemented, temporary noise and vibration effects during the construction and decommissioning phases of the project are unlikely to be significant.

It is considered that unmitigated noise emissions resulting from the operation of the Proposed Development have the potential to give rise to adverse impacts, subject to the measured background sound levels and the proposed equipment specifications. Appropriate mitigation measures would be introduced if the operational phase noise levels were predicted to give rise to significant adverse effects, as determined by an assessment undertaken in accordance with BS 4142:2014+A1:2019 – 'Methods for rating and assessing industrial and commercial sound'. It is therefore concluded that the residual noise and vibration effects associated with the Proposed Development are unlikely to be significant, therefore it would not require an assessment under The Town and Country Planning (Environmental Impact Assessment) Regulations 2017.

It is considered that vibration resulting from the operation of the Proposed Development will be imperceptible at the nearest sensitive receptors. Significant ground borne vibration is not anticipated due to the low levels of vibration from the battery energy storage and its associated infrastructure equipment.

A Noise Impact Assessment will be submitted with the planning application.

Cumulative impact

No cumulative visual effects are anticipated due to the location of the site, topography and the built landform.

Conclusion and next steps

It is considered that the Proposed Development constitutes Schedule 2 development as a result of its size only. It is not located in a sensitive area as defined by the EIA Regs.

The Proposed Development is not located within or affects the setting of any statutorily designated ecological or landscape areas. Nor does it affect directly or indirectly the setting of designated heritage assets. Furthermore, the scale of the Proposed Development, its



temporary nature and the potential environmental and cumulative impacts have been shown to be neither complex nor significant enough to warrant an EIA.

In the circumstances, the Proposed Development is not considered to constitute EIA development and as such we invite the Council to confirm in its Screening Opinion that an EIA is not required.

The planning application will be supported by technical reports, as appropriate, to ensure that the Proposed Development complies with relevant policy and guidance. The technical reports that will be submitted with the planning application are:

Flood risk assessment
Desk based heritage assessment
Landscape impacts assessment;
Preliminary ecological assessment; and
Preliminary noise impact assessment.

We trust you have sufficient information to determine this request under the EIA Regulations. We look forward to receiving the Council's EIA Screening Opinion.

Yours faithfully,

A handwritten signature in black ink, appearing to read "G. Hawkins".

Gareth Hawkins
Director

Appendix One

Land at Thames Way, Northfleet, Gravesham DA11 8HN

Grid reference: 561950E 173628N



Appendix Two

Battery energy storage system

